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Notice and Grounds of Appeal.

(Filed April 10, 1918.)

To Messrs. Stallman, Hoover & Peck,
Attorneys of Plaintiff:

Take Notice that the defendant appeals to the Court of Errors and Appeals from the whole of the judgment entered in this case, on the following grounds:

1. The original answer filed by the defendant in this cause (marked Exhibit P. 3) was admitted in evidence.

2. Defendant's motion for a non-suit or for a direction of verdict in its favor should have been granted for one or more of the following reasons:

(1) It appears in the plaintiff's case that the explosives in question were in the course of transportation (not yet completed) in interstate or foreign commerce, and that the Interstate Commerce Commission had made regulations respecting such transportation, which regulations were in effect on July 29 and 30, 1916. There is no proof that the defendant failed to comply with any such regulations.

(2) There is no proof that the defendant maintained a nuisance in respect of the presence of the explosives upon its premises on the 30th of July, 1916.

(3) There is no proof that the existence or maintenance of a nuisance by the defendant was a proximate cause of the damage complained of by the plaintiff.

(4) The proof is undisputed that there were two explosions on the 30th of July, 1916. There is proof that one of such explosions was upon the defendant's premises.

There is no proof that the other of such explosions was on defendant's premises. There is no proof that the explosion of which the plaintiff complains was the explosion occurring upon the defendant's premises or was an explosion for the effects of which the defendant was in any way legally liable.

(5) The proofs show that there were large quantities of explosives on barges adjacent to defendant's property, and there is no proof that such explosives were owned by defendant or were under its custody or control, and there is no proof that such explosives did not explode and cause the damage complained of by the plaintiff.

(6) The assertion by the plaintiff that it was the duty of the defendant to exercise a high degree of care to prevent the occurrence of fires, detonations or other means whereby said explosives and munitions might become exploded is denied by the defendant as a correct statement of the law. There is no proof that the defendant did not exercise the degree of care enjoined by law upon it to prevent the occurrence of fires, detonations or other means whereby said explosives and munitions might become exploded.

(7) The assertion by the plaintiff that it was the duty of the defendant to exercise a high degree of care to watch and guard said explosives and the buildings, piers, cars and vessels containing the same or lying in proximity thereto, so as to prevent, and to extinguish and control, when discovered, fires, detonations and other means by which such explosives might be exploded, is denied by the defendant as a correct statement of the law. There is no proof that the defendant did not exercise the degree of care enjoined upon it by law to watch and guard said explosives and the buildings, piers, cars and vessels containing the same or lying in proximity thereto, so as to prevent, and to

extinguish and control, when discovered, fires, detonations and other means by which such explosives might be exploded.

(8) The assertion by the plaintiff that it was the duty of the defendant to employ a sufficient number of watchmen and guards to police its said pier and approaches and the waters adjacent thereto, to observe and detect the approach or presence of any persons not authorized or licensed to visit said pier, and who might by accident or felonious intent set fire to said pier or property thereon, is denied by the defendant as a correct statement of the law. There is no proof that the defendant did not exercise the degree of care enjoined upon it by law in respect of the employment of a sufficient number of watchmen and guards to police its said pier and approaches and the waters adjacent thereto, to observe and detect the approach or presence of any persons not authorized or licensed to visit said pier, and who might by accident or felonious intent set fire to said pier or property thereon.

(9) The assertion by the plaintiff that it was the duty of the defendant to furnish, provide and install and keep in good order and repair sufficient fire fighting devices and apparatus on and about its said pier, by means of which any fire occurring upon or near said pier might be promptly extinguished and controlled, is denied by the defendant as a correct statement of the law. There is no proof that the defendant did not exercise the degree of care enjoined upon it by law in respect of furnishing, providing and installing and keeping in good order and repair sufficient fire fighting devices and apparatus on and about its said pier, by means of which any fire occurring upon or near said pier might be promptly extinguished and controlled.

(10) The assertion by the plaintiff that it was the duty of the defendant to exercise a high degree of care to store, handle and dispose of said explosives and munitions so as to prevent and control the ignition and communication of fire and detonation from one portion or mass of the same to any other part or mass of the same, is denied by the defendant as a correct statement of the law. There is no proof that the defendant did not exercise the degree of care enjoined upon it by law to store, handle and dispose of said explosives and munitions so as to prevent and control the ignition and communication of fire and detonation from one portion or mass of the same to any other part or mass of the same.

(11) The assertion by the plaintiff that it was the duty of the defendant to install and provide and keep in good order and repair sufficient means of communication whereby the occurrence of any fire or other agency capable of igniting said explosives could be immediately communicated from said pier to the fire and police departments of Jersey City, is denied by the defendant as a correct statement of the law. There is no proof that the defendant did not exercise the degree of care enjoined upon it by law in respect of the installing and providing and keeping in good order and repair sufficient means of communication whereby the occurrence of any fire or other agency capable of igniting said explosives, could be immediately communicated from said pier to the fire and police departments of Jersey City.

(12) The assertion by the plaintiff that it was the duty of the defendant, immediately upon the happening and discovering of a fire on or near said pier, to notify the fire department of Jersey City of the existence and location of said fire, is

denied by the defendant as a correct statement of the law. There is no proof that the defendant did not exercise the degree of care enjoined upon it by law in respect of notifying the fire department of Jersey City of the existence and location of said fire immediately upon the happening and discovery of a fire on or near said pier.

(13) The plaintiff has failed to prove that by reason of negligence of the defendant in failing to perform its several duties in the premises, as alleged in paragraph 17 of the second count of the complaint, the defendant is liable to the plaintiff as therein alleged.

(14) There is no proof that the alleged negligence specified in paragraphs 2, 4, 6, 8, 10, 13 and 15 of the second count of the complaint, or in any of said paragraphs, was the proximate cause of the damage complained of by the plaintiff.

(15) The plaintiff has not established by a preponderance of proof any cause of action against the defendant.

(16) The proofs do not show the absence of causes other than the alleged negligence of the defendant as the proximate cause of the explosion of which the plaintiff complains.

(17) There is no proof that the defendant's employees failed to exercise that degree of care required by law under the circumstances as shown by the plaintiff's proofs.

(18) Under the proofs the defendant owed no duty to the plaintiffs.

(19) The plaintiff has failed to prove any cause of action against the defendant.

3. The trial judge charged the jury:

"Now the effect of that Act of the Congress of the United States in passing such a

statute vesting the power in the Interstate Commerce Commission to promulgate the regulations and the fact of the promulgation of such regulations by the Interstate Commerce Commission results in this situation as a matter of law; that Act, section 233, authorized the Interstate Commerce Commission to formulate regulations for the safe transportation of explosives which should be binding upon all common carriers engaged in interstate or foreign commerce which transport explosives by land. The Interstate Commerce Commission accordingly formulated and issued regulations governing the transportation of explosives in interstate and foreign commerce. There is no doubt that the explosives in question in this suit were subject exclusively to the regulations of the Interstate Commerce Commission. When Congress has legislated upon a subject within its constitutional control and has manifested its intention to deal therewith in full, the authority of local jurisdiction is neecssarily excluded; in other words, when Congress deals with a subject matter within its province its dealing with it excludes the right of the state to have anything whatever to do with such regulation.

"Now I said that the Interstate Commerce Commission has acted, and I am going just by way of reference to call your attention—for the court judicially notices the regulations that have been adopted by the Interstate Commerce Commission for the regulation of the transportation of explosives—to one or two of the regulations that have been thus promulgated. One regulation provides—speaking of cars containing explosives—that they must be coupled carefully and all unnecessary shocks must be avoided. Other cars must not be cut off and allowed to strike a car containing explosives. They must be so placed in yards

or on sidings that they will be subject to as little handling as possible and be removed from all danger of fire.

* * * * *

"Now, gentlemen, the regulations of the Interstate Commerce Commission, as I have said, are controlling, and exclusively controlling upon this subject; and in respect to matters where the regulations have been adopted I charge you that the duty of the company was, in the transportation of explosives, to exercise care commensurate with the risk, and that the company will be liable for damages resulting from a failure to exercise such care.

* * * * *

"Where a portion of the explosives was in a car and a portion in a lighter and the point of the initial explosion and consequent damage is not shown, the burden rests upon the plaintiff to show that an explosion due to the fault of the defendant—and by 'fault' I mean the neglect of the defendant to use a degree of care commensurate with the risk in transporting these combustibles or explosives in the light of the rules which I have read to you from the Interstate Commerce Commission—I say where the explosion resulted from that kind of fault on the part of the defendant and the explosion is also shown by the greater weight of the evidence to have been the proximate cause of the injury complained of by the plaintiff, then the plaintiff may have a verdict against the defendant; but only when those elements are made out by the greater weight of the evidence."

4. The trial judge charged the jury:

"And in pursuance of that provision, and possibly of other provisions in the regulations, the Interstate Commerce Commission indicated the kind of notice or placard that

should be placed upon the car to signify that it contained explosives, and in general the manner in which it should be handled. That placard, which may be taken as an indication of the meaning that the Interstate Commerce Commission itself attached to the regulation that it was promulgating, provides that the placard shall say say on it 'Explosives,' which must be printed in red; and then, amongst other things, this: 'Keep fire away', also to be printed in red ink. And another provision, section 1643, paragraph B, provides that unauthorized persons must not have access to explosives or other dangerous articles at any time while such articles are in the custody of the carrier."

5. The trial judge charged the jury:

"Now first of all, I must direct your attention to the fact that the rule of law provides that when a company undertakes the transfer or transportation of articles of this kind, that it does not thereby become an insurer that no accident is going to happen and does not become bound conclusively to respond in damages to those who receive injury from the accident, if an accident does happen. It does not, as I say, become an insurer. It does not become liable absolutely and at all events, but it only becomes liable in case it neglects to use a degree of care commensurate with the risk."

6 The trial judge charged the jury:

" 'The occurrence of the fire on defendant's premises on July 30, 1916, raises no presumption of negligence on the part of the defendant.'

"I have already charged you that. The mere fact that a fire occurs there does not raise a presumption of negligence. The burden throughout the case rests upon the plaintiff to show by the greater weight of

the evidence that the fire was the result of the negligence of the defendant and that the fire was the proximate cause of the subsequent explosion and of the injury to the plaintiffs here. I do not mean by that to say—and as I pass I observe that you might mistake my meaning in that—I do not mean to say that the little fire that started on the ground has to be shown to have been the proximate cause of the injury."

7. The trial judge charged the jury:

"Now there was some argument in the case about the question of so-called emergencies and sudden matters presented to servants upon which they were required to act upon the instant. The law provides that the rule is well settled that where the sole basis of liability is the omission to perform a certain duty suddenly and unexpectedly arising there ought to be at least a consciousness of the facts which raise the duty on the part of the person who is charged with its performance and a reasonable opportunity to discharge it. That I think states the rule perfectly clearly. Another authority lays down the rule: 'The rule is well established that when one is required to act suddenly and in the face of imminent danger, he is not required to exercise the same care as if he had time for deliberation and the full exercise of his judgment and reasoning faculties.'

"And another case in our own highest court lays down the rule in these words: 'If one is placed in the face of grave and apparent peril between two hazards and he makes such a choice as a person of ordinary prudence placed in such a position might make, the fact that if he had chosen the other hazard no damage would have resulted is of no importance.'

"Where a man is called upon to act suddenly, why manifestly the suddenness and

his own state of mind due to all the surrounding facts within his observation and knowledge must be always taken into consideration by a jury in determining whether when he acted his action was a negligent act or one free from negligence. As I stated some time ago, this notion of the duty of reasonable care that a man is under and that a company is under in, for instance, transporting explosives, or in any other relation of life, is a rule of relation and has to do with the situation in which a man finds himself placed. For instance, when Robinson Crusoe first found himself on the island and after investigation supposed himself to be there alone, if he had a fowling piece he might shoot it off in any direction without regard to the notion that anybody else was there; but the moment he went out and found a footprint in the sand indicating that a human being was there other than himself, a different relation arose altogether and he was obliged then to exercise care not to injure that man. And so in the relations of life. If you are going along a country road, driving along, you might probably pay very much less attention to the control of your horse than you would if you were trying to pass Forty-second Street and Fifth Avenue in New York City. And so when you are called upon to act in extinguishing a fire, the question is whether a man of ordinary courage and prudence and diligence would go away from the situation because of what he thought would imperil him if he approached it, or whether he would approach it and endeavor to extinguish the fire and thereby not only avoid the peril himself but avoid the very accident which would occasion the injury. The question is in each case whether in the light of the facts that were known to him and confronted him

he acted as a reasonably prudent and cautious man would have acted under the circumstances. If he did he was not negligent. If he did not, he was."

8. The trial judge refused to charge:

"6. A different and less onerous measure of legal responsibility is applied to dangerous materials voluntarily brought upon premises by one for his own use and benefit than is applied to a case like that made out before the jury where the dangerous materials were in the possession of a common carrier which was required by law to transport and deliver them."

9. The trial judge refused to charge:

"7. The jury may not find a verdict against the defendant unless it finds that the defendant failed to adopt the customary methods for the care and custody of explosives in railroad terminal yards."

10. The trial judge after charging a part of defendant's Request No. 8, reading as follows:

"8. The undisputed proofs show that there were large quantities of explosives on barges adjacent to defendant's property. There is no proof that such explosives were owned by the defendant or were under its custody or control. If those explosives exploded and caused the damage of which the plaintiff complains, the defendant is not legally responsible."

refused to charge the remaining portion of said Request reading as follows:

"Unless, therefore, the jury finds that these explosives on these barges did not explode and cause the damage of which the plaintiff complains it must find a verdict for the defendant."

11. The trial judge refused to charge:

"10. Upon the evidence in this action the plaintiff cannot recover under the second count of its complaint."

12. The trial judge refused to charge:

"15. The plaintiff has not alleged or proved any wrongful act, but has confined its allegation and proof to wrongful omission, and before the jury can properly render a verdict against the defendant it must find that it wrongfully omitted a duty it owed the plaintiff's assured and that such wrongful omission was the proximate cause of the damage of which the plaintiff complains and that it is alleged in the complaint."

13. The trial judge refused to charge:

"17. The jury may not find a verdict against the defendant based upon a finding of negligence on the part of the defendant as to the occurrence of the fire on its premises on the 30th of July, 1916, unless it finds as a fact that the said fire could not have occurred from any cause other than the negligence of the defendant. If the circumstances are such in the judgment of the jury that the fire in question could have occurred by reason of the defective manufacture of or some inherent quality in the materials that were proven to be on the premises at that time, or by reason of some other cause for which the defendant is not responsible, then the jury would not be justified in attributing the occurrence of the fire to the negligence of the defendant."

14. The trial judge refused to charge:

"18. There is no evidence in this case that the fire on the defendant's premises on the 30th of July, 1916, was caused by any act of the defendant or any of its agents or

servants or persons for whose acts it was responsible. The fire must, therefore, have proceeded from some extraneous cause, and if the jury reaches the conclusion that such extraneous cause was incendiarism then it may not find a verdict against the defendant since it is no part of the duty of the defendant to provide guards of its own to protect it against incendiarism."

15. The trial judge refused to charge:

"19. There is no evidence in this case that the fire on the defendant's premises on the 30th of July, 1916, was caused by any act of the defendant or any of its agents or servants or persons for whose acts it was responsible. The fire must, therefore, have proceeded from some extraneous cause, and if the jury reaches the conclusion that such extraneous cause was a trespasser who carelessly produced said fire, then it may not find a verdict against the defendant because there is no legal inference properly to be drawn from the facts proven in this case that trespassers were reasonably to be anticipated at night at the locality of the fire."

16. The trial judge refused to charge:

"20. The law imposed no duty on the defendant to reasonably anticipate that a trespasser upon its premises in the night time in July would cause a fire."

17. The trial judge refused to charge:

"21. A different and less onerous measure of legal responsibility is applied to dangerous materials voluntarily brought upon premises by one for his own use and benefit than is applied to a case like that made out before the jury where the dangerous materials were in the possession of a common carrier which was required by law to transport and deliver them."

18. The trial judge refused to charge:

"22. The jury cannot base a verdict against the defendant upon any alleged negligence of any of the defendant's servants or agents after the fire was discovered by said servants or agents or any of them."

19. The trial judge refused to charge:

"23. If the jury find that the fire on the 30th of July, 1916, at Black Tom yard was started in or near the cars containing explosives or any of them, then the jury may not find a verdict against the defendant based upon any finding of negligence of the defendant's servants or agents occurring after the discovery of the fire."

20. The trial judge refused to charge:

"24. If the jury find that the fire on the 30th of July, 1916, at Black Tom yard was from a cause not shown by the proofs and that it occurred in or near the cars containing explosives, or any of them, then the law is that an emergency arose, and the jury may not hold the defendant liable for any of the proved acts or omissions of its servants or agents in such emergency."

21. The trial judge refused to charge:

"25. The jury may not find a verdict against the defendant unless it finds that the defendant failed to adopt the customary methods for the care and custody of explosives in railroad terminal yards."

22. The trial judge refused to charge:

"26. Since the complaint in this case does not base any right to recover upon any allegation of a failure of the water supply furnished by the defendant, the jury may not render a verdict in this case against the defendant based upon any finding of a failure of water supply in the defendant's hydrants."

23. The trial judge refused to charge:

> "27. The jury may not render a verdict against the defendant based upon a finding that the defendant should reasonably have had more watchmen than it did have for the purpose of discovering fires, since there are no facts from which it would be proper to draw a legal inference that the presence of such additional watchmen would reasonably have led to any earlier discovery of the fire."

24. The trial judge after charging a part of defendant's Request No. 29, reading as follows:

> "29. The undisputed proofs show that there were large quantities of explosives on barges adjacent to defendant's property. There is no proof that such explosives were owned by the defendant or were under its custody or control. If these explosives exploded and caused the damage of which the plaintiff complains, the defendant is not legally responsible."

refused to charge the remaining portion of said Request reading as follows:

> "Unless, therefore, the jury finds that these explosives on these barges did not explode and cause the damage of which the plaintiff complains it must find a verdict for the defendant."

COLLINS & CORBIN,
Attorneys of Defendant-Appellant.

Complaint.

(Filed July 28, 1917.)

New Jersey Supreme Court.

HUDSON COUNTY.

NEW JERSEY FIDELITY & PLATE GLASS INSURANCE CO., *Plaintiff,* *vs.* LEHIGH VALLEY RAILROAD COMPANY, *Defendant.*	*At Law.* *Complaint.*

1. The plaintiff is a corporation of New Jersey, having its principal office in the City of Newark, and is engaged in the business of insuring persons and corporations against loss occasioned by the breakage of glass doors and windows.

2. The defendant is a corporation engaged in the maintenance and operation of a railroad in and through the State of New Jersey, for the transportation of freight and passengers.

3. On July 30th, 1916, the defendant possessed, used, occupied and controlled a certain dock or pier in the City of Jersey City, locally known as the "Black Tom" pier, extending into the waters of New York Bay, and also possessed, used, occupied and controlled certain lands covered with the waters of New York Bay adjacent to said "Black Tom" pier, as well as

certain upland, likewise adjacent to said pier, used as a railroad yard in connetion with its business of a common carrier of freight and passengers.

4. Said "Black Tom" pier and the said lands adjacent thereto on and prior to July 30th, 1916, were used by the defendant for the handling, holding, and transhipment of car-load lots of gunpowder, trinitrotoluol, dynamite, nitroglycerine, and other high and dangerous explosives, and shells, shrapnel and other ammunitions and munitions of war.

5. On July 30th, 1916, and for several days prior thereto the defendant had placed and on said date was holding on said pier and lands adjacent thereto many car-loads of said explosives, ammunitions and munitions of war, which explosives were to the knowledge of said defendant highly dangerous and capable and liable, in the event of fire, to explode and thereby cause incalculable damage and injury to residents of Jersey City and their buildings, chattels and other property.

6. On July 30th, 1916, and for several days prior thereto, the defendant used its premises and waters, adjacent to said pier, for the tying up of boats, lighters and ships upon and to which was loaded, placed and carried large quantities of like explosives as described in the preceding paragraphs.

7. On said July 30th, 1916, and for several days prior thereto, said defendant permitted the use of its premises and waters, adjacent to its said pier, to be used for the tying up of tugs and other vessels, as well as by boats and lighters

carrying large quantities of like explosives as described in the second preceding paragraph.

8. By reason of the accumulation, on said pier, and on the lands adjacent thereto, of said large quantities of said explosives and munitions, and the danger existing therein and therefrom, said accumulation of explosives and munitions, constituted a nuisance.

9. The accumulation of the large quantity of like dangerous explosives on boats and vessels in its premises and waters adjacent to said pier of the defendant, by the act and with the permission and knowledge of said defendant, constituted a nuisance on the part of the defendant.

10. On July 30th, 1916, a fire occurred on the premises possessed by defendant on or in the immediate vicinity of said "Black Tom" pier, and by means thereof said accumulations of explosives and munitions became and were ignited and exploded, causing severe shocks and violent concussions of the air, which broke, damaged and destroyed the glass doors and windows of the persons and corporations shown upon the schedule marked Schedule "A" hereto attached and hereby made a part hereof.

11. The plaintiff on said July 30th had lawfully insured the persons and firms shown on Exhibit "A" against loss from damage to their respective glass doors and windows, and by reason of its obligations under its several contracts of insurance paid to said persons, or firms, their losses, or provided said persons or firms with new doors and windows to the amounts and values set opposite their respective names on said Schedule "A," and plaintiff is

subrogated to the rights of said parties to demand and receive the amounts of said losses so sustained and paid or replaced by it.

12. The losses so sustained and paid or replaced by the plaintiff were the direct result of the creation and maintenance by the defendant of the nuisances described in paragraphs six and seven.

SECOND COUNT.

1. The plaintiff re-alleges paragraphs 1, 2, 3, 4, 5, 6 and 7 of the first count.

2. By reason of the accumulations of said large quantities of explosives and munitions on and near said pier and premises of the defendant, it was the duty of the defendant to exercise a high degree of care to prevent the occurrence of fires, detonations or other means whereby said explosives and munitions might become exploded.

3. Said defendant negligently failed and omitted to perform said duty.

4. By reason of the accumulations of the explosives and munitions, as aforesaid, it was the duty of the defendant to exercise a high degree of care to watch and guard said explosives and the buildings, piers, cars and vessels containing the same or lying in proximity thereto, so as to prevent, and to extinguish and control, when discovered, fires, detonations and other means by which such explosives might be exploded.

5. The defendant negligently omitted and failed to perform said duty.

Complaint.

6. It was also the duty of the defendant in the premises to employ a sufficient number of watchmen and guards to police its said pier and approaches and the waters adjacent thereto, to observe and detect the approach or presence of any persons not authorized or licensed to visit said pier, and who might by accident or felonious intent set fire to said pier or property thereon.

7. The defendant negligently failed and omitted to perform said duty.

8. It was also the duty of the defendant in the premises to furnish, provide and install, and keep in good order and repair sufficient fire fighting devices and apparatus on and about its said pier, by means of which any fire occurring upon or near said pier might be promptly extinguished and controlled.

9. The defendant negligently omitted and failed to perform said duty.

10. It was also the duty of the defendant in the premises to exercise a high degree of care to store, handle and dispose of said explosives and munitions so as to prevent and control the ignition and communication of fire and detonation from one portion or mass of the same to any other part or mass of the same.

11. The defendant negligently failed to perform said duty.

12. The municipality of Jersey City at the times of said explosion maintained large police and fire departments, whose duty and custom it was, to the knowledge of the defendant, to respond immediately to all alarms of fire for the purpose of extinguishing the same.

Complaint.

13. It was also the duty of said defendant to install and provide and keep in good order and repair sufficient means of communication whereby the occurrence of any fire or other agency capable of igniting said explosives, could be immediately communicated from said pier to the fire and police departments of Jersey City.

14. Said defendant negligently failed and neglected to perform said duty.

15. It was also the duty of the defendant in the premises, immediately upon the happening and discovery of a fire on or near said pier, to notify the Fire Department of Jersey City of the existence and location of said fire.

16. Said duty, the defendant negligently failed and omitted to perform.

17. On July 30th, 1916, a fire occurred on the premises possessed by the defendant on or in the immediate vicinity of said pier of the defendant, and by reason of negligence of the defendant in failing to perform its several duties in the premises the defendant suffered a part of said explosives and munitions and the cars, boats and containers thereof to become ignited, whereby the same exploded, which fire and detonation of said explosion the defendant suffered to be communicated to other masses and quantities of explosives on said pier and on vessels adjacent thereto, which likewise exploded with great force and violence causing severe shocks and concussions of the air, which simultaneously broke, damaged and destroyed the glass doors and windows of the several persons and corporations shown upon Exhibit "A."

18. The plaintiff re-alleges paragraph eleven of the first count.

19. The losses so sustained and paid or replaced by the plaintiff were the direct result of the negligence of the defendant as aforesaid.

The plaintiff demands, on the first count, the sum of $23,678.37.

The plaintiff demands, on the second count, the sum of $23,678.37.

STALLMAN, HOOVER & PECK,
Attorneys of Plaintiff.

SCHEDULE "A."

NEW JERSEY FIDELITY & PLATE GLASS INSURANCE COMPANY.

STATEMENT OF LOSSES.

Actual cost of replacement of glass broken by the explosions in the harbor of New York, July 30, 1916, and which losses were insured against by this company.

JERSEY CITY.

Name of Assured.	Location.	Cost of Replacement.
John Waters	152 Academy St.	$ 77.80
George Riefler	Baldwin Av. & High St.	36.15
Emil Martens	322 Baldwin Ave.	33.30
Helen DuBois	425 Baldwin Ave. & 55-57 Hopkins Ave.	41.40
Wm. R. & D. J. Kett	200 Bay St.	90.49
Chas. A. Schaefer	60 Bergen Ave.	37.30
Eagle Realty Co.	N/W cor. Beven & Terry Alley	8.74
Claus R. T. Albers	58 Bowers St.	15.50
William Bill	218 Bowers St.	20.16
Katz Bros.	S/W cor. Bramhall & Halladay St.	118.60
Peter Hauck & Co.	N/E cor. Bramhall & Van Horn St.	51.76
Lembeck & Betz Eagle Bwg. Co.	363 Bramhall Ave.	40.14
Max Morchower	372 Bramhall Ave.	42.12
Jos. & Eliz. Keefer	173 Bright St.	25.31
Giselda D'Elisa	176 Bright St.	36.45
F. Regis Boyle	Brunswick & Montgomery St.	62.64
Giselda D'Elisa	17 Brunswick St.	42.57
Andrew D. Archemus	25 " "	19.53
Frederick Emigholz	28 " "	15.57
Hugh Meehan	31 " "	76.03
The W. Bender Co.	99 " "	23.70
N. B. Celine	211 " "	29.16
B. Weinstein	214 Central Ave.	17.27
Ferdinand Umbach	216 " "	11.10
Johanna Meyer	255 " "	21.87
Sara A. Cullum	265 " "	52.65
Henry J. Lutjen	296 " "	1.89
Henry Grossmann	309 " "	80.46
Walter H. Neidhardt	311 " "	67.86

Complaint—Schedule A.

John Hannan	334 " "	48.60
Henry & W. H. Oest	349-51 " "	75.74
" " " "	353-55 " "	67.19
Sol Mangel	361 " "	21.60
" "	363 " "	19.35
Annie Vervenne	384 " "	14.70
Jacob Parets	412 " "	28.44
Emilie Albrecht	451 " "	18.63
Est. P. McArdle	151 Chestnut St.	117.14
John Woods	110½ Cole St.	21.78
David Feingold	47-49-49½ Colgate St.	16.83
" "	51 Colgate St.	44.82
Morris Moskowitz	291-3 Communipaw Ave.	63.06
Steuken & Ritscher	339 Communipaw Ave.	193.72
C. Peter Ritscher	340 Communipaw Ave.	231.81
Ernest Kohtz	341 " "	5.47
Nathan Rosen	352 " "	22.05
C. Howard Slater	360 " "	98.25
Margaret & Wm. Seeley	374 " "	25.23
William Wall	375 " "	34.56
E. & T. Gruning	379 " "	21.59
Ernest & Theresa Gruning	383 " "	74.86
Blondina Granier	385 " "	14.76
Geo. H. Bunnell	386 " "	63.00
J. J. Shannon	482 " "	51.52
Helen S. Sprague	131-7 Danforth St.	26.10
Michael Grunshinsky, etal	140 " "	70.16
John Hogan	185 Duncan Ave.	52.90
Frederick J. Ehrhardt	74 Ege Ave.	49.60
Tony Murry	366-8 8th Ave.	46.44
Moe Triggioni	36 Elizabeth St.	53.32
H. T. Nugent	Erie & First St.	83.97
C. G. Rochat & Sons, Inc.	N/E cor. Erie & Nk Ave.	109.36
Geo. Luhrmann	58 Essex St.	71.88
Lembeck & Betz Eagle Bwg. Co.	62 Essex St.	3.55
Paterson Bwg. & Malting Co.	86 Essex St.	39.74
Marcus Singer	118 Essex St.	191.61
Margaret Coughlin	129 Essex St.	20.61
Mrs. Anna Krajewski	138 Essex St.	48.68
Geo. Rapfogel	140 Essex St.	48.55
Est. John P. Offerman	268 Fifth St.	41.58
Vittorio Tucciaroe	319 First St.	46.08
Jos. L. Boland	N/E cor. 1st & Erie St.	135.32
John Cebulski	16 Germania Ave.	18.65
S. Milanooycz & Weil Co.	193 Grand St.	28.00
John C. Coppinger	201 Grand St.	28.08
Jacob Dranow	205 Grand St.	42.79
Lembeck & Betz Eagle Bwg. Co.	253 Grand St.	31.68
Est. D. S. Manners	297 Grand St.	30.42

Complaint—Schedule A.

Peter Hauck & Co.	333 Grand St.	42.67
L. & K. Kremer	360-6 Grand St.	133.36
Albert Babyla	369 Grand St.	14.22
Est. Nellie I. McArdle	401 Grand St.	47.54
John J. Mulhearn	416 Grand St.	30.70
Thomas F. Curtis	560 Grand St.	49.50
Louis Holler	633 Grand St.	67.86
Michael Morano	652 Grand St.	20.79
Lembeck & Betz Eagle Bwg. Co.	678-80 Grand St.	237.60
Thos. — Eliz. Cunningham	684 Grand St.	23.04
Frank O. Cole	710 Grand St. & Summit Ave.	67.29
Geo. Kuntz	720-2 Grand St.	126.73
Lembeck & Betz Eagle Bwg. Co.	37 Greene St.	66.86
Patrick Gately	51 Greene St.	20.74
William Kellers	53-5 Greene St.	8.95
Maurice Lioi	57 Greene St.	25.60
Lembeck & Betz Eagle Bwg. Co.	N/W Greene & Essex St.	85.27
Chas. Krieger	S/W Greene & Morris	55.35
Horace H. Farrier	34 Gregory St.	127.35
James P. Hall	S/W Grove & 5th St.	22.60
Amelia Hurdle	Gregory St. & Montgomery St.	90.63
Hudson Real Estate Co.	255 Grove St. & York St.	109.35
Est. Thos. Mcdonough	273 Grove St.	74.34
Henry Rosenhain	313 Grove St.	40.00
Peter Hauck & Co.	321 Grove St.	16.83
John S. Menagh Co.	341 Grove St.	80.80
Eleanor Betz Howe	392 Grove St.	20.79
Jas. T. Gough	361 Grove St.	31.41
Lembeck & Betz Eagle Bwg.	367 Grove St.	200.50
Fred Sulger	476 Grove St.	20.25
Josephine Sulger	478 Grove St.	38.20
John J. Farrell	480 " "	27.50
Geo. Kuntz	486 " "	58.37
Est. Henry Otersen	513 Grove St.	45.18
Wm. S. Finkensieper	557 Grove St.	74.25
Patrick Roach	577 Grove St.	22.40
Samuel Tarrant	593 Grove St.	16.47
A. Wiemann	598 Grove St.	9.63
Mrs. T. Murry	607 Grove St.	14.58
Joseph Pennetta	642 Grove St.	24.20
Gustave Jaccard	207 Halladay St.	25.92
John Steck, et al	311 Halladay St.	49.61
A. F. Farley	339 " "	43.60
Jacob Dranow	253-5 Henderson St.	6.43
Annie Goldberg	280 " "	44.37
Mrs. Mary Bell	293 " "	1.62
Lembeck & Betz Eagle Bwg.	349 " "	54.54
" " " " "	393-7 " "	141.85
Wm. J. Murphy	478 " "	75.43

Complaint—Schedule A.

Est. J. J. McLaughlin	272 Hoboken Ave.	63.14
Antonio Patti	1701 Hudson Blvd.	38.30
James J. Kelly	2947 " "	31.50
Est. D. S. Manners	35 Hudson St.	51.76
Lembeck & Betz Eagle Bwg.	S/W cor. Hudson & Essex Sts.	52.90
Joseph B. Schroll	149 Jackson Ave.	116.28
Max Blumberg	245-51 Jackson Ave.	220.93
Theo. & Rose Marks	314-6 Jackson Ave.	158.54
Est. George Stratford	331-9 Jackson Ave.	371.48
Hudson Real Estate Co.	336-42 Jackson Ave.	60.66
Elizabeth Templeton	344½ Jackson Ave.	74.86
" "	346½ " "	89.03
" "	348 " "	48.98
Minnie Templeton	350-2 " "	113.40
Antonio Divona	359 Jackson Ave.	47.70
Delia A. O'Neill	382 Jackson Ave.	70.83
Otto & Mary Schleth	418 Jackson Ave.	31.15
Mrs. Emma Smith	420 Jackson Ave.	43.84
Adam & Eliz. Braum	453 Jackson Ave.	21.41
Margaret Power	481 Jackson Ave.	83.83
Louis S. Castle	527 Jackson Ave.	46.26
James Gleason	541 Jackson Ave.	42.93
D. Feinberg	N/W Jackson & Van Nostrand Avenue	89.61
Peter Hauck & Co.	31 James St.	48.60
John Hogan	421 Jersey Ave.	57.79
Jas. F. O'Mealia	442 Jersey Ave.	176.01
Morris H. Greenberg	523 Jersey Ave.	35.16
J. F. Conners	534 Jersey Ave.	15.27
Est. John Offerman	609 Jersey Ave.	90.88
Est. John Offerman	611 Jersey Ave.	29.16
Lembeck & Betz Eagle Bwg.	309 Jersey Ave.	64.09
Lembeck & Betz Eagle Bwg. Co.	341 Johnson Ave.	44.28
David Feingold	55 Jordan Ave.	34.62
Michael McGrath, etal	328 Johnson Ave.	46.72
Wm. D. Barcus, et al	72 Kearney Ave.	24.02
H. Schlaff	79 Maple St.	125.36
Antonio Lombardi	93 Maple St.	72.90
Eagle Realty Co.	McAdoo & Fowler Ave.	39.34
Patrick Norton	179½-81 Mercer St.	16.13
Catherine Lietjen	180 Mercer St.	46.00
Gottfried Krueger Bwg. Co.	242 " "	53.06
Thos. J. Aughney	265 Monmouth St.	94.68
Annie Zeilengol	274-6 Monmouth St.	17.62
Lembeck & Betz Eagle Bwg. Co.	423 Monmouth St.	47.03
Antonio Cappuccia	431 Monmouth St.	18.96
Patrick G. McNulty	N/E Montgomery & Washington Sts.	23.76

Complaint—Schedule A.

Meyer & Klein Co.	74 Montgomery St.	40.00
N. J. Title Gurantee & Trust Co.	81 " "	28.00
Loewus Bros. & Co.	84 " "	76.14
Pournos & Panagoplos	96 " "	20.00
Wm. H. Durant, et al	98 " "	106.85
Herman Gizang	134 Montgomery St.	35.56
" "	136 " "	16.20
Michael Lavanga	141 " "	41.76
Morris Cohan	146 " "	69.12
Metta A. Thompson	150 " "	57.78
Jos. Moskowitz	152 " "	87.26
Albert Datz, et al	183 " "	30.94
B. Patt	362 " "	5.73
John F. Smith	404 " "	13.49
" " "	410-14 " "	138.89
Eagle Bwg. Co.	548 " "	77.93
Eagle Realty Co.	639 " "	87.32
Samuel Shapiro	89 Morris St.	27.81
Horace H. Farrier	154 Montgomery St.	1.63
Malcolm Isbister	112 Morris St.	24.03
Harry Tothberg	114 Morris St.	24.30
Giacomo Sanfillino, et al	138 Morris St.	63.42
Bd. Chosen Freeholders of Hudson County	Newark Ave. (Court House)	35.76
John W. Queen	13 Newark Ave. & 120 Montgomery St.	160.59
John D. Carscallen	14 Newark Ave.	97.57
Chas. Carscallen	18 Newark Ave.	90.07
David Henderson	45 " "	60.48
Margaret Walsh	56½ Newark Ave.	72.48
Wm. Muller	58 Newark Ave.	26.88
Mary R. O'Gorman	70-70½ Newark Ave.	103.21
Est. D. S. Manners	75-7 Newark Ave.	76.55
" " "	77 " "	117.65
Samuel Kleinhaus	98-102 Newark Ave.	243.01
" "	98-102 " "	38.99
Est. Frank Gallery	106 " "	82.54
Andrew Brunton	111 " "	172.55
C. Tiedemann	180 " "	48.69
Schachna Reitman	237 " "	41.07
Florence Van Horne	285 " "	83.79
Joseph Roth	514 Newark Ave.	43.56
Chas. Levine, et al	576 Newark Ave.	49.59
Geo. Bowers	578 Newark Ave.	21.87
Caroline Henn	642 " "	17.64
Michael Blum	648 Newark Ave.	72.72
Anna Zeilengold	654 Newark Ave.	90.54
Frank Repucci	696 Newark Ave.	39.37
Bernard Shenan	698 Newark Ave.	78.30

Complaint—Schedule A.

Max Blumberg	712 Newark Ave.	28.10
Jos. Waddington	844-6 Newark Ave.	60.90
Bruno Kunkel	850 Newark Ave.	56.12
Lembeck & Betz Eagle Bwg. Co.	S/W 9th & Henderson Sts.	31.20
Dennie McLaughlin	287 9th St.	38.84
Est. John Gallagher	322 9th St.	39.64
Eugenie Jaques	East side Oakland Ave.	37.53
Wm. Peter Bwg. Co.	153 Oakland Ave.	28.10
H. Heilbrum Estate	159 Oakland Ave.	63.80
Peter Hauck & Co.	72 Ocean Ave.	13.10
Jos. D. Weinberg	90 Ocean Ave.	28.65
Est. Henry Lembeck	119-21 Ocean Ave.	76.50
Richard E. Wodd	131-3 Ocean Ave.	36.00
Chas. Giebel	135 Ocean Ave.	88.02
Leo Sadler	147-51 Ocean Ave.	78.82
Margaret Harvey, et al.	206-8 Ocean Ave.	1.98
Lembeck & Betz Eagle Bwg. Co.	239 Ocean Ave.	83.58
" " " " " "	249 Ocean Ave.	37.80
David Newman	281 Ocean Ave.	33.72
Lafayette Mutual Bldg. & Loan	329-35 Ocean Ave.	186.66
B. Edelman	363 Ocean Ave.	35.66
Joseph Miller	369 Ocean Ave.	87.84
Lembeck & Betz Eagle Bwg. Co.	371 Ocean Ave.	52.65
Wm. & Johanna Gundlach	394 Ocean Ave. & 54 Van Nostrand Ave.	53.60
Edw. Endres	403 Ocean Ave.	21.50
John Defferori	467 Ocean Ave.	37.26
Dominick Rennar	476 Ocean Ave.	14.68
Geo. H. Wenner	483 Ocean Ave.	80.46
Mary Rean	496 Ocean Ave.	1.22
Leopold Kunstle	519-21 Ocean Ave.	115.70
Geo. C. Kern	524 Ocean Ave.	19.53
Lembeck & Betz Eagle Bwg. Co.	550-2 Ocean Ave.	9.52
" " " " " "	556 Ocean Ave.	52.20
Ida Heise	605 Ocean Ave.	66.33
Robert Hank	643 Ocean Ave.	40.20
Fredk. LaRoche, et al	663-3a Ocean Ave.	116.10
Dr. John A. Chard	687-9 Ocean Ave.	185.13
B. D. Damont	623-9 Ocean Ave.	317.97
Clarence Detwiller	219-21 Old Bergen Road	5.56
Annie Jung	220 Old Bergen Road	37.50
Clarence Detwiller	223-9 Old Bergen Road	35.80
Barbara Miller	265 Old Bergen Road	25.90
John Schiavo	47 Orchard St.	6.39
Lembeck & Betz Eagle Bwg. Co.	S/W Orient & Jackson Ave.	18.18
" " " " " "	S/W Pacific Ave. & Forest Sts.	63.40
Harry Crosby	229 Pacific Ave.	90.00
C. Howard Slater	303-7 Pacific Ave. & 358 Communipaw Ave.	378.46

Complaint—Schedule A.

Natl. Bank of N. Hudson	334-6 Pacific Ave. & 87 Lafayette Ave.	142.47
Fanny D. Hillier, et al	377-9 Pacific Ave.	243.33
Edw. J. Bagnall	380 Pacific Ave.	9.82
Jerry Nappi	383 Pacific Ave.	70.00
John Dorsch	383 Pacific Ave.	70.00
Theresa M. Hill	393 Pacific Ave.	68.98
Est. Barbara Klaproth	405 Pacific Ave.	23.10
Frank Gaynor	412 Pacific Ave.	48.77
J. C. & B. Lowy	418 " "	21.00
Highland Trust Co.	228 Palisade Ave.	19.30
Harry Maresca	330-2-4 " "	106.74
Wm. Peter Bwg. Co.	373 " "	11.16
Paulus Hook Realty Co.	403 " "	6.07
Peter Scanlan	N/W Palisade & Newark Ave.	152.00
Samuel Toback	140 Pavonia Ave.	55.55
Henry Traphagen	185 Pavonia Ave.	30.60
Dennie Maclaughlin	186 Pavonia Ave.	61.60
Lembeck & Betz Eagle Bwg. Co.	194 Pavonia Ave. & 501-3 Grove St.	38.40
Zigray, R. & K. Ceranko	153 Pine St.	59.60
Gustav Ieno	248 Pine St.	51.30
Ignatz E. Egell	179 Railroad Ave.	24.75
Lewis W. Goodman	212 Railroad Ave.	18.90
David Newman	22 Rutgers Ave.	13.35
Leopold Kunstle	42 Rutgers Ave.	67.23
Gabriel Alexander	56 Rutgers Ave.	25.50
Daniel Murphy	57 Rutgers Ave.	66.00
Lembeck & Betz Eagle Bwg. Co.	N/W St. Pauls & Tonnelle Ave.	27.54
Mrs. M. Cunningham	346 Second St.	36.54
Joe Castellano	426 Second St.	1.35
Eagle Realty Co.	323½ 7th St. & 468 Monmouth St.	8.19
John Damato	374 7th St.	23.70
Lembeck & Betz Eagle Bwg. Co.	42 Sherman Ave.	21.60
John Lafianza	100 Sip Ave.	3.00
Henry True	207 Sip Ave.	22.40
Wm. O. Thompson	272 " "	32.90
Peter Rienzo	310 Sip Ave.	44.28
Lembeck & Betz Eagle Bwg. Co.	N/E Sipp Ave. & Bryant	31.10
Est. Catherine T. O'Brien	6th Ave. & Henderson St.	72.07
Alice Macklin	130 Steuben St.	17.30
Protective Realty Co.	Jewett Ave. or 30 Storms Ave.	103 55
Lembeck & Betz Eagle Bwg. Co.	N/W Summit & Beacon Ave.	3.19
Eagle Bwg. Co.	324 Summit Ave.	109.49
Lembeck & Betz Eagle Bwg. Co.	380 Summit Ave.	53.83
Harris Ruskin	401 Summit Ave.	16.90
Otto H. Albanesius	579-85 Summit Ave.	188.30
N. J. Title Guarantee & Tr. Co.	587 Summit Ave.	10.63

Complaint—Schedule A.

Lembeck & Betz Eagle Bwg. Co.	60 Sussex St.	104.34
Annie P. Davis	126 Sussex St.	42.10
Jacob Marzolf	3rd St. & Jersey Ave.	89.50
Angelo DeMarco	212 13th St.	21.00
Jas. R. Bowen	310 Third St.	25.15
Frank Poccodanie	334 Third St.	18.70
Morris Rubenstein	198-200 12th St.	43.92
Morris Miller	122 Van Horne St.	13.04
Thos. Flanagan	321 Van Horne St.	25.22
Morris Deinstag	236 Varick St.	6.90
Albert Babula	241 Varick St.	33.78
Nicholas & Mary Kelleher	265 Varick St.	34.20
John J. Sharrock	285 Varick St.	47.43
I. Goldstein, et al.	53 Wales Ave.	13.20
Clara Simons	95 Warner Ave.	12.30
Abraham Endlich	178 Warren St.	18.70
Marcus Singer	184-6 Warren St.	90.57
" "	215 " "	106.10
Essex Co. Bwg. Co.	275 " "	18.30
Meter Cozewith	67-75 Washburn St.	78.94
Lembeck & Betz Eagle Bwg. Co.	N/W Washington & Morris	58.63
Sam Schwartz	214 Washington St.	38.66
Jos. J. McClellan	267 Washington St.	22.86
D. Feingold	S/W Wayne & Colgate St.	53.00
Frances Brown	212 Wayne St.	21.00
Michael Sprouls	236 Wayne St.	104.80
David Feingold	239 " "	19.60
Mrs. Mary Ciaramella	262 " "	18.80
Gustav Leppert	354 West Side Ave.	4.50
Robert G. Stone	387 " " "	98.01
Philip Forgash	389 " " "	14.94
H. E. Timmer	414-16 " " "	48.76
Louis Dorison	418 " " "	18.72
Louis Dorison	420 " " "	21.63
Minnie A. Wells	476 " " "	18.40
Morris Katzman	479 " " "	59.29
Anna Nideck	559 " " "	30.40
Mary E. Connolly	749-51 " " "	33.57
Mary Callahen	817 " " "	32.56
David Perkel	1027-9 " " "	30.60
Isidor Dlugasch	54 York St.	37.40
Temple Beth El	361-3 York St.	150.33
Jacob Dranow	N/W York & Van Vorst Sts.	64.44
Johan Sivenson	157-61 " 239-45 " "	51.52
Lembeck & Betz Eagle Bwg. Co.	N/W York & Monmouth	117.26
Lorenzo Augelli	598 Ocean Ave. Estim.	15.62
Wm. Peter Bwg. Co.	316 Third St.	26.91
		$20,211.36

Complaint—Schedule A.

NEW YORK CITY

Buick Motor Company	1731-7 Broadway & 231-5 West 55th St.	265.50
E. & T. Kittman	501 Canal St.	15.36
Jacob Cohen	5802-5 Third Ave.	18.07
Fred Immoor	12 Elm St.	4.25
Est. H. & J. Grant	41-45 Maiden Lane	139.05
Chatham & Phoenix Natl. Bank	192 Broadway	136.95
N. Glassheim	43-5 Greenwich St.	38.19
Henry N. Niedenstein	221 Greenwich St.	107.88
Joseph Kavalier	45 Lenox Ave.	2.86
Schwartz Bros.	158-60 Bleecker St.	16.89
C. M. Burbaker	626 E. 16th St.	103.89
Chas. W. Prelle	454 Greenwich St.	85.56
D. Wolff	217 Fulton St.	54.73
Gane Bros.	106-10 Lafayette St.	64.32
Joseph Lutfy	76 Washington St.	27.36
Stichwet & Horstmann, Inc.	126 Warren St.	38.88
J. J. Schmidt & A. Baier	13-17 Crosby St.	12.00
Schwatz & Steiner	270 Bleecker St.	10.92
M. Himowitz	141-3 Canal St.	58.80
D. Arnold	385 Canal St.	5.21
Chas. L. Adrian	328 Bleecker St.	45.32
New Jersey Wire Cloth Co.	219 Fulton St.	53.76
J. Conte	150 W. Houston St.	41.80
Golden & Weeks	217-9 Centre St.	33.87
Henry C. Torberg	130 Greenwich St.	45.00
Thomas Sheils	73 E. Broadway	38.88
F. D. Weekes, Tr.	19 Mangin St.	13.20
Columbia Trust Co.	23-9 New St.	84.24
Est. Abrial M. Hawkins	296 Hudson St.	25.11
		$1,587.85

BROOKLYN

Vincent Barth	448 Bedford Ave.	38.60
F. Hintschig	56 Coles St.	2.59
J. Bunce Co.	106 Fulton St.	29.00
Annie L. Munkenbeck	88 Hamilton Ave.	24.60
John F. Neumann	1330 Avenue "H"	54.93
Christian Goehring	1306 King's Highway	57.00
Henry Mayer	59 S. 9th St.	41.70
P. Parlot	117 President St.	35.60
R. Scotto	119 " "	65.51
S. & F. Bloch	37 Atlantic Ave.	28.10
Leybuck Co.	363 Hamilton Ave.	52.70
R. S. Gutman	1007-½ Flatbush Ave.	37.60
K. Spillert & A. Springer	85-7 Harrison Ave.	1.90
John C. Olsen	1318-20 Cortelyou Road	145.80
		$615.63

Complaint—Schedule A.

	CARTERET, N. J.	
Edward J. Heil	S/S Rahway Ave.	6.07
Nicholas Rizsak	98 " "	33.12
		$39.19
	CHROME, N. J.	
Bernard Kahn	S. cor. Atlantic St. & Blazing Star Road	$33.12
	LYNDHURST, N. J.	
Samuel Glick	303-7 Ridge Road	$17.50
	NEWARK, N. J.	
Peters Harness & Saddlery Co.	57-9 Green St.	$35.01
Essex Press, Inc.	229-35 Halsey St.	71.46
	NORTH BERGEN, N. J.	
M. Rose	S/W cor. Grand Ave. & Hamblet Place	$14.44
Mrs. Mary E. Nye	924 Hackensack Plank Road	2.94
Frank Card	966 Hamblet Place	4.67
Rosie Armento	2881 Hudson Boulevard	17.00
		$39.05
	SECAUCUS, N. J.	
Fred Woeckner	781 Second St. & 281 Front St.	$28.00
	WEST HOBOKEN, N. J.	
Sabarto Bello	180-82 Clinton Ave.	$ 13.40
Francesco Vastano & G. Cavallo	241 Morris St.	14.30
Sternkopf & Moran	253-5 Summit Ave.	62.78
Wm. Peter Bwg. Co.	5160 Hudson Blvd.	11.77
Henry Albertalli	95 West St.	44.90
John Adam Jung	903 Union St.	29.20
		$176.35
	HOBOKEN, N. J.	
Eagle Brewing Co.	423 Bloomfield Ave.	$ 2.79
Guaranteed Mortgage & Bond	901 Clinton St.	48.65
Chas. Prueser	306 8th St.	3.05
Ferdinando Sperlinga	460 5th St.	33.21
Ernest Fischer	210 1st St.	19.80
John J. Sheely	666 1st St.	19.08
John Gordon	N/W 14th & Grand Sts.	40.86
Est. Essa C. S. Dodd	132-4 Hudson St.	5.67
John Mohr	225 Jackson St.	10.26
Second Natl. Bank	77-9 River St. & 24-6 Hudson Place	96.19

Complaint—Schedule A.

Martha Moos	42 2nd St.		21.60
Louis H. Elleau	97 Washington St.		20.88
Samuel Zucker	126 Washington St.		1.09
G. Geismar	226-8 Washington St.		65.54
Wm. Bowes	538 Washington St.		23.13
Louis H. Elleau	325 Washington St.		10.22
Est. Max Schilling	258 First St.		130.02
			$552.04

JERSEY CITY

Chas. Carscallen	18 Newark Ave.		$20.52
Est. John D. Carscallen	14 Newark Ave.		20.52
Roth & Miller, Inc.	579 Summit Ave.	lettering	75.00
Benj. Freeman	585 Summit Ave.	"	15.00

BELLEVILLE, N. J.

Gertrude L. Beach	69 Washington Ave.		$15.49

NEW YORK CITY, N. Y.

M. S. Scheinman	26 Division St.		$65.28

JERSEY CITY, N. J.

Andrew Brunton	111 Newark Ave.	lettering	$60.00
			$271.81

SUMMARY

Jersey City	$20,211.36
New York City	1,587.85
Brooklyn	615.63
Cateret, N. J.	39.19
Chrome, N. J.	33.12
Lyndhurst, N. J.	17.50
Newark, N. J.	106.47
North Bergen, N. J.	39.05
Secaucus, N. J.	28.00
West Hoboken, N. J.	176.35
Hoboken, N. J.	552.04
Jersey City, N. J. Belleville, N. J. New York City, N. Y. Jersey City, N. J.	271.81
	$23,678.37

Original Answer.

(Filed August 14, 1917.)

Defendant, a body corporate of the State of Pennsylvania, having its principal office in New Jersey at the foot of Washington street, Jersey City, says that:

FIRST DEFENSE TO FIRST COUNT:

1. It admits paragraph 1.

2. It admits paragraph 2.

3. It admits paragraph 3, except that it says that no part of its business as a common carrier of passengers was conducted at any place referred to in said paragraph.

4. It admits that "Black Tom" pier and the lands adjacent thereto, referred to in paragraph 4, were on and prior to July 30, 1916, used by it for the handling and trans-shipment of carload lots of shells, shrapnel and other ammunitions and munitions of war, including trinitrotoluol, but not including gunpowder, dynamite, nitroglycerine or other high and dangerous explosives, and says that there was no holding thereof except as lawfully incidental to transportation and trans-shipment in the course of interstate commerce and commerce with foreign countries.

5. It admits that on July 30, 1916, there were on said pier and lands adjacent thereto carloads of the explosives, ammunitions and munitions of war mentioned in the last preceding paragraph of this answer, but otherwise it denies said paragraph.

Original Answer.

6. It denies paragraph 6.

7. It denies paragraph 7, and says that while it is true that it permitted the use of its premises and adjacent waters for the tying up of tugs and other vessels, it limited its permission for the tying up of boats and lighters carrying or to carry explosives to one of five distinct piers, to wit, the north pier, on its premises, and only while the same were being loaded, and did not permit the tying up of tugs or other vessels to that pier, or near or adjacent thereto, and that on July 30, 1916, at the time of the explosion mentioned in the complaint there were two barges at said north pier partly loaded, one with shrapnel and the other with trinitrotoluol.

8. It denies the allegations of fact in paragraph 8, except in so far as the same are admitted in its answers to preceding paragraphs, and denies that any accumulation of explosives or munitions alleged in said paragraph, or in fact existent, constituted a nuisance.

9. It denies the allegations of fact in paragraph 9, except in so far as the same are admitted in its answers to preceding paragraphs, and denies that any accumulation of explosives alleged in said paragraph, or in fact existent, constituted a nuisance on the part of the defendant.

10. It admits that on July 30, 1916, a fire occurred on premises possessed by defendant on or in the immediate vicinity of said "Black Tom" pier, and by means thereof certain explosives and munitions became and were ignited and exploded, causing severe shocks and violent

concussion of the air which broke, damaged and destroyed certain glass doors and windows, but whether said doors and windows were owned by the persons and corporations shown upon the schedule marked "A" attached to the said complaint and made a part thereof, defendant has not any knowledge or information sufficient to form a belief.

11. As to the statements in paragraph 11, defendant has not any knowledge or information thereof sufficient to form a belief.

12. As to the allegations of paragraph 12, defendant has not any knowledge or information thereof sufficient to form a belief, except that it says that it did not create or maintain any nuisance as alleged in paragraphs 6 and 7 or otherwise.

In lieu of a motion to strike out said first count, the defendant objects thereto on the ground that it discloses no cause of action against the defendant.

SECOND DEFENSE TO FIRST COUNT:

1. On July 30, 1916, and for many days prior thereto, the defendant was a common carrier engaged in interstate and foreign commerce, and therein transporting by land ammunition and munitions of war, including explosives.

2. As such common carrier defendant was compelled by law to receive, carry, convey and transport the said ammunition and munitions of war, including explosives, in the course of interstate and foreign commerce, provided the same were packed, marked, loaded and handled, and when offered for transportation were in proper

condition to transport in accordance with and pursuant to the Act of Congress of the United States, entitled, "An Act to promote the safe transportation in interstate commerce of explosives and other dangerous articles, and to provide penalties for its violation," approved March 4, 1909, and the Act of said Congress, entitled, "An Act to regulate commerce," as amended June 18, 1910, and the regulations prescribed by the Interstate Commerce Commission by authority of said Acts.

3. The ammunition and munitions of war and explosives that exploded on July 30, 1916, were packed, marked, loaded and handled, and when offered for transportation were and until and at the time of said explosion continued to be in proper condition to transport in accordance with said Acts of the Congress of the United States and the regulations prescribed by the Interstate Commerce Commission by virtue thereof, and were carried, conveyed and transported and held by the defendant lawfully and strictly in accordance with said Acts and regulations.

THIRD DEFENSE TO FIRST COUNT:

1. The presence of such explosives as on July 30, 1916, were on the premises of the defendant did not constitute a nuisance.

2. The explosion mentioned in the complaint was due to a fire caused by incendiarism, of which defendant had no knowledge or suspicion.

3. Said fire occurred notwithstanding due diligence by the defendant to prevent incendrianism.

Original Answer.

First Defense to Second Count:

1. Defendant repeats and makes part hereof the allegations contained in paragraphs 1 to 7, inclusive, of its first defense to the first count.

2. It denies paragraph 2.

3. It denies that it negligently failed or omitted to perform any duty with which it was chargeable.

4. It denies paragraph 4.

5. It denies that it negligently failed or omitted to perform any duty with which it was chargeable.

6. It denies paragraph 6.

7. It denies that it negligently failed or omitted to perform any duty with which it was chargeable.

8. It denies paragraph 8.

9. It denies that it negligently failed or omitted to perform any duty with which it was chargeable.

10. It denies paragraph 10.

11. It denies that it negligently failed to perform any duty with which it was chargeable.

12. As to paragraph 12, it admits that the municipality of Jersey City, at the time of the explosion referred to in said count, maintained police and fire departments; but as to the size of said departments or as to what their duty and custom was at the time of said explosion this defendant has not any knowledge or information sufficient to form a belief.

Original Answer.

13. It denies paragraph 13.

14. It denies that it negligently failed or neglected to perform any duty with which it was chargeable.

15. It denies paragraph 15, and says that in fact it did, immediately upon the happening and discovery of the fire referred to in the complaint, notify the fire department of Jersey City of the existence and location of said fire.

16. It denies that it negligently failed or omitted to perform any duty with which it was chargeable.

17. It admits that on July 30, 1916, a fire occurred on premises possessed by the defendant on or in the immediate vicinity of said pier of the defendant, and that by the spreading thereof divers explosives and munitions were exploded with great force and violence causing severe shocks and concussion of the air which simultaneously broke, damaged and destroyed certain glass doors and windows, but whether said doors and windows were owned by the persons and corporations shown upon exhibit "A," this defendant has not any knowledge or information sufficient to form a belief; and otherwise it denies said paragraph.

18. It repeats and makes part hereof the allegations of paragraph 11 of its first defense to the first count.

19. As to the allegations of paragraph 19, it has not any knowledge or information thereof sufficient to form a belief, except that it says that it was in no manner negligent in the premises.

Reply.

In lieu of a motion to strike out said second count, defendant objects thereto on the ground that it discloses no cause of action against the defendant.

SECOND DEFENSE TO SECOND COUNT:

Defendant repeats and makes part hereof the allegations of its second defense to the first count.

THIRD DEFENSE TO SECOND COUNT:

Defendant repeats and makes part hereof the allegations of its third defense to the first count.

COLLINS & CORBIN,
Defendant's Attorneys.

Reply.

(Filed August 17, 1917.)

Plaintiff, replying to the second defense to the First Count, says:

1. It admits paragraph one.
2. It denies paragraph two.
3. It denies paragraph three.

Plaintiff, replying to the third defense to the First Count, says:

1. It denies paragraph one.
2. It denies paragraph two.
3. It denies paragraph three.

Amended Answer.

Replying to the first defense, to the second count, plaintiff reserves the right to move to strike out paragraphs two, four, six, eight, ten and thirteen of said defense, as insufficient, evasive and contrary to law.

Replying to the second defense to the second count, plaintiff denies the same.

Replying to the third defense to the second count, plaintiff denies the same.

STALLMAN, HOOVER & PECK,
Attorneys of Plaintiff.

Amended Answer.

(Filed November 6, 1917.)

The defendant, a body corporate of the State of Pennsylvania, having its principal office in New Jersey at the foot of Washington Street, Jersey City, says that:

First Defense to First Count.

1. It admits paragraph 1.

2. It admits paragraph 2.

3. It admits that on July 30, 1916, it possessed, used, occupied and controlled (but only to the extent provided by and in accordance with the terms of a certain lease hereinafter mentioned) a certain dock or pier, among others, in the City of Jersey City, extending into the waters of New York Bay, but denies that said dock or pier was locally known as the "Black Tom" pier; it admits that it possessed, used, occupied and controlled (but only to the extent

provided by and in accordance with the terms of a certain lease hereinafter mentioned) certain lands covered by the waters of New York Bay adjacent to said pier, as well as certain upland likewise adjacent to said pier. It admits that the said pier, with others, and that the said upland were used as a railroad yard in connection with its business of a common carrier of freight, but denies that the same or any part thereof were used in connection with its business of a common carrier of passengers. It further says that it possessed, used, occupied and controlled certain docks and piers together with certain waters and upland adjacent thereto in the City of Jersey City, locally known as Black Tom Yard, in accordance with the terms and provisions of a certain lease dated June 24, 1913, from the National Storage Company to the Lehigh Valley Railroad Company of New Jersey, and thereafter assigned to this defendant, wherein the said premises are described as follows: "A tract of land containing about one hundred and eleven acres, more or less, together with all the tracks, wharves, piers, docks, bulkheads, stores, warehouses, elevators and power houses, and all other buildings and structures of every kind whatsoever erected thereon; excepting and reserving therefrom about one hundred and forty-nine thousand and five hundred (149,500) square feet, together with the following structures erected thereon: Stores "A", "E", "F", "G", "H", "I", "K", "L", "M", "N", "O", "P", "Q", and "R", and Pier 6 and Shed No. 2 on Pier 7 and the office building (40'x25') located between Stores "F" and "G", together with the right of access thereto and wharfage rights in connection therewith."

Amended Answer.

4. It admits that on and prior to July 30, 1916, it used a certain dock or pier, and the lands adjacent thereto, as described in paragraph 3 of the First Defense to First Count, for the handling and holding (but only to the extent and in the manner hereinafter mentioned) of carload lots of certain munitions and explosives, as hereinafter mentioned; it denies that said dock or pier was locally known as "Black Tom" Pier and says that the lands and premises described in paragraph 3 of the First Defense to First Count, known as the Black Tom Yard, on and prior to July 30, 1916, were used by it as a freight terminal for making delivery to the consignees of carload lots of shells, shrapnel and other ammunitions and munitions of war, including trinitrotoluol (but not including gunpowder, dynamite, nitro-cellulose or other high and dangerous explosives) and for the transferring of the same by consignees from cars to barges or lighters for transhipment to steamers for export; and it says that there was no handling or holding by this defendant of the cars containing the same, except as lawfully incidental to the transportation and delivery thereof in the course of interstate commerce and commerce with foreign countries; and it says that all of the materials so held or handled were in the course of interstate or foreign commerce at the times set forth in the complaint.

5. It admits that on July 30, 1916, and for several days prior thereto it had placed and on said date was holding (but only to the extent and in the manner hereinafter mentioned) on a certain dock or pier and the lands adjacent thereto, as described in paragraph 3 of the

Amended Answer.

First Defense to First Count, certain carloads (but not many) of shells, shrapnel and other ammunitions and munitions of war, including trinitrotoluol (but not including gun-powders, dynamite, nitro-cellulose or other high and dangerous explosives); it denies that said dock or pier was locally known as "Black Tom" Pier and says that the lands and premises described in paragraph 3 of the First Defense to First Count were known as the Black Tom Yard; it denies that the said explosives, ammunitions and munitions of war referred to in paragraph 5 of the complaint, or any of them, were to the knowledge of this defendant highly dangerous and capable and liable in the event of fire to explode and thereby to cause incalculable or any injury to residents of Jersey City and their buildings, chattels and other property; it says that on July 30, 1916, on the lands and premises herein described as Black Tom Yard, there were carloads of the explosives, ammunition and munitions of war herein described, for the purpose of making delivery of the same to the consignees, and that for several days prior thereto there had been other carloads of explosives of the same nature on the said lands and premises for the like purpose; but it says that there was no holding on said lands and premises of any carloads of the said explosives, ammunitions and munitions of war, either on July 30, 1916, or at any time prior thereto, except as lawfully incidental to the transportation and delivery of the contents of said cars, in the course of interstate commerce and commerce with foreign countries; it says that all of the carloads of said explosives so held were in the course of

interstate or foreign commerce at the times set forth in the complaint.

6. It denies paragraph 6.

7. It admits that on July 30, 1916, and for several days prior thereto, it permitted the use of certain of its premises and waters, as described in paragraph 3 of the First Defense to First Count, known as the Black Tom Yard (but only to the extent and in the manner hereinafter mentioned) for the tying up of certain tugs and other vessels, but it says that it limited its said premises (for the tying up of barges and lighters carrying or to carry explosives) to one pier, namely, the pier known as "North Pier", and only when the said barges or lighters were being loaded; and it says it did not permit the tying up of tugs and /or other vessels to that pier or near or adjacent thereto; and it says that on July 30, 1916, at the time of the explosion mentioned in the complaint there were two barges at said North Pier, with its permission, partly loaded, one with shrapnel and the other with trinitrotoluol.

8. It denies paragraph 8.

9. It denies paragraph 9.

10. It admits that on July 30, 1916, it possessed a certain dock or pier and the lands adjacent thereto, as described in paragraph 3 of the First Defense to First Count, but denies that said dock or pier was locally known as "Black Tom" Pier, and says that the said lands and premises so described were known as the Black Tom Yard; it admits that on July 30, 1916, a fire occurred on the lands and premises known as the Black Tom Yard, but it has no

knowledge nor information sufficient to form a belief as to whether, by means of said fire, the said explosives or munitions or any of them became and were ignited and exploded; it admits that certain explosives and munitions exploded on said date, thereby causing severe shocks and violent concussions of the air, but it has no knowledge nor information sufficient to form a belief as to whether the said severe shocks and concussions or any of them broke or damaged or destroyed the glass doors and windows of the persons and corporations, or any or either of them, shown upon Schedule "A" attached to the complaint.

11. It has no knowledge nor information sufficient to form a belief as to the allegations of paragraph 11.

12. It has no knowledge nor information sufficient to form a belief as to the allegations of paragraph 12, except that it denies that it created and maintained any nuisance, as alleged in paragraphs 6 and 7 of the complaint, or otherwise.

In lieu of a motion to strike out said first count, the defendant objects thereto on the ground that it discloses no cause of action against the defendant.

SECOND DEFENSE TO FIRST COUNT.

1. On July 30, 1916, and for many days prior thereto, the defendant was a common carrier engaged in interstate and foreign commerce, and therein transporting by land ammunitions and munitions of war, including explosives.

2. As such common carrier defendant was compelled by law to receive, carry, convey and

transport the said ammunition and munitions of war, including explosives, in the course of interstate and foreign commerce, provided the same were packed, marked, loaded and handled, and when offered for transportation were in proper condition to transport in accordance with and pursuant to the Act of Congress of the United States entitled "An Act to promote the safe transportation in interstate commerce of explosives and other dangerous articles, and to provide penalties for its violation," approved March 4, 1909, and the Act of said Congress entitled "An Act to regulate commerce," as amended June 18, 1910, and the regulations prescribed by the Interstate Commerce Commission by authority of said Acts.

3. The ammunition and munitions of war and explosives that exploded on July 30, 1916, were packed, marked, loaded and handled, and when offered for transportation were and until and at the time of said explosion continued to be in proper condition to transport in accordance with said Acts of the Congress of the United States and the regulations prescribed by the Interstate Commerce Commission by virtue thereof, and were carried, conveyed and transported and held by the defendant in the course of interstate and foreign commerce lawfully and strictly in accordance with said Acts and regulations.

THIRD DEFENSE TO FIRST COUNT.

1. The presence of such explosives as were on July 30, 1916, on the premises of the defendant did not constitute a nuisance.

Amended Answer.

2. The explosion mentioned in the complaint was due to a fire caused by incendiarism, of which defendant had no knowledge or suspicion.

3. Said fire occurred notwithstanding due diligence by the defendant to prevent incendiarism.

FIRST DEFENSE TO SECOND COUNT.

1. Defendant repeats and makes part hereof the allegations contained in paragraphs 1 to 7 inclusive of its First Defense to the First Count.

2. It denies paragraph 2.

3. It denies that it was chargeable with any such alleged duty as stated in paragraph 2 of the Second Count of the complaint and denies that it negligently failed or omitted to perform said alleged duty.

4. It denies paragraph 4.

5. It denies that it was chargeable with any such alleged duty as stated in paragraph 4 of the Second Count of the complaint and denies that it negligently failed or omitted to perform said alleged duty.

6. It denies paragraph 6.

7. It denies that it was chargeable with any such alleged duty as stated in paragraph 6 of the Second Count of the complaint and denies that it negligently failed or omitted to perform said alleged duty.

8. It denies paragraph 8.

9. It denies that it was chargeable with any such alleged duty as stated in paragraph 8 of the Second Count of the complaint and denies

that it negligently failed or omitted to perform said alleged duty.

10. It denies paragraph 10.

11. It denies that it was chargeable with any such alleged duty as stated in paragraph 10 of the Second Count of the complaint and denies that it negligently failed or omitted to perform said alleged duty.

12. As to paragraph 12, it admits that the municipality of Jersey City, at the time of the explosion referred to in said count, maintained police and fire departments; but as to the size of said departments or as to what their duty and custom was at the time of said explosion this defendant has no knowledge nor information sufficient to form a belief.

13. It denies paragraph 13..

14. It denies that it was chargeable with any such alleged duty as stated in paragraph 13 of the Second Count of the complaint and denies that it negligently failed or omitted to perform said alleged duty.

15. It denies paragraph 15, and says that in fact it did, immediately upon the happening and discovery of the fire referred to in the complaint, notify the Fire Department of Jersey City of the existence and location of said fire.

16. It denies that it was chargeable with any such alleged duty as stated in paragraph 15 of the Second Count of the complaint and denies that it negligently failed or omitted to perform said alleged duty.

Amended Answer.

17. It admits that on July 30, 1916, it possessed a certain dock or pier and the lands adjacent thereto, as described in paragraph 3 of the First Defense to First Count, but denies that said dock or pier was locally known as "Black Tom" Pier, and says that the said lands and premises so described were known as the Black Tom Yard; it admits that on July 30, 1916, a fire occurred on the lands and premises known as the Black Tom Yard; it denies that there was any negligence on its part in failing to perform its several alleged duties and denies that by reason of said alleged negligence it suffered a part of said explosives and munitions, and the cars, boats and containers thereof, to become ignited; it has no knowledge nor information sufficient to form a belief as to whether, by means of said fire, the said explosives or munitions, or any of them, or the said cars, boats and containers thereof, or any of them, became ignited, nor whether thereby the same, or any of them, exploded; it has no knowledge nor information sufficient to form a belief as to whether the said fire and detonation of said explosives was communicated to other masses and quantities of explosives on the piers in said Black Tom Yard or on any vessels adjacent thereto, nor whether the said explosives, or any of them, likewise exploded with great force and violence, nor whether the same caused severe shocks and concussions of the air, nor whether said shocks and concussions, or any of them, simultaneously, or otherwise, broke, damaged and destroyed the glass doors and windows of the several persons and corporations shown upon Exhibit "A" attached to complaint.

Amended Answer.

18. It repeats and makes part hereof the allegations of paragraph 11 of its First Defense to the First Count.

19. As to the allegations of paragraph 19, it has no knowledge nor information thereof sufficient to form a belief, except that it alleges that it was in no manner negligent in the premises.

In lieu of a motion to strike out said Second Count, defendant objects thereto on the ground that it discloses no cause of action against the defendant.

SECOND DEFENSE TO SECOND COUNT.

Defendant repeats and makes a part hereof the allegations of its Second Defense to the First Count.

THIRD DEFENSE TO SECOND COUNT.

Defendant repeats and makes a part hereof the allegations of its Third Defense to the First Count.

COLLINS & CORBIN,
Attorneys of Defendant.

Postea and Judgment.

(Filed January 12, 1918.)

This case was tried before William H. Speer, Circuit Court Judge, and a jury, at the Hudson Circuit, on the 12th, 13th, 14th, 17th and 18th days of December, 1917.

The counsel for the plaintiff and defendant having stipulated to ascertain and determine the amount of the plaintiff's damages by agreement or otherwise, the jury were instructed by the Court to return a verdict in favor of the plaintiff or in favor of the defendant, upon the issues submitted to them.

The jury returned a verdict in favor of the plaintiff and against the defendant.

Counsel for the plaintiff and defendant having agreed upon the sum of $23,678.37 as the plaintiff's damages, it is

Ordered that judgment final be entered in favor of the New Jersey Fidelity and Plate Glass Insurance Company, plaintiff, against the Lehigh Valley Railroad Company, defendant, in the sum of twenty-three thousand six hundred and seventy-eight dollars and thirty-seven cents ($23,678.37) damages and the plaintiff's costs to be taxed.

WM. H. SPEER,
Circuit Court Judge.

Postea and Judgment.

It is ordered that judgment be and hereby is entered in favor of plaintiff and against the defendant for the sum of twenty-three thousand, six hundred and seventy-eight dollars and thirty-seven cents besides costs to be taxed.

Entered January 12, 1918,

On motion of

STALLMAN, HOOVER & PECK,
Attorneys.

NEW JERSEY SUPREME COURT.

NEW JERSEY FIDELITY & PLATE GLASS INSURANCE CO., *vs.* LEHIGH VALLEY RAILROAD COMPANY,	*Action at Law.* *On Postea.* *Stallman, Hoover & Peck, Attorneys.*

$23,678.37

Judgment entered this twelfth day of January, A. D. nineteen hundred and eighteen, for the sum of twenty-three thousand, six hundred and seventy-eight dollars and thirty-seven cents damages and .....

WM. S. GUMMERE,
C. J.

NEW JERSEY SUPREME COURT.

NEW JERSEY FIDELITY & PLATE GLASS INSURANCE CO.,

vs.

LEHIGH VALLEY RAILROAD CO.

Tried December 12, 1917, before Speer, *J.*, and a Jury.

Stallman, Hoover & Peck and Mr. Smith for the plaintiff.

Collins and Corbin (Mr. Hobart), Mr. Garrison, Mr. Boles, Mr. Barrett and Mr. Perkins for the defendant.

(Jury drawn and six peremptory challenges exercised by defendant.)

Mr. Garrison. We desire to interrogate this jury as to whether any member thereof has either a case pending against the Lehigh Valley Railway Co. or a claim filed with that company or against that company with respect to the accident occurring on the 30th day of July, 1916, which is the subject matter of this suit.

The Court. Mr. Smith and Mr. Stallman: These gentlemen want to ask the jury—and I am prepared to rule that they have no right to —whether any man now called for jury service and not yet sworn has any claim pending against the Lehigh Valley Railroad Company, for damages arising out of this accident which is the basis of the suit here. Now I felt that this is not a harmful question and that you gentlemen would probably desire to consent that they ask that question as being a foundation of a challenge for cause if such thing exists.

Mr. Smith. I haven't any objection to their asking the question but I do not think it is a proper basis for a challenge for cause.

Mr. Garrison. Are you going to object?

The Court. If you want to object I am perfectly willing to rule.

Mr. Smith. We are perfectly willing that you should ask that, and perfectly willing that it should be a ground for cause.

The Court. All right; you may ask the question.

Mr. Hobart. Gentlemen: This case arises out of an accident at what is known as Black Tom on the 30th of July, 1916—the explosion that occurred on that day—and on behalf of the defendant we desire to ask whether or not any of you gentlemen have any case pending against the railroad company or whether you have any claim against the company for either personal injury or damage to your property arising out of that explosion. Have any of you any such claim or case?

(No response.)

(Mr. Stallman opens.)

PLAINTIFF'S CASE.

Mr. Stallman. May we offer this map, Mr. Garrison?

Mr. Garrison. This is the one we furnished?

Mr. Stallman. Yes. I would like to offer map, which is Exhibit P. 1, I suppose, at present. I would like to have it stipulated on the record that the map is on a scale of about twenty-five feet to the inch.

Mr. Garrison. That is right. That is stipulated.

Mr. Stallman. And that the colored marks—the oblong colored marks indicate the location of the various carloads of explosives, according to the region indicated by the key to cars on the lower part of the map.

Mr. Garrison. Except we do not admit they are all explosives. We admit that the colored portions represent what they are purported by the key to represent, and then he can prove what the character of such was; because we do not think benzol was an explosive, and wet nitro-cellulose is not an explosive.

Mr. Stallman. Yes.

Mr. Garrison. Are you satisfied with that?

Mr. Stallman. Yes.

It is also stipulated that the irregular oblong markings—dotted lines on the map—indicate the hole which was created by the explosion in that particular place, this so-called crater.

Mr. Garrison. I will stipulate that, that at that place, after the explosion, there was a hole with those dimensions, which was not there before.

Do you want at this time to admit the rest of the legend on here, or whether you want us to prove that?

Mr. Stallman. Yes. That is part of your case. The rest of it I don't care much about.

(Map marked Exhibit P. 1.)

Mr. Stallman. I would like to now offer in evidence interrogatories and answers thereto which were made in this case.

The Court. Very well; read them.

Mr. Stallman. And read them to the jury.

Opening.

Gentlemen of the jury, in accordance with our practice we have asked of the defendant certain questions to be answered in writing, and I have them here and I will read the questions and answers, so that you will have this information without the necessity of putting the witness on the stand.

The first interrogatory was: "Describe by means of map or otherwise, the dimensions of the Black Tom pier referred to in the pleadings in this action, and therein show or describe the location and extent of the tracks, buildings and other structures upon said pier as the same existed on July 30, 1916.

2. "Describe by showing on said map or otherwise the location of the fire hydrants, if any, on said pier."

The answer to these two questions was as follows:

"On the assumption that the 'pier' referred to in these interrogatories is intended to include all the lands and premises commonly known as the 'Black Tom Yard' at Jersey City, and the tracks, buildings and other structures, including fire hydrants located therein or thereon, the defendant answers that the map hereto attached correctly indicates the dimensions of said lands and premises and the tracks, buildings and other structures therein or thereon, including fire hydrants, as the same existed on July 30, 1916."

The map before you is substantially the same as was furnished with this answer.

3. "State as nearly as possible the actual number of cars on said pier on the night of July 30, 1916.

Opening.

4. "State how many of said cars containing or marked as containing explosives or explosive munitions were on said pier on the night of July 30, 1916.

5. "How long had said cars containing explosives or explosive munitions been on said pier up to twelve o'clock midnight of July 30, 1916."

"A. On the assumption that the 'pier' referred to in these interrogatories is intended to include all the lands and premises commonly known as the Black Tom Yard at Jersey City, defendant answers that the total number of cars on the night of July 30, 1916, was 228. None of the defendant's officers, agents, or employees has any personal knowledge of the contents of any of the cars, excepting as shown by the shipping orders furnished by the respective consignors to this defendant (with respect to traffic originating on the defendant's lines) or as shown by the waybills furnished by connecting lines to the defendant at the point of connection (with respect to traffic originating on such other lines). According to the statements in said waybills or shipping orders, the defendant answers that there were 17 cars, the contents whereof were described and designated in such shipping orders or waybills as 'Ammunition for Cannon'; there were 11 cars the contents of which was similarly described and designated as 'High Explosives'; there were 3 cars the contents whereof were similarly described and designated as 'Wet Nitro-Cellulose'; there were 2 cars the contents whereof were similarly described and designated as 'Combination Fuses'. The following is a list containing a description and the

number of each of said cars, the contents thereof as shown by the said shipping orders or waybills and the number of days each of said cars had been on said pier prior to July 30, 1916.

Car 33,602, high explosives, two days; car 129,112, high explosives, two days; car 32,452, high explosives, two days; car 139,900, high explosives, two days; car 135,762, high explosives, on hand two days; car 32,194, high explosives, on hand for two days; car 30,484, high explosives, on hand two days; car 131,112, high explosives, on hand two days; car 137,046, high explosives, on hand two days; car 126,960, high explosives, on hand two days; and car 30,832, high explosives, on hand two days; and car 67,166, wet nitro-cellulose, and car 128,766, wet nitro-cellulose and car 517,708, wet nitro-cellulose, each on hand six days; car 52,932, ammunitions, on hand three days; cars 102,070, 11,832, 517,981, 536,124, ammunition for cannon, each on hand for four days; and cars 32,020, 26,343, 37,330, 517,930, 10,194, 84,422, six cars, ammunition for cannons, each on hand for three days; and car 61,659, ammunition for cannons, on hand four days; car 85,282 ammunition for cannon, on hand for one day; car 54,578, ammunition for cannon, on hand four days; car 14,537, ammunition for cannon, on hand nine days; car 12,275, ammunition for cannon, on hand for eleven days; car 84,146, ammunition for cannon, a part of a day; car 77,254, and 84,321, combination fuses, on hand each six days.

Interrogatory No. 7: "On July 30, 1916, did the defendant own or lease, occupy and use said pier known as Black Tom pier and the

Opening.

lands covered with water immediately adjacent thereto?

"A. On the assumption that the 'pier' referred to in this interrogatory is intended to include all the lands and premises commonly known as the 'Black Tom Yard' at Jersey City, defendant answers that he did not own the said lands or premises; it leased, occupied and used the same in accordance with the terms and provisions of a certain lease made by National Storage Company dated June 24, 1913. Copy of said lease and of the map therein referred to is hereto attached as a part of this answer;" which I will not take the trouble to read.

Now additional interrogatories were as follows:

"Were the tracks in the Black Tom Yard severally numbered or otherwise designated or identified on or prior to July 30, 1916? If so, state how said tracks were numbered or identified; and state where, with reference to such identified tracks, said cars containing explosives and munitions were placed and held immediately prior to the fire and explosion of July 30, 1916."

In answer to these three interrogatories, the map before you has been produced and shows the location of the tracks and the numbers of each of the tracks and the location of each of the carloads of explosives.

"Interrogatory No. 4. Referring to the amended answer, paragraph 3, second defense to first count, did said cars bear signs or placards indicating the nature of the contents and instructions rehandling and transportation as

prescribed by law and the rules or regulations of the Interstate Commerce Commission? If so, state the text of each of such placards on each of said cars."

The answer is: "Yes. The placards on the following cars which originated at Barksdale, Wisconsin, and which had been placed thereon at point of origin, were in the form and of the size and contained thereon the printings prescribed by Section 1,666 of the rules and regulations for the transportation of explosives and other dangerous articles by freight and express, issued by the Interstate Commerce Commission, effective October, 1914, which regulations were in effect on July 29 and 30, 1916."

Then follows the initials and numbers of eleven cars containing trinitritoluol, point of origin, Barksdale, Wisconsin.

"The following is a copy of the said paragraph, 1,666, together with a copy of the placard prescribed therein:

'EXPLOSIVE PLACARD.'

1666. PLACARD.—A certified car for the dangerous explosives specified in paragraph 1661, must be protected by attaching to each outside end, and side door, the lower edge not less than 4½ feet above the car floor, a standard placard 12 by 14 inches, on which appears in conspicuous red and black printing on strong tag board the following notice:" —and this, gentlemen, is the sample furnished to me by the company of that placard which goes on explosive cars. It reads, "the so and so railroad company. Explosives to be printed in red. Handle carefully. Keep fire away, printed in red, and

there is room for a station and a date—condensed rules for handling this car. 1. This car must not be placed in a passenger train, nor in a mixed train. 2. Cars containing explosives must be near the center of train and may be together if desired; must be at least fifteen cars from engine and ten cars from caboose when length of train will permit.

3. Cars containing explosives must not be placed next to cars bearing the inflammable or the acid placards or cars containing lighted heaters. Whenever it is possible to avoid so doing they must not be placed next to tank cars or flat cars or next to carloads of lumber, poles, iron, pipe, or other articles liable to break through end of car from rough handling.

4. The air and hand brakes must be in service.

5. In shifting have a car between this car and engine whenever possible, and do not cut this car off while in motion.

6. Avoid all shocks to this car and couple carefully.

7. Avoid placing it near a possible source of fire.

8. Engines on parallel track must not be allowed to stand opposite or near this car when it can be avoided.

9. This placard must be removed from car when the explosives are unloaded."

As I said, that is a placard on each of these eleven cars the numbers of which I have read to you.

"The placards on the following cars which originated at Redington, Pa., were those required by Paragraph 1666 of the rules and

regulations of the Interstate Commerce Commission for the transportation of explosives and other dangerous articles by freight and express, which paragraph is quoted above and in which quotation the wording contained on the said placards is set forth. The placards on each of the said cars were in accordance with the requirements of the said paragraph 1666."

Then follows the engine and car number of 16 carloads said to have contained ammunition for cannon with explosive projectiles. And each of those cars, gentlemen of the jury, had this placard attached to it according to this answer.

"The placard on car P&R 14537 containing ammunition for cannon with empty projectiles which originated at Redington, Pa., was what was known as an 'Inflammable' placard and was in accordance with the provisions of paragraph 1913 of the rules and regulations of the Interstate Commerce Commission for the transportation of explosives and other dangerous articles by freight and express. The said paragraph, with a copy of the wording required to be placed upon said 'Inflammable' placards is as follows:

'INFLAMMABLE' PLACARD.

"1913. A placard of diamond shape, printed on strong, thin, white paper for pasting on tank cars, containing an inflammable liquid and on strong tag board for tacking to wooden cars or to wooden boards of suitable size attached for this purpose to metal box cars or tank cars, measuring 10¾ inches on each side, and bearing in red and black letters the following inscription, must be securely attached

to each outside end and to each side door of a car containing one or more packages protected by the red or the yellow diamond label''

First, the name of the railroad company. The word ''Inflammable''. ''Keep lights and fires away. Handle carefully.'' The station and the date.

''1. This car must not be next to a car containing explosives.

2. Do not enter with exposed flame, nor with lighted lantern, until car has been ventilated and vapors allowed to escape.

3. When lading requiring this placard is unloaded from box or stock cars, agents, yardmasters and conductors must remove the placards. Tank cars must retain placards until cleaned (Par. 1903).''

''The placards on the following cars which originated at Aetna, Ind., and which contained wet nitro-cellulose, were the 'Inflammable' placards required by the said section 1913 of the said regulations of the Interstate Commerce Commission, hereinbefore quoted in full. Cars: P. L. 517708; C. P. 128766; Wab. 67166. The following cars which originated at Waterbury, Conn., and contained combination fuses, contained no placards:

N. H. 77254; N. H. 84321.

''The said signs or placards as above stated remained upon the said cars in the Black Tom Yard up to and on the 30th day of July, 1916.''

5. State which of said cars, by initial and number, were burned, or the contents thereof exploded, or were otherwise destroyed, by said fire and explosion.

Opening.

6. State which of said cars of explosives were not so burned, exploded or destroyed.

"Answer. Without attempting to state whether destruction resulted from fire or explosion or otherwise, it is the fact that the contents of the following cars were destroyed:"

Then follows eleven carloads of trinitrotoluol, 3 carloads of wet nitro-cellulose, 2 cars of combination fuses, 14 carloads of ammunition for cannon with explosive projectiles.

"The contents of the following cars were partially destroyed: 2 carloads of ammunition for cannon with empty projectiles;—no; one carload with empty projectiles and one carload with explosive projectiles."

7. When did the fire begin? Or when was the fire first discovered by the defendant, its agents or employees? Ans. The defendant does not feel obligated to make statements based upon derivative information and therefore does not answer so much of this interrogatory as relates to the beginning of the fire. It states, with respect to the time when the said fire was first discovered by any of its agents or employees, that the hour was between 12:15 and 12:45 a. m., July 30, 1916.

8. Describe the location or place on the premises known as Black Tom Yard where the fire was burning when first observed by any agent or employee of the defendant company.

Ans. The same agent or employee who first observed the fire is not able to place the exact location of the fire but states that, from his point of observation, which was in front of Store G, the fire was to the east of him but he was unable to determine whether it was on

or adjacent to the north pier or at some point in the yard near the south pier and between him and the north pier.

9. Referring to paragraph 7 of said answer, state the quantities of shrapnel and trinitrotoluol on the two barges referred to in the said paragraph of the answer, and whether the explosives on said two barges were destroyed.

Ans. On the Barge "Frank" of the Johnson Lighterage Company there were the contents of the following cars which the billing indicated to be trinitrotoluol.

Then there follows five cars each containing 57675 pounds or a total of 288375 pounds.

"On Morgan Barge No. 64 there were the contents of the following cars, as indicated on the billing therefor: 4 cars of combination fuses and 9 cars of ammunition for cannon, making a total weight of 944844 pounds on that marge.

"The defendant, excepting from derivative information, does not know whether the ammunition and explosives on the said barges were destroyed or not."

10. On the night of July 30, 1916, were there any cars or tanks of naphtha, gasoline, or other volatile or explosive liquids or gases in said Black Tom Yard?

Ans. There were no cars or tanks of naphtha or gasoline at the time mentioned, and with respect to other cognate products, there were present 4 cars of chlorbenzol and 1 car of monochlorbenzol, of which plaintiff has knowledge from the map referred to in the answer to Interrogatories Nos. 1, 2 and 3, showing the cars containing the same and the loca-

tion thereof. The defendant does not by this answer commit itself as to the characteristics or properties of the said chlorbenzol or of the said monochlorbenzol.

11. What was the result or effect of said fire and explosion upon said Black Tom Yard, and the piers extending therefrom, and the cars, tracks and structures thereon and adjacent thereto?

Ans. Among the results of explosion was the presence, at the place shown by dotted lines on the map furnished plaintiff, of a hole in the ground generally referred to as a crater, approximately 375 feet long, 175 feet wide and from 7.7 to 10.5 deep and in the vicinity thereof evidences of the destructive effect at that point.

Some of the other effects of explosion best observable by results on the north pier and the south pier were disarrangements of track, shattering of cars and of the timbers of the piers, the penetrating of one of said timbers by a shell and other similar effects of explosion from some point north of the north pier."

EDWARD KANE, sworn.

Direct examination by Mr. Stallman.

Q Where do you reside? A 38 Orient avenue, Jersey City.

Q What is your business? A Watchman in the Standard Oil.

Q How long have you been employed by the Standard Oil Company? A Since last April.

Q About eight months? A Yes, sir.

Q Where were you employed before that? A In the Lehigh Valley Railroad—Black Tom.

Q How long had you worked for the Lehigh Valley Railroad at Black Tom? A For the Lehigh Valley Railroad I had worked thirteen years.

Q And you were employed there on July 30, 1916? A Yes, sir.

Q In what capacity? A Watchman.

Q Watchman? A Yes.

Q Were you known as roundsman? A Yes, sir.

Q And as roundsman what were your duties at that time? A To travel the yards, see that all the men was on their proper places, taking care of nobody going down through the yards.

Q Then as I understand your testimony, you were sort of a foreman? A Well, yes, sir, for the night men.

Q You were in charge of the men that worked there at night? A Of the watchmen, yes, sir.

Q And what time did you go to work? A 5:30 in the evening.

Q And your tour of duty was until when? A Six o'clock in the morning.

Q And how many men did you have under your jurisdiction? A Four.

Q You had four men? A Yes.

Q And who were they? A There was Samuel Sloan, James Kelly, James Groth and William Garrity.

Q And did all these men work for the Lehigh Valley Railroad Company? A Yes, sir.

Q Do you know whether any of them worked for the National Storage Company? A Well, they all got paid off the Lehigh Valley; I do not know whether it was—

Q They were all paid by the Lehigh Valley? A Yes, sir.

Q Now these men that you have mentioned, did they have any particular beats or any particular duties? A Yes.

Q Yes. And were these four men that you have mentioned employed with you on this date, July 30, 1916? A Yes, sir.

Q And July the 29th, the day before? A Yes, sir.

Q And for any length of time before that? A Yes, sir.

Q Now I think the first gentleman you mentioned was Mr. Sloan? A Yes, sir.

Q And where was Mr. Sloan's beat or place of work? A His was in the boiler room opposite Pier 5.

Q The boiler room opposite Pier 5? A Yes,

Q Now, could you tell us whether or not that boiler room is shown on this map?

Mr. Garrison. Witness points to the oblong mark on the map, marked pump. He says that is the boiler room.

Mr. Stallman. Opposite Pier 5.

Q And immediately adjacent to Store F? A Yes.

Q Now, Mr. Kane, what is the larger building immediately in the rear of the boiler room? A That is the National Storage office.

Q That is an office? A Yes.

Q I see. Then I see right down near the bulkhead there is another building behind that. A The National Storage office.

Q And you say that the smaller building behind the National Storage office was what? A

The time clock office, where the men punched their tickets.

Mr. Garrison. Now, each of these have been so marked on the map.

Q Now, Mr. Kane, you say that Mr. Sloan's headquarters were at the boiler house? A Yes, sir.

Q And what work did he do there? A He had—punched—he took care of the boiler and then he punched buttons on the side of Pier 4.

Q He took care of the boiler? A Yes, sir, on the west side of Pier 4.

Q After taking care of the boiler would he have to come— A And come the other way, around that way.

Q Come down towards— A Pier 5.

Q The dock, is that? What you call the dock on that side? A Yes.

Q And then he would come down that way to Pier No. 4? A Yes, sir.

Q Come west? A Yes, sir.

Q And then he had certain buttons— A He had a button right there by Store A, right between Pier 4, near Store A.

Q Right on Pier 4 near Store A was the place where he would have to push a button? A Yes, sir.

Q That would indicate that he was there at that time? A Yes, sir.

Q A watchman's clock or something, I suppose? A Yes, sir.

Q And how many buttons— A There is one right there at the other corner of the pier, right up just near—right there. (Indicating.)

Q Down near the bottom? A Yes, sir.

Mr. Garrison. Wherever those arrows are with the circle, in the middle, those are time clocks.

Mr. Stallman. I see.

Q And Sloan had to go down and punch those buttons? A Yes, sir.

Q Now, Mr. Kane, was that all of Sloan's beat? A Yes, sir—well, he used to punch a button on Pier 5 there, too.

Q He had also to punch a button on Pier 5? A Pier 5; yes, sir.

Q And that is down on the end of Pier 5? A End of Pier 5.

Q So that, as I understand it, Mr. Sloan's duties were to take care of the boiler, and keep the fire under it; is that the idea? A Yes, sir.

Q What did you use that steam for? A Well, keeping up the fire pump, and steam heat.

Q Have you a steam heating plant in those offices? A Yes, sir.

Q I see. And then he would occasionally go down on Pier 5 and down on Pier 4 and take care of his buttons? A Yes, sir.

Q That was his regular duty. Now, you mentioned who else? A James Kelly.

Q And where was Kelly stationed? A The grain elevator.

Q And is that the building marked "new grain elevator," or, "grain transfer elevator"? A Transfer elevator.

Q Grain transfer elevator? A Yes, sir.

Q Down on the left hand side of the map. That is this building to the west of the storage warehouses; is that right? A East?

Q Toward the left hand? A Oh, yes, yes.

Q That is west, isn't it? A Yes, the west end; that is right.

Q West end. Grain transfer elevator. That is where Kelly was located? A Yes, sir.

Q And what work did Kelly do there? A He was watchman for—he used to punch buttons there, and then punch buttons on the side of Pier 4.

Q He punched buttons at the grain transfer elevator? A Yes, sir.

Q And then he had charge of the west side of Pier 4 and that was his beat, was it, from the corner of Pier 4 around the grain elevator? A Yes, sir.

Q And he was there on duty all night? A Yes, sir.

Q At that point? A Yes, sir.

Q And did he have to take care of any machinery around the grain elevator? A Yes, he used to look at the boiler; take care of the boiler in the elevator.

Q Oh, you have boilers over there, too? A Yes, sir.

Q And he had to fire it and keep steam up? A No, we didn't need no steam; just only keep the fire going.

Q Keep the fire going? A That is all.

Q Now, we have those two gentlemen located. Now, Mr. Garrity was the other one, was he? A Yes, sir.

Q And where was Mr. Garrity's headquarters? A He had from Pier 5 to Pier 7.

Q Pier 5 to Pier 7. Well, now, where was his particular headquarters? Where did he stay most of the time? A Right around Store R.

Q Around Store R. Now, was there anything there in the way of a boiler for him to look after? A Yes, there was a crane there, steam crane.

Q Steam crane? A Yes, sir.

Q And did it have a boiler attached to it? A Yes, sir.

Q And he had to keep the fire going in that? A Yes, sir.

Q Then what else did he have to do? A Punch buttons.

Q Punch buttons on Pier 6? A Yes, sir, all around the warehouses.

Q And on Pier 5? A No, not on Pier 5.

Q Just on Pier 6? A Just on Pier 6, all around the warehouses.

Q Well, which stores? A There is one on Store G.

Q Store G? A Yes.

Q Garrity came up there and punched the button? A Yes, sir.

Q And just where did he go? A Around on the platform side of the stores.

Q What do you call the platform side, the north side? A Yes, sir.

Q Where the tracks are? A Yes, sir.

Q That is the platform side? A Yes, sir.

Q And he walked around those stores? A Yes, sir.

Q And then where? A All the way around, down as far as Store R.

Q Go right down the platform around Store R? A Yes, back to Pier 6.

Q And then back to Pier 6? A Yes.

Q And he had buttons to punch on Pier 6? A Yes, sir.

Q I see. Now, was that all the men you had there? A That was all the men there. James Groat was over around the oil yard.

Q The oil yard is further down to the west of the grain elevator? A Yes, sir.

Q The oil yard does not show on this map at all, does it? A No, sir.

Q The oil yard is about a mile from the north pier, isn't it? A Probably that.

Q Yes. And those where the—that is where this man Groat was located? A Yes, sir.

Q And what was he doing down there? A Punching buttons.

Q He was also a night watchman? A Yes, sir.

Q Now, how often did these men go around and punch the buttons? A Every hour.

Q Once every hour. Now, did you punch any buttons? A No, sir.

Q You didn't do that? A No, sir.

Q And where were your headquarters? A All over the yard.

Q All over the yard? A Yes, sir.

Q You went down occasionally to see what Groat was doing, I suppose? A Yes, sir.

Q Down in the oil yard? A Yes, sir.

Q Then you would drop in on Kelly and Sloan and Garrity, and go back again? A Yes, sir.

Q Now, you had been employed as roundsman there for a number of years, had you? A Yes, sir.

Q About how many? A I was roundsman seven years.

Q Seven years. Seven years before the time of this fire? A Yes, sir.

Q Now, have you given me the names of all the employees of the company in there that night? A Yes, sir.

Q Anybody else there except those you have mentioned? A Well, there was Dougherty's

men; they were watchmen, but not for the Lehigh Valley.

Q And who were they watchmen for? A Dougherty's Detective Agency.

Q For the Dougherty Detective Agency? A Yes, sir.

Q But so far as you were concerned or the Lehigh Valley Railroad, to your knowledge you have mentioned the names of the employees that were there at that time? A Yes, sir.

Q And no one else? A No, sir.

Q Now, did you give these men their instructions each night, what they should do? A Yes, sir.

Q And what were Garrity's duties with reference to the yard, Black Tom Yard? A He travelled around there as often as he possibly could, maybe four or five times during the night, came down to chase anybody he would see loafing around the piers, put them on their boats, or anything like that.

Q Put who on the boats? A If there was any of the captains of the boats, make them get on their boats, keep off the docks.

Q You mean by that that the people from the boats would be found on the dock occasionally? A Well, if they come out there and sat down, why, they would.

Q Yes; you have seen them do that? A Well, no, I never seen them doing it, but if they did.

Q Why did you give them those instructions? A Well, sometimes they come off and take a walk up the line, and came down and sit down.

Q Up what line? A Up to the neighbor—up to the stores.

Q Boatmen, that is? A Yes, sir.

Q And you gave these instructions because you used to see them do that once in a while; is that the idea? A Yes, sir. If they used to go up the street, come down there, why, they would stand talking. We would put them on their boats and chase them off the dock.

Q You mean talking to the watchman? A No, talking to one of the other captains of the other boats.

Q Whereabouts? A That was tied up alongside of the piers.

Q These piers—you are speaking of 5, 6, 7 or North Pier—well, which pier do you mean? A Well, Pier 7, Pier 5, Pier 6, Pier 4; anywheres around there.

Q Anywheres around there? A Anywheres around.

Q And out on the north pier, on the extreme easterly end? A Didn't see nobody down there.

Q Never saw anybody down there. Now, Mr. Kane, during the time that you were down there, those seven years, did you become familiar with the location of any fire apparatus down there? A Yes, sir.

Q And what fire apparatus do you know of on Black Tom at the time of this fire, July 30, 1916? A There was hose carriages, chemical engines.

Q Yes. And can you tell us just where these hose carriages were stationed? Start down towards the west end of the map and tell us if you know. A From Store 3, there was two carriages there.

Q At Store 3? A Yes, sir.

Q At the left hand side of Store 3? A Right there; yes, sir.

Edward Kane, direct.

Q There is a little square marked on the map, marked two hose carts? A Yes, sir.

Q Is that the place where you had two hose carts? A Yes, sir.

Q That is right, is it? All right. Now, where else? A There was two right by the storage office, front of the storage office, National Storage Offices; near Store F, near Store F.

Q Store F. Right near Store F there were two small hose carts? A Yes, sir.

Q And over these oblong marks, marked "hose carts" on the map? A I don't know what they are marked.

Q I don't suppose you can see that far. But were they stationed about half way—right, about the middle of the Store F? A Some place around there.

Q All right. They are marked here, now where else? A Then there was two more by Store M.

Q Two more by Store M, marked on the map "hose carts," two of them; right about the middle of Store M? A Yes, sir.

Q Now, where else? A Chemical engine was Pier 5.

Q And there was a chemical engine down on Pier 5 somewhere? A Yes, sir; right near the—out near the store houses more.

Q Up this way? A Yes, sir.

Q Right behind the time clock office? A Yes, sir.

Q Is that the place? A Yes, sir.

Q I see. That was the list of the fire apparatus that you had there at that time? A Yes, sir.

Q And that is all, isn't it? A I disremember now whether there was one down at Store 7 or not.

Q Don't remember that. Now, was there anything elsewhere in the way of a fire fighting device or apparatus that you know of? A Up through the store houses the American District Telegraph people had their system in there.

Q System of what? A This water sprinkling system.

Q Had water sprinklers in the stores? A Yes, sir.

Q Now, Mr. Kane, what instructions did you have as to what should be done in case of a fire? A Well, call up the Lehigh Valley for locomotives and tugs; call up—

Q Yes. You sent word to the company's office. What else? A Call up the New York Fire Department for the fire tugs.

Q Yes. A And the Standard Oil for their tugs.

Q Yes. A And the Jersey City Fire Department.

Q You would notify the fire department; were they your instructions? A Yes, sir.

Q And then what else? A That was all.

Q That was all? A Call up the agents.

Q What was that? A Call up the agents.

Q Agents of Jersey City? A Officials—call up the officials of the railroad.

Q Yes, I understood. That was your duty in the event of a fire? A Yes, sir.

Q What would you do with these hose carts that you mentioned? A Couple them to the nearest fire plug.

Q Yes. Have any instructions about that? A Yes, sir.

Edward Kane, direct.

Q You say you would couple them to the nearest plug? A Yes, sir.

Q Fire plug? And who would do that? You would do that yourself? A Well, if I got through telephoning in time. Mr. Garrity—

Q If you got through telephoning in time? A Yes, sir.

Q I understand your first duty was to notify the Fire Department and the officials? A Yes.

Q And it would all depend on how long they would take, whether you would have any time to draw the fire apparatus or not? A Well, the captains on the Lehigh Valley Grain Boat would be out.

Q And where were they? A Stationed at the elevator, on the boat.

Q Well, they were not there all the time, were they? A Yes, sir.

By Mr. Stallman. (Continuing.)

Q And you would press those men into service; is that what you mean? A Yes; they were all notified to that effect.

Q And they were on boat, you say, down at this grain elevator? A Yes, sir.

Q And the boat coming in alongside of the south side of this bulkhead that day? A Yes.

Q Lay in there at night? A Yes.

Q I see. Now how many grain elevators or grain boat men were there there on the night of July 28, if you remember, last year? A I couldn't say.

Q Yes, and July 29, do you know? A No, sir.

Q In fact there was never any particular number of men there, was there? A No.

Edward Kane, direct.

Q Constant? A There was in the neighborhood of 200 boats supposed to be around there.

Q Supposed to be? A Yes.

Q Sometimes they were there and sometimes they were not? A Yes, sir.

By the Court.

Q What do you mean by that? They were all sometimes there and sometimes none were there or do you mean that—what? A Some boats would be towed out during the day.

Q What was the smallest number that would ever be there on a night? A Well, about fifty or sixty.

Q That was true always, was it? A Yes, sir.

Q Would be that many? A Yes; that is outside boats and company boats and all.

Q I am speaking about company boats whose captains had been notified to respond in case there was trouble. A There would be about twenty of them—twenty or thirty.

Q Where did you have to go to telephone? A Right in the time clock office.

Q And that is where? A Right opposite Pier 5.

(Mr. Garrison indicates on the map P. 1.)

Q Then in what manner would you notify these captains? A When the whistle would blow in the pump room.

Q Who blew the whistle? A Mr. Sloan.

Q He was whom? A He was one of the watchmen.

Q How would he learn of the fact of a fire? A Well, somebody pulled the bell or the fire alarm signal.

Q Somebody would pull it; who would do it? A Mr. Garrity, if it was on his post; Kelly would pull it if it was over his post.

Q That was your arrangement with either Garrity or Kelly, if they saw a fire they would turn in a fire alarm? A Yes.

Q And that would be indicated somewhere in the pump house where Sloan was working? A Yes.

Q And then Sloan would blow a whistle? A Yes, sir.

Q That was the scheme, general arrangement for a fire alarm, wasn't it? A Yes.

Q Do you remember the night of the explosion, July 30, 1916? A Yes, sir.

Q Yes. Did you hear the whistle blow that night? A I couldn't remember that.

Q Don't remember that? A No.

Q Oh, I wanted to ask you one other question, Mr. Kane, about the fire apparatus there. Was there any fire apparatus or anything of that kind down in the yard, Black Tom Yard? A No, sir.

Q Nothing down there of any kind? A No, sir.

Q No. None of your men had any station or fixed post down there in the yard anywhere, did they? A No, sir.

Q No. And in case of a fire down in the yard what facilities did you have for fighting it? A Nothing, only those hose carriages.

Q Would they reach that far?

The Court. What? How far?

Q Would the hose carriages reach down into the yard, that is, the hose on the hose carriages? A If we coupled them together.

Edward Kane, direct.

Mr. Garrison. That is not intelligible. Of course if you attach it to Jersey City—

Mr. Stallman. All right. We will frame it some other way.

Q Do you know how much hose—how many feet of hose you had on Black Tom? A No, sir, I do not.

Q You don't know that. You know how—

By the Court.

Q How many feet of hose was attached on a carriage. That is what we want to find out. On each carriage? A I should judge about three hundred feet.

By Mr. Stallman.

Q You had six carriages, didn't you? A Yes, sir.

Q So it is reasonable to say that you had about eighteen hundred feet of hose? A Yes, sir.

Q If it was all coupled together you would have a single line of eighteen hundred feet? Is that yes or no? A Yes, sir.

Q I am only asking you that because the stenographer cannot put the nod of your head down on the record. Now what was the size of that hose? A About three and a half inch—three inches.

Q About three inches? A Yes.

Q Three-inch hose? A Yes, about three and a half to three.

Q What was the nearest coupling for your three-inch hose toward the yard? A Right where that big tank is.

Q Right near this big tank? A Yes, sir.

Q You didn't have any hose couplings to the east of that point? A No, sir.

Q Now what were you doing when you first knew there was a fire? A I was between the store—or between Pier 5 and Pier 6 when I found there was a fire.

Q You were between Pier 5 and Pier 6? A Yes.

Q Were you on the platform side or dock side? A On the dock side.

Q Over here on the dock side? A Yes, sir.

Q How did you learn there was a fire? A I heard a man hollering and blowing a whistle.

Q I see. Do you know who that man was? A Well, I knew it to be one of the Dougherty's watchmen.

Q You think it was one of the Dougherty men? A Yes, I knew it.

Q Do you know his name? A Well, I couldn't exactly say his name, no sir.

Q Was he a man that you had seen before? A Yes, sir.

Q Yes. Was he blowing one of these police whistles, was it? A Yes, sir.

Q Now when you learned there was a fire this man came and told you, was that the idea, there was a fire there? A He came running down the pump room and I heard the whistle and I ran back to the pump room.

Q You ran back then along the dock and up between the stores F and G, up to the pump room? A Yes, sir.

Q Where Sloan was? A Yes, and I met the man there.

Q What did he do?

The Court. What did he say?

A He said there was a fire at Pier 7. As I got on the platform of Store G and looked down I could see a small blaze.

Q You got on the platform of Store G? A Yes.

Q That is an elevated platform about as high as a bar floor? A Yes, sir.

Q Out in front of this Store G? A Yes, sir.

Q Then you looked right straight down in front of the stores; is that the idea? A Yes, sir.

Q And looking about—

Mr. Garrison. Of course this is his witness. He ought not to lead the witness. Ask him which way. He didn't say he looked right down in that direction.

The Court. I think I will sustain the objection. It is leading beyond any doubt.

Q Now, Mr. Kane, you say that you looked over in front of Store G. Which way did you look? A Down towards Pier 7.

Q That is towards the east? A Yes.

Q What did you see? A I saw a small flame.

Q Small flame? A Yes, sir.

Q Can you give us some idea of the size of the flame—as big as a flame in a man's hat? A Well, couldn't be much bigger than—well, I should say a barrel.

Q As big around as a barrel, do you mean? A Yes, like a barrel on fire.

Q Like a barrel on fire? A Yes.

Q Do you know just what time that was? A Well, I couldn't exactly—it was around 12:30 or after—a little after 12:30.

Q 12:30 or 12:40? A Something around that time.

Q Something around there. You could see that burning from the point where you stood in front of Store G? A Yes.

Q Now where was the fire, as near as you can tell? A Well, down at the very end—as far as I could see it was at the extreme end of the yard.

Q Did you go any nearer than in front of Store G? A No, sir; I ran to telephone then.

Q Then you ran to telephone? A Yes.

Q Now let's see if I get this straight. When you sa wthe fire you went back to the pump house and then you looked and you saw a fire. Now how long did you stand there looking at it? A Until I just saw the flame, that is all.

Q Just happened to see the flame? A Yes.

Q Then you ran to telephone? A Yes.

Q Where did you go to telephone? A. Into the time clock office right alongside of Store F.

Q That is a little building next to the lower end of the storehouse? A Yes.

Q Nearly opposite Pier 5? A Yes.

Q How long were you telephoning? A Well, I couldn't say.

Q Well, where did you telephone to? A Telephoned to the Lehigh Valley Terminal.

Q In Jersey City? A In Jersey City, yes; and then I called up the fire department, the New York Fire Department for a fire tug and I called up the Standard Oil for their tugs, at Greenpoint.

Q Greenville? A Greenpoint.

Q Greenpoint; that is in Jersey City? A No, sir; it is Long Island.

Q Oh, I know where you mean now. Yes. Then what did you do? A I went out to see if

there was any more—if the locomotives or any of them was coming down.

Q Where did you go to look? A Right there at the crossing between Stores F and G, opposite Stores F and G.

Q Is there a crossing in there somewhere? A Yes.

Q Where does it lead to? A Just to the roadway—the roadway going up there between the tracks.

Q Is this the roadway that is marked in yellow? A No, sir.

Q Marked driveway; is that what you mean? A Yes.

Q Driveway. I see. There is a crossing over the tracks? A Yes.

Q Crossing for wagons? A Yes.

Q You went out on that roadway? A Yes.

Q For what purpose? A To see if there were any of the locomotives or fire departments or anything coming down.

Q And were they? A The locomotives were coming, yes.

Q Any fire departments? A Well, I didn't take much notice of the fire departments coming at that time. Met Mr. Leyden.

Q How long did you stay out there? A I met Mr. Leyden and walked down the line with him.

Q Yes; and then did you notice whether the fire was still burning while you were out there? A Yes.

Q And was it? A Yes, sir.

Q How did it compare in size when you first saw it? A Well, the shells was starting to pop off.

Edward Kane, direct.

Q Now you say when you first noticed the fire it was a small place about the size of a barrel? A Yes.

Q What was it that was burning? A I couldn't say.

Q You know where the cars were down there, don't you? A Yes.

Q Ammunition cars? A Yes.

Q You knew they were there? A Yes, sir.

Q Well now with reference to the ammunition cars, where was this fire? A Well, it was in that direction. I couldn't say whether it was them cars at that time or not.

Q Well, where you saw it, it was where the ammunition cars were? A Yes, down in that direction.

By the Court.

Q Did it appear then to be on the ground, or on the cars? A Well, I couldn't say whether it was on the boat or on a car or on a dock or where.

By Mr. Stallman.

Q You saw it again after you got on the road to look for the fire department? A Yes, sir.

Q And at that time what was burning? A The cars were burning then.

Q Cars; do you know how many? A No, sir.

Q Where was that fire then when the cars were burning with reference to the flames that you first saw? A Well, I couldn't say.

Q Well, what I want to know, was it in the same place or some other place? A Well, it was in the same direction. Of course, I didn't—I wasn't down there at the time.

Q You didn't go any time nearer than Store G? A Yes, sir; I went down with Mr. Leyden, down as far as the store—

Q Who is Mr. Leyden? A That is chief of the Lehigh Valley police.

Q He was killed, wasn't he? A Yes, sir.

Q Where did you go with him? A I went down below Store M.

Q Store M (indicating on map). Out here on the platform or out on the roadway? A Out on the roadway.

Q Then could you see any better as to what was burning? A I could see cars burning then.

Q See the cars, did you? A Yes, sir.

Q How many cars were there? A I couldn't say.

Q More than one? A Yes, sir.

Q More than two? A Well, might be—I couldn't say.

Q Well, can't you give us some idea, Mr. Kane, as to whether it was a great number of cars or a small number of cars that were on fire? A All I could see from where I was is the flames from one car and, of course, the car next to it; that is; that is, about all I could see was the two cars.

Q Yes. You are familiar with the track numbers, aren't you, down there. The farthest track is number 18? A Yes, sir.

Q And then 17, 16, 15, 14 and so on? A Yes, sir.

Q Which is the sea-wall there. Is that the north side or is that somewhere else? A That is the sea-wall running along the north side.

Q That is the sea-wall track, number 18? A Yes, sir.

Edward Kane, direct.

Q Now from where you were standing down in front of Store G and later in front of Store M, can you tell us about on which track it was that you saw the fire of the cars? A No, sir.

Q Couldn't you tell us whether it was on track 18 or track 12? A Well, it was over around 18, but I couldn't say what exact—

Q Or it might have been some other track in that immediate vicinity; is that what you mean? A Yes.

Q But you got close enough so that you could see the flames from one car leap over into another car? A Yes, sir.

Q You saw that perfectly plain? A Yes, sir.

By the Court.

Q How did you and Mr. Leyden part company; where did he go and what did you do? A Mr. Leyden sent me back to tell the locomotive to come down to help him pull out the cars.

Q And he did what? A He stayed down there.

Q All right. A Directed the crew of the cars to take—

Q And you did what he told you to do? A Yes, sir.

By Mr. Stallman.

Q Do you have any supper or lunch in the middle of the night? A Yes, sir.

Q Do you know whether you were eating at the time this fire occurred, or not? A I was just—I was just after eating a piece of cake and walked down the dock.

Q Carrying it with you? A No, sir; I et it in the pump room.

The Court. I guess you carried it with you then. (Laughed.)

Mr. Stallman. A good deal like the school boy who carried the cake while he was walking.

Q Do you know who sent in the fire alarm? A Well, Mr. Sloan told me it was the American District Telegraph people, when I came out to meet him. After telephoning he told me that the American District called up and they notified the police—or the fire department.

Q But what I mean is, do you know who it is that first sent off the word that there was a fire there? A Yes, sir.

Mr. Garrison. To whom?

Mr. Smith. To anybody.

A It was one of the Dougherty's Detective Agency men that notified me.

Q Do you know who turned in the city alarm, if any was turned in? A I think it was the American District.

Q American District? A Yes.

Q Do you mean by that you had some means of notifying the American District Telegraph Company and they in turn would notify the fire department? A I don't know how it was; Mr. Sloan told me it was the American District.

Q That is all you know. All right. Now what did you do, if anything, to put the fire out that you first saw? A I couldn't do nothing. When I came out here the shells was popping and I wouldn't dare go near it.

Q I mean when you first saw the flame about the size of a barrel was anything done to go and put that fire out? A No, sir.

Edward Kane, direct.

Q Nothing was done? (No answer.)

Q Now, when you got up to the pump house and this Dougherty man said there was a fire, who else was there? A Mr. Sloan.

Q The pump man? A Yes, sir.

Q And this Dougherty man and yourself? A Yes.

Q And that was all? A Yes, sir.

Q Did you give Mr. Sloan any instructions about putting the fire out? A No, sir.

Q Did you call any of the men from the boats? A No, sir—well, when I come out after telephoning there was three or four of them around.

Q You saw three or four men there? A Yes.

Q What I was trying to find out was whether any word had been sent down to the boats by you? A No, sir.

Q You did not do that. Well, now, did you stay there any length of time with Mr. Sloan? A No, sir; he got at one telephone and I was on the other telephoning.

Q Were both of these telephones in the same place? A No, sir; one was in the pump house and the other in the time clock office.

Q And you ran down to the time clock office to get a free telephone while he was using the one in the pump house? A Yes, sir.

Q At that time did you see Garrity or Kelly? A I saw Garrity shortly after.

Q After what? A After coming out after telephoning, he come running up.

Q Where was he coming from? A He was coming up from towards Pier 7.

Q Down along the dock, you mean? A No; he come along the front of the storehouses.

Q Oh, coming along the north side? A Yes, sir.

Q Was he on the roadway? A No, sir; he was on the platform.

Q And did you see Kelly? A No, sir.

Q You did not see Kelly at that time? A No, sir.

Q Now, Mr. Kane, did you see the explosion? A No; I did not see it.

Q Where were you when the explosion occurred? A I was standing on the—near the sea-wall track opposite Pier G.

Q On the sea-wall track opposite Store G; is that the idea? A Yes, sir.

Q Out on the last track in front of Store G? A Yes, sir.

Q Where were you looking, in the direction of the fire, at the time? A No; my side was towards it.

Q You side was towards it. Well, were you knocked unconscious or anything of that kind? A All I can remember is I saw a flame and like something hit me in the face like a handful of sand or gravel and I didn't know no more for a couple of minutes.

Q Well, any noise? A I did not hear no noise.

Q You did not hear any noise? Where was this flame that you saw? A Down towards 7 as far as I could see.

Q You know where you saw the fire burning, don't you? A Yes, sir.

Q Where with reference to where you saw the fire burning? A It was such a large flame I could not tell.

Edward Kane, direct.

By the Court.

Q Where were you when you came to after this two minutes? A I was about—I was about opposite Store A in the weeds.

By Mr. Stallman.

Q How did you get there? A I don't know.

Mr. Smith. He flew.

The Court. He blew there apparently.

A I didn't pick no weeds there.

Q Now, what was the last time you were down in the yard or around Pier 7 that night? A I was only after coming up at 12 o'clock.

Q What is that? A I was just after coming up at 12 o'clock.

Q Just before 12 o'clock where had you been? A I was down around Pier 7.

Q Whereabouts on Pier 7? A I was down just right at the bulkhead of the north pier.

Q Down above the float bridges? A Yes, right there.

Q Yes; and then where did you go? A Come right up along the cars.

Q Now which way—along the sea wall? A Yes, sir.

Q You came along there? A Right opposite the cars—right beside the cars, yes, sir.

Q On the north side of the cars? A Yes.

Q On the outside of track 18? A Yes, sir.

Q And where did you go? A Right up to the pump room.

Q You kept right along that side until you got opposite this crossing up here? A Yes.

Q And then down? A Yes, sir.

Q And when you were down there did you see anybody down there excepting yourself? A No, sir.

Q Nobody there ? A No, sir.

Q And when did you go there? A I took a walk all around, all around the whole island.

Q You say you came back from there before twelve o'clock? A Yes, sir.

Q When did you go down there, when did you start down there? A That is something I did not take notice to, what time I started to go down there.

Q When you got there it was nine o'clock, or ten o'clock, or eleven o'clock? A It was about eleven o'clock or a little after.

Q How did you get there; how did you come down? The same way you came over? A No, sir.

Q How did you come? A Come around on the south side of the island.

Q On the outside of those tracks? A Yes.

Q And down to the bulkhead? A Yes, sir. And then up the bulkhead.

Q To where you started back from? A Yes, sir.

Q And you were alone, I suppose? A Yes, sir.

Q Have you a very clear recollection of just what time it was that you were down there? A No, sir. I know I got back at 12 o'clock.

Q Is your recollection clear on that, that you came back at 12 o'clock? A Yes, sir.

Q Do you remember what you did after you came back? A I started to eat a piece of cake.

RECESS.

AFTER RECESS.

EDWARD J. KANE resumes the stand.

Direct examination by Mr. Stallman: (Continued.)

Q Mr. Kane, do you know how many cars of ammunition and explosives were down in the Black Tom Yard the evening of the explosion? A About thirty-two or thirty-three cars.

Q Had you counted them? A Yes, sir.

Q Before the fire? A Yes, sir.

Q Now, you said that you walked from somewhere in the neighborhood of the last lot of stores down to the southerly side of Pier 7, in around the bulkhead, the sea wall, and back again, and in back to the pump house; is that right? A Yes.

Q How long did it take you to make that trip? A About three-quarters of an hour.

Q About a forty-five minute walk around that place, isn't it? A Yes.

Mr. Stallman. You may cross examine.

Cross examination by Mr. Garrison.

Q Mr. Kane, at the time of the first explosion was there anybody in your immediate vicinity? A No, sir, not— (Answer unfinished by the witness.)

Q That is, in your neighborhood— A Oh, at the time of the explosion?

Q Yes. A I was standing near Mr. Dickman, Mr. Julian.

Q Mr. Dickman? A Yes.

Q And who was Mr. Dickman? A He was the agent.

Q Of the Lehigh Valley? A Yes, sir.

Q And Mr. Julian, who is he? A He was the fire chief of the Lehigh Valley.

Q How close were they to you just prior to the first explosion? A Within a few feet.

Mr. Garrison. That is all.

Mr. Stallman. That is all, Mr. Kane.

(Witness excused.)

HERBERT C. ALLEN, a witness sworn on behalf of the plaintiff, testified as follows:

Direct examination by Mr. Stallman.

Q Mr. Allen, are you a member of the Jersey City Police Department? A Yes, sir.

Q Were you on the morning of July 30, 1916? A Where was I?

Q Were you a member of the police force at that time? A I was; yes, sir.

Q Yes. And do you remember the explosion at Black Tom? A Yes, sir.

Q Just at that time or immediately before it where were you? A I was on the rounds of the Seventh Precinct. I was walking west on Sipp Avenue. I got to about five or six foot of the corner of Wilkes street. I met an officer there, and it is our duty to take our time watching—time the officer as we meet him. It was about eight minutes after two when I met the officer.

Q How long after that did the explosion occur? A About a half an hour—about a half a minute after I had met the officer I seen the fire, and about ten seconds after that the report, blew us in the street along with the windows that we stood in front of.

Q What happened to the windows? A They were all blown out.

Q Do you know about how many windows were destroyed right in your vicinity at that time? A Pretty much every window just where we were; in fact, in the entire precinct. I covered the precinct as fast as I could, getting officers to cover the different stores that the plate glass windows were blown from.

Q Well, could you give us any idea how many windows were broken? A In the precinct?

Q Yes, that you saw around there that— A Oh! Pretty much all of them; there was very few that was not broken.

Q How many blocks did you cover that evening? A After the explosion I went from Sipp and Bergen Avenues to Fairmount and Bergen; that is about eight blocks; and then went on Monticello Avenue; from Fairmount Avenue to Jewett Avenue, three blocks; and then jumped to West Side Avenue on an automobile and covered from Jewett Avenue to Montgomery Street, four or five blocks.

Q So that you went possibly seventeen blocks? A Yes, sir.

Q Yes, and in how many of those blocks did you find the plate glass broken? A Well, there was four out of every five windows that was smashed.

Q I see. What kind of a neighborhood is that, as to whether it is built up closely or a lot of vacant lots in that neighborhood? A In the neighborhood that I speak of it is practically the business section of that precinct.

Q It is a built up section? A Yes, sir.

Q Business properties? A Yes, sir; business properties.

Q Now, did you hear anything of the second explosion? A Yes, sir.

Q About how long after the first one? A As near as I could judge it was around twenty minutes after.

Q And did you observe what the effects were of the explosion on any of the windows around where you were at that time? A I was in Monticello Avenue at that time.

Q Yes. Now, did you observe what the effect of the second explosion was, or its force, as compared with the first one? A Why, it practically had no effect. All the damage was done on the first explosion as far as I could see.

Q Well, now, around where you were at that time did you observe what the second explosion did, if anything? A It didn't cause any damage. When I got there the damage was done. But I was on the ground in Monticello Avenue, in that vicinity at the time of the second explosion, but there was no further damage done then.

Q Now, you said the first explosion threw you into the street A Yes, sir.

Q Did you feel any force against your body? A Very much so. I could not stop myself from going from the sidewalk into the car tracks.

Q Well, now, did you feel anything of that kind at the time of the second explosion? A No; I was in the street at the time of the second. The first one appeared to be eight or ten times as strong as the second one. The second one didn't affect us in any way so far as I could see.

Frank Niehaus, direct.

Mr. Stallman. Cross examine.

Mr. Garrison. No questions.

Mr. Stallman. Oh, I forgot one question.

By Mr. Stallman.

Q How far was this place where you were at the time of the first explosion from Black Tom, if you know? A Well, I was right at the corner of the Summit Tube Station, at Sipp and Wilkes Street; I should judge it is about five miles.

Mr. Stallman. That is all.

(Witness excused.)

FRANK NIEHAUS, a witness sworn on behalf of the plaintiff, testified as follows:

Direct examination by Mr. Stallman.

Q You are a member of the Jersey City Police Force? A Yes, sir.

Q And were you on the morning of July 30, 1916, the time of the Black Tom explosion? A Yes, sir.

Q Yes. Where were you at that time? A On Central avenue and Leonard street, on post.

Mr. Smith. On Central avenue and where?

The Witness. And Leonard street.

Q And Leonard street? A Yes.

Q And what part of Jersey City is that? A Why, that is the last part of Jersey City; that is right off from West Hoboken. One side is West Hoboken; the other is Jersey City.

Q Do you know how far that is from Black Tom? A That I couldn't tell you; it must be about seven or eight miles.

Q Did you hear the explosion? A Yes, sir.

Q Do you know what time it was that you heard this explosion? A Oh, it must have been around two o'clock, I believe.

Q Did you notice any effect of the explosion in your territory? A Oh, yes, sir; all the windows blew out; had people running around up there, going mad over it.

Q How many blocks did you notice any windows blown out? A Well, I had nine blocks; mostly all of them were broken.

Q Now, did you hear the second explosion? A Yes, sir.

Q And about how long after the first one was that? A It must have been about twenty minutes to a half hour; something like that.

Q Did you observe what the effects were of the second explosion upon the property in your neighborhood—the neighborhood where you were? A Yes; it was not as strong as the first; it didn't do no damage, the second one; none that I seen of it.

Mr. Stallman. Cross examine.

Mr. Garrison. No questions.

(Witness excused.)

JOHN LASHFORD, a witness sworn on behalf of the plaintiff, testified as follows:

Direct examination by Mr. Stallman.

Q Officer, you are a member of the Jersey City Police Force? A Yes, sir.

Q Were you on the morning of July 30, 1916? A Yes, sir.

Q Do you remember the explosion at Black Tom? A Yes, sir.

John Lashford, cross.

Q Where were you at that time? A Baldwin and Newark avenue; Baldwin and Newark avenue.

Q Baldwin and Newark avenue? A Yes, sir.

Q That is right here at the corner, isn't it? A Yes, sir.

Q Do you recall when it was that the explosion occurred? A Shortly after two o'clock.

Q Yes. Did you hear more than one explosion? A I heard two; about twenty—

Q How long after the first one was the second one? A About twenty minutes.

Q Did you notice any effect of the first explosion on the buildings here on Newark avenue? A Yes, sir.

Q What was it? A Mostly all the store windows from Baldwin to the other end of my post—that was Summit avenue—blew out.

Q Did you notice any effect of the second explosion? A No; I don't remember seeing any windows go out then, or see any damage getting done. It all had been done with the first crash.

Mr. Stallman. Cross examine.

Cross examination by Mr. Garrison.

Q Where were you at the time of the second explosion? A The second explosion I was Oakland and Newark avenue.

Mr. Garrison. That is all.

(Witness excused.)

Joseph Roan, direct.

JOSEPH ROAN, a witness sworn on behalf of the plaintiff, testified as follows:

Direct examination by Mr. Stallman.

Q Officer, you are a member of the Jersey City Police Force? A Yes, sir.

Q And were you on July 30, 1916? A Yes, sir.

Q Where were you about two o'clock in the morning? A Standing in the doorway of 149 Newark avenue.

Q That is— A Between Barrow and Grove streets.

Q Oh, yes. You remember the explosion at Black Tom? A Yes, sir.

Q Do you know when it happened? A I should judge between 2:05 and 2:10.

Q Did you observe any effects of that explosion? A Yes, sir.

Q What did you see or hear? A Why, all the store windows on my post were blowing out.

Q Did you hear the second explosion? A Yes, sir.

Q About how long after the first one? A I should judge twenty or twenty-five minutes.

Q And did you observe any effect of the second explosion? A No, sir.

Q Where were you at the time of the second explosion? A Standing on Barrow street, between Newark and Railroad avenues.

Q Did you hear it? A Yes, sir.

Q Do you know from being there whether anything happened to any of the windows or property at the time that the second explosion occurred? A No, I do not. I went over my post after the first explosion and went to Barrow street, between Railroad and Newark ave-

nues, to telephone to the station to send me help, on the condition of the post, after the first one; so that is where I was standing when the second explosion—at the sigal box.

Q Well, do you know? Do you know whether anything happened at the time of the second explosion? A Not where I was standing; no, sir.

Q You mean nothing happened, or that you don't know? A No, sir.

Q Well, just what do you mean? That is what I am trying to get at? A There was nothing happened where I was standing at the second explosion.

Mr. Stallman. That is all.

Cross examination by Mr. Garrison.

Q How long, officer, did it take you to go over your post? A Fifteen minutes.

Q And what was your post? A From the junction of Railroad and Newark avenues to the centre line of Jersey avenue, between Newark and Railroad.

Q How many blocks was that? A Two blocks and a half.

Mr. Garrison. That is all.

The Court. Officer, you said that all the windows on your post—all the store windows blew out on the first explosion?

The Witness. Yes, sir.

The Court. Did the first explosion do anything else to any property except to blow windows out?

The Witness. Well, that was all was on my post, is stores; it was a business section.

The Court. I say it didn't do any other damage that you saw, but blow out windows?

The Witness. That is all.

The Court. Then there were no windows left to be blown out at the second explosion?

The Witness. No, sir; not at the second.

The Court. All right?

Mr. Garrison. That is all.

(Witness excused.)

JAMES J. LANGDON, a witness sworn on behalf of the plaintiff, testified as follows:

Direct examination by Mr. Stallman.

Q Are you a member of the Jersey City Police Force? Were you a member of the Jersey City Police Force on July 30, 1916? A Yes, sir.

Q Do you remember the Black Tom explosion? A Yes, sir.

Q At that time where were you? A Standing in front of 150 Monticello avenue.

Mr. Smith. 150?

Mr. Stallman. 150 Monticello.

Q And near what other street is that? A That is between Belmont and Astor place.

Q And what time did that explosion occur, if you recall? A 2:05.

Q Did you observe whether that explosion affected the property or windows in your neighborhood? A Yes, sir.

Q How? A Well, it busted all the windows.

Q What kind of buildings are there? A All stores, business stores.

Q Do you remember a second explosion? A Yes, sir.

John H. Robertson, direct.

Q How long after the first one did that occur? A About twenty or twenty-five minutes.

Q Now, did you observe any effect of the second explosion? A Yes, sir.

Q What did you see on the second explosion? A On the second explosion I was standing at the corner of Gardner and Monticello avenues, and right opposite me there was one window blown out.

Q Just one window? A Yes, sir.

Q That was all you saw on that explosion? A Yes, sir.

Q Do you know whether that window had been broken by the first one or not? A No, sir; I do not.

Mr. Garrison. It is leading.

Mr. Stallman. I asked him whether he knew.

The Court. There is no harm done. He says he does not know anything about it.

Q That is all you saw of the second explosion? A Yes, sir.

Mr. Stallman. That is all.

Mr. Garrison. No questions.

(Witness excused.)

JOHN H. ROBERTSON, sworn.

Direct examination by Mr. Stallman.

Q Were you a member of the police force on July 30, 1916? A Yes, sir.

Q Do you remember the Black Tom explosion? A Yes, sir.

Q Where were you at that time? A I was standing the corner of Ege Avenue and Ocean, that is about two miles away from it.

Q Two miles from Black Tom? A About that, yes, sir.

Q About what time did that explosion occur, if you recall? A About 1:10, around that, or 1:08, or 1:09, or 1:10.

Q Do mean that, one o'clock? A I say about around 1:10, about 1:12. I didn't look at the time, but it struck me around about that time, because I had been talking to a man just five minutes previous to that, and I left him about five minutes after one and then I got up to the corner, which was only a block away, so I judge it was around one o'clock.

Q Do you mean one o'clock, or two o'clock? A Two o'clock, I mean. 2:10.

Q Did you observe whether anything happened at the time of the explosion? A Oh, yes; I seen the lot—that is, with regard to glass blowing out.

Q What kind of buildings are they in that part of your beat? A Well, the corner I was standing on there was a one-story building, and the west corner there was a four-story building.

Q What is on the ground floor, stores or dwellings? A Stores on the corner and the rest all occupied by apartments, the whole four stories. The corner building is a store on the first floor.

Q What happened to those properties? A Well, all the glass went out of them at the first explosion.

Q What do you mean by the glass, the windows in the apartment houses? A Yes.

Q Did you hear a second explosion? A On the second?

Q Did you hear the second explosion? A Yes.

Q How long after the first one was it? A I should judge about twenty minutes.

Q Now do you know whether any damage was done at the time of the second explosion? A Not that I could see. I was at Grant Avenue at the second explosion and the only thing I seen then were the people all hollering and crying and running down toward Jackson Avenue to get away from the danger, but for glass or anything else I didn't see any damage done by the second.

Q That is all.

Mr. Garrison. No cross examination.

GEORGE A. DUFFY, sworn.

Direct examination by Mr. Stallman.

Q Officer Duffy were you a member of the police force of Jersey City on July 30, 1916? A Yes.

Q Do you remember the Black Tom explosion? A Yes, sir.

Q Where were you located at that time? A At that time I was located in the second precinct; I was standing on the corner of Grove and Morgan street at the time of the explosion.

Q How far is that from Black Tom, if you know? A Well, the straight distance—direct—Black Tom is directly about opposite Barrow street; that would be about the neighborhood of about, if you go direct out, would be about two miles straight out, if you could go that way, but you would have to go a roundabout way.

Q Did you remark the time of this explosion? A Marked the time down at about 2:10.

Q Did you observe whether the explosion had any effect on the buildings where you were? A Yes, sir.

Q What was it? A About three-quarters of the store windows on Grove Street and in the flat houses were blown out.

Q Did you hear a second explosion? A I did, yes.

Q About how long after the first one? A About twenty-five or twenty-seven minutes or so afterwards.

Q Did you observe whether the second explosion had any effect on these properties? A I couldn't say, no, sir; I didn't—I didn't see anything on the second. It was all done first.

Q You remember the second explosion? A I do, yes.

Mr. Garrison. No questions.

(Witness excused.)

EUGENE J. LYONS, sworn.

Direct examination by Mr. Stallman.

Q Lieutenant, you are a member of the Jersey City Police Force? A Yes, sir.

Q And were in July, 1916? A Yes, sir.

Q Do you remember the Black Tom explosion? A Yes, sir.

Q Where were you at the time? A Top floor of the City Hall, Police Headquarters.

Q Headquarters? A Yes.

Q Do you remember receiving any alarm or notice of that fire that night? A No; only what inquiry I made myself. I heard the shots going off and I made an inquiry of the fifth precinct, and they told me there was a fire at Black Tom and they also told me—

Q Yes. Did you at that time receive the fire alarms at the headquarters? A No, sir.

Q Did not. Were not the fire alarms received at police headquarters at all? A Not that night. Not for that particular fire. There was an alarm received, but it was not for that fire.

Q Well, I mean as a rule, what was the custom about fire alarms? I want to know whether it was a practice for the police department to receive fire alarms?

Mr. Garrison. From whom?

A If a box is pulled we get an alarm from police headquarters, unless there was some—

The Court. I think that is true. And I will sustain the objection to it.

Mr. Stallman. All right. You remember hearing the explosion?

A Yes.

Q Did you remark the time? A 2:10.

Q Did it have any effect on your building? A It blew down the ceiling in one room on the first explosion.

Q Was there another explosion? A Yes.

Q How long after the first one? A Fifteen, eighteen minutes, I should judge.

Q Any effects on the building from the second explosion? A That blew down the ceiling in another room.

Q Do you know whether the first explosion had affected the ceiling in the other room?

Mr. Garrison. I object.

A I don't know.

Q You don't know?

The Court. Do you want the answer stricken out?

Mr. Garrison. No, sir.

Q I guess that is all, Lieutenant.

Mr. Garrison. That is all, Lieutenant, thank you.

(Witness excused.)

EBENEZER W. CLOSTERMAN, sworn.

Direct examination by Mr. Stallman.

Q Lieutenant, were you a member of the Jersey City Police Department on July 30, 1916? A I was.

Q Do you remember the Black Tom explosion? A I do.

Q Before that happened where were you? A I was patrolling the fifth precinct.

Q Just where is that, what part of the city? A That takes in all the territory in Jersey City south of the Newark and New York Railroad.

Q That is the— A That is the Newark and New York branch of the Central Railroad.

Q Of the Central Railroad of New Jersey. Yes. What was the first you knew of any trouble over at Black Tom? A I seen an illumination in the sky in the east. I wondered where the fire was, and I asked Patrolman Ricco when I met him and he said he didn't know, so I went to a signal box at Myrtle and Ocean avenues and telephoned into the fifth precinct and I asked Sergeant Sheehan, who was on duty that evening, where the fire was, or if he had an alarm of fire, and he said no, he had no alarm of fire in, but there was a still alarm from Black Tom and he was about to send the reserve there.

I says, "A still alarm? That is a big fire down there." I told him to have the wagon pick me up at Claremont avenue and I would go down with him, so he did.

Q What time was that? A That was at about one-thirty, may have been a few minutes—

Q Did you look at your watch about that time? A Yes, I looked at my watch about the time I seen the illumination. And through my telling him it was a large fire he had the reserve pick up three officers on the way down, to take down with them.

Q Did you go down to Black Tom? A When the wagon got to Claremont avenue and Ocean I got aboard; I believe that there were six officers in the wagon besides the chauffeur, and I went down with them.

Q When you got down there what did you see? A When I arrived there I placed my men across the island and then looked the fire over—

Q How close did you get to the fire, officer? A I should judge about not much more than four hundred feet away from the fire at the time; I was just abreast of Pier 5.

Q (Mr. Stallman indicates on map.) A Just about there—a little below that driveway going into Pier 5.

Q There is a driveway leads from the main driveway down towards Pier 5, and you were right near that crossing? A I was a little east of that crossing, is where I had my men.

Q A little east of that? A Yes.

Q I see. What did you see was burning when you got there? A There were forty or fifty cars burning—nearer fifty. I should judge about fifty cars burning there, and they were on —as near as I can remember—four tracks.

Q And just where were you standing to make this observation? A When I placed my men across the island there I walked down probably a hundred feet or more nearer the fire, and that is where I made my observation, and I done that to see the necessity of keeping the men I had there from post.

Q Well, now, when you went this hundred feet or more, nearer to the fire, do you mean nearer from the crossing that you have mentioned? A Further down from where I was standing, yes. That is about there. (Mr. Stallman indicating on map.) Probably a little further back than that.

Q Now my pointer is about the middle of that block of store houses? A Yes.

Q Is that where you mean? A That is about where I was, yes.

Q I see. How far then do you think you were from the fire? A I should judge I was at that time about two hundred feet.

Q Do you say you saw these freight cars on fire? A Yes.

Q Now could you tell whether—in what direction they were from you, that is either to your left hand or to your right hand? A Directly in front of me.

Q Yes; but you said there were about four tracks? A Yes. When I spoke of the four tracks, I was on the roadway, and the roadway runs between the center of those tracks.

Q Yes; but the roadway does not continue all the way down into the yard? A No, sir.

Q The roadway seems to stop over here in front of the warehouse? A Yes, sir.

Q Now, I was wondering whether you could identify for us the tracks on which you saw these

cars burning? A They were—the fire was about in front of that, next to the last storehouse there. It was not down to the end—yes, the next one to it. About in front of that is where the fire was that I noticed.

Q You think that is where you saw the fire? A Yes, sir.

Q And you saw these cars burning and you think they were on four different tracks? A Yes, sir.

Q Can you give us any idea of the size of the fire—the size of the flames? A Well, the flame was going up in the air probably—six to ten feet. Shells were shooting in all directions, going clear over the warehouse.

Q Where were shells coming from? A From the cars.

Q Was that before or after the explosion? A Oh, that was long before the explosion, that was—

Q Yes; and did you observe anything in the way of fire apparatus—any fire fighting being done at that time? A Not being done, but when we arrived there was truck 5 was there.

Q Jersey City Fire Department, you mean? A Yes; and engine 10—that is, the company; and 16, I think it is, on Belmont avenue, and 8 engine—8 engine company.

Q Where were you at the time of the explosion? A I was standing on that roadway about the place where I mentioned there. I had placed my men there and then had gone to telephone from that police shed as we call it, notifying the sergeant that I would keep those men from post there, that he should make provisions to have their post covered, that I would keep them there,

there was an all-night fire. After coming back I walked down the bulkhead—

Q Somewhere along here (indicating)? A That's the idea. I came along that shed there. There is a telephone in that shed there.

Q What was known as the time clock office? A Yes; we call it a police shed. That is where the police go in to register.

Q Where did you go from there? A In coming out of there I noticed the bulkhead and I walked down that bulkhead behind stores G to M, all along there, near to the end.

Q Did you go down as far as R? A No; probably there (indicating a point indicated by Mr. Stallman). About there, about in front of the first warehouse there, that is about where I stopped.

Q That is warehouse Q? A I could not tell you the number of it.

Q About where I am pointing? A Yes. In going down there I went down to see what I could see of the fire. As I got there a shrapnel shell broke on Pier 6, that is that pier behind there, and the whistling of the marbles or shrapnel kind of convinced me that I would be foolish to walk down to the end and look around the end of it.

Q You changed your mind about looking around the corner? A Yes; that's the idea. But where I stood there I could see the old yard and I could see over 100 cars in that yard, but there was no fire there at all.

Q Do you mean down here, what is known as the Bowery tracks, the last six tracks? A They all looked to me to be one yard there. I did not observe that space there. It looked to be

all one yard, but you could see fully one hundred cars in there.

Q Just where were you at the time of the explosion? A I was in front of that place where I telephoned first off, just below that driveway on the roadway.

Q On the north side of the stores? A Yes, but further up; right there (indicating point shown by Mr. Stallman); right there; just there about there.

Q About in front of Store H? A Along in there, yes. Below that entrance into Pier 5.

Q Where did that explosion seem to come from from what you could see? A To me—I was looking directly at it at the time—seemed to come out of the centre of the fire.

Q Well, by the centre of the fire—can you make that a little bit more definite, Lieutenant? The centre of what was burning? A Yes, sir.

Q The cars that were burning? A Well, you see I could see the cars that were burning and this column of smoke, or rather a ball of fire, seemed to be pushed up out of the centre of the column of smoke which went up I should judge about 150 feet, showing just half of the ball from the smoke. When it got up about 150 feet then the ball itself left the smoke and went up probably fifty feet further, when it did not bust, it seemed to open up, and then seemed to grasp everything and I guess it was about ten seconds after that that I heard the report. When I say it grasped everything, you could not move; it seemed to hold you; it seemed to take the life out of the air. Then all of a sudden it gave the report and everything began to move—even ourselves.

Q Now I might ask what happened to you? A Well, as I say, I could not move for about ten seconds; then I tried to get out of there and between trying to run and stumble and fall and blow I managed to get about 250 feet away from that before I went down.

Q You say that when you observed this fire cars were burning on four tracks? A Yes; possibly four; it may have been about five tracks.

Q Yes; but I am just fixing that particular situation in your mind; whatever you had in your mind at that time. Now with reference to those four tracks, where would you say that this explosion came from? A Well, it came from back of in front of the fire, but as I am looking at it—

Q Where with reference to the four tracks? A To the centre of the tracks as I say, to the centre of where the fire appeared. Of course I could not tell you whether it was in the centre from me, but I could tell you it was the centre this way.

Q It was the centre— A From the way I was looking.

Q —of the elevation presented to you, but you do not know whether it was in the centre longitudinally or not? A Yes; that's the idea.

Q Yes, I get you and I guess the jury does, too. Now do you recall the second explosion? A I do.

Q Right down there at Black Tom; what was the nature of the second explosion compared with the first one; can you tell us? A Well, I did not see much of the second explosion. I merely heard it. When the second explosion went off I was on that driveway there leading into Pier 5. There was myself, Patrolman

Hamill and a number of firemen; some ambulance surgeons and a Monseigneur was in there digging out a man by the name of Stivers—I think his name was Frederick Stivers, who was on one of the Lehigh Valley barges that had been caught under the wreckage of what was I think it is F, as I say, it might be—the pier just west of the driveway.

(Mr. Stallman indicates on the map.)

A No.

Q Pier 6? A No; Pier 5.

Q This one? A Yes. Now that warehouse just west of that driveway. That explosion blew that over that driveway and it pinned this man Stivel or Stifer underneath it, and we in going in there looking—we heard his groaning and was digging him out at the time of the second explosion. That warehouse at the driveway, the two upper stories had blown off by the first explosion, but the end wall, the west wall, was left standing. Of course the upper two stories were without any support. By that I mean that everything of the upper two stories was pushed off except that west wall and it was right under that wall that we were digging this man Stifel out. When the second explosion went off of course we lost no time trying to get out from underneath that wall where we was cut off by a train of cars that the Lehigh Valley was using there to haul out the loaded cars that were east of the fire. We could not get out of the driveway, so the best we could do was to get under the train of cars, which we did.

Q You say while you were down there, and before this first explosion occurred you saw some Jersey City fire apparatus? A Yes.

Q Will you tell us what you saw of any efforts that were made to put out this fire from the time you got there until the explosion occurred? A None, with the exception of the Jersey City fire department had their lines stretched in there, but I believe they could not get any water to any extent—nothing to get the water up—

Q Did you see any water— A There was no water being played on to it.

Q Did you notice any other fire apparatus other than the Jersey City fire apparatus being used? A I did not. You spoke about that second explosion. I would wish to say that under that wall that second explosion did not even seem to move a brick out there. That is the reason we went back and got that man out.

Q What did you observe, Lieutenant, as to the effect of the first explosion on any of the buildings or the pier, outside of what happened to Stores G and H that you have mentioned? A Well, the separate storehouses as you have them lettered I don't know anything about. All I know is that on that roadway there was two brick storehouses.

Q Let me interrupt you a minute. A Yes.

Q You have told us that you were there, over in here, taking care of some man. A Yes.

Q And as I remember you said that on Store G the west wall was standing but the roof had been blown off? A Yes. When I said that I meant all those storehouses in that lot.

Q In the whole block? A Yes; I call that one storehouse.

Q You call G, H, I, K, L, M one storehouse? A Yes, sir.

Q Now you say the roof was blown off that? A The two upper stories were pushed right off.

Q Did you observe what happened to this block of storehouses P, Q, R? A The same thing, only two more stories—the lower end was blown off, but the upper stories I could see slide back before I started going. They started to go before I did. I suppose possibly because they were nearer, I don't know. But I could see them slide, and I turned and went.

Q Did you observe covered Pier 6? Do you know what happened to that? A Not at that time, I didn't see it; but I have seen since.

Q How long after the explosion? A Well, I was down there I think it was two weeks after with the coroner.

Q And what did you see then? A That was —the roof was crushed in on that end—on Pier 7. I should correct my testimony; I was in there when I went in for the officer Dougherty and seen it then that the roof was crushed in and it was on fire, and there was two boats, a steamship and a schooner, out at the end that was burning at that time.

Q Pier 6? A Yes.

Q On the far end the boats were? A Yes; there was a steamship on the west end, toward you.

Q In the slip here? A Yes. There was a schooner on the lower end of it over in the other slip.

Q Did you have opportunity to observe anything that happened on Pier 7 in the yard? A No, sir; that was as far as we went; we found Dougherty. We found him on that bulkhead about midway between Piers 5 and 6, and that is as far as we went after the explosion.

Q Did you observe anything happen to Pier 5? A That was crushed in.

Q Anything happen to these two stores A to F inclusive? A Merely that storehouse F, that is all I noticed. That was down on top of that police shed as I call it, or patrol shed, and that of warehouse F.

(Mr. Stallman indicates on the map.)

A Yes, sir. That was buried under the debris of warehouse F.

Q Anything happen to Pier 4 that you noticed? A No, sir; I did not see Pier 4 that night.

Q Anything happen to store 3 or the new grain elevator? A That I could not say; I did not notice them things. I did see afterwards that they were blown down, but I did not see them that night.

Q How long afterwards did you notice that? A Oh, that was, as I say, when I was down there with the coroner; that was two weeks or so afterwards. He went down and had me go down to show me what I knew about it.

Mr. Stallman. That is all, Lieutenant.

Cross examination by Mr. Garrison.

Q I understand, Lieutenant, from your direct testimony that you got down there shortly after 1:30, did you? A It was between 1:30 and 1:35 we were down there; yes, sir.

Q And I understand that you had six officers with you? A Well, there were eight of us altogether; there were six officers and the chauffeur. He was an officer also. Of course, I used him there as well.

Q And you brought your wagon down to opposite Pier 5, as I understood it. A That is where the wagon stopped; yes, sir.

Q Now, where did you first go after you got down there with your officers in the wagon? A We got out of the wagon there, and placed two officers—

Q No, where did you first go? Where did you go? A Right as I got off the wagon; right there, as I said, below that driveway. We stopped opposite the driveway and we went down there—the eight of us went down probably fifty feet, probably a little more, away from the wagon.

Q Down towards the east? A Towards the east; yes, sir.

Q That is the first near view you got of the fire, isnt it? A Yes, sir.

Q And that is the nearest you got to the fire on that side of the warehouse, isn't it? A No, sir.

Q How much nearer did you get on this side of the warehouse? A After I had placed the men there I went down probably 100, maybe 150 feet.

Q Down here between— A Down the roadway; yes, sir.

Q Down the roadway, and between this block of houses from G to M? A In front of that block of stores; yes.

Q Is that the nearest you got to that fire on that side, on the north side of the warehouse? A Yes, sir.

Q Now, the fire department was there at that time, wasn't it? A Yes, sir.

Q And were the ambulance surgeons there? A No.

Q Were the Lehigh Valley engines there? A Not when I got there, but they came in afterwards.

Q You are sure of that, are you? A Well, I was just going to make myself right on that. They were not there when I was there. Of course, they could have been in there and drawn something out and came back again; but they were not there when I went there. But they did come in afterwards because they shut us off in there by the train.

Q You don't know where they were when you got there, do you? A No, sir.

Q Now, when you first saw the fire from this position, between the block of stores G to M, I understand your direct testimony to be that it seemed to be the four tracks about opposite or next to the stores where you were, down here (indicating) is that correct? A Yes, sir.

Q And that is storehouse Q. You could not see anything beyond that to the east at all, could you? A Oh, no, smoke—you couldn't see through smoke.

Q Precisely. You could not tell what was burning out here; couldn't tell anything about that, could you? A No, sir.

Q And when this ball of fire, as you described, went up, all you know about it is that it came from somewhere back of this cloud of smoke that was in front of you? A That is what I said.

Q You saw the firemen playing water on this fire, didn't you? A No, I can not say that I did.

Q What? A No; they had a little stream out of their hose, but that was all; it would not reach to it.

Q Well, they did have a stream? A Well, I would not call it a stream—I say a little stream; that is water running out of the nozzle.

Q Do you remember testifying before the coroner's inquest? A Yes, sir.

Q Do you remember being asked this question—

Mr. Stallman. What page is that, Mr. Garrison?

Mr. Garrison. Page 21.

Q (Q) "From the time you got there at 1:40 until you left did you see water being played on the fire?" (A) "Oh, yes; the firemen were playing water on the fire." Do you remember that? A Yes; I said a small stream. If you recollect—

Q No, I don't recollect. I read exactly what you said, and that is what you said. Didn't you say that before the coroner? A I don't recall it.

Q You don't deny it? A (No answer.)

Q You do not deny that that is exactly what you said before the coroner, do you? A Well, I don't recall saying it.

Q You do not deny that that is exactly what you said before the coroner, do you? A I do not recall saying it.

Mr. Garrison. I ask for a categorical answer to that question, if your Honor please.

The Court. I think you may have it answered.

Mr. Garirson. I can not otherwise call the stenographer and contradict this witness unless he will deny that he said it.

The Court. Oh, yes, you can.

Mr. Garrison. All right.

The Court. You can call him if he does not admit it.

Q Do you admit that you said it? Do you admit that you said what I just read to you?

The Witness. Will you kindly read it again?

Q Certainly. (Q) "From the time you got there at 1:40 until you left did you see water being played on the fire?" (A) "Oh, yes; the firemen were playing water on the fire." Do you admit you said that? A I don't recall saying it. I recall saying that they had water—

The Court. The question is do you admit that you said that thing?

The Witness. Well, how can I admit it if I do not recall it?

The Court. Well, if you do not want to admit it you can say you do not admit it. That is one way to answer it.

The Witness. I admit saying that there was water running out of the—

The Court. No. Do you admit saying that thing? That is all.

The Witness. Well, I can not recall saying it. No, I can not recall saying it.

The Court. The question is not do you recall it. Do you admit that you did? If you do not remember whether you did or not say that you won't admit it, or that you will admit it, however, you feel, as

you have a mind to answer it from your own recollection of it. Do you admit that you said it or do you deny that you said it?

The Witness. I admit that I said there was water running out, but not on the fire.

The Court. Do you admit that you said that thing?

The Witness. No, I can not recall saying it was on the fire.

The Court. Well, you do not admit that, do you?

The Witness. No, sir.

The Court. All right.

Q Now, on your direct examination here you stated that the firemen did not get any water. You said they had a line stretched in there but could not get water to any extent. That is what you said on your direct examination? A Yes, sir.

Q How do you know whether they could get water or whether they could not? A I am speaking of what I seen.

Q Exactly. How do you know whether they could get water or whether they could not get it? A Well, I suppose if you want to put it that way, I don't know whether they could get it or not. I know they were not getting it.

Q You don't know whether they could or could not, do you? A I know—

Q Answer my question. As a matter of fact you don't know whether they could get water or whether they could not, do you? A I know—

Q Answer my question. As a matter of fact you don't know whether they could get water

or whether they could not get water, do you? A No; I can not say that I do.

Q Precisely. Now, Lieutenant, where was this man that was covered by the debris from the falling wall of this warehouse at Pier 5? Was he about half way the length of the building, about midway in that building? A Yes, sir.

Q You were in there removing this debris from him, moving him out? A Yes, sir.

Q Did you say he was a Lehigh Valley employee? A Yes, sir.

Q How long were you occupied in that? A Well, that is something I could not speak of, time down there, because it is something—

Q Everybody was pretty well excited, weren't they? A That is the idea. Nobody thought of the time. They were thinking what they could do.

Q I am not trying to pin you down to time. Were you in there when the second explosion occurred? A I was.

Q And who was in there with you at that time? A Patrolman Hammill; there were a number of firemen in there with me, and, as I say, there were three or four ambulance surgeons, and I think it was Mgr. Monitilidino, or Montilodo, whatever you call him, on Montclair Avenue.

Q Now, after that second explosion, Lieutenant, where did you go? A After the second explosion? We left the cars where we were and went back and finished getting this man out, this man Stifer.

Q You said you got under a car here, didn't you? A I did not. I could not get under the car. When I got to the cars I could not get

under. I had to be contented with standing up close to the car, making myself as small as possible, in the hope that if something came down I would not be struck.

Q For the purpose of preventing whatever came down from injuring you? A That is the idea exactly.

Q Then you walked in the passageway between those two blocks or stores? A We all went back and got out the man, Stifer.

Q Now, going back to the first explosion, please, have you told us about when that occurred, so far as you know? A Well, as I said before, I could not tell you anything about time, because we were all too busy. But I understand it was 2:08.

Q Yes, and that was about a half an hour or so after you got down there? You had been there for about half an hour, hadn't you? A I should judge so; yes.

Q Now, I understood you to say that you went down opposite—we will say "I"—that is about the place you indicated when you first got there. Then you went back and went down Pier 5 to the bulkhead and walked along the bulkhead to Q, about? A About down there, yes.

Q And then you came back this way didn't you? (Indicating.) A Yes, sir.

Q 4 and 5,—and clear back to 5? A Yes, sir.

Q And came here on the roadway again? A Yes, sir.

Q And walked down towards the fire? A No, sir.

Q Oh, I thought you said you did? A No, sir.

Q Where were you at the time of that explosion, the first explosion? A Up further about—

Q (Indicating.) A No, no, not so far down. About in front of that second warehouse, I said.

Q This one? A That "H" or "I"; about in there. Of course, as I testified, them different sections I don't know anything about. I am only judging that as one warehouse.

Q I see. But, at any rate, you were somewhere around "H" and "I" and out in the roadway? A About anywhere from 75 to 100 feet; maybe 150 feet east of that driveway.

Q 75 or 100 feet nearer the north pier? A That is the idea; along in there; yes, sir.

Q And along the driveway? A On the roadway.

Q On the roadway? A Yes, sir.

Q Was there anybody as near the fire as you were or nearer? A Well, there was a number of us stood across in there.

Q All up abreast? A All up abreast, yes, sir; that is, the firemen and the police. There were the three policemen. We jumped over across the track. I had three of them across there; that Patrolman Hammill, Patrolman Tillady, and Patrolman Walsh; and I think Chief Gately was there.

Q Chief Gately of the Fire Department? A Yes. And there were several firemen there. I don't recall their names.

Q Now, during the time that you were there from the first moment that you got there until after the first explosion did you see anybody go in nearer to the fire than you went? A Oh, yes.

Q Well, now, whom did you see do that? A The firemen were coming and going.

Q Between you and the fire? A Yes, sir.

Q Between this point where you were and the fire? A Yes, sir.

Q What were they doing? A Well, moving about; that is all I could see them doing.

Q Did you see them have any hose on this lighter down here beyond Pier R, or Storehouse R? A —

Q This lighter marked here? A No, sir; I didn't go down there for fear I would be pierced with shells.

Q Where did you see them have any hose at all? A They had their hose from the hydrant there is front of that driveway; there is one or two hydrants—I think one below and one above that.

Q Out here (indicating)? A Yes, sir.

Q Was their hose long enough to reach down to where you were—to where you saw the fire was? A That is the fire department hose I am talking about.

Q The fire department hose? A Yes, sir.

Q The hose was long enough to reach down? That could have reached down there? A Yes.

Q Now, as I understood, you say somewhere back of this shield of smoke that was between you and the fire there seemed to arise a great ball, you say, of fire, surrounded by smoke; is that correct? A Not just surrounded, but pushed up by smoke.

Q Well, pushed up by smoke? A Yes, sir.

Q And you stood watching this? A Yes, sir.

Q And you saw the roofs of all these buildings here rise up in the air, didn't you? A

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That was not until ten seconds after the ball had happened. It didn't rise up in the air. They just seemed to slide off the top of the buildings.

Q Then the first thing you saw was the ball of fire being pushed up by the smoke? A Yes, sir.

Q That went up about 150 feet? A Yes, sir.

Q And you stood there watching it? A Yes, sir.

Q Is that right? A Yes, sir.

Q Now, during that time nothing happened, as I understand you; is that correct? A I don't know just what you are getting at, Counsellor.

Q I am getting at the truth, sir. A You know when I testified before, Counsellor, I went right through it as I experienced it; and, of course, I told my story. But now in asking me questions you are apt to get a little off here, or little off there, that would not make it appear to be the same.

Q Now, will you please answer my question? The first thing that you observed was this ball of fire being pushed up by the smoke? A Counsellor, what do you mean by the first thing I observed.

Q I am talking about the first thing that you say you observed at the time of this explosion. Weren't you talking about the explosion— A The first thing I seen was the fire when I got there.

Q I am talking about the explosion. A And while watching the fire I seen this ball come up out of the center.

Q Now, we go to the time you are talking about this thing—to the time of this thing of which you are talking. The first thing you saw then was this ball of fire being pushed up by the smoke? A Yes.

Q And that went up about 150 feet as near as you could estimate it? A Yes, sir.

Q Now, up to that time no destructive effect had taken place, as you could see, from the ball of fire being pushed up by the smoke? A No, sir.

Q You say it seemed to leave the smoke and went up about 50 feet further and burst? A Well, it opened, not burst.

Q Well, opened. Now, when it opened what was the first thing that you saw? A Well, the first thing that I saw—I think the first thing I saw was Chief Gately fall alongside of me.

Q Well, you couldn't see Chief Gately fall alongside of you and also see those roofs going off at the same time? A I am looking at Counsel and sitting beside the Judge. I can see both at the same time.

Q The first thing you saw when this thing happened was Chief Gately fall to the ground; is that it? A Yes, sir.

Q What is the next thing you saw? A Then I seen—as I say, I seen two upper stories of the storehouse slide away.

Q Those are the storehouses down here? A Yes, sir.

Q Not the ones nearest you? A Both of them.

Q Oh, all these slid, did they, along here? A Yes, sir; the lower one first, and then this one. It seemed just as if someone was walking along pushing them off this way.

Q This one first, and then this? A Yes.

Mr. Garrison. And by "this" I pointed first from R to M, and next from M to Q. That is for the stenographer.

The Witness. I could not see R.

Q Because that is on the corner from your side? A Yes, sir.

Q But you could see Q? A Yes; I could see the corner of the lower building, but I could not see past that.

Q You saw these as if they were being pushed off, you say? A Yes; just as if someone walked along and just pushed them off.

Q Then what happened? A Well, as I say, it seemed to let go, where after the second we held tight.

Q Where you held while this thing was going up in the air? A No, when it opened.

Q And until it opened you were just natural and free? A Yes.

Q But when it opened this other thing came? A Then it seemed to hold us, yes. Before it opened what my attention was attracted to then was the two brakemen that were on top of the Lehigh Valley trains that were pulling out these cars.

Q Were they nearer to the fire than you? A Yes; they were within probably four or five car lengths of the fire, and I was watching them to see them shot off there by the shells; that is what had my attention until such time as this here ball, as I described, went up in the air.

Q And by the shells you mean the shells that were popping out of the fire all around? A Yes.

Q That had been popping ever since you got there? A Long before I got there.

Q Long before you got there. It was almost like a battle, wasn't it? A Almost.

Q Almost like a battle? A Almost like a battle on a boat, this thing was, going back—well, it put me in mind of what I read when a child, of a naval battle, and the pictures I have seen in the boy history; one train of cars was shooting at the other train.

Q Being responsible for these policemen that you had there you didn't feel that you had any right to take them down any closer to that battle than you did take them; is that right? A Well, I didn't think it was my duty to get any closer. We were not there to fight the fire. We were there to keep people from interfering with the firemen who wanted to fight the fire.

By the Court.

Q While all this was happening did you hear anything?

Mr. Garrison. I was just going to ask the question. Go ahead.

The Court. I have.

By Mr. Garrison.

Q Now when this ball of fire opened did you hear any noise at all? A Well, the shells were going off, making a noise, if that is what you mean.

Q I know that, but did you hear any noise other than the popping of the shells? A From the explosion?

Q Yes. A Not until, as I say, ten seconds after the ball opened.

Q Then what happened with respect to noise? A Well, as I say, everything was held still, quiet, very quiet for about ten seconds; you couldn't move; the life was drawn out of the air, and then everything was let go; we all tried to get away from there.

Q I am asking you about noise? A I turned and started to run—I am getting to the noise, sir—and as I ran the roadbed came up, which darkened everything so that you couldn't see the man running alongside of you, and in running—we were just virtually digging our way out, or I was, and the air seemed to crumple up, make a rumbling noise, just like if you take a piece of stiff paper and rumple it two or three times, and I looked up and I imagined I could touch the sky; to tell you the truth I was running to get from under the sky before it fell down on me. That is what it felt like to me. That is the noise anyway as near as I can describe it. I thought the sky was crumbling up and falling down on me, and I was trying to get from under it.

Q Now Gately had already fallen at the time this big ball of fire opened? A No, I would say the explosion or whatever you call it scientifically let go—it seemed to let go of him.

Q And he fell? A And he fell right in his tracks.

Q Did anyone else in your immediate vicinity fall also like Gately? A Not that I noticed.

Q He was the only one that you observed? A He was the one right along side of me.

Q He was the only one you observed? A Yes.

Q The rest of you kept your feet? A I know I did.

Q The rest of you, as far as you observed, all kept your feet, did you? A As far as I know; yes, sir.

Q Well, don't you know? They were right there, weren't they? You didn't see anybody else fall but Gately? A That is all.

Q As far as you know the others kept their feet? I am not trying to trip you. Isn't that a perfectly proper inference from what you said? A He is the only one I saw fall.

Q So far as you know everybody else you knew in your vicinity did not fall, but stood up? A He was the only one I seen fall.

Q All right, if you choose to have it that way. Where was it that you were engaged in digging out Dougherty or found Dougherty, whatever you said? Where were you then? After I had—

Q No; just where you were, that is what I asked you. Where was this you were hunting for Dougherty? A Where did I find Dougherty?

Q Yes, if you ever found him? A From the appearance on that chart there I would say it was about where it is marked I.

Q Here? A Yes, just about there.

Q About here say on the bulkhead? A Yes, he was within three feet of the warehouse, which is in there.

Q Yes, and with respect to the two explosions, when was it you were back there? A After the second explosion.

Q After the second explosion? A Yes, because we were in it—that is, between the two warehouses at the second explosion.

Q What were you actually doing at the time of the second explosion; were you digging or

lifting or walking or standing or sitting? A We all had—

Q No, no; what were you doing? A I had hold of this big roof that I described in my other testimony, the roof of the—I would judge the roof of the warehouse F.

Q This side? A Yes, sir.

Q Wasn't this side? A No, sir.

Q I see. And when I said it was not this side, I meant G side. A No, sir; that was drawn out on the driveway there.

Q F, you mean, was drawn out into this passageway between the two warehouses? A Yes.

Q That had crushed the pump house and this building next to it? A Well, I don't know to what extent it was crushed, but it was buried under it.

Q Had it fallen off? A Yes.

Q All right. Then you were lifting this—lifting some of this debris off of this man at the time of the second explosion? A Yes; and somebody had just put a joist under the roof, as we had lifted, and the second explosion went off.

Q Did you see any ball of fire or anything that you said— A I didn't see anything of the second explosion at all.

Q You have no idea from which direction it came? A No, sir.

Q Before the first explosion had you observed anything going up in the air excepting the shells that you speak of that were going off all the time, you say? A Nothing but flame and smoke.

Q Smoke. You didn't see anything like fireworks, any colored flames, or anything of that sort like chemicals burning? A No; like you would see from any—anything in the fireworks—

which I class the shells; naturally the powder would make a little train to each shell that went up, if that is what you mean.

Q I don't mean anything; I am asking you. I want to know whether you saw anything until you saw this ball of fire, whether you saw anything unusual going up in the air, as the result of that fire? A I wouldn't consider that unusual to see, as I would take it to be flakes of the powder dropping from the flying shells.

Q You didn't see anything that resembled this ball of fire until you saw this ball of fire itself; is that correct? A No, positively not.

Q So the very minute you saw that you realized something was going to happen? A No, I didn't.

Q You knew it was something different from what had happened up to that time? A Yes, sir.

Q Didn't occur to you that there was going to be an explosion? A No, sir.

Q There was reason to suspect an explosion until after you— A No, sir.

Q Didn't even know these cars had explosives in them, did you? A No, sir.

Q No one mentioned that? A No, sir.

Q Where did you suppose the shells came from? A From the cars.

Q Then you knew they had some kind of explosives down there, didn't you? A Well, when you mention explosives—I had reference to the explosion. Of course, a shell—that is—

Q It was some kind of explosives down there, if these shells were going off? A That was explosives, if you wish to class that so, but I didn't know there was anything stronger than them there.

Q When was it this shell went over your head or went near you and hit on Pier 6? What stage of these proceedings was that? A That was—I would judge—let's see now.

Q It was before the first explosion? A Yes, I should judge it was about 1:45 or 50.

Q That is all I want to know. You had heard shrapnel rattling around before that, hadn't you? A Well, it wasn't just shrapnel. To tell you the truth I didn't know what shrapnel was until that day.

Q I mean what you called marbles or something, you had heard the effect of some kind of shot rattling around before that? A Yes; we had to step back several times on the roadway there to get out of the range of it.

Q Precisely. None of these things hit you actually, did they, officer? A No. When I answered that question no, I suppose I should say I cannot say, because I was cut in the knee—I had an abrasion of one of my legs and how I got it I don't know.

Q Now, is your memory clear as to whether when you first got down to the Black Tom Yard you saw any Lehigh Valley men there or any of these engineers or trainmen with their engines? A The only men I could say were Lehigh Valley men were the two brakemen and those that were in the engine.

Q Well, were they there when you got there? Did you see them when you got there? A Not when I first got there.

Q Sure of that? A I didn't see them when I first got there.

Q I say are you sure that when you first got there you did not see the two trains or two engines that I spoke of? A Yes.

Q Sure of that? A Yes, sir.

Q Did you before the coroner testify as follows—I am reading from page 20, Mr. Smith: "When you got down there, Lieutenant, did you see anybody there except the police and the Jersey City firemen? A Oh, yes; there were some railroad men there. There were two trains. Q Yes. A There were two trains, or, rather, there were two engines there, and each engine had a train of possibly thirty cars, maybe more, forty cars, possibly. Q Pulling them out of the yard? A Hooked to other cars, drawing them away from the fire." Did you so testify before the coroner? A Well, the first I see of the train—

Q Oh, no. If your Honor please, will you instruct the witness.

The Court. Just answer whether you so testified or not.

Q Just answer whether— A You see, Judge, the way it was, I told him—

The Court. Well, he doesn't want to know the way it was. What he wants to know is what it was you said when you were trying to tell the way it was before.

A That is almost a year ago and my memory was fresh.

Mr. Garrison. If your Honor please.

The Court. Did you say it or didn't you? That is what we want to find out—before the coroner.

A Well, if it is there I must have testified to it.

Q Now, then, when you first saw these two trains were they going towards the fire or going away from the fire? A When I first saw those

trains I was coming out of the driveway and telephoning and they were backing in at the time. I just got across before they backed in.

Q They were backing in towards the fire? A Towards the fire, yes.

Q Do you know how near the tail end of their train got to the fire, from where you saw the fire? A I couldn't say that.

Q Where were the two cars that you spoke of, on top of which the brakemen were standing that you expected to be—to have something happen to them at the time this ball of fire went by it in the air? A There was a train on each side of the driveway, or, rather, you might say one on each side of where I stood. I stood on the driveway.

Q You stood about here, and there was a train on each side? A Yes.

Q About where were the brakemen between you and the fire? A They had about twenty possibly thirty cars on that train and they were about the third or fourth one from the end of the train on top of the cars.

Q Very close to the fire? A Oh, yes; I would judge they were about six or seven cars below where I stood.

Q Yes; and you were very much perturbed as to what would happen to them, weren't you? A Oh, no.

Q Well, interested? I don't care— A I was watching them so in case anything did happen we would take a chance in getting them out.

Q You knew that was going to happen there from this ball of fire that was going up in the air? A No sir, from the shells. That is what I was watching. After the ball of fire went up

I didn't see them until I seen one of them coming out when I went in to get my cap, and then I met one coming out and he was bleeding from the nose.

Q Do you know his name? A Their names were Walsh, both of them, and which one of the two I couldn't say.

Q One of the Walshes? A Yes.

Q Where was it you met him then? A Just below that driveway.

Q Below Pier 5? A No.

Q East of Pier 5? A Yes. That is where I stopped and I was picking up the hats as he ran by there and told me to get his brother out, and I went down a ways looking for his brother and I didn't see him and I went back and got the hats and I met my own team coming out.

Q Coming back from the fire? A Coming back from down to the fire. They had got out. This man Walsh was the last man I saw out. He had got about two hundred feet west of the driveway leading west of the piers when I went down and had to roll underneath five truck to get out of the way of the tender of I think it is 16, maybe 19 engine, on Belmont avenue, and by the time I got out from underneath that truck, that engine—or that tender was stopped in front of me, and by the time they got them away and I got out from underneath that truck and had got about fifty feet, everything cleared up just like that—cleared clear.

Q As I understand it, as to this first explosion, you sort of staggered back and when you came to this truck was coming down on top of you; is that right? A No.

Q I mean coming towards you? A No, just opposite. It was following me out. As I got under it the horses were running away and coming up the roadway behind me.

Q Running towards the city? A Yes; it didn't give me an opportunity to get up, so I rolled out of the way of them.

Q They were running up towards the city? A Yes, sir.

Q About how far from this driveway here was this when you and the truck got into this position? A I would judge it was about two hundred feet up from that driveway.

Q And that was right after you came out from under or close to this truck that you saw this Walsh boy going back towards the fire? A No, sir; he was coming out from the fire. After I got out from underneath the truck and got back about fifty feet it cleared and then I went back to the driveway and gathered the hats and caps, and this Walsh boy came out from the fire.

Q Came from the fire? A Came from the fire, going out.

Q You don't know whether he was Conductor Walsh or Trainman Walsh, do you? You don't know which one of those two Walsh boys it was? A No, sir, I do not.

Q He was hunting for his brother? A No, sir; he was running out from the fire and he asked me to hunt for his brother.

Re-direct examination by Mr. Stallman.

Q Lieutenant, you told Mr. Garrison you could not testify as to whether the firemen could get water or not. Just what did you see them do?

Mr. Garrison. I object, if your Honor please. He interrogated him in respect to this on direct examination. I didn't introduce any new matter. He asked him whatever he wanted to ask him about firemen and water, it seems to me.

The Court. I think I will permit this statement. If it is any new matter I will permit you to cross examine upon it when he is through.

Q Just what did you see? A I didn't see them do anything outside of walking around there. There was a little water running out of the hose, as I say, when I went over to telephone to the Fifth Precinct, I see Chief Gately there and I heard him complaining to his chief about not being able to get water—

Mr. Garrison. I object.

The Court. The objection is sustained. The answer will be stricken out as far as it refers to what he heard him say.

Mr. Stallman. That is perfectly proper.

The Court. I am glad you approve of the ruling.

Mr. Stallman. I mean the Court's ruling, not what the witness said.

Q What I was getting at, whether or not you saw any water being played on these flames? A I didn't see any water strike the flames.

Q You saw water coming out of the hose nozzle— A End of the nozzle.

Q Did you? A Yes.

Q How long a stream was it from the end of the nozzle? A Well, I shouldn't say it

would go probably four or five feet, ten feet, something like that.

Q That is all.

By Mr. Garrison.

Q What was the hose attached to out of which that water was coming? A That I couldn't say.

Q That is all.

(Witness excused.) Supp. 104, 105 or 108.

JOHN J. HOGAN, sworn.

Direct examination by Mr. Stallman.

Q Lieutenant, you are a member of the Jersey City Fire Department? A Yes.

Q Were you on July 30, 1916? A Yes.

Q What company were you attached to? A Engine company No. 8.

Q Where are your headquarters? A Ege Avenue near Ocean, Jersey City.

Q Ege Avenue and what? A Near Ocean Avenue.

Q Did you get an alarm of fire at Black Tom that morning? A We received a telephone message from headquarters to respond with our apparatus to Black Tom.

Q A telephone message? A Yes, sir; from Fire Headquarters.

Q Was that the usual way to put in a fire alarm or not? A We have a telegraph system or telephone or either verbal sometimes—a still alarm. Somebody will come there and notify the company that there is a fire.

Q What time was it that you got this message? A About one o'clock.

Q And what did you do? A I responded with my apparatus as I was directed to Black Tom.

Q Were you in charge of that company? A At that time, yes sir.

Q What route did you take to get down to Black Tom? A Went along Ocean Avenue and down Claremont, over through Caven Point Road and in through the Standard Oil Company's yard.

Q What time did it take you to get down to Black Tom from the time you first got the alarm? A Well, I should judge about fifteen minutes. We had to pick our way down there over the roads—the roads aren't very good and over the crossing at Claremont Avenue there we have to pull up there because the trains go through there pretty lively and we went very easily; but I should judge about fifteen minutes.

Q What crossing are you now referring to? A Claremont Avenue at the Central Railroad.

Q Central Railroad crossing? A Yes, sir.

Q Now do you know whether you were the first apparatus to get there or not? A Yes.

Q Do you remember the driveway that runs down between the two sets of tracks—the Black Tom driveway? A We went right down the driveway, yes, sir.

Q What was the condition of that driveway? A Do you mean in regards to the road?

Q Yes. A The road was very good in there.

Q Good road? A Yes.

Q How far down that driveway did you take your apparatus? A Right down as far as between the two storehouses—two sets of storehouses there at the crossing.

Q There are three sets of storehouses. Just which two do you refer to? Here is one set. A It is between the first set of storehouses from the bulkhead section down—between that and the next storehouse.

Q Now here is the first set, from A to F; the second from G to M; and the third from M to R. When you say between the first two storehouses do you mean in here between F and G or between M and N? Was it opposite pier 5 or opposite pier 6? A Opposite pier 5.

Q You got your apparatus down about that far; is that right. A Yes, sir.

Q Now did you personally go any nearer to the fire than that point? A No, sir; no, sir; that is as far as I got with the apparatus.

Q Why didn't you go any further down? A Well, when I got down that far I see what I had to contend with, so I thought I was the only company that was going in there. Generally on a telephone call there is only one company and the officer that goes in there if he has more than he can contend with, he generally notifies headquarters or sends in the alarm. I immediately notified headquarters of the conditions and they telephoned back that the other companies were on their way.

Q All right. Now when you got there what did you see in the way of a fire? A I see a number of freight cars on fire with the explosions of all kinds of munitions going in every direction.

Q About how many cars were there burning? A I should judge when we got there there was several of them—seven or eight it looked to me, all on fire, all in a (witness gesticulates).

Q Could you tell us just where those cars were? A They were at the end of the next row of storehouses.

Q For instance, here is warehouse R. Now which way from that was the fire as near as you could tell? A They were about very near on the line or about 100 feet—about the end of that last storehouse.

Q Well now, there is the last storehouse. Here is the driveway. Now I will put my pointer on a line with that last storehouse and even with the driveway. A Yes, sir.

Q Now which way from that point was the fire? A It was south—south on the driveway.

Q Down this way somewhere? That way? A Yes; between the storehouse and the driveway.

Q Between the storehouse and the driveway? A Yes; about on a line with that last storehouse.

Q About in there? A Yes.

Q You think that is about where you saw the fire? A With that last storehouse, it may be —no, back a little further I should judge.

Q Now, back; do you mean toward my right hand? A No, sir.

Q Toward my left hand? A Not so far. In along in there.

Q You think that is where you saw the cars burning? A Yes, sir.

Mr. Garrison. I would like to have that marked if your Honor please.

The Court. That may be marked to indicate the place he pointed out.

Mr. Stallman. I had my pointer about in here.

The Court. Let's identify it again and keep the pointer there until you get the mark.

Q Come down here, Lieutenant, and you do the marking. A I would rather look.

Q This is pier 6. That is pier 5. Is there anything on there that you would like to have us tell you? A About four or five hundred feet from the warehouse.

Q Let me explain to you, Officer. A while ago you had the fire opposite this end of the warehouse.

Mr. Garrison. That is not an explanation.

Mr. Stallman. I do not want to have the man confused.

Mr. Garrison. I do not want to confuse him, but that is not an explanation—where he had the fire.

Q This map is on a scale of three hundred feet to a foot; 25 feet to an inch; 300 feet would be 12 inches. A This is about where the fire was (indicating).

Q This is a structural tank. A Yes.

Q Does that help you any? A tank up on a high post; you know that, don't you? A Yes.

Q Now that is the structural tank right there, a water tank. A This is where it was.

Q Now mark an X where you think you saw the fire. A Where is the roadway?

Q There is the driveway in between the tracks, up in there. A The fire was in through here.

Q Just mark something there with a pencil. Mark it about the size of a nickel, a five-cent piece, just a circular mark of some kind. Your

name is Hogan, isn't it? I will put an H in there.

Mr. Stallman. Now, gentlemen of the jury, you want to know where that mark is made. It is a light lead pencil but that is where it is (indicating).

Q You say then, Lieutenant, that there were seven or eight cars burning in there? A It looked to me to be about seven or eight freight cars afire.

Q Now can you give the jury any idea about how fierce the fire was burning—how much of a fire it was? A Well, there was a pretty good bulk of fire when we got there, and shrap—ammunition and shells were going in every direction.

Q How about flame; any flame there? A Yes; there was flame, but it was not very high. It was just going along over the—it was more from the freight cars, just the car itself; it was not a very large—

Q You mean the burning of the wood of the car? A It wasn't very high—yes, sir.

Q Then as you saw those things burn what did you do? A I went in and went to notify headquarters—

Q Oh, yes; you told us you asked for more apparatus. Then what did you do? A I was told that those apparatus were coming in and when I came out I met Chief Gately just rolling in in his automobile, and I told him what I had done, and he said—

Mr. Garrison. Don't tell what he said.

Q Just what did you do? A I done just what I was told by Chief Gately.

Q And what was it? A He told me to line in. He said "Don't stand here; we have got to get a line in."

Q By line do you mean hose? A Line of hose, yes. So I told my men to pull the hose off the tender, that we could not drive down there. We could not get down there with the horses; the horses would not go down. We had a spirited team there. I said "We will have to pull the hose off and line in." I said "Wait till I try a hydrant and see if we have got the water here." So I went and opened the hydrant and I notified the Chief. I said "There is no water here, Chief"—

Mr. Garrison. Don't tell what you told the Chief.

Q You say you opened the hydrant and found no water? A Yes, sir.

Q Where was the hydrant? A On that roadway just outside on the roadway running in to the pumphouse.

Q Could you come down here and show us where that hydrant was if it shows on the map? Here is the pumphouse marked "Pump." A Here is one hydrant here, and another hydrant right on the corner here.

Q Now this hydrant on the corner is a single hydrant? A Yes; a single hydrant; a single city hydrant.

Q It only has one nozzle shown. That means a single hydrant, doesn't it, according to your recollection? A That is a single hydrant.

Q Right on the northeast corner then of storehouse F there is a single 2½ inch—what kind of water? A Fresh water; city hydrant.

Q Is that the one that you coupled to? A No, sir; we tried the high pressure hydrant.

Q You tried the high pressure, and is that about where this blue circle is with the legend "6 inch D hydrant"? A Exactly, yes.

Q Is that what you coupled to? A I tried that, and there was no water. That is the one I was going to couple to.

Q Now you coupled onto it?

Mr. Garrison. He did not say so.

A I did not couple.

Q How did you determine whether there was water there or not? A Tried the hydrant, opened it up, and when the—it is a three-way hydrant there. There is three valves. I went to the apparatus and got a monkey wrench and opened those valves, I opened the main valve and the other three small valves to see if there was any water in there, and there was not a drop of water in the hydrant. The chief then told me to go down the line and try the rest of them.

Q Where did you go? A I went down and tried a couple more, and there was no water at all.

Q You went then toward the west? A I went toward the west and toward—back toward Caven Point—toward the oil yard at least.

Q Now after you tried this hydrant which is marked here "6-inch D hydrant," now can you point to the next one that you tried? A Here (indicating).

Q You think you tried the one on the line between stores C and D? A Yes.

Q About on the line on the platform side? A Yes.

Q What kind of a hydrant was that? A That was the same kind, a Corey high pressure hydrant.

Q Do you know whether that was a city line or a private line? A That was a Lehigh Valley line.

Q And what did you do there? A I done the same as I done with this one, opened that up.

Q And what did you get? A No water.

Q Then what did you do? Where did you go? A I got orders from the chief, he said "Go down—go on down the line."

Q After you tried out this second hydrant then where did you go? A I went back and reported to the chief there was no water—

Mr. Garrison. I object to that.

The Court. I sustain the objection.

Q What did you do? A I went back to my apparatus again.

Q Now, did you couple up or try any other hydrants? A I tried a fresh water hydrant.

Q Where? A This hydrant here (indicating).

Q Is that a double hydrant? A No; that was a single 2½-inch city hydrant.

Q Do you know whether that was in front of store E or the one on the northeast corner of store F? A About between these two high pressure hydrants.

Q You tried a fresh water hydrant then somewhere in the vicinity of storehouse D or store E, to the best of your recollection as to its location? A Yes, sir.

Q And what was the size of that hydrant? A That was a two and a half-inch outlet.

Q Do you know whether that was a city hydrant or private hydrant? A No; a city hydrant; fresh water hydrant.

Q What was the result of your test there? A Very poor pressure there.

Q Did you get any water? A It just fell out of the hydrant. I should judge about fifteen to twenty-pound pressure on the hydrant.

Q Go back to the stand. Did you personally try any more hydrants then? A No, sir.

Q You did not. Now while you were trying these hydrants trying to get water, was that before or after the explosion? A That was before the explosion.

Q Did you see the explosion? A Yes, sir.

Q Where were you at the time the explosion occurred? A I was standing in the middle of the roadway about around that pumphouse there, in that runway going through the pumphouse.

Q That is about opposite pier 5? A Yes, sir.

Q Now at the time of the explosion how was the fire compared to what it was when you first got there? A Well, it kept spreading all the time and getting larger, and—

Q What did you see of the explosion? A I stood there and see a Valley locomotive back down and heard some yard man give orders to the engineer to back down and see if he could make such and such a track—I do not remember the number—and give another pull there. They backed down and made a connection there, and they started and that is as far as they got. I see a flare and it seemed to be out of the ordinary and I turned my

head, and as I did, why, I heard the explosion and it blew—

Q Now what did you hear? A I heard a dull rumble, just as though the roof had blown over your head or ready to come down. I remember my fire helmet went off and it blew me, and I fell down, and I remained in that position for I should judge a minute or two before I got up.

Q Now where did that explosion come from? A It came from about the center of those cars on fire.

Q Which cars? A The cars along the roadway there.

Q Now you have shown us on this map—you have made a mark where you first saw the fire—now where with reference to that point was it that the explosion occurred? A Between the center—about in the center of that roadway—a little more to the right—more to the right of the center of the roadway.

Q Well, how near to the point where you made that mark where you first saw the fire? A It was about in that same position there.

Q About in the same position as where you made that circle? A Yes, sir.

Q The place where you saw the explosion come from? A Yes, sir.

Q Is that right? A Yes, sir.

Q I just want the fact as you recall it. A That is about—from my idea of that map there—because I was looking just to my left—or to my right, down at the roadway, and I seen this extra flare, and it seemed to be out of the ordinary, and I turned my head away from it; I was watching them pulling on these cars.

Q Now, at the time you got there did you observe any other apparatus being used— A No, sir.

Q Any of the Lehigh Valley apparatus or anybody else's fire carts? A I saw the hydrant there—only I seen there was a reel of the Valley hose, a hose reel there, at the corner with the fresh water hydrant, on the corner there, and the hydrant—the hose wasn't connected; it simply laid there with a wrench.

Q Laid where? A The wrench laid on the ground, and the hose was right in front of the hydrant, no connection or anything done with it.

Q How much hose was lying there? A Well, it was on a hose reel.

Q It was on a hose reel? A One of their hose reels was pulled to that hydrant, but they never bothered with it; that is about as far as they got with it.

Q You mean by that that it was still wound up on the reel? A Yes, sir.

Q Now, just where was that reel? A That was right at that roadway of the pumphouse.

Q Pumphouse roadway opposite Pier 5? A Yes, sir.

Q And could you tell the size of the hose on that reel? A It is the regulation, 2½ inch.

Q 2½ inch? A Yes, sir.

Q And about how much hose was on that reel, if you know? A Well, that I could not say; maybe two or three hundred feet, maybe.

Q Was there anybody there, any persons there using any of that apparatus? A No, sir; I only see one man who testified here. He was at the telephone when I went in to telephone. He was calling for to send two locomotives, or send out some locomotives to get the cars out.

Q And who was that man? A Mr. Kane.

Q The man who was on the stand this morning? A Yes, sir.

Q He was the only man that you saw there? A Yes, sir. When we go in there we generally look for—we generally have men around there to direct us, but this particular night they all were going up the road while we were going down.

Q In what direction were they going? A They were going towards the oil yard.

Q Towards Caven Point? A Yes, sir.

Q How many men did you see going up that way? A Well, there was quite a number going up that way. I don't know where they come from; but they were going up that Black Tom Road from the Island.

Q Now, did you finally get water on to the flames? A Not until after the explosion. We made a connection with one of those fresh water hydrants there, in trying to head the fire off after the explosion from that other set of warehouses, until the fireboat came there. The Chief had telephoned for a fireboat in the meantime.

Q No, I mean your fire apparatus, the Jersey City fire apparatus. Did you get water there finally? A We got a line from that fresh water hydrant.

Q Where is that? A That hydrant that I pointed out.

Q That is the one that you previously tried and got no pressure from? A Yes, sir.

Q You finally got pressure there? A No, sir.

Q Where did you finally get water from? A That was from the hydrant, and we took what water we could get from that hydrant.

Q Well, did you at any time get enough water there to be of any avail in putting out any fire?

Mr. Garrison. This is rather leading.

A No, sir, not to extinguish any fire.

The Court. I think I will permit that question.

The Witness. Not at that time.

Q Well, when did you get water there? A When the New York fireboat came there and stretched us in a four inch line through one of the storehouses—them upper storehouses. We put a line in from there and put on a three-way header there, and we got three lines from the New York fireboat.

Q That water came from where? A From the river.

Q From the Bay? A Yes, sir.

Q And the fireboat lying in here—in which of these slips? A I can tell you. (Witness leaves the stand to indicate upon the map P. 1) Between these two.

Q The fireboat lay in the slip between piers 4 and 5? A Yes.

Q And then you took a line from the fireboat and played it on those stores? A Right through the stores, one on the outside, and ran our lines—came out here on the platform, and then run our lines from the three way connection, and between these. Here is where we were.

Q Pointing to Store F? A This fire was down in the storehouse, and we bucked the fire there and tried to save it from F, these other stores.

Q Tried to save the block between A and B? A Yes, sir.

Q And that was about how long after the explosion? A I should judge about—I got that line on about half past three or four o'clock in the morning.

Recess to Thursday, December 13, 1917, at ten a. m.

JOHN J. HOGAN resumes.

Cross examination by Mr. Garrison.

Q You were connected with what engine company, Lieutenant? A No. 8.

Q What did your apparatus consist of? A A fire engine and tender.

Q And is the tender the thing that carries the hose? A Yes.

Q How much hose did you have? A A thousand feet of 2½-inch hose.

Q And what character of fire engine did you have? A Second size—a regular La-France—rebuilt.

Q What?

(Answer repeated.)

Q How did that engine work? What was the manner of operating it? A They were connected to a hydrant.

Q I am not asking you that night. I want to know just generally how your fire engine worked. What was the method of working it? A The condition of the engine?

Q No; how did it work? When you wanted to put it into operation what did you do? A I am not the engineer; I am a lieutenant.

Q I don't mean that, but neither the jury nor I, I assume, the jury don't know any more

than I—how does it work? A You can either take suction or either can connect it to a hydrant.

Q And when you pump, whether by suction or from a hydrant, what does the engine do; does it act as a pump? A Yes; conveys the water to the fire.

Q How much pressure does your engine develop? A It varies.

Q I mean generally. A Well, the steam pressure you are alluding to I presume?

Q Whatever pressure it produces to throw the water. A 120 pounds.

Q How much pressure is there generally in the Jersey City pipe system—its own fire pipes? A Well, in different localities it varies.

Q Well, give me the limits. A From 30 to 60 pounds.

Q That is to say there is that much pressure when you turn on a hydrant without putting any additional pressure on it from the engine; is that correct? A That is in certain parts of the city.

Q But I thought in those limits you had given me all of the city. I asked you for the limits that would cover all the city. A All the city?

Q I want you to tell me the limits that will cover all the city; the lowest and the highest, so that we will have all parts of the city. A I have seen it in some parts as low as 10 or 15 pounds.

Q And some parts as high as what? A As sixty pounds.

Q So that you have to look out for those conditions when you get to a fire. You never

know whether you are going to get 15 pounds or 60, do you? A No, sir.

Q How many men were in your company that night? A Seven.

Q Including yourself or outside of yourself? A Including myself.

Q This other hose that you said you saw down there right by a hydrant was the same general kind of hose as your hose, wasn't it—same size and everything? A The same size, yes.

Q It could have been coupled onto your hose; the two pieces could have been secured together? A Yes, sir.

Q When you first got there I understood you to say on your direct testimony yesterday you and the apparatus got down first as far as pier 5; is that correct? A At the roadway.

Q That roadway between F and G? A Yes, sir.

Q And you did not go down any further than that because the horses would not go because of the falling shells, the projectiles, you say? A We got just a little bit below that and we started to line in there and then pulled out the hose.

Q When you got a little below G you said the horses would not go any further on account of the falling projectiles, didn't you? A Yes, sir.

Q Where did you put the horses as a matter of fact; did you put them in the roadway or take them in between the warehorses? A Kept them right out in the roadway.

Q And the shells were falling all around here, were they—the shrapnel? A In all directions, yes, sir.

Q Now then, when you first got there about how many cars did you say you saw on fire? A Along the road there was about—I could not exactly say—about several cars.

Q You said seven, didn't you? A Yes, sir.

Q Did you see anything beyond the smoke and the fire produced by those seven cars? Could you see anything out toward the north pier, beyond the fire? A Only freight cars, that's all—a number of freight cars in beyond where the fire was.

Q Could you see beyond the fire; could you see right through the fire and beyond it what was going on beyond the fire that you first saw? A No, sir.

Q No. So your vision was stopped by the fire, wasn't it? Your ability to see was stopped by the fire; you could not see through the fire and beyond it? A Only the freight cars. You could see the freight cars beyond the fire.

Q You could see the freight cars beyond the fire? A Yes.

Q You could see right through the fire? A Right along through the roadway you could see freight cars.

Q I understand you could see down the roadway, but where a car was on fire could you see what was on the other side of that car? A I could see a number of freight cars below that.

Q You still do not understand it. I understand that. To the extent you could see down this roadway you could see fire on either side of you, but where you saw a car on fire, wher-

ever that car was, could you see what was immediately back of that car or did the fire make it impossible for you to see what was immediately back of that car? A The reflection—you could see a number of freight cars below that still.

Q Now when you first got there you say that you made up your mind that there was a necessity for more apparatus, is that correct? A I knew we could not handle it alone.

Q I say you made up your mind there was a necessity for more apparatus, didn't you? A Yes.

Q And you said that you went to telephone to headquarters? A Yes.

Q Did you use the telephone at the pumphouse? A No, sir; it was in the office.

Q In this little office that is called time clock office, down here on pier 5? A Yes, just apast the pumphouse.

Q You went past the pumphouse? A Yes.

Q And down to this little office? A Yes.

Q The pump was going, wasn't it? A No, sir.

Q How do you know it wasn't? A Well, I did not hear the exhaust and I looked in.

Q You went into the pumphouse? A I looked in the pumphouse.

Q Did you go into the pumphouse? A No, sir.

Q Could you tell from standing outside of the pumphouse whether the pump was working or not? A Yes, sir.

Q Was the fire up? A There was fire up, yes, sir.

Q You knew of course that there were three direct connections—not hydrants—direct connec-

tions fed by that pump, didn't you—fire connections? A No, sir; I did not.

Q Hadn't you ever been down there before? A Yes, sir.

Q You went down there to look the fire system over, didn't you? A I have been to quite a few fires down there.

Q And do you mean to tell me that when you went down there to the fires or when you went down there on inspection trips you did not know that there were three direct connections to that pump? A They generally had a bullhead connection just outside; I had been there before and there was about half a dozen connections on that. We used to make connections to those in case of fire.

Q Yes; directly to the pump? A Well, outside of the pumphouse.

Q I do not care whether they were outside or inside; they were not hydrants connected to pipes in the ground; they were hydrants connected directly with the pump, the things that I mean—connections directly with the pump; didn't you know about those? A At the other fires that I was there, yes.

Q Yes; you knew about those? A Yes.

Q When you came back from telephoning whereabouts did you meet Chief Gately? A Right at the roadway.

Q Right here at pier 5, this same place? A At the main road, yes.

Q Had any other apparatus come then? A They followed me in closely.

Q Closely? A Yes.

Q And the first thing the chief said to you was, "Don't stand around here; get a line in?" Is that what he said? A He said to line in.

Q Didn't he say "Don't stand here; get a line in"? A No, sir.

Q What did he say? A He said to get a —to line in.

Q He did not say anything about "Don't stand here"? A Not what I know of.

Q I read you now from your testimony—

Mr. Smith. Page?

Mr. Garrison. Page 149 typewritten, and 165 stamped with blue ink.

Q "Q Just what did you do? A I done just what I was told by Chief Gately. Q And what was it? A He told me to line in. He said 'Don't stand here; we have got to get a line in.'" Didn't you say that yesterday? (No answer.)

Q What is the answer? A I may have used them words, but—

Q You may have used "them" words? A Yes.

Q Weren't you telling us as well as you could remember what happened? A Yes, sir.

Q Then as well as you could remember that is just what happened, isn't it? A He told us to get to work and line in.

Q Yes; up to that time you had not attempted to get a line in, had you? A We had just arrived there.

Q Up to that time you had not attempted to get a line in, had you? A No, sir.

Q Now you said yesterday that you got a wrench and went to one of these hydrants; what kind of a wrench was it you got? A A monkey wrench.

Q And when you got your monkey wrench you went to what hydrant?—I do not mean

which one of these hydrants, but what character of hydrant? A High pressure hydrant.

Q That is a Corey three-way hydrant? A Yes, sir.

Q Are there any of those in Jersey City outside of Black Tom? A Not of that kind.

Q No. A That is there is Corey hydrants, but not the high pressure hydrants.

Q And this was part of what you call the "Valley" system—this hydrant belonged to what you call the "Valley" system? A Yes, sir.

Q That is to say it was part of the private system that the railroad company had put there— A Yes.

Q —in addition to the city system? A As near as I understand.

Q Well, you are right. Had you ever opened a Corey hydrant before? A Yes, sir.

Q Three-way hydrant? A Yes, sir.

Q Had you ever done it before with a monkey wrench? A No, sir.

Q Do you think it could be done with a monkey wrench? A On the small valves—not the large valve.

Q How did you get the large valve open? A There was a wrench there alongside the hydrant.

Q Oh, there was a wrench lying right there, was there? A It was hanging over on the side.

Q Yes; a wrench to open the big valve with, is that right? A Yes, sir.

Q Now tell us just what you did to try to get water out of that hydrant? A I opened the large valve—

Q First? A Yes, sir.

Q You opened the large valve first? A Yes, sir.

Q Is that right? A Yes, sir.

Q And then what did you do? A Then I opened the small valves.

Q Yes; and then what happened? A There was no water.

Q Not a drop? A No, sir.

Q Now you said that you afterwards tried what you call a fresh water hydrant. Why do you call that a fresh water hydrant? A It is on the city line.

Q Why do you call it a fresh water hydrant? A There are fresh water hydrants; they are all fresh water hydrants on the city lines.

Q Were these others any other kind of water than fresh water? A They are supposed to be connected with the pumps.

Q Well, is the pump supposed to pump anything but fresh water? A Well, the pump at the pumphouse there, I do not know whether they can switch it off or not; I don't und—I don't know about the system there.

Q All right. Now when you tapped the city hydrant what was the result? A The water flowed out from that hydrant.

Q Yes. And you hooked onto that hydrant, did you? A No, sir; I did not make a connection.

Q H'm! What is the nearest that you personally got to the fire? A A little below that roadway at the pumphouse.

Q At tower 5? A little this way you mean, below, toward the fire? A Yes.

Q How far out from the roadway did you get down toward the north pier? A I should judge about two hundred feet.

Q You got two hundred feet from the centre of this roadway down here? A Yes, sir.

Mr. Garrison. Give me two hundred feet on this, won't you, somebody that has a measure? Two hundred feet would be eight inches. Eight inches from the centre of pier 5 to here.

(Mr. Barrett measures it.)

Q Now two hundred feet here, aren't you just beyond that little round circle there; and how far from you out toward the north pier was the fire? A I should judge about four hundred feet.

Mr. Garrison. Now give me fifteen inches from there, please, Mr. Barrett.

Q That is to about opposite storehouse Q. Is that where the fire was? A Yes, sir.

Q Then you were mistaken yesterday when you placed it five or six hundred feet further out, were you? A It was below the storehouse.

Q Now I do not just know what you mean by below. Do you mean that way or this way or what way? A It was beyond the last row of stores.

Q Beyond the last row of stores? A Yes.

Q Beyond P, was it—beyond this point that is marked P? A About abreast of R.

Q About abreast of R. It was down here somewhere, was it? A To the right of the roadway.

Q Do you mean to the east side of the roadway? A No, sir; south.

Q Toward the water? A Yes.

Q All right; toward the water. With respect to this last storehouse tell me about where

it was. Can you see the last storehouse from there? If not, come here. Here is your roadway. There is the last storehouse. Here is where you stood—where you said you were; here is where you said you were. A Along in here somewhere.

Mr. Stallman. The witness indicates the same place he said yesterday.

Mr. Garrison. I am willing to settle on any one place.

Q Where do you want to say it was not? A About there, I guess.

Q You are putting your finger on the mark you made yesterday? A Yes.

Q All right.

Mr. Garrison. Now please measure that, Mr. Barrett. Go back to the stand, please.

Measure from where my pencil is out to there.

How many inches is that?

Mr. Barrett. 33 inches.

Mr. Garrison. By actual measurement that is 33 inches. 825 feet.

Q Heretofore describing this matter both before the coroner and here you had always said that it was about four hundred feet, hadn't you?

Mr. Stallman. I object.

Mr. Garrison. All right; I will "sustain" the objection. I think that is easier.

Q I am reading from page 198 of the coroner's testimony, and ask you if this question was not asked you and this answer made: "Q That you say was how far from where you stood between M and N on the roadway? A I

should say between the warehouse is about four hundred feet from where we stood. Q About four hundred feet from where you stood? A Yes, sir." Is that what you said before the coroner? A (No answer.)

Mr. Garrison. Read the witness' question.

Q (Last question repeated by the stenographer.)

Q Yes or no? A I cannot recall.

Q You do not deny that you said that before the coroner, do you? A Well, I cannot recall it.

Q Do you admit that you said it? A I may have said it, but I cannot recall it.

Q Do you admit that you said it? A I say—

The Court. I do not think that he is obliged to do that. The rule in this State is laid down fully in the case of D'Adams against the State, 86 Atlantic Reporter, page 414, where the Court says that unless he distinctly admits it you may prove what he said at the trial. There is no difficulty about proving it.

Mr. Garrison. I do not want to take time, I only want to lay the proper foundation.

The Court. I understand that.

Q Were you not yesterday asked this question (typewritten page 146, blue pencil 162): (Q) "Between the storehouse and the driveway?" (A) "Yes, about on a line with that last storehouse." (Q) "About in there?" (A) "Yes." (Q) "You think that is about

where you saw the fire?" (A) "With that last storehouse it may be—no, back a little further, I should judge." (Q) "Now, back. Do you mean towards my right hand?" (A) "No, sir." (Q) "Towards my left hand?" (A) "Not so far; in along in there." (Q) "You think that is where you saw the cars burning?" (A) "Yes, sir." (Q) "Come down here, Lieutenant, and you do the marking." (A) "I would rather look." (Q) "This is pier 6. That is pier 5. Anything on there that you would like to have us tell you?" (A) "About four or five hundred feet from the warehouse." (Q) 'Let me expain to you, Officer. Awhile ago you had the fire opposite this end of the warehouse. This map is on a scale of 300 feet to a foot; 25 feet to an inch; 300 feet would be 12 inches." (A) "This is about where the fire was." Is that what you said yesterday? A Yes, sir.

Q So yesterday you first fixed the fire out here, about abreast of the last storehouse, and then finally you fixed it twice as far off, down here?

Mr. Stallman. I object to that. The witness did not do that. He was endeavoring to explain the location of the fire.

The Court. I will overrule the objection. The counsel in his question said:

Mr. Garrison. Read the question.

Q (Repeated by the stenographer.) So yesterday you first fixed the fire out here, about abreast of the last storehouse, and then finally you fixed it twice as far off, down here?

The Court. Oh, I sustain that objection.

Mr. Garrison. I will add the question, "Didn't you."

Mr. Stallman. I object to that.

Mr. Garrison. I will put it this way:

Q Is it not a fact that yesterday when you were being interrogated by counsel for the plaintiff that you first fixed the fire abreast or very close to this last storehouse, and later fixed it further down on the map at the place that was subsequently marked "H".

Mr. Stallman. I object to that.

The Court. Why?

Mr. Stallman. On the ground that the witness was tentatively endeavoring, sitting in the witness stand, to locate the fire, and as a part of that whole question, and as a part of his answer he came down and after looking at the map and locating the several structures on the map he located the fire by a pencil mark and did not at any time definitely locate it anywhere else. He was groping around on the map to locate the structure which would guide him about the location of the fire.

The Court. Well, what of it? I do not see that that is any objection to the question, admitting the truth of all you say.

Mr. Stallman. I say that counsel can not now put words in the mouth of this witness.

The Court. He is not. He is asking him whether he did not say that thing. I do not see that that is putting words in his mouth. If they were not there the witness

can say they were not. I do not see any objection to the question at all.

Q (Repeated by the stenographer.) Is it not a fact that yesterday when you were being interrogated by counsel for the plaintiff that you first fixed the fire abreast or very close to this last storehouse, and later fixed it further down on the map at the place that was subsequently marked "H"? A I was trying to make sure on that map where the location was. I know it was below the last storehouse.

Q Irrespective of the map, is it not a fact that at first you placed the fire nearer the first —the end storehouse? A In that vicinity.

Q Yes. And now you place it here, which is at least three or four hundred feet east of the storehouse; isn't that the fact?

Mr. Stallman. I object to that. That is not borne out by the facts.

Mr. Garrison. That is 300 feet from the storehouse. I will have it measured if there is any doubt about it.

Mr. Stallman. He didn't fix the fire at the storehouse. What I am objecting to is that yesterday when this witness was trying to locate the fire he tentatively ran his finger over the map, trying to locate, and counsel is trying now to make him admit that he had definitely fixed the fire somewhere else before he fixed it at all.

The Court. Well, I think that counsel has the right to find out what was in the mind of the witness, what he was testifying when he stood at the map, whether it was tentatively or definitely, or what. He has a right to find that out.

Q (Repeated by the stenographer.) Yes. And now you place it here, which is at least three or four hundred feet east of the storehouse; isn't that the fact?

Mr. Garrison. I desire to correct myself. It is 350 feet. I said 300. I should have said 350.

Q What is the answer?

The Court. Do you understand the question?

The Witness. Why, I made that mark there.

Q What is the answer? A (Repeated by the stenographer.) Why, I made that mark there.

The Witness. About where the fire was.

Q I read you now from your testimony of yesterday, typewritten page 145, blue number 161: (Q) "All right. Now, when you got there what did you see in the way of a fire?" (A) "I see a number of freight cars on fire with the explosions of all kinds of munitions going in every direction." (Q) "About how many cars were there burning?" (A) "I should judge when we got there there was several of them—seven or eight it looked to me, all on fire, all in a—" And the witness makes some kind of a gesture. (Q) "Could you tell us just where those cars were?" (A) "They were at the end of the next row of storehouses." Now, didn't you answer—fix those cars as at the end of the storehouse, of which R is the end, down below the end of the storehouses? A Down below the end of the storehouses.

Q All right. Now, then, were these cars all on one track, or were they on more than one track? A That I could not say. What I seen were on the track nearer to the roadway.

Q You were standing in the roadway, weren't you? A Yes, sir; in the middle of the roadway.

Q Was the fireboat on your left hand and right hand? Or was it all on one hand? A The fire was all to the right.

Q All to your right? A Yes, sir.

Q It was not on both sides of the roadway, then? A No, sir; not at that time.

Q No. Now I understand you to say that after you tested these hydrants out opposite pier 5 you went landward testing hydrants; is that true? A Up the road.

Q Up towards the land? A Yes.

Q Well, that is landward. A Yes.

Q Now, why didn't you go towards the water? A Well, I was ordered by my chief to go and test the hydrants, so I tested those along there.

Q Why didn't you go towards the water when you found these hydrants here wouldn't work? Why didn't you go down this way and see if any hydrants worked down towards the water? A I wasn't told to go down there.

Q You had no initiative of your own; you hadn't any right to— A I was under the orders of the chief.

Q You only did what the chief told you? A The chief—

Q I say you only did what the chief told you, is that correct? A That is all I am supposed to do.

Q The fact that these shells were going off wouldn't have stopped you from going down

here, would it? A Well, if I was told to go that way, why I would have went down that way.

Q When you got there first yourself, however, you didn't go any further than where the rest of the people went, did you? They were all out hereabout together in this roadway, weren't they? A I stopped right there.

Q And pretty much everybody else who was in this vicinity was around about the same place —weren't they? A There was nobody there.

Q There was not anybody there? A Not when I got in there with the apparatus.

Q Not a soul there but you? A In the roadway; no, sir.

Q Where were the other people? A I don't know.

Q Weren't there any policemen there? A Not at that time.

Q Nor any employees of the Lehigh Valley? A Only the man I saw at the telephone.

Q Where was he? What telephone? A Right near the pump house.

Q In the pump house? A No, sir; in the office near the pump house.

Q The same telephone you went to? A Yes, sir.

Q Now, if there were only seven freight cars on fire, why couldn't your men have tapped a hose themselves? Why did you have to have any more apparatus for seven freight cars? A We had no water there.

Q What? A I say we had no water there.

Q But you didn't try to get water. The first thing you did was to go to the telephone for more apparatus? A I wanted to notify headquarters what we had to contend with.

Q What you did have to contend with? Seven freight cars, didn't you? A With the munitions going off.

Q Then the fact that the munitions were going off was an important fact, wasn't it? A It would make it a dangerous fire; yes, sir.

Q Why, certainly. Lieutenant, wouldn't you have felt that you were leading your men to almost certain death if you had taken them down close to these cars? A Not if I thought there was a chance to get to work down there.

Q I am asking you whether or not you would not have felt you were leading them to certain death?

Mr. Stallman. I object to what the witness might have thought under the circumstances.

The Court. I will admit that. It seems to me it is material as to what he thought was reasonable and proper to do under the circumstances, and what he would do under the circumstances is what he as a reasonably prudent person would think reasonable and safe.

Q (Repeated by the stenographer.) I am asking you whether or not you would not have felt you were leading them to certain death? If you had taken them down to the place where these shells were going off? A Well, it was a very dangerous place, I will admit.

Q Yes. And when you were there alone and could have done whatever you thought was right you didn't think it was right to take your engine and your hose and those seven men down close to those freight cars, did you? A I might have—

Q No, answer my question.

Mr. Garrison. Read the question.

Q (Last question repeated by the stenographer.) A Well, we would take a desperate chance to put out a fire.

Mr. Garrison. Read the witness the question.

The Witness. If we had anything to work with, why—

Mr. Stallman. Let him finish his answer.

Mr. Garrison. No, he is not answering the question.

Q (Repeated by the stenographer.) Yes. And when you were there alone and could have done whatever you thought was right you didn't think it was right to take your engine and your hose and these seven men down close to those freight cars, did you? A (No answer.)

Q What is the answer? A Please read the question again.

Q (Repeated by the stenographer.) A If we had the water I would have taken the chance, taken the men with me, if they would have gone.

Q If that were true why didn't you go down there? Why did you go to the telephone first? A I wanted to notify headquarters.

Q But if there was nothing to stop you but seven freight cars on fire, and no chief to give you orders, and you could do just what you thought was right, and you knew whether it would have been right for you to go down there, why didn't you go down there and put the fire out that was in the seven freight cars? Why did you go to the telephone? A Well, I was

sent there on a telephone call, and it was a dangerous place down there and lots of buildings—it was a dangerous locality; it was too dangerous for a fire company, for a lieutenant and four men with him.

Q Well, a lieutenant and four men could handle seven freight cars, if there was no explosives in them, couldn't they? A If there was no explosives?

Q Yes. Now, the fact is, Lieutenant, that those munitions were shooting all over that place, weren't they? A They were shooting all over the place; yes, sir.

Q Exactly.

Mr. Garrison. That is all.

By Mr. Stallman.

Q Lieutenant, you told Mr. Garrison that there were in different parts of the city fifteen to sixteen pounds of water. Were you referring to the pressure in the hydrant before it was coupled up with the fire pump? A Before the engine is connected; yes, sir.

Q Just the water as it runs out of the hydrant in the road? A Yes, sir.

Mr. Stallman. That is all.

(Witness excused.)

JOHN F. GATELY, a witness sworn on behalf of the plaintiff, testified as follows:

Direct examination by Mr. Stallman.

Q Mr. Gately, you are a member of the fire department? A Yes, sir.

Q Of Jersey City? A Yes, sir.

Q And what is your position? A Battalion chief.

Q Were you battalion chief on July 30, 1916? A Yes, sir.

Q Do you remember the fire at Black Tom? A Yes, sir.

Q What was the first notice you had of a fire down there? A I got notified by telephone message from fire headquarters to respond to Black Tom; that there was a fire there.

Q Do you know what time that was that you got that message? A I believe it was 12:45.

Q Is that what you call a still alarm? A Yes, sir.

Q And then what did you do? A I responded—I immediately went there.

Q Whom did you take—

Mr. Garrison. Your Honor, have the witness speak a little louder.

The Court. Talk louder. We all have to hear you.

Mr. Garrison. I can not hear him at all.

Q Who or what did you take with you at the time? A Why, I took the automobile and the truck from the house where I am located.

Q Where were you located, what house is that? A 5 truck, Communipaw.

Q No. 5 truck? A Communipaw, near Monticello.

Q Did you have any other apparatus go down there? A They were down there when I arrived.

Q I see. Do you know what time it was when you got there? A Well, about seven or ten minutes after I received the message.

Q And when you got down on Black Tom how far did you go? A Went in within four hundred feet of the fire, about.

Q About four hundred feet of the fire; and what did you see? A Well, I saw cars on both sides of the tracks, a blaze down at the lower end from where I was standing.

Q About how far from where you were standing? A I should judge about four hundred feet.

Q That is about your best judgment as to the distance? A From where I was standing to the fire.

Q I see. Now can you tell us about where you were standing with reference to the warehouses? A Well, I didn't pay much attention to the warehouses; I never left the roadway.

Q Do you know where that roadway ended, that is, where the pavement ended? A No, I do not.

Q Well now, how many cars did you see burning? A Well, I couldn't tell exactly how many cars. They were afire on both sides of the track and the roadway where I was.

Q Do you know whether you got down to the last warehouse or not? A Well, I wouldn't be positive about that.

Q Do you recall now where the water tank was on a tower? A I saw that in the morning—when daybreak came.

Q Yes; and were you anywheres near that? A Well, I was out on the roadway from it.

Q Out on the roadway from the tower tank?

Mr. Garrison. He has not said that.

A Yes, sir.

Mr. Garrison. He has not said that he was out on the roadway from the—

The Court. No; I agree with you. What is the trouble? Are you objecting?

Mr. Garrison. I will turn it into an objection.

The Court. All right. I sustain it.

Q You were out on the roadway from what?

Mr. Garrison. He has not said—

A I was on the roadway all the time during the fire.

Q Where with reference to the water tank? A Where was the water tank?

Q Yes; where were you on the roadway with reference to the water tank? A Well, I judge about opposite. (After a pause.) That is I think after—after the fire was pretty near under control.

Q Well, when you first went down there how far did you go to the fire—how near to the fire did you go, I should say. A Well, I should judge about four hundred feet.

Q Yes. Well, now you say there was fire on both sides; on your right hand and on your left hand side; is that right. A Yes, sir.

Q Was there any more fire on one hand than there was on the other? A Well I—I couldn't say how much, but I know it was on both sides of us.

Q Yes. Could you see any flames? A Oh, yes, flames were there.

Q How high were the flames? A Well, not so high. Reflection from further down, from the cars.

Q What is that? A There was a reflection further down from where we were located at the—by the cars.

Q How long a string of cars was burning, if you know? A Oh, I—I should judge about four or five on each side, to my knowledge.

Q I see. And some of those cars were on your right hand and some on your left hand? A Yes, sir.

Q Well, now, did you do anything with reference to that car when you got there? A Did I do anything?

Q Yes. A Well, I—we tried to get water.

Q How did you try to get water? A Why, the 8 Engine, the 10 Engine made connections to the pumps.

Q Just where are those pumps or where were those pumps? A They were alongside of the driveway, roadway.

Q Do you know how many of those pumps they tried? A Well, I believe they tried two or three of them.

Q Were you there at the time? A Yes, sir.

Q Directing their work? A Yes, sir.

Q Do you know whether they got water or not? A Couldn't get no water.

Q Do you know what kind of hydrants they were they connected with? A I believe it was their hydrants.

Q Whose hydrants? A Well, over on that Black Tom.

Q Well, do you know whether there is city hydrants and private hydrants and other kinds of hydrants there? A I believe there were one or two city hydrants that I have noticed, and the other hydrants that I saw were company's hydrants, I presume.

Q What companys? A Well, whatever company was over there—corporation.

Q Were the hydrants that you coupled with, the companys' hydrants or the city hydrants? A They were the companys' hydrants.

Q And did you get water from them? A No sir—not then—

Q Yes. Well, when did you get water from them? A Well, when I couldn't get any water I immediately notified chief and fire headquarters and he immediately came over and I told him the conditions and he ordered me to send for the engines, and I went and telephoned for the engines and they came and we put two of them to work taking suction out of the river, and lined in there.

Q Was that before or after the explosion? A After the explosion.

Q Now during the time between the time you got there and the explosion occurred what were you doing all that while? A Well, we were trying to get the water.

Q And did you get any at that time? A No sir.

Q Did you see the explosion? A Did I see it?

Q Yes. A No, I didn't see the explosion.

Q Where were you at the time of the explosion? A In the roadway.

Q Anything happen to you? A It threw me about ten feet.

Q Did you notice anything before you were thrown? A Didn't notice anything until it come on me.

Q What did you notice then? A Got all dark, dusk like, and I scrambled on my feet and went inland about a couple of hundred feet.

Q Well, at the time it got dark and dusk like, did you notice anything down toward where the fire was? A Well, only the blaze there.

Q Any—was the blaze just the same as it was when you got there? A The blaze was continually going on.

Q Same size of a blaze? A Well, it seemed to be spreading.

Q How far did it spread? A How far did it spread?

Q Yes. A I couldn't say how far it spread.

Q Well, what I was trying to get at, whether it got any wider and longer, and which direction it spread, if you know? A Well, after the explosion it came towards us, where my men was.

Q I was speaking before the explosion, up to the time of the explosion. A How big was it?

Q Yes. A Well, I couldn't say—answer that question, how big.

Q Don't you remember, or didn't you notice? A Well, it looked so far—far away towards the river, to me.

Q Did you see any other apparatus there other than the Jersey City apparatus? A No sir.

Q Did you see any other firemen there other than the Jersey City firemen? A No sir; I didn't pay any attention only to my own men.

Q I am asking you whether you saw anybody? A No, I did not.

Q Do you know from the time you got there until the explosion occurred whether any efforts were made to put out this fire excepting by your own men? A Why, it was a man by the name of Mr. Dykeman I met there and he seemed to have charge of the pumps and I spoke to him in regard to the water, and he seemed to

be more or less busy and excited and he didn't answer me, but he had men—kept on going wherever he went, and after a while, he got his pumps to work.

Q About what time was that? A Well, I believe that was— (after a pause) after the second explosion.

Q Well, what time of the morning was it? A Well, I couldn't—what time in the morning was it?

Mr. Garrison. What time—not kind?

Q What time in the morning? A Did he get the pumps to work?

Q Yes. A Well, I should judge about an hour or an hour and a half after I arrived there.

Q After you got there and found you couldn't get any water did you make any inquiries about where you might get water? A I only—only to fire headquarters, and told them of the conditions.

Q I mean anybody there on the ground. Did you happen to run across anybody on the ground? A I didn't know anybody there that I could ask—only this man Dykeman, that I speak of.

Q Well, did you ask him where you could get water? A I did ask him, yes, and he said —he said that he would try and do the best he could.

Q Now you say you were there when this explosion happened? A Yes, sir.

Q Now, can't you remember where this explosion came from? A No, I cannot.

Q Did you feel any—I will withdraw that. Cross examine.

cross examination by Mr. Garrison.

Q What did you take down with you, Chief? A The automobile and truck.

Q What is a truck? I don't know myself. A Fire truck.

Q Do you mean a hose wagon? A No, sir.

Q What does it mean? A It means a truck with ladders on it.

Q Oh, yes; and is that what you took with you? A That it all that was in that house.

Q Is that all you took with you? A That is all headquarters—they sent the other companies.

Q I see; and the other companies got there about the same time you did? A I believe 8 Engine was there ahead of me.

Q What other engines came about the same time you got there. A 10.

Q Engine No. 10? A Yes; hose wagon 10.

Q And also an engine? A Not at that time.

Q Well, let us get it straightened out. When you went in there what did you find? A Hose wagons.

Q Didn't find an engine? A No, sir—none of our engines.

Q Well, we will get to the company's engine in a minute, but when did the first engine get there as far as you know? A Well, I should judge about ten or fifteen minutes after the first explosion.

Q Jersey City did not have any fire engines down there until ten or fifteen minutes after the first explosion? A I don't—I don't think so. They didn't come until I notified the chief and he sent them over and we put them to the river to take suction.

Q Well then, Lieutenant Hogan was all wrong, was he, when he said when he got there that he had an engine with him? A I don't believe he had an engine with him.

Q Well then, he was wrong when he said that, was he?

Mr. Stallman. Oh, I think the witness ought not to be asked to pass judgment on what some other witness said.

Mr. Garrison. All right; I will withdraw the question.

Q How long before this time when you were down there on the 30th of July, 1916, had you been there before? A I never was down there before.

Q Never were on the Black Tom premises? A No, sir.

Q Didn't know anything about the fire system down there? A No, sir, I did not.

Q Did you ever see a Corey three-way hydrant before? A A Corey hydrant?

(Question repeated by stenographer.) A Oh, yes.

Q What kind of hydrants were they that you saw men trying there that night? A They were their own private hydrants.

Q Well, what kind were they? A Well, they stood right up straight, about—

Q Well, can't you give them a name? Don't you know the name of them? A No, sir.

Q You didn't try them yourself, did you? A No, sir.

Q Did you stand by and see them tried? A I stood at a distance.

Q Well, could you see what they were doing? A Yes, sir.

Q What were they doing? A I saw the Lieutenant trying to turn the caps on the top of them.

Q Well, was he able to turn the caps on top of them? A I don't know whether he could or not.

Q Yes. As a matter of fact you don't know, Chief, do you, whether they ever got one of those hydrants open? A I couldn't answer that.

Q Well, you mean that you don't know, don't you? A I don't know.

Q Yes. Now do you know whether they ever got a city hydrant open? A They got it open, but we couldn't get no water.

Q Couldn't get water out of the city hydrant? A No, sir.

Q None at all? A Well, not worth speaking about, not to do any execution.

Q Well, do you ever expect to do any execution at a fire in the city of Jersey City from a city hydrant alone without an engine? A Well, when we have a fire in the city an alarm is pulled and engines come.

Q No, that is not what I asked for.

(Question repeated by the stenographer.) A Well, all depends upon what kind of fire it is and what location the hydrant is in.

Q How much pressure is there usually on the water system of Jersey City that you use in putting out fires? A Well, I should judge on an average of forty pounds.

Q Is that sufficient? How far will forty pounds throw a stream through say a thousand feet of hose? A Well, I don't think it will throw it over twenty or thirty feet high.

Q It will throw it twenty or thirty feet high? A I should judge.

Q Well, about how much pressure was there on the city hydrants down there? A Where?

Q Where you were, Black Tom, I am not speaking about anything but Black Tom. A I couldn't answer that.

Q Well, you didn't open the city hydrants, did you, while you were there? A No, sir.

Q Did you do anything with the chemical engines that were down there? A Our chemical engine?

Q No, the company's chemical engine? A The who?

Q The company's chemical engine? A No, sir, I did not.

Q Your engines, of course, could suck water right up out of the bay, could they, if they wanted to? A Yes.

Q I read to you from the—you testified before the Coroner, Chief? A I believe so.

Q Well, you know you did, don't you? A Yes, sir.

Q I am going to read from page 174: "Q Where did you go? A We responded to Black Tom. Q Who went with you? A My chauffeur and 5 truck and 8, 10 and 16 engine." Did you say that before the Coroner? A Yes. They sent them there.

Q No, I didn't ask you about that. I asked you what you said. A I couldn't take them, because headquarters had to send them companies.

Q Now, so there may be no misunderstanding, Chief, either here or hereafter, I want to ask you again when, according to your best knowledge and recollection, the first fire engine got on the ground at Black Tom that night? A

Well, 8 engine was there when I arrived—the tender.

Q I did not ask you about "tender." Just answer the question.

(Question repeated.)

Q Now do not answer about anything on earth but a fire engine. A I should judge it was ten or fifteen minutes after the first explosion—an engine. You ain't speaking about hose wagons now; you are speaking about the engine.

Q That is all I asked you, sir. Now as I understand you here today you said you never got off the roadway? A Yes.

Q You were always on the roadway? A I was on the roadway till—

Q I am talking now down to this time of the first explosion. A Yes.

Q Now you know there are three big blocks of stores there, don't you? A I ain't positive how many storehouses they have.

Q No; I ask you if there are not three big blocks of storehouses. A Blocks?

Q Yes; like a city block of houses. A Yes.

Q Yes; there are three big blocks, aren't there? A Well, there could be.

Q Well, there could be thirty-three. But I am asking you about your knowledge. A All I could remember seeing there was two.

Q Only two? Then you never got down far enough to see more than two; is that correct?

Mr. Smith. I object. It contains an unwarranted assumption of fact.

The Court. He asks him "Is that correct?"

Mr. Smith. Oh! Then I will withdraw the objection.

Mr. Garrison. That is a concession, Mr. Smith.

Mr. Smith. Yes; it is.

A Yes; I could locate a couple of them because there were openings between.

The Court. Oh, talk out loud. Suppose you were giving an order at a fire, would you say r-r-r-r-?

A Yes.

Q There was one opening as you came down from Jersey City between that block and this block, F and G, and another opening between that block and this block, indicating M and N; is that correct? A Yes; I saw them afterwards.

Q How far is the nearest to the north pier that you got on the roadway on the night of the explosion before the first explosion? A How far did I get to the fire?

Q Repeat the question.

(Question repeated.)

A Well, right at the fire.

Q There is the thing—north pier. A North —that is this way?

Q This is Jersey City; this is where you came down; there is the roadway. A That is the way I came down.

Q You came down this way and came down this roadway? A Yes.

Q Now I want to know how far you got—not anybody else—how far *you* got on this roadway on the night of the explosion, before the first explosion. A I kept about four hundred feet up from where the fire was; that is as far as I went.

Q Well, then, we will move back the other way. Where was the fire? A On both sides about four hundred feet distance down from me.

Q Now you must either tell us where you were so we can measure four hundred feet to the fire, or tell us where the fire was so we can measure four hundred feet back to you. Now I do not care which you do. Do either one or the other. A Just where that pump was on the building.

Q Here is the pump on the building and there is the pump that is right by the first warehouse; there is another. Do you mean a pump or a tank? A A tank like.

Q Here is a fifty thousand gallon tank; here is another fifty thousand gallon tank, and here is a hundred thousand gallon tank. Which do you mean of those three water tanks? A I could not tell which one of the tanks.

Q Can't you give us any idea of where you were? A I was about opposite where the pumphouse was.

Q Here is the pumphouse. You were out in that roadway. Will you come down here where you can see yourself? There is the pumphouse. This is the driveway out here. There is the driveway. There is the pumphouse. There is the driveway. A Is this the driveway?

Q This is the driveway—yellow. A About out there (indicating).

Q You were right about opposite the pumphouse? And the fire was about four hundred feet down this way toward the North River? A Yes.

Mr. Garrison. Just indicate where that is, Mr. Barrett, please.

A This is the roadway?

Q This is the roadway.

Mr. Garrison. Now, measure four hundred feet down here. I have put a circle and a capital G where Chief Gately located.

The Court. Will you just put your pencil there? I did not see the place. Your head was in the way.

(Mr. Garrison indicates.)

Mr. Garrison. Of course, I have put it right in the roadway.

The Court. I understand.

Mr. Garrison. Because he said the fire was on either side of the road.

Re-direct examination by Mr. Stallman.

Q Do you know, Chief, whether there was more than one pump house down there? A No, I do not.

Q Do you recall seeing that hundred thousand gallon water tank on a steel tower?

Mr. Garrison. At what time?

A I believe it was.

Mr. Garrison. I desire to have the counsel fix the time.

Mr. Stallman. I will fix the time. I just wanted to know whether he saw it at all.

Mr. Garrison. At a certain time it was not on a steel structure. I think I am entitled to have him fix the time.

The Court. I think I will permit the question as it is asked.

(Question and answer repeated.)

Q Do you recall seeing any tanks on top of the warehouses? A No; I did not.

Q Now, Mr. Garrison asked you if you remembered seeing the spaces in between those blocks; you say you do remember that? A I did see them in the early morning when it got daybreak. I saw from the roadway where I was standing kind of a passageway between two buildings.

Q Do you know how many of those passageways you saw? A One.

Q And do you know which one it was? A No; I do not.

Q Now, can you tell us how near you got to that structural tower—water tower, before the explosion? A How near I was?

Q Yes; at any time before the explosion?

Mr. Garrison. He has not stated he saw it before the explosion. That is why I wanted the time fixed.

The Court. He has not. If you object now I will sustain it.

Mr. Garrison. I object.

Q Before the explosion can you tell us how close you got to the place where that steel tower was? A How close? Well, that was on the other side of the tracks towards the river—I should judge about thirty to forty feet from the storage to the roadway.

Q Now, are you telling me now where that tank was? A Well, I could not tell exactly where the tank was, but I saw it on that building.

Q Now, I am asking you if you remember the location of a tank on a tower? A Yes; that was to my right from the roadway.

Q That is right. Now, before the explosion how near did you get to that tank? A I did

not get near it at all. I stayed in the place where I was. I could hardly notice them buildings at all there in the darkness.

Q But can you tell us whether you got within a mile of it? Can't you tell us how close you got to it? A Well, I should judge from where I was to that tank it might be 30 to 50 feet of the distance.

Q Now, in which direction from where you were? A To my right. That would mean south, wouldn't it?

Q Yes. Then you think that you got to a point where the tank was to your right and on the south of you from thirty to fifty feet away. That is your best recollection? A I believe—I think so—yes, my best recollection.

Q And how soon did you get to that point—how long after you first got there did you get to that place? A Well, that place was still there—we did not get out of the roadway.

Q I do not think you understand me, Chief. You got there about one o'clock, down to Black Tom? A Around that time.

Q Now, about what time was it that you got to this place where the tank was on your right hand, about 35 feet away? A Well, that was about right opposite of the four hundred feet from where we were trying to get at the fire.

Q So that the fire then was four hundred feet from that place where you were standing when the tank was 35 feet away? A No; we were say from the fire about four hundred feet and that tank stood to the right—the south of me about thirty to fifty feet from where I was standing.

Q Now, will you come down here, Chief. I am pointing now to the hundred thousand gallon

tank marked on the map one hundred thousand gallon private tank on 80-foot tower—and calling your attention to that tank can you tell us in which direction from that tank the fire was that you saw? A Where the fire was?

Q The river being on the right hand side of this map and Caven Point being to the left hand side of the map—south being to the bottom of the map and north to the top of the map—now can you tell us which direction it was from that tank that you saw the fire? A Standing here, to the east.

Q To the east of you? A To the east, towards New York.

Q And what direction would that be from the tank? A Well, the tank was over to the right.

Q Southeast you mean? A Yes; that would be south—southeast from where I was standing.

Q Now, what direction was the fire from that tank? A Well, that was over about where the Judge is, and straight down—behind.

Q Well, could you see whether it was east of the tank or northeast of the tank? A This way, to the left. The fire was both sides; the tank was that side.

Q And the fire to the north of the tank? A That would be going that way, wouldn't it?

Q Yes. A To the north of the tank.

Q And also east? A And east.

Q That is your best judgment as to where the fire was? A That is my best judgment.

Q All right; just resume the stand.

Re-cross examination by Mr. Garrison.

Q When did you first see that tank to which Mr. Stallman has called your attention, Chief?

A I believe it was around four or five o'clock in the morning.

Q Yes; and what you are telling us is what you saw at that time, isn't it? What you are telling us now about where the fire was was what you saw at four or five o'clock in the morning? A Oh, no.

Q Did you see that tank before four or five o'clock in the morning? A No; I did not see the tank.

Q Did you see this tank here on the top of storehouse P before four or five o'clock in the morning? A No, sir; I did not.

Q No; you did not see either of those tanks until daybreak, did you? A Daybreak.

Q Now the roadway ends about opposite O according to this map. You never got down to the end of the roadway, did you? A No, sir.

Q By nothing that you have said to Mr. Stallman do you want to alter what you said about your position down here opposite the pumphouse at the time that you got nearest to the fire before the explosion? You do not want to alter that, do you? A I took the pumphouse for where that big tank was, if that is what you call the pumphouse.

Q Were you anywhere out here opposite this big tank? A I was four hundred feet up from the fire. Now I do not know where the big pump was located.

Q I am not talking about that. I understood you to say you were on the roadway opposite the pumphouse; isn't that correct? A Yes.

Q You do not want to alter that, do you? A No; that is what I call where they get the water from the big tank; I should judge that is the pumphouse.

John F. Gately, re-cross.

Q There is a big tank on top of E; is that what you mean? On top of the storehouse? A Yes; that is the pump that I saw, or at least the tank that I saw. I do not know whether that was the pumphouse or not.

Q You saw the tank up on top of the storehouse? A Yes, sir.

Q And you were out pretty nearly opposite that? A I was out on the roadway, yes.

By Mr. Stallman.

Q Well, now, Chief Gately, Mr. Garrison just asked you a few minutes ago did you see a tank and you told him no. A I saw the tank on top.

Q On top of what? A On top of the building.

Q Well, didn't you just tell him that you didn't see the tank?

Mr. Garrison. The two lower ones. I asked him first about the two lower ones and he said he didn't see them. He saw one on top—opposite E. He said he didn't see the other two.

Mr. Stallman. Let us find out what he did say.

The Witness. I only noticed one tank.

Q Was it a big tank or a small tank that you saw? A Well, it was—big tank.

Q Did you at any time see a tower supporting a tank? A It had props under it. I didn't go close enough to see what kind of props they were.

Q All right. And how long were those props if you can tell us? A Well, I should judge about 15 feet long,—the props.

Q Well, do you know whether the tank you saw was at the end of the storehouses or not? A It was on the—like on the side of the building here. (Indicating.)

Q Alongside of a building was it? A This is the building coming along. (Indicating.)

Q Yes. A And it was right on top of the building, I believe.

Q Well, now, when you pointed on the rail that it was alongside, do you know whether it was alongside of the building or on top of a building? A On top of the building, I think.

Q On the end of a building? A On the end of the top.

Q Well, now, when you say on the end or top, about how near to the end do you say? A Well, on the end—the difference what it takes to hold it, I suppose, on the end of the building.

Q The difference what? A To hold it, to hold it up on the end of the building.

Q Well, can you tell us this: Was it near the last building which you saw at that time? A It was a building near to the fire.

Q Yes. Well, now, can you tell us this, Chief: Was there any building further east, nearer to the fire than this tank, that you saw. A I didn't see any other building.

Q Well, can you tell us whether there was a building closer to the fire than this tank was? A A Building?

Q Was there a building nearer to the fire than this tank was? A I believe there was a building closer to the fire when the explosion took place. It blew the side out of the building.

Q In which direction did that go? A That is to the river, the south side.

Q Now, did the explosion blow down the building where the tank was? A It didn't blow it down, but I believe it set the warehouse afire.

Q Well, now, you told us that you got down to a certain place and you saw a tank so many feet away from you in a certain direction, and at that time did you see any building beyond the tank? A No, I did not.

Q Any building in the direction of the Hudson River, or in the direction of New York Bay? A No, no; I did not.

Q And was there any illumination at the time that you saw this tank 35 feet away, flames making it light? A Yes, sure.

Q Now, to the best of your recollection what was there beyond this tank that you saw? A I didn't see anything.

Q Well, was it the ocean or the bay? A Well, of course, it was the ocean or the bay in back or them warehouses.

Q I am speaking now, looking towards New York, looking towards Liberty Island, from where you were standing— A I couldn't see anything there, only just what was burning.

Q What was burning? A I don't know what was burning outside of what I could see was the cars. It might have been—

Q You saw the cars burning? A Yes, sir.

Q You say you didn't see anything else burning? A I could see the blaze in back of them but I couldn't see what it was.

Q Then the—with the illumination of this fire how far could you distinguish objects away from you at any time before the explosion? A

I couldn't see nothing but the fire and reflection. I couldn't tell how far.

The Court. You couldn't tell how far what?

The Witness. How far or how long it was.

The Court. How long what was?

The Witness. The fire.

The Court. Oh.

Mr. Stallman. That is all.

Mr. Garrison. That is all.

(Witness excused.)

ROBERT H. TRIPPE, a witness sworn on behalf of the plaintiff, testified as follows:

Direct examination by Mr. Stallman.

Q You are a member of the Jersey City Fire Department? A Yes, sir.

Q In what capacity? A Truckman, Hook and Ladder 5.

Q Truckman of what? A Truckman of Hook and Ladder 5.

Q Where is your headquarters? A Communipaw avenue, right near Monticello.

Q And do you remember the night of the fire at Black Tom? A Yes.

Q Did you go down to Black Tom that night? A I did.

Q What time did you get there? A Well, I should judge about fifteen or twenty minutes after one.

Q Any other apparatus there when you got there? A There was a hose wagon of 8 Engine Company.

Q Now, when you got down there where did you go? A Where did I go?

Q Yes? A Why, the truck stopped right in front of one of the storehouses.

Q Do you know which one? A The centre one, I think.

Q The centre one? A Yes; there is three, and I think we stopped about the centre.

Q The centre of the— A Storehouse on the road.

Q Centre block of storehouses? A Centre block?

Q Now did you walk down any closer to the fire than that point? A Yes; when I got off the apparatus I walked down quite a little ways.

Q About how far? A Well, about where the rest of the men were standing who were there ahead of me; maybe a couple of hundred or three hundred feet.

Q You walked down about 300 feet beyond the middle of the— A Well, from where the—

Q —about the centre of the block. A —apparatus stopped. I think it was alongside of that block of stores.

Q That is where you left your apparatus, you say? A Yes.

Q And from that point you walked eastward? A Walked on down towards the—

Q Fire? A —fire.

Q And you think that was about 300 feet? A Well, about that; I didn't measure the feet.

Q All right. You stopped there, did you? A Yes, sir.

Q How far away from the fire? A Well, it was quite a little ways further down.

Q Do you know what was burning? A From what I could see it was cars.

Robert H. Trippe, direct.

Q What kind of cars? A Freight cars, box cars.

Q About how many, do you know? A Well, I couldn't tell you how many. It looked to be more than one, or three or four; something like that.

Q Looked to be more than that? A Yes.

Q And just in what direction were they from you? A They was going down—I should judge the northeast end of the road,—isn't it? Going down from there, the east; that roadway.

Q Down that roadway? A Down that roadway below where we were.

Q And on which hand, your left hand or your right hand? A Well, the fire seemed to be both sides of that roadway.

Q I see. Do you know what efforts were made to get any water on that fire? A Why, they said they had tried and couldn't get it.

Mr. Garrison. No, no, no.

The Court. I will strike that out.

Q What did you see? What did you see if anything was done? A There was nothing being done then, for they said they couldn't get any water.

Mr. Garrison. I ask to have that stricken out.

The Court. Strike it out.

Q Not what anybody told you. A Well, that is it. There was nothing being done; that is more than looking on.

Q Well, when you first got there what was done that you saw? Did all the firemen just get off the apparatus and stand there? A That is all. We went down with our hooks and axes

towards the fire; that is what they started in for. They said there was no water.

Mr. Garrison. If your Honor, please, that will be all stricken out.

The Court. That will be stricken out.

Q Well, the company of men that you were with—did you have any hose? A No, sir; we carry none.

Q You didn't belong to a hose company? A No.

The Court. He has already said it was a hook and ladder company No. 5.

Mr. Stallman. Yes.

Q Now, you say you went down there with some other men. Who were these men? A They were different firemen.

Q Did you see Chief Gately there that night? A Yes; he was there ahead of me.

Q Where was he there ahead of you? A He had arrived there ahead of us.

Q Well, now, to what point are you referring? Are you referring to the point where you left your apparatus, or the point where you walked down to watch the fire? A Well, we walked down to Chief Gately.

Q You walked down to Chief Gately? A Where he was, yes .

Q And where was he in reference to the place where you stopped? A Why, he was on the roadway.

Q I understand. But, now, you say you went down there and you stopped your apparatus— A After I got off the apparatus I walked down to where Chief Gately was. I don't know how

many feet it was. He was further in towards the fire than where the apparatus was.

Q Is that the point that you have heretofore described as being about 300 feet from the place where you left the apparatus? A Well, I say 300 feet. I don't know exactly about the distance.

Q I am not cross examining you on the distance. But is that the point where you saw Chief Gately? A Yes; that is where I saw him.

Q Yes. Did you stay there until the explosion occurred? A Yes, sir.

Q Did you notice where that explosion came from? A Only from what I judge it came from those cars that were burning.

Q Well, now, did you see anything? A You could see a small reflection of a fire that box cars would make, but you couldn't see a great deal of reflection on account of the smoke. There was more smoke than blaze.

Q What did you see in the way of an explosion? A What do you mean did I see in the way of an explosion? I didn't see anything until the thing went up.

Q That is just what I am getting at. What went up in the first place, so far as you can tell us? A I should suppose it was the munitions was in those box cars.

Q Well, I mean did you see anything go up in the air? A Before that they were shooting off.

Q No, at the time of the explosion? A No. I didn't see anything until the explosion went off, and after that, either, for quite a while; for you couldn't see anything, for there wasn't anything but dust and smoke.

Q Now, you say you saw the explosion—

Mr. Garrison. He has not said he saw the explosion. You constantly put it in his mouth.

The Court. He has not said that he saw the explosion.

Mr. Garrison. He heard it, but he has not said he saw it.

Q I will ask you, did you see the explosion? A I don't know whether or not I seen it going up. I heard it.

Q You say you saw it going up, is that right? A I don't know if anybody could see that.

Q I am simply trying to get, Mr. Fireman, from you, so that the jury will understand, just what you saw. Now, you said you heard something. What was it that you heard? A That explosion.

Q Yes. And was that a loud noise? A Certainly was.

Q All right. Now, that is what we are trying to get at. A Well, do you want me to say that I heard a loud noise? All right.

The Court. You said it. (Laughter.)

Q Now, from the time that you got there until this explosion occurred you just watched the fire; is that it? A That is it.

Q Well, now, just tell us what you saw and what you heard. A Well, I saw cars burning.

Q Yes. A And I saw a drill engine pulling a train out, and I saw another drill engine—

Q Right there, which side of you was that? A On the left.

Q On your left side going up? A Yes. That train had started to move.

Q And you were standing in the roadway? A In the roadway at the right of it.

Q All right. What was the next thing you saw? A I saw on the left—or on the right of that again, of the roadway, I seen them take hold there to pull a train out and couldn't move it.

Q Was that on your right hand side? A On my right in the roadway, and the other one that moved was on the left of the roadway.

Q Then what was the next you saw. A Nothing more than them cars aburn.

Q Yes. Now, what is the next thing you saw? How long did they continue to burn without anything else happening? A Well, they burned up to the time the explosion came.

Q All right. Now, will you describe the explosion to the jury as near as you can. A I don't know how to describe it. I will tell you that honest truth. It affected me so that I couldn't tell anything for about a couple of minutes aferwards.

Q Well, now, supposing I didn't know what an explosion was, or the jury didn't know, and you were trying to tell us, just what happened there. Use your own language to try to explain to us just what it was that you saw. A What the explosion was?

Q Yes. A What I saw?

Q Yes. A It sounded like one big cannon going off.

Q Yes. That is as to sound? A Yes.

Q Now, as to sight, what was it? A Just a little flare, and then the explosion; a little more flare than there was to the reflection of the fire that was burning at the time.

Q A flare? A Yes, just like a puff, and then the explosion.

Q Now, just where was that flare? A At the end of that train, them cars.

Q Well, now, can you tell us what particular cars? A No, sir.

Q Now, you said you saw some cars on fire? A Yes, sir.

Q And you saw a string of cars being drilled out on your left hand side? A Drilled out; yes, sir.

Q And you saw them endeavoring to make a drill— A Drill on the other side, and couldn't move it.

Q On the right hand side? A Right hand side. That train of cars was left there.

Q Now, which of those series of cars was it that you saw this flare come from? A On the left—

Mr. Garrison. One minute. He has not said he saw the flare come from the cars.

The Court. Not yet.

Mr. Garrison. Mr. Stallman said it but he has not said it.

Mr. Stallman. Just a minute. Will the stenographer kindly read what he said about the flare.

Q (Repeated by the stenographer.) Now, just where was that flare? A At the end of that train, them cars.

Q Which cars? A Those cars that were burning.

Q Yes. Now, do you remember where those burning cars were, do you? A Yes.

Q Where did this flare come from with reference to those cars? A It must have come from the inside of those cars, I suppose. I

couldn't tell you where it come from; it was like a powder flare.

Q Did you see the cars blazing before this flare? A Oh, yes, they were burning.

Q Now, the cars that you saw burning, did you see the flame come right out of the top of the cars? A Yes.

Q Is that what you saw? A Yes.

Q With that in you mind, where was it that the flare came from? A I couldn't answer that definitely.

Q What is that? A I couldn't answer that definitely, where that flare came from; I only surmise it came from those cars that were burning, that is all, from the inside, from the ammunition or whatever it was that made that flare about it.

Q Is that the point where the cars were burning? A That is down toward the fire where the cars were burning, where the explosion come from.

Q Now, can you tell us, Mr. Trippe, whether that flare that you saw was immediately in front of you or a little to your right or a little to your left or where? A Just down the roadway on the tracks, looked to me.

Q Straight down? A Yes, in front of me.

Q In front of you? A Yes.

Q Did you see any Lehigh Valley Railroad firemen down there that evening? A No, not as I know as firemen, but I seen railroad men, that is train men.

Q The men that you saw drilling those cars? A Yes.

Cross examination by Mr. Garrison.

Q Officer, the reflection that you say was out here in this direction from the roadway, isn't

it, down towards this north pier—it was down the roadway in front of you? A Right straight down from the roadway, yes, in front of me.

Q It was a reflection from whatever was burning? A Yes.

Q And this thing that you call a flare came from that reflection, from wherever that reflection was? A Where this—where they were burning.

Q And you don't know how far out this way they were burning, do you? A No, I do not.

Q You went down the roadway just as far as Chief Gately and the other men were standing, didn't you? A No, they were—after I got off the apparatus I walked down to where they were.

Q That is what I say; you walked down to where they were? A Where they were.

Q You were all there at the time of the first explosion, weren't you? A All—yes.

Q Yes. You were an axeman, were you, on this hook and ladder? A Yes.

Q Munitions were flying all around there? A They were going off.

Q Yes. A They were going off all the time.

Q Otherwise you people would have gone right down to the cars with your axes and done whatever you could? A We had nothing to use down on the building.

Q But you had an ax? A But an ax is no good to put a fire out.

Q I didn't ask you that. If an ax was not useful for any man to have I don't suppose you would have them.. A Yes; they were there to use. It is a fire tool.

Q Then it was useful? A Yes, that is a fire tool.

Q And the reason that you didn't make whatever use you could have made of your ax was because no sensible man would go down there where those shells were likely to kill them; isnt' that true? A I didn't go down and I wasn't ordered down.

Q That is all.

(Witness excused.)

EZEKIEL TOWNES, sworn.

Direct examination by Mr. Smith.

Q Mr. Townes, where do you live? A 169 Beer street, Brooklyn.

Q What is your business, Mr. Townes? A I run a motor boat.

Q For whom? A For myself, but I get employment from Johnson Lighterage.

Q Oh, I see; got a job from the Johnson Lighterage to run a boat? A Yes, sir.

Q Your boat, is it? A Yes, sir.

Q You do work or them, do you? A Yes, sir.

Q Where did you live in July, 1916? A I lived at Black Tom.

Q Out at Black Tom? A Yes, sir.

Q In what part of Black Tom? A I live on north pier.

Q North pier is this pier way down here out near Liberty Island, isn't it? A Yes, sir.

Q You live off on the pier? A No, sir; I was thirty-five feet from the—on piles.

Q On piles. Now let's see. This is a pier down here. This is the end of the pier out near Liberty Island, and the pier runs all the way back to this? A Yes, sir.

Q Did you live in the yard on piles or on the pier? A I lived thirty-five feet off from the

first dock that runs down on the pier—from the first track—thirty-five feet from the first track, on piles.

Q On piles? A Yes, sir.

Q That is at the end of the pier—at the head of the pier, you would call it? A No, no, back. That is the bulkhead where your hand is.

Q That is the bulkhead? A I was back further, way in shore.

Q How far from the head of the pier, the entrance to the pier? A Back.

Q How far back from the shore? A I never measured it, but I guess about two hundred and fifty feet, I guess.

Q Then you were down here somewhere? A Yes, way down there.

Q You had a house on piles, partly on the bulkhead and partly on piling? A No, on piles altogether.

Q All on piles? A Yes.

Q How did you get on the bulkhead? A I had a gangway come to the Lehigh Valley property—I was on the Central.

Q In other words, you had a little house out on piles and you had a gangway leading from the bulkhead out to your house? A Yes.

Q That is right? A Yes.

Q What size house was it? A Thirty-six feet long, with a kitchen attached to it.

Q How many rooms in it? A Five rooms.

Q Upstairs and downstairs? A No, sir; just regular flat top shanty.

Q Flat top shanty, that is it? A Yes, sir.

Q Is this where you lived, in the place called "Pile Stockade"; were you on the other piles out there? A Yes, sir, where the piles made a little basin.

Q That is where you lived? A Yes, sir, that is where I was.

Q This is the place marked here "Pile Stockade"? A Yes, sir.

Q You put a house on that? A Yes, inside of that.

Q Who lived with you? A My family.

Q What does that consist of, how many did you have? A Two boys and my wife and myself.

Q Two boys? A Yes, sir.

Q What were they, small boys or— A One is fifteen and the other was five.

Q Your wife and yourself? A Yes.

Q How long did you live there? A I had been there as near as I can get at it over three years, but I have been down on the shore about twenty.

Q Around the Communipaw shore, they call it? A Yes.

Q Who were you working for at that time? A Edward C. Jenks Company.

Q What were they? A Pile driver contractors and dock builders.

Q You were not working for the Lehigh Valley? A No, sir.

Q But you had this gangway from your house to the bulkhead? A Yes, sir.

Q What did you use that for? A Well, that for going—for to get ashore and going down through Black Tom and getting anything.

Q When you wanted to get ashore or up to Lafayette—is that where you went? A Yes, sometimes.

Q Sometimes you went up toward Greenville way? A No; when I didnt' go through

that way I took a row boat and go over to pier 19 and walk up Communipaw avenue.

Q Oh, I see. Were you home on the night of what we call the Black Tom explosion? A Yes.

Q Was your wife home? A Yes, sir.

Q Where is she now? A She is in Brooklyn.

Q What is her condition? A She is sick.

Q On this night what time did you retire, what time did you go to bed? A I don't know, sir. I didn't exactly know, but I was waked up after twelve by the wife.

Q The wife waked up you? A Yes.

Q When she waked you what did you do? A Well, the first thing I—my wife said she—

Q You can't tell what she said. That is why I didn't ask you that. You can only tell what you did. When she woke you what did you do? A When she woke me I told her—

Q No; you can't tell us what you said to her. What did you do? Did you put on your clothes? A No; turned over and went to sleep. (Laughter.)

Q Turned over and went to sleep? A Yes.

Q All right. Did she wake you again? A Yes.

Q What did you do then? A I laid there for a while.

Q How long did you lay there? A Until she pulled me out of bed.

Q Then she pulled you out of bed? A Yes.

Q After she got you out of bed what did you do? A Run to the front door.

Q Run to the front door? A Yes.

Q Clothes on at that time? A No, sir.

Q No clothes on? A No, sir.

Ezekiel Townes, direct.

Q When you got to the front door—what do you call the front door? A The door there pointed south from the railroad tracks.

Q Towards the railroad tracks? A Yes.

Q When you got to this door—your door then was right in here looking this way? A Looking south.

Q This is south, this way? A Towards Staten Island, yes, sir.

Q This is south and your door was in front? A Yes, sir?

Q That is where your gangway was? A Yes.

Q Then you looked—where did you look? A I looked out on the railroad track.

Q Out on the railroad track? A Yes, sir.

Q Right in front of you? A Yes, sir.

Q What did you see? A Saw a fire.

Q Where was the fire? A Well, it was cat-a-cornered from my door.

Q Which way—cat-a-cornered which way, toward the land or toward the front? A Well, I call cat-a-cornered this way a little.

Q That is to your left hand side? A Yes.

Mr. Stallman. The right hand.

A Yes, the right hand.

Q I got myself mixed up then. A Yes, sir.

Q Right hand side? A Yes, this way.

Q Was that towards the shore or towards Liberty Island? A It was more towards the storehouses.

Q More towards the storehouses, this way? A Yes, sir.

Q What did you see burning? What was it? A It was a car afire.

Q A car afire? A Yes, sir.

Q Was that car at the end of a train of cars or in the middle of a train of cars?

Mr. Garrison. I object. He hasn't said either.

A It was in the middle.

Q What part of the car did you see burning? A I couldn't tell you, sir.

Q Well, was it the top of the car or the bottom of the car? A From the looks of the fire it was coming up on the side of the car.

Q Coming up on the side of the car? A Yes.

Q That is the side toward you? A The side from me.

Q The side from you? A Yes.

Q When you saw that burning what did you do? A I went back and throwed the kid out of bed, fired him in the boat.

Q Well, you had two kids there? A Well, the other one come himself.

Q The other one came along? A Yes.

Q Did you put on your clothes? A No, sir.

Q No clothes? A No, sir.

Q Then what did you do after you fired the boys into the boat? A Got the wife in there and the two boys and we beat it for pier 19.

Q When you say you beat it, you mean you pulled for the shore? A Yes.

Q With your row boat? A Yes, sir.

Q As you were beating it away, as you say, you were looking back toward the tracks, weren't you? A Yes, sir; I was looking right towards—

Q Right towards the tracks? A Yes, sir.

Q Did you see the fire going on? A Yes; the fire was getting larger.

Q Getting larger? A Yes, sir.

Q Then you kept rowing? A Yes.

Q What did you see happen after the fire kept getting larger? What did you see happen? A Nothing, only heard shooting.

Q That is something, isn't it? A Yes.

Q Now, you didn't see shooting at first, you first saw the fire.

Mr. Garrison. I object.

Mr. Smith. I will withdraw the question.

Q When you saw the fire did you see any shooting? A The shooting was going on there at first before I saw the fire.

Q The shooting was going on when you first saw the fire? A Yes.

Q How do you know the shooting was going on before you first saw the fire? Did you hear it?

Mr. Garrison. I object to Mr. Smith cross examining his witness.

Mr. Smith. I will withdraw the question.

Q What do you mean, Mr. Townes, when you say the shooting was going on before you first saw the fire? How do you know that? A I mean that is why my wife got me out of bed, because she heard this explosion.

Q I see. That is what she told you? A Yes; that is what she told me.

Q Now, when you got out and saw this shooting going on, as you say, and the fire burning, what next did you see? A That's all I see, was the shooting and the fire.

Q All you saw was shooting all the time; is that it? A Oh, they was going off before I ever left the house.

Q I am talking about when you got out of the house. A Yes; it kept continuing.

Q Did it continue the same way? A It continued the same way all the time.

Q All the time? A Yes.

Q But one time was it larger, or did it continue the same way? A No; it was getting faster all the time—more firing off.

Q It was getting faster all the time? A Yes.

Q Did you see any explosion there at all? A No, sir. I was gone.

Q You were gone? A Yes.

Q Did you see any of the explosion? A No, sir.

Q These cars—this car that you say you saw the fire coming from—had you seen those cars before? A No, sir; not as I know of.

Q H'm? A Not as I know of.

Q You had not seen them before that night at all? A No, indeed; because the track was full of cars; I don't go through the cars, you know.

Q No; I don't want you to go through them; too much shocks there. I want to know if you had seen them? A No; I never noticed them. All I knowed was ammunition cars in there; that's all.

Q How did you know they were ammunition cars? A By the tag on them.

Q Then you did see cars with the tags on? A I did see the cars. But I did not see this one.

Q I see; you didn't see this one? A No.

Q What made you beat it, as you say? A Sir?

Q What made you beat it as soon as you saw that fire? A Well, I saw the explosion in the

Jersey Central Railroad on pier 7, and I seen what was done, and I knowed it was more dynamite than was on that dock, so I thought it was best for me to get away.

Q What do you mean, you knowed there was more on that dock? A Because there was more cars.

Q More cars of what? A That was marked with dangerous papers on them.

Q How did you know that? A I wasn't inside, but I only knowed it by the card.

Q You mean by the placards on the cars?

The Court. He said by the papers on it.

A By the papers on the cars, yes.

Q How many did you see there? A I never counted them.

Q Without counting them, how many do you think were there?

Mr. Garrison. I object.

Q Approximate. I do not want you to give me within one or two?

The Court. I will permit him to answer it if he can approximate how many there were.

A I could not answer, but the yard was full of loaded cars, that's all I knowed.

Q The yard was full of them? A Yes.

Q I think that is all. You could see the pier from your front door, couldn't you, and as you were running away? A Yes.

Q The north pier? A Yes, sir.

Q Did you see any boats there? A Yes.

Q Was there any fire on any of the boats that you saw? A No, sir.

Q That is all.

Louis Treger, direct.

Cross examination by Mr. Garrison.

Q Some of those boats were Johnson boats, weren't they? A Yes, sir.

Q Where is this pier 19 that you speak of? A Owned by the Jersey Central Railroad.

Q That is over in Jersey City—in Communipaw? A Yes, sir; foot of Communipaw avenue.

Q Then you walk right up into Jersey City? A Yes, sir.

Q That is all.

LOUIS TREGER, sworn.

Direct examination by Mr. Smith.

Q You are a fireman of Jersey City? A Yes, sir.

Q And were you such in July, 1916? A What's that again?

Q Were you a fireman in July, 1916? A Yes, sir.

Q How long have you been a fireman? A Nine years.

Q What company are you attached to? A 16 Engine Company.

Q Where is that located? A Belmont avenue near Monticello.

Q Do you remember the night of the Black Tom explosion? A Yes, sir.

Q Did you get any word to go anywhere? A I was ordered by the captain to proceed with the tender to Black Tom.

Q All right; and where was the captain; at the house? A In the house.

Q Did you take the tender? A I am the driver of the tender.

Louis Treger, direct.

Q What apparatus have you got in that house? A A tender and a steamer.

Q A tender and a steamer? A Steam pumping engine.

Q Steam pumping engine? A Yes; and a tender—combination tender.

Q What is on the tender? A Hose and chemical tank.

Q How much hose? A A thousand feet.

Q Of what size hose? A 2½-inch.

Q Was that on the tender that night? A Yes.

Q About what time did you get word to proceed to Black Tom? A About 1:05.

Q What did you do? A I proceeded with the—drove the tender down to Black Tom.

Q Who was on the tender with you? A The captain and the rest of the members of the crew.

Q How many? A There were four including myself, as far as I remember.

Q And you went which way to get to Black Tom? A Down from Belmont avenue to Monticello; Monticello to Harrion; Harrion to Communipaw; Communipaw to Philip Street; Philip street out the road right clean down into the yard, through the gate and out to the roadway or driveway, as you may call it.

Q Out the driveway down to what they call Black Tom? A Yes, sir.

Q Now, this side of the map is the land side. A Yes.

Q This yellow mark is the roadway that runs down along Black Tom onto the island; the island is way down here. Do you know where the storehouses of the National Storage are down there? A Yes.

Q Do you know that beyond that is the yard, down here? A I presume so; there is a yard there.

Q And beyond that are the piers toward Liberty Island? A I don't know as piers.

Q Never down that far? A Yes, sir.

Q Do you remember any piers being down there toward Liberty Island? A There is float piers—float docks.

Q Now, as you drove that night, you drove down Philip street from Communipaw, coming down this way? A Yes.

Q Then down through the oil works? A Not through the oil works. Through the entrance of the yard there, by the cork works.

Q Cork works now? A Not now. I didn't say anything about the oil works. There is an entrance there; you go by the cork works to get down that driveway. The oil works lay south of that driveway, south of that driveway where we went in.

Q Then you came down the driveway that goes into Black Tom? A Yes.

Q And you went down through that driveway? A Yes.

Q How far down did you get? A Down between the centre and last storehouse.

Q This is the centre here? A Yes, sir.

Q And this is the last? A That is the last one; yes, sir.

Q And you got down about the centre here? A Right there; yes, sir.

Q In the space between? A Stopped before I came to that space.

Q Stopped before you came to that space? A Yes.

Louis Treger, direct.

Q That is between the last and next to the last group of storehouses? A Group of storehouses.

Q Then you stopped at this space? A Yes; I was ordered to stop there.

Q Then what did you do? A I stayed there and, now, was told to drive my—pull the hose off.

Q And did you drive ahead? A Yes, sir.

Q How far did you go beyond this space here; did you go to the last storehouse? A No, sir.

Q How near to it? A I do not just recollect how far I went. I may have gone a building by; I do not know just how far it was.

Q Did you go to the end of the driveway, do you know? A No, sir.

Q Now, having got there and stopping, you say you were told to drive on and get your hose out? A Yes; I was told to stop.

Q Did you have horses or an automobile? A Three horses.

Q Then you drove on? A Yes, sir.

Q How far did you drive? A Well, I did not go very far; I don't know; I guess about one building, one of them buildings in the block, as you call it.

Q One of these compartments? A Yes; just across the roadway.

Q Then what did you do; unwind your hose? A No, sir; I hadn't anything to do with that. I turned around.

Q Then you turned your horses around? A Yes. When they disconnected the hose in back, the other men on the apparatus.

Q And you took care of the horses? A I take care of the horses up to the time I see they

are secured. Then I go in on the line with the rest of the men.

Q Now, did you secure the horses? A Yes —no—I didn't secure the horses—in one sense of the way I was securing them.

Q What were you doing? A I was just finishing, now, strapping the blankets—I had blankets on the horses; I was just finishing strapping the blankets on the center horse.

Q Now, when you first got there did you see this fire? A Yes, sir.

Q Did you see this fire? A Yes, sir.

Q And which way was it from you when you were in the roadway? A Well, it looked to me to be just directly—well, it was ahead and, now, slightly to the right.

Q Slightly to the right? A Yes.

Q In other words, assuming this is the roadway here— A It was kind of straight right ahead—it was ahead of me and also a little to the right.

Q When you say ahead of you— A Right below me from the roadway.

Q And when you say to the right, that is a little to the south? A Yes.

Q Do you know where this storehouse is here, this last storehouse? A I do not know anything about the—I know down there, yes, but I was not down as far as that at that time.

Q I say do you know where it is? A Yes, sir.

Q Now, in relation to that storehouse, how near or how far from that storehouse was the fire? A Well, it looked to me to be right off from it.

Q What do you mean by right off from it? A Well, like you might say—the roadway—of

course, I do not know just how the roadway runs—it don't exactly run east and west.

Q Well, assume it runs east and west? A Assuming it runs east and west, the fire would be just off it about a little—I should say around about a little to the north or northeast—around about those points.

Q A little northeast? A About it—it was practically right around that from there.

Q How far from the last storehouse in the direction of New York was it, if it was in that direction? A How far?

Q Yes. A Well, it looked to me—it could not have been many feet.

Q What do you mean by "many feet"? A I should not judge it would be over, in my estimation, about thirty feet.

Q About thirty feet? A More or less.

Q How near did you go to that fire? A Myself?

Q Up to the time of the explosion, or after the explosion? At any time? I am speaking of what you got there the first time. A That is the nearest I got with the wagon; I was with the horses.

Q You stayed with the wagon all the time? A I stayed with the wagon all the time.

Q From the time you got there—when you first got there what did you see, aside from the flame? A Well, I saw, now, what they call shrapnel fire—shells bursting. To explain it in other words, like a skyrocket soaring.

Q You saw that for a while? A Yes, sir.

Q They burned for a while? A Yes.

Q Did you see anything else happen? A With regards to the burning?

Q Yes. A Well, no, nothing outside of the shell explosion there; and I backened up my horses.

Q What did you see was burning? A It looked to me to be cars.

Q How many cars did you see there? A Well, I should judge there would be several.

Q Several, did you say? A Yes, sir.

Q About how many do you call several? A Well, between five and seven cars.

Q Between five and seven? Those are the cars you saw burning? A It looked to me.

Q Did you see any other cars there? A What do you mean; what other kind of cars do you mean? These looked to me to be ordinary frame—

Q You said you saw several cars burning, about five to seven, you said? A Yes.

Q Were there any other cars there that were not burning? A Yes, sir.

Q Did you see them? A Yes. sir.

Q Where were they? A To the right and left of where the fire was.

Q To the right and left of where the car was? A Yes, sir.

Q Could you see beyond the fire? A No, sir.

Q Toward New York? A No, sir.

Q You could not? A I could see with regards up in the air; I could see the statue of Liberty.

Q Sure; she is pretty high. A Yes; but I could not see anywhere on the level of the cars.

Q You could not see anything on the level with the cars? A No, sir.

Q You say you stood there and saw the shrapnel bursting as you say; what else did you

see? A I seen the fire burn and shrapnel burn —bursting.

Q Did you see any explosion at all? A My back was turned.

Q What happened when your back was turned? A I was, as I say, fixing the blankets on the horses, and everything went dark—a shower of cinders.

Q Yes; and what happened to you? A What happened to me? The team rushed upon me and dragged me for a whole—a block—one of them buildings—run away from me and I could not get away from them, and I had to hang on.

Q Did you hang on? A I certainly did.

Q Did you stop them? A They stopped themselves.

Q They stopped themselves? A Yes.

Q Now when you got there was anything being done toward putting out the fire? A I could not answer the question; I did not see anything like that.

Q That is what I mean; did you see anything being done? A All I know is that that hose stretched in there.

Q Did you see any water? A Yes.

Q Where did that come from? A I could not say. It was from one of the lines of hose.

Q One of the lines of hose? A I do not know which company it was.

Q You do not know which company was doing it? A No, sir.

Q Where was that? A Right off from the roadway.

Q Near where you were? A Way ahead of me, further out.

Q What do you mean by way ahead of you? A Further out.

Q Further out toward the pier? A Yes, sir.

Q You say way ahead of you; how far? A Well, I could not exactly indicate the fact. I should judge—

Q I do not want you to give me the inch. What I mean is to approximate. Was it 100 feet, 50 feet, or 75 feet, or something like that? A Well, I should judge—well, whatever the width of one of those buildings is—it was about out the third building or so—out to that neighborhood there.

Q The width of one of those buildings? A Yes.

Q You mean one of these buildings here? A Yes.

Q So far as you can see on the ground this is all one building, isn't it? A Yes.

Q Is that right? A Yes.

Q Now, taking that building as one building, opposite what part of that building were these men standing, if they were standing opposite it? A Around, as near as I can judge, I guess around a little beyond the center.

Q That would be about down here; is that what you mean? A Somewheres around through there.

Q This is the center of this building about here? A Somewhere around there.

Q That is where you say they were standing with the hose? A Stretched in there.

Q Now, did you see how much water was coming out—much or less at the time you got there? A Small stream.

Q Small stream? Is that the only one you saw? A At that time.

Louis Treger, cross.

Q Did you see any Lehigh Valley men there? A Brakemen and engine crew.

Q Did you see any Lehigh Valley men there? A Not when I first went down there.

Q When you first went there whom did you see there, if anybody? A I didn't take notice much who the people were there—

Q I see. A —besides the firemen and policemen.

Q When did you first see any Lehigh Valley men there? A Well, just before the explosion.

Q What were they doing? A Pulling out the cars.

Q Pulling out the cars; what were they, trainmen? A Trainmen.

Q Did you see any men from the Lehigh Valley doing anything with any fire apparatus? A No, sir.

Mr. Smith. That is all. Cross examine.

Cross examination by Mr. Garrison.

Q Mr. Treger, how far down this roadway, do you think you got with your horses before you turned them around? A Right at the end of the second block of buildings.

Q Here? (Indicating.) A Yes, sir; that driveway; on that road.

Q This is the roadway cut here? A Just before you come to it.

Q Then you turned your team around, did you? A No, sir.

Q Eh? A No, sir.

Q Oh, didn't you turn your team around? A Yes, sir.

Q That is what I want to know. Where were you when you turned your team around? A Little beyond the roadway.

Q You mean this roadway? A Yes, sir; driveway goes in between the buildings.

Q You are sure it was not this one back here (indicating), A No, sir.

Q I did not want to mix you up. I just want you to make yourself sure? A I am pretty sure it was in there.

Q That one (indicating)? A Yes, sir.

Q Did you see Chief Gately that night? A No, not then.

Q (Repeated by the stenographer) Did you see Chief Gately that night? A Yes, I seen him that night.

Q Did you see him before or after the explosion? A Seen him after.

Q Didn't see him before? A No, sir.

Q Now, then, when you turned your horses around, did you stay in the same place where you turned them around, or did you go back? A I started to go back.

Q What? A I started to go back.

Q You started to go back. That was before they ran away? A Yes, sir.

Q And how far back did you go? A Well, I should judge I went back to the center of the next block of the buildings there.

Q Back here about (indicating) A Yes, sir.

Mr. Garrison. And I am pointing between I and K, Mr. Stenographer.

Q Now, then, you say there was a company between you and the fire with some hose that was squirting water; is that right? A No, sir; I didn't say there was any company between me and the fire squirting water.

Mr. Garrison. That is all.

Louis Treger, cross.

By Mr. Smith.

Q Where were those people that you say had a hose? A In the roadway.

Q Where? A In the roadway.

Q Which direction from you? A Towards the bay.

Q Towards the bay, and that was between you and the fire, wasn't it? A No, I was back of them.

Q Well, what do you mean by back? A I was in the rear, the rear of them men that had this here—

Q You were further towards the left, weren't you? A Yes, sir.

Q And they were further towards the east—or the west? A Yes, sir.

Q And the fire was beyond them to the east? A Yes, sir.

By Mr. Garrison.

Q Then they were between you and the fire? A Yes, sir.

Q Exactly. That is what I told you? I was not trying to mix you up. I was only trying to get the truth. Now, how many men had that hose? A I couldn't tell you what the number was.

Q And you are sure that was before the first explosion? A Yes, sir.

Q Did they have any engines hooked up? A Yes, sir.

Q Just taking water out of the plug? A Out of the hydrant.

Q And you don't know what hydrant it was, do you? A No, sir.

Q Did they actually get the water to the fire? A I couldn't say.

Q How many chemical tanks did you have on your tender? A We got three.

Q How big are they? A One is a 60-gallon and the other two is two-gallon tanks.

Q Did you use them on the fire that night? A No, sir; not to my knowledge.

Mr. Garrison. That is all.

Mr. Smith. That is all, Mr. Treger.

(Witness excused.)

FRANK A. CAMPBELL, a witness sworn on behalf of the plaintiff, testified as follows:

Direct examination by Mr. Smith.

Q Mr. Campbell, you are a firemen of Jersey City? A Yes, sir.

Q How long have you been a fireman? A I have been a fireman now a little over a year.

Q And were you a fireman the night of the Black Tom explosion? A Yes, sir.

Q What company were you attached to? A 10 Engine.

Q That is the Halloway street and Lafayette— A Yes, sir. and Lafayette.

Q And that is the nearest engine, isn't it, to Black Tom? A Well, there is—I guess they are about equalized between 8 and 10.

Q And 8 is where? A 8 is Ege avenue. They come down the hill. We have to come around.

Q You are in the Lafayette section, and Ege avenue is— A Yes, sir; they come down Claremont avenue direct.

Q And on this night did you get any word of any fire at Black Tom? A Yes, sir; we were notified through headquarters by telephone to report immediately to Black Tom.

Q And about what time was it you got word? A I should judge about five minutes to one.

Q And what was your position there? Were you a driver or just a hose man or what? A I am utility driver and hose man.

Q And on this night what did you do? Did you drive? A On this night, no sir; I was hoseman.

Q You were hose man this night? A Yes, sir.

Q Who was the driver? A The driver was Heintz.

Q Heintz? A John Heintz.

Q And you went down to Black Tom? A Yes, sir.

Q Out there on Phillips avenue, and along Phillips street? A Yes, sir, through the cork works direct to Black Tom.

Q You know practically the lay out there, do you? A Well, I do to a certain extent.

Q This left of this map—I want you to understand this map—the left of this map is, we will say, the entrance as you come to Black Tom? A Yes, sir.

Q And this roadway—you know where the roadway is there? A Yes, sir; runs toward Liberty Island; yes, sir.

Q And on the right hand side as you go towards Liberty Island do you know those warehouses that are here? A Yes, sir.

Q There are three, are there? A Three; yes, sir.

Q And to the left of you there are just some tracks? A Yes, sir.

Q And then the water? A Yes, sir.

Q Is that right? A Yes, sir.

Q And out in front of you towards New York the yard runs on to some piers, doesn't it? A Yes, sir.

Q Now, on this night as you came down, how far down the roadway did you go? A Why, I should judge the second storehouse.

Q By that you mean this building here? A Yes, sir; we were right behind 8 Engine tender.

Q You were right behind 8's tender? A Yes.

Q When you got there what did you do? A When we got there we walked down as far as that crossing.

Q Which crossing? A That crossing right there; that is the second storehouse.

Q Here? (indicating.) A That is it; yes, sir.

Q And you walked down here? A Yes, sir. We left our horses, I should judge, about thirty feet beyond that.

Q And that is between the last storehouse towards the river and the other storehouse to the west? A Yes, sir.

Q Between M and N. And you walked down that, did you? A Walked down just to the crossing.

Q When you got there, what did you do? A When we got there we looked around and there was some whizzing through the air, small pieces of shell I suppose they were; shrapnel balls and everything else were hitting the side of the building and ringing.

Q What did you do? A Well, I was there about two minutes looking around, and we all were looking at one another to see what we would do. Chief Gately rolled in about two minutes behind us, I should judge; maybe three, or five.

Q While you were looking around to see what to do was anybody doing anything towards putting out the fire? A Well, the time I arrived there, there was only about two minutes difference between Chief Gately's arrival, and he went up to where we were standing and he said—

Q You cannot say what he said. They won't let you say what he said.

Mr. Garrison. How do you know?

Mr. Smith. Because you will naturally object.

Mr. Garrison. All right, go ahead.

A Chief Gately looked around. He said, "My God, boys, this looks tough." Just at that moment a big shell came whizzing up and hit the side of the storage building. She rang just like a bell. Lieutenant Fallon, of my company, was standing there. I said, "Did you hear that," he said, "I sure did." Chief Gately said, "Put on your helmets, boys, in case anything hits you in the head we will have a little show, anyway."

Q Did you put them on? A We put on our rubber coats.

Q How about the helmets? Did you get them on? A We got the helmets on. I walked over. I said: "I would like to get that shell, Lieutenant," to Lieutenant Fallon. I walked over and saw that, and was going to pick it up, and it was a red hot piece of metal.

Q Did you get a litle burn? A No; I just got about an inch away and I felt the effects of it.

Q Now, when you first got there did you see any flame? A Yes, sir.

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Q What were they coming from? A Well, as far as I could see, why, I was under the impression it was in the railroad yard.

Q What was burning there? A Well, of course, it looked to me as if it was railroad cars.

Q And could you see the cars? A Well, I could see them at times, and, of course, it would get dense again, and we would get a little view of it.

Q Do you know where the end of the last storehouse is? A Yes, sir.

Q Now, where in relation to the end of that storehouse were these flames coming? A Well, I should judge—I don't know whether I will be correctly speaking; of course it was taking a chance and a guess that night. Everybody was excited, and they couldn't be necessarily perfect.

Q I don't want you to be perfect. I want to know about where? A I should judge about 50 to 60 feet beyond the first storehouse.

Q What do you mean by beyond? Which way? A Down the other way, towards the east end, towards the floats.

Q Towards the east end? A Yes.

Q And how long did you stay there? A We were there from, I suppose, it was around five or ten minutes after one o'clock we arrived there. We went down there pretty lively, and we were there until six o'clock that next night.

Q While you were standing there and this shrapnel was booming away there, banging up against the buildings, did anything else happen? A Yes, sir.

Q What did you see? A Well, while we were standing there, why, an engine come down on the left hand side going east.

Q What kind of an engine? A A Lehigh Valley engine. And he started to hook up the cars. And shuffling them around, shifting them here and there, you know, trying to see if they couldn't get some of these cars out of this flame. I was standing there, I should say, average— it was not more than about ten minutes afterwards or so that Chief Gately ordered us to try all pumps.

Q All right. Then what did you do? A And he said: "Line them out." We pulled off, I should judge, about six or seven lengths of hose on 8 and 10 engine both and when they tried out the pumps they couldn't get any water.

Q Did you try out the pumps? A No, but a young man in my company by the name of Connell tried them.

Q What did you see? A While we were standing there this engine come up.

Q What did you see Connell do? A I seen him try the pump.

Q What did you see him do? A He opened the valves, three valves—three-way Corey pump.

Q Did you see it? A Yes.

Q After opening the valves what came out? A Just a little spray of water.

Q And you say that was a three-way Corey valve? A That was a three-way Corey valve; yes, sir.

Q Do you know whether that was a city hydrant or Lehigh Valley hydrant? A I don't know anything about that; I couldn't see exact.

Q It was a three-way Corey valve? A Yes, sir.

Q Well, now, what else did you see? A Well, we were told to pick up. It was useless

to stand down there with no water, where you would be liable to be blown to pieces, So we picked up our hose and put it in the tender.

Q Then what did you do? A We walked down to see the explosion.

Q Down here? A Down as far as the crossing, while the Chief then telephoned for the engine. He said: "We can't do anything here unless we immediately get the engines and put them on suction."

Q At that time was there any engine there? A No, sir.

Q What were they, just a hose? A Just a hose wagon.

Q Go ahead. He then telephoned for the engines— A He then telephoned for the engines. Chief Boyle, too— Chief Boyle arrived a few minutes before the second explosion.

Q Well, now, let's go back before, around the first explosion. You say they were trying to get water and couldn't get any water? A Yes, sir.

Q Now, then, what happened? A Well, this shell I was speaking about, we were looking at it. It was too hot to put in the tender box, and we were just turning away from it when all of a sudden we heard a deep thud, like a crash of thunder, and we thought it was raining. All of a sudden—we didn't know anything for about a minute—when I got up I saw somebody was sitting on my chest.

Q When you got up. Had you gone down? A Yes, I was knocked out for about one minute.

Q All right. Having been knocked down or knocked out for about one minute, and when, we will say, you thought you had a load on your

chest, then what? A Well, I got up and I run, I should judge, about 100 feet.

Q Which way? A Up towards the oil yard.

Q I see. That is towards the land? A Yes, sir.

Q Then what? A When I got up there Lieutenant Fallon said to me, he said: "Hammill, where is Heintz?" I said, "I don't know." He was driver of the tender. So he runs about 100 feet off, I should judge, to the oil yard, and he found out he was taken to the hospital.

Q Heintz was? A Yes, sir.

Q Then what else did you see? A He said to me: "You are in charge of that tender and you are responsible to me." I was utility driver at the time.

Q All right. What did you do? A So I says: "Lieutenant, our team is down there; they will be blown up," and I says: "Will I get them?" He said, "I don't know what to do." "Well," I says, "I am going to get the team, Lieutenant." He said, "Don't you do it," and I just got away from it.

Q Did you go? A Yes, sir. On my way down 16 Engine tender—three horse tender—run away. It was coming up the road, I should judge, 50 feet from where I was standing, and I had my helmet in my hand when I seen the horses come up—on the left hand side they were coming up—that is, the left hand side going down. To stop the horses I hit them with my helmet.

Q Did you stop them? A Yes, sir, and Mr. Treger, the man who was on the stand before me, got on the seat and drove away.

Q What did you do? A I then proceeded to run for my team. They were then about thirty

feet the other side of the crossing there, and when I got down there the emergency brake was down. You know, we have an emergency brake on all wagons, so they can not run away. And they were turned around and couldn't move. They were pinned under the car. They had about a foot and a half of the ground dug up where they were pawing, trying to get away, and I only had about an inch to spare on each side. I got my team up to the yard, about, I should judge, 100 feet the other side of the crossing.

Q Did you stop them up there? A Yes, sir; I stopped them there. I just got off the seat and my hand on the wheel when the second blast came.

Q What did that do to you? A Well, it didn't do anything to me. I was a little scared after the first one, and when I saw the other one come I hung on to something.

Q What did you hang on to? A I hung on to the wheel.

Q Were you able to control your tender? A Yes, sir; after the second explosion, as I said before, the Chief had arrived before the first.

Q Did you see the second explosion? A No, sir; I did not.

Q Did you see the first? A No, sir; I did not.

Q So that all you know is after you heard the thing go? A I heard it.

Q And down you went? A That is all I know.

Q I see.

Mr. Smith. I think you may cross examine, Mr. Garrison.

Frank A. Campbell, cross.

Cross examination by Mr. Garrison.

Q The crossing, Mr. Campbell, that you referred to several times, which crossing was that? A That was the middle one.

Q Between the first and second block of stores? A No, sir; that runs right where your pencil is now.

Q You mean between these two blocks? A Yes, sir; right there, just in the middle one.

Mr. Garrison. M. to N.

Q Now, do I understand that when you came back, after you had run up this way, after the first explosion, you found your team still here in the roadway? A About thirty feet this side of the roadway.

Q But they had not been able to drag the car, had they? A They were locked there; Counsellor, yes.

Q They had not been able to drag the car? A They could not get around; no, sir.

Q You found them just where you left them? A I found them just where I left them, only the pole was under the car, and they couldn't swing either way.

Q The freight car had been blown over on them? A No; the freight car was the same way after the explosion; it was only the shed surrounding it.

Q Oh, the pole got under the car; is that it? A The pole got under the car; yes, sir.

Q Nothing had been blown over on the truck? A Nothing was blown over on the tender or the horses; no, sir.

Q Nor on the tender? A Or on the tender; no, sir.

Frank A. Campbell, cross.

Q That was right in back of tender of Engine 8, you say? A Yes, sir; we were the second company in there.

Q When you got back where was the tender of Engine No. 8? A No. 8's tender—they had got it out of there some way or other; I don't recollect.

Q It is pretty hard to remember what happened, isn't it? A Yes, sir; it is.

Q Everybody was pretty much excited? A Yes, sir.

Q It was a good deal like a battle, wasn't it? A Yes, sir.

By Mr. Smith.

Q I suppose the shrapnel was the small arms and the booming was the heavy artillery? A Well, it had us all guessing. We didn't know when we were going to get it.

By Mr. Garrison.

Q You yourself didn't have anything to do with opening these hydrants, did you? A No, sir; I didn't have anything to do—

Q When you spoke of pumps, you meant hydrants, didn't you? A I meant hydrants; yes, sir.

Q You had nothing to do with opening the the hydrants yourself? A I didn't have anything to do with them; no, sir.

Q Did you stand where you could see what they were doing? A Yes, sir.

Q And whom did you see doing anything with any hydrant? A I seen—I think his name is Mr. Dykeman.

Q No, I am talking of—well, all right. Tell us about this Mr. Connell. Didn't you say you

saw Mr. Connell? Who is Connell? A Mr. Connell is engineer of 10 Engine.

Q Of 10 Engine? A Assistant engineer.

Q And you saw him try how many hydrants? How many hydrants did you see him try? A I should judge he tried three.

Q And whereabouts were they? You say you were out here between M and N. Were they down towards the land or out towards the end of the pier? A They were right at that crossing where we were standing with our tender; right around there, yes.

Q Right around here (indicating)? A Yes, sir.

Q Were they along the driveway? A Along the driveway; yes, sir.

Q Now, what did you see Connell do with these hydrants along the driveway? A Well, I seen him take a wrench.

Q A monkey wrench? A Monkey wrench—I don't recollect what kind of a wrench it was. I think it was a wrench he found beside the pump. I ain't positively sure.

Q What did you see him do? A He went to work and he opened the middle valve first, then he opened the side valves, and he couldn't get no supply out of either.

Q No water at all? A Just a little bit of a spray.

Q Well, now, let us understand what you call a little bit of a spray? A Well, I should judge about a foot and a half's drop from the edge of the pump.

Q Now, did you see them try any other hydrants except those Corey three-way hydrants? A Yes, sir.

Q Did you see them try the city's hydrants? A I don't know anything about the city's hydrants. I only know the hydrants you refer to.

Q What were these other hydrants that you saw them try on the same line?. Those were Corey three-way hydrants, too, weren't they? A Yes, sir.

Q Now, you misunderstand me. After he did try the Corey three-way hydrants, did you see him try any other hydrants than the Corey three-way? A I don't know whether they were all Corey or not, but I seen them going along the line; as they come to them they tried them.

Q Those he did try were all on the same line? A Yes, sir.

Q He didn't try anything on any other line that you saw? A Well, we found out—

Q First answer my question. (Repeated by the stenographer.) He didn't try anything on any other line that you saw? A No, sir.

Q There were not any engines down there at that time, were there? A Not at that time; no sir.

Q There were not any engines down there until after the first explosion, were there? A Not until after; no, sir.

Q Now, you said that you were endeavoring to take this shell for a souvenir, I gather? A Yes.

Q You had your back to the north pier, didn't you, or your side, getting down this way, stooping? A No, sir; just standing over it.

Q Well, standing over it, you had your back or side to the end of the pier? A Kind of sideways, I was.

Q You heard a dull thud and then you felt something like rain falling, did you? A Yes, and then I didn't know anything.

Q Where did it fall, on your face or neck or where? A In my eyes, ears, mouth and everything, was just black.

Q With this black water, muddy water? A It was not water, it was more of a dirt effect.

Q Oh, damp? A Well, a little bit.

Q Mr. Campbell, when you saw Mr. Connell open these other hydrants down that same line, did the same quantity of water come out of each one? A Well, I didn't tell you—exactly know whether I noticed that or not; I was a little excited, you know.

Q Now, then, when you spoke of the one you are sure some water came out of, did they hook up to that—did they couple their hose up to that? A Yes, they coupled up.

Q They did? A Yes, sir.

Q Who did the coupling up, what company? A Why, 8 and 10 Engines.

Q 8 and 10 Engines? A Yes.

Q How much hose did they couple up to that one hydrant? A Well, I don't know whether it was six or seven lengths.

Q How much is in a length? A Fifty feet to a length.

Q What did they do after they got these number of lengths coupled to that hydrant? A There was a few cars pulled up on the side that was burning.

Q Up near where you were? A Down about thirty feet beyond the crossing where we stood.

Q About thirty feet; down here, you mean? A Yes, sir.

Q They had been pulled out to you? A They were pulled out, yes, and they tried this pump and they got about the same quantity of water, so the chief ordered us back and he said we would only burn if we stayed there.

Q These cars were not exploded; they were some other freight? A They were two empty cars, I should judge.

Q They tried on these empty cars? A Yes, sir.

Q They didn't get any nearer than that to the big fire? A No, sir; they couldn't get down there.

Q They couldn't get down there on account of the shells and the shot? A There was engines drilling out at the same time. There was one engine had a tremendous load and she was snorting pretty heavy at the time and we were noticing her, because she was grinding and throwing fire from under her driving wheels, and she had such a load it couldn't pull it, and then all of a sudden the explosion hit off and the engine and everything else stopped.

Q Was this fire that you saw on each side of the driveway you were standing? A As far as I could see it looked to me as though it was on either side, right and left.

The Court. I guess at this point we will adjourn until two o'clock.

AFTERNOON SESSION 2 P. M.

JOSEPH ROTH, sworn.

Direct examination by Mr. Stallman.

Q Mr. Roth, where do you reside? A 514 Newark avenue.

Q What sort of a house and building is that? A That is an apartment.

Q Apartment house? A Yes.

Q Did you live there on July 30, 1916? A Yes.

Q Were you at home? A Yes, sir.

Q Early in the morning of that day? A Yes.

Q Do you remember anything of an explosion? A I do; yes, sir.

Q Well, what do you remember about the explosion? First let me ask you did you hear anything? A I did; yes, sir.

Q What did you hear? A I did hear the explosion, as I started to get my shoes to run down to see what happened, the women folks screaming, and when I went downstairs, I seen plate glass out of my place and plate glass from across the street, all over, streets full of plate glass, sidewalks and everything.

Q Do you know what time it was? A About two o'clock in the morning, I should judge.

Q And the plate glass in your house you say was out? A Yes, sir.

Q Before the explosion do you know whether the plate glass was out or not? A No, sir; the plate glass—when we locked the store the plate glass was in.

Q Yes. Did you hear more than one explosion? A I—yes.

Joseph Roth, direct.

Q How many did you hear? A Now I—I believe two.

Q Two; and this one that you heard when you put on your clothes and went downstairs, which explosion was that? A The first one.

Q The first one. About two o'clock? A Yes, sir.

By the Court.

Q Well, did you hear any noise of breaking glass at the time of the explosion? A I did, yes.

(Mr. Stallman consults with Mr. Garrison.)

Mr. Stallman. Let's go up to the Court.

Mr. Garrison. (At side bar.) We have no desire to put the plaintiff to the necessity of proving the dimensions of these windows and the value and all that sort of thing. If the liability is fixed we will either agree upon some method of having your Honor, if you will do so, refer it to a referee as to the respective amounts, if your Honor will agree on that.

The Court. Yes.

Mr. Stallman. We have six hundred of these losses.

Mr. Garrison. What difference does that make. It applies to all.

The Court. Yes, it would apply.

Mr. Stallman. The point is—it is understood between Mr. Garrison and myself we are not to sit here and prove by each one of these property owners that these windows were busted.

Mr. Garrison. No; we have made no suggestion as to that. I have never authorized him to do that. I am not going to worry this Court—I want you to go far enough. You never agreed with—I agreed with them that we would not require to call all the plaintiffs unless we wanted it.

Mr. Barrett. If we wanted them. No, I didn't intend saying anything about all of them. I said there was no use to have them in here until Judge Garrison saw what he wanted to ask them, and I said we wouldn't call any of the plaintiffs as to the amounts that they were settled with on the damages —would not ask him to prove anything in connection with the sums nor with the question of insurance; we would take Mr. Stallman's word for that.

Mr. Garrison. You don't mean to take his word for the sums?

The Court. As to the fact of the insurance.

Mr. Stallman. I have all that in documentary shape.

Mr. Garrison. I think I can state the thing. We agree with the plaintiff he need not in this trial prove anything whatever with respect to the amount of his damage. We will either settle that with him privately, in case the jury find as against us on the liability, or we will ask your Honor to appoint a referee and let the referee state the sums. We have made no agreement with him that I am conscious of with respect to the number of these insurance pol-

icy holders. We may want to examine them.

Mr. Stallman. The only thing I would like to know now, so I can make my arrangements.

Mr. Garrison. I cannot tell you. This is the first one.

Mr. Stallman. Will your Honor want to sit here and hear all of the six hundred of them?

The Court. I don't know. That is part of your case. If it is part of your proof to prove those things and the other side do not agree to it, of course, I shall have to sit.

Mr. Stallman. Judge Garrison told me down at my office he wanted a sample, and Judge told me the other day—Judge Barrett—we ought to have about a dozen of them in here to show about how they were running. You remember that?

Mr. Barrett. Yes, sure.

Mr. Stallman. If that is right I wouldn't send a lot of men out here tonight to bring another horde down here tomorrow.

Mr. Garrison. I can tell you that tonight. All you asked me is whether you are going to make me prove all these items, and I said no.

The Court. I do not mind it.

Mr. Stallman. Cross examine.

Cross examination by Mr. Garrison.

Q The plate glass, Mr. Roth, was on the ground floor, wasn't it? A Yes, sir.

Q And up above it was just ordinary window glass? A Yes, sir.

Q Where were you when the second explosion took place? A Up on the second floor.

Q Is that where your apartment was? A Yes, sir.

Q Now, how many windows on the second floor of that apartment were left after the first explosion? A The second apartment are small windows and I didn't take exactly an inventory, but I didn't take exactly—they were small windows which were not of so much value as the ground floor and I didn't take the exact inventory.

Q Yes. Now on the ground floor what was there, a store? A A store, yes, sir.

Q What kind of a store? A A stationery store.

Q You kept it yourself, did you? A Yes.

Q How many plate glass windows did your stationery store have? A Four.

Q Four. Two in front and two on the side? A Well, counting the return — returns — two front and two returns.

Q Well, there were four separate windows, were there, four separate windows? A Well, two windows, which each one has a front and a return like.

Q I guess I am awfully stupid. I don't understand that.

A Juryman. He means a return to the building.

A That is it.

Q I understand it now. Did it break all those plate glass windows? A Yes.

Q The first explosion? A Yes.

Q Or the two together? A No, the first one.

Q How do you know that the first one broke them all? A Well, I ran downstairs the quickest way I possibly can.

Q And they were broken? A And by the time I was downstairs the windows and doors were smashed.

Q That is all right. That is all.

By Mr. Stallman.

Q About how long after the first one did the second one happen, Mr. Roth, if you remember? A I should judge more than an hour after.

Q That is all.

(Witness excused.)

CHARLES E. ROCHE, sworn.

Mr. Garrison. We won't require the proof of any more of these individual insured.

The Court. Did you hear what the Vice-Chancellor says, Mr. Stallman.

Mr. Stallman. Well, if I understand the scope of the suggestion—

Mr. Garrison. I think we won't require the calling of any more of the insured.

Mr. Stallman. All right. Shall I examine this man?

Mr. Garrison. No; I don't care for any more. Examine him if you want to, but wasting time as far as the court is concerned. I am perfectly willing to admit that they will all testify to the fact that their windows were blown out by the first explosion.

William Garrity, direct.

Mr. Stallman. That will be all then, Mr. Roche.

(Witness excused.)

WILLIAM GARRITY, sworn.

Direct examination by Mr. Stallman.

Q Mr. Garrity, how is your hearing; do you hear well? A No, sir.

Q You do not hear well? A No, sir; I do not hear well at all, sir.

Q Where do you live? A In Pacific avenue, sir.

Q In Jersey City? A Yes, sir.

Q Will you speak loudly, as loudly as you can in answer to me? A Yes, sir.

Q Is that down in the Lafayette section? A Yes, sir.

Q Are you employed at the present time? A Yes, sir.

Q Who do you work for? A Work for the Lehigh Valley, sir.

Q Lehigh Valley Railroad Company? A Yes, sir.

Q Where? A Working up at Black Tom.

Q At Black Tom? A Yes.

Q What kind of work do you do there? A Watchman.

Q You are a watchman? A Yes.

Q And worked there at the time of the explosion, didn't you? About a year and a half ago? A Yes, sir.

Q And you were a watchman at that time? A Yes, sir.

Q How long had you been working down there at the time of the explosion? A At the time of the explosion I had been working there

for about thirteen or fourteen years, I guess, sir.

Q Thirteen or fourteen years? A Yes, or perhaps more.

Q Most of that time were you a watchman? A Yes, sir.

Q Did you work in the day time or in the night time? A Always working days now, sir; working at night a long while.

Q At the time of the explosion were you working at night? A No, sir; I was working days.

Q You were down there when the explosion happened, weren't you? A Yes.

Q And that happened in the night time? A Well, it happened in the morning.

Q About what time in the morning? A That might be about—twelve o'clock—let's see —ten minutes after—about ten minutes after—after—my head is rambling anyhow—

Q About two o'clock? A Ten minutes after two, as near as I can tell, about ten minutes after two, sir.

Q All right. Now what did you do that night after you went on duty? A I went and rung the button up.

Q You did what? A I went and rung the button. I had buttons to ring.

Q You rang the buttons that night? A Yes.

Q Did you have any other work to do than to push buttons? A Oh, yes, I had to keep steam up on small boilers—on one small boiler anyhow.

Q On one small boiler you had to keep up steam? A Yes, sir.

Q Where was that boiler? A That boiler was down on the pier — it was practically

wrecked—but not—pier—pier 4—let's see—pier —the pier that is standing now—

Q Now, Mr. Garrity, there are pier 4, pier 5, and pier 6? A Yes, sir.

Q Any of these piers, was it? A Yes.

Q Which one, do you remember? Was it 4 or 5 or 6? A 5.

Q Pier 5? A Pier 5, yes.

Q I wish you would speak up a little, because I do not hear very well myself. A Yes, sir.

Q And was this boiler that you took care of —was it near the end of the pier or was it near the bulkhead? A It was very near the end of the pier, very near—the end of the store at least.

Q And where were the buttons that you pushed? A The buttons?

Q The buttons. A There was one—there was one at the pier—between the—there was one—if—the block that is greatly wrecked now; there was one there; there was four buttons altogether.

Q I do not understand you. You will have to talk louder. (Answer repeated.)

A Yes; there was four buttons, sir.

Q Were those buttons all on pier number five? A No, sir.

Q Were they on pier No. 6? A They were mixed around on all the stores, sir; all on my beat. All them buttons was on my beat (pronounced "bate").

Q All the buttons on your beat? A Not altogether. There was some more buttons beside them; but they wasn't on my beat.

Q I am speaking now of your own beat. A Yes, sir.

Q Where were those buttons? A There was four of them on my beat.

Q Four on your beat? A Yes, sir.

Q What was the first button that you had to push? A Well, I could push any of them as far as that's concerned; I could punch any of them as long as I punched them inside the hour. I could punch any that I was nearest handed to; I was always around.

Q Was one of the buttons on your beat on pier No. 6? A Yes.

Q It was? Now on what part of that pier? A Pier number 6? It was on the side going down.

Q On the side wall coming down? A Yes.

Q Is that on the Liberty Island side? A Yes.

Q Or on the side toward Caven Point? A Yes; there was one on the Liberty Island side.

Q And was it down near the end of the pier or was it up near the bulkhead? A It wasn't very near the end of the pier, a bit away from it—not very far.

Q Well, about half way down? A No; it was not quite half way, sir.

Q Will you step down to the map, Mr. Garrity? Now stand right there, Mr. Garrity, and I will tell you what is on the map. Your eyes are not very good, are they? A No, sir; they are not.

Q Just turn around a little bit like this, so that you do not hide it. Now you had a button on pier number 6, you say? A Yes.

Mr. Stallman. You will not object to my leading him a little bit?

Mr. Garrison. Not a bit.

William Garrity, direct.

Q I see a button way down on the end of the pier called 6; did you see that button? A Yes, sir.

Q Now I see another button shown on the map up on the bulkhead behind the storehouse P. A P?

Q Yes. A Yes, sir.

Q Did you see that button? A I did, sir.

Q That was on your beat? A Yes, sir.

Q That makes two. A Yes.

Q Well, now, tell me where there was another button that you pushed. Can you remember any other one—I see one over on the corner of store Q—was that on your beat? A Yes.

Q That is another one, is it? A Yes.

Q Now where was the fourth one? A Well—

Q I see another one up on the corner of store M. A Yes.

Q Was that on your beat? A Yes.

Q That was the four buttons that you pushed? A The four buttons, yes.

Q And you had to look after a boiler somewhere on Pier 6, was it? A It was very near the end of the pier.

Q Very near the end of Pier 6? A It was out on the—along the track.

Q Out along the track? A Yes.

Q You mean the track on Pier 6? A Yes.

Q You know what Pier 6 is, don't you? A Yes.

Q You know there was a fire there that night? A Yes.

Q Where were you when you first heard about the fire? A I was—I was at the end facing the—nearly the end, this side, facing the pier.

Q Nearly to the end facing the pier? A Yes, sir.

Q Near the end of what? A Near the end part of the—the track coming down from the oil yard—not from the oil yard—I'm greatly bothered.

Q Take the stand, Mr. Garrity. Tell me what were you doing when you first heard about the fire? A I was around on my beat, sir.

Q You were out on your beat? A Yes, sir.

Q Were you walking? A Yes, sir.

Q And where were you walking? A I was walking—I was walking out towards the—towards the end of the pier.

Q Toward the end of the pier? A I was about middleways—about middleway down when the explosion went off.

Q Do you know where you were at twelve o'clock that night? A Twelve o'clock.

Q Yes; at midnight. A Yes, sir.

Q Where were you then? A At twelve o'clock at midnight I was on my beat.

Q You were on your beat? A Yes.

Q Do you have supper about midnight? Did you have supper about midnight when you were working there nights? A Well, I can eat any time I feel after seven or eight—or after eight or nine o'clock. I get my supper any time.

Q Well, on the night of the explosion did you have anything to eat that night? A Have anything to eat? Well, I get it every night, sir.

Q Did you have anything to eat that night, about midnight? A Well, sometimes do. Any time I feel like it. I haven't any certain hour for it.

Q I am speaking of the night of the explosion. A Yes, sir.

Q Did you have anything to eat about midnight that night? A No, sir; I did not.

Q You did not? A No; not that night.

Q How did you find out there was a fire there? A There was—one of the women—one of the women on one of the canal boats hollered out that there was a fire and I went down and I could see no—nothing to mean anything—it was a little glare but it was nothing to mean anything, on the sky.

Q You saw a little glare? A A little glare, a very small one.

Q Any blaze? A No; I could see no blaze, sir.

Q And where did you see that little glare? A Sir.

Q Where was it that you saw this glare? A I think it was on a boat.

Q You think so? A It seemed to me so.

Q How far away were you at that time? A Well, I been—oh, I been quite a while away from it, sir.

Q Do you know whether you were a thousand feet away? A Sir?

Q Were you a thousand feet away from it? A Yes, sir.

Q Fifteen hundred feet? A I was more—1500—I was more than that, I think, sir.

Q Were you two thousand feet away from it? A No, sir, I was not—no; no, sir.

Q Now just where were you standing there when you saw this flare? A I was standing about the end of—the end of store R, not far from store R.

Q About store R? A Yes.

William Garrity, direct.

Q On the north side? A On the north side.

Q On the other side? A Yes.

Q You were near the big water tank? A Well, pretty near it. I was not so very near it at that, sir; I was not so very far neither.

Q Did you see any freight cars there? A Yes; there was plenty of freight cars near it—some freight—some cars with dynamite in them; there was plenty of cars with dynamite in them.

Q What is that? A (Answer repeated.)

Q And was this flare that you saw anywhere near the dynamite cars? A It was not very far away, sir, as I could see.

Q It was not far away from them? A There was two of Dougherty's men there, and they would not let me down that way. I went that way and they would not let me down that way; they always challenged me where I was going. They would not let me down. I was glad they didn't.

Q Did you have anything to do in case there was a fire in there? A In case of fire through the yard? Well, I had to help lay the pipes if there was—when there was anything to do for them.

Q Yes; well, did you help lay any pipes that night? A No, sir.

By the Court.

Q Will you tell us why you were on duty that night at all? You said you were a day man. Why were you on duty that night? A I was changed off days—I was changed over from that time of the month from nights on to days.

Q When; before the accident? A No, sir; since, sir.

Q Oh, you are a day man now? A Yes, sir.

William Garrity, direct.

Q But you were at that time a night man? A Yes; I was day time and night man, yes.

Q All right; I wanted to get that clear.

By Mr. Stallman.

Q Now did you see anything more of this fire than the flare you have spoken of? A A little flare, that is all I seen, until it blazed up altogether; it blazed up altogether—the explosion.

Q What did you see blaze up altogether? A Well, I could not tell you what it was, sir. The fellows chased me up and they ran themselves, too; they ran for all they were worth themselves.

The Court. What fellows?

A Dougherty's men, sir.

Q Do you remember giving testimony— A Sir?

Q—at the Coroner's inquest in this matter? A No, sir; I don't remember anything. My head is running; I am very bad in the head.

Q Do you remember Mr. McCarthy—Prosecutor McCarthy—asking you about the facts in this case before Coroner Hoffman? A I remember somebody asking me. I don't know who it was.

Q Do you remember whether you testified under oath that time? A I don't know, sir; I don't know.

Q After you saw this little flare that you speak of did you watch the fire? A No, sir; I did not. I never—I had to go around; I went around there about as usual, but I didn't ring the button as usual; I could not ring them when they were knocked out, I guess.

Mr. Garrison. Won't you read that answer? I did not hear it.

(Answer repeated.)

Q Were you in the boiler room that night? A Boiler room, I was, sir. I was that night in it, yes.

Q Were you in the boiler room when somebody hollered "Fire!" A I was, sir, yes.

Q And that is the first you knew about the fire?

Mr. Garrison. Of course this is all very leading.

A The first I knew—I came up to tell them—but—they knew—

Mr. Garrison. One moment, Mr. Garrity.

The Court. If you are objecting I sustain it. It is leading.

Q You said a while ago Mr. Garrity that after you saw this flare that the fire got bigger or something to that effect, didn't you? A Yes.

Q Yes; and how big did the flare get? A Oh, I—the flare—the fire wasn't—the fire was going up in the air—up in the air like pieces of paper; it wasn't paper; whatever it was I don't know. It was flying around before the explosion went off.

Q Before the explosion? A Yes.

Q Did you see the explosion? A Well, I did, sir, to my sorrow.

Q What? A To my sorrow.

Q Where were you standing at the time of the explosion? A I was talking to Mr. Leyden, just a few minutes ahead of that, and he got me by the arm and he said, "You go on Billy; there is enough of us here;" he got hold of me by the shoulder, and, of course, I went away, or else I would have gone up with him.

Q Well, now, you know where the platform side of the stairs is, don't you? A The National Storage?

Q Yes. A Yes, sir.

Q Now, at the time of this explosion were you standing anywheres near the platform? A Platform? Yes, sir.

Q Well, now, near which store? A Behind the store; I was down behind Store R.

Q Near Store R? A Very near it, I think.

Q That is the last one in the row, isn't it? A Yes, sir; that is the far one down.

Q Well, now, you were behind it. Do you mean you were over near the bulkhead in the rear of it, or in front where all the railroad tracks are? A Along the railroad tracks going down, sir.

Q Near the railroad tracks? A Yes, sir; very near the railroad tracks.

Q Yes. And do you know where Liberty Island is? A Liberty Island?

Q Yes. A Yes, sir.

Q That is to the east— A Yes, sir.

Q —of Black Tom, isn't it? A Yes, sir.

Q You know the directions, don't you, —which is east, south, north and west? A Yes, sir.

Q You know that, don't you? A Yes, sir.

Q Now, where did this explosion come from? What direction from where you were? A Well, I think it come from Liberty Island way.

Q From that direction? A Yes, sir.

Q East of you? A That is what I think; yes, sir.

Q That is what you think? A I think it come that way.

Q Now, when you saw the fire—

Mr. Stallman. I will withdraw that.

Q Just before the explosion was there any fire there? A It looked a little glare, not much, didn't look—there must be something; it was down the way, I couldn't see it; it must have been on the boat.

Q You thought it was? A You think it must be, because it seemed to be low down—

Q Did you see anything burning? A No, sir; I seen only the little glare.

Q You saw a little glare? A Seen a little glare in the sky, but I could not see anything burning, nor I didn't smell anything.

Q Well, now, just before the explosion happened was the glare any larger than it was in the beginning? A I could not say that it was; it was not; not to my knowledge, it was not; but I didn't go down after Dougherty's men sent me up. I could have seen more if he let me down, but he didn't.

Q Had you been down near those dynamite cars that night? A I never went near them after Dougherty's men wouldn't let me down near the dynamite cars, and I am very glad he didn't. I used to go down, but I used never to take a light.

Q I say, were you down in among those cars that night between six o'clock and the time the fire started? A Six o'clock? Yes, sir.

Q Down where those dynamite cars were? A Yes, sir.

Q Now, just where did you go? A I went down—I went down as far as—I went down as far as Store R; then I returned again. I never used to go down any more after Dougherty's

men stopped me going that way. I never used to go down as far.

Q Well, now, just a minute. Listen to what I ask you, please. You say you went down as far as Store R? A Yes, sir.

Q That night you didn't go any further than that? Is that what I am to understand? A No, sir.

Q That is as far as you went? A That is as far as I went that night.

Q That was the end of your beat? A Yes, sir—well, I had to go further down; I had to go further down, you know, down around pier 7 altogether. I didn't go any further down when Dougherty's men stopped me.

Q Well, you didn't go down that night, did you? A Oh, yes; I went down that night on pier 7.

Q You did go down? A Yes, sir; I went down in the evening.

Q Did you go down anywhere near where those dynamite cars were? A Yes, sir; I had to pass around by them.

Q What time was that? A I went down—I went down—I went down early in the evening; I guess about seven o'clock, around.

Q About seven o'clock? A Yes, sir.

Q And then you came back to the storage warehouses? A Yes, sir.

Q And you didn't go down near the dynamite cars after that? A No, sir.

Mr. Stallman. Cross examine.

Cross examination by Mr. Garrison.

Q Mr. Garrity, the explosion injured you very badly, didn't it? A Yes, sir.

Samuel J. Sloan, direct.

Q Affected your body and your mind and your memory and everything, didn't it? A My mind is gone; my memory is gone.

Q Yes.

Mr. Garrison. That is all.

By Mr. Stallman.

Q What is your age? A 69.

Q Your last birthday? A They didn't keep any records in the Old Country.

(Witness excused.)

SAMUEL J. SLOAN, a witness sworn on behalf of the plaintiff, testified as follows:

Direct examination by Mr. Stallman.

Q Where do you live, Mr. Sloan? A 727 Garfield avenue.

Q Are you employed by the Lehigh Valley Railroad Company? A Yes, sir.

Q In what capacity? A Night engineer and watchman, at that time.

Q At this time, I mean? A Night engineer in the old elevator.

Q Night engineer in the old elevator? A Now, sir; yes.

Q Which is the old elevator on the map, Mr. Sloan? A That is the transfer elevator.

Q The one that is marked "grain transfer elevator"? A Yes, sir; the frame building.

Q That is a frame building? A Yes, sir.

Q And at the time of the Black Tom explosion where were you? A I was down in the pump room between Pier 5 and the crossing there at Store F.

Q That is the building that is marked pump? A Pumping room; yes, sir.

Q Right opposite Store F? A Alongside of Store F, on the track side.

Q Alongside of Store F on the track side? A Yes, sir.

Q Yes. And what were your duties at that time? A My duties were to keep steam up in that boiler to run the fire pump in case of fire, and answer the telephone for the Lehigh Valley, and the National District telephone that covered the supervision of the water system; also punch buttons, as they say.

Q Yes, and where were the buttons that you had to punch? A Well, one was on the corner on the waterfront, on the bulkhead at Pier 4, at 4A—

Q Just a minute, now, until we find that. On Pier 4, down on the southeast corner? A The first one was next to the brick building, sir; the one there (indicating).

Q Right behind Store A? A Yes, sir; on the water side.

Q Now, where was the second one? A The next one was the extreme end of Pier 4 on the east side of Pier 4.

Q That is the southeast corner of Pier 4? A Yes, sir.

Q And then? A I had a button on Pier 5, at the other end of Pier 5 on the bulkhead.

Q Near the time clock office? A No, sir; you had to go right through the building, in through the end of Pier 5 building and come right on the bulkhead outside.

Q Way down the end there? A Yes, sir.

Q And you had to punch that one also? A Yes, sir.

Q And then where would you go? A Go back to the pump room.

Q And then go back here to the pump room? A Yes, sir.

Q And you did that every hour; is that right? A Yes, sir; every hour.

Q And so your beat, then, ran from the southeast corner of Pier No. 4 over to the end of Pier 5, and back to the pump room, and then you would repeat that? A Yes, sir.

Q At intervals during the night? A Every hour.

Q Yes. You had nothing to do with the yard at Pier 7? A No, nothing whatever.

Q How many other watchmen were there in your gang? A There was Kane; he was the roundsman in charge, to see that we all performed our duties; and then there was Garrity, the old man that just got up from the stand; he went patrolling all around the brick buildings and Pier 6, and down the end of Pier 7 to the bulkhead, to the north pier. And then there was Kelly; he took the west side of 4, and the grain elevators.

Q Those are the buildings on the extreme left of the map? A Yes, sir; and then there was Jim Groat, another one. He was over there by the crossing at the cork works; and there was the A-A warehouse, and the B-B warehouse.

Q Where Groat was, that is about half a mile still further west, isn't it? A Yes; I should say so.

Q Your pumping house station was about half a mile from the big tank, wasn't it? A What, sir.

Q Your pumphouse station was about half a mile from the big tank? A Oh, no sir; I should say the pump—2—about a little over 500 feet from the pumphouse to the structural tank;

that is only two blocks away; that is the end of the lower block where the structural tank is.

Q Now, how long had you been working there at the time of this explosion? A I have been working for the National Storage and the Lehigh Valley for the last twenty-two years.

Q And at that time you worked for the Lehigh Valley Railroad Company alone? A For —the Lehigh Valley paid my salary.

Q And what were your hours of duty? A From five in the evening until six in the morning. I was relieved by my day relief.

Q And did you have any duties to perform in case of fire? A Yes, sir.

Q And what were they? A As I told you, start the pump going, send in the fire alarm and notify the different ones—departments—or help Kane on that; and the National District people that covered the whole business—notify them.

Q And how would you send in the alarm? What was the mechanism for that? A There was a city fire box, pull box right out on the corner of Store F, underneath the stack; that was the city fire alarm. And then they had a local system of their own all over the plant, with pull boxes located all around the warehouses and the piers, and any of the watchmen that would discover a fire down there, they generally pull those boxes, and it rings in the boiler room and the pump room where I was, and it taps on the Bramwell gong, and then I repeat the taps on the whistle—the number of taps come in; for instance, we will say Box 22, two long whistles and a short.

Q And this evening did you get any fire alarm on your going? A No, sir.

Q I see. Did you blow a whistle? A Yes, sir.

Q That night? A Yes, sir.

Q What information did you have that there was a fire there? A Well, I heard some shouting on the road right by the National Storage Building, and I heard some shouting—it is a common thing to hear there, with these drunken sailors coming down on the ships and steamers at night—and I heard this shouting, and I walked down towards the pump room where I was—I was only about 20 feet from it—and two men ran into me and says, "The north pier is afire."'

Q I see. Now, where was it that these drunken sailors would come from? A They would come down the roadway, coming down from Communipaw and Claremont.

Q I see. A You know, they would be out there, you know, having a little time.

Q And the men off the boat, Black Tom boat? A No; steamers, you know, discharging sugar steamers, or sailing ships, like of that.

Q Discharging where? A Right on the piers—Piers 5 and 6.

Q That is, the piers at Black Tom? A Yes, sir.

Q And coming home after getting a little refreshment? A All hours of the morning till the early hours.

Q And you thought it was some of those fellows coming home jollified that you first heard there? A Yes, sir; and the two men ran into me, and they said about the north pier being afire.

Q You used to hear these jolly sailors every night there? A That is, when there were

steamers in there, not every night; only such time there would be steamers in there.

Q Steamers there very often? A Well, in the spring of the year there is always those sugar steamers coming in.

Q Now, let us see. What were you doing when you first heard of this commotion? A I was right by the pump room, and these two men come hollering, and they ran over to me—

Q I know, but what were you doing yourself? A I was standing about ten feet away from the pump room by the National Storage Building.

Q Had you had your supper yet, do you know? A Yes, I had my supper at twelve o'clock—twelve o'clock.

Q And do you remember whether you were eating anything at that time? A Was I what?

Q Were you eating anything when you heard these fellows? A No, sir; I was not eating anything at that time, no.

Q Do you remember testifying at the Coroner's Inquest? Do you? A I do; yes, sir.

Q Yes. And do you remember saying anything about eating some cake? A No, sir; that was Kane ate the cake.

Mr. Garrison. One minute. I do not think he has a right with respect to his own witness to refer—

The Court. He has not.

Mr. Garrison. I object.

The Court. If that were a material point which he had been alleging in putting the witness on the stand, he might have neutralized it; otherwise he can not.

Mr. Stallman. All right; I won't accuse you of eating any cake.

The Witness. All right. It is a thing I don't eat.

Q Now, when you heard this alarm, did you do anything to put the fire out? A When I heard this alarm—

Q Well, now, you can answer that, whether you did or not? A I went to see—yes; I will say yes.

Q What did you do? A I went to see it—I run across the tracks on the extreme east side, as it were, where the float bridge tracks are, to look if there was a fire, to make sure. I thought those fellows that told me this stuff—that they were excited, you know, and they might be giving me a steer; so I ran right over there and I looked down and I see.

Q Wait a minute, you are going a little too fast sometimes. How far over did you go? A Well, I should judge from the pump room it is about 100 feet. I had to cross the crossing there on the railroad track.

Q Then did you go over on the driveway? A Across the other side of the driveway.

Q Over on the— A The tracks leading down to the float bridges, or the north pier.

Q That would be tracks 17 and 18? A Yes, I guess that is the number of the track.

Q And you got out on those tracks about opposite store F, or store G? A Yes, right in line with the crossing there, between store F and G.

Q I see. And then did you see a fire? A I looked down between the cars, and I seen a very small blaze, and it seemed to be very distant to me; it looked to me like it was on Liberty Island.

Q All right. Now, can you give us any definite idea about how large that blaze was? A Well, that blaze appeared to me, as best I could judge it, like it was a barrel afire.

Q About the size of a barrel? A Yes, sir.

Q And you say you could see that down there with respect to the cars? A The cars were in a line down on the track, you know.

Q Yes. A Leading down to the north pier, and the vision impression that I got was like between the cars, and I could see the small blaze down there.

Q You could see cars on both sides, and you were looking down an aisle between the cars; is that the idea? A Yes, sir, yes, sir; exactly so.

Q Well, now, do you remember what kind of a night it was, whether it was starlight or moon light? A Well, that night it was kind of hazy night; you know, you could see plain.

Q Well, did the cars that you saw make a shadow so that you could distinguish their outline? A Why, between the cars there—there was a small space between each track, and the fire looked to me, you know, illuminated—you know, but not sufficient at the other end that I could see it—a lane way, as it were, between the two tracks.

Q A lane way between the two tracks? A Yes; that is the distance between—I don't know; I think it is five foot, or six foot; something like that.

Q You mean between the cars? A Yes, sir; between the two tracks, between the two different tracks.

Q But there were other cars on those tracks? A Oh, sure.

Q And you think there was a space of five or six feet between the cars? A No, sir; I didn't say that.

Q Well, that is what I am getting at. How wide was the space between the cars? A Oh, I couldn't tell you that. I wasn't near enough to tell you that.

Q Did you look down that space between the cars? A Yes.

Q And in that space you saw this small— A Blaze.

Q —small blaze? A Blaze, and very distant.

Q You looked at it? A Yes.

Q Did you go down? A No sir.

Q Toward it? A The minute I seen these two men, Dougherty men, I says, "I must turn in the fire alarm." He said, "I sent in the fire alarm." I runs back to the pumproom and blows the whistle, puts the damper on my boiler, opens the valve, the suction valve in the pump and starts the pump going.

Q How long does that take you? A Well, about three or four minutes.

Q Yes; and then what was the next thing that you did? A Then the telephone rung right away, that was the National District, or the people who had supervision, and they called me up right away and they says, "There is a fire down there?" And I says, "Yes, the north pier is afire," and he then asked for Davison, or the superintendent of the stores, for his telephone number, and I gave it to him.

Q That is, the district telegraph people asked for Mr. Davison's number? A Yes.

Q And you gave that to him? A Yes, sir.

Q Then what did you do? A Then I take charge of the pump there and see that the covering the fire over every once in awhile.

Q Then you continued to work in the pumphouse? A And answering the telephones. Both 'phones were ringing, the Lehigh Valley 'phone and the National Supervision 'phone was ringing. Davison called me up, then Kane hollers out at me, he says, "Sam," he says, "see if you cannot get Mr. Dykeman on the telephone."

Q Who is he? A The agent down there for the Lehigh Valley. So I rang up on the Storage 'phone and I got Mr. Dykeman and notified him.

Q Yes; and that 'phone was in that pumproom, was it? A Yes; there was two 'phones.

Q About what time was it that you first knew there was this fire and saw the blaze? A Well, I should say to the best of my knowledge that was somewhere between half past twelve or twenty minutes to one.

Q Yes; about twelve thirty to twelve forty? A Yes.

Q Then after that you went back into the pumphouse and you did your work there and attended to the telephone? A Yes.

Q About what time was it you came out of the pumphouse again? A Then I would have to run out and the 'phone would ring—we have an auxiliary bell in the pumproom connected up with the time clock office—that was ringing like the dickens and I had to go out and answer that.

Q That other telephone was— A That small house.

Q In the small building nearer to the bulkhead? A Yes, the nearest building.

Q Then you went—the other telephone where you were doing your work was up here right next to the front end of store F? A Yes.

Q Now you say that this 'phone was ringing; could you hear that from where you were up to the other pumproom? A Why, there is an auxiliary bell in the pumproom, understand, that gives you warning that you are wanted on that.

Q I see. I get that. Then did you go down there? A I went down there and Mr. Mulligan, the superintendent of the Lehigh Valley Railroad, wanted to know about the fire, and I told him, and he says—

Q How long did that take you down in that place? A Just only took about two minutes to walk there and back.

Q Then I understand you were pretty busy telephoning there for quite awhile after you first knew of the fire? A Yes; the whole time there were 'phones ringing and then attending to the fire and the pump, and then go out to see if the Jersey City fire people were going to take any water, because the pump—there was—

Q Wait a minute. You haven't told us anything about the Jersey City fire people. When did they get there? A Well, to the best of my opinion they got there I think it was about one o'clock, might be a minute or two before or after.

Q Now from the time that you first knew of the fire until the fire department got there you were busy around the pumproom, it that right? A Certainly.

Q Answering the telephones? A Yes.

Q When did you take a second look at the fire? A I didn't take no second look at the fire.

Q You didn't see anything of the fire after the very first glimpse here? A No, sir; I could see the rays in the sky, you know, red sky, from the fire.

Q Well, you didn't go down to look to see whether anything was burning at all? A No; I sat right within distance of the 'phone, that I could hear the 'phones ring.

Q Yes. Were you there at the time of the explosion? A Yes, I was there at the time of the explosion.

Q Where were you? A I was standing outside of the—no, no,—the telephone rung again, or this auxiliary bell, as I told you, and I heard it; I was standing outside of the pumproom, and I heard it ring, and I went to answer it, and I went to answer, and I picked up the receiver and I could get nobody to speak to on it. So I was so busy; I was afraid the boiler would have too much pressure and she would blow off at the release valve, so I run back to the pumproom, and then the bell kept ringing, this auxiliary, and I went back again, and who was on it but Mr. Mulligan. He says, "Is the fire making much headway?" I says, "Yes, it is coming up like the dickens this way." He said, "Up what way?" I said, "Up toward the stores." He said, "My God, is it up to the stores?" And I said, "No, but it is coming up this way."

Q How did you know this fire was coming up your way? A Why, I could see from the right —from the coal bin right there, about twenty feet from the boiler room.

Q See the fire? A You could see a fire, yes.

Q How much of a fire was it? A Well, you know, it was box cars afire.

Q Box cars burning? A Burning, yes.

Q Was there any fire anywhere else? A Box cars—it was coming up this way.

Q Coming towards you? A Coming towards me, yes.

Q That is the flames you mean? A Yes, sir; as far as you see, flames—they were low.

Q They were low? A Yes; about the height of a box car that time.

Q So I understand the woodwork of the cars was burning? A I suppose it was the woodwork.

Q And in which direction from you was that? A That was down from the north pier direction.

Q That direction? A Yes, sir.

Q Now could you tell us just about where you were standing when you made that observation with reference to the pumphouse? A Well, there is the pumphouse, and you see the first track further over there.

Q The first track is— A First railroad track—on the main tracks there.

Q On the main track. Just a minute, Mr. Sloan, we will try to get this right. Right in front of store F there is a curved track? A Yes, sir.

Q That crosses the first track; seems to be a cross-over there? A Yes; there is a curve going into Pier 5.

Q Yes, that is right. A Yes.

Q And is that the track that you mean? A Well, a little further up on the crossing there, you see.

Q A little further up on the crossing? A Right on that first track.

Q There seems to be a cross-over track between the first and second tracks? A That is near Store F. Store F building.

Q Yes. A The cross-over comes around Store F building on the corner right near the platform.

Q Wait a minute, Mr. Sloan. I see there are four tracks apparently between the pumphouse and the driveway; is that right? A I should say so.

Q Yes. Now counting from the pumphouse which direction did you go on? A The first track, right there—there is a coal bin there.

Q The first track from the pumphouse? A Yes.

Q You see the coal bin does not show on the map; so that don't help me much. You were on the first track? A Right by the first track.

Q Yes; and then you looked in which direction? A Looked down towards the east.

Q Looked east? A Yes.

Q I see; and then that is where you saw the cars burning. A Yes.

Q Yes. Now can you tell us about how many cars were on fire up there that night? A I couldn't tell you how many cars were burning at all. At the first time I seen them I didn't know whether it was a car at all or not.

Q Well, at that time was there more than one car? A Well, I couldn't tell you whether there were many cars burning at all.

Q I mean at the time you saw the flames coming towards you? A I should say a couple of cars burning.

Q A couple of them, anyway? A Yes.

Q Just where were those cars? A Well, they were a way down, way past the structural tank, down near Zeke Towne's place.

Q Down near where the colored man lives? A Yes, sir.

Q Now as I understand it there were a number of tracks down there in that direction, weren't there? A Yes, sir.

Q Now were there cars on all of the tracks? A On tracks leading to the north pier and the float bridges there was quite a few cars on them tracks, but then what they call the tracks leaded on to the warehouse, that is them four tracks—there was them tracks runs right down until you come to the cars going down by the structural tank.

Q Yes; those tracks near the storage warehouse, they seem to curve as they get down toward the yard? A They curve when they get down where the structural tank was.

Q And the tracks on the other side of the driveway? A They go down to the north pier and the float bridges.

Q They go sort of straight down? A Yes, sir.

Q In that, for instance, there is track 18 and 17 out to the north pier? A Yes.

Q And then there is track 16, 15, 14, 13, 12 and 11—there are six tracks which stop at the bulkhead, is that right? A The best I know, they do, yes.

Q And then tracks 10 and 9 run to the float bridge; is that about right? A Yes; I couldn't know the number of the tracks at all. I don't know the number of them. I know there are tracks there, that is all.

Q Yes. Starting from the seawall—you know where that is? A Yes, the seawall.

Q How many tracks down from the seawall do you think it was that you saw these cars burning? A I should say it was either on the second or third track on the extreme east.

Q Second or third track? A Yes; that is leading down toward the north pier.

Q Down in the direction of Zeke's house? A Yes.

Q That is Mr. Towne's house? A Yes.

Q The colored gentleman? A Yes, Towne.

Q And you think at least two of those cars were burning? A Well, to the best of my judgment I should say about that.

Q At that time did you know there were ammunition cars down there? A Oh, yes; we knew there was ammunition cars coming in there, but what the contents were we never knew.

Q How did you know they were ammunition cars? A Marked.

Q They were marked that way? A Yes.

Q What sort of marking was it A Well, there was different tickets tagged on the cars, you know—I couldn't tell you exactly what the car—"Inflammable" and—

Q This paper I show you, something of the kind of a marking there was on those cars? A I have seen those tickets on the cars, yes, sir.

Q Yes.

Mr. Stallman. Mark that for identification.

(Paper marked P. 2 for identification.)

Q Do you know, Mr. Sloan, whether there were any hydrants or fire pumps or anything of

that kind down in the yards where those cars were? A Yes, sir; there is hydrants runs right down to the structural tank there.

Q Well, I mean beyond the structural tank? A Not that I know of.

Q You have been down there twenty odd years, you say? A Yes.

Q Ever go down in that yard yourself? A Well, very, very seldom ever I went down there; never while on duty.

Q That is all. Where were you when the explosion happened? A When the explosion happened I was right, a few feet outside of the pump room.

Q Outside of the pump room? A Yes, sir; I was speaking to Officer Keckler, police department.

Q See anything of the explosion? A Well, all I could see was the whole heavens illuminated up and then everything got ink black and I was hurled down the dock.

Q I see; and just previous to this illumination in the heavens what did you notice? A That is all I noticed. At the time I was in to Mr. Mulligan's I told you, and while I was going over to answer Mr. Mulligan, and I told him the extent of the fire and it was coming up this way—after speaking to him I was on the way back and away everything went and I went with it.

Cross examination by Mr. Garrison.

Q Mr. Sloan, how many telephones were there in the pump house itself? A There were two, sir.

Q One of those you say was connected with the A. D. T.? A Yes.

Q They were the people who had supervision of this water system? A Yes.

Q And fire protection system? A Yes.

Q And that was the regular— A Local 'phone around the plant.

Q Well, didn't that have an outside connection with other 'phones? A No; then the long distance had the auxiliary bell, that was in the little shanty or the time clock office.

Q Yes, exactly. Now this pump that you had there, that was for the purpose of keeping water in these fire pipes, wasn't it, these fire protection pipes, wasn't it? A Yes.

Q Did you have pressure in those pipes that night? A Yes; had one hundred and twenty-five pounds water pressure.

Q One hundred and twenty-five pounds water pressure? A Salt water pressure.

Q Eh? A Salt water pressure.

Q You had that up to what time? A Right until the time of the explosion.

Q Up until the time of the first explosion? A Yes, sir.

Q That I suppose wrecked the plant? A That wrecked the plant; that wrecked everything.

Q Yes. Now, how are you sure you had it right up to the time of the first explosion? A Well, there is a release valve—the gauge indicating one hundred twenty-five pounds pressure, and in between times, you see, I would be going out to the 'phone and it would get a little more pressure and pressure release the pressure off—there is a valve outside of the pump room, and I would open that up and blow her down, see, so now I would get the pump running easy, because there was nobody taking

water, and I got the pump running easy and let the valve open enough to take the excess pressure away, I could see the water bubbling up where it was coming out.

Q Out of that valve? A Out of the pit there where the release valve was.

Q They didn't take any of the waters out of the pipes? A None whatever, no.

Q They didn't hook on any of the pipes? A Didn't hook on nothing, and I asked some of the firemen, "When are you going to get ready to take water," and one of the firemen said, "To hell; we are not going down there."

Mr. Stallman. I object to what somebody else says.

The Court. I think I will sustain the objection.

Mr. Garrison. Then I do not press it. That is all.

By Mr. Stallman.

Q Any of the Lehigh Valley hose hooked on any of those pipes? A No, sir.

Q That is all.

Mr. Garrison. Just a minute, Mr. Sloan. That is all.

Mr. Stallman. Wait a minute, Mr. Sloan. That is all.

(Witness excused.)

DR. F. McKENNA, sworn.

Direct examination by Mr. Stallman.

Q Dr. McKenna, where do you reside? A In New York City.

Q What is your profession? A That of a chemist and chemical engineer.

Q Have you had any special training or experience with explosives, ammunitions, and so forth? A Yes, sir.

Q What has been your experience or education with explosive materials? A I studied chemistry for four years as a specialty at Columbia College, graduating from there, and afterwards received my doctor's degree in chemistry and mechanical engineering.

A (Continuing.) Some years after beginning my practice I was retained by New York City—or at least appointed by the Mayor of New York City—the chemist member of a commission on control of explosives, subsequently becoming the chemist member of a body constituted for that purpose by law. During six years after that I paid constant and full attention to the subject of the characteristics of explosives—the particular point being the care of them for public safety. Since that I have acted as adviser to explosive manufacturers. I have done a great deal of work in that field myself—made special study of explosives and detonants and have appeared in cases in court involving such questions.

Q Are you familiar with the properties of trinitrotoluol, commonly known as TNT? A Trinitrotoluol, yes, sir.

Q And smokeless powder? A Yes.

Q Benzol? A Benzol as a volatile combustible material, yes.

Q Chlorbenzol? A Yes.

Q Monochlorbenzol? A Yes.

Q Do you understand what is meant by fuses, combination fuses, for cannon ammunition? A Yes.

Q Are you familiar with the properties of nitro cellulose? A Yes.

Q Do you remember, Doctor, the Black Tom explosion? A Yes, sir.

Q Were you over there at Black Tom after the explosion occurred? A Some days afterwards, yes, sir.

Mr. Stallman. I want to ask the doctor a question, Mr. Garrison. Would you like to examine him as to his qualifications before I ask him the questions?

Mr. Garrison. I do not care to cross examine him first. I will cross examine him after you have finished.

Mr. Stallman. All right.

Q About how many days after the explosion was it that you were at Black Tom? A Ten and eleven days after it.

Q And speaking generally of the condition of the land and structures at the time you were there, just what was their condition generally? A Wrecked and ruinous condition.

Q Do you know that there was a structure there known as the north pier? A Yes, sir.

Q And did you know there was a railroad yard over there known as Black Tom Yard? A Yes.

Q And warehouses and other structures? A Yes.

Q And when you were there did you observe the condition of them? A Yes, sir.

Q Did you observe anything there, Doctor, in the nature of a hole called a crater in this case? A Yes, I did.

Q On Black Tom? A Yes; it was flooded at the time and showed every evidence of being wide and deep.

Q Did you see anything there of the remains of explosive materials or ammunition? A Yes; I saw boxes broken open and partially burned—almost entirely burned in some cases; partially burned in others; deeply charred.

Q Of what material? A Smokeless powder—from the cartridge cases, half empty cartridge cases with smokeless powder in them; smokeless powder lying on the ground; and black powder from shrapnel, and also damaged shrapnel cases and damaged high explosive shell cases; benzol drums, or supposed to have contained benzol. Some of them burst open, showing that they contained a volatile combustible hydrocarbon, showing the results of smoky flame; and cases of trinitrotoluol, as I said, burst open and partly fused in some cases.

Q What is the effect, Doctor, of heat on TNT so-called? A The first effect of a heat of 160 degrees more or less is to melt it. The later effects—

Q What can you say as to the combustibility of this explosive TNT? A The later effects of heat then of course would be inflammation—burning. And the later effects of a widespread burning of a large quantity of it would be intensely high local heats—intensely high heats locally.

Q When you were over there what was the condition of the structure known as the north pier? A It was nearly obliterated. It was not

very distinct as to its lines—very much splintered—smashed.

Q Yes; but was its general character and location evident—that there had been a fire there? A Its general location was evident, yes.

Q And did you see the wrecks of any box cars? A Yes; a very large number of them.

Q Yes; and according to your recollection what was the size of this crater that you speak of? A It was about 275 or 300 feet long, and with a lesser diameter the other way, at right angles. It was an oval-shaped cavity.

Q Now, Doctor, assuming that over at Black Tom on the 30th of July, 1916, between twelve o'clock midnight and two o'clock in the morning there were certain carloads of explosives on tracks at Black Tom Yard as follows: On the most northerly track leading out toward the north pier and on the north pier three carloads of trinitrotoluol in the particular location shown by the three red marks on this map, and two carloads of ammunition for cannon out on the end of that track; and on the next track five box cars in the position indicated by the uncolored rectangle, and then eight carloads of trinitrotoluol in a row as indicated by these red marks on the map, and then another car, box car, without any lading, indicated by the black rectangle, and then next to that three carloads of wet nitro cellulose in the position incated by the purple rectangle, and then on that same track further east four carloads of benzol, as indicated by the dark green rectangles, and on the next track to the south seven carloads in a row of ammunition for cannon with the projectile fuse attached, in the location indicated by the yellow rectangles on this map, and then

on the next track some box cars, the contents whereof are not indicated, as shown by the black rectangles, and on the next track four carloads of cannon ammunition as shown by the yellow rectangles, and then a car containing benzol in the position indicated by the gray or green rectangle, and then four carloads of ammunition for cannon following that, and then finally on the end two carloads of combination fuses, and assuming that a fire started in or next to one of those box cars and that that conflagration spread to a number of those cars, setting fire to the cars containing the ammunition for cannon so that as that fire progressed shells and shrapnel and parts of the contents of the shrapnel were thrown about and sparks thrown up in the air following the trail of the projectiles as they were thrown about, and after that conflagration among those cars had continued from about 12:45 or thereabouts until ten minutes after two or thereabouts, and that then there was a sudden explosion accompanied by deafening noise and great flare of flame into the sky sufficient to break plate glass windows at various distances from this particular point, that is to say, four, five, six or seven miles away, and that after that explosion there was a hole in the ground approximately 375 feet in length by 175 or 200 feet in width, and ranging from about eight feet to ten and one-half feet in depth, the location of which is indicated by the dotted line on Exhibit P. 1, and in which location of that crater there had been these eight carloads of trinitrotoluol, can you tell us from those facts, or can you give us an opinion from those facts as to the cause of the explosion which made that large crater and produced the

other effects which I have mentioned? A With those facts in mind I am of the opinion that the initiation was a fire and the culmination was an explosion of the cars of trinitrotoluol due to rapid flaming combustion and intense heat of the gases produced.

Cross examination by Mr. Garrison.

Q I suppose, Doctor, in the course of your studies on this subject you have experimented a great deal with these explosives, haven't you? A Yes, sir.

Q And you have experimented a lot with t.n.t., haven't you? A Yes, sir.

Q When was t. n. t. known to the profession? A I can not say; not so many years ago.

Q Well, give us some idea. A I think it has been theoretically known for many years, as long as toluol has been known, and it has been experimented with as a high explosive for more than twenty years.

Q Well, you know, don't you that it has been known for more than thirty years, perhaps? A I think it has, yes.

Q Her Majesty's High Commission as the British call their commission, when they published their report in 1875 stated that t. n. t. was so safe that they didn't make any regulation with respect to it, didn't they? A They may have done so under a misapprehension.

Q Under a misapprehension? A Yes, sir.

Q Well, everybody rested under that misapprehension for many, many years, didn't they? A No sir; I don't think so.

Q What is the chemical composition of t.n.t.? A It is a molecule of toluol united with three molecules of the nitric acid radial.

Q In what proportion? A In the proportion as given. I can not give you the—

Q Can't you give me the formula? A Well, the formula, yes, sir. The formula is C_6 H_5 CH_3 NO_2 three times.

Q That is trinitrotoluol? A Yes, sir.

Q That is where your "tri" comes in—three times? A Yes, sir.

Q Sulphuric acid is one of the things used? A Sulphuric acid is used in helping out the reaction.

Q Helping out the reaction of the nitrate? A Yes, sir.

Q Almost all high explosives are some form of nitric acid, aren't they? A Not all.

Q I say almost. Picric acid and dynamite and t.n.t.—most of the high explosives use some form of nitrate? A Yes, sir.

Q And in most of them sulphuric aid is used to help out the nitrating? A It is to help out the making of it.

Q That is what I say. A It does not remain in the material.

Q Do you know what the melting point of t.n.t. is? A It varies; in the neighborhood of 75° centigrade.

Q Well, give us that in Fahrenheit. We are all used to Fahrenheit. A It is about 165.

Q What? A About 165.

Q About 165. A About 165.

Mr. Smith. Fahrenheit?

Mr. Garrison. Yes. I asked him to give it Fahrenheit. You have to multiply and divide to get it from centigrade to Fahrenheit, and it is a hard formula.

Q Now, the difference between a high explosive and a low explosive is that the characteristic of a high explosive is detonation, isn't it? A Yes, sir.

Q A low explosive is one in which the explosive is produced by ignition or combustion; is that correct? A Yes, sir.

Q And in a high explosive the explosion is produced by detonation? A Yes, sir.

Q Just describe to us, Doctor, what detonation is, won't you? A Detonation is sudden and immediate decomposition of an entire mass of the solid into gases.

Q Produced by something similar to a wave sound, isn't it, as its name implies? A The effect that will determine detonation has a suddenness which is communicated by wave action in the form of a very sudden shock through the molecules of the high explosive.

Q Precisely. It is a sudden shock that quickly travels through the entire mass of the high explosive? A Yes, sir.

Q About how fast does that travel? I mean as well as they are able to calculate it? A I can not express it.

Q Well, it is expressed in books, isn't it? A Yes, sir.

Q About as high as 21,000 feet a second, or some such awful thing as that? A I think it is probably much more than that.

Q More than that? A Yes, sir; it is a greater propulsion of the explosive wave.

Q What is the difference between benzol, chlor-benzol, and monochlor-benzol? A Chlor-benzol would be a class term. Monochlor-benzol is one form of—is one in that class; and it is

benzol which has been so treated that one molecule of chlorine is united with it.

Q Well, what is it? A It is a volatile combustible liquid, which resembles benzol very much in appearance, and is used as an intermediate in the manufacture of dyes.

Q And chlor-benzol has a burning point of what? A What do you mean by a burning point, a flash point?

Q Yes, whatever the term is, when it will burn. Call it what you please. A Well, I can not express it. I think it is extremely low.

Q You don't know? A No, sir.

Q Do you know what the flash pointer burning point of monochlor-benzol is? A No, sir.

Q You don't know much about benzol, do you? A Yes, sir.

Q But you don't happen to know that part? A I don't happen to carry it in my mind. I can obtain it for you in a moment if you wish.

Q I wish you would.

(Witness refers himself to a volume.)

The Witness. Give me that other book, please.)

(A book is handed to the witness and he refers himself to it. The title of the book is "Explosives and Their Power." By Berthelot.)

The Witness. No, I have not any notes on benzol itself, only nitro-benzol.

Q Nor chlor-benzol, either? A No, sir.

Q All right. Is wet nitro-cellulose an explosive? A It must be considered as an explosive. It is extremely difficult to detonate it, though, wet.

Q Well, now, I want your scientific opinion, whether wet nitro-cellulose is or is not an explosive? A Yes, sir; it is an explosive.

Q What are combination fuses? A Time fuses for ammunition.

Q Are they mercurian? Is that what they are made of? A Well, there is a very small amount of fulminate of mercury in it.

Q The rest black powder. A Black powder or gun cotton.

Q What? A Black powder or gun cotton.

Q Have you ever experimented with t.n.t. to determine whether or not it would explode as the result of heat? A No, sir.

Q Do you know from anything that you can learn from scientific experimentation that t.n.t. will explode as the result of heat alone? A Yes, sir.

Q Tell us how you know that? A From my studies which have convinced me that all of the high explosives in inflammation or burning can produce such physical effects upon small particles of the extremely highly heated explosive that will initiate detonation.

Q Well, I asked you, I think, whether or not there was anything that you could reach by experimentation to determine that conclusion, and you didn't answer me with respect to that, did you? A No, sir. It was not by experimentation of my own—oh, I beg your pardon; I have one experiment performed of nitro-cellulose body.

Q Oh, no. I didn't ask you a word about nitro-cellulose. I asked you about t.n.t. A Well, I have that opinion about all high explosives.

Q But still you do not get my point? A Yes—

Q Can you give me a scientific answer based upon experimentation as to the explodability of t.n.t. from heat alone? A Yes, sir.

Q You can? A Yes, sir.

Q Tell us the experiment you made— A No, I made no experiment indicating it as regards trinitrotoluol.

Q That is all I am asking you. Just for a minute let us confine ourselves to t.n.t. Now, so far as you know from your own experimentation you are not able to say whether t.n.t. will explode from heat alone, are you? A No, sir.

Q You do know, of course, from your own experimentation that it will explode from any kind of a detonating fuse or detonating effect? A Yes, sir.

Q Now, I presume from your answer to the hypothetical question put to you by Mr. Stallman, that you express the scientific opinion that the t.n.t. which exploded at the crater did so by reason of the direct result of heat; is that correct? A Yes, sir.

Q Have you reached any scientific conclusion as to when t.n.t. ceases to burn and will explode from heat? A I don't understand your question.

Mr. Garrison. Read the question.

Q (Repeated by the stenographer.) Have you reached any scientific conclusion as to when t.n.t. ceases to burn and will explode from heat? A I do not understand what you mean.

Q You do not understand it? A No.

Q You know, as a matter of course, usually when you light t.n.t. it burns? A Yes, sir.

Q You have seen that done hundreds of times? A I have seen it a good many times, yes, sir.

Q Well, in the many years you have been at it you have seen it hundreds of times, haven't you? A No, sir.

Q You have not experimented with it very much, then? A Yes; I have experimented.

Q Well, how many times have you seen it do that? A Maybe fifteen or twenty times.

Q And the usual scientific knowledge about it is that usual effect of heat as to t.n.t. is merely to burn it; isn't it? A Yes, sir.

Q Yes. Now, then, since you believe and have expressed that belief as your belief that this t.n.t. at this place exploded as the result of heat, you must reach some conclusion, I should think, as to at what point it ceases to burn and explode. Haven't you reached any such conclusion as that? A Yes, sir.

Q Now, where is that point, please? A That point is the point where a decomposition of the material itself takes place, at such a high temperature and with such production of pressure, of gases, that the blows administered to another particle of highly heated trinitro—sufficient to detonate it.

Q Then, after all, it does go off from detonation; is that correct? A I believe that the physical effect of rapid flaming combustion of a very large quantity of t.n.t. has the same detonating effect as a true detonant, such as—

Q That is what I understood you to say. The net result of it is that although you believe that the detonating effect was generated by the fire, rather than by some other detonator, it is the

fact that you believe that it finally went off as the result of detonation? A Yes, sir.

Q That is correct. So that your notion is that if you get a large quantity of t.n.t. together, and have at its vicinity a very hot fire— A Yes.

Q—a point will come when it will cease to burn and the detonating effect will be produced and there will be an explosion; is that correct? A Yes, sir.

Q Of course, you have no way of knowing—and, of course, no one else has any way of knowing—as to how many of those cars in the so-called crater, or at the place where afterwards there was the so-called crater, burned up, and how many exploded? You have no notion about that, of course, have you? A No, sir.

Q You do not know whether one car exploded, or ten or five? A Well, I would understand that the detonation was of a very large quantity of it, involving the contents of several cars.

Q But you can not—I won't say that; maybe you can tell us; maybe you know something that we have not been able to find out—if there were seven cars at the place where the crater now is, are you able to tell from your scientific knowledge the contents of how many of those cars exploded? A I am not able to tell with any definition.

Q Therefore, you do not know whether it was one or two or three or four or five or six or seven, do you? A I have no accurate knowledge.

Q Well, you have not any knowledge about that, have you? All you know is that there

was a great explosion at that place, don't you? A Yes, sir.

Q And you do not know whether that was the contents of one car or the contents of six cars, do you? A Well, I believe it was the contents of several cars.

Q What makes you think that? A On account of the tremendous effect of it.

Q Well, if you had one car of t.n.t. detonated at that place, wouldn't that produce the effect that you saw there? A I doubt if it would produce the excavation in such a long line.

Q Why do you doubt that? A Because that is a long line; the excavation covers over an acre of ground.

Q And it is the softest kind of soft material, isn't it? A It is cinders. Well, I don't know; I think it was very substantially filled.

Q Well, but it is cinders? A That is hard material.

Q But it is cinders, isn't it? Without characterizing it, it is cinders? A I think it was.

Q They don't pack tightly together, do they? A. They do.

Q These were tightly packed cinders, were they? A The same as the usual railroad yard that you see.

Q Well, did you see these before the explosion? A No—well, yes; I went down there before.

Q And you noticed this place where the crater now is? A No, I can not tell, except that I believe it is like the usual railroad yard which has been filled—always some steam ashes.

Q Yes, all right. Now, the effect of a high explosive is in what direction? A In all directions.

Q In all directions? A Yes, sir.

Q Therefore, it has just as much effect down as it has up, and on all sides, hasn't it? A It starts with just as great pressure down as on either side.

Q Yes, that is what I say. Therefore, the effect of this high explosive was just as much to dig a hole in the ground as it was to throw out the side of a building that it hit, wasn't it? A The effects were different, depending upon the resistance offered.

Q Exactly. But the amount of force was the same. A The initiation—the start from the center of activity is in all directions equally.

Q Exactly. The force was the same in whatever direction it was exerted? A Yes.

Q Precisely. Therefore, when it was exerted against the earth, it was exactly the same as when it was exerted on either of the sides? A The net force was. The effects were different.

Q Yes, exactly. Now, you said that you went out on this north pier and observed conditions there? A I don't remember that.

Q Why, you said in your direct examination that you did. A Then it was a misconception of the question. I walked about there and I was on that north pier; what immediate part of it I can not recollect.

Q You saw— A Oh, I remember now. I did see those three cars. I remember now.

Q And you observed that they had t.n.t. cases in them that had burned up? A Yes, sir.

Q You are quite content that no explosion took place out there where those cars of t.n.t. were contained? A Yes, sir.

Q So that there was the contents of three cars of t.n.t. that it did not explode; isn't that correct? A Yes; there was very considerable in the yard there of that character.

Q Now, Doctor, can you give us any explanation of that, why it is all three cars in the conflagration completely burned up without the slightest explosion, and seven or eight cars burned up and some of them exploded; can you explain that? A Well, that is a question of intensity of the heat at a time when a large amount is aggregated and burning.

Q But you are really—I want to be as pleasant as I know how to be, but I have to express the idea—you are only guessing at it? A No, sir.

Q You haven't any scientific knowledge that at any particular point this detonating effect of heat takes place? A I have a scientific knowledge that it is possible to take place.

Q What do you base that on? A The theoretical consideration of the composition and actions of all trinitrotoluol.

Q Can you point me to any treatise on the subject, or any other place, any scientific man who is an authority, who says that there is any point that he indicates where the amount of heat will produce detonation on t.n.t.? A I think I can.

Q I wish you would? A Not on t.n.t., excepting as a class.

Q No, sir; we are talking about t.n.t. and nothing else? A I believe it covers that.

Q I do not want it and I won't on my examination receive it unless it is confined to t.n.t. I know what the characteristics of these other high explosives are; I am not interested in it. I am only interested in the one high explosive. A Berthelow, one of the greatest authorities, as reported in the Hake translation, London, 1892, says: "The author (that is, Berthelow himself) is of the opinion that every explosive reaction should be attributed to a preliminary heating which is gradually transmitted, directly or indirectly, raising successively all the parts of the matter to the temperature of decomposition."

Q I wish you would now confine yourself in the authorities to somebody that is dealing with this particular material that is known as trinitrotoluol. I know all about these explosives. A This citation says, "Every explosive reaction."

Q What date is that? A 1892 Edition of Hake's Berthelow.

Q When was it written?

The Court. 1892.

Mr. Garrison. He said it was 1892 edition.

A It was written by Berthelow.

Mr. Garrison. He said 1892 edition; it may have been written at that time or years before.

A It was written by Berthelow I think probably in 1880 and 1890.

Q Yes, precisely. At that time trinitrotoluol was of very, very slight use, wasn't it; scarcely used at all commercially? A Scarcely at all, yes.

Q Now let us pass on, Professor, and please cite to me, if you can, any authority which states a point at which t.n.t. will explode from the effects of heat alone? A (Witness examining book.) Well, unless you permit me to read of explosive bodies and high explosives.

Q I do not stop you, but it will only take time for no purpose, because I know the general principles about explosive bodies other than t.n.t. A Those are the references I have.

Q You know t.n.t. has characteristics and properties entirely different from picric acid? A No, sir; except those related to its chemical composition, not its physical composition.

Q Do you wish to confine yourself to the statement that experts on explosives classify t.n.t. and picric acid as having the same characteristics? A Yes, sir.

Q You were asked about the North Pier—you were asked the condition of the North Pier and you answered that it was nearly obliterated, that it was splintered and mashed, but its general location was still observable. What caused you to say the North Pier was splintered and mashed? A That is my recollection of that part of the yard when I was there—that part of the property.

Q Yes. Did you observe out here on the North Pier that all these cars were canted this way (indicating south)? A I don't remember that, sir.

Q Did you observe that these cars on all these piles out here were covered with mud and with dirt? A Yes.

Q The side from the north? A Yes.

Q The explosive force which was generated at the point of the crater would operate in what

direction upon a car situated where I have my finger, on the second car in on the North Pier? A That is the direction it would operate by an air-wave in the direction which you speak of, easterly.

Q So that it would hit the end of the car nearest the crater? A Yes, sir.

Q What is the scientific name of the fuse that they use to set off these high explosives? A The detonating agent?

Q No; what is the name of the fuse, what do you call it. It is the detonating fuse? A Well, fulminate of mercury cap, do you mean the cap to set it off?

Q No; that doesn't set it off. The cap is only used to have an explosive shell or shrapnel shell; they don't set the cartridge off with a time fuse, such as you are speaking of. A What kind of a cartridge are you speaking of?

Q I want to know the name of the fuse they use in the cartridge. A What kind of a cartridge?

Q Yes; what kind of cartridge do you call it? Is it a detonating fuse that you call it? A I don't understand you, sir.

Q Suppose you wanted to set off a high explosive and you wanted to go in the store and order it—what kind would you ask for? A The cap sets it off.

Q What kind of cap do you call it? A It usually contains the detonating agent, fulminate of mercury.

Q What do you call the cap? A The detonating cap.

Q That is what I want to get at. These combination fuses that you speak of are the

noses that go on the end of the shell that contain the shrapnel? A Yes, sir.

Q Or explosive or high explosive that is to split, isn't it? A Yes, sir.

Q So we start with a case, which I am going to illustrate with this book for just a minute, which has the propelling charge in it? A Yes.

Q Then on top of that we have another case which has the little balls in it that are called shrapnel? A Yes.

Q This thing stays in the gun and this one goes out of the gun? A Yes, sir.

Q Then this little cap— A Nose-piece.

Q Then this combination fuse is on the end of this? A Yes.

Q That has nothing to do with shooting the thing out of the gun? A No, sir.

Q What that goes off by reason of the fact that you have set it at a certain time, it runs around through this shell and throws the little shot out of it? A Yes.

Q Of, if it is a high explosive it breaks this shell up? A Yes.

Q The sole purpose is to scatter the destructive effect of the kind you have out in this case in front? A Yes.

Q That, of course, is not the detonating fuse; the detonating fuse is back of that which sets the shell off? A Sets the shell off, yes, sir.

Q Did you see any detonating fuses down there when you were down there, Doctor? A Well, I saw time fuses.

Q No, we have just worked it out that those are not detonating fuses. Did you see any detonating fuses? A A propelling charge?

Q Yes. A No, sir.

Q You did not see any of those? A No, sir.

Q Now, Doctor, did you see a shell at least as large as a five-inch shell imbedded in the timbers on the north side of the south pier? A No, sir.

Q You did not see it? A No, sir.

Q You said you saw boxes of smokeless powder and packages and black powder and shrapnel. Were those boxes the contents of which had been destroyed? A I did not see boxes of smokeless powder. The only smokeless powder I saw was in those propelling charges for shells.

Q Oh— A It was in the brass shells—brass cases.

Q Had those shells been exploded? A No, sir.

Q They had not been fired off? A No, sir.

Q And what about the shrapnel. Did you mean shrapnel shells? A Yes, sir; the shrapnel shells were there in plenty.

Q That had not been exploded? A No, sir.

Q Well, I don't just understand. Do you mean that they had gone off or had not? A Some of them had gone off.

Q Some had and some had not? A Some had lost their charge and some still contained it and in all stages of that.

Q Benzol is not an explosive, is it? A No, sir—well, only relatively. No, it is not an explosive.

Q In the same sense everything is explosive? A Yes; if benzol is vaporized with the air it is an explosive, but benzol is not explosive.

Q As a matter of fact, scientifically speaking, anything that burns and produces expansion

is to some degree an explosive? A I do not think it can be called so, unless it is under condition.

Q Only a matter of degree? A Yes; extreme rapid combustion.

Q Only rapid degree? A Well, at any lower degrees it is not an explosive.

Q Well, perhaps that is as good an answer as the other, but it is only a matter of principle—it is only a matter of how rapid an expansion? A The expansion of the gases.

Q Well, that is the only difference? A Yes.

Q That is all. Doctor, taking Mr. Stallman's hypothetical question, and by that I mean the layout as he gave it to you and assume either a high explosive shell or a shrapnel shell or a detonating fuse was propelled among those cars containing t.n.t., would, in your scientific judgment, that produce an explosion? A Yes, sir.

Q It is the ideal way to explode t.n.t., would be with a detonating fuse? A That is the most certain way.

Q And the ideal way? A With a detonating cap, you mean?

Q Yes. A Yes.

Q The best way? A Yes.

Q Doctor, you have no scientific explanation as to why the quantity out on the north pier in three cars burned and did not explode and why some other quantities, lesser, in your judgment, did explode, have you? A Yes, sir.

Q What is it? A That the temperatures and masses were not as great.

Q Then you think— A The physical effects of the rapid flaming combustion were not manifest in the—

Q You think, therefore, that three cars of t.n.t., scientifically, would burn and not explode, but more than three would explode, is that the idea? A No, sir; I do not.

Q Well, explain it to us. A Well, if the three cars were burning I would leave the vicinity. I think it is dangerous anyhow. But in that particular case involved it did not.

Q Precisely. That is all you can say? A Yes, sir.

Q And if those three cars exploded then you would have had a scientific judgment that three would explode? A I would have a scientific judgment that the mass involved was great enough to produce physical effects which would—

Q What say? A That the masses and conditions of flaming were great enough and the conditions of temperature high enough to produce physical effects equal to detonating agents.

Q Yes. How much were in these cars out on the north pier, do you know? A Something like fifteen or twenty tons, I should think, or had been originally; the disposition of cases there on the cars would seem to indicate such quantities were in that.

Q Such quantities as what? A Fifteen or twenty tons.

Q Fifteen or twenty tons? A Yes.

Q Well now, if there were fifty-seven thousand pounds in each car, so that there were three times fifty-seven thousand pounds, would that affect your scientific judgment? A If they all became massed together I believe it would be a position of extraordinary danger almost amounting to certainty of detonation.

Q Just assume this state of affairs. Assume that out on the north pier on the night of this explosion there were three cars of t.n.t. containing fifty-seven thousand pounds each, the contents of which were destroyed—you know they were? A Oh, no; there was some of them remained.

Q Some of them remained? A Yes, sir.

Q Oh, you mean which were on fire? A Yes, sir.

Q And did not explode? A Yes.

Q That is correct? A Yes.

Q What is your scientific explanation as to why three times fifty-seven thousand pounds could burn without exploding? A Because it didn't run together, melt together, and come to such a high temperature that it was detonated.

Q Why was there any more likelihood of any more cars melting together than three on the pier? A On account of the rapid propulsion of the flame along the line of those cars.

Q Well, let me ask you: Have you any preference as a matter of scientific theory to the belief that the fire by itself alone caused this detonation we speak of than that it was produced by some kind of flying projectiles or detonating fuses or something else that was flying around there? A I have no preference.

Q When it might have happened as well in one as in the other? A My belief is that it is more likely to happen from inflammation and high temperatures.

Q Than from a detonated fuse? A Involving a large amount of the body—yes.

Q You think it is more apt to happen from the heat than from detonating fuses? A Under

the question set down by Mr. Stallman's question.

Q I am not asking you about Mr. Stallman's question. I am asking you about the amount of t.n.t. in those cars in a vicinity of fuses and explosive shells and shrapnel. I ask you whether you prefer to rest your scientific judgment—everybody admits there was an explosion; do not get the idea that I was trying to suggest that there was not an explosion. Now would you prefer to base your scientific judgment on the idea that the explosion took place by reason of the heat or by reason of some detonating effect from a shell or a fuse? A If the shells and fuses were detonating shells and were close to the cars of trinitrotoluol, that would be the more likely supposition, that that would set it off.

Q Yes. A If they were not close to the cars the inflammation and high temperature supposition would be the more probable one.

Q Yes, that is all.

Re-direct examination by Mr. Stallman.

Q Just one question. Bearing on your last answer, would you consider that the ammunition cars, that is, the shrapnel were distant 10 feet or twenty feet, sufficiently close to produce that detonating effect that you have just spoken of? A Not unless a car would be detonated, which would be an extremely improbable supposition.

Mr. Garrison. I couldn't hear that.

A Not unless the whole car of the fuses detonated, which would be an extremely improbable supposition.

Mr. Garrison. I do not think he asked about fuses. I think he asked you about shrapnel shells.

Q Yes; what I meant to say was this. If you had a carload of shrapnel on the next track to the t.n.t. or the second track from it and one of those shrapnel shells would fly out of the car and explode in among the t.n.t.; whether or not that would be more likely to produce the result than the heat? A Well, no, but with the heat present it would be more likely—far more likely to produce the detonation.

Mr. Garrison. The shell would?

Q Yes; the bursting and the impact of the metal particle when this trinitrotoluol was at a high temperature, is almost a certainty it would produce detonation.

Q That is all.

The Court. Adjourn now until ten o'clock tomorrow morning.

ADJOURNMENT.

Jersey City, N. J., December 14, 1917.
Trial of the Cause Resumed at 10:20 A. M.

(Third Day).

JAMES J. KELLY, sworn.

Direct examination by Mr. Stallman.

Q Where do you reside? A 120 Union street, Jersey City.

Q Where are you employed? A Lehigh Valley Railroad.

Q In what capacity? A Stationary fireman.

Q How long have you been working for the Lehigh Valley. A For twelve years.

Q Is your place of employment at Black Tom? A Yes, sir.

Q Were you employed there on the early morning of July 30, 1916? A Yes, sir.

Q And where was your place of work on Black Tom? A At the elevators.

Q At the elevators? A Yes, sir.

Q And do you refer now to the two elevators marked as the new grain elevator and the grain transfer elevator on the westerly end of Black Tom? A Yes, sir.

Q What work did you do in the new grain elevator? A None at all.

Q At that time? A No, sir.

Q I thought you said you worked there? A Well, I watched around there; there was no work in there for me to be done.

Q What is that? A I didn't have anything in there to do, except watch.

Q You went around it? A Yes, sir.

Q How about the grain transfer elevator? A I had two boilers to take care of.

Q How big were those boilers? A Five hundred pounds.

Q Five hundred-pound boilers? A One hundred twenty-five horse, each one.

Q One hundred twenty-five? A Yes, one hundred twenty-five each.

Q I see; and they were for the generation of steam for the elevator machinery? A Yes, sir.

Q And besides looking after the boilers you acted as watchman around those two grain elevators? A Yes.

Q You had nothing to do with the easterly end of Black Tom? A No, sir.

Q Or the yard or anything of that character? A No, sir.

Q Do you remember the explosion at Black Tom on that morning that I have spoken of? A Yes, sir.

Q Do you remember the fire before the explosion occurred? A Yes, sir.

Q Were you anywhere that you could see that fire? A I saw a small one.

Q Small fire? A Yes, sir.

Q About how big? A Oh, when I first saw it it was about four or five feet.

Q Four or five feet wide? A No, high, the flames.

Q Oh, four or five feet high. How big an area did it cover; that is, how wide was it? A Oh, two feet.

Q Two feet wide? A Yes, sir.

Q Who called your attention to that fire? A Why, I was in the elevator at the time and I heard the whistle blow, and so I came out, and I went down as far as the pump room and man Sloan told me there was a fire at the north pier.

Q You went from your elevator where you were working down to the pump room? A Yes, sir.

Q Down where Sloan had his pumps? A Yes.

Q And did you see the fire before you got to the pump room? A Well, no, I couldn't say I did. I went out after he told me there was a fire, over on the crossing.

Q Oh, I see. You went out on the crossing between Store F and Store G? A Yes, sir.

Q And where did you go out, on the main driveway? A On the main driveway—over further on the sea-wall.

Q How did you get from the grain transfer elevator down to the pump house? A How did I come down?

Q Yes. A Right along the first track. It is on the outside, at the platform.

Q On the platform side of the stores? A Yes, sir.

Q That is about eight or nine hundred feet down from where the grain elevator is? A Yes, sir.

Q And you say you saw this small fire; what was burning? A Well, I couldn't say what it was, but it looked like a barrel, that is about all.

Q See any freight cars down near that fire? A Well, I could see the cars down there, yes.

Q Did the fire or the glare of the fire help you to see the freight cars? A Well, you could see them without the fire, because there were cars all along there.

Q Yes, but this was at night? A Yes, sir.

Q You could see the fire; the fire was some distance from you, was it? A Yes, sir.

Q Down along the end of the last warehouse? A Oh, it seemed further than that.

Q You say you could see the cars? A Yes, sir.

Q Yes; and this fire was how close to the cars? A Well, it was right in—like in between them—it looked to me right in between them.

Q In between the two strings of cars? A Yes, two strings of cars.

Q Did you go any nearer? A No, no nearer than the pump room.

Q No nearer than the pump room? A No, sir.

Q How long did you stay there, Mr. Kelly. A I stayed there until the first explosion.

Q I see. A Between there and the elevator.

Q And did you watch this fire grow from a small fire to a large fire? A Yes, sir.

Q Did it grow to be a large fire? A Well, maybe four or five or six cars, looked to me.

Q About how many tracks were those cars that you saw burning? A Well, might have been three—no more than three.

Q I see; and could you tell the number of cars on each track that were burning? A No, I could not—I could not.

Q But you saw cars burning on three tracks? A Well, I would say not for sure, but two or three.

Q Well, I just want your best recollection, of course. A Yes.

Q And you think there were how many cars on fire, about six? A Well, might be six or seven.

Q And you watched that fire until the explosion? A Yes, sir. Between there and the elevator. I went from the pump room to the elevator.

Q Back to the elevator and looked after your boilers, I suppose? A Yes, sir.

Q And then you came out and looked at the fire again? A Yes, sir.

Q How high did the flames get to be? A Well, they didn't go much over the top of the box cars, I should say two or three feet.

Q See any fireworks? A I see the shells going off.

Q Saw the shells going off? A Yes, sir.

Q Where, on these cars that you saw burning? A I guess that must have came from there.

Q Now you didn't get any closer than the pump house, you say? A No, sir.

Q Did you see anybody else go down there toward the fire? A No, sir.

Q Didn't see any Lehigh Valley firemen go down to the fire? A No, sir.

Q Didn't see any Lehigh Valley firemen go down to put the fire out? A No, sir.

Q You stayed there until the explosion. I suppose you saw the explosion? A Yes, sir.

Q Can you give the jury an idea what the explosion looked like? A Well, just a flare and then a report—flare of light and then a report.

Q Where did the flare come from? A Seemed to come right out where them cars was.

Q Loud report, was it? A Sir?

Q Loud report? A I guess it was.

Q Did you notice any effects of the explosion in your immediate neighborhood? Feel anything yourself? A Well, gives me a jar.

Q Gave you a jar? A Yes.

Q Stood on your feet though? A Yes.

Q At that time about where were you, Mr. Kelly? A Why, just after coming out the grain elevator.

Q You were down at the grain elevator at the time the explosion occurred? A Yes, sir; just came out of the elevator and just got over to the roadway.

Q Over on this roadway about opposite the elevator? A Yes, pretty near opposite.

Q I see. About where my pointer is pointing? A Right—there is a crossing right there between the elevator and Store 3.

Q Here is Store 3, I am pointing to that on the map. A Right in between the Store 3 and the elevator.

Q About there? A About there; yes, sir.

Mr. Stallman. Judge Barrett, have you got your little tape measure there?

(Mr. Barrett produces tape measure.)

Q That about right, Mr. Kelly? (Indicating with tape measure.) A Yes, that is about right.

(Mr. Stallman and Mr. Barrett measure with the tape measure on map.)

Q So that is about eighteen hundred—was it about eighteen hundred feet from where you were? A Yes, when the—

Q After that did you hear another explosion? A Yes, sir. I was not in Black Tom then.

Q Where were you? A Took a walk up as far as Ocean avenue.

Q Is that a good time of the evening to take a little walk? A Time to go after the first.

Q Why? First explosion rather severe, was it? A It is not—

Q You went away from that place? A Yes, after the first explosion.

Q How far did you get to the time of the second explosion? A I was up on Ocean avenue when the second went.

Q About a mile away? A Oh, that is about a mile and a half away.

James J. Kelly, cross.

Q I am not criticising you, Mr. Kelly. A No.

Q Cross examine.

Cross examination by Mr. Garrison.

Q Mr. Kelly, when you first saw the fire, could you see whether it was in the yard or not? A Well, when I first looked it seemed to be on the extreme end of the north pier.

Q Way out on the extreme end? A Yes; that is the way it looked to me at the distance.

Q Could you tell whether on that pier or on a boat or what it was on? A Well, it looked right straight down; I couldn't say whether it was on the pier or on the boat; it was right straight down from where I was looking.

Q Now, later, when these cars got on fire there was considerable smoke, wasn't there? A Yes, sir.

Q And the smoke I suppose prevented you from seeing what was on the other side of the smoke? A Yes, sir; you couldn't see the other side.

Q Could you tell where this flare that you speak of came from? A Well, seemed to come right from where the fire was burning.

Q Back of the smoke? A Yes, sir.

Q Couldn't tell how far back of it? A No, sir; I couldn't tell you how far back of it.

Q How many years have you been down—in and around Black Tom? A Twelve years.

Q All this in here is water, isn't it? (Indicating on map.) A Yes.

Q I am pointing now to all south of the map beyond the last line on the map, and shall continue to point south until I alter my direction.

All around Pier 4 here outside of the black lines is water? A Yes, sir.

Q And all around Pier 5 outside of the black lines is water? A Yes, sir.

Q So with respect to Pier 6? A Yes, sir.

Q And all around Pier 7 to the south pier is water? A Yes.

Q Now, I am on the east; and then all in between these float bridges here to the south side of the north pier is water, and then all around the north pier is water? A Yes.

Q Back—was there water back here where Zeke's shanty was? A Yes, sir.

Q How far does that water run back? A Well, runs back about—oh, four—

Q This is what they call the pile stockade? A Yes. Well, the water runs back.

Q This is where the Jenk's place was? A Yes, sir.

Q Where Zeke Towne had his shanty? A Yes.

Q How far back of that, back landwards did the water go? A From there about five or six hundred feet.

Q Back in here somewhere? A Yes.

Q I presume that mark there is intended to be the line, but I don't know. When you got down to Sloan's pumphouse did you go in Sloan's pumphouse? A Yes, sir.

Q Did you observe how much steam pressure he had up? A He had about between one hundred and one hundred and twenty pounds on his gauge and he had one hundred and twenty-five on his pump pressure.

Q Did you see whether the valve was opened, the valve that let the water out when he had too much steam pressure on?

James J. Kelly, cross.

Mr. Stallman. I object to that as to not cross examination.

The Court. I think I will sustain the objection to that.

Mr. Garrison. I won't press it. That is all.

By the Court.

Q You saw this fire first. Was there any fireworks taking place then, any shooting? A No, not at first; no, sir.

Q How long after you first saw the fire was it that the shooting commenced? A Oh, I should judge about fifteen minutes; ten or fifteen minutes.

Q All right.

By Mr. Stallman.

Q I take it that you stayed right there and watched it? You watched it grow from the small fire you described until the fireworks commenced? A Yes, sir.

By the Court.

Q You say during that fire nobody, while you were watching, went near the fire? A Oh, only the trainmen, when the engines went down, they went down with their locomotive to pull out the cars.

Q Well, did they pull the cars out? A Yes, sir; they got some.

The Court. Well, did they pull the cars?

The Witness. Yes, sir; they got some.

The Court. Well, did any firemen or anybody with the fire apparatus go near that fire?

The Witness. No, sir; they only got down near Pier 5 crossing.

The Court. When you say they got down, whom do you mean by "they"?

The Witness. The fire department.

The Court. Jersey City Fire Department.

The Witness. Yes, sir.

The Court. Did they get there before the fireworks commenced? By the fireworks I mean the shooting?

The Witness. Yes; I think the shooting was going on when they got there.

The Court. Had you watched it for ten or fifteen minutes between the time you first saw the fire—

The Witness. Yes, sir.

The Court. —and the time the shooting commenced?

The Witness. Yes, sir.

The Court. Now, did any firemen from anywhere go near that fire during that interval?

The Witness. No, sir.

The Court. No; they did not.

By Mr. Stallman.

Q You were a witness at the Coroner's inquest? A Yes, sir.

Q Were you sworn? A Yes, sir.

Q You, of course, told the truth at that time, didn't you, as you recalled it? A Yes, sir.

Q Do you remember testifying at the Coroner's inquest—

Mr. Stallman. Would you want to look at this?

Mr. Garrison? It is a matter of direction on page 257.

Mr. Garrison. All right, sir.

Q (Q) "The fire was straight down the road?" (A) "That is the way it looked to me." A Yes, sir.

Q (Q) "It was not on the boats?" (A) "No; after the road got down to the end of the stores the railroad tracks began." A Yes, sir.

Q Of course, you know the difference between a boat and a freight car, don't you? A Yes, sir.

Q So there was not any fire on the boats? A Well, I could not say whether it was on the boats or whether it was on the cars; I was that far away from it.

Q Well, didn't you say it was on the boats? A Well, I might have. If it is there I have said it.

Q What is that? A If it is there I said it.

Q And you were telling the truth, weren't you? A Yes, sir.

Q And your recollection then was quite clear; more clear than it is now? A To my best knowledge.

Q When was it that you testified this way? About a year ago? A In August, I think.

Q August of 1916? A Yes, sir.

Q A little over a year ago. And at that time your memory was quite clear, wasn't it? A Well, about the same today.

Q Does your memory improve with age? A (No answer).

Q It does not, does it? A (No answer).

Mr. Stallman. That is all.

James J. Kelly, cross.

By Mr. Garrison.

Q When you heard this whistle, Mr. Kelly, did you go right down to Sloan's pumphouse? A Yes, sir.

Q And where did you see Sloan? Where was Sloan then? A Sloan was shovelling coal on the fire when I got in there.

Q On his fire, on his boiler? A Yes, sir; yes, sir.

Q And then you had some conversation with him about where the fire was, and went out on the roadway? A Yes, sir.

Q Now, at that time were there any shells going off? Was there any noise by exploding ammunition? A No, sir; not when I first looked.

Q How long after you first looked did you first hear the noise of any exploding ammunition? A Well, ten or fifteen minutes.

Q How do you fix that time? A Well, that is only guess work.

Q Yes. If you guess five minutes it might be just as near as if you guessed fifteen? A Yes, sir.

Q Pretty well excited, weren't you? A Yes, sir.

Q You knew there were explosives down there? A Yes, sir.

Q You expected danger, didn't you? A Well, we expected danger.

Q Yes. Well, I mean you expected something to happen? A Yes, sir.

Q Naturally. That is all.

By Mr. Stallman.

Q Do you know the difference between five minutes and fifteen minutes? A Yes, sir; if I am waiting for anybody.

Q Did you have any time clocks to punch? A Yes, sir.

Q And you punched them every hour like the rest of the men, I suppose? A Yes, sir.

Q And you thought it was fifteen minutes at that time; thought it was fifteen minutes until you saw the fireworks go off? A Yes, sir.

Mr. Stallman. That is all.

(Witness excused.)

Mr. Stallman. If the Court please, I have several other witnesses. I do not know whether they are under subpoena yet or not, but they are not here. Their testimony would be corroborative of what has already gone in; but inasmuch as they have not shown up I won't take the time now, or ask the Court to take any time to wait for them. I would like to offer in evidence for the admissions which it contains, and which I will point out, the original answer filed in this cause, especially paragraphs 7 and 10.

Mr. Garrison.. I think before you read those I want to make an objection.

Mr. Stallman. I won't read them at all. Those are paragraphs 7 and 10 of the first defense to the first count; the part of Par. 2 of the third defense to the first count. I would like to offer also Par. 17 of the first defense to the second count.

Mr. Garrison. If Your Honor please, I object to this offer as not being evidential. The answer is not sworn to. Any statements therein were the statements of Counsel and not of the parties. I do not understand under what rule of law an answer which has been supplanted by an amended answer becomes evidence against the defendant.

Discussion.

The Court. I do not understand upon what rule of law your objection is rested. I never have heard that the mere fact that an answer was not sworn to did not make it an admission just as much as if it were sworn to; and the rule that I adhere to finds confirmation in Jones on Evidence, section 273, where the author says that "on the same principle, where amended pleadings have been filed, allegations in the original pleadings are held admissible, but in such cases the original pleadings can have no effect unless formally offered in evidence"—as they are in this case. And this ruling is supported by a full citation of authorities in note 60 to said section 273.

In New Jersey the rule which I apply has found full confirmation in the following cases: *Schenck* v. *Schenck,* 5 Hal. 276; *Thompson* v. *Harvey,* Pen. 894; *Marsh* v. *Mitchell,* 26 N. J. Eq. 497; *Van Hook* v. *Somerville Co.,* 5 N. J. Eq. 633; *Evans* v. *Huffman,* 5 N. J. Eq. 254; *Lippincott* v. *Ridgway,* 11 N. J. Eq. 526; *Truax* v. *Truax,* Pen. 166; *Carren* v. *Coogan,* 50 N. J. Eq. 268; and the proposition that the pleading need not be sworn to in order to entitle it to admission is supported by *Craft* v. *Schlag,* 62 N. J. Eq. 567, where it is held that "admissions in an unsworn answer are competent evidence for the complainant"; and so far has the court gone in this matter that even admissions in bills of particulars are received—*Lee* v. *Heath,* 61 N. J. L. 250. So I think that I must admit it, and you may have your objection entered on the record.

Mr. Garrison. I pray an exception.

The Court. Oh, of course; you may have it.

Discussion.

Mr. Stallman. Now, Mr. Garrison, I have copied that original answer. Will you look it over and see that that is the one?

Mr. Garrison. Oh, no. If it is not, we will correct it, so far as that is concerned.

Mr. Stallman. Yes.

Mr. Garrison. No trouble about that, Mr. Stallman.

(Paper marked P. 3 in evidence.)

Mr. Stallman. I would like to offer in evidence, Mr. Garrison, a facsimile of these notices or tags, descriptions of which are set forth in the interrogatories. It describes them as to what the tag is, these letters are in red, and certain other letters are in red—these tags were on particular cars, with the exception that the tags on the cars in question did not have "Lehigh Valley Railroad" on, but the name of the railroad where the cars originated. With that qualification I would like to offer in evidence this exhibit marked P. 2 for identification.

Mr. Garrison. All right.

(P. 2 for identification received in evidence.)

Mr. Stallman. And the tag known as the inflammable tag.

(Paper marked P. 4 in evidence.)

Mr. Stallman. Then under the arrangement we had with Counsel as to the amount of damages, we will rest.

Mr. Garrison. We desire to move that the plaintiff be called, then, if your Honor please. Under an arrangement we have submitted to your Honor I understand we are to adjourn until Monday morning.

Discussion.

The Court. Yes, that will be the understanding.

Mr. Stallman. Just what is the purport of that motion? It takes me back so far I almost forget what it means.

The Court. I understand from the Secretary that he is going to submit at my request to me some memoranda, the principal authorities upon which he is to rest his motion, and also he has stated that he will submit those authorities to you so that you may answer them.

Mr. Garrison. Yes.

The Court. And I understand that will be done tomorrow morning.

Mr. Garrison. Yes, sir; just as quick as we can get them in your hands.

The Court. So that we can all follow the arguments each of the other with more intelligence than we otherwise would.

If that is all there is, now we can stand adjourned until Monday morning at ten o'clock. And you may go (addressing the jury) until Monday at two o'clock p. m. Be in your place as soon as you can, if you can, and when I say if you can I mean do not let any personal inconvenience delay you.

(Trial adjourned to Monday, December 17, 1917, at ten o'clock a. m.

Answers to Plaintiff's Interrogatories.

To Messrs. Stallman, Hoover & Peck,
Attorneys of Plaintiff.

Take Notice that the following are the answers of the defendant to plaintiff's interrogatories, served October 3, 1917:

1. Describe by means of map or otherwise, the dimensions of the Black Tom pier referred to in the pleadings in this action, and therein show or describe the location and extent of the tracks, buildings and other structures upon said pier as the same existed on July 30th, 1916.

2. Describe by showing on said map or otherwise the location of the fire hydrants, if any, on said pier.

Answer: On the assumption that the "pier" referred to in these interrogatories is intended to include all the lands and premises commonly known as the "Black Tom Yard" at Jersey City, and the tracks, buildings and other structures, including fire hydrants located therein or thereon, the defendant answers that the map hereto attached correctly indicates the dimensions of said lands and premises and the tracks, buildings and other structures therein or thereon, including fire hydrants, as the same existed on July 30, 1916.

3. State as nearly as possible the actual number of cars on said pier on the night of July 30th, 1916.

4. State how many of said cars containing or marked as containing explosives or explosive munitions were on said pier on the night of July 30th, 1916.

5. How long had said cars containing explosives or explosive munitions been on said pier up to twelve o'clock midnight of July 30, 1916?

ANSWER: On the assumption that the "pier" referred to in these interrogatories is intended to include all the lands and premises commonly known as the "Black Tom Yard" at Jersey City, defendant answers that the total number of cars on the night of July 30, 1916, was 228. None of the defendant's officers, agents or employes has any personal knowledge of the contents of any of the cars, excepting as shown by the shipping orders furnished by the respective consignors to this defendant (with respect to traffic originating on the defendant's line), or as shown by the waybills furnished by connecting lines to the defendant at the point of connection (with respect to traffic originating on such other lines). According to the statements in said shipping orders or waybills, defendant answers that there were 17 cars, the contents whereof were described and designated in said shipping orders or way-bills as "Ammunition for Cannon"; there were 11 cars, the contents of which were similarly described and designated as "High Explosives"; there were 3 cars, the contents whereof were similarly described and designated as "Wet Nitro-cellulose"; there were 2 cars, the contents whereof were similarly described and designated as "Combination Fuses".

The following is a list containing a description and the number of each of said cars, the contents thereof as shown by the said shipping orders or waybills and the number of days each

of said cars had been on said pier prior to July 30, 1916:

Car.		Lading.	On Hand.
C. St. P. M. & O.	33602 †	High explosives	2 days
C. & N. W.	129112 †	" "	2 "
C. St. P. M. & O.	32452 †	" "	2 "
C. & N. W.	139900 †	" "	2 "
C. & N. W.	135762 †	" "	2 "
C. St. P. M. & O.	32194 †	" "	2 "
C. St. P. M. & O.	30484 †	" "	2 "
C. & N. W.	131112 †	" "	2 "
C. & N. W.	137046 †	" "	2 "
C. & N. W.	126960 †	" "	2 "
C. St. P. M. & O.	30832 †	" "	2 "
Wabash	67166 †	Wet nitrocellulose	6 "
C. P.	128766 †	" "	6 "
P. R. R.	517708 †	" "	6 "
P. M.	52932 †	Ammunition for cannon	3 "
Erie	102070 †	" " "	4 "
P. R. R.	11832 †	" " "	4 "
P. L.	517981 †	" " "	4 "
P. L.	536124 †	" " "	4 "
H. V.	32020 †	" " "	3 "
G. T.	26343 †	" " "	3 "
B. & A.	37330 †	" " "	3 "
P. L.	517930 †	" " "	3 "
N. C. & St. L.	10194 †	" " "	3 "
P. R. R.	84422 †	" " "	3 "
C. & E. I.	61659 †	" " "	4 "
L. V.	85282 †	" " "	1 "
C. C. C. & S. L.	54578 †	" " "	4 "
P. & R.	14537 †	" " "	9 "
P. & R.	12275 †	" " "	11 "
P. R. R.	84146 †	" " "	part day
N. H.	77254 †	Combination fuses	6 days
N. H.	84321 †	" "	6 "

6. To whom were said cars consigned?

ANSWER. The contents of the cars described as "Ammunition for Cannon" were consigned to the Bethlehem Steel Co.; the contents of the cars described as "High Explosives" were consigned to C. J. Medziknovsky; the contents of the cars described as "Wet Nitro-cellulose" were con-

signed to G. W. Sheldon & Co.; the contents of the cars described as "Combination Fuses" were consigned to Bethlehem Steel Co.

7. On July 30th, 1916, did the defendant own or lease, occupy and use said pier known as Black Tom pier and the lands covered with water immediately adjacent thereto?

ANSWER: On the assumption that the "pier" referred to in this interrogatory is intended to include all the lands and premises commonly known as the "Black Tom Yard" at Jersey City, defendant answers that it did not own the said lands or premises; it leased, occupied and used the same in accordance with the terms and provisions of a certain lease made by National Storage Company dated June 24, 1913. Copy of said lease and of the map therein referred to is hereto attached as a part of this answer.

COLLINS & CORBIN,
Attorneys of Defendant.

STATE OF NEW YORK,
COUNTY OF NEW YORK. } *ss.*

R. D. VAN DUZER, being duly sworn according to law on his oath says, that he is employed by the LEHIGH VALLEY RAILROAD COMPANY as Assistant Real Estate Agent, and has knowledge of the facts called for in plaintiff's interrogatories Nos. 1 and 7; that he has read said interrogatories and the foregoing answers thereto and said answers are true to the best of his knowledge and belief.

R. D. VAN DUZER.

Subscribed and sworn to at New York, N. Y., this 18th day of October, 1917, before me, the subscriber a Notary Public in and for said county and state, duly commissioned and sworn, as witness my hand and official seal.

[SEAL] VINCENT P. SENNETT,
Notary Public, New York County No. 558.
New York Register No. 8449.

STATE OF NEW YORK, }
COUNTY OF NEW YORK. } *ss.*

A. M. DICKMAN, being duly sworn according to law on his oath says, that he is an employee of the LEHIGH VALLEY RAILROAD COMPANY, to wit, Special Agent, and formerly Agent at National Docks, and has knowledge of the facts called for in plaintiff's interrogatories Nos. 3, 4, 5 and 6; that he has read said interrogatories and the foregoing answers thereto and said answers are true to the best of his knowledge and belief.

A. M. DICKMAN.

Subscribed and sworn to at New York, N. Y., this 18th day of October, 1917, before me, the subscriber, a Notary Public in and for said county and state, duly commissioned and sworn, as witness my hand and official seal.

[SEAL] VINCENT P. SENNETT,
Notary Public, New York County No. 558.
New York Register No. 8449.

STATE OF NEW YORK, }
COUNTY OF NEW YORK. } *ss.*

JOHN M. JULIAN, being duly sworn according to law on his oath says, that he is employed by the LEHIGH VALLEY RAILROAD COMPANY, as Fire Marshal, and has knowledge of the facts called for in plaintiff's interrogatory No. 2; that he has read said interrogatory and the foregoing answer thereto and said answer is true to the best of his knowledge and belief.

JOHN M. JULIAN.

Subscribed and sworn to at New York, N. Y., this 18th day of October, 1917, before me, the subscriber, a Notary Public in and for said county and state, duly commissioned and sworn, as witness my hand and official seal.

[SEAL] VINCENT P. SENNETT,
Notary Public, New York County No. 558.
New York Register No. 8449.

THIS AGREEMENT, made in duplicate the 24th day of June in the year One Thousand nine hundred and thirteen (1913) between the NATIONAL STORAGE COMPANY, a corporation of the State of New Jersey (hereinafter called the Storage Company) of the first part, and the LEHIGH VALLEY RAILROAD COMPANY OF NEW JERSEY (herinafter called the Railroad Company) of the second part;

WITNESSETH:

THAT the Storage Company has let and demised and by these presents does let and demise unto the Railroad Company ALL the lands be-

longing to the National Storage Company, situate at the National Docks, Jersey City, Hudson County, New Jersey, being a tract of land containing about one hundred and eleven acres, more or less, together with all the tracks, wharves, piers, docks, bulkheads, stores, warehouses, elevators and power houses, and all other buildings and structures of every kind whatsoever erected thereon; excepting and reserving therefrom about one hundred and forty-nine thousand and five hundred (149,500) square feet, together with the following structures erected thereon: Stores "A", "E", "F", "G", "H", "I", "K", "L", "M", "N", "O", "P", "Q" and "R" and Pier 6 and Shed No. 2 on Pier 7, and the office building (40′x25′), located between Stores "F" and "G", together with the rights of access thereto and wharfage rights in connection therewith as herein provided.

PROVIDED, however, that the Railroad Company may use, for its own purposes, during the continuance of this lease or any extension or renewal thereof, the entire first or ground floors of Stores "N" and "O", hereinbefore excepted from the property herein demised, in accordance with all the terms and conditions of this lease.

The land herein demised with the tracks, buildings and structures of all kinds erected thereon are shown colored in red on the map attached hereto and made a part hereof and the property excepted herein and to be retained by the Storage Company is shown colored in yellow on the aforesaid map, which is entitled:

"Lehigh Valley Railroad, New York Division, Map showing the National Storage property to be leased to L. V. R. R. Co. of N. J. National Stores, Jersey City, N. J.

Office Division Engineer, Jersey City, N. J., June 10, 1913, Plan #224-G."

for a term of ten years from the first day of July, Nineteen hundred and thirteen, at an annual rental of Two hundred and six thousand one hundred and three dollars ($206,103.00), payable monthly in advance.

The parties hereto covenant and agree each with the other as follows:

First. The Railroad Company agrees to pay in the first instance all taxes and assessments which may be levied and assessed against all of the said property whether leased to the Railroad Company or retained by the Storage Company, except taxes levied upon the franchises and business of the Storage Company. The Railroad Company will carry insurance on all the buildings and property of the Storage Company, including the contents of its warehouses and stores in such amounts as may from time to time be required by the Storage Company, and the Railroad Company will in the first instance pay all the premiums on the said insurance. The Railroad Company will, however, charge the Storage Company and the Storage Company will repay to the Railroad Company, within thirty (30) days after the rendition of bills therefor, such equitable proportions of such taxes, assessments and insurance as are applicable to the property herein excepted from the terms of this lease and retained by the Storage Company and to the contents of its warehouses and stores. The Railroad Company will pay for such electric light, electric power, steam heat, steam power, water and fire protection as may be used by it and by the Storage Company and will keep an accurate account of the cost thereof and will charge to the Stor-

age Company its pro rata share of the cost thereof, together with expenses incurred in connection therewith, and the Storage Company will repay the same to the Railroad Company within thirty (30) days after the rendition of bills therefor.

SECOND. The Railroad Company agrees to keep the premises herein demised in good order and repair and all improvements erected thereon in good condition during the continuance of this lease and any extension or renewal thereof and to deliver up peaceable possession of the demised premises to the Lessor in as good order as the same now are, reasonable wear and tear excepted, upon the termination of this lease in the manner hereinafter set forth.

PROVIDED, however, that expenditures for repairs to warehouses or structures to be used jointly by the Storage Company and the Railroad Company, as herein provided for, shall be borne and paid for pro rata as the interests of the parties hereto may appear, the same to be determined either by agreement or by arbitration.

THIRD. The Storage Company hereby grants to the Railroad Company the right to use the property herein demised for all purposes incident to its transportation business; to operate an elevator or elevators and make any other use of the lands, buildings, railroad tracks and other property herein leased not inconsistent with such use as the Railroad Company could make of the said property if owned by it in fee. The Storage Company further grants to the Railroad Company the right to sublet any portion or portions of the lands, buildings and other property herein leased to it without further permission from the Storage Company than that

herein contained, provided, however, that if the Storage Company at any time shall be temporarily in need of additional storage space or additional pier facilities it reserves the right to call upon the Railroad Company therefor when such space or pier facility is not in use by the Railroad Company, and the Storage Company agrees to pay and the Railroad Company agrees to charge for such temporary accommodations a reasonable monthly rental therefor, the same to be determined by agreement between the parties hereto or by arbitration in the manner hereinafter provided.

FOURTH. The Storage Company reserves to itself the right to collect and receive any wharfage which may arise, accrue or become due for the use and occupation of any of wharves and docks on the said property for the dockage of vessels, boats or lighters, other than those belonging to the Railroad Company, or for the wharfage of which the Railroad Company is or may be chargeable.

FIFTH. The Storage Company hereby grants to the Railroad Company the right to erect or construct upon the property herein leased, any buildings, docks, elevators, storehouses, tracks or any other structures necessary for railroad purposes, or for the purposes of persons or corporations to whom the Railroad Company may sublet any of the said property provided that the cost of the same shall be paid for by the Railroad Company, and that upon the termination of this lease or upon the termination of any extension or renewal thereof, the Railroad Company agrees to remove from the said property all such tracks, structures, buildings, piers, docks or wharves as may have been constructed by it dur-

ing the said term or any extension or renewal thereof, or to sell the same to the Storage Company, at a valuation to be placed thereon at the time of the termination of this lease, the said valuation to be made by the parties hereto or by arbitration in the manner hereinafter provided.

SIXTH. The Storage Company hereby agrees to complete at its own expense all additions and improvements to the property herein demised in course of construction and uncompleted at the beginning of the term of this lease, viz., on July 1, 1913, and after the completion thereof the said additions and improvements shall be turned over to the Railroad Company as a part of the property herein demised and covered by the terms and conditions of this lease.

SEVENTH. The Storage Company hereby grants to the Railroad Company the right to rearrange or re-locate any existing buildings, docks, elevators, storehouses, tracks or other structures herein leased to the Railroad Company, provided that, at the expiration of this lease or any renewals thereof, the Railroad Company will, if required by the Storage Company, replace such buildings, docks, elevators, storehouses and tracks or other structures, upon their present existing locations. The Storage Company further grants to the Railroad Company the right to remove wholly or in part from the said lands the present existing buildings, docks, elevators, storehouses, tracks, and other structures herein leased to the Railroad Company; provided, however, that before the Railroad Company shall effect such removal the value of such structure or structures at the time of such removal shall be either agreed upon between the parties or fixed by arbitration as hereinafter pro-

vided and upon the termination of this lease or any renewal thereof, the Railroad Company, at the option of the Storage Company, shall either replace such structure or structures or shall pay to the Storage Company the agreed or arbitrated value thereof as so fixed.

EIGHTH. Any difference that may arise between the parties hereto in connection with this lease and which cannot be adjusted by the parties themselves, shall be referred to three arbitrators, one to be chosen by the party of the first part and one by the party of the second part and the third by the two arbitrators thus chosen. The decision of the said arbitrators or a majority thereof shall be final.

NINTH. The Storage Company hereby reserves the free and unrestricted access at all times to any and all property excepted by it from the within lease, over any property hereby leased to the Railroad Company, for the wagons, railroad cars, motor cars and any other transportation facilities that the Storage Company may at any time desire to use, together with the right of access to the said property for all persons desiring to enter the Storage Company property for business or other reasons, and the Railroad Company hereby grants the said free and unrestricted access to the said property of the Storage Company.

TENTH. The Lessor and Lessee herein expressly reserve the right to terminate this lease upon written notice of not less than ninety (90) days with or without assigning any reason therefore and the said Lessee agrees to and does hereby waive all notice to quit now or hereafter required by any law or laws previous to proceedings to recover possession of the demised prem-

ises. Any notice of termination by the Lessor shall be good if served personally upon the Lessee.

ELEVENTH. All rights and liabilities herein given to or imposed upon either of the parties hereto shall extend to the successors and assigns of such parties.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be duly executed the day and year first above written.

NATIONAL STORAGE COMPANY,

By: E. L. MAC KENZIE, *President.*

[SEAL] Attest: G. L. BANKER, *Secretary.*

LEHIGH VALLEY RAILROAD COMPANY OF NEW JERSEY.

By: E. B. THOMAS, *President.*

[SEAL] Attest: J. WM. ROBBINS,
Assistant Secretary.

Lehigh Valley

Form Approved } E.H.B.

Description Approved

Terms and Conditions Approved { J.I.M. H.C.D. C.A.B. E.L.M. J.A.M.

(Note.) Map No. 224-G, June 10th, 1913, Div. Eng. Jersey City, attached to original.

Copies of map attached.

Answers to Plaintiff's Additional Interrogatories.

To Messrs. Stallman, Van Liew & Peck,
Attorneys of Plaintiff.

Take notice that the following additional interrogatories propounded to the defendant on the 20th of November, 1917, are by the defendant answered as follows:

1. Were the tracks in the B.T. yard severally numbered or otherwise designated or identified on or prior to July 30, 1916?

2. If so, state how said tracks were numbered or identified.

3. State where, with reference to such identified tracks, said cars containing explosives and munitions were placed and held immediately prior to the fire and explosion of July 30, 1916.

Ans.: With respect to these interrogatories, the attorneys for the plaintiff have expressed themselves as satisfied with the information conveyed to the plaintiff in and by a map furnished to the plaintiff by the defendant on November 10, 1917. Later information has caused the defendant to make certain corrections in the said map, which corrections are shown on the map furnished herewith.

4. Referring to the amended answer, paragraph 3, Second Defense to First Count, did said cars bear signs or placards indicating the nature of the contents and instructions rehandling and transportation as prescribed by law and the rules or regulations of the Interstate Commerce Commission? If so, state the text of each of such placards on each of said cars.

Ans.: Yes. The placards on the following cars which originated at Barksdale, Wis., and which had been placed thereon at point of origin were in the form and of the size and contained thereon the printing prescribed by section 1666 of the rules and regulations for the transportation of explosives and other dangerous articles by freight and express, issued by the Interstate Commerce Commission, effective October, 1914, which regulations were in effect on July 29th and 30th, 1916:

Initial.	*Number.*	*Contents.*	*Point of Origin.*
Omaha	32194	Trinitrotoluol	Barksdale, Wis.
"	30484	"	"
CNW	131112	"	"
Omaha	33602	"	"
CNW	129112	"	"
Omaha	32452	"	"
CNW	139900	"	"
CNW	135762	"	"
CNW	126960	"	"
Omaha	30832	"	"
CNW	137046	"	"

The following is a copy of the said paragraph 1666, together with a copy of the placard prescribed therein.

"EXPLOSIVE" PLACARD.

1666 PLACARD.—A certified car for the dangerous explosives specified in paragraph 1666, must be protected by attaching to each outside end, and side door, the lower edge not less than 4½ feet above the car floor, a standard placard 12 by 14 inches, on which appears in conspicuous red and black printing on strong tag board the following notice:

14 INCHES

.....R.....Company

EXPLOSIVES

(Printed in red)

HANDLE CAREFULLY

KEEP FIRE AWAY

(Printed in red)

.....Station.....19..

Condensed Rules for Handling this Car.

1.) This car must not be placed in a passenger train nor in a mixed train if avoidable.

2.) Cars containing explosives must be near center of train and may be together if desired; must be at least 15 cars from engine and 10 cars from caboose when length of train will permit.

3.) Cars containing explosives must not be placed next to cars bearing the inflammable or the acid placard or cars containing lighted heaters. Whenever it is possible to avoid so doing, they must not be placed next to tank cars or flat cars or next to carloads of lumber, poles, iron, pipe, or other articles liable to break through end of car from rough handling.

4.) The air and hand brakes must be in service.

5.) In shifting have a car between this car and engine whenever possible, and do not cut this car off while in motion.

6.) Avoid all shocks to this car and couple carefully.

7.) Avoid placing it near a possible source of fire.

8.) Engines on parallel track must not be allowed to stand opposite or near this car when it can be avoided.

9.) This placard must be removed from car when the explosives are unloaded.

12 INCHES

Additional Interrogatories and Answers.

The placards on the following cars which originated at Redington, Pa., were those required by paragraph 1666 of the rules and regulations of the Interstate Commerce Commission for the transportation of explosives and other dangerous articles by freight and express, which paragraph is quoted above and in which quotations the wording contained on the said placards is set forth. The placards on each of the said cars were in accordance with the requirements of the said paragraph 1666:

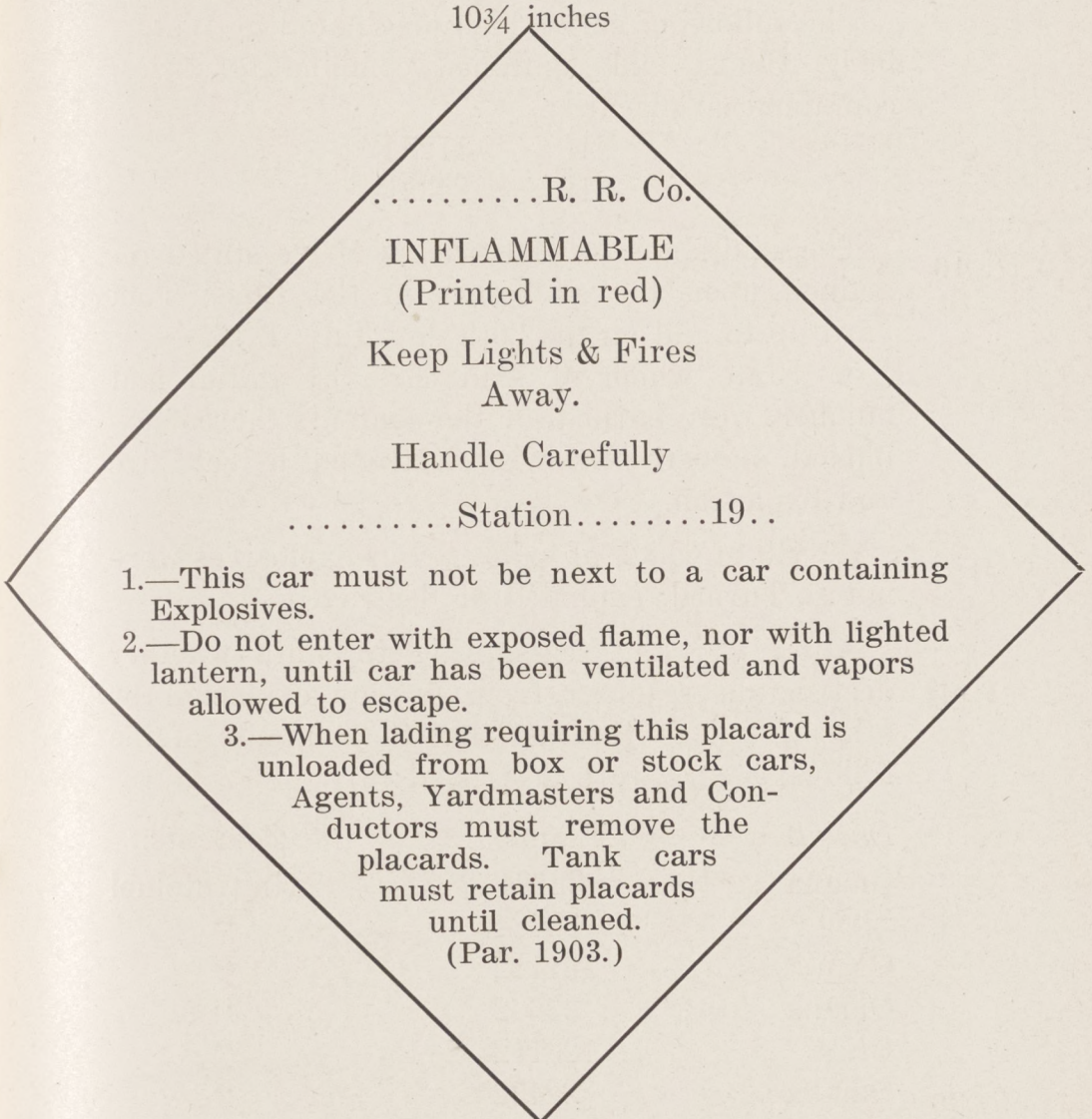
Initial.	*Number.*	*Contents.*
		Ammunition for Cannon with explosive projectiles.
P&R	12275	"
Erie	102070	"
PRR	11832	"
PL	536124	"
PL	517981	"
Big 4	54578	"
C&EI	61659	"
PRR	84146	"
LV	85282	"
PL	517930	"
PRR	84422	"
HV	32020	"
GT	26343	"
PM	52932	"
B&A	37330	"
NCStL	10194	"

The placard on car P&R 14537, containing Ammunition for Cannon with empty projectiles, which originated at Redington, Pa., was what was known as an "Inflammable" placard and was in accordance with the provisions of para-

graph 1913 of the rules and regulations of the Interstate Commerce Commission for the transportation of explosives and other dangerous articles by freight and express. The said paragraph, with a copy of the wording required to be placed upon said "inflammable" placards is as follows:

"INFLAMMABLE" PLACARD.

1913. A placard of diamond shape, printed on strong, thin, white paper for pasting on tank cars, containing an inflammable liquid and on strong tag board for tacking to wooden cars or to wooden boards of suitable size attached for this purpose to metal box cars or tank cars, measuring 10¾" on each side, and bearing in red and black letters the following inscription, must be securely attached to each outside end and to each side door of a car containing one or more packages protected by the red or the yellow diamond label:



The placards on the following cars which originated at Aetna, Ind., and which contained wet nitro-cellulose, were the "Inflammable" placards required by the said Section 1913 of the said regulations of the Interstate Commerce Commission, hereinbefore quoted in full:

PL 517708
CP 128766
Wab. 67166

The following cars which originated at Waterbury, Conn., and contained combination fuzes, contained no placard:

NH	77254
NH	84321

The said signs or placards as above stated remained upon the said cars in the Black Tom yard up to and on the 30th day July, 1916.

5. State which of said cars, by initial and number, were burned, or the contents thereof exploded, or were otherwise destroyed, by said fire and explosion.

6. State which of said cars of explosives were not so burned, exploded or destroyed.

Ans.: Without attempting to state whether destruction resulted from fire or explosion or otherwise, it is the fact that the contents of the following cars were destroyed:

Initial.	*Number.*	*Contents.*
Omaha	32194	Trinitrotoluol
"	30484	"
CNW	131112	"
Omaha	33602	"
CNW	129112	"
Omaha	32452	"
CNW	139900	"
CNW	135762	"
CNW	126960	"
Omaha	30832	"
CNW	137046	"
PL	517708	Wet Nitro Cellulose
CP	128766	"
Wab.	67166	"
NH	77254	Combination Fuzes
NH	84321	"

Erie	102070	Ammunition for Cannon with Explosive Projectiles.
PRR	11832	"
PL	536124	"
PL	517981	"
Big 4	54578	"
C&EI	61659	"
PRR	84146	"
LV	85282	"
PL	517930	"
PRR	84422	"
HV	32020	"
GT	26343	"
PM	52932	"
B&A	37330	"
NCStL	10194	"

The contents of the following cars were partially destroyed:

P&R	14537	Ammunition for Cannon with Empty Projectiles.
P&R	12275	Ammunition for Cannon with Explosive Projectiles.

7. When did the fire begin? Or when was the fire first discovered by the defendant, its agents or employes?

Ans.: The defendant does not feel obligated to make statements based upon derivative information and therefore does not answer so much of this interrogatory as relates to the beginning of the fire. It states, with respect to the time when

the said fire was first discovered by any of its agents or employes, that the hour was between 12:15 and 12:45 a. m., July 30, 1916.

8. Describe the location or place on the premises known as Black Tom yard where the fire was burning when first observed by any agent or employe of the defendant company.

Ans.: The same agent or employe who first observed the fire is not able to place the exact location of the fire but states that, from his point of observation, which was in front of Store G, the fire was to the east of him, but he was unable to determine whether it was on or adjacent to the north pier or at some point in the yard near the north pier and between him and the north pier.

9 Referring to paragraph 7 of said answer, state the quantities of shrapnel and trinitrotoluol on the two barges referred to in the said paragraph of the answer, and whether the explosives on said two barges were destroyed.

Ans.: On the Barge "Frank" of the Johnson Lighterage Company, there were the contents of the following cars which the billing indicated to be trinitrotoluol:

Initial.	*Number.*	*Contents.*
CNE	141052	57675 lbs.
CStPMO	30764	57675 lbs.
"	29468	57675 lbs.
CNW	121346	57675 lbs.
"	139326	57675 lbs.
Total		288375 lbs.

On Moran Barge No. 64 there were the contents of the following cars as indicated on the billing therefor:

Initial	*Number*	*Contents*	*Weight*
RI	37954	Comb. Fuzes	56160 lbs.
NH	72192	" "	56160 lbs.
LV	86456	" "	56160 lbs.
NYCStL	27117	" "	49060 lbs.
Erie	105020	Ammunition for Cannon	86366 lbs.
NYC	248407	"	67200 lbs.
CP	123132	"	72800 lbs.
B&A	39526	"	71475 lbs.
SP	21499	"	71475 lbs.
UP	123964	"	101256 lbs.
LSMS	85754	"	86366 lbs.
L&N	101543	"	86366 lbs.
FWD	6369	"	84000 lbs.
Total			944844 lbs.

The defendant, excepting from derivative information, does not know whether the ammunition and explosives on the said barges were destroyed or not.

10. On the night of July 30, 1916, were there any cars or tanks of naphtha, gasoline, or other volatile or explosive liquids or gases in said Black Tom yard?

Ans.: There were no cars or tanks of naphtha or gasoline at the time mentioned, and with respect to other cognate products, there were present 4 cars of chlorbenzol and 1 car of monochlorbenzol, of which plaintiff has knowledge from the map referred to in the answer to Interrogatories Nos. 1, 2 and 3, showing the cars

containing the same and the location thereof. The defendant does not by this answer commit itself as to the characteristics or properties of the said chlorbenzol or of the said monochlorbenzol.

11. What was the result or effect of said fire and explosion upon said Black Tom yard, and the piers extending therefrom, and the cars, tracks and structures thereon and adjacent thereto?

Ans.: Defendant's counsel, having conferred with plaintiff's counsel, respecting the interrogatories, and having learned from the plaintiff's counsel that they did not expect defendant to give an all-inclusive answer to this question, in that light answers the same as follows:

Among the results of explosion was the presence, at the place shown by dotted lines on the map furnished plaintiff, of a hole in the ground generally referred to as a crater approximately 375 feet long, 175 feet wide and from 7.7 to 10.5 feet deep, and in the vicinity thereof evidences of the destructive effect at that point.

Some of the other effects of explosion best observable by results on the north pier and the south pier were disarrangements of track, shattering of cars and of the timbers of the piers, the penetrating of one of said timbers by a shell and other similar effects of explosion from some point north of the north pier.

COLLINS & CORBIN,
Attorneys of Defendant.

(Monday, December 17, 1917.)

Mr. Garrison. Is your Honor ready for us to proceed?

The Court. Yes; I am ready.

Mr. Garrison. The defendant moves for a non-suit upon the grounds, nineteen in number, which were furnished to your Honor and to the other side, and desires to be considered as pressing each of the points, even if in the oral argument no specific reference be made to the point as specifically formulated. It is my intention at the beginning of my presentation of the case to include in what I shall say to the court such useful comment as I am advised with respect to each of the said points; but to prevent any misunderstanding I do not wish to be understood as abandoning any point that I may not specifically include in what I am about to say.

I shall first, with your Honor's permission, refer to the points as they appear upon the paper and make such running comment thereon as will serve to convey to the court and opposing counsel in a general way what our view of the law sustaining that point is. In addition to the statement of the points furnished to the court and opposing counsel there was also furnished a list of the authorities which in our judgment tended to support some one or more of the various points. I may not have opportunity to refer to the authorities by name and place of record, but will refer to them as enunciating and illustrating the principles which we believe sustain the point of law which we are making with respect to the points to which the point of law applies.

The first point is: "It appears in the plaintiff's case that the explosives in question were in the course of transportation not yet completed in interstate or foreign commerce and that the Interstate Commerce Commission had made regulations respecting such transportation, which regulations were in effect on July 29 and 30, 1916."

"There is no proof that the defendant failed to comply with any such regulations and there is no charge in the complaint of any such failure."

The proofs show that with respect to any explosive shown to have been present at Black Tom on the morning of July 29-30, 1916, it originated outside of the State of New Jersey and was transported on a common carrier, to wit: the defendant corporation, into the State of New Jersey and to Black Tom, and that it was awaiting delivery to the consignee or person designated to receive the same. It also appears from the proofs that the Interstate Commerce Commission has made regulations with respect to the safe transportation of explosives in interstate commerce. Under these facts it is respectfully submitted that the law governing the duty of the defendant is exclusively the law laid down by the supreme legislative authority of the United States of America.

There can be no useful debate that interstate commerce within the confines of its utmost reaches is a subject exclusively within the jurisdiction of the Congress, and whenever the Congress exercises its jurisdiction in that respect that legislation controls. It is the fact that Congress in the year 1910, I think, or 1909—1909—passed an act, the title of which was "An act to promote the safe transportation in interstate

commerce of explosives and other dangerous articles, and to provide penalties for its violation.'' Section 233 of that act provides: ''The Interstate Commerce Commission shall formulate regulations for the safe transportation of explosives which shall be binding upon all common carriers engaged in interstate or foreign commerce which transport explosives by land.''

In our own state the principle to be invoked and properly applied has been too clearly enunciated to admit of useful dispute or debate. Where the legislature of New Jersey has provided that common carriers shall for the purpose of giving audible signals have upon each engine a bell of a certain weight and a whistle of certain specified characteristics, and the plaintiff in an action brought against the common carrier endeavored to have the court leave to the jury the question of whether these means of conveying an audible signal would actually under the circumstances of that particular case convey an audible signal—the court said no, that where the legislature had acted upon the matter, where the legislature had stated the duty, that thereupon that became the limit and measure of the duty of the defendant under the circumstances.

The Court. You have in mind there the case of *Lehman* v. *the Railroad Company,* 25 Vroom.

Mr. Garrison. I presume that is the case.

The Court. And there the legislature did not say that the railroad company should give audible signals by doing so and so; they simply indicated that a bell of such and such a weight should be rung or a whistle blown, except in cities, starting three hundred yards from the crossing and ringing or blowing at intervals

until the crossing had been passed over. The court said that where the legislature had indicated what should be given by way of audible signals that that was exclusive; but it follows necessarily that that did not cover the whole realm of signals; only audible signals; and so it would seem here that in so far as Congress has legislated upon doing certain things in the act of transportation, so far as those things and that class of thing is concerned the regulation of the Interstate Commerce Commission, acting under the power of the act of Congress, would be exclusive and no state regulation would interfere with it; but just as before there was any regulation at all by the Interstate Commerce Commission there was some law governing the subject—the matter of transportation—so these regulations would seem to float in and fill up all the chinks left vacant, it would seem to me, by the Interstate Commerce Commission in that particular. I only throw that out as an indication, because while you are dealing with the subject I thought you would like to deal with it along that line as well as the ones you had in your own mind.

Mr. Garrison. Fairly useful sir, and I had intended to advert to that angle of the matter before I had finished with this point.

Our courts even indicated a more extreme application of this doctrine in applying the statute which required railroad companies to use—I think the word was "reasonable," or some such precautions, to prevent the escape of sparks, and after the courts had construed that, that they must use a customary spark arrester and keep that in good order so that legislation plus interpretation made that statute read that rail-

road companies must use an acceptable or ordinarily used spark arrester, a plaintiff said, "Ah! But they have other duties that must be in respect to peculiar and particular circumstances of course. The season when this fire broke out was one of extreme drouth, and under those circumstances these precautions which theretofore under this act had been held to be the measure of duty no longer remained the measure of duty and the court should permit the jury to draw an inference that they should use other and greater precautions;" and the court said "No; having written into this act by construction that they should take such precautions as are usual by the adopting and using of an ordinary spark arrester and keeping that in order, that is the measure of their duty under the circumstances and it is improper to leave to the jury as to whether or not these extraordinary circumstances did not cast upon them some other extraordinary duty."

The Court. Now is that quite an accurate statement? You have in mind now the case of *Salmon* v. *D. L. & W. R. R.* 10 Vroom and the cases that follow. Now in that case and the following cases it was held that there was an additional duty with respect to brush and other material on the roadway; that was their duty with respect to the spark arrester, but there were other duties with respect to transporting freight by means of locomotives and cars and so on, and the duty to keep its roadway clear of brush and other things was one of the duties which I understand the court held still existed.

Mr. Garrison. Well, I of course do not dispute your Honor on that; but I do not want to take

the time now to differentiate that case. I think it will appear in what I am about to say.

The Court. All right.

Now when we come to the decisions of the Supreme Court of the United States we find that they have adopted similar reasoning. They have held that wherever Congress with respect to a matter of transportation has taken jurisdiction and has prescribed the way in which the thing shall be done, that that is the exclusive guide to the court in measuring the duty of the parties who are respectively concerned or interested. In the safety appliance cases they apply at times the converse of this rule. Where the defendant offered to prove that the measures adopted by him were infinitely superior to those that the Interstate Commerce Commission under the authority of Congress had prescribed, the court said no, it is not a question of whether you have done the best or less than the best; the sole question is have you done the thing which the power which had the authority to tell you what to do told you to do, be that good or bad or indifferent? That is not a matter for judicial consideration; that is entirely a matter for legislative direction when legislation acting under power to make it has actually made it.

I shall not stop to cite or quote the appropriate language from the Supreme Court of the United States, which seems to me to make this principle for which I am contending abundantly clear. I think it sufficient to say that, paraphrased, their decisions come to this: That prior to a determination with respect to the duty of one subject to their regulation, the courts of necessity had to lay down the standard

and the jury of necessity had to be left to determine whether the facts showed that that standard had been lived up to or had been violated. Such a situation was entirely altered when the legislative power no longer left it to an indeterminate standard, no longer left it for the court to state to the jury that the duty of the defendant was to so conduct itself as they should find that a reasonable man should conduct himself under the circumstances proved before them; but the legislature itself determined that under the circumstances the defendant should do and it was no longer a question, I respectfully submit, of reason or lack of reason; it was a question of obedience or lack of obedience, the fulfilment of the law or a violation of the law.

The Court. Well, suppose, Mr. Secretary, suppose at night the railroad company has run one of its trains without a headlight lighted and suppose a collision had resulted as a consequence of that act on its part, and suppose that collision by the terrific impact between the trains in which the munitions were being carried and the thing or train with which it came into collision had set off these explosives and had caused the damage that was done here—I do not suppose there is any regulation in the interstate commerce regulations that provides that a locomotive engine shall carry a headlight. What would you say with respect to the right of anybody to recover in a case like that who had been injured by that collision?

Mr. Garrison. I should say that the negligent compliance with the rules of the Interstate Commerce Commission governing the matter rendered the defendant liable.

The Court. Now what regulation was negligently complied with there?

Mr. Garrison. The whole trend of these regulations—although I respectfully submit of course that the regulations are not before us for analysis—but the whole trend is that these cars shall be kept from impact. They tell you where to place them in the train; they tell you not to give them any sudden shock.

The Court. All right. Now that being so, what becomes of the proposition that these regulations require that fire shall be kept away —*kept* away?

Mr. Garrison. I understand, sir.

The Court. Now what becomes of the fact that fire was not kept away? That the evidence tends to show that the explosion was due to the fact that fire was not kept away?

Mr. Garrison. If again we are properly analyzing the regulations, which I respectfully submit that in the present state of the pleadings we may not properly do, the defendant company is shown by the plaintiff's case to have absolutely prevented, as far as any act upon its part was concerned, any causative act whatever upon its part was concerned—

The Court. That is not what I am asking you. I am asking you whether or not the question—assuming there is evidence on the subject —the question is whether or not fire had been negligently permitted to approach ought not to be submitted to the jury, assuming for the sake of the argument that the question of the regulation is properly before us.

Mr. Garrison. If the question of the regulations is properly before us, I should say that it

would be your Honor's duty, if we had the issue to meet by proper pleadings, to say to the jury that if they found that by any act in violation of these regulations—if by any negligent carrying out of those regulations this defendant corporation had itself brought about this explosion, they might find us guilty. I say, however, that if we obey all these regulations, if, as far as our own act was concerned—and of course when I say our act I mean all of our agents, employees, officers, servants, or people for whose conduct we are responsible—if, as in this case, there was no act of any agent or employee of the defendant company which in any way caused this fire, then I respectfully submit to your Honor that there is no basis of liability against this defendant corporation.

The Court. Unless there was an omission, the act of you or one of your men in keeping that fire away, in other words, in extinguishing it—that is what keeping away means.

Mr. Garrison. That is where I would like to disagree with your Honor, if I may do so.

The Court. Of course. Our judgments are like our watches.

Mr. Garrison. I cannot conceive that so close an etymologist as your Honor should take the word "prevent" to cover anything that occurred after the event. The word prevent, from praemunire, means to get between the things which otherwise would collide.

The Court. Well, who is using the word prevent? I am talking about the word "keep."

Mr. Garrison. All right. To keep fire away. What does that mean? It don't mean after the thing is caught on fire, to put the fire out;

that is not the way to keep fire away from the thing.

The Court. I think it is. I think by an extension of the meaning—whether I am a close or loose etymologist, I think by the extension of the meaning, to keep is, if you want to so use it, to prevent it from encroaching farther.

Mr. Garrison. Well, I respectfully disagree with your Honor on that.

The Court. All right.

Mr. Garrison. I think your Honor will find, upon consideration, that the word prevent is used always—for instance, they will say that "St. John prevented Christ." It means he came before Christ. They often use the word prevent to mean going before and getting in between the two things which would otherwise come together. "Does any man know anything that will prevent this marriage." That does not mean anything that may cause a divorce after their marriage. It means that something that will come before the ceremony of the parties. To keep the thing away must mean the same thing. To keep the wolf away from the door does not mean to have strength enough to throw him out if he gets in, but it means to bar the door and keep him out. And if it was by fire and you have done everything on earth as far as you can do and as far as you are concerned to keep the fire away, then the question is, are you responsible in case a law violator puts fire in.

Of course, if we are an insurer—if your Honor with a full sense of your responsibility, with your full mind with respect to the law of this case, reaches the conclusion that either under the

Act of Congress or under the Common Law or in any other way we are an insurer, that is an end of argument, of course.

The Court. Oh, you need not bother about that proposition; and furthermore for the sake of the argument, and while not at all agreeing with your notion of "prevent"—taking your own estimate of its meaning—that estimate can be perfectly well applied as to this case, because the prevention is the prevention of the fire from getting to the things in the car that would be dangerous, and so far as the evidence in this case tends to indicate, they had not yet reached that point for a considerable time after the fire had been discovered, and therefore they could have prevented, in your own meaning of the term as you described it—they could have prevented it from reaching them, if the jury so concludes, by taking timely measures to prohibit or inhibit its progress.

Mr. Garrison. Now as to that, if your Honor please, I shall have to respectfully dissent from your statement that the evidence shows that—

The Court. I do not say it showed. I said if the jury so conclude.

Mr. Garrison. Well, precisely, but I am sure that your Honor has in mind the rule that you have no right to let a matter go to a jury if you cannot find proper inference which may be drawn from the facts; then it is your duty to take the case from the jury.

The Court. There is no question about it. I am not talking about that rule at all.

Mr. Garrison. I say no inference can be drawn from these facts that this fire started in any way that enabled anybody to put it out before it got to the shells.

The Court. Well, if a fire is discovered fifteen minutes before the active bombardment of the shells and munitions started, and nothing is done throughout that period of fifteen minutes, I might as a reasonable man say that a jury might conclude that such inactivities on the part of the agents and the servants of the company was negligent. It would seem to me that is the way—

Mr. Garrison. I am very much obliged to your Honor for bringing these matters up.

The Court. Well, I thought that was the way you wanted to discuss it.

Mr. Garrison. The only question is whether I shall give my reply to it here or under the head where I intended to discuss it.

The Court. Give it under the head.

Mr. Garrison. I would rather give it now.

The Court. I do not want to disturb the trend of your argument.

Mr. Garrison. Not at all. I want to know what is in your Honor's mind. I do not want any misunderstanding on anything.

Your Honor has in mind the testimony of Kelly, the one man that fixed anything whatever. Kelly said, if your Honor recalls, that he was guessing, that he had not any real idea what the time was; that it might have been five minutes or might have been fifty minutes. That is Kelly's testimony.

The Court. I remember Kelly's testimony distinctly.

Mr. Garrison. Isn't that it?

The Court. That is your own idea; but he said at the finish in response to Mr. Stallman's

question that his judgment was, however, it was fifteen minutes. Of course in passing on a non-suit, as you know, the rule in this case is that that inference or that view of the case which is most favorable to the plaintiff must be taken on this motion. Now if the jury could conclude as reasonable men that Kelly's testimony warranted the belief that it was fifteen minutes —warranted that inference, then I have to leave it to them to say whether they will draw it or not.

Mr. Garrison. All right. Let us assume that. Now we have got Kelly at the boathouse fifteen minutes before the shells began to go off. That is the proposition that your Honor thinks your Honor may have to leave to the jury.

The Court. That is one proposition.

Mr. Garrison. I mean on this point.

The Court. Yes.

Mr. Garrison. Now the uncontradicted testimony is that it took a roundsman forty-five minutes to go from the pumphouse around here to 7 and back to the pumphouse. That is true, isn't it? That is the only evidence on the subject. Now if that be true, and this fire that Kelly says may have been on the boat, Kelly says, then we have got it way down here off the north pier.

The Court. Yes, but then of course we have to take the testimony of other witnesses with respect to where they locate the fire.

Mr. Garrison. Well no one located it—well, I won't say that, but they certainly located it down here in the yard.

The Court. Yes, some of them located, if my recollection serves me, in the crater.

New Jersey State Library

Mr. Garrison. That is in the yard.

The Court. Of course it is all in the yard.

Mr. Garrison. It was down in the yard. Would your Honor feel justified, principles of law aside, one of which I desire to call your attention to in a second, in saying that this jury would be justified, if they believed Kelly, in imposing liability on this defendant company because its employees did not go down to that fire in the fifteen minutes that Kelly says was free time, with sufficient time to put that fire out, with the knowledge that this yard was at that time a place where there was twenty-eight cars of inflammables and explosives?

The Court. Well, that brings us of course to the application of the other rule.

Mr. Garrison. Precisely.

The Court. That in emergent—

Mr. Garrison. That is the principle of law I want—

The Court. —that any emergent circumstances are for the jury.

Mr. Garrison. Now we have that principle very well formulated in this state and that by good authority in other states, and let us see what the courts say on that.

I am reading from page 713 of *Hummer* v. *Lehigh Valley,* 75 Law:

"The fact that in sudden emergencies human judgment does not always arrive at a correct conclusion in an instant is not evidence of negligence."

The Court of Appeals of New York, in a well reasoned opinion, said that "Railroads are not liable for a mistaken exercise of a judgment on the part of their employees in an emergency,

or for a failure to act with the utmost promptitude and in the right direction when circumstances are such as to afford no time for deliberation. Where an employee of a railroad company is confronted with a sudden emergency the failure on his part to exercise the best judgment the case renders possible does not establish lack of care or skill upon his part which renders the company liable. It is not responsible in such circumstances, even for his error of judgment."

Now, I say, your Honor, with that the law of this state, announced by the highest courts in this state, it would not be proper for your Honor to find that this jury had a right reasonably to infer—and that is the only thing that your Honor can justify leaving it to the jury—it is only in case that your Honor can find that it is a reasonable inference from the fact that these men down there, confronted with this emergency, did not do the right thing when they went to telephones, called for fire tugs, called for the professional firemen, called for the engines to come down and pull the cars away from the trouble, called for superintendents and the yard master, called for police officials, and called for the fire department. Now who can say, who can say, save some power greater than man, whether that was the best thing to do or not in those circumstances; and at most it was a mistaken idea of what was past—at most it was an error of judgment, and this case says for such errors of judgment the railroad company is not liable.

The Court. Well, you will remember, and I do not at all dispute, and of course I could not dispute the case of *Hummer* v. *Lehigh Valley.*

But you will remember from what you read yourself that the case holds that where the party is called upon to act instantaneously in the face of imminent peril and danger—and that is the rule in *Hummer* and everywhere else—and whether these parties were called upon to act instantaneously in this emergency seems to me might very well be considered a question of fact.

Mr. Garrison. Well, I—

The Court. If a man has time—this is the rule, and we won't quarrel about the law about it, I don't think. If a man has time to reflect and to act and to see the circumstances which permit cool deliberation in the exercise of judgment, then the rule is to use reasonable care, and it is not a question of mere exercise of instantaneous judgment, but whether in the emergent circumstances in which he found himself he exercised such judgment as a reasonably prudent and cautious man would have exercised had he been confronted by such circumstances as this man found himself confronted by in the given case. That I understand to be the indubitable rule, and our cases all hold it—I can cite them for you by the dozen; *Hummer* is one isolated case amongst a batch on the subject.

Mr. Garrison. Well, I can only say to your Honor that I cannot imagine a greater emergency than for a man to discover a fire in the midst of shells and chemicals and high inflammables and fuses and high explosives. If that does not constitute an emergency then they will have to re-define an emergency. I cannot imagine of a greater emergency.

The Court. As I recall it, the fire was, at the time of its discovery and for a considerable

time afterwards, defined by all the witnesses who saw it to have been a fire about the size of a barrel—nobody said it was any bigger than that —for a long time. Now it may very well be that when one calmly stands and sees a fire amongst cars that way, that a jury might conclude, if he waits a while and sees that it continues about the size of a barrel, he might well conclude it was a barrel; he might even conclude it was incendiary in its origin; he might even conclude that if he got down there with a reasonable rush with his little chemical apparatus or his little fire apparatus he had there and with the instrumentalities which the company had provided, that a fire about the size of a barrel could have been extinguished. He might conclude that I think. Whether he should conclude that or not, and whether those circumstances were so emergent as to call upon him to flee is another question. And then another thing comes in, that is that the very thing that all the men for the company did was to do the thing that would have brought about the accomplishment of the thing they could have done themselves; in other words, they called for firemen to come with fire apparatus, they called for fire tugs to come with hose, they called for various things to come and use ordinary methods of extinguishment which they themselves could have used—clearly indicates, it seems to me, that the thing which should have been done was the thing which they themselves thought should have been done —fire apparatus should have been used. I say that is one of the things the jury might conclude.

Mr. Garrison. Of course that assumes that your Honor instructs the jury that it was an emergency. You cannot leave that to them.

The Court. I think I must leave it to them.

Mr. Garrison. You cannot leave it to them, because the court says if this is an emergency then there is no liability upon the company. Now then that means that there is no proper inference to be drawn from the mistaken conduct or the erroneous judgment of employees wherever the situation is emergent; and it is for your Honor to say whether or not that rule applies.

The Court. They do not say so in the *Hummer* case again *Lehigh Valley,* and I do not think that is the rule. I think the question of whether or not it is an emergency is for the jury to decide under proper instructions from the court. The Court will instruct what an emergency is, then say to the gentlemen, "Under the facts, was this an emergency. If it was an emergency, there is no liability." That would be my notion of the way to submit it.

Mr. Garrison. If your Honor please, I will revert for a moment—we may get back to this under the heads where I intended to speak of it, but we will advert to the first point.

Now then my respectful insistment is that, since it is uncontradicted in the case that these explosives were in interstate commerce—since it is a fact that Congress has taken this subject under its jurisdiction—since it is a fact that the Interstate Commerce Commission has made some regulations, although they are not before us,—that I think it is irresistibly the conclusion which must be reached by your Honor that the plaintiff has misconceived his action; that his only action must be for failure of this defendant to comply with the requirements of the Interstate

Commerce Commission in this respect or for the negligent performance of the duties enjoined upon it by the Interstate Commerce Commission in its regulations.

The Court. Suppose the Interstate Commerce Commission had made no regulations, what law do you think would have governed the transportation of these explosives?

Mr. Garrison. You mean if they had made none?

The Court. Had made no regulations at all.

Mr. Garrison. Do you mean had made none after Congress had provided that they should?

The Court. Yes. I think that makes no difference.

Mr. Garrison. Of course I cannot answer. If Congress could not have taken jurisdiction of the subject there would have been no debate.

The Court. Oh, yes, there would.

Mr. Garrison. I cannot conceive that there would be.

The Court. That is a point I am getting at. Suppose there had been no passage of an act by Congress empowering the Interstate Commerce Commission to act, and no action by the Interstate Commerce Commission. I will make it as broad as possible. What law would have governed the transportation of those explosives?

Mr. Garrison. I assume that a great deal of course would depend upon where you claim to apply it and the situation under which you were called upon to apply it, but I assume it would be the law of the forum with respect to the subject matter of the suit. If it was negligence, I suppose they would apply the law of New Jersey, the common law of New Jersey with respect to

the liability of defendant under these circumstances. I do not claim that where Congress has jurisdiction and has not acted, that the law of the State is superseded or that any law is superseded.

The Court. I am not saying that you do contend that. What I am getting at is this, that when Congress—when the United States courts are called upon to apply to interstate commerce a ruling with respect to a matter that comes within the jurisdiction of the Congress of the United States or of the United States Government, because it is interstate commerce, that while the United States Court comes in and accepts the State common law as being the rule that will govern the relations of the parties, it does not apply that State law—if adopted and it becomes the United States law, as I understand the ruling, and I think that is rather important in this case for this reason.

The Court. As I understand the doctrine the Constitution of the United States provides that the matter of interstate commerce shall be a matter of regulation by the Federal government, and of course intrastate commerce is a matter exclusively for regulation by the State. Now whether Congress acts or not, the State cannot directly interfere with interstate commerce. Every case that you cited to me on your brief shows that. There can be no direct interference. The only right the State has is to pass in some appropriate department legislation which may affect in some indirect way interstate commerce, so that the State law is not in force because it is a State law; it is in force because

the Congress steps in and adopts that law as its law, for the very obvious reason that the United States Government itself has no common law ordinarily speaking. Now that being so we do not say that the State has regulated interstate commerce because United States courts or the State courts acting under an interstate commerce case apply the doctrine of the common law of the forum; we simply say, as I understand the rule, and as the cases cited to me on Mr. Hobart's memorandum indicate—we say that the United States Government is simply as a matter of convenience and as a matter of practice using the State's law; but it is its law that it is applying in that particular case for convenience. Now if that is so in this case there is no trenching upon the power of Congress by applying a State common law where it has not been superseded by the express regulations of the Interstate Commerce Commission. That is the point I wanted to make.

Mr. Garrison. Now, your Honor, my answer to that is this: that of course the question which I am arguing—I am saying that where Congress has taken jurisdiction of a matter within it power and has acted, that its action furnishes the exclusive rule to be applied. If as part of that action the original common law of the State is imported into and adopted by the Federal government well and good, but after such a taking over of exclusive jurisdiction a plaintiff may not succeed who brings a suit in entire exclusion of that, who does not bring before this court the basis upon which this court can determine whether we have violated the law because our duty, *non constat,* is laid down line for line, letter for letter, in these regu-

lations that he should have pleaded and have shown that we did not comply with.

The Court. Do you say the court would not judicially notice the regulations of the Interstate Commerce Commission?

Mr. Collins. I did not get that.

Mr. Garrison. He wants to know whether I say that the court should take judicial notice. I am not prepared to commit myself on that. I do not know whether you should or not.

The Court. If I am permitted to judicially notice it, then if there are facts in the complaint that bring this case within those regulations it would seem to me that those regulations are before this court.

Mr. Garrison. Now mayn't I come to that? That is something I would like to come to in a moment. There is a law of the State of New Jersey, the year of which I have forgotten; I am not sure whether it is '17 or whether it is the other act which they passed in 1911—but that law says that magazines holding explosives shall be located so many thousand feet distance —the determining factor being how much they have on deposit—something of that kind.

The Court. Yes.

Mr. Garrison. Now imagine that that would render immune, in the absence of negligence—that would render immune anybody who had that amount at the distance prescribed by legislation; would not your Honor think that?

The Court. I would think not. I would think that it would simply prevent that magazine from being a nuisance.

Mr. Garrison. That is exactly what I said.

The Court. You said "render them immune."

Mr. Garrison. I said it would render them immune from an action of negligence.

The Court. Yes; we agree on that.

Mr. Garrison. Now then, supposing that instead of being a State law of which your Honor would take judicial notice, that that was a regulation of somebody that the State law had confided this thing to and your Honor could not take judicial notice of it—I am entitled to argue of course that your Honor may not take judicial notice of these regulations, and I will dispose of that first, because they are not before you unless you do take judicial notice of it—now wouldn't your Honor say under those circumstances,—here is a suit in which a defendant is being proceeded against for a nuisance and the sole proof of nuisance is quantity, and the defendant produces to you an act of the State of New Jersey entitled an act to regulate the amount of explosives that may be located with respect to human habitation—I do not say that is the title; I am just suggesting that title —wouldn't you say to the plaintiff—

While on this point they can not succeed against this defendant unless you are agreed under that act. They have got to show me that this defendant has violated that act before I can instruct this jury to find him guilty of this alleged charge. I don't think there is any doubt about that.

Non constat when they bring this series of regulations before you that any violation will appear. Your Honor says, and it is not disputed (in fact, it is perfectly proper that you should have called my attention to it, but I do

not think it is apt here) that with respect to a great many matters what Congress does is to adopt the common law and administer it as part of its own system. But what has that got to do with this? Your Honor is not going to assume in the absence of proof what these regulations cover and what they do not.

The Court. Unless I judicially notice that.

Mr. Garrison. I am now arguing, if your Honor please, on my first leg, that you had not any right to take judicial notice. I will come to the other in a moment.

The Court. All right.

Mr. Garrison. I do not think I need to go any further on that now. I think His Honor agrees with me that if it be proved, as it is in this case, that Congress has provided for the safe transportation, that Congress has instructed the Interstate Commerce Commission to devise rules based upon the very best judgment that could be obtained, if the Interstate Commerce Commission has issued regulations your Honor, I think, will be driven to say to the plaintiff: You have misconceived this case, or, you have not brought before me what I have got to have here. Because I can not sit here and say that these people are guilty of anything until I know what measure of duty has been passed upon them by the supreme law that governs me and this jury. Can there be any two minds about that? I think there can not. I am sure there can not.

The Court. As to whether there can be two minds or not I am perfectly willing to disagree with you. As to whether there are two minds or not I will hold until I come to decide it.

Mr. Garrison. Well, I thought your Honor had been so honest heretofore in telling me what was in your mind that you would tell me if you disagreed on that, because I would like to disabuse your mind before I go any further. Would your Honor feel justified in this case in giving any instructions to this jury with respect to our duty, or what the law requires of us, if your Honor was convinced that this matter had been operated upon by Congress, and that these regulations did apply, and you didn't know what to say?

The Court. Well, if you are looking to draw a little fire I am perfectly willing to strike some for you. If you are looking for my opinion upon whether or not with the regulations governing the situation there could be any liability, I would agree with you that there could not be any liability outside of the violation of the regulation. But there can be two minds and there may be, and in all likelihood in this case there are two opinions possible with respect to whether or not these regulations did cover the particular situation.

Mr. Garrison. Yes, but if your Honor please, you overlook the fact that I have craved the permission to discuss this as if you had no right to look at these regulations; that is the whole premise upon which I am debating. I haven't got to my other premise.

The Court. Then I think I could answer more cheerfully and promptly by saying if I have no right to look at the regulations and I do not know what they do cover, then I can not say as a matter of fact or as a matter of law that they do cover the whole situation; and, therefore, I

would have to put you to your defense to show what they do cover.

Mr. Garrison. Well, if your Honor rules that way,—

The Court. Well, I say that is a thing I would have to reach.

Mr. Garrison. I can not, of course, expect in any other way useful to myself to control your Honor's mind; but if you just stick to that, and say that finally, I will be satisfied; because that will show that we simply come to an impossible impasse.

The Court. But I will remind you of the story you once told me yourself. I am not going to permit, as John Francis said,—I won't permit the Court of Errors to drive me up any dark alley.

Mr. Garrison. No, he said to Pitman: "Oh, no, you don't shunt me up a dark alley and then sandbag me."

The Court. I thought I would sidestep the sandbagging until I heard what the rest of the argument is.

Mr. Garrison. All I know is that it is utterly useless when a mind such as your Honor's, accustomed to operate with celerity and with a great deal of grasp has thought through a thing and stated his conclusion—I wouldn't spend another moment in arguing. If you have reached that conclusion I will pass on.

The Court. I might say to you right here on this proposition that I have read a great deal of the law on this subject, but I have absolutely come to no conclusion on the subject, and I came here purposely with an open mind so that I might hear both sides fully; and the reason

I ask these questions and throw out these suggestions and these hints is so that I might get the views of both sides.

Mr. Garrison. I think it will be useful if I may be permitted to make a little resume under this head, assuming now that you won't take judicial notice of the regulations.

The Court. That seems to be safe enough to assume for the purposes of the argument.

Mr. Garrison. I have to assume it for one leg of my argument. I will have to take the other assumption for the other.

The Court. I thought you were still on that leg, and I say it is safe enough for that leg to assume it.

Mr. Garrison. My argument is this, that indubitiably Congress has the power to regulate everything with respect to interstate commerce. We can not disagree about that at all.

The Court. There is no question about that at all.

Mr. Garrison. They have said it in so many ways, and at so many times that I won't waste breath on it. We know Congress has passed an act intended to provide for their safe transportation, because they said so—an act to provide for the safe transportation—that is the language. Now, we know that they have provided an instrumentality of their selection to determine how that safe transportation shall be brought about, and we know that transportation of these things was still going on under the law, under the first section of the interstate commerce law. Now, if those premises are true, then I say the conclusion is legally irresistible that the

men can only recover by showing that we have violated the provisions that the supreme power has laid down with respect to that subject matter, and the only way that you can tell whether we have or not is to have that all before you.

The Court. Well, why should I assume that the Interstate Commerce Commission has acted on this subject at all?

Mr. Garrison. Because the proofs show they have. My whole premises are based on that.

The Court. I am speaking about any proof that shows that Congress has completely regulated the subject matter of the transportation of explosives.

Mr. Garrison. Congress has said, "An Act to provide for the safe transportation of explosives in interstate commerce." Now, I defy anybody to improve upon that, to say we are going to take up this whole subject matter.

The Court. There is no question about that, but what I say is, where is there any proof that the Interstate Commerce Commission in pursuance of the power conferred by that act has passed regulations defining how the transportation of explosives shall be effected?

Mr. Garrison. Well, now, I have said that the answer to the fourth interrogatory shows that they have passed regulations. Do you mean how far they go?

The Court. Yes.

Mr. Garrison. Or merely have they passed them?

The Court. Yes, how far do they go?

Mr. Garrison. Well, my point with respect to that is just the one I have been trying to make: That it is not incumbent upon us. These people can not recover in this case without

showing by a preponderance of testimony that we have done a wrongful act. They have got to show. We have not got to show it. We have not got to show that we did not commit a wrongful act. They have got to show that we did do a wrongful act.

The Court. That is running around in circles, that saying, it seems to me. That is saying, it seems to me, in effect, that the only wrongful act that could be done is that they violated the regulations of the Interstate Commerce Commission, and that begs the question by assuming Congress has regulated the subject matter entirely.

Mr. Garrison. Unless it appears to the Court that the supreme legislative authority has assumed to legislate with respect to a subject matter they have got to consider that legislation before they can say that a wrongful act has been committed by a defendant; because *non constat* it is not wrongful when that legislation —and it has exercised everything that goes with it to make up a complete scheme—has been considered.

The Court. I think the complete and conclusive and calamitous answer to that argument is found in a case cited by Mr. Hobart on his memorandum, the case of *The Missouri Pacific Railroad Company* against the *Larabee Mills,* 211 U. S., 64, where the precise question you are now arguing arose. Congress has authorized the Interstate Commerce Commission to act, and the Interstate Commerce Commission had not been shown to have acted, and it was there held that the state regulations were still applicable.

Mr. Garrison. Well, what of it? It has not been shown that the Interstate Commerce Commission has not acted here; in fact, it is shown it has acted.

The Court. But it is not shown how they acted.

Mr. Garrison. Precisely. Having once shown that they acted it is not for us to show how they acted. It is for them. All that you need to know is that the supreme legislative power over this subject matter has attempted to cover it. By their title they attempt to cover it. They attempt to provide an act to provide for the safe transportation of explosives. Now, they say the details of these things are to be laid down by this body over here. Now, it appears in the proofs that they have attempted to do that thing. Now, if that is true, I say that it is incumbent upon the plaintiff to show either that these regulations do cover this matter and we violated them, or to show that notwithstanding those regulations there is still this fluid atmosphere that your Honor speaks of; that the United States is presumed to have adopted as its own, and which your Honor is to apply in this case. But they have not attempted anything of that sort. There it is an ordinary case founded upon the common law, when Congress has acted. Your Honor says, well, it may be Congress has only impinged upon the common law. How can I tell? I say it is not for us to tell; it is for them to tell. They must show you that we committed a wrongful act. They must show you that notwithstanding—

The Court. Now, maybe there is a case upon that subject. I have not found it. But it is

not on your brief, and I do not think there is such a case.

Mr. Garrison. Wouldn't that be too plain to require a case? Wouldn't that be too plain to require a case, that where the supreme power has assumed to act, that the only way that they can convict us of a wrongful act is to show that we have violated the thing that the supreme power laid down? Now, your Honor says (I understood your own argument a minute ago, and I entirely agree with you) it may be when they prove to me what this rule is and what the facts are—because I am treating these regulations now as a fact—when they prove to me what this thing is, what the facts are, that I will find that the supreme power took along with it some of the common law; that it did not displace by rules of its own; and when I find that out I will charge the jury accordingly.

The Court. I did not say that, but I would be perfectly willing to say it.

Mr. Garrison. I know you did not say it, but you did say, as I understood you, that in any case in which the United States law, or a United States Court did not apply a distinct legislative provision of Congress, it adopted the common law and applied that as if it were the law of the United States. Now, wasn't that what you said? Now, I am simply telling you—

The Court. I think, if it would tend to be of any importance in the situation—I think that I would be willing to hold that while it may appear to others too plain for argument, that the burden rests upon the plaintiff to show the existence of the Interstate Commerce regulations, and the fact that they do come within

them—I think I am old fashioned enough, possibly, and out of the rut enough to hold that that is not the rule; that the burden of proof, if the regulations are rested upon as a defense in the matter, is upon the defendant to show their existence and the fact that the defendant comes within them; and I think that, reasoning from analogy, from other cases of like character where other statutes have been applied in that way, that that is the correct rule.

Mr. Garrison. I suppose your Honor has in mind—not that it is what you asked for, a direct case in point, and on that—

The Court. I do not mean on all scores, but one where the principle is involved.

Mr. Garrison. I didn't say on all scores, I said in point.

The Court. You said direct.

Mr. Garrison. Well, directly in point. I said this was not one directly in point that I am going to talk to you about in a minute; but on others we have mentioned about, I think we have reached that point where debate between your mind and my mind would not do any good, because I can not see it in that way. I see that where your Honor is confronted with this situation—to what law is this defendant amenable under the facts in this case? If he does not show me by affirmative proof that he is amenable to the law laid down by the Congress of the United States I am going to assume the contrary and so charge the jury. I say that it appears now before the defendant has put in a particle of proof that we are amenable to the supreme legislative authority of this country that has assumed to act upon this question; and

unless they lay before you in its completeness what that supreme authority has done you have no right of law by which you can measure or test our liability.

Now, in the Washington case what did they do? (*Northern Pacific Railroad* against the *State of Washington,* 222 U. S., 370.) In that case Congress by an act regulated a matter of interstate commerce, and it is said this act shall not take effect for one year. The State of Washington came along and passed an act—or perhaps before that passed an act; I don't know about that; that is immaterial—and a suit was brought to render liable a defendant carrier with respect to the provisions of the State of Washington, and they said since this act of Congress is not in effect the law of the State of Washington applies. The Supreme Court said not at all; this was a subject of interstate commerce and Congress took jurisdiction, and if its regulations do not go into effect for a year, that is its business. If they wanted them to go into effect at once they would have said so, and that is the exclusive law, and you can not have any common law, and you can not have any state law; you can not have anything else but what the supreme power has laid down, even if they don't go into effect for a year or ten years. Where does that lead us by a parallel argument? It leads us to the fact that the very minute that you are advised that Congress has passed an act for the safe transportation of explosives by interstate commerce on land you must never rest so far as the plaintiff is concerned until he has proven to you that we have violated the act of Congress, because otherwise you have no way of knowing what

the law is. The law is what that power says it is, and not what some other power says it is; because that power has exclusive jurisdiction when it assumes to act, and it has assumed to act by the very title of this act.

The Court. I do not see that that follows in the light of the case I cited to you, of the *Missouri Pacific* against the *Larabee Mills,* where Congress had acted, but they had left the details of the act to be carried out by the Interstate Commerce Commission, and until that commission acted the subject matter was entirely in abeyance, and the state regulation was recognized.

Mr. Garrison. Well, I do not want to debate that, because I can concede that without giving the slightest obstacle in this case. In this case the only proof your Honor has got is that the Interstate Commerce Commission has acted—it has acted. Now, that is the law. The act of Congress plus the regulations of the Interstate Commerce Commission is the law, and how can your Honor tell this jury how far or to what extent, and under what circumstances to hold us liable in law, if you have not got an essential fact before you to tell you what the law is? And those regulations are that essential fact, and they are not before you.

But I have said sufficient on that to give your Honor my notion. Now, let us assume that your Honor says I will take judicial notice of these regulations, although they have not been offered by the plaintiff. Where do we land on that? Well, in the first place, how does that benefit the plaintiff? Has he proven that we have violated, or failed to comply? If he has

not how could we be held liable? If we have done everything that Congress told us to do, where is there any twilight zone then? If Congress omitted something that they ought to have told us to do, I do not know of any power that enables any court to supply that omission. If the net effect of those regulations is to say it is essential—it is essential in the judgment of Congress that these things should be transported, it is the duty of the carrier to transport them, and he and others in interest must know how this thing is to be done; and no one can conceive that a railroad company would want to take charge of these dangerous things if it didn't have to. They tell how they shall be packed and stowed and marked, and the car placarded, and where they shall be placed in the train, and what shall be done with them; and we do all those things, and are not proven to have been negligent with respect to any of those things—how can we be held liable? On what theory of law can it be said that the law which governs our conduct renders us liable at the hands of a jury because of some duty that they think we should have performed other or different from that which Congress said we must perform?

The Court. Of course, we discussed that a moment ago, on the question as to whether not keeping the fire away was a non-performance of duty. There is no need of going over that again.

Mr. Garrison. No, except that I want to call your Honor's attention again, as well as to other points where it is proper that I should, that I understand now we are practically in the domain of the common law, because I understand

you to say that this is a similar principle to the one that you would apply if there were not any regulation. I understood you to take the ground that we had some duty with respect to keeping fire hose there. Is that what is in your mind?

The Court. No. You admitted, as I understood it, in response to a question that I asked with respect to what liability there would be if a locomotive pulling a train loaded with munitions smashed into some obstruction and by the concussion of the collision set afire those munitions and exploded them and caused the damage, that that would be an extension of one of the principles of the interstate commerce regulation, or a negligent performance of one; and then I suggested to you that it might very well be, therefore, that when the Interstate Commerce Commission had directed the fire should be kept away from cars that were loaded with munitions, it might be left to the jury to say whether there was not a violation of that interstate commerce regulation, assuming they were before me by judicial notice or in some other way.

Mr. Garrison. We are now assuming they are before you. We got to that point.

The Court. Yes; that is what I thought we were talking about—that in such an event we could extend the principle to say that the Interstate Commerce Commission had in fact directed that fire should be kept away so far as reasonable care could keep it away from these cars. That this direction was directed to somebody when it said "Keep fire away"—it is not directed to a lot of trespassers who might ramble on the railroad right of way. It was directed to the railroad company and its employees, and

others whose duties might bring them into connection with the situation. Therefore, I said that we might very well say that it was the violation of one of the regulations of the Interstate Commerce Commission which required fire to be kept away when fire was permitted to approach and start the conflagration which ultimately resulted in the injury.

Mr. Garrison. Yes; but I understood your Honor in that connection when we were discussing the Hummer case to say that if you remained of the then mind that you had that you might be required to instruct this jury that they could find whether this was an emergency.

The Court. Oh, yes.

Mr. Garrison. That is what I understood your Honor to say.

The Court. I said that, and I say it yet.

Mr. Garrison. Therefore I understood your Honor to say that whether this was written into that statute or whether it was outside of the statute—

The Court. No; I never said that. You are trying to quote me as saying something that I never suggested. What I said was in response to your argument that this was an emergency where these men could not have been called upon to do anything more than they did do, and then you cited the Hummer case on that subject and said that the Hummer case was authority for the proposition that if a man was called upon instantly to exercise judgment that even if he exercised it wrongly he was immune—I use your own language now—I said that it became necessary under those circumstances if I submitted that question to the jury to let them pass upon

the question of whether they were instantly called upon to act—that that was a question of fact. You thought it was a question that I should determine.

Mr. Garrison. It is not really useful. It is rather helpful to me if your Honor has not reached the conclusion that I feared your Honor had reached.

The Court. No; I am only saying that if it be true—I want to set you entirely straight so that you do not get any notion that I have wandered outside of those regulations at all on that argument—I stay right inside of the interstate commerce regulations and I say that if under the interstate commerce regulations they have to exercise reasonable care to keep fire away, that then if your defense to the fact that they did not keep fire away under those regulations is that they were called upon to act instantly upon a sudden emergency, that the answer that the other side would undoubtedly make to that would be that whether it was an occasion when instant action was required was a matter of fact to be submitted to the jury and they would determine whether or not the interstate commerce regulations had been obeyed or not. I do not want you to get the idea that I was getting outside of the regulations at all. I was not.

Mr. Garrison. Now to go back to the consideration of the case from the angle that your Honor is going to take judicial notice of these regulations—

The Court. Yes.

Mr. Garrison. I say that legally the only effect of that is to put the burden upon the plaintiff of pointing out to your Honor how we are

guilty of a wrongful act in view of the regulations. Now then, your Honor has taken the placard and suggested that that placard—there is some language—"Keep fire away." I respectfully submit that we are not in a position where any issue has been raised with respect to the regulations and our alleged violation of them, but in response to your Honor's question as to how we would meet that, I would meet it by saying that that means just what its plain etymological common sense meaning is—"Don't do anything that will bring fire near this car; don't by affirmative act or negligent omission cause a fire." And there is not the slightest proof in this case that by negligent act or negligent omission we caused any fire. However, until the plaintiff shall have indicated to your Honor the liability of this defendant in view of these regulations, if your Honor is going to import them into the case—if you feel that is what you should do—I certainly do not feel called upon to take up the hundred pages of them and debate whether we have complied with them or not. It seems to me surely the orderly course of procedure would require that it is the duty of the plaintiff to point out the wrongful act. It is not our duty to indicate that we have not committed any wrongful act, because that is just what we say; we say he has not made out any cause of action at all; and I say that until he brings before you the law which is the act of Congress plus the regulations, and points out where we have committed a wrongful act he has not made out a case.

Now the second point is that "there is no proof that the defendant maintained a nuisance

in respect to the presence of the explosives upon its premises on the 30th of July, 1916."

Now surely with respect to that we must know what the supreme authority in this respect has provided. As I have indicated with respect to the statute of the State of New Jersey, where they have absolutely indicated the amount and the distance, no court would feel justified in charging the jury without that fact, if it were a fact and not a law of which he would take judicial notice, before him. And so here, whether or not the company by having this material present on its premises on the night of July 29-30, 1916, was maintaining a nuisance or not, will be very largely determined, if not exclusively determined, by what Congress says concerning the safe transportation of explosives in interstate commerce. If, however, your Honor reaches the conclusion that the contention of the defendant in these respects is incorrect and that you will apply the common law of the State of New Jersey to this situation in determining whether or not the defendant is guilty of a nuisance—I mean in determining how to charge the jury with respect to that, I most respectfully submit there is not a scintilla of proof here upon which your Honor would be justified in leaving to this jury to determine that question. *Fletcher* v. *Ryland* laid down the rule that they have got to show it before they can succeed on that charge of their complaint, and this state not only never adopted *Fletcher* against *Ryland,* but absolutely repudiated it and has always proceeded under such repudiation. In *Fletcher* v. *Ryland* they held that when you brought a dangerous thing on your premises you were responsible for the consequences of negli-

gence and every court in New Jersey practically that has ever taken that case up has said that that would bar all human progress.

The Court. You need not argue that. I think that is settled by *Marshall* v. *Wellwood* and by the *Boiler Company* v. *Van Winkle.*

Mr. Garrison. Precisely; and how is it settled? It is settled that whether or not circumstances created a nuisance in the State of New Jersey depends upon the circumstances; so that it practically goes to the question of negligence. Those circumstances are what you are doing with respect to the thing that you have got there. As Beasley says in the Wellwood case, the engine and the boiler are of course an element of danger, but not if they are carefully taken care of; and therefore the thing each time for the court to determine each time is the circumstances.

The Court. There is no doubt about that. The general rule on the subject is probably better stated than anywhere else in a case that is not cited on your brief—Costigan v. the railroad company, 35 Vroom, where they attempted to apply the doctrine of Beaseman v. the railroad company and held that a mere running of a railroad if it injured adjacent property by falling ashes and dust and cinders and vibrating and all that sort of thing was a nuisance, and the court held that it did not follow at all.

Mr. Garrison. My notion is that in the State of New Jersey today practically before anything becomes a nuisance there has got to be some lack of care. So we come practically down to negligence, and the nuisance count here is negligible because the plaintiff has got to show the kind

and character of duty that we owed and that we omitted some such duty.

Now the next point is "3. There is no proof that the existence or maintenance of a nuisance by the defendant was a proximate cause of the damage complained of by the plaintiff."

Just a word in explanation of that. It is somewhat obscure, but I did not want to make these things long in statement. What we mean by that is this: Assume that at some point—and this is an absolutely necessary assumption—whatever amount of this explosive material that is being considered was not a nuisance, and there must be some point—even assuming now that the law of nuisance is that more than that quantity is a nuisance, there is no proof in this case that the explosion which damaged the plaintiff was occasioned by any greater quantity than that—so that the question of having more than that is negligible and they must rely on negligence and not upon nuisance. That is what we mean by that third point.

"4. The proof is undisputed that there were two explosions on the 30th of July, 1916. There is proof that one of those explosions was upon the defendant's premises. There is no proof that the other of such explosions was on the defendant's premises. There is no proof that the explosion of which the plaintiff complains was the explosion occurring upon the defendant's premises or was an explosion for the effects of which the defendant was in any way legally liable."

A word upon that. It is proven in this case that the damage to the glass suffered by plaintiff's assured was caused by the first explosion.

It is not proven in this case that the first explosion occurred on our premises. The nearest you can come to it is that it came from the direction of the fire, and the fire was on our premises, but no one told whether the explosion concerning which they were testifying occurred on our premises or on the water back of our premises, the screen of smoke making it impossible for any witness to attempt to say the location of the explosion.

The Court. I think on that point I would be perfectly willing to decide right now that I would deny your motion on any such ground as that because there is evidence from which the jury may conclude in my judgment that the first explosion did occur on your premises.

Mr. Garrison. I won't say anything more about it.

"5. The proofs show that there were large quantities of explosives on barges adjacent to the defendant's property, and there is no proof that such explosives were owned by defendant or under its control or custody, and there is no proof that such explosives did not explode and cause the damage complained of by the plaintiff."

The Court. It follows as a matter of fact from what I said on the other point that if there is proof that the first explosion was on your premises and the first one caused the trouble, that last point is decided by my decision on the other one.

Mr. Garrison. "6. The assertion by the plaintiff that it was the duty of the defendant to exercise a high degree of care to prevent the occurrence of fires, detonations or other

means whereby such explosives and munitions might become exploded is denied by the defendant as a correct statement of the law."

The Court. I understand your point. You mean that the interstate commerce regulations are the sole guide.

Mr. Garrison. In addition to the proposition that no formulated character of duty properly measures the defendant's duty here, if recourse must be had to the law laid down by Congress, I desire to urge upon your Honor's attention that there is not the slightest proof here that we did not exercise every degree of care that others similarly situated exercise and that measured up to the human experience with respect to the subject matter over which we had care —not a scintilla of proof, that those handling cars packed, stowed and transported in accordance with law had considered the necessity of exercising any other degree or character or kind of care than we exercised; and excepting with respect to keeping law-breakers, trespassers with evil intent, or with, if you please, such carelessness as amounts to crime, away from our premises—it would be inconceivable to imagine a higher degree of care than the plaintiff's proofs show that the defendant exercised in this respect. Your Honor will take judicial notice of the geography of his own state. Your Honor will take judicial notice of the fact that this is the most ideally located terminal for the handling of dangerous freight in the vicinity of Jersey City or New York Bay. Your Honor will realize that this tongue of land which the proofs show ran out a mile from Jersey City's foreshore was completely surrounded by water. The testimony shows that on the night of the acci-

dent the Lehigh Valley had no activities down there of any kind, sort or description which could produce any dangerous effect or be a cause or source of any danger. The only possible, conceivable thing on which any question of liability against this defendant company could be based was that we did not absolutely prevent the intrusion of some outside cause. Of course if that is the law, bitter as it is and unjust as I believe it to be, we will have to bow to it. But I know of no court that ever yet has gone to the extent of saying that a defendant, a citizen, a person, is required to take precautions to prevent the unexpected. What is the utmost limit that they have gone to? So far as I know, it is that you are chargeable with taking due care and precautions with respect to the expected—the thing which ordinary human experience causes you to expect. Now of course they have in the turntable cases—I suppose they have even in what I will call the adjacency cases—charged a defendant with responsibility if it was expected that by reason of the attractiveness of the turntable to children and the adjacency of the railroad tracks to casual passersby—a responsibility upon them.

The Court. All that is inapplicable here. You are speaking about cases outside of New Jersey now?

Mr. Garrison. You do not adopt the turntable doctrine.

The Court. We do not accept the turntable doctrine.

Mr. Garrison. So much the better for my argument. But I say even where the courts have imported into the law a chimerical duty, such as

I would call the duty with respect to children and turntables, even the principle back of such an application lacks application here. No one would stroll down this mile of land at 12 o'clock at night, on a summer night, in the middle of the river, unless he had a purpose.

The Court. Or unless he was purposeless, as the drunken sailors might have been from the evidence.

Mr. Garrison. There is no evidence to show that the drunken sailors were there on this night, and there is no evidence to show there was any occasion for them to be there on this night because there is no proof there were any steamers there, and they were men coming off the steamers. There is no evidence they were anywhere near pier 5, which is below pier 7.

The Court. I think you and I would split about the evidence. The evidence is not in my judgment as you state.

Mr. Garrison. In what respect?

The Court. The evidence is that there were steamers there. The evidence is that there were always steamers there.

Mr. Collins. In the spring.

The Court. And on the average there were I think either thirty-five or fifty there. That is the evidence.

Mr. Collins. As I read it, they were there in the spring.

Mr. Garrison. I think your Honor is mistaken about that, but it is immaterial to my argument now.

The Court. I remember asking the witness about it myself.

Mr. Garrison. There is not the slightest allegation in this case that our omission of duty came with respect to any such trespasser. There is not a suggestion in the proof that it came in that way. There is not a suggestion that the plaintiff relies upon our omission of duty in that respect, so far as his proof is concerned.

The Court. Oh, no. The only reason I suggest that is because it bears upon the question of the expectability of things.

Mr. Garrison. All right. Now upon the theory of expectability I say there is nothing in this case to show the access of any of these so-called drunken sailors to pier 7. In fact the only thing they proved by Garrity was that he himself was not permitted to go down there because the Dougherty detectives stopped him.

The Court. Is there any evidence in the case who employed the Dougherty detectives?

Mr. Garrison. No, sir.

The Court. Then there might be some question in the case as to what authority the Dougherty detectives had to stop a railroad officer from doing his duty.

Mr. Garrison. There might.

The Court. There may be some question as to whether or not the railroad officer should submit to be stopped by a person who has no authority to stop him.

Mr. Garrison. I am talking about a fact; not law.

The Court. I am talking about fact, too.

Mr. Garrison. It might be a matter of very gravest illegality if some one nailed up your door so that you could not get out of the house,

but if the fact was that you were locked in you could show it in order to prove an alibi if someone said you were somewhere else at the time. I claim there is no proof that these men were ever permitted to go anywhere near pier 7. Here is pier 7 way down here.

The Court. That sounds pretty good, that suggestion about locking me in and proving an alibi, but it has nothing to do with this case. The proposition that I would look upon would be this: that if that man had been constantly kept away from there by persons who were unauthorized to keep him that he would probably have been under some duty to see that they were prevented from interferring with his performance of his duties so that he might do what he should do, inspect the dock, what the railroad had hired him to do.

Mr. Garrison. Now the 8th point takes up another one of the asserted duties, asserted by the plaintiff and denied by us to be a correct statement of law, and the arguments with respect thereto are practically those with respect to 7 excepting that we absolutely deny that we had any obligation to—I am trying to find the language—with respect to vessels containing explosives lying in proximity to our property. We deny that it was any of our obligation to watch, guard or whatever it says here—I think that is in 7. In point 8 the arguments are practically the same as in 6 and 7, and we have dealt already with the question of expectability.

9. Denies the assertions of the plaintiff that is was our duty to furnish, provide and install and keep in good order and condition sufficient fire fighting apparatus.

Of course the ICC regulations apply. I mean we say he should show the violations. We also say we did have them and so far as the proofs show they were in good order and repair. There is no allegation at all with respect to the lack of order in this complaint anywhere; and with respect to that I think it is all-sufficient to say this: I assume that your Honor will hold and charge—although I would like to talk a little bit about that under another head—that if there is any proof by anybody on the part of the plaintiff of a basic fact, that you will let that go to the jury for its weight with the jury, so that the fact that these firemen testified that they opened some of the three-way Corey plugs and could not get any water must go to the jury if your Honor finds that that was one of our obligations, to supply our own water pipes and keep them full of water, which I very seriously doubt. I very seriously doubt whether that is an obligation of a private citizen or a public corporation. I am not at all sure that they cannot rely upon the public authorities to do their duty with respect to such matters. But apart from all that, the plaintiff's case shows that the city pipes—the city hydrants—were there, and we certainly are not responsible for them or their condition. It does seem to me that it is a very doubtful spelling out of liability or basis for liability to hold that where the city has undertaken to provide the necessary and proper pipes and hydrants for fire purposes that an individual defendant in any way becomes responsible because the city's system is not satisfactory or accurate.

(I said that, Judge Collins; I said there is nothing in the complaint whatever about lack of

water; and it is the fact; not one of the alleged duties the omission of which is charged against us.)

In the 10th we make the same argument in denying the assertion of law on the part of the plaintiff that we do with respect to the others, and simply wish to add thereto that there is no proof that the detonation of the contents of one car of high explosives such as was there that night would detonate another car—no proof of that whatever. In fact the opposite is proved, because what they talk about is the detonation within the mass; that is the whole thing the professor was dealing with. After a shell got within the mass it would detonate. There is no proof that if the cars were separated one would detonate the other car.

The 12th charges us with a duty of notifying the fire department of Jersey City. We deny it for the reasons we have given heretofore and affirm that the proofs show we did it, so that if it is a duty we have done it.

13. The plaintiff has failed to prove that by reason of negligence of the defendant in failing to perform its several duties in the premises, as alleged in paragraph 17 of the second count of the complaint, the defendant is liable to the plaintiff as therein alleged.

That is a sort of an omnium gallium point of the plaintiff's and refers to the seven duties, as I recall it, as I count them up, that he charges us as being responsible for in law and the omission or negligence with respect to which with which he charges us as the basis of our liability; and what we are doing here is simply denying the assertion that we are subject to those duties

or that we have been negligent with respect to them.

14. There is no proof that the alleged negligence specified in paragraphs 2, 4, 6, 8, 10, 13 and 15 of the second count of the complaint or in any of said paragraphs was a proximate cause of the damage complained of by the plaintiff.

Briefly, our argument under that is that under the circumstances of the case as proven by the plaintiff, if you take each one of these seven allegations of duty and assume our negligent performance hereof, it is not shown that that was the proximate cause of this injury. It is not shown that it would not have happened just as well as if we had performed that obligation chargeable to us.

The Court. Well, suppose you had put the fire out?

Mr. Garrison. Sir?

The Court. Suppose you had put the fire out? If you had, in all likelihood, so far as the jury might conclude from the evidence, there would not have been any explosion of the explosives that could have gotten into the cars. There would not have been any first explosion at all, apparently.

Mr. Garrison. May I interrupt you?

The Court. Yes.

Mr. Garrison. I do not understand that he has gone to the extent of charging that we were required in law to put the fire out. I do not understand that.

The Court. Oh, no; oh, no; I do not say that.

Mr. Garrison. I understand he says we ought to have had more watchmen there; and the theory seems to be if we had had more watchmen we would have put the fire out. Isn't that it?

The Court. If you had had a million watchmen there, if their presence there would not have availed to put the fire out, there is no liability.

Mr. Garrison. That is what we contend. I thought you said supposing we had put the fire out.

The Court. Yes; I simply said that for this reason: I want you to understand my position on it. If the presence of the watchmen would have availed to put the fire out then the fact that the fire was not put out is the proximate cause of the injury.

Mr. Garrison. Yes; our contention is that the facts do not show that if we had had three times as many that any more would have gone into that peril or were called in law to go into it or under the emergency had to go into it, than the three or four we had there.

The Court. Precisely. You need not argue that any further.

Mr. Garrison. Our contention is that if your Honor takes up each of the allegations of duty that they make and the allegation of the negligent performance or omission, your Honor will not be able properly to conclude that any one of those was the proximate cause of this injury.

The Court. No; my attitude on that point is simply this: If there is evidence from which the jury could conclude that if they had had a

sufficient number of men and had had water and had used it and that would have availed to put the fire out, that then they may conclude that the neglect to have the men and the apparatus and the various things and the neglect to extinguish the fire was the cause proximately of the injury. That is all I would say. I think that would be a jury question, if the evidence is there, which I do not express any opinion on at all.

Mr. Garrison. I understand. Well, your Honor understands the point.

The Court. I see your point perfectly.

Mr. Garrison. The next point is that the plaintiff has not established by preponderance of the proof any cause of action against the defendant. I am not going to argue that at great length. I am not going to fall afoul of your Honor on the Uvalde case. I understand that the thing which will induce the court after a verdict to set it aside because it is against the weight of the evidence does not permit the court to take it from the jury. I understand that; but I am not sure that the courts of New Jersey have gone to the extent of saying that if the plaintiff's case leaves the court and jury in hopeless confusion as to every substantial allegation of the complaint that the plaintiff may be said reasonably and properly to have succeeded by preponderance of the proof, and if it is not so you cannot leave it to the jury. That may be another way of saying you have got to weigh the evidence. If it is I admit you cannot do it. But when you have thought over the innumerable complexities of this plaintiff's case—we have fire engines there and we haven't. The shells

began to go off instantly, and the nigger heard them and rolled over and went to sleep; and another man heard them for fifteen minutes and they were close. The thing may have been on a boat; it may have been on the land; it may have been out on the pier, at the end; it may have been two-thirds of the way, and no one knows where it was. One man sees a ball of fire go up and open like an envelope and shower fireworks around, and at the same time he sees another man drop at his feet and he is not knocked off his feet at all. We have every kind and sort and description of testimony that can be given and no two witnesses agree on any material point. Now it is possible perhaps for the jury to say that under those circumstances something preponderates. I do not know. I am not going to ask your Honor to do anything that will tell me you cannot do under the decisions of this state.

The Court. I think the explanation of that is found in Anatole France's preface to his Penguin Man, where he goes on to say that that is one of the characteristics of human evidence, that when one person tells you something you can believe it, but if more than one tells you you may make up your mind there will be dispute.

Mr. Garrison. That is why the justice of the peace in South Jersey would not hear any argument. The trouble was, he said, that he always agreed with every fellow and the consequence was he could not make up his mind.

The 16th is "The proofs do not show the absence of causes other than the alleged negligence of the defendant as the proximate cause of the explosion of which the plaintiff complains." I

am rather afraid that I have got to plead guilty to formulating that. I hoped I could put it off on somebody else. It does not properly express what I wanted to express. But I want to amend it now to make it express it. What I was trying to say there was this, that before the plaintiff may succeed in this case—where he has certainly failed to show what caused this fire—now there is no dispute about that—he certainly has failed to show what caused it—before he can succeed in this case he must exclude every cause of this fire other than some one cause—or rather other than a cause which must be attributed to this defendant. I think that is a correct statement of the law of this state.

Mr. Garrison. I think that is a correct statement of the law of this state, and he has not done it. He has simply failed to do it.

The Court. Well, you see, we are looking for the proximate cause of this happening.

Mr. Garrison. I am talking about the fire now.

The Court. Yes, I am talking about the fire, too. I am not looking for the origin—

Mr. Garrison. I am not talking of the explosion.

The Court. — of the fire; and we are not looking for the actual fact cause of the fire. The object of our search and investigation is to find the legal, proximate cause of the fire, the faulty cause; that is what we are looking for. And it seems to me (when I say faulty cause, that is a sort of a bull. I mean to say the cause which was due to legal fault).

Mr. Garrison. I understood what you meant.

The Court. And in this case we might be required to ask the jury to say whether or not the action or inaction on the part of the company at the time when it discovered the fire, and before the explosion took place was not the proximate legal cause of the fire and subsequent destruction.

Mr. Garrison. Well, now, of course, I assume that your Honor would have passed upon that point favorably to me before I got to this point, otherwise I should put it in this form: Now, what I mean by that is this: I realize, of course, that these two things are entirely different—our responsibility for what caused the fire, and our responsibility after the fire was caused. I realize that. Now, I have already argued under other heads—well, here, I will adopt your Honor's statement, because it seems to me it is immaterial; that if this is an emergency, if this is found to be an emergency, that then no liability can arise out of the fact that we did not use good judgment. We have passed that point. I do not want to argue in debating this point that is not in the case. I have a right to do that because your Honor may finally agree with me on that. What I say on this count 16 (if it is 16) we say that we have disposed of any liability upon this defendant arising out of its conduct. Then I say this plaintiff has absolutely failed in an essential requirement of the plaintiff where he does not prove that cause—as this plaintiff does not prove the cause—to exclude all other causes than those attributable to the negligence of the duty of the defendant. And he has not done it. Here are cars of various kinds of delicately adjusted chemicals, at the end of a July day, on fire. Has he ex-

cluded autoignition? Are we responsible for autoignition? And if he has not he has absolutely failed.

The Court. Well, am I obliged to judicially note autoignition in materials of that kind?

Mr. Garrison. You are obliged, I respectfully submit—you are obliged to notice any probable or possible cause of this accident. I can not remember cases the way your Honor does. I wish I had that faculty. But there is a case where the Court said this machine seems to have behaved in an unaccountable way. The Court said the way it behaved is just as consistent with innocence on the part of this defendant as it is with guilt, and you must exclude it. There are lots of cases in my mind that run exactly parallel with this. This is no fanciful idea. Why, if you were going into all the realms of science and art to select the thing you would most readily desire to have procured for autoignition you would select chemicals. That is the first thing you would suggest. Even if you didn't know the name of them. You would say, I know the thing which combusts of its own generative force is chemicals of one kind or another. So put me together some chemicals and I will be almost sure to get some thing that will go off.

The Court. Right there it might be said that the jury might conclude that this fire originated outside the cars. If that is so—

Mr. Garrison. There is no proof.

The Court. — then the autoignition would not be likely—

Mr. Garrison. There is not a scintilla of proof that they can show that this thing originated

anywhere. They do not know anything about where it originated.

The Court. — to indicate—

Mr. Garrison. They have shown and dwelt, and will continue to dwell, upon the fact that we had these dangerous chemicals in our possession. That is their whole case. You heard the formula of the t. n. t. alone: Nitric acid, sulphuric acid, toluol in various combinations, particles. Wouldn't your Honor take judicial notice of the fact that in compounding chemicals—I do not even say that is the right word—but in bringing them into juxtaposition the whole margin of safety and danger is the way it is done. Publication after publication is devoted to telling people how to do it, and the great danger of doing it except under the most expert advice; and the Interstate Commerce Commission enjoined by law, by this statute, that classifies and crystallizes the best of experience upon the subject can not do it in less than one hundred pages. Is that because these things are so safe? That they are like a barrel of flour or a carload of sand? It is because they are dangerous; it is because you are dealing with mysterious elements; it is because human ingenuity is taxed to determine how they should be handled that the Interstate Commerce Commission had to spend so many pages in telling what to do and what not to do. Now, am I asking for any violent inference when I say the things that require that kind of attention may, chemically, go off of their own accord? Why, we know it as common knowledge. We know it as common knowledge. There is not one of us that has been to college that does not know of explosions in the

laboratory without a particle of outside inflammable ignition.

The Court. Well, if we take our college experience and study the subject, I would be very loath to believe that that would ever be apt to happen with trinitrotoluol.

Mr. Garrison. There is not a particle of evidence by which the jury can confine this fire to trinitrotoluol.

The Court. No, but they can confine this explosion to the other.

Mr. Garrison. I am talking about the fire.

The Court. I understand that.

Mr. Garrison. All I am talking about is what caused the fire, and I say there is nothing in this case which excludes the perfectly reasonable inference that this fire was not caused by any human agency there that night, and until they exclude that they can not ask your Honor to charge the jury that we have been proven guilty by a preponderance of the proof of a wrongful act, and unless we have been proven guilty of a wrongful act we can not be held liable at all.

Now, under 17 we have stated our point with respect to the Hunter case. I won't go over that. The other specific point covers that.

My next point is the 18th. It is briefly stated. It is that under the proof the defendant owed no duty to the plaintiff. Our contention is very briefly stated there for what it is worth, and it is worth considerable; the cases have a great deal to say upon it—and that is while the defendant may have a duty within the expectable range of liability with respect to what he is doing or leaving undone, that if there

was no expectability, that the consequences of what he was doing would reach eight miles, he owed no duty to somebody eight miles away. The testimony of the policemen is that these windows that were broken—the schedules give the names and addresses. The Court will take judicial notice, I think, that some of these places are more than eight miles away.

The Court. I rather thought the police were a little extravagant in their judgment.

Mr. Garrison. So did we; but since their extravagance rather helped us we did not object. I rarely object when things are going my way.

The 19th is the usual acrobatic one, so that if we fail of any of our others we will add that: That the plaintiff has failed to prove any cause of action against the defendant, and that is our insistment. There is nothing to say on the 19th that I know of, that I have not in some way or other touched upon by the debate.

I want to thank your Honor very kindly not only for the attention you have accorded me, but for the help you have given me by debating with me certain points I raised, so as to show me the point that I wanted to make clear.

Mr. Stallman. I suppose I might as well follow Mr. Garrison's outline in the argument, as he set it down in his points. Now, I do not know just how to go about this thing in the shortest time, but on the question of the applicability of the Interstate Commerce Act—or, I mean the Act of Congress, the act for the safe transportation of explosives, and the regulations of the Interstate Commerce Commission thereunder, in the first place, I do not know of any rule or law that says to a pleader, if you con-

ceive yourself to have a cause of action you have got to plead in your pleadings the statute upon which your cause of action is based. That is not true in every case, and it is not true in very many cases.

The Court. If the statute is a general statute you can conclude as a matter of indubitable law in this state that you do not need to plead that statute, if you plead the facts that bring you within the statute the allegation of the statute is unnecessary. If you do not plead the facts that bring you within the statute then the allegation of the statute is necessary. You will find that land down in *Breese* v. *Trenton Railway Company,* 23 Vroom, 250, and in innumerable cases following that.

Mr. Stallman. I was thinking of some of the decisions of the State Supreme Court and the United States Circuit Court of Appeals, as well as some of the higher appellate courts in some of the states, on our employers liability cases, where a pleader will set up that so and so was engaged in railroad operation, and so and so forth, and he states his state of facts which brings him within the statute—

The Court. We need not waste any time on that. That is perfectly settled.

Mr. Stallman. Yes. Now, our cause of action here—

The Court. Of course, Mr. Stallman, if I may interrupt you just for a moment, the point the other side makes is not that you did not plead the statute. The point they make is that you did not plead the regulation, and the regulations of the Interstate Commerce Commission are mere regulations and not a statute, and because

they are regulations they are not judicially noticed and must be pleaded. That is their point.

Mr. Stallman. I might as well take that up now.

The Court. Yes, you might as well take that up now. I think that is an interesting point.

Mr. Stallman. The proofs in this case as they have been submitted by answer to interrogatories, as well as by placards which are not before the Court, do contain the regulations of the Interstate Commerce Commission with respect to the handling of those explosives, with respect to the handling of those cars. They were offered in evidence in this case, and so far as they are in evidence the Court not only takes judicial notice of them, but the Court takes notice of them as evidence.

The Court. Oh, yes; yes; they are evidence.

Mr. Stallman. And those rules read—in fact, the defendant very gratuitously inserted in the answers to interrogatories Section 1666 of the Interstate Commerce regulations, which provide just how and where this placard shall be kept on the cars, the distances from the floor, and what part of the car it shall be put.

The Court. Well, let me ask you this, Mr. Stallman, while we are on the point. What do you rest your right to recover upon? Do you rest your right to recover upon the general law exclusive of the Interstate Commerce regulations, or do you rest your right to recover upon the Interstate Commerce regulations exclusively, or do you rest your right to recover upon a combination of the general law and the Interstate Commerce regulation? I do not understand yet

what the theory of your case is, and I want to get it clearly in my mind.

Mr. Stallman. I would like to say I rest it upon a combination. I rest it upon both. I say here that so far as the Interstate Commerce Commission has issued a regulation respecting the holding of the transportation of these explosives, and so far as those regulations are before us, they have not complied with those regulations, and so far as the Interstate Commerce Commission has not specifically dealt with the various phases of the handling of these explosives, there, is as your Honor suggested, a residium of the common law somewhere here which compels them to exercise a certain degree of care, and that law they have violated; and I want to give those—

The Court. I do not want to have that go down exactly that way. This is the way I look at the thing: I say that where the Interstate Commerce Commission has legislated under the power given to it to legislate by the Act of Congress, that that legislation if it purports to cover the entire subject matter of transportation exclusively covers it. I think there is no question about that. When you come to find out, however, what the legislation means you have got to apply the rules of the common law in determining that thing, just the same as they hold there is no common law of the United States, but in construing the Constitution of the United States and the statutes of the United States recourse is constantly had to the common law in order to ascertain what meaning should be attached to those instruments.

Mr. Stallman. Certainly.

The Court. And to that extent I think that the common law is in a case of this kind—assuming the Interstate Commerce regulations to be basic in the right to recover here. I do not mean to say that where the Interstate Commerce Commission has wholly legislated, or legislated upon the whole subject, that you can come in here and say, here, you didn't say that we did not put this, that and the other thing there. You say the common law requires that, and you didn't do that thing. I do not think so. I think, as I suggested, when I was arguing the matter with Vice Chancellor Garrison, that in finding out what these regulations mean you have got to find out what they mean in the light of the law and the circumstances under which they were enacted. Just as we took two examples: He suggested one and I suggested the other. The example I suggested was that there would be a collision of a locomotive and a train of cars carrying explosives, and a wreck due to that collision because the locomotive did not have a headlight, and so on. I said to him: "What do you think about that situation?" He said, "Well, I think that would be a violation of one of the Interstate Commerce regulations." In other words, the construction that the Court is obliged to adopt in order to ascertain what those regulations mean is the construction that is adopted from the atmosphere of the common law, and from the rules of construction that are ordinarily applied in the common law. That is all I meant to say.

Mr. Stallman. Well, now, just starting with something your Honor has said, I think the atmosphere surrounding this subject is that we

are dealing with a very highly dangerous commodity, and subject to rules as are shown by all of the reported cases, outside of any statutory regulations and municipal ordinances or otherwise, the duty cast upon the people who are handling these things to exercise some degree of care. Now undoubtedly the recognition of the dangerous character of these things has led to the codification by the Interstate Commerce Commission under the authority of Congress of some rules for the safe handling of these explosives. So to a certain extent those rules are before the Court. They deal particularly with the matter of handling the stuff in carloads, such as we have here in this case, and they contain certain very general statements. The first one is—the first indicates the character of the contents, explosives, then it goes on to say "Handle carefully," without any detailed suggestion of what you shall do to handle it carefully; then it goes on to say, "Keep fire away," without going into all the gramifications of what might be done to keep fire away or to comply with the particular instructions.

The Court. That is what I am indicating to you when I said a moment ago that what that means is the thing that must be ascertained by a reference to what "carefully" was understood to be in the law at the time of the adoption of the regulations of the Interstate Commerce Commission.

Mr. Stallman. Yes. I think your Honor's thought upon the subject is absolutely right and absolutely sound.

Now in addition to those primary instructions—"Handle carefully" and "Keep fire

away," the Interstate Commerce Commission has provided—

The Court. Of course, Mr. Stallman, you and I have both passed one point that I am afraid I led you away from. We were yet to discuss the proposition as to whether or not those regulations must be pleaded, that the action rests upon them. Now you were going to talk about that and I think I led you off of it.

Mr. Stallman. Yes. As I said before, I want to rest this case on this ground, that the averments of negligence that are set forth in my complaint are sufficient to constitute—are sufficient to allege a violation of those two large-type instructions on that placard as well as one or two of the small-type instruction on that placard. I say that my complaint is sufficient.

The Court. The placard is no part of the pleadings. I think the point made by the other side is this, that you stand or fall upon the case made by your pleadings.

Mr. Stallman. All right.

The Court. And your evidence must correspond to your pleadings and support them, otherwise there is no right of recovery. Now you either should say you are—or, to put it more accurately, you either must or you need not plead those regulations as being existent and operative and as basic of your right to recover. If you should plead them and you have not pleaded them the neglect to plead them is not helped out or eked out afterwards by the fact that they have crept into the evidence. They must be in the pleadings if they belong there, or else, if they do not belong there, have the court judicial notice of them, as they do an act

of Congress—necessarily you would need to plead them. Therefore it is a critical point, it is really the vital point in the case, whether or not you have to plead those things, because they are not judicially noticed.

Mr. Stallman. Let us look at it this way. You are assuming now that if my case would rest entirely upon violation of the interstate commerce regulations, that there was no duty outside of that.

The Court. I think if we once learn the fact that the Interstate Commerce Commission has regulated this subject by regulations which purport to cover the subject—I think that you will have great difficulty in finding any case anywhere, in the state or United States Courts since the adoption of the interstate commerec regulations that will give a right of recovery outside of the violation of those regulations. I do not think you can find it.

Mr. Stallman. I will come to that in a minute.

The Court. I am only suggesting that as being my thought on the matter, as I have looked into the cases.

Mr. Stallman. Yes. Here is the way I look at your Honor's first suggestion. We will assume that the Congress has enacted a law which your Honor must take judicial notice of, providing for the regulation of—for the issuance of a regulation of the Interstate Commerce Commission respecting the transporation of explosives. The Interstate Commerce Commission issues such regulations and requires in substance that you shall exercise care in the handling of these explosives. We come into court on a pleading that says it was the duty of this carrier, or this

defendant, to exercise care in the handling of these explosives in various ways; we detail or we specify that it was their duty to exercise care to watch them, that it was their duty to protect them against the occurrence of fires and to protect them against the spread of fires, and it was their duty in that connection to provide fire fighting apparatus, and it was their duty to so store and dispose of these things in a way so that fire would not immediately involve something else. In other words we set forth what we conceived to be their duty under the circumstances.

The Court. When you say "duty under the circumstances" you mean their duty under the regulation, to exercise care?

Mr. Stallman. Their duty by reason of having explosives in this position, in the manner in which they have.

The Court. Now that is the trouble with that, that it does not get us anywhere.

Mr. Stallman. I will if your Honor will let me keep on for a minute.

The Court. All right, keep on, but unless that first point is settled we shall not get anywhere, and I would be perfectly willing to rest a decision on the proposition as you cannot convince me that those regulations will be judicially noticed.

Mr. Stallman. Well, I think they ought.

Mr. Collins. Ought to be what?

Mr. Stallman. Judicially noticed. I do not think there is any question about it. Congress in a number of cases has issued similar regulations and over a number of things—regarding air brakes, for instance, on freight trains. Now

when Congress passes a law, which is the supreme law of the land, and says that Congress (?) may issue regulations respecting the handling of trains containing explosives, or any other of the phases of interstate commerce which Congress has legislated with respect to, those regulaions, I agree with Secretary Garrison, constitute the supreme law of the land. There is no question but what those regulations, enacted pursuant to the directions of Congress and the authority of Congress, vested in that way, make those regulations just as much the supreme law of the land as though they were acts of Congress themselves. I do not think there is any question about it. If that is so, why should not a state court, who is speaking to and for the law of the land and the supreme law of the land, take judicial notice of those regulations? There is no other law which can be brought up, no other law which can be cited to affect their strength or their validity or their application. I do not see any reason why the court sitting here with the acts of Congress before it, authorizing the commission to make these regulations—why the court should say, "No, I cannot take judicial notice of them," especially when it appears in the case, by the admissions of the parties, that those regulations have been made and the details of those regulations have been put into the case without any objection. The court cannot shut its eyes to the—

The Court. Let me ask you, have you seen any authority on that proposition at all?

Mr. Stallman. Yes, I have somewhere.

The Court. I will agree with all you say about the cogency of the reasons that support

the idea that they ought to be judicially noticed; but I wondered whether you had any auhority. Now in this state I may say that we have two cases that occur to me now just offhand; one is the case of *Hankinson* v. *Trenton,* 22 Vroom, 495, another is *Salter* v. *Bayonne,* 30 Vroom, 128. Those cases are authority for the proposition at the courts of a municipality will notice a municipal regulation; and the reason for that, of course, as is stated in the cases, naturally is that the recognition is co-extensive with the operation. Now then if that be so, it would follow as an analogy and as a logical conclusion that isasmuch as the regulations of the Interstate Commerce Commission, passed in pursuance of an act of the Congress, are national in their application they ought to be noticed by the courts of the State and the United States throughout those territory they are—that would seem to me to follow as a logical effect and consequence of the cases I have cited to you now.

Mr. Stallman. The only argument which I think can be made. Now in my work on ruling case law, under evidence, there are some cases bearing on that point.

The Court. That is what I want to find out. I have not looked at the point.

Mr. Stallman. I have not brought the book with me, but I will get it at noon time and I will look at it.

Now I say on the ground of whether or not this court can take judicial notice of these regulations, for these reasons I think the court can.

Now in addition to that, it seems to me, your Honor, can give effect to the proof of those regulations as they have been introduced into this case. They were introduced primarily for

the purpose of showing, as I said to Mr. Garrison when we went over this thing—as showing scienter on the part of the defendant.

Mr. Garrison. You do not mean the regulations; but you mean those placards.

Mr. Stallman. Those placards are a part of the regulations.

The Court. Hardly.

Mr. Garrison. You said the regulations were the subject matter of our talk. They were not. The subject matter of our talk was the placards.

The Court. The placards are not the regulations, and they do not carry any internal evidence of being regulations.

Mr. Garrison. Furthermore you merely told me it was to prove scienter, and scienter hasn't anything to do with regulations.

Mr. Stallman. The evidence in the case in the shape of interrogatories is that each of these cars of explosives had tacked to it a placard which was annexed thereto pursuant to the following regulations of the Interstate Commerce Commission, and then it goes on to say that a certain car of dangerous explosives specified in paragraph 1,661 must be protected by a tacking on a certain place the following placard; and then we have here, as best can be done on a typewriter, the details of this placard, which is merely given to the court to show the form in which it is set up. The details on that placard are shown by these answers to interrogatories to contain the specific instructions I have mentioned. I say that placard is in evidence in this case, because it is all set forth in answer to interrogatories which are furnished by the defendant, and they show what the duty of the

defendant was in respect to handling these cars, so far as those regulations of the Interstate Commerce Commission are concerned.

The Court. Well, your idea is, I presume, on that inquiry, that you have at least a fragment of the interstate commerce regulations in evidence, and that fragment has been shown to have been violated—to say the least of it.

Mr. Stallman. Yes, that part of it.

The Court. Yes.

Mr. Stallman. Now I want to say in further answer to your Honor's first suggestion that where it is shown that the Interstate Commerce Commission has issued regulations under the authority of Congress—and I do not think we ought to distinguish between Congress and the commission in our argument on this case—where it is shown that they have regulated in certain respects and there are other phases of the control of this subject matter, on which there are no regulations, that it does not necessarily follow that this matter is to be left entirely up in the air without any law to control it whatever.

Now that, it seems to me, necessarily follows from a number of cases decided in the United States Supreme Court, in deciding whether or not certain state statutes have interfered with interstate commerce, and that is the particular point upon which most of these controversies have been decided, not whether a state regulation or the common law, if you please, has some remote bearing upon the subject, but whether or not it interfered—whether the application of that law is such as to stop the ordinary, free flow of that interstate commerce. If it does, why then it is to be said in interference, and if

they cannot attach to that subject matter of interstate commerce, but if it does not interfere with it, if it only affects it incidentally—

The Court. Do you mean to say now that you are going to cite cases where Congress has actually regulated a thing by statute and that the Supreme Court of the United States has said afterwards that the State might incidentally encroach upon that same subject?

Mr. Stallman. Yes.

The Court. I would like to see a case like that.

Mr. Stallman. Now I do not know that I will go as far as your Honor might think I can, but I have two cases in mind—or say one.

As I called it to your Honor's attention first —the matter of safety appliances—Mr. Garrison referred to it—Congress, not through any regulation of the Interstate Commerce Commission, but directly as required the railroad companies to do certain specific things with respect to their trains. The first thing, their trains must be one hundred per cent air-braked; the second thing, every car and every locomotive must couple automatically by impact; then it must be fixed in such a way that a brakeman need not go in between the cars or a car and an engine to uncouple, and they have got to provide ladders and hand-holds in certain places, of certain certified dimensions; than trains have got to have a certain kind of an ash-can on the engine. In other words, they have gone into certain specified details to what should be on a train.

Now your Honor can conceive that there might be something on a train which the Interstate Commerce Commission or the act of Congress has not

mentioned; while they have regulated with some detail as to the general subject of safety appliances on cars, there may be some things about a car that they have not said anything about—the windows and the floors and the interior trim and a thousand and one other things, the character of the wood which goes into the roof. Now you say if a carrier was negligent in respect to some of those things that Congress has not mentioned and cannot come into court in a suit brought by somebody's client here and say, "We have done everything that Congress required us to do, therefore we cannot possibly be negligent because that matter was not touched upon by Congress." And it seems to me that that is analogous to the question which your Honor asked Mr. Garrison, whether or not, if they had complied with every regulation of the Interstate Commerce Commission and through some negligence a train collided with an obstruction and set the thing on fire, why, there is nothing—Mr. Garrison said that would be a violation of the interstate commerce regulation. There is not a word in the interstate regulations about not allowing an engine to collide with another train carrying explosives; in other words, it doesn't say anything about it, but isn't that negligence outside of those regulations? I submit that it is.

If a man should run a train around a curve, carrying explosives, at a very high speed, so that the thing went off the track and down the bank, as I have known it to happen up on the Lackawanna, is there anything in those regulations that says, "Why, no, you must not handle these cars at high speed going down hill around sharp curves." The regulations doesn't say that, yet cannot negligence be inferred from such acts?

Therefore, what I am getting to is this, that even had the Interstate Commerce Commission—the regulations prescribed by the commission do not say that when you have eight or nine carloads of t.n.t. and a lot of shrapnel alongside of it in the yard, you have got to have so many watchmen, or you ought to have water to put out a fire if it starts. I say those are particulars in which Congress and the Interstate Commerce Commission have not acted. They are some of the details that have been left to the operation of local laws or to the operation of the common law.

The Court. Well, I think I will decide right plumb now, and you cannot find a case to the contrary, that they are not left to the operation of the local law. There is not any case that you can find in the world, since the adoption of the interstate commerce regulations, that say that that sort of thing shall be left to a local law. It may be left to a law—common law of the state which has been adopted by the United States, but never to a local law. If you attempt, for instance, to regulate it by a statute of the state, you just could not do it—you would not be permitted to do it.

Mr. Stallman. That depends on how close you are going to regulate things. Now, for instance, there are statutes regulating the issue and sale of tickets at stations and the kind of people which will sell them, whether they are going to be authorized agents or not; requiring persons engaged in the sale of the tickets to give a bond for the discharge of their duty; state statute regulating the passenger end of the interstate traffic; there have been state statutes upheld

where they have forbidden the transfer of tickets marked non-transferable between parties; there have been statutes regulating the speed of the interstate trains—that is, regulating the speed of trains, and it doesn't make any difference whether they affected interstate trains or not. Then you take the Arkansas full-crew act, which is cited on Mr. Hobart's memorandum; the Sunday Railroad Act down here in Georgia, where the United States Supreme Court held that even the State of Georgia had the right to prohibit the running of Sunday trains, even though they were interstate trains; and a number of matters at that time on which Congress has not specifically touched.

Now if your Honor is going to hold that where Congress does not say anything more than "Hereafter when you handle explosives do it with care," or "Hereafter when you handle explosives you have to put a sign on a car," whether or not that is as far as they have to go, and they do not have to go a bit further, why, that is a different proposition. I can imagine that a railroad company might do everything and put that tag on a car which the regulations require and send down in the yard a lot of blind men or men who could not read English.

The Court. What more do you want for the purpose of your case than to have the Interstate Commerce Commission say that when you handle munitions or explosives you shall do it with care?

Mr. Stallman. I think—

The Court. Is that anything less than the law itself says?

Mr. Stallman. No, but I do not like to stand up here and have your Honor try to convince me—

The Court. I am not trying to convince you of anything.

Mr. Stallman. —that there is no other formation for that law excepting the—

The Court. I am not trying to convince you of that.

Mr. Stallman. Yes. What my argument is on that point, even though that is a correct construction to the place on those regulations, and I think it is, and I urge that it is—I say even outside of hat, in so far as you cannot spell out of those regulations—and I do not say that there are any limits to what you can spell out of that—but in so far as the court might hold that does not say how many watchmen you shall have or what sort of fire protection you have got to have, that the common law duty of a person handling these things in his possession still remains and is not abrogated and is not wiped out, if it was the common law, by the adoption of those regulations merely because the regulations do not refer to them specifically.

Now I agree with Mr. Garrison that the question of a nuisance in this case has got to be either a nuisance *per se* or it has got to be a nuisance on account of negligence; and if it is the latter, then it doesn't make any difference whether you call it nuisance or something else.

The Court. No question about that, Mr. Stallman, that is absolutely so.

Mr. Stallman. Yes, because this is—I think nearly all of the cases do refer to a nuisance being created and existing because of negligence.

The Court. There is no doubt about that. That is what they do hold. You need not discuss that. We are all agreed on it.

Mr. Stallman. The only point outside of that is as I have suggested that the quantity of the explosives that were held down here might make some difference; but I have not found any authority dealing with any such quantity of explosives; and I do not know what the courts will hold in that connection, whether they will leave it to the jury to say that an enormous quantity might take it out of the general rule. Now on some of these points—point 3: "There is no proof that the existence or maintenance of a nuisance by the defendant was a proximate cause of the damage complained of by the plaintiff"—considering the nuisance as I have suggested, that is a nuisance resulting from failure to handle the thing in a proper way, I deny that; that is a question of fact whether or not the carelessness, which I will touch upon, in the carting of those cars and in handling them, was a proximate cause of the injuries which resulted. I think the court has got the facts in his mind, so that it is hardly neecssary for me to go and argue what those facts are.

On the 6th paragraph of the points of the defendant he says: "The assertion by the plaintiff that it was the duty of the defendant to exercise a high degree of care to prevent the occurrence of fires, detonations or other means whereby said explosives and munitions might become exploded is denied by the defendant as a correct statement of the law."

Now as to that duty I submit that it is imposed by law as shown by the interstate commerce regulations.

The Court. Well, that is—see if we do not agree on my understanding of it—your idea is

that whether you consider it as a proposition of common law of the state as adopted by the United States that is to be applied by it in all those cases where the regulations of the Interstate Commerce Commission do not extend, or whether you consider it as a construction to be placed upon the commerce regulations themselves, which it is claimed are to be judicially noticed, that they are to handle carefully, that the duty of the railroad company was to use a degree of care commensurate with the risk, etc.

Mr. Stallman. Yes. And that being my contention as to the law, I submit that there is enough evidence in this case now to raise a jury question as to whether, if that is the law, this defendant did those things which ordinarily prudent men would do, having the situation that they had there—the quantity and the character and the kind of explosives that they had on hand at the time in question.

The Court. In other words, your notion is that care is to be determined by the jury on all the circumstances of the case as they exist before and at the time of the accident?

Mr. Stallman. Yes. And that is summed up—if your Honor has read the case of *Whaley* v. —, that Alabama case which is so often cited in cases of this kind—there is such an exposition of the circumstances under which the duty is imposed; and I think the Vice-chancellor mentioned that Nelson case—

The Court. Hara v. *Nelson.*

Mr. Stallman. Yes. And when you boil the whole thing down—we all camouflage this subject with a whole lot of talk, but when it is boiled down I do not think I can put it any shorter

or any sweeter than your Honor has put it; that there is a question in this case based upon the violation of duty imposed by the law on the defendant under the circumstances.

The Court. I do not care to hear any more, unless you want to discuss it.

Mr. Stallman. There is one thing. I was amused at Mr. Garrison's reference to autoignition. Not only was the evidence very clear that the fire occurred between the cars, but the statement of Mr. Garrison before the jury was that it started in a car, and then the statement in the answer that the fire was of incendiary origin —so that I do not think that your Honor is bound to take any particular stock in the suggestion of autoignition when the pleadings themselves claim it to be incendiary. Those two are different things.

Mr. Garrison. Your Honor will put it to my credit that I did not use the word "camouflage."

The Court. No; you did not use it.

Mr. Collins. Are you through with the whole argument ?

The Court. I do not care to hear any more from the other side. If you desire to say anything I am glad to hear it.

Mr. Collins. Briefly: I shall not attempt to cover the ground that was so completely covered by Judge Garrison, as they call him in New York, but I want to give a few salient facts as they present themselves to my mind with regard to the matters that have been discussed.

Now, it is well always to see what the issue is, There is not a word in this complaint—nowhere is it stated in the complaint that the explosives

were in interstate commerce. That is not there. It is a plain statement first of nuisance; second, of negligence in the handling of them. If it was interstate commerce—it was done before there was ever any regulation on the subject of safe transportation of explosives in interstate commerce. Now what did we do? We said in our answer to their complaint in the second defense to the first count—we said that on July 30 and for many days prior thereto, the defendant was a common carrier engaged in interstate and foreign commerce and therein transported by land ammunitions and munitions of war including explosives." They admit it in their reply. We then say that as said common carrier defendant was compelled by law to receive, carry and transport said ammunitions and munitions of war including explosives in course of interstate and foreign commerce provided the same were packed * * * and when offered for transportation were in proper condition to transport in pursuance of an act of Congress of the United States entitled an act to permit the safe transportation * * * and to provide penalties for its violation; approved March 4, 1909, etc., and the regulations prescribed by the Interstate Commerce Commission by authority of said act. They deny it. Now that is the dispute here before you, and on that issue the proof is complete that we were compelled—the law is so—and the proof is complete that these explosives that exploded were in interstate commerce. Now, of they want to say as answer, instead of denying what cannot be denied—if they want to say "True, you were interstate commerce"—that they admit—"True, these articles were interstate commerce"—that is the other para-

graph—I did not read it all—the third paragraph was that these were being transported in interstate commerce. That is proved. They denied that also. Instead of denying that they should have said, "True, there is such an act of Congress; there are such regulations; these were explosives in interstate commerce, but you violated certain regulations." That they do not do. The issue is not before you, and I do not see how you can escape it. The burden of proof as soon as we had laid before the court in our pleading and here it is in the proof now, in the testimony—that these were interstate commodities—then it was their duty to show wherein we had disobeyed the regulations of the Interstate Commerce Commission. Now I do not care particularly whether you consider that you should take judicial notice of the regulations of the Interstate Commerce Commission. I do not find any case on it. We do not find anything on the subject definitely. Whether you take judicial notice or not of my idea is that the only safe way for a plaintiff to proceed is to plead the regulations and to set forth wherein they have been violated, and then we have an issue that we can meet.

But, let us suppose for the sake of argument, that you do take judicial notice of the regulations. Then isn't it for them to plead which regulation we have disobeyed in the language of the regulation? You can not spell out of this declaration by stating that they say occurred that that is within the prohibition, or not within the privilege of the regulation. They must use the words of the regulation which is said to have not been complied with. For example, if it said in the regulation that you must handle care-

fully, then they would have to allege that we did not handle carefully. In other words, not plead their evidence, but plead the thing that we did not do. If it says in the regulation that we must keep fire away; if the regulation was that you must keep fire away, then the allegation would have to be that we did not keep fire away. Now, I undersand it is as your Honor says, that the common law is only to be resorted to for the purpose of interpreting the language used in the regulation. The language used in the regulation ought to be pleaded, and then when we come to comply the fact to the allegation, why, the common law is resorted to, of course. Now, that the whole subject is covered by an act with this title, and by the act itself when you come to read it, is perfectly plain. The case is very analogous to the recent Winfield case, which your Honor is perfectly familiar with. There it was held in the Court of Errors and Appeals in this State that inasmuch as the act of Congress as to Employers Liability would limit the different cases of negligence, that they didn't mean to deal with non-negligence cases, and it was left to the State to deal with them. The Supreme Court of the United States said no, the State court is wrong, what they meant was to cover the whole field, and they would not allow liability to employes in cases where there was negligence.

Now, just here they drew the entire subject, as the title indicates, of the safe transportation of explosives in interstate commerce. That is the purpose of the legislation—to do it. Having covered that field, that is the whole charter that we look at. We complied with that act as the agency of the government lays down the regulations, and we are perfectly safe. They can not

say—why take Mr. Stallman's illustration: There is nothing said in the regulations about running at excessive speed around the curves, and going down an embankment and exploding munitions; nothing said of that kind in words, no. But you will find something is said if not in those words, that that sort of thing will come within; and it is the failure to comply with what was required of us that they have got to plead. That is my notion of the case, and here there is an utter failure to do it. I do not care whether you take judicial notice or not. Suppose you do not take judicial notice. Then they have utterly failed to make out a case, either by their original complaint or by their reply to our defense. Suppose you said you would take judicial notice. Then read it; let us see what there is in this complaint that comes within the purview of the regulations—not something that they said that we did or failed to do; they can not state a conclusion; they can not state what their evidence is, and put that thing in as a complaint against us. If you find the regulation in one hand and the complaint in the other, some violation of the regulation, why, then there is a case. But you can not find that. If your Honor takes that end of it you won't find it, either in the substance of the language or in the evidence.

Let us go on further for the sake of the argument. What is there, assuming that there must be either in the pleadings or in the proof some evidence of a violation of the regulations of the Interstate Commerce Commission? Otherwise we are protected. What is there that is alleged? The proof as they have themselves put it in simply is first that there are regulations. It might be essential to prove there were regulations,

although there is a strong argument in favor of the contention that after Congress commits to a commission the duty to make regulations, that the interval between the time the law is passed and the regulations are made is left uncovered, but not to have the State law applied to. But here we do not need to consider that abstract question.

The Court. You do not need to consider it now, because the United States Supreme Court has considered it and decided against what you think the rule is. They have decided that in the interval between the time the law is passed and the regulations are adopted the State legislation is operative.

Mr. Collins. Well, I won't take time to discuss that case. We handed it up to your Honor ourselves. We had a different view of it; but that does not make any difference. I do not care which way it is decided, because here it is admitted they had formal regulations. The regulations had been passed. Now, all that they have attempted to show by proof that imports a failure on our part to comply with the regulations is the fact that we did not comply with the directions that are given on the placards, which placards presumably are required to be placed on the cars by the regulations themselves; and that, therefore, you may fairly say—to put it as your Honor did, I think,—in a fragmentary way they have regulations enough for them to argue from, and we did not obey them.

Now, what are the things they allege? "Handle carefully" was one. Well, there was no proof we did not handle them carefully. They were brought there in the yard, and they did not prove but what they were put in the way

the law says they should be put, and they are left there without anybody coming in contact with them, in a dead yard at night, and with nothing that would affect them at all in the way of being handled. They are not being handled, in other words. So that we are driven in the last analysis, as I understand it,—and I think that is the question, the only matter your Honor has in your mind—to the matter of keeping fire away, and I only wish to speak a word or two about that and I have finished.

The Court. Do you think that letting fire get near is handling carefully?

Mr. Collins. Do I think what?

The Court. Do you think that letting fire get near is handling carefully?

Mr. Collins. Do I think fire—

The Court. Letting fire get near is handling carefully?

Mr. Collins. In other words, "handle carefully" as applied in that language is as to the handling of the material in the way in which they take it, in the way in which they run the cars and engines, and unload it. I do not think the words "handle carefully"—especially in view of the fact that they had the particular injunction to keep the fire away—that the two things are related to one another. I think you take "keep fire away" by itself. Now, let us see what is meant by "keep fire away." As to watchmen, I understood that the mere having of watchmen, the number of watchmen would not make any difference. It does not say anywhere that I know of in the interstate commerce regulations as to how many watchmen we should have, or that we should have watchmen at all. I do not think there is any duty cast upon us

at all, and while there is no danger of anything coming to those cars in the orderly conduct of the business of the company. The business is suspended for the time being. They are put down in a dead yard, surrounded by water, where no harm can come to them except from some extrinsic, or outside agency. Now, "keep fire away"—what is meant by that? If there had been a great many watchmen there it would not have made any difference. One watchman that saw the fire is as much as if there had been a great many watchmen.

The Court. Well, if there had been a great many watchmen there might not have been any fire. That is the difference.

Mr. Collins. You have no right to conjecture on this subject. In other words, the burden is on the plaintiff to show, if he can—to show the cause of the fire. It is not a case of *res ipsa loquitor* at all. Indeed, we do not know that the fire was the cause of the explosion. Perhaps there is enough to go to the jury on that subject, but the explosion may have been, for all we know, due to a bomb that was placed under the cars, and it may have been a coincidence that there was a fire on the cars within. The proof is that t.n.t. will burn and not explode under ordinary conditions. Indeed, it is quite surprising that it would have exploded at all from heat, and the expert has to be driven to the theory that when there are great masses of it and it reaches beyond a certain point then it will explode. There is no proof that that has been so in the past. It is mere conjecture. There is no proof that that has been so in the past, enough to guide the railroad company. But now let us take the question of the fire. A fire occurred. "Keep fire away"—what is meant by

that? That does not mean that if a fire happens to occur in the vicinity that fire shall be absolutely prevented from spreading. It may be that the language "keep fire away" would extend to the case of a fire that was nearby, that had from some unknown cause occurred; that they should keep that away from the cars. They might argue that—that is, with reasonable care prevent it. Nobody will say that they are insurers; no one will say that that language "keep fire away" makes them insurers that no fires shall ever extend to those cars. "Keep fire away"—that means do not take fire there. This is addressed to the company. "Keep fire away"; do not take a lantern down there; do not have a locomotive go there that may put sparks in. Keep fire away. Keep fire away.

The Court. Well, it surely does not mean if the fire is there and you have a reasonable chance to put it out, and reasonable care will put it out, that you can stand still and say the regulations protect you and let it go. That would be nonsense.

Mr. Collins. You are anticipating it. I say we will come to that, but one step at a time in the argument. "Keep fire away" means do not bring fire there. That is the language, and the natural meaning of it as addressed to the company. Now, I was about to say, while it is true that if fire does occur and they can put it out by using reasonable care, why, they should do it, within the injunction "keep fire away." I do not dispute that. But suppose the fire occurred in the car ltself. Suppose it occurred in the car itself. For all I have seen in this testimony (I have read it very carefully). (I was not present when it was taken, but I have read it very care-

fully). It may have occurred in the car itself. Now, the question then arises as to what would be the best thing to be done, and that is an emergency, just as Judge Garrison said. But if a fire occurred outside, if a fire occurred on the land away from the car and there was a danger that it might be blown by the wind and catch the car, then the question of keeping fire away, using reasonable care to do so, might, as your Honor just now said with very great force, be within the reasonable range. But, remember, we do not know how the explosion occurred; we do not know where the fire itself was. If it was in the car this company is not liable for its being in the car under the circumstances of the case that were there. Your Honor can not conjecture. Your Honor can not say: "Oh, well, they are insurers—"

The Court. Nobody yet has said, and nobody will say in this case, as I understand it, that they were insurers. Nobody argues that.

Mr. Collins. They must use reasonable care to keep fire away. Now, what is reasonable care under the circumstances? It is evident that they had sufficient watchmen. It is evident that when the fire first was discovered nothing that could be done would have prevented its spread. I do not care if you take Mr. Kelly's statement contradictory to everybody else's in the case, or if you say five minutes, as he says, or fifteen minutes. It would not have been possible under the circumstances to have put that fire out. Yet our management there was consistent with reasonable care, and your Honor can not say that it was not. Now, in view of human expectancy that a man will not go near a car of explosives on fire

—and for the purpose of this case you may assume that when Mr. Kelly or anybody else first saw this, it was not on fire—it is not to be expected that you will go there; it is to be presumed that interstate commerce regulations covered the dangers of fire as far as practically possible, and endeavored to minimize the danger from fire by as many regulations as practically possible; and the law and duty in this respect (dangers from fire) was exclusively in the interstate commerce regulation. Now, you can not assume they would require a man to go to the car which was afire, and attempt to put it out with those explosives in it. We know what did happen. Even if you say it was fifteen minutes after Kelly saw the fire before they began to shoot off, nobody could be expected to go down there any more than the fireman would have expected to go when they arrived, and would not go, and you can not blame them for not going. If that is true you must take that fact into account when you consider that cars loaded with shells will explode and make it dangerous to go near there—you must take that into account when you consider that it would take a great deal more than fifteen minutes to go down there, and that by no possibility could the thing have been stopped—

The Court. Why would it take more than fifteen minutes to go down there?

Mr. Collins. Why, the proof is to make the rounds —

The Court. To make the rounds, yes; but the fire is a vastly different thing.

Mr. Collins. Apply your rule, and you will see it would take more than fifteen minutes to get down there. You must go down with hose or machinery or some kind.

The Court. Yes.

Mr. Collins. But in that respect the emergency doctrine applies. Every instant was an emergency. Kelly was excited every instant, knowing the danger on account of the explosives; he did the best he could under the circumstances. He saw the fire and telephoned at once.

The Court. Yes, but you must remember another thing which all of you seem to overlook: That Kelly did not discover this fire. This fire was discovered some time before Kelly had any knowledge of it. Kelly's knowledge of it came from the blowing of the fire whistle.

Mr. Collins. But every person who did see it —the first one whom they produced that saw it— I mean the one who saw it first—accompanied his testimony by the statement that when he did see it the shells were going off.

Mr. Stallman. No.

The Court. No, you are mistaken about it.

Mr. Collins. Kelly is the only one who says the shells were not going off. The other witnesses called by them say that shells were going off.

The Court. I think you are mistaken about it.

Mr. Collins. Do you mean to say that there are other witnesses besides Kelly, who said that after they saw the fire there was an appreciable time before the shells began to go off?

The Court. That is it precisely.

Mr. Collins. I read it all, and, of course, you heard it. I understand that Kelly was the only witness to whom allusion could be made, and Mr. Garrison confirms my memory of that.

The Court. This is merely academic, because Kelly is enough. If Kelly was there and he tells the truth about it, and that is the truth in the light of this testimony, I must admit it.

Mr. Collins. If it be true that there was fire in that vicinity, and, as Judge Garrison says, they can not tell you where it was, but presumably it was in the car because very shortly afterwards—very shortly afterwards shells began to go off, and that could not be unless the fire had made good headway into the body of the car itself—if this is true they can not say that the car getting afire was a violation of the injunction to keep fire away; because I have attempted to interpret that as I understand it should be interpreted, and to say because when Kelly saw it it had not yet begun to pop that there is some liability imposed upon the company because Mr. Kelly—whose duty was not, as I remember it, within the range of the doing of this thing—because he did not immediately take the hose or chemical engine and go down there—to say because of that there is something to go to the jury on the question that they did not keep fire away is wrong. Keeping fire away is a different thing from putting fire out after it has got there. It is only in case you can prevent its spreading. You can not expect if the car was on fire that they would go there and put the fire out, because it has been shown that that was impossible.

Mr. Stallman. May I call your Honor's attention now to the matter of authorities as to these regulations?

The Court. Yes.

Mr. Stallman. The Federal Courts, it seems, take judicial notice of all the executive departments, and in the case of State against the Railroad Company, 169 North Carolina, 298; 84 Southeastern, 283; the regulations of the Interstate Commerce Commission are judicially noticed; and then the Federal Courts take judicial notice of the regulation, the Secretary of Agriculture, the Bureau of Animal Industry, the Treasury, the Post Office Department and a number of other departments.

The Court. Well, if everybody has searched for cases and the only one we find is one that is favorable to the reception of them, and that appeals to my own reasoning on the subject in the way of cases, I think we may safely assume that they would be judicially noticed.

Mr. Collins. That is the point to which my argument applies.

The Court. Yes, I will take notice of the fact that you direct your argument to that point. I am prepared to decide the motion by deciding that I will not grant any non-suit. I have interlined the argument of all counsel so generously with remarks that I think it is entirely unnecessary to talk more about it, but this much I will say: First of all, it is a matter of indifference to me for the purposes of this motion whether we consider that the Interstate Commerce regulations which would regulate this matter—whether we consider that the Interstate Commerce regulations plus the local common law adopted and ap-

plied by the Federal Courts is likewise regulative of the situation? There is enough, if I consider that the Federal regulations, that is, those of the Interstate Commerce Commission, were applicable—in my judgment to require me to submit this case to the jury. First of all, taking for the purpose of the argument the duty under the Interstate Commerce regulations, which I will say I will judicially notice for the reasons which I have given and under the cases which have been cited; and taking the pith of these regulations to be stated so far as the necessities of this motion are concerned on the placards which have been offered in evidence, that the cars contained explosives; that they were to be handled carefully, and that fire was to be kept away, as evidencing the conduct that would be required of the railroad company in their management of the transportation of these explosives, I think there is enough evidence here to indicate first of all (at least, to permit the jury to find, first of all) that there might have been a mishandling of these cars in the manner of their adjustment to each other in the yard, their location with respect to each other in the yard. The explosives in the cars are handled, I think, within the clear meaning of that language when the cars in which they are contained are handled and located and placed in the yards, and with respect to each other. With respect to keeping the fire away I find no difficulty whatever in saying that it is a question for the jury whether when a fire is discovered in dangerous proximity to cars loaded with explosives, and the fire is of small extent when it is first discovered, and there are no evidences of explosion at the time of the discovery, and there are instrumentalities that have been provided by

the railroad company for use in just such an emergency—I say I have no difficulty in holding that it is the duty of the Court to submit to the jury the question as to whether or not the situation was an emergent one, one that called upon the railroad company for instantaneous action; or whether, rather, it was one in the light of all the circumstances that existed at the time the fire was discovered for the exercise of a calm, or reasonably calm judgment and for the exercise of deliberation; and whether the circumstances did not require in the exercise of reasonable care on the part of those persons who had been placed there by the railroad company for the careful handling of these cars, the watching of the cars, the keeping of the fire away—whether it was not negligence upon their part, not at least to have made an effort to extinguish a small fire when it was first discovered.

Now, of course, there are certain things that are perfectly clear in a case of this kind. One of them is that the mere fact of the extensiveness of the injury and of the destruction wrought by the explosion has practically no effect upon the question of the liability. Nobody for a moment judges of the culpability of an action by the extent of the destruction wrought by the action.

Our own cases hold that. *Ford* against the *Railroad Company,* 41 Vroom, is authority for the proposition, for instance, that you judge of the management or negligence of running a trolley car, not by the extent of the injury inflicted, but by the management of the car by the man who ran it. And so here the mere fact that this wrought a tremendous destruction does not at all compel the Court or permit a jury to say

that the culpability should thereby be visited upon someone, as the popular notion seems to be to visit it, merely because of the widespread destruction. Secondly, there seems to be a gingerly handling of the cases by counsel who argued it for the company with respect to the fear that the Court was going to get some idea that the company was an insurer of the non-explosion of these explosives, and of the safety of the general neighborhood when these explosives were placed there. Nobody entertains that notion. The duty of this company was to use reasonable care, and reasonable care is a duty of relation. It has to do with the circumstances in which the parties find themselves at the time they are called upon to act. Reasonable care in this case may very well be the duty to use a high degree of care, having in mind the nature of the explosives, having in mind the facts which everybody must have known at the time. Everybody knew, for instance, that war was waging all over the European Continent, and the munitions were being hurried for use in that war over practically every artery of commerce that we have in the country. And everybody knew from common knowledge that incendiary fires were of very frequent occurrence, or, at least, the report of them was a very frequent report. Those facts and other facts that existed would have to be taken into account in determining whether or not the company in the light of what it now knows, or must be assumed to have known, exercised reasonable care to keep fire away. Now, it is said that there was no duty resting upon Mr. Kelly to act, or that it does not, rather, appear that there was any duty resting upon him to act. Well, that does not have to

appear. The only thing that Mr. Kelly becomes important as a witness in the establishment of, is in establishing how long a time existed between the time of the first discovery of the fire, and the time when the explosion first commenced to take place; and Mr. Kelly has stated that it is his judgment that that time was fifteen minutes. Mr. Kelly has also stated that the intimation which he first got of the fire was not a visual intimation, but he got it from hearing the whistle blow, which was the signal that a fire existed there; and then he looked and discovered it. His evidence must be taken in connection with the other evidence in the case indicating who discovered this fire, and how long the Dougherty men knew that that fire was there before they made it known, and how long it must have existed before they made it known —taken in connection with Mr. Kelly's testimony.

Now, whether or not it was a reasonable thing to expect that the railroad company's servants would go down there and put that fire out, in the light of what they knew about what existed there, depends entirely—or in other words, whether this was an emergent case, calling for instantaneous judgment, or whether it was one that gave them the time for the exercise of reasonable judgment and reasonable care to put the fire out, depends upon all the facts which have been developed in the evidence here as to what the situation actually was, and where that fire was when they discovered it. Now, I won't say that this is, even so far as I myself am concerned believable testimony, whether I would believe it were I on the jury; but it is inferable from the evidence that that fire was not in the car when

it was first discovered, but that it was between the cars. Then we have evidence here indicating how far away, in the estimation of some of those who say they saw it, the fire was when they saw it, and how far away the apparatus for the extinguishment of the fire was at the time they discovered it, and how much hose there was, and how much pressure they had on it, and how sufficient that pressure was for use. The railroad men themselves have told us that there was water there, and that it was amply sufficient for use; that it was actually bubbling out in the depressed portion where shown whether pressure existed or not. Now, they had the fire apparatus; they had the water; they had the hose, and there was a small fire. Can I say as a judge there the jury as reasonable men could not conclude first that such a fire might be extinguished without great danger? And, secondly, that there was time for its extinguishment, in the light of those facts after its discovery and before the explosion commenced? I can not say that as a matter of law. I think, therefore, I must submit it to the jury as a matter of fact.

And again, whether they handled this stuff carefully is a matter which has to do, it seems to me, with the collocation of these cars, and whether or not the collocation of the cars and the extent that their contents would amount in law to a nuisance and whether what they did when they placed the cars and where they placed them with respect to each other, with the contents that they contained, would in the law amount to a nuisance or was the exercise of reasonable care on their part in doing what they did.

These things, I say, are all questions to be submitted to the jury, so I, for the reasons I have indicated, it seems to me, now, and those that I have indicated during the argument, I deny the motion; and it gives me great pleasure to realize that if there is anything that can be said as to why this non-suit should be granted it has been said and it is on the records, and if I am wrong there won't be anybody who will be more cheerful than I am to see the Court above reverse me in this ruling.

Now we will stand adjourned—

Mr. Collins. The Court will note an exception?

The Court. I want you to have that of course. This is not an easy matter; the points are very difficult points and I think are very recondite points, and I do not have any great sureness or certainty of my own correctness in the ruling, but I have exercised the best judgment I had and decided it as I think it requires to be decided. Of course if I am wrong I want to be reversed.

Mr. Collins. I simply did not want to forget it in order to get it on the records.

The Court. I think we will adjourn until two thirty.

Mr. Garrison. If your Honor please —

The Court. If the parties would like, when the jury comes at two o'clock I will send them away and you may come back tomorrow morning, if it will be more satisfactory to everybody.

Mr. Collins. I think so.

The Court. I can readily see that you have spent much more time than we expected we

would have to spend, and you have to get your witnesses here.

Mr. Collins. Then we will come back Tuesday morning?

The Court. Yes, that is tomorrow morning, Tuesday.

Mr. Stallman. Could you take up some time this afternoon?

Mr. Hobart. We would like to come back to morrow morning.

Mr. Collins. It will tend to expedite the matter.

Mr. Stallman. Two weeks is a long time.

Mr. Garrison. I want to say this to you in entire frankness, we may not put on any witnesses. I am very well satisfied with the case just the way it is, and I do not know that I want to alter it. You need not take this, young man. (To the stenographer).

The Court. You cannot stop the young man. The young man is ordered to take whatever comes by me.

Mr. Garrison. I am satisfied, but I meant I do not want to have your Honor adjourn until tomorrow morning having told you that we would have other witnesses and then have you come in and say that we are not going to produce other witnesses and then think we have deceived you.

The Court. No one would be more satisfied than myself to have you submit the case as it is tomorrow morning.

Mr. Garrison. You won't think we are taking any advantage?

The Court. No; I think you are exercising the best judgment.

Mr. Garrison. It might save an immense amount of time, and therefore you are really saving the time by giving us until then.

The Court. All right. This is an important case and I think everybody has given it as much thought as he reasonably could in the short time with the other duties he had to perform.

Mr. Garrison. If we are justified in our judgment in leaving the testimony as it is in the present state of proofs, then we will not produce any further proofs, so I think you are really justified in letting it go until tomorrow morning on that idea.

The Court. We will adjourn as far as this case is concerned until tomorrow at ten o'clock.

Adjourned until December 18, 1917, at 10 A. M.

MOTION TO NON-SUIT.

Referred to by Mr. Garrison in his argument.

The defendant moves for a non-suit on the following grounds:

(Whenever reference is made to plaintiff it is intended to include both the plaintiff and each and all of the assured named in the schedule attached to the complaint.)

1. It appears in the plaintiff's case that the explosives in question were in the course of transportation (not yet completed) in interstate or foreign commerce, and that the Interstate Commerce Commission had made regulations respecting such transportation, which regulations were in effect on July 29 and 30, 1916.

There is no proof that the defendant failed to comply with any such regulations.

2. There is no proof that the defendant maintanied a nuisance in respect of the presence of the explosives upon its premises on the 30th of July, 1916.

3. There is no proof that the existence or maintenance of a nuisance by the defendant was a proximate cause of the damage complained of by the plaintiff.

4. The proof is undisputed that there were two explosions on the 30th of July, 1916. There is proof that one of such explosions was upon the defendant's premises. There is no proof that the other of such explosions was on defend-- ant's premises. There is no proof that the explosion of which the plaintiff complains was the explosion occurring upon the defendant's premises or was an explosion for the effects of which the defendant was in any way legally liable.

5 The proofs show that there were large quantities of explosives on barges adjacent to defendant's property, and there is no proof that such explosives were owned by defendant or were under its custody or control, and there is no proof that such explosives did not explode and cause the damage complained of by the plaintiff.

6. The assertion by the plaintiff that it was the duty of the defendant to exercise a high degree of care to prevent the occurrence of fires, detonations or other means whereby said explosives and munitions might become exploded is denied by the defendant as a correct statement of the law. There is no proof that the defendant did not exercise the degree of care enjoined by law upon it to prevent the occurrence of fires,

detonations or other means whereby said explosives and munitions might become exploded.

7. The assertion by the plaintiff that it was the duty of the defendant to exercise a high degree of care to watch and guard said explosives and the buildings, piers, cars and vessels containing the same or lying in proximity thereto, so as to prevent, and to extinguish and control, when discovered, fires, detonations and other means by which such explosives might be exploded, is denied by the defendant as a correct statement of the law.

There is no proof that the defendant did not exercise the degree of care enjoined upon it by law to watch and guard said explosives and the buildings, piers, cars and vessels containing the same or lying in proximity thereto, so as to prevent, and to extinguish and control, when discovered, fires, detonations and other means by which such explosives might be exploded.

8. The assertion by the plaintiff that it was the duty of the defendant to employ a sufficient number of watchmen and guards to police its said pier and approaches and the waters adjacent thereto to observe and detect the approach or presence of any person not authorized or licensed to visit said pier, and who might by accident or felonious intent set fire to said pier or property thereon, is denied by the defendant as a correct statement of the law. There is no proof that the defendant did not exercise the degree of care enjoined upon it by law in respect of the employment of a sufficient number of watchmen and guards to police its said pier and approaches and the waters adjacent thereto, to observe and detect the approach of any persons not authorized or licensed to visit said pier, and who

might by accident or felonious intent set fire to said pier or property thereon.

9. The assertion by the plaintiff that it was the duty of the defendant to furnish, provide and install and keep in good order and repair sufficient fire fighting devices and apparatus on and about its said pier, by means of which any fire occurring upon or near said pier might be promptly extinguished and controlled, is denied by the defendant as a correct statement of the law.

There is no proof that the defendant did not exercise the degree of care enjoined upon it by law in respect of furnishing, providing and installing and keeping in good order and repair sufficient fire fighting devices and apparatus on and about its said pier, by means of which any fire occurring upon or near said pier might be promptly extinguished and controlled.

10. The assertion by the plaintiff that it was the duty of the defendant to exercise a high degree of care to store, handle and dispose of said explosives and munitions so as to prevent and control the ignition and communication of fire and detonation from one portion or mass of the same to any other part or mass of the same, is denied by the defendant as a correct statement of the law. There is no proof that the defendant did not exercise the degree of care enjoined upon it by law to store, handle and dispose of said explosives and munitions so as to prevent and control the ignition and communication of fire and detonation from one portion or mass of the same to any other part or mass of the same.

11. The assertion by the plaintiff that it was the duty of the defendant to install and provide

and keep in good order and repair sufficient means of communication whereby the occurrence of any fire or other agency capable of igniting said explosives could be immediately communicated from said pier to the fire and police departments of Jersey City, is denied by the defendant as a correct statement of the law.

There is no proof that the defendant did not exercise the degree of care enjoined upon it by law in respect of the installing and providing and keeping in good order and repair sufficient means of communication whereby the occurrence of any fire or other agency capable of igniting said explosives, could be immediately communicated from said pier to the fire and police departments of Jersey City.

12. The assertion by the plaintiff that it was the duty of the defendant, immediately upon the happening and discovering of a fire on or near said pier, to notify the fire department of Jersey City of the existence and location of said fire, is denied by the defendant as a correct statement of the law. There is no proof that the defendant did not exercise the degree of care enjoined upon it by law in respect of notifying the fire department of Jersey City of the existence and location of said fire immediately upon the happening and discovery of a fire on or near said pier.

13. The plaintiff has failed to prove that by reason of negligence of the defendant in failing to perform its several duties in the premises, as alleged in paragraph 17 of the second count of the complaint, the defendant is liable to the plaintiff as therein alleged.

14. There is no proof that the alleged negligence specified in paragraphs 2, 4, 6, 8, 10, 13

and 15 of the second count of the complaint, or in any of said paragraphs, was the proximate cause of the damage complained of by the plaintiff.

15. The plaintiff has not established by a preponderance of proof any cause of action against the defendant.

16. The proofs do not show the absence of causes other than the alleged negligence of the defendant as the proximate cause of the explosion of which the plaintiff complains.

17. There is no proof that the defendant's employes failed to exercise that degree of care required by law under the circumstances as shown by the plaintiff's proof.

18. Under the proofs the defendant owed no duty to the plaintiffs.

19. The plaintiff has failed to prove any cause of action against the defendant.

The Court. I might say to counsel before they start to sum up that the rule of the court is invariable that the requests to charge are required to be submitted before the summing up is started.

Mr. Garrison. As soon as I had rested I had intended to hand you mine. The defendant rests.

TESTIMONY CLOSED.

Mr. Collins. We move to direct a verdict in favor of the defendant on the same grounds that were urged for the non-suit.

The Court. All right; and the same grounds that I urged against the granting of the motion for a non-suit will stand as against the motion

for a direction of a verdict, the condition having been entirely unchanged, and you may have an objection in the nature of an exception entered on the record to that ruling.

How much time do you think you gentlemen want for summing up?

Mr. Collins. It depends on the opening. We want an opening. Then we can judge better.

The Court. I can say this to both counsel, before you start to sum up, that the question of nuisance will be eliminated from the case.

Mr. Collins. Good!

The Court. And I can say that the theory upon which I will submit the case to the jury will be the theory that the duty which rested upon the defendant with respect to the transportation of these explosives—assuming them to be explosives under interstate commerce—was the duty of using a degree of care in their transportation commensurate with the risk involved. That is a general statement of the theory upon which the case will be submitted by me to the jury. I say that now so that you may both understand the ground upon which it will be submitted and may direct your argument, if you see fit, to those grounds.

Mr. Collins. Our summing up, with that in view, will be brief, but we would like an opening.

The Court. You have a right to ask for an opening, and I order an opening.

Mr. Stallman (aside). What are we going to do about the amount of the verdict?

The Court. I will say this—I hear fugitive voices around—I suppose the counsel desire me to say that they will find in this case, if they

find a verdict, simply for the plaintiff, if they find for the plaintiff, and if they find for the defendant, simply for the defendant, because your agreement, as I understand it, would logically result in that, you having determined that the matter of the amount is to be determined by reference or by agreement.

Mr. Garrison. That is satisfactory to both sides, as I understand it..

The Court. All right; that will be what I will do then.

Mr. Stallman. I might as well proceed then.

(Mr. Stallman opens.)

(Mr. Garrison and Mr. Collins sum up for defendant. Mr. Smith sums up for plaintiff.)

Court's Charge to the Jury.

Gentlemen of the Jury, I am going to charge you before lunch, and when you shall have arrived at your verdict you will be discharged for the day and there will be nothing further for you to do.

I had not intended in what I had to say to you to say anything at all about the matter of interstate commerce. I thought, because I had made known to the counsel in the case my views in that subject, that they thoroughly understood them, but in listening to what Justice Collins had to say in arguing before you it seems to me that he at least woefully misunderstood my views on that subject, and therefore I am going, for a moment or two, to advert to that situation.

Charge to Jury.

The commerce clause of the Constitution of the United States vests the power to regulate interstate commerce exclusively in the Congress of the United States. The Congress of the United States has exercised that power with respect to the transportation of explosives.

—and the Congress has vested the matter of regulation in a board known as the Interstate Commerce Commission, and that board has promulgated regulations for the transportation of explosives. Now the effect of that act of the Congress of the United States in passing such a statute vesting the power in the Interstate Commerce Commission to promulgate the regulations and the fact of the promulgation of such regulations by the Interstate Commerce Commission results in this situation as a matter of law: that Act, section 233, authorized the Interstate Commerce Commission to formulate regulations for the safe transportation of explosives which should be binding upon all common carriers engaged in interstate or foreign commerce which transport explosives by land. The Interstate Commerce Commission accordingly formulated and issued regulations governing the transportation of explosives in interstate and foreign commerce. There is no doubt that the explosives in question in this suit were subject exclusively to the regulations of the Interstate Commerce Commission. When Congress has legislated upon a subject within its constitutional control and has manifested its intention to deal therewith in full, the authority of local jurisdiction is necessarily excluded; in other words, when Congress deals with a subject matter within its province its dealing with it excludes the right of the state to have anything whatever to do with such regulation.

Now I said that the Interstate Commerce Commission has acted, and I am going just by way of reference to call your attention—for the court judicially notices the regulations that have been adopted by the Interstate Commerce Commission for the regulation of the transportation of explosives—to one or two of the regulations that have been thus promulgated. One regulation provides—speaking of cars containing explosives—that they must be coupled carefully and all unnecessary shocks must be avoided. Other cars must not be cut off and allowed to strike a car containing explosives. They must be so placed in yards or on sidings that they will be subject to as little handling as possible and be removed from all danger of fire. And in pursuance of that provision, and possibly of other provisions in the regulations, the Interstate Commerce Commission indicated the kind of notice or placard that should be placed upon the car to signify that it contained explosives, and in general the manner in which it should be handled. That placard, which may be taken as an indication of the meaning that the Interstate Commerce Commission itself attached to the regulation that it was promulgating, provides that the placard shall say on it "Explosives," which must be printed in red; and then, amongst other things, this: "Keep fire away," also to be printed in red ink. And another provision, section 1643, paragraph B, provides that unauthorized persons must not have access to explosives or other dangerous articles at any time while such articles are in the custody of the carrier.

Now, gentlemen, the regulations of the Interstate Commerce Commission, as I have said,

are controlling, and exclusively controlling upon this subject; and in respect to matters where the regulations have been adopted I charge you that the duty of the company was, in the transportation of explosives, to exercise care commensurate with the risk, and that the company will be liable for damages resulting from a failure to exercise such care.

Now, first of all, I must direct your attention to the fact that the rule of law provides that when a company undertakes the transfer or transportation of articles of this kind, that it does not thereby become an insurer that no accident is going to happen and does not become bound conclusively to respond in damages to those who receive injury from the accident, if an accident does happen. It does not, as I say, become an insurer. It does not become liable absolutely and at all events; but it only becomes liable in case it neglects to use a degree of care commensurate with the risk. Therefore the law has provided that the burden rests upon the plaintiff to make out by the greater weight of the evidence that the defendant company has failed in some duty which the plaintiff alleges in its written complaint, by the facts alleged, that the defendant owed, and that the neglect to perform that duty, or the omission to perform that duty, was the proximate cause of the injury of which the plaintiff in the case complains and for which he seeks to recover damages. If the plaintiff makes that out why then of course the plaintiff would be entitled to have a verdict.

Now another rule that you need to know is that negligence of a carrier in handling explosives is not established by the mere fact of the explosion to the injury of neighboring property.

Where a portion of the explosive was in a car and a portion in a lighter and the point of the initial explosion and consequent damage is not shown, the burden rests upon the plaintiff to show that an explosion due to the fault of the defendant—and by "fault" I mean the neglect of the defendant to use a degree of care commensurate with the risk in transporting these combustibles or explosives in the light of the rules which I have read to you from the Interstate Commerce Commission—I say where the explosion resulted from that kind of fault on the part of the defendant and the explosion is also shown by the greater weight of the evidence to have been the proximate cause of the injury complained of by the plaintiff, then the plaintiff may have a verdict against the defendant; but only when those elements are made out by the greater weight of the evidence.

Now the defendant in this case has requested me to charge certain propositions, and those that I purpose charging I will read to you, prefacing the reading by the statement that they contain propositions of law which will govern you in the determination of this case. And I may say before I enter upon these at all that if there be a recovery in this case at all the recovery must be based upon the ground of established negligence on the part of the defendant. The notion of nuisance is entirely removed from the case and will not enter into your thoughts or be used by you as a basis for a recovery.

"The law imposed upon the defendant the duty of transporting the dangerous articles testified about in this case, and at the time of the explosion they were still in course of transportation. The plaintiff cannot recover unless it has

alleged some wrongful act or omission of the defendant and has proved the same to the satisfaction of the jury by a preponderance of the evidence, and the jury may not find a verdict against the defendant based upon any wrongful act or omission on the part of the defendant unless such wrongful act or omission is complained of by the plaintiff.

"The jury may not find a verdict against the defendant unless it finds that the wrongful act or omission of the defendant upon which the verdict is based was the proximate cause of the damage complained of.

"It is not the law that the defendant is legally responsible for all of the possible consequences of his acts or omissions; it is the law that it may be held liable for the consequences or results reasonably to be anticipated from its acts of omission.

"The undisputed proofs show that there were large quantities of explosives on the dock adjacent to defendant's property. There is no proof that such explosives were owned by the defendant or were under its custody or control. If those explosives exploded and caused the damage of which the plaintiff complains the defendant is not legally responsible.

"The plaintiff is only entitled to a verdict when it has made out a case by a preponderance of proof, and since the only proofs before the jury are those offered on behalf of the plaintiff the jury must determine whether it is possible in view of the conflict of testimony therein displayed to properly find a preponderance of proof in favor of the plaintiff on some one or more of the issues, and if not the verdict must be for the defendant."

Now as to the second count of the complaint I am requested to charge, and do charge:

"The law imposed upon the defendant the duty of transporting the dangerous articles testified about in this case, and at the time of the explosion they were still in course of transportation. The plaintiff cannot recover unless it has alleged some wrongful act or omission of the defendant and has proved the same to the satisfaction of the jury by a preponderance of the evidence, and the jury may not find a verdict against the defendant based upon a wrongful act or omission on the part of the defendant unless such wrongful act or omission is complained of by the plaintiff.

"The jury may not find a verdict against the defendant unless it finds that the wrongful act or omission of the defendant on which the verdict is based was the proximate cause of the damage complained of.

"It is not the law that the defendant is not legally responsible for all the possible consequences of his acts or omissions. It is the law that it may be held liable for the consequences or results reasonably to be anticipated from its acts or omissions, provided such acts or omissions were negligent and were the proximate cause of the damage of which the plaintiff complains and are alleged in the complaint.

"The occurrence of the fire on defendant's premises on July 30, 1916, raises no presumption of negligence on the part of the defendant."

I have already charged you that. The mere fact that a fire occurs there does not raise a presumption of negligence. The burden throughout the case rests upon the the plaintiff to show by the greater weight of the evidence that the fire

was the result of the negligence of the defendant and that the fire was the proximate cause of the subsequent explosion and of the injury to the plaintiffs here. I do not mean by that to say—and as I pass I observe that you might mistake my meaning in that—I do not mean to say that the little fire that started on the ground has to be shown to have been the proximate cause of the injury. It may very well be that the trinitrotoluol was exploded by a projectile from an adjacent car or in some other way and that the fire was merely contributory to the explosion in the car. The thing that must be shown by the greater weight of the evidence to have been the proximate cause of the accident must also be shown to have been the fault or due to the fault of the defendant. If that is shown, why that is sufficient. Negligence on the part of the defendant, which negligence must be shown to have been the proximate cause of the damage complained of, will be sufficient to entitle the plaintiffs in this action to a verdict, if those things, as I say, are made out by the greater weight of the evidence. I dwelt on that because I felt that what I said, because of the generality of it, might have misled you.

"The proofs show that there were two explosions on the 30th of July, 1916, at or near Black Tom. There is no proof under which the defendant could legally be held responsible for both of said explosions. Even if the jury should reach the conclusion that the defendant is legally responsible for one of said explosions the jury may not find a verdict against the defendant unless it finds that the explosion for which the defendant is legally responsible is the one which

caused the damage of which the plaintiff complains.

"The proofs show that there were large quantities of explosives on barges adjacent to defendant's property. There is no proof that such explosives were owned by the defendant or were under its custody or control. If these explosives exploded and caused the damage of which the plaintiff complains the defendant is not legally responsible.

"The plaintiff is only entitled to a verdict when it has made out a case by a preponderance of proof, and since the only proofs before the jury are those offered on behalf of the plaintiff the jury must determine whether it is possible in view of the conflict of testimony therein displayed to properly find a preponderance of proof in favor of the plaintiff on some one or more of the issues, and if not the verdict must be for the defendant."

Now you gentlemen will have observed that many of those things that I have read were merely repetitions in different language of propositions that I had already stated to you. I read them out of abundant caution for fear that if I had missed one or two I possibly would have done some injustice. I want you to understand that the rules that I have stated to you and those that I have read to you from the requests to charge are the rules that will govern you in determining whether there should be a recovery or not in this case. I charge you that "if the evidence in the case is equally consistent with the absence as with the existence of negligence of the defendant, the verdict should be for the defendant."

The object of that charge is to manifest to you the burden of showing that the negligence of the defendant was the proximate cause of the accident rests upon the plaintiff. It is a substantial right that the defendant has to insist that the plaintiff shall bear that burden. When the plaintiff has borne the burden of showing the fact of defendant's negligence as charged and the further fact that that negligence was the proximate cause of the plaintiff's injury, then the plaintiff is entitled to a verdict. But if the plaintiff does not show that, of course the plaintiff is not entitled to a verdict.

Now there was some argument in the case about the question of so-called emergencies and sudden matters presented to servants upon which they were required to act upon the instant. The law provides that the rule is well settled that where the sole basis of liability is the omission to perform a certain duty suddenly and unexpectedly arising there ought to be at least a consciousness of the facts which raise the duty on the part of the person who is charged with its performance and a reasonable opportunity to discharge it. That I think states the rule perfectly clearly. Another authority lays down the rule: "The rule is well established that when one is required to act suddenly and in the face of imminent danger, he is not required to exercise the same care as if he had time for deliberation and the full exercise of his judgment and reasoning faculties."

And another case in our own highest court lays down the rule in these words:

"If one is placed in the face of grave and apparent peril between two hazards and he makes such a choice as a person of ordinary prudence

placed in such a position might make, the fact that if he had chosen the other hazard no damage would have resulted is of no importance."

Where a man is called upon to act suddenly why manifestly the suddenness and his own state of mind due to all the surrounding facts within his observation and knowledge must be always taken into consideration by a jury in determining whether when he acted his action was a negligent act or one free from negligence. As I stated some time ago, this notion of the duty of reasonable care that a man is under and that a company is under in, for instance, transporting explosives, or in any other relation of life, is a rule of relation and has to do with the situation in which a man finds himself placed. For instance, when Robinson Crusoe first found himself on the island and after investigation supposed himself to be there alone, if he had a fowling piece he might shoot it off in any direction without regard to the notion that anybody else was there; but the moment he went out and found a footprint in the sand indicating that a human being was there other than himself, a different relation arose altogether and he was obliged then to exercise care not to injure that man. And so in the relations of life. If you are going along a country road, driving along, you might probably pay very much less attention to the control of your horse than you would if you were trying to pass Forty-second street and Fifth avenue in New York City. And so when you are called upon to act in extinguishing a fire, the question is whether a man of ordinary courage and prudence and diligence would go away from the situation because of what he thought would im-

peril him if he approached it, or whether he would approach it and endeavor to extinguish the fire and thereby not only avoid the peril himself, but avoid the very accident which would occasion the injury. The question is in each case whether in the light of the facts that were known to him and confronted him he acted as a reasonably prudent and cautious man would have acted under the circumstances. If he did, he was not negligent. If he did not, he was.

Now, that I think, gentlemen, is all I need to say to you in this case. The parties have determined that you need not ascertain any money value in damage if you find a verdict for the plaintiff. If you find for the plaintiff the form of your verdict simply would be, "We find for the plaintiff." If you find for the defendant you simply say, "We find for the defendant."

Now you will take the case under these rules and decide it.

Mr. Stallman. I desire to except to that part of your Honor's charge wherein you charged separately on both counts that the railroad company was under the duty to transport these dangerous articles.

The Court. Yes. All right.

Mr. Stallman. And also—without writing down that part of the charge—where your Honor charged the jury that if this fire originated without negligence on the part of the railroad company, that the railroad company could not rely upon—

The Court. I did not say that.

Mr. Stallman. That was when you started out to explain to them what you had said. I thought probably that would be the thought the jury would get.

The Court. Nothing of the kind. I never suggested any such thing.

Mr. Stallman. Well, if you are certain, then I won't—

The Court. I am positive of it. I remember I said if the accident happened, no matter how it originated.

Mr. Stallman. I may have gotten the wrong impression.

The Court. Do you gentlemen desire to take any exceptions?

Mr. Garrison. I desire to except to your Honor's refusal to charge our requests, wherein you did not charge them.

The Court. Yes.

Mr. Garrison. And I presume we are allowed an exception to that effect?

The Court. Oh, certainly.

Mr. Garrison. Now, with respect to the charge itself, I desire to except to so much of the charge as begins, "Now the effect of that act—the fact of the promulgation results in this situation as a matter of law," and what your Honor then stated was the situation resulting from what you stated the effect of the act and the fact of the promulgation of the regulations was. I will refer to the specific language if your Honor prefers.

The Court. You do not mean to the fact that that is the exclusive regulation? That is what I said first.

Mr. Garrison. Yes, I do, because in my judgment you had no right to tell the jury that, under the pleadings and issues that we are trying in this case.

The Court. Oh, well, it is just as well to get it down on the record that way.

Mr. Garrison. Will your Honor understand that what I am intending to except to here is any reference in your Honor's charge to the Act of Congress with respect to explosives and the regulations of the I. C. C. in respect thereof, and the effect that has upon this case? My reason for taking an exception to all that you said in that respect being that in our judgment it is not in the case and your Honor should not have imported it into the case by your charge.

The Court. Yes; I understand your point. Your point is that it does not appear in the pleadings and secondly if it did those regulations are not recognizable by the Court as a matter of judicial notice.

Mr. Garrison. Yes.

The Court. You mean that?

Mr. Garrison. I won't take up anything more that you said about regulations or the Federal law, because I understand that the exceptions that I have taken are intended to cover the presence in your charge of those matters under the Federal law.

The Court. Oh, yes; you have got it in the case anyway when I said I would judicially notice them, in the other part of the case.

Mr. Garrison. Except that we could not take an exception to that in any way.

Mr. Collins. Yes; you could take exception to his saying he would judicially notice.

The Court. Yes; but I am perfectly willing to have you have it there.

Mr. Collins. We could take exception to his saying he would judicially notice the regulations.

The Court. Yes. I want you to have that.

Mr. Garrison. Then there is one other matter that I feel I must specifically bring to your Honor's attention. That is your comment upon the placard that is in evidence, wherein you stated something to the effect that what was on that placard in some way or other indicated—

The Court. Yes; practically was a reflection of what the Interstate Commerce Commission construed the regulations to mean.

Mr. Garrison. I desire to except to that.

The Court. Yes; I think you ought to have that.

Mr. Garrison. I desire to except to that portion of the charge beginning "The rule of law provides where the company undertakes * * * does not become an insurer * * * but does become liable"—I am just trying to locate my place—"but it only becomes liable in case it neglects to use a degree of care commensurate"—

The Court. A degree of care commensurate with the risk involved under the regulations.

Mr. Garrison. Now I want to take an exception to that sentence beginning "But it only becomes liable in case it neglects to use a degree of care commensurate with the risk," etc.

The Court. Oh, well, whatever it is. Of course that is rather a vague reference, because I said that about four times in the charge.

Mr. Garrison. I am indicating the first time you said it.

The Court. As long as you have indicated the first time, that is enough.

Mr. Garrison. You had gotten through talking about the I. C. C. and the Federal law. Then it is after you said "When a company undertakes * * * it does not become an insurer * * * but it does become liable"—then you stated what the rule of law was.

The Court. What you want is an exception to what I said the first time in reference to the duty of the company resting upon the notion that they were obliged to take a degree of care commensurate with the risk.

Mr. Garrison. Where you spoke of their not being an insurer.

The Court. Yes.

Mr. Garrison. I understand I also have it where you were construing the regulations as to how much care we were obliged to use with regard to them.

The Court. If the regulations are applicable the charge is favorable to you. There is no question about that.

Mr. Garrison. I am not taking any chances, Judge.

The Court. No. I say that is undoubtedly so, because the regulations would probably not involve the duty of having to use merely such care, but would involve the duty to comply with them. It is favorable to you in that particular.

Mr. Garrison. I desire to except to that portion of the charge wherein the Court said "If the plaintiff makes *that* out of course he is

entitled to a verdict." I do this upon the ground that I do not think that accurately stated the law. The "that" I do not think correctly—

The Court. I do not know yet what you are talking about.

Mr. Garrison. I can only get the stenographer—it is where you went on and said "If he failed in some duty alleged in the written complaint and this neglect or omission was the proximate cause," etc., and then you said "If the plaintiff makes that out of course the plaintiff is entitled to a verdict;" and I respectfully crave an exception to that.

The Court. All right; if it can be identified by those identificatory remarks you may have it.

Mr. Garrison. I desire to except to that portion of the charge in which the Court spoke of "the explosion due to the fault * * * I mean commensurate with the risk * * * in the light of the rules," etc., and you went on and said what rules you were doing that in the light of. I think you said the I. C. C. rules and some other rules and—

The Court. I think it might be well to ask you what your point it.

Mr. Garrison. My point is to except to every portion of your Honor's charge—

The Court. No; your point in regard to this particular thing.

Mr. Garrison. That your Honor imported improperly in our judgment into this case the I. C. C. rules and the Federal law and told them that if in the light of those rules, etc.

The Court. You think they are not in the case?

Mr. Garrison. Yes.

The Court. You have that already.

Mr. Garrison. And that under the pleadings the Federal law is not in the case. I except to so much of your Honor's charge wherein you said "I do not mean by that to say that the little fire that started on the ground was," etc.

The Court. You may have an exception to that, because I did not mean to say that. I do not mean to say it now.

Mr. Garrison. But I mean "Was *and so forth.*" What I want to call your attention to is that I do not think there is any evidence that this fire started on the ground.

Mr. Collins. Did he say we could have, or could not have?

The Court. Could.

Mr. Garrison. I am pointing out to him just exactly what I have in my mind, and that is that I am taking exception to the assumption in that sentence that any little fire according to the testimony started on the ground. I do not think there is any testimony to support that state of facts.

The Court. I think there is. You may have it.

Mr. Garrison. I want an exception to that portion of the Court's charge in which he referred to the fact that the t.n.t. may have been exploded in some other way and the fire—something or other—contributing to the explosion—it is toward the end of the charge.

The Court. I remember what I said there and you may have an exception to that because that came out on your own cross examination

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that that is precisely what might have happened.

Mr. Garrison. "The thing which is due to fault of the defendant, if that is shown, is sufficient"—I haven't the language of that.

The Court. I do not think you have, because you haven't it there.

Mr. Garrison. No. Well, I am afraid I will have to fail on that because I cannot write as fast as your Honor can talk.

I desire to except to all that your Honor said about the doctrine of so-called emergency and your Honor's statement of what you said was the law on that subject.

The Court. I refuse that. If you will point out to me what you mean I will give you the exception.

Mr. Garrison. I desire to except to that portion of your Honor's charge beginning, "There was some argument in the case as to so-called emergencies and sudden matters," etc., in which your Honor then read from what I assume was the Hummer case and then read another authority and then read another authority and then wound up by saying, "Where a man is called on to act suddenly, manifestly the suddenness," etc., "must be always," etc., "and the jury must always take into account whether that was a negligent act or one free from negligence."

The Court. What is the point? The object of the exception is to point out what you complain about. I do not yet see it.

Mr. Garrison. I am prepared to debate it.

The Court. I don't want to debate it. I want you to state it.

Exceptions to Charge.

Mr. Garrison. I think in the first place that your Honor did not correctly state the rule established in the State of New Jersey with respect to the acts or omissions of employees of a defendant where emergent conditions are shown to exist.

The Court. All right; now what do you think that rule is?

Mr. Garrison. I think the rule is that where the undisputed proofs show emergent conditions the Court should instruct the jury that under those circumstances the defendant is not liable as a matter of law for the acts or omissions of its agents or servants in the face of that emergency.

The Court. Well, I suppose your point is that this was not a jury question at all, but a Court question. That is your objection?

Mr. Garrison. That is my first. Now if your Honor refuses to charge that, then my position is that the jury should have been instructed that if they found that the fire at Black Tom on the night in question was occasioned by some cause not shown in the proofs and was in or near the ammunition cars or any of them, that then they should determine whether that did not constitute an emergency, the presence of that fire in or near the ammunition cars; and if they did find that it did constitute an emergency then there could not properly have been any verdict against the defendant for acts or omissions of the servants of the defendant after determining that fact—I mean after finding that those were the circumstances.

The Court. I think you may have that, because that is precisely what I did charge

them. I charged the principle, and that is what it amounts to.

Mr. Garrison. I desire to except to so much of your Honor's charge as defined negligence as depending upon a rule of relation; my theory being that where the proper rule is one determined by a legislative act, for instance, the rule of relation has nothing whatever to do with it.

The Court. You object, do you, to my charging that negligence has anything to do with this case if the regulations are applicable, and that I should have told them that they simply should take the regulations and that if the fire was brought near that they should find for the plaintiff, if the regulations were in the case? If that is what you mean, I am ready to call them back and tell them that.

Mr. Garrison. No; what I think your Honor should have done would be either to have left those things to the jury upon the theory that the plaintiff had brought his case properly under the exclusive law which is applicable, or which may be applicable—may be held to be applicable—or should have held that he brought his case upon the theory that we were obliged to take such care as was commensurate with the risk, or whatever would be the proper way to state that proposition of law; and I do not think it was proper for your Honor to do half of one and half of the other—leave us in the position where we could not have the issues clearly defined under the Federal law and give all the benefit to the plaintiff to catch us coming and going.

The Court. All right; if that is the ground of your exception I think you may have it.

Mr. Garrison. That is the ground.

The Court. You may have it.

Mr. Garrison. Mr. Hobart calls my attention to the fact that in construing a rule of the Interstate Commerce Commission that you referred to you should not have left to the jury to determine whether or not that had been violated because there was no evidence that we had not removed them from all danger of fire.

The Court. All right; you may have that.

Mr. Garrison. I object to your construction of that sentence.

The Court. I did not construe it at all; but you may have your exception in just your own words.

Mr. Garrison. We look upon what you said as a construction.

The Court. All right.

Mr. Garrison. I similarly desire to except to so much of your Honor's charge as dealt with the sub-division B under 1643, which you read to the jury.

The Court. All right.

Mr. Garrison. Because we think there is no evidence that any unauthorized persons had access to the explosives or other dangerous articles at any time while such explosives were in the custody of the carrier.

The Court. All right; you may have it.

NEW JERSEY SUPREME COURT.

HUDSON COUNTY.

NEW JERSEY FIDELITY & PLATE GLASS INSURANCE COMPANY

v.

LEHIGH VALLEY RAILROAD COMPANY.

DEFENDANT'S REQUESTS TO CHARGE.

1. Upon the evidence in this action the plaintiff cannot recover under the first count of its complaint.

If No. 1 is refused, then as to said first count, the defendant requests the Court to charge the following numbered instructions:

2. The law imposed upon the defendant the duty of transporting the dangerous articles testified about in this case, and at the time of the explosion they were still in course of transportation.

The plaintiff cannot recover unless it has alleged some wrongful act or omission of the defendant and has proved the same to the satisfaction of the jury; and the jury may not find a verdict against the defendant based upon any wrongful act or omission on the part of the defendant, unless such wrongful act or omission is complained of by the plaintiff.

4. The jury may not find a verdict against the defendant unless it finds that the wrongful act or omission of the defendant upon which

the verdict is based was the proximate cause of the damage complained of.

5. It is not the law that the defendant is legally responsible for all of the possible consequences of its acts or omissions. It is the law that it may be held liable for the consequences or results reasonably to be anticipated from its acts or omissions.

6. A different and less onerous measure of legal responsibility is applied to dangerous materials voluntarily brought upon premises by one for his own use and benefit than is applied to a case like that made out before the jury where the dangerous materials were in the possession of a common carrier which was required by law to transport and deliver them.

7. The jury may not find a verdict against the defendant unless it finds that the defendant failed to adopt the customary methods for the care and custody of explosives in railroad terminal yards.

8. The undisputed proofs show that there were large quantities of explosives on barges adjacent to defendant's property. There is no proof that such explosives were owned by the defendant or were under its custody or control. If those explosives exploded and caused the damage of which the plaintiff complain, the defendant is not legally responsible. Unless, therefore, the jury finds that these explosives on these barges did not explode and cause the damage of which the plaintiff complains it must find a verdict for the defendant.

9. The plaintiff is only entitled to a verdict when it has made out a case by a preponderance of proof and since the only proofs before the

jury are those offered on behalf of the plaintiff, the jury must determine whether it is possible, in view of the conflict of testimony therein displayed to properly find a preponderance of proof in favor of the plaintiff on some one or more of the issues; and if not, the verdict must be for the defendant.

10. Upon the evidence in this action the plaintiff cannot recover under the second count of its complaint.

If No. 10 is refused, then as to said second count, the defendant requests the Court to charge the following numbered instructions:

11. The law imposed upon the defendant the duty of transporting the dangerous articles testified about in this case, and at the time of the explosion they were still in course of transportation.

12. The plaintiff cannot recover unless it has alleged some wrongful act or omission of the defendant and has proved the same to the satisfaction of the jury; and the jury may not find a verdict against the defendant based upon any wrongful act or omission on the part of the defendant unless such wrongful act or omission is complained of by the plaintiff.

13. The jury may not find a verdict against the defendant unless it finds that the wrongful act or omission of the defendant on which the verdict is based was the proximate cause of the damage complained of.

14. It is not the law that the defendant is legally responsible for all the possible consequences of its acts or omissions. It is the law that it may be held liable for the consequences

or results reasonably to be anticipated from its acts or omissions, provided such acts or omissions were negligent and were the proximate cause of the damage of which the plaintiff complains and are alleged in the complaint.

15. The plaintiff has not alleged or proved any wrongful act, but has confined its allegation and proof to wrongful omission, and before the jury can properly render a verdict against the defendant it must find that it wrongfully omitted a duty it owed the plaintiff's assured and that such wrongful omission was the proximate cause of the damage of which the plaintiff complains and that it is alleged in the complaint.

16. The occurrence of the fire on defendant's premises on July 30, 1916, raises no presumption of negligence on the part of the defendant.

17. The jury may not find a verdict against the defendant based upon a finding of negligence on the part of the defendant as to the occurrence of the fire on its premises on the 30th of July, 1916, unless it finds as a fact that the said fire could not have occurred from any cause other than the negligence of the defendant. If the circumstances are such in the judgment of the jury that the fire in question could have occurred by reason of the defective manufacture of or some inherent quality in the materials that were proven to be on the premises at that time, or by reason of some other cause for which the defendant is not responsible, then the jury would not be justified in attributing the occurrence of the fire to the negligence of the defendant.

18. There is no evidence in this case that the fire on the defendant's premises on the 30th

of July, 1916, was caused by any act of the defendant or any of its agents or servants or persons for whose acts it was responsible. The fire must, therefore, have proceeded from some extraneous cause, and if the jury reached the conclusion that such extraneous cause was incendiarism then it may not find a verdict against the defendant since it is no part of the duty of the defendant to provide guards of its own to protect it against incendiarism.

19. There is no evidence in this case that the fire on the defendant's premises on the 30th of July, 1916, was caused by any act of the defendant or any of its agents or servants or persons for whose acts it was responsible. The fire must, therefore, have proceeded from some extraneous cause, and if the jury reached the conclusion that such extraneous cause was a trespasser who carelessly produced said fire, then it may not find a verdict against the defendant because there is no legal inference properly to be drawn from the facts proven in this case that trespassers were reasonably to be anticipated at night at the locality of the fire.

20. The law imposed no duty on the defendant to reasonably anticipate that a trespasser upon its premises in the night time in July would cause a fire.

21. A different and less onerous measure of legal responsibility is applied to dangerous materials voluntarily brought upon premises by one for his own use and benefit than is applied to a case like that made out before the jury where the dangerous materials were in the possession of a common carrier which was required by law to transport and deliver them.

22. The jury cannot base a verdict against the defendant upon any alleged negligence of any of the defendant's servants or agents after the fire was discovered by said servants or agents or any of them.

23. If the jury find that the fire on the 30th of July, 1916, at Black Tom yard was started in or near the cars containing explosives or any of them, then the jury may not find a verdict against the defendant based upon any finding of negligence of the defendant's servants or agents occurring after the discovery of the fire.

24. If the jury find that the fire on the 30th of July, 1916, at Black Tom yard was from a cause not shown by the proofs and that it occurred in or near the cars containing explosives, or any of them, then the law is that an emergency arose, and the jury may not hold the defendant liable for any of the proved acts or omissions of its servants or agents in such emergency.

25. The jury may not find a verdict against the defendant unless it finds that the defendant failed to adopt the customary method for the care and custody of explosives in railroad terminal yards.

26. Since the complaint in this case does not base any right to recover upon any allegation of a failure of the water supply furnished by the defendant, the jury may not render a verdict in this case against the defendant based upon any finding of a failure of water supply in the defendant's hydrants.

27. The jury may not render a verdict against the defendant based upon a finding that the defendant should reasonably have had

more watchmen than it did have for the purpose of discovering fires, since there are no facts from which it would be proper to draw a legal inference that the presence of such additional watchmen would reasonably have led to any earlier discovery of the fire.

28. The proofs show that there were two explosions on the 30th of July, 1916, at or near Black Tom. There is no proof under which the defendant could legally be held responsible for both of said explosions. Even if the jury should reach the conclusion that the defendant is legally responsible for one of said explosions, the jury may not find a verdict against the defendant unless it finds that the explosion for which the defendant is legally responsible is the one which caused the damage of which the plaintiff complains.

29. The undisputed proofs show that there were large quantities of explosives on barges adjacent to defendant's property. There is no proof that such explosives were owned by the defendant or were under its custody or control. If these explosives exploded and caused the damage of which the plaintiff complains, the defendant is not legally responsible. Unless, therefore, the jury finds that these explosives on these barges did not explode and cause the damage of which the plaintiff complains it must find a verdict for the defendant.

30. The plaintiff is only entitled to a verdict when it has made out a case by the preponderance of proof, and since the only proofs before the jury are those offered on behalf of the plaintiff, the jury must determine whether it is

possible, in view of the conflict of testimony therein displayed, to properly find a preponderance of proof in favor of the plaintiff on some one or more of the issues; and if not, the verdict must be for the defendant.

New Jersey Court of Errors and Appeals

New Jersey Fidelity & Plate Glass Insurance Company, *Plaintiff-Respondent,* *vs.* Lehigh Valley Railroad Company, *Defendant-Appellant.*	*On Appeal from New Jersey Supreme Court.*

Brief on Behalf of Defendant-Appellant.

1.

Statement of the Case.

The appeal in this case is taken from a judgment entered in the New Jersey Supreme Court in favor of the respondent (hereinafter called the plaintiff) and against the appellant (hereinafter called the defendant) for the sum of $23,678.37, the amount of the damages alleged to have been sustained by the plaintiff by reason of the cost to it of the replacement of certain glass which was broken in various buildings located in Jersey City, Hoboken, Newark, New York City, Brooklyn and some other points in New Jersey, by reason of an explosion at one of the Jersey City Terminals of the defendant, located on the Hudson River on the early morning of July 30, 1916, commonly known as the Black Tom explosion.

The judgment was entered on the verdict of the jury in a case tried in the Hudson Circuit on December 12 to 18, 1917. The important questions on this appeal are whether there

should have been a non-suit or a direction of verdict in favor of the defendant and whether there was legal error in the charge of the Trial Judge.

2.

Grounds of Appeal.

The grounds of appeal upon which the defendant relies are as follows:

a. Its motion for a non-suit or for a direction of verdict in its favor should have been granted for one or more of the nineteen reasons stated in the record. (Ground No. 2, pages 1 to 5.)

b. There was error on the part of the Trial Judge in one or more of the respects specifically set forth in the grounds of appeal. (See grounds 3 to 7, pages 5 to 11.)

c. There was error on the part of the Trial Judge in the refusal to change certain requests submitted on behalf of the defendant as specifically set forth in the grounds of appeal. (See grounds 8 to 24, pages 11 to 15.)

d. There was error in the admission of certain evidence. (See ground No. 1, page 1.)

These grounds will be discussed under the following heads:

I.

THE JUDGMENT CANNOT BE SUSTAINED ON THE THEORY OF NUISANCE, AS ALLEGED IN THE FIRST COUNT OF THE COMPLAINT.

II.

THE JUDGMENT CANNOT BE SUSTAINED ON ANY OF THE THEORIES ALLEGED IN THE SECOND COUNT OF THE COMPLAINT, FOR THE REASON THAT THE JURY WERE NOT PERMITTED TO FIND NEGLIGENCE ON THE PART OF THE DEFENDANT ON ANY OF SUCH THEORIES; AND THE THEORY OF LIABILITY UPON WHICH THE JURY WERE PERMITTED TO FIND NEGLIGENCE ON THE PART OF THE DEFENDANT WAS NOT SET FORTH IN THE COMPLAINT.

III.

IT APPEARING THAT CONGRESS HAD PROVIDED FOR THE SAFE TRANSPORTATION OF EXPLOSIVES IN INTERSTATE COMMERCE AND THAT REGULATIONS HAD BEEN MADE PURSUANT TO SUCH LEGISLATION, THE DUTY OF THE DEFENDANT IN THE PREMISES MUST BE DETERMINED SOLELY BY REFERENCE TO SUCH LEGISLATION AND REGULATIONS; AND IN THE ABSENCE OF ANY ALLEGATION IN THE COMPLAINT CHARGING A VIOLATION OF SUCH DUTY AGAINST THE DEFENDANT IT WAS ERROR TO PERMIT THE JURY TO FIND NEGLIGENCE ON THE PART OF THE DEFENDANT BASED UPON ANY SUPPOSED VIOLATION OF SUCH LEGISLATION OR REGULATIONS.

IV.

ASSUMING THAT IN THE ABSENCE OF ANY ALLEGATION IN THE COMPLAINT CHARGING A VIOLATION OF ANY OF THE FEDERAL REGULATIONS RELATIVE TO THE TRANSPORTATION OF EXPLOSIVES THE TRIAL COURT MIGHT HAVE PERMITTED THE JURY TO FIND THE DEFENDANT LIABLE BY REASON OF ANY SUPPOSED VIOLATION THEREOF, NEVERTHELESS IT WAS ERROR TO PERMIT THE JURY TO TAKE SUCH MATTERS INTO CONSIDERATION, SINCE THE SAME WERE NOT PROPERLY BEFORE THEM.

V.

ASSUMING THAT THE COURT HAD A RIGHT TO TAKE JUDICIAL NOTICE OF THE FEDERAL REGULATIONS, THE EVIDENCE DID NOT SHOW ANY VIOLATION OF ANY OF SUCH REGULATIONS.

VI.

IT WAS ERROR TO TREAT THE WORDS "KEEP FIRE AWAY" CONTAINED ON THE WARNING PLACARD AS IF THEY CONSTITUTED A REGULATION.

VII.

ASSUMING THAT THERE WAS ANY EVIDENCE OF A VIOLATION OF ANY ONE OR MORE OF THE FEDERAL REGULATIONS, THE PLAINTIFF WAS NEVERTHELESS NOT ENTITLED TO A VERDICT, IN THE

ABSENCE OF SUFFICIENT EVIDENCE TO SHOW THAT SUCH ALLEGED VIOLATION WAS THE PROXIMATE CAUSE OF THE EXPLOSION WHEREBY THE PLAINTIFF WAS DAMAGED.

VIII.

THERE WAS NO EVIDENCE TO SHOW THAT THE PLAINTIFF WAS DAMAGED BY THE EXPLOSION OF EXPLOSIVES WHICH WERE UNDER THE DEFENDANT'S CONTROL.

IX.

THERE WAS NO EVIDENCE THAT THE FIRE ON THE DEFENDANT'S PREMISES WAS CAUSED BY ANY NEGLIGENCE PROPERLY ATTRIBUTABLE TO THE DEFENDANT: ASSUMING, BUT NOT ADMITTING, THAT THERE WAS EVIDENCE THAT THE SAID FIRE CAUSED THE EXPLOSION WHICH DAMAGED THE PLAINTIFF, THE PROOFS DEMONSTRATED THAT A CONDITION OF EMERGENCY EXISTED AND THERE WAS NO EVIDENCE TO SHOW THAT UNDER THE CONDITIONS THERE WAS ANY NEGLIGENCE PROPERLY ATTRIBUTABLE TO THE DEFENDANT IN RESPECT OF ITS CONDUCT AFTER THE FIRE WAS DISCOVERED.

X.

THERE SHOULD HAVE BEEN A NONSUIT OR A DIRECTION OF VERDICT IN FAVOR OF THE DEFENDANT.

3.

Brief of the Argument.

I.

The judgment cannot be sustained on the theory of nuisance, as alleged in the first count of the complaint.

There are two counts in the complaint; the first alleging a right of recovery on the theory of nuisance; and the second alleging a right of recovery on the theory of negligence in certain particulars therein specified (pp. 16-22).

In the charge to the jury the Trial Judge said:

> "If there be a recovery in this case at all the recovery must be based on the ground of established negligence on the part of the defendant. The notion of nuisance is entirely removed from the case and will not enter into your thoughts or be used by you as a basis for a recovery" (p. 462, ll. 30-35).

It is settled in this State that a verdict can be sustained only upon the theory upon which the question of liability has been submitted to the jury, and cannot be sustained upon a theory antagonistic to that upon which the case was tried.

> *DeRaismes* v. *DeRaismes,* 70 N. J. L. 15, at p. 19;
>
> *Bodine* v. *Berg,* 82 N. J. L. 662, at p. 670.

II.

The judgment cannot be sustained on any of the theories alleged in the second count of the complaint, for the reason that the jury were not permitted to find negligence on the part of the defendant on any of such theories; and the theory of liability upon which the jury were permitted to find negligence on the part of the defendant was not set forth in the complaint.

The first count of the complaint having been expressly eliminated by the charge of the Trial Judge, we next turn to the second count. This is a hodgepodge of various allegations of negligence, which may be summarized as follows:

(a) By reason of the accumulations of large quantities of explosives on defendant's premises it was the duty of defendant to exercise a high degree of care to prevent the occurrence of fires, etc., whereby the explosives might become exploded, and the defendant negligently failed and omitted to perform said duty (paragraph 2 of second count, p. 19, ll. 20-30).

(b) By reason of said accumulations it was the duty of the defendant to exercise a high degree of care to watch and guard said explosives and the buildings, piers, cars and vessels containing the same, so as to prevent and to extinguish and control, when discovered, fires, etc., whereby said explosives might be exploded; and the defendant negligently failed and omitted to perform said duties (pars. 4 and 5).

(c) It was the duty of defendant to employ a sufficient number of guards to police its approaches and the waters adjacent thereto, to observe and detect the approach or presence of unauthorized persons, who might by accident

or felonious intent set fire to said pier or property; and the defendant negligently failed and omitted to perform said duties (pars. 6 and 7).

(d) It was the duty of the defendant to furnish, provide and install and keep in good order and repair sufficient fire fighting devices and apparatus on and about its said pier, by means whereof any fire occurring upon or near said pier might be promptly extinguished and controlled; and the defendant negligently omitted and failed to perform said duty (pars. 8 and 9).

(e) It was the duty of the defendant to exercise a high degree of care to store, handle and dispose of said explosives, so as to prevent and control the ignition and communication by fire and detonation from one portion thereof to another portion of the same; and the defendant negligently omitted and failed to perform said duty (pars. 10 and 11).

(f) The municipality of Jersey City maintained large police and fire departments, whose duty and custom it was to respond immediately to all alarms of fire for the purpose of extinguishing the same; it was the duty of the defendant to install and provide and keep in good order and repair sufficient means of communications whereby the occurrence of any fire or other agency capable of igniting said explosives could be immediately communicated from said pier to the fire and police departments of Jersey City; and the defendant negligently omitted and failed to perform said duty (pars. 12, 13 and 14).

(g) It was the duty of the defendant immediately upon the happening and discovery of a fire on or near said pier to notify the fire department of Jersey City of the existence and location of said fire; and the defendant negli-

gently omitted and failed to perform said duty (pars. 15 and 16).

It appeared during the course of the trial that the Congress of the United States had undertaken to regulate the transportation of explosives, and in pursuance of the Act of March 4, 1909, known as the "Transportation of Explosives Act," the Interstate Commerce Commission had undertaken to formulate regulations for such transportation. For the convenient reference of the Court, we are submitting herewith printed copies of the regulations made by the Commission, which were in effect on the date of the explosion in question. The Trial Judge, notwithstanding the objection of the defendant in that respect, took judicial notice of these regulations. We shall urge hereinafter that such ruling was erroneous in that the Trial Judge had no right to take notice of such regulations, and that if the plaintiff intended to rely upon same it was necessary to prove them. However that may be, the point to which we now invite attention is that after the discussion in the motion for non-suit of the possible application of certain of these regulations, plaintiff's counsel made no motion to amend the complaint for the purpose of bringing these regulations, or any of them, into the case, and thereupon the Trial Judge stated to counsel of both parties the theory upon which the case was to be submitted to the jury, and directed counsel to sum up the case on that theory. He said:

> "*The Court.* And I can say that the theory upon which I will submit the case to the jury will be the theory that the duty which rested upon the defendant with respect to the transportation of these explosives—assuming them to be explosives un-

> der interstate commerce—was the duty of using a degree of care in their transportation commensurate with the risk involved. That is a general statement of the theory upon which the case will be submitted by me to the jury. I say that now so that you may both understand the ground upon which it will be submitted and may direct your argument, if you see fit, to those grounds. *Mr. Collins.* Our summing up, with that in view, will be brief, but we would like an opening. *The Court.* You have a right to ask for opening, and I order an opening'' (p. 457, ll. 18 to 35).

Counsel proceeded to sum up accordingly. But in the charge to the jury the Trial Judge, instead of limiting the jury to a consideration of the question of whether the defendant had used a proper degree of care in the transportation of the explosives, permitted the jury *also* to take into consideration certain regulations of the Interstate Commerce Commission in determining whether the defendant was negligent, saying:

> ''In respect to matters where the regulations have been adopted, I charge you that the duty of the company was, in the transportation of explosives, to exercise care commensurate with the risk, and that the company will be liable for damages resulting from a failure to exercise such care'' (p. 461, ll. 1 to 10).

As we have shown in the above summary of the several claims of negligence as set forth in the complaint, there is nothing therein which alleges a violation either of any provision of the statute which deals with the transportation of explosives in interstate commerce or of any of the regulations promulgated by the Interstate Commerce Commission pursuant to said

statute. There can be no question that the explosives were subject exclusively to this statute and the regulations of the Commission then in effect which might be applicable to this particular class of explosives; and the Trial Judge charged that the regulations were "exclusively controlling" upon the subject (p. 461, l. 1). But notwithstanding this, he permitted the jury, in considering the question of negligence on the part of the defendant, to take these regulations into account, notwithstanding the fact that no duty based thereon was alleged in the complaint. The charge on this subject reads as follows:

> "Now I said that the Interstate Commerce Commission has acted, and I am going just by way of reference to call your attention—for the court judicially notices the regulations that have been adopted by the Interstate Commerce Commission for the regulation of the transportation of explosives—to one or two of the regulations that have been thus promulgated. One regulation provides—speaking of cars containing explosives—that they must be coupled carefully and all unnecessary shocks must be avoided. Other cars must not be cut off and allowed to strike a car containing explosives. They must be so placed in yards or on sidings that they will be subject to as little handling as possible and be removed from all danger of fire. And in pursuance of that provision, and possibly of other provisions in the regulations, the Interstate Commerce Commission indicated the kind of notice or placard that should be placed upon the car to signify that it contained explosives, and in general the manner in which it should be handled. That placard, which may be taken as an indication of the meaning that the Interstate Commerce Commission itself attached to the regulation that it was promulgating, pro-

> vides that the placard shall say on it 'Explosives,' which must be printed in red; and then, amongst other things, this: 'Keep fire away,' also to be printed in red ink. And another provision, section 1643, paragraph B, provides that unauthorized persons must not have access to explosives or other dangerous articles at any time while such articles are the custody of the carrier.
>
> "Now, gentlemen, the regulations of the Interstate Commerce Commission, as I have said, are controlling, and exclusively controlling upon this subject; and in respect to matters where the regulations have been adopted I charge you that the duty of the company was, in the transportation of explosives, to exercise care commensurate with the risk, and that the company will be liable for damages resulting from a failure to exercise such care" (p. 460, l. 2, to p. 461, l. 10).

We urge that the Trial Judge fell into error in so charging and that such error was prejudicial to the defendant. Not only was there no allegation on the subject of the regulations incorporated in the complaint, but after a full argument of the motion to non-suit the Trial Judge advised counsel of the theory upon which he at that time expected to submit the case to the jury; and on the strength of that assurance counsel limited themselves to the discussion of the matters directed by the Trial Judge and did not even debate before the jury the matter of the construction or the application of the regulations, or any of them, or whether there was sufficient proof to show that any of them had in fact been violated.

It is error to submit to the jury issues which were not presented by the allegations of the complaint. So likewise when a substantial variance appears in the course of the trial between

the pleadings and the proofs, the plaintiff should be non-suited, at least in the absence of any amendment of the complaint.

Excelsior Electric Co. v. *Sweet,* 59 N. J. L. 441.

Partridge v. *Woodland Steamboat Co.,* 66 N. J. L. 290.

Kent v. *Phenix Art Metal Co.,* 69 N. J. L. 532, 540.

Murphy v. *N. J. Street R. Co.,* 71 N. J. L. 5.

Merklinger v. *Lambert,* 76 N. J. L. 806, 814.

Jordan v. *Reed,* 77 N. J. L. 584, 592.

Bierman v. *Stiefel,* 82 N. J. L. 658, 661.

Duel v. *Mansfield Plumbing Co.,* 86 N. J. L. 582, at p. 585.

Reaney v. *Central R. R. Co.,* 89 N. J. L. 282.

If it be urged that the complaint could even now be amended, on appeal, the answer is that while this Court might have the power to amend, such power should not be exercised for the purpose of supporting a verdict and judgment based upon an issue which was not fairly litigated. *Excelsior Electric Co.* v. *Sweet, supra.*

If it be urged that the point as to the regulations was put in issue by the defendant's pleading, the answer is that the only reference to the regulations in the defendant's pleading was that the explosives were in the course of transportation in interstate commerce, and that therefore the statute and the regulations on that subject controlled the defendant in conducting such transportation. The complaint did not allege that the explosives were in the course of interstate commerce; it merely alleged that they were in the possession of the defendant and it

then sought to hold the defendant liable on the theory either of nuisance or of negligence. The defendant set up as a separate defense to both counts the following:

> "1. On July 30, 1916, and for many days prior thereto, the defendant was a common carrier engaged in interstate and foreign commerce, and therein transporting by land ammunitions and munitions of war, including explosives.
>
> "2. As such common carrier defendant was compelled by law to receive, carry, convey and transport the said ammunition and munitions of war, including explosives, in the course of interstate and foreign commerce, provided the same were packed, marked, loaded and handled, and when offered for transportation were in proper condition to transport in accordance with and pursuant to the Act of Congress of the United States entitled 'An act to promote the safe transportation in interstate commerce of explosives and other dangerous articles, and to provide penalties for its violation,' approved March 4, 1909, and the act of said Congress entitled 'An act to regulate commerce,' as amended June 18, 1910, and the regulations prescribed by the Interstate Commerce Commission by authority of said acts.
>
> "3. The ammunition and munitions of war and explosives that exploded on July 30, 1916, were packed, marked, loaded and handled, and when offered for transportation were and until and at the time of said explosion continued to be in proper condition to transport in accordance with said acts of the Congress of the United States and the regulations prescribed by the Interstate Commerce Commission by virtue thereof and were carried, conveyed and transported and held by the defendant in the course of interstate and foreign commerce lawfully and strictly in accordance with said

acts and regulations'' (p. 46, l. 32, to p. 47, l. 32; p. 51, ll. 18-20).

The plaintiff in its reply admitted paragraph 1 of the above defense and denied paragraphs 2 and 3 (p. 40, ll. 30-35). The proof showed beyond dispute that the explosives, at the time of the explosion, were in the course of interstate commerce. If, therefore, the plaintiff had desired to raise any issue as to a supposed violation of the statute or the regulations relating to the transportation of explosives in interstate commerce, then it should either have amended its complaint by setting up specifically the regulations which it intended to show were violated, or, at least, it should have replied to the defendant's plea of interstate commerce by setting up in its reply that certain regulations were violated. But the plaintiff neither filed any such reply nor made any such amendment to its complaint. Under these circumstances there is no escape from the conclusion that the question of whether any interstate regulations were violated was not put in issue by the pleadings. It was therefore error on the part of the Trial Judge to permit the jury to take into consideration, in arriving at their verdict any such supposed violation of the regulations or any of them. It may not have been necessary for the plaintiff to quote *verbatim* in the complaint the particular regulations which the defendant was supposed to have violated, but it certainly was necessary to allege either in the original complaint, or in an amendment thereto, the substance of the regulations upon which it relied and which it desired to have considered by the jury in determining the question whether or not the defendant was guilty of negligence. This point was urged in the argument of the motion

for non-suit (pp. 430-4); but the plaintiff declined to ask for any amendment. The Trial Judge in informing counsel of the theory upon which the case was submitted to the jury eliminated the possible violation of the regulations from consideration (p. 457, ll. 20-30). But in the charge, *for the first time,* the defendant was informed that the jury were to be permitted to take these regulations into account in determining whether it was guilty of negligence. As we have shown in the part of the charge above quoted, the attention of the jury was directed to certain specific regulations and then the jury were charged that the regulations were exclusively controlling, and then they were told that in respect to matters where the regulations had been adopted the duty of the defendant was to exercise care commensurate with the risk (p. 461, ll. 1-10); and then again the jury were specifically advised that in considering whether the defendant was negligent they must decide the question *in the light of the rules of the Interstate Commerce Commission, which had been read to them by the Trial Judge* (p. 462, ll. 10-20). Exception was duly taken to this part of the charge (p. 470, l. 20, to p. 472, l. 10).

It is obvious from the plaintiff's pleadings and from the course of the trial that the plaintiff did not intend to rest the plaintiff's case upon any supposed violation of the interstate regulations. Neither the Federal statute nor the regulations were mentioned in the complaint, and *they were not even offered in evidence.* Even if the Court had the right to take judicial notice thereof, the defendant should not be held responsible on the present record when it has had no opportunity to fairly meet the new issue that was imported into the case for the first

time in the charge of the Trial Judge. The amount of the present judgment is substantial—$23,678.37—but in view of the results of the catastrophe out of which this case has arisen it would be a great injustice to the defendant to have its responsibility for the results—involving literally many millions of dollars—determined in a proceeding wherein it has had no opportunity whatever to meet the specific charges of negligence upon which its liability is sought to be predicated.

III.

It appearing that Congress had provided for the safe transportation of explosives in interstate commerce and that regulations had been made pursuant to such legislation, the duty of the defendant in the premises must be determined solely by reference to such legislation and regulations; and in the absence of any allegation in the complaint charging a violation of such duty against the defendant it was error to permit the jury to find negligence on the part of the defendant based upon any supposed violation of such legislation or regulations.

Under Point II we have called attention to the Act of Congress known as the "Transportation of Explosives Act," and to the regulations of the Interstate Commerce Commission formulated pursuant thereto. This statute is of course limited to the transportation of explosives in Interstate Commerce. It appeared without dispute in the present case that the explosives which were in the defendant's yard at Black Tom were all in the course of interstate commerce at the time of the explosion. There were 33 cars containing various kinds of explosives

and ammunition in the Black Tom yard on the night when the explosion happened (p. 319). These cars came from various points outside of the State of New Jersey, to-wit, Barksdale, Wis., Redington, Pa., Aetna, Ind. and Waterbury, Conn. (p. 331, ll. 1 to 30; p. 343, l. 2; p. 343, l. 38; p. 345, l. 30, p. 346, l. 1). These cars had been taken to the Black Tom yard for the purpose of having their contents transferred to various steamers and lighters, and although they had been in the yard for a few days prior to the date of the explosion (p 329, ll. 1 to 30), they were still in the course of interstate transportation, and the Trial Judge so charged (p. 464, ll. 1-10). In this respect he was undoubtedly correct.

> *Actiesselskabet Ingrid* v. *Central R. Co. of N. J.*, 216 Fed. 72 (affirming 195 Fed. 596—rehearing denied, 216 Fed. 991—petition for writ of certiorari to U. S. Supreme Court denied, 238 U. S. 615; 59 L. Ed. 149); also reported in L. R. A. 1916 (B), 716.

As Congress has undertaken to prescribe certain statutory regulations with respect to such articles while in the course of interstate transportation, the duty of the defendant, while conducting such transportation, must be determined solely by reference to the prescribed regulations. (*The Ingrid, supra,* 216 Fed. at p. 82.) In this respect the case is analogous to those cases in which it has been held that when a statute declares that certain precautions shall be taken, a compliance with the statute is sufficient to meet a charge of negligence.

If the plaintiff had set forth the regulations in its complaint and had alleged a violation thereof then, of course, the Trial Judge, so far as the pleading is concerned, might have been

justified in leaving to the jury the question of the defendant's liability by reason of a supposed violation of any of such regulations. But in the conduct of this trial there was a double error; in the first place, as we have shown under Point II, the Trial Judge permitted the jury to take into account the regulations of the Interstate Commerce Commission, although they were not pleaded in the complaint; and in the second place, after charging that these regulations were "exclusively controlling," the Trial Judge then, instead of limiting the defendant's liability by reference to such regulations, proceeded to permit the jury to consider, not merely the regulations but whether the defendant in the transportation of the explosives had exercised care commensurate with the risk, saying:

> "It (the defendant) does not become liable absolutely and at all event; but it only becomes liable in case it neglects to use a degree of care commensurate with the risk" (p. 461, ll. 20-22).

If the regulations were to be considered at all in the absence of any pleading on the subject, the defendant was at least entitled to have the consideration of the jury *limited* to the regulations, without having imposed upon it whatever *additional* duty the jury might think was "commensurate with the risk."

It is settled that a compliance with statutory regulations is sufficient to meet a charge of negligence, when the statute has undertaken to prescribe a specific duty.

An example of this principle is *Hackett* v. *N. Y., etc. R. Co.,* 58 N. J. L. 4, where the Court held that all that could be required of a railroad company with respect to giving signals of the approach of its trains to the public highway

was a compliance with the statute with respect to the giving of signals by bell or whistle, following the decision of the Court of Errors and Appeals in the case of *New York, etc. R. Co.* v. *Leaman,* 54 N. J. L. 202, where the Court said:

> "When the prescribed audible signals are given in conformity with the statute, whether they are heard or heeded by a traveller crossing the track or not, the company is absolved from negligence so far as concerns this kind of audible warning of the approach of its trains."

Another analogy is found in the statutes relative to liability on the part of railroad companies for damages resulting from fire escaping from locomotive smokestacks. The leading example of such cases in this state is *West Jersey, &c. R. Co.* v. *Abbott,* 60 N. J. L. 150, from which we quote:

> "When the Legislature enacts regulations in respect to any precaution to be taken in the use of a dangerous instrumentality by those whom it has authorized to use it, those regulations define and limit the measure of duty in respect to that particular sort of precaution. The statute which we have had under consideration also enacts that railroad companies shall give certain specified audible signals of the approach of its trains to the crossing of a public highway. It was settled in this court that the regulations in respect to audible signals were exclusive, and if obeyed, would exonerate a railroad company from liability for a collision at a crossing arising from a failure to hear such signals, and that it was erroneous to permit a jury to determine whether or not, on account of the prevalence of a dense fog or other impediment to sign and sound, other audible signals ought not to have been given. * * *

> "In the case before us the Legislature has prescribed what duty a railroad company must perform in respect to the escape of sparks from the smokestacks of its engines. The prescribed duty does not require the company, at any time, to absolutely prevent the escape of such sparks, but only to take and use all practicable means to that end. Proof that they have taken and used such means furnishes a defense in that respect. It is obvious that to permit a jury to find that a railroad company was, at any time, under a duty to take sufficient care to prevent the escape of any fire at all, is incongruous with the regulations of the Legislature and at variance with the doctrine of the case last cited."

Other cases in this state in which this principle has been applied to railroad fire cases are:

Hoff v. *West Jersey R. Co.,* 45 N. J. L. 201.

Ballister v. *Atlantic City R. Co.,* 72 N. J. L. 334.

Goodman v. *Lehigh Valley R. Co.,* 75 N. J. L. 277.

Other classes of cases in which this principle has been applied are actions brought to recover for personal injuries under the "Federal Safety Appliance Act" or under the "Federal Employers Liability Act." In such cases it has been decided that the injured employees of common carriers engaged in interstate commerce must seek their remedy exclusively in accordance with the provisions of those statutes.

Texas & Pac. Ry. Co. v. *Rigsby,* 241 U. S. 33.

N. Y. Central R. Co. v. *White,* 243 U. S. 188.

N. Y. Central R. Co. v. *Winfield,* 244 U. S. 147.

Erie Railroad Co. v. *Winfield,* 244 U. S. 170.

Assuming that the plaintiff, in the absence of any allegation to that effect in the complaint, was entitled to have the jury take into consideration any of the Interstate Commerce regulations, in determining the question whether the defendant was negligent, the Trial Judge should at least have limited the jury to a consideration of these regulations, without permitting them to take into consideration the further question of whether the defendant had used a degree of care commensurate with the risk. If it be urged that in one part of the charge the Trial Judge did limit the jury to certain specific regulations (admitting for the moment that all of the matters to which he directed their specific attention could be classed as "regulations"), the answer is that in another part of the charge he permitted the jury to find negligence on the theory as to whether the defendant had exercised care commensurate with the risk (p. 461, l. 8; ll. 20 to 25; p. 462, ll. 10 to 15).

Assuming that the pleadings had been so formulated, either in the original complaint or by amendment, so as to justify the Trial Judge in permitting the jury to consider the regulations, it was nevertheless error to permit the jury to substitute its judgment of the Interstate Commerce Commission and to consider whether the defendant had used a degree of care commensurate with the risk, when the care that was required of the defendant in the interstate transportation of explosives had been specifically set forth in the regulations of the Commission. We submit that the charge of the Trial Judge was wrong in either aspect—he should not have permitted the jury to consider the regulations at

all, in the absence of an appropriate pleading, and he should not have permitted the jury to determine the defendant's negligence by reference to any test other than a compliance with the applicable regulations.

But even if one part of the charge was correct, if another part is erroneous the defendant is entitled to a reversal, unless the erroneous part is specifically withdrawn from the attention of the jury. In *State* v. *Erie R. R. Co.,* 84 N. J. L. 661, the Court said:

> "If a judge makes a mistake in charging the jury, he may undoubtedly cure it by calling attention to it as a mistake and directing the jury to disregard it or to substitute for it a later statement of the law.
>
> "Nothing of that sort was done in the present case, where the most that can be said is that two statements of the law were made to the jury, one of which was erroneous. Unless we conceive of our trial system as one in which the jury is qualified with capacity to decide between two judicial statements of the law and unerringly to select the correct statement and to disregard the incorrect, the error of the charge in the present case was not cured or rendered noninjurious to the defendant who excepted to it" (p. 666).

So in the present case, the defendant's duty must be measured solely by reference to the Interstate Commerce regulations; but after calling the attention of the jury to certain of these regulations which were supposed to be applicable to the circumstances, the Trial Judge then committed error by opening the door for the jury to find negligence upon some general theory as to whether the defendant had used a certain degree of care. This charge must have been prejudicial to the defendant. The evidence

showed that the explosion was of terrific violence, destroying a number of cars and vessels, and their contents, and blowing a hole in the ground 375 feet long, 175 feet wide and from 7 to 10 feet deep (p. 350, ll. 20 to 25). Under these cirsumstances the jury might well have overlooked entirely the important point (and indeed the only point which they had a right to consider), as to whether the defendant had complied with the regulations, and might well have found that, in view of the alleged dangerous character of the explosives and the large quantity of same that were awaiting trans-shipment, that the defendant had failed to use care commensurate with the risk.

But the fundamental error in this part of the charge was the fact that there was no allegation in the complaint of a violation of any of the Interstate Commerce regulations. If the defendant was liable at all, it was liable only because of some proof that it had violated some one or more of the regulations, and that such violation was the proximate cause of the damage resulting to the plaintiff. Hence there was a double error; first in permitting the jury to find liability on the part of the defendant, by reason of its alleged failure to use care "commensurate with the risk," and second, in permitting the jury to take the regulations into consideration, in the absence of any reference thereto in the complaint.

IV.

Assuming that in the absence of any allegation in the complaint charging a violation of any of the Federal regulations relative to the transportation of explosives, the Trial Court might have permitted the jury to find the defendant liable by reason of some supposed violation thereof, nevertheless it was error to permit the jury to take such matters into consideration, SINCE THE SAME WERE NOT PROPERLY BEFORE THEM.

The regulations of the Interstate Commerce Commission to which reference was made by the Trial Judge in his charge to the jury were not offered in evidence. But nevertheless the Trial Judge, after remarking that the Court "judicially notices" these regulations (p. 460, l. 5), proceeded to permit the jury to find negligence on the part of the defendant by reason of the supposed violation thereof. Even if the regulations were admissible as relevant evidence, in the absence of any allegation in the complaint setting up any violation thereof, the fact remains that they were not *offered* in evidence, and the question therefore arises whether the Trial Judge had the right to take judicial notice thereof. Of course, if he did not have such right, then it was prejudicial error to permit the jury to base their verdict upon any such alleged violation. The only case in which this question seems to have been discussed with reference to regulations of the Interstate Commerce Commission is *State* v. *Railroad Company,* 169 N. C. 295, 84 S. E. 283, where the Court took judicial notice of the regulations of the commission relative to the keeping of accounts and records by carriers. It should be observed that the regulations then under consideration were

for the purpose of showing the movements of traffic, with a view to facilitate examination by official agents and to remove or minimize the opportunity for discrimination among shipments; and it may therefore be said that such regulations were of a general nature affecting the interest of the entire public. But those now under consideration are for a special and limited class of traffic—which, though quite large in volume, affects only a comparatively small proportion of the carrier's customers.

As against this single case in North Carolina we may call attention to the decision of the Supreme Court of Massachusetts in *Commonwealth* v. *Crane,* 158 Mass. 218, 33 N. E. 338, which held that the Court would not take judicial notice of the regulations of the Internal Revenue Commissioner relative to the sale of oleomargarine. Similar cases are *People* v. *Dalton,* 61 N. Y. Sup. 263, 46 App. Div. 264, and *Health Department* v. *Investing Co.,* 86 N. Y. Supp. 18, holding that judicial notice will not be taken of the rules and regulations of the Civil Service Commissioners or of the provisions of the heatlh department.

Other cases are the following:

In *U. S.* v. *Bedgood,* 49 Fed. 54, held that the Court would not take notice of regulations of the land office, prescribed by the Secretary of the Interior or by the commissioner.

In *Moore* v. *Worthington,* 63 Ky. 307, held that the Court would not take judicial notice as to the regulations of the Treasury Department under which a treasury note was issued.

In *Palmer* v. *Aldridge,* 16 Barb. (N. Y.) 131, held that the Court would not take judicial no-

tice of the regulations of the Canal Board unless they were incorporated in the case.

In *City of St. Louis* v. *Kruempeler,* 235 Mo. 710, 139 S. W. 446, it was held that a State Court would not take judicial notice of the milk standards prescribed by the U. S. Department of Agriculture.

In *People* v. *Creelman,* 135 N. Y. Supp. 718, 150 App. Div., held that the Court would not take judicial notice of a municipal civil service rule prohibiting the selection of municipal employees as examiners.

In *House* v. *Chicago & N. W. Ry. Co.,* 138 N. W. 809 (S. Dak.), held that a State Court would not take judicial notice of a definition of the Interstate Commerce Commission of the term "baggage," nor that the Commission has prescribed what shall be included in that term.

In *Ferguson* v. *Starkey,* 68 So. 348 (Ala.), held that the courts do not take judicial notice of an administrative regulation, such as the State Live Stock Board was authorized to prescribe, unless the regulations "are of such wide application and established duration as to have become a part of the common knowledge of well-informed persons."

In *People* v. *McDermott,* 155 N. Y. Supp. 323, 169 App. Div. 755, held that judicial notice will not be taken of rules established under the authority of a statute regulating plumbing and drainage.

In *Kay* v. *City of Portland,* 154 Pac. 750 (Ore.), held that the Court would not take notice of the rules of the Civil Service Commission of a city when such rules were not pleaded

below, or brought before the Appellate Court by bill of exceptions.

In *Hagenback* v. *Leppert,* 117 N. E. 531 (Ind.), held that the Appellate Court would not take judicial notice of the rules of procedure of the Industrial Board in workmen's compensation cases.

In the present case the defendant was seriously prejudiced by this action of the Trial Judge in taking judicial notice of these regulations. If they had been set forth in the complaint, it would then have had an opportunity to know wherein it was negligent; it they had been offered in evidence it would have had an opportunity to object to the receipt of the same until and unless the particular regulations upon which the plaintiff intended to rely were specifically set forth in the complaint—if necessary, by amendment. But under the course taken the defendant did not know until reference was made to the regulations in the charge of the Trial Judge—that the plaintiff was relying upon a supposed violation of the same as the foundation of its case. There was not even an application to amend the complaint, and hence the defendant was utterly in the dark as to the specific regulations upon which the plaintiff relied, until after the Trial Judge had referred in his charge to certain regulations which in the view of the Trial Judge were applicable to the facts. Hence, there was again a double error, first, in importing into the case regulations which were not pleaded, and second, in permitting the jury to consider regulations which were not proved.

Not only were the regulations not offered in evidence, but the Trial Judge, after the motion for non-suit, stated to counsel that the ques-

tion of the defendant's liability would be submitted to the jury on a theory which had no relation whatever to these regulations (p. 457, ll. 20 to 30)—indeed at the very outset of his charge the Trial Judge remarked that he had not intended to say anything at all about the matter of Interstate Commerce regulations (p. 458, ll. 30 to 35), thus indicating that he had not expected to permit the jury to take the regulations into consideration. But the fact remains that he did permit the jury to consider them (p. 460, l. 1, to p. 461, l. 10). Even in referring the jury to the regulations he did not call their attention to *all* the regulations that might be applicable, but only to certain specific sections thereof—one of which at least we shall hereafter insist was not a regulation at all, but merely a warning sign.

Not only was there no proof offered by the plaintiff of the existence of *any* regulations, but the case is also barren of proof that the particular regulations to which the Trial Judge called attention in the charge and of which he took judicial notice were in effect on July 30th, 1916. The regulations to which the Trial Judge referred are included in a pamphlet issued by the commission (copies of which are furnished for the use of the Court), the heading whereof reads as follows:

> "REGULATIONS FOR THE TRANSPORTATION OF EXPLOSIVES BY FREIGHT.
>
> Prescribed under act of March 4, 1909, originally formulated and published January 15, 1910, effective 90 days thereafter. Revision formulated and published July 2, 1914, effective October 1, 1914, and superseding the regulations published January 1, 1912."

It is apparent from this recital that these regulations are changed from time to time. While we do not mean to be understood as asserting that the regulations in the edition that was "effective October 1, 1914," were not in force on the date of the explosion—July 30, 1916 we call attention to the fact that the regulations are changed from time to time, as showing the danger of taking judicial notice of any particular edition of the regulations without some proof that they were actually in effect on the date in question.

V.

Assuming that the Court had a right to take judicial notice of the Federal regulations, the evidence did not show any violation of any of such regulations.

The Trial Judge directed the attention of the jury to certain specific regulations of the Interstate Commerce Commission as follows:

> "Now I said that the Interstate Commerce Commission has acted, and I am going just by way of reference to call your attention—for the court judicially notices the regulations that have been adopted by the Interstate Commerce Commission for the regulation of the transportation of explosives—to one or two of the regulations that have been thus promulgated. One regulation provides —speaking of cars containing explosives—that they must be coupled carefully and all unnecessary shocks must be avoided. Other cars must not be cut off and allowed to strike a car containing explosives. They must be so placed in yards or on sidings that they will be subject to as little handling as possible and be removed from all danger of fire. And in pursuance of that provision, and possibly of other provisions

> in the regulations, the Interstate Commerce Commission indicated the kind of notice or placard that should be placed upon the car to signify that it contained explosives, and in general the manner in which it should be handled. That placard, which may be taken as an indication of the meaning that the Interstate Commerce Commission itself attached to the regulation that it was promulgating, provides that the placard shall say on it 'Explosives,' which must be printed in red; and then, amongst other things, this: 'Keep fire away,' also to be printed in red ink. And another provision, section 1643, paragraph B, provides that unauthorized persons must not have access to explosives or other dangerous articles at any time while such articles are in the custody of the carrier'' (p. 460, ll. 1-38).

So far as relates to the placard ''Keep fire away'' we shall argue in the next following point that this was not a regulation at all and that therefore the jury could not consider it. But however that may be, our present point is that there was no proof of a violation of any of the regulations to which the attention of the jury was specifically directed.

The regulation to which the Court first referred is section 1689. This appears under the general title of ''Handling cars containing explosives'' and reads as follows:

> ''They (*i. e.*, cars containing explosives) must be coupled carefully and all unnecessary shocks must be avoided. Other cars must not be cut off and allowed to strike a car containing explosives. They must be so placed in yards or on sidings that they will be subject to as little handling as possible, and be removed from all danger of fire. They must not be placed on tracks under bridges, and, when avoidable, engines on parallel tracks must not be allowed to

stand opposite or near them'' (p. 29 of Regulations effective Oct. 1, 1914).

There is no suggestion in the present case that the fire or the following explosion was the result of careless *handling* of any of the cars containing explosives. The fire and explosion occurred shortly after midnight in a ''dead'' yard, that is, in a yard where at that hour there was no handling of the cars or any movement of them whatever. The only part of this regulation that requires any consideration is the requirement that the cars must be so placed in yards or sidings that they will be subject to as little handling as possible, and be removed from all danger of fire. There is no question in the present case but that the cars containing explosives were placed in a portion of the yard where they were ''subject to as little handling as possible''; the map shows the location of each car and by reference to the same it will appear that they were all placed in that part of the yard which was nearest to the water front—some of them being placed on the pier from which it was customary to trans-ship their contents to vessels, and others being placed at other convenient points in the yard whence they could be readily removed to the trans-shipping pier. Hence, every part of this regulation may be eliminated from consideration except the last clause which states that the cars must be ''removed from all danger of fire.'' This, of course, does not mean that the defendant was bound to insure against fire; indeed, the Trial Judge charged specifically that when a company undertakes the transfer or transportation of articles of this kind it does not thereby become an ''insurer'' that no accident is going to happen and does not become bound conclusively to

respond in damages to those who receive injury from the accident, if an accident does happen (p. 461, ll. 10-20). This is good sense as well as good law, because, of course, if a carrier was bound at its peril to insure against the communication of fire to explosives, no carrier would dare to undertake the transportation thereof; and such a result would be directly contrary to another regulation (Section 1401 (a)), which reads as follows:

> "As the use of explosives is essential to various business activities throughout the country, it is the duty of interstate railroad carriers to accept and transport such explosives under these regulations."

The most that could be required of a carrier under the clause of section 1689 now under consideration is that it must use reasonable care to keep the explosives from danger of fire.

We must therefore consider what the evidence shows with respect to the care exercised by the company for the purpose of removing the explosives in question from danger of fire.

The testimony on this subject is given by three of the defendant's employees, Kane, Garrity and Sloan.

Kane was employed as a watchman at the yard and had worked there for 13 years. He was the "roundsman" or foreman in charge of the watchmen who were on duty at night, his tour of duty being from 5:30 p. m. until 6 a. m. There were four watchmen under him, Sloan, Kelly, Groth and Garrity (p. 68, ll. 1 to 40). All of these men were on duty on the night of the explosion (p. 69, ll. 1 to 10). Various parts of the yard were assigned to each watchman; Sloan's headquarters were at what is known as the boiler house—which was opposite Pier 5.

He had charge of this building, Pier 5 and part of Pier 4 (pp. 69, 70). Kelly's station was at the building known as the grain transfer elevator, located to the east of the storage warehouse (p. 71, ll. 30 to 40). He had charge of this building and part of Pier 4 (p. 72, ll. 10 to 20). Garrity was located at Store R, and his round was from Pier 5 to Pier 7 (p. 72, ll. 30 to 40). He was also in charge of the steam crane and the boiler near Store R. His round also included the "platform side" of the storage warehouse located east of Pier 6 (p. 73, ll. 10 to 30). Groth was located at the oil yards to the west of the grain elevator, about a mile from the north pier (p. 73, l. 35 to p. 74, l. 10).

All of these watchmen were required to make their rounds every hour and to punch buttons which registered on the time clock (p. 74, l. 18). Kane was in general charge of the yard (p. 74, l. 20). In addition to these watchmen there were also certain employees of the Dougherty Detective Agency, who were employed as watchmen for persons other than the railroad. They were located at or near the north pier (p. 75, ll. 1 to 20; p. 260, ll. 15 to 25).

In addition to these watchmen, the company had also furnished fire apparatus, such as hose carts and chemical engines. The location of these was described in part by Kane (pp. 76 to 78), but the full details of same are shown on the large map marked Exhibit P. 1.

In addition to the hose carts and chemical engines in the yard and on the piers, the store houses were equipped with a sprinkling system connected with the American District Telegraph (p. 78, ll. 1 to 10).

There was also a complete telephone system by which, in case of fire, word could be sent at

once to the company's officers and to the Standard Oil for tugs and locomotives, and to the New York and Jersey City fire departments (p. 78, ll. 20 to 30). The captains of the grain boats of the defendant, some of whom were always stationed at the elevator, were also available for service in case of fire (p 79, ll. 10 to 30). Sometimes there were as many as 200 of these boats in the vicinity of the yard, and there were always at least 20 or 30 of the defendant's boats (p. 80, ll. 20 to 30).

Provision was also made for fire alarm by means of a whistle in Sloan's pump house (p. 80, l. 30, to p. 81, l. 15). There was no fire apparatus in the yard itself, that is, at a point east of the tank which is located to the east of Store R, except that there was sufficient hose on the hose carts to reach through the yard, for a distance of about 1,800 feet. This was three and three and a half-inch hose; the nearest hydrant where it could be coupled was near the big tank east of Store R (pp. 81 and 82).

The testimony of the other watchmen, Garrity and Sloan, shows that they were making their regular rounds on the night of the fire (p. 258 and p. 267).

Kelly was also at his regular post at the grain elevator (p. 312).

The map, Exhibit P. 1, further shows that the defendant, in addition to the water supply furnished by the city, had its own independent supply, together with two large tanks and numerous hydrants stationed at various points along the railroad tracks leading into the easterly portion of the yard; other hydrants were located on the various piers.

It does not directly so appear from Kane's testimony, but the fair inference from it is that

at night no locomotives were operated in any part of this yard. He said that as soon as he discovered the fire he telephoned to the "Terminal" and then went to see if any locomotives were coming, and observed that they were (p. 85, l. 30, to p. 86, l. 28).

As bearing upon the question of the precautions taken by the defendant to guard against fire, the attention of the Court is particularly invited to the large map, Exhibit P. 1, which shows the various piers and tracks and the location of the cars thereon; it also shows in full detail the various water pipes, hydrants, hose connections, fire alarm stations, pumps, gravity tanks, hose carts and other fire protection. The following is a description thereof, based upon this map:

(*a*) *Pumps.*

There were three pumps as follows: One electric pump at the tank at the easterly end of Store R, with a capacity of 1,500 gallons per minute; a steam pump at Store F with a capacity of 1,200 gallons per minute; a steam pump at the westerly end of the yard with a capacity of 1,500 gallons per minute. All of said pumps were connected with a 12-inch fresh water main. The two 1,500-gallon pumps were connected with the American District Telegraph Company system by electric signals. Attached to each of these three pumps were six layout manifolds, each with an outlet of 2½ inches in diameter. The electric pump was located in a brick building near the easterly end of Store R, and about 30 feet easterly therefrom. The 1,200-gallon steam pump was in a steel corrugated iron building at the easterly side of Store F and immediately adjacent thereto. The 1,500-

gallon steam pump was in a brick building at the westerly end of the yard, about 200 feet west of the westerly side of Warehouse BB.

(*b*) *Hydrants.*

There were twenty-four 3-way standard Corey hydrants, each outlet with a diameter of 2½ inches. All of said hydrants were connected with the 12-inch water main, and with a salt water main; they were also connected with a steel tank located on top of a tower 80 feet high at the easterly end of Store R, said tank having a capacity of 100,000 gallons. The said twelve-inch water main also had a 2-way steam tugboat connection.

There were also nineteen 2-way 2½-inch hydrants, each outlet having a diameter of 2½ inches. All of these were connected either with a six-inch fresh water main, or with a six-inch salt water main. Said fresh water main was also connected with the 100,000-gallon tank.

The said hydrants were located as follows:

24 Standard Three-way Corey Hydrants.

Beginning at the easterly end of the National Storage Company's warehouses the hydrants were located as follows:

The first hydrant was located northeast of Store R and about the middle thereof, about five feet from the wall of the same.

The second was located directly north of the said Store R, and about 80 feet from the wall thereof.

The third was located in the driveway to the north of Store P, and about 85 feet from the wall thereof.

The fourth was located in the driveway northeast of Store M and northwest of Store N, about

85 feet from the northerly walls of the said stores.

The fifth was located east of the north end of Store M, about 20 feet from the northeast corner of said store.

The sixth was located at the southeast corner of Store M, about 10 feet from the corner.

The seventh was located in the driveway, 85 feet from the north wall of Stores K and L, and about midway between the said stores.

The eighth was located in the driveway about 85 feet from the northeast corner of Store F and the northwest corner of Store G, and midway between the said stores.

The ninth was located between the northerly end of Stores F and G, about 20 feet from Store G and 60 feet from Store F.

The tenth was located at the southwest corner of Store G and about 20 feet therefrom.

The eleventh was located in the driveway about 85 feet north of the north wall of Store C.

The twelfth was located in the driveway about 85 feet north of the office of the Lehigh Valley Railroad Company located on the northerly end of covered Pier 4.

The thirteenth was located in the driveway about 25 feet from the northwest corner of Store No. 3.

The fourteenth was located on the open ground to the west of Store 3, about 90 feet, from the west wall of the same.

The fifteenth was located in the open space to the south of the driveway, about 90 feet from the same and about 45 feet north of the northwest corner of the Grain Transfer Elevator.

The sixteenth was located in the open space about 45 feet north of the northwest corner of the Grain Transfer Elevator.

The seventeenth was located about 15 feet to the north of the north wall of the New Grain Elevator, and about 60 feet west of the northwest corner of the same.

The eighteenth was located directly west of the carpenter shop, and about 10 feet from the westerly wall thereof.

The nineteenth was located in the driveway, at the north side thereof, about 300 feet southeast of Warehouse BB.

The twentieth was located southeast of the pump located near Warehouse AA, and about 75 feet from the said pump.

The twenty-first was located near the southeast corner of Warehouse BB, and about 75 feet therefrom.

The twenty-second was located near the northeast corner of Warehouse BB, and about 100 feet therefrom.

The twenty-third was located southwest of Warehouse AA and west of Warehouse BB, and near the driveway entering the premises. Said hydrant was located about 100 feet west of Warehouse BB and 25 feet east of the said driveway.

The twenty-fourth was located northwest of the northwest corner of Warehouse AA, and about 60 feet therefrom.

All of the said hydrants described as being located in the said driveway were equidistant, the approximate distance of one from the other being about 160 feet.

19 Standard 2-way Hydrants.

The first two of these hydrants were located at the southerly end of the pump house containing the 1,500-gallon electric pump, and about 5 feet from the wall thereof.

The third was located northeast of the northeast corner of Store R, and about 100 feet therefrom.

The fourth was located north of Store P and about 75 feet from the wall thereof.

The fifth was located at the southeast corner of Store N, and about 25 feet therefrom.

The sixth was located at the southeast corner of Store M, and about 5 feet therefrom.

The seventh was located at the northeast corner of Store M, and about 5 feet therefrom.

The eighth was located about 15 feet from the driveway, and about 70 feet from the northeast corner of Store M.

The ninth was located about 15 feet from the driveway, and about 70 feet north of the northeast corner of Store I.

The tenth was located southeast of the corner of Store F, and about 5 feet therefrom.

The eleventh was located northeast of the corner of Store F, and about 5 feet therefrom.

The twelfth was located 15 feet from the driveway and about 70 feet north of the northwest corner of Store F.

The thirteenth was located northeast of the corner of Store A, and about 20 feet therefrom.

The fourteenth was located at the northwest corner of Store 3, and about five feet therefrom.

The fifteenth was located west of the southwest corner of Store 3, and about 55 feet therefrom.

The sixteenth was located in the open space north of the Grain Transfer Elevator and about 40 feet from the north wall thereof.

The seventeenth was located near the north wall of the Boiler House of the Grain Transfer Elevator, and about 3 feet therefrom.

The eighteenth was located southwest of Warehouse BB, and about 90 feet therefrom.

The nineteenth was located near the southwest corner of Warehouse AA, and about 15 feet therefrom.

(*c*) *Fire Hose and Hose Carts.*

There were 3,600 feet of 2½-inch standard fire hose on ten hose carts located as follows:

2 at the easterly end of Store M, each carrying 400 feet of the said standard hose.

1 at the northerly end of Pier 6, carrying 300 feet of the said hose.

2 at the easterly end of Store F, each carrying 400 feet of the said hose.

1 at the north end of covered Pier 5, carrying 300 feet of the said hose.

2 at the easterly end of Store 3, each carrying 400 feet of the said hose.

2 at the steam pump located near Warehouse BB, each carrying about 300 feet of the said hose.

The said hose carts were equipped with nozzles, with spanner wrenches and with hydrant wrenches. Each set of hose was equipped with the standard couplings used by the Jersey City Fire Department.

On the roof of the block of Warehouses N to R inclusive, there was 100 feet of standard hose equipped with nozzles, wrenches and couplings similar to the hose carried on the said hose carts; there were also 100 feet of hose with similar equipment on the roof of the block of Warehouses G to M inclusive; there were also 100 feet of hose similarly equipped on the block of Warehouses A to P.

On Pier 6 there were 200 feet of said standard hose equipped with three nozzles, with spanners and with couplings.

On Pier 5 there were 200 feet of said standard hose, similarly equipped.

On Pier 4 there were 1,100 feet of said standard hose, also similarly equipped.

In Store 3 there were 100 feet of said standard hose, similarly equipped.

In the building known as the Grain Transfer Elevator, there were 550 feet of said standard hose, with similar equipment.

There was also a 100-gallon two-wheel chemical engine located east of Store F and at the northerly end of Pier 5, equipped with 100 feet of hose.

In Storehouse AA there were 400 feet of 2½-inch hose, equipped with nozzles, spanners and couplings; in Storehouse BB there were 500 feet of 2½-inch hose similarly equipped.

On the ground floor of each store from A to R inclusive was located one 3-gallon Child's fire extinguisher. On Pier 4, five of the said fire extinguishers were located. In the building known as the Grain Transfer Elevator, seven of the said fire extinguishers were located, and in the building known as the New Grain Elevator there were five 1-quart Pyrene fire extinguishers. Four of the said Child's fire extinguishers were located in Storehouse AA, and seven of the said extinguishers in Storehouse BB. Two of the said extinguishers were located in the pump room at the westerly side of Warehouse BB.

(d) Water Barrels.

On Pier 6 there were four 50-gallon water barrels filled with water, and eighteen 3-gallon

iron pails, all filled with water; one ladder 38 feet long; and one ladder 30 *feet* long.

On Pier 5 there were four 50-gallon barrels and nine 3-gallon iron pails, all filled with water; one ladder 38 feet long; and one ladder 30 feet long.

On the ground floor of Warehouse R there were two 50-gallon barrels and five 3-gallon iron pails, all filled with water.

On each warehouse known as N, O, P and Q respectively there were two 3-inch water pipes, one being at the front and the other at the rear, and extending from the ground to the roof, each pipe being equipped with two 2½-inch hose connections. In each of said warehouses there were twelve 50-gallon water barrels and thirty-six 3-gallon iron pails, all filled with water. The block consisting of these warehouses was equipped with four metropolitan fire ladders, two at the front and two at the rear, extending from the ground to the roof and with platforms connected with each floor.

In the block of warehouses consisting of Stores known as G, H, I, K, L and M there were ten 50-gallon water barrels and thirty 3-gallon iron pails, all filled with water, in each store. In said block there were six metropolitan fire ladders, three at the front and three at the rear, extending from the ground to the roof and with platforms connecting with each floor of each of the said stores. There were also twelve 3-inch water pipes, six in the front and six in the rear, extending from the ground to the roof, with 2½-inch hose connections.

In the block of warehouses consisting of Stores known as A, B, C. D, E and F there were ten 50-gallon water barrels and twenty3-gallon iron pails, all filled with water, in each store. There

were also six metropolitan fire ladders of the same construction and relative location as set forth above in block consisting of Store G to M. There were also twelve water pipes of the same construction and relative location as described in the block consisting of Stores G to M.

In the building known as Store 3 there were three 50-gallon water barrels and six 3-gallon iron pails, all filled with water; one ladder 27 feet long; one ladder 22 feet long; and one hook pole 21 feet long.

In the building located on Pier 4 there were twenty-four 50-gallon water barrels and seventy-six 3-gallon iron pails, all filled with water; one ladder 30 feet long; and two ladders, each 27 feet long.

In the building known as the Grain Transfer Elevator there were thirteen 50-gallon water barrels and fifty-two 3-gallon iron pails, all filled with water; thirty-one hand fire grenades; an open sprinkler system consisting of a 4-inch water pipe running the entire length of the roof and with sprinklers at regular intervals, and connected at each end by water pipes with the 6-inch water line system hereinafter described. There were also fire escapes at each end of the building with a platform landing at each floor.

In the warehouse known as BB there were fourteen 50-gallon water barrels and fifty-four 3-gallon iron pails, all filled with water.

In the warehouse known as AA there were eight 50-gallon water barrels, and thirty 3-gallon iron pails, all filled with water.

(*e*) *Fire Alarms.*

There was also an electric fire alarm, with 18 stations, connected with the Railroad Office at Pier 4 and with the two steam pump stations hereinbefore referred to; also two fire alarm stations, Nos. 671 and 672, connected with the Jersey City fire department. There was also a watchman's electric time detector with 11 stations connected with the Railroad Office and Stores A to R, inclusive, with a separate similar detector with several stations connected with Warehouses AA and BB.

(*f*) *Water Mains and Water Supply.*

The said premises were supplied by the following mains:

A 12-inch main connected with the Jersey City water supply at the pump house at the westerly end of the premises. The said 12-inch main extended from the point mentioned along the southerly line of the driveway north of the said stores to the 100,000-gallon water tank located east of Store R. A 10-inch main connected with the said 12-inch main at a point northwest of Store No. 3, about 70 feet therefrom. The said 10-inch main parallels the 12-inch main to a point about 50 feet from the said 100,000-gallon steel tank, whence it takes a southerly direction and is connected directly with electric pump located east of Store R, as hereinbefore described.

A 6-inch main connected with a 6-inch main of the Jersey City water supply at a point northwest of Store AA, and about 175 feet therefrom. The said main extends in a southerly direction to the southerly side of the said premises, and extends from thence in an easterly

direction, paralleling the said 10 and 12-inch mains, to a point directly north of the electric pump located east of Store R; thence in a southerly direction to the said pump. The said main is connected with the said pump and with the 100,000-gallon tank hereinbefore described.

A 6-inch salt water main began at the pump house at the westerly end of the said premises, running south therefrom to a point near the southerly line of the premises; thence in an easterly direction paralleling the 6-inch, 10-inch and 12-inch mains to a point directly north of the pump house east of Store R. The said 6-inch salt water main connected with the steam pump located east of Store F.

(*g*) *Gravity Tanks.*

(1.) A 100,000-gallon tank was located on an 80-foot steel tower east of the easterly end of Store R, and about 75 feet therefrom.

(2.) A 50,000-gallon steel gravity tank was located on the top of Store P.

(3.) A 50,000-gallon steel gravity tank was located on top of Store E.

(*h*) *American District Telegraph Co.*

This was connected with the sprinkler system in the warehouses and is referred to by the watchmen as the means by which the fire alarm was first transmitted to the Jersey City fire department. It is a most elaborate system of protection of the warehouses, but the details of same are not indicated on the map.

The foregoing evidence shows that the cars containing these explosives were removed as far as practicable from all danger of fire, and that every reasonable means had been taken by the

defendant to guard against fire. Pending the transfer of the contents of these cars to vessels —a matter with which the defendant had nothing whatever to do—the cars were placed in a "dead" yard, and in that part of the yard which was furthest removed from the probability of invasion by trespassers or other unauthorized persons. The yard itself was as far removed as practicable from the inhabited section of Jersey City. Ample water pipes were laid throughout the yard, except at the easterly end thereof, and that part of the yard could readily be reached by the hose which the company had located at convenient points. In addition to the water supply furnished by the city the defendant had constructed its own pipe line and furnished two tanks, one with a capacity of 100,000 gallons, the other with a capacity of 50,000 gallons, and had supplied the necessary power by way of steam pumps, etc., to make use of this water in case of need. A complete sprinkling system had also been established in the storage warehouses and every means was furnished to send prompt notice of fire to the Fire Departments of Jersey City and of New York and to the defendant's officers. It is difficult to surmise what more could have been done short of an undertaking on the part of the defendant to actually insure against fire. Even assuming that there was any special duty resting upon the defendant to furnish its own fire fighting apparatus and water supply instead of relying entirely upon the water supply and Fire Department of the municipality wherein the yard was located, the proof comes very far from showing that there was any negligence on the part of the defendant or any of its employees with respect to guarding against "danger of fire."

Surely the defendant's legal duty in this respect was no more onerous than that of other railroad companies under substantially similar conditions. Even assuming that the Trial Judge was right in his charge that it was the duty of the defendant "to use a degree of care commensurate with the risk" (p. 461, l. 25), that is nothing more nor less than a statement that such care must be used as is "reasonable" under the circumstances. See *Blumenfeld* v. *Hudson & Manhattan R. R. Co.,* 89 N. J. L. 580, wherein this Court said:

> "Reasonable care is the proper description and designation of the duty that is imposed by law under certain conditions; it covers the entire range of such duty."

How, then, shall we determine whether this defendant exercised the reasonable care that was incumbent upon it under the circumstances of this case? We submit that so far as relates to the matter of protection against fire, the test must be whether the defendant violated the customary practice in this respect. The defendant submitted a request to charge on this subject, which reads as follows:

> "7. The jury may not find a verdict against the defendant unless it finds that the defendant failed to adopt the customary methods for the care and custody of explosives in railroad terminal yards" (p. 481, ll. 20-25). This request was denied and exception taken.

Even if the defendant was not entitled to a direction of verdict in its favor on the ground that the plaintiff did not prove that the defendant had failed to adopt such customary methods, it was at least entitled to have this request charged, as it was a correct statement of the law applicable to this feature of the case.

As was said by this Court in the case of *Traphagen* v. *Erie R. R.*, 73 N. J. L. 759:

> "When there is a failure to prove any departure from the usage of other railroads, we think there is no proof which would justify a jury in finding the defendant negligent."

To the same effect see:

Feil v. *West Jersey R. R.*, 77 N. J. L. 502.

Halm v. *Hudson County*, 78 N. J. L. 712.

Kingsley v. *Delaware, etc. R. R.*, 81 N. J. L. 536.

Raub v. *Lehigh Valley R. R.*, 87 N. J. L. 603.

In the last named case, Parker, *J.*, speaking for this court, said:

> "The test in cases of this class is not whether a particular safeguard would have been better, but whether similar safeguards were practicable and useful and according to the ordinary usage of railroads" (p. 606).

With the above principles in mind, it is important to note that *there was no evidence on the part of the plaintiff that the precautions against fire did not conform to the customary method adopted by other railroad companies with respect to similar situations.*

The plaintiff having failed to submit any proof on this subject, the defendant was at least entitled to have the jury charged in accordance with its said Request No. 7. To permit the jury to base a verdict upon a supposed breach of section 1689, in the absence of any proof as to the customary method of guarding against fire under similar conditions, does violence to the principles set forth in the above decisions.

The other regulation to which the Trial Judge referred in the part of the charge now under con-

sideration is section 1683 (b). This appears under the general title, "Rules for handling," and reads as follows:

> "Unauthorized persons must not have access to explosives or other dangerous articles at any time while such articles are in the custody of the carrier" (p. 19 of Regulations, effective October 1, 1914).

In the case of section 1689, it is obvious that this regulation does not mean that the defendant *insures* against access to explosives by unauthorized persons. To quote from the charge:

> "It does not become liable absolutely and at all events; but it only becomes liable in case it neglects to use a degree of care commensurate with the risk" (p. 461, l. 20).

We have cited above the testimony showing the number of watchmen employed by the company and the precautions taken to insure their fidelity by requiring them to punch the time clock every hour. The night foreman, Kane, said that *sometimes* boatmen would come off their boats and take a walk or sit down; he gave instructions to his watchmen to "chase" persons who were loafing around the piers and put them off the dock onto their boats (p. 75, l. 20, to p. 76, l. 10). The watchmen employed by Dougherty's Detective Agency were also on the lookout for trespassers—indeed the witness Garrity, one of the Lehigh Valley watchmen, said that Dougherty's men challenged him when he attempted to go out on the pier where they were on duty and refused to let him go there (p. 260, l. 20).

Sometimes when steamers were loading—especially in the spring of the year—drunken sailors would come along the road by the National Store buildings (p. 270, ll. 1 to 20); but there is no evidence that there were any drunken sailors in the yard on the night of July 30th,

1916. They came from the "sugar steamers or sailing ships" in the spring (p. 270, l. 25, to p. 271, l. 15). When they did come they would be in the vicinity of Piers 5 and 6—both of which are several hundred feet west of that part of the yard where the cars containing the explosives were placed. Hence, even if the section of the regulations now in question required the defendant to insure that unauthorized persons should not have access to explosives while in its custody, there is no evidence whatever to show a violation of this regulation—*a fortiori* was there no justification to leave the question of the violation of this regulation to the jury, if it be construed to require the defendant not to insure against access of unauthorized persons, but merely to exercise reasonable care so to do.

VI.

It was error to treat the words "Keep Fire Away" contained on the warning placard as if they constituted a regulation.

As we have shown under Point V the Trial Judge permitted the jury to take into consideration certain regulations of the Interstate Commerce Commission, as bearing upon the question of whether the defendant was negligent. We have shown under Point V that there was no evidence that such regulations or any of them had been violated. But there is one of the so-called regulations to which special attention should be directed, as we think it does not come within the class of "regulations"; and hence even if the Trial Judge was correct in permitting the jury to consider other of the regulations, we submit that it was error for him to include this *warning*

as one of the regulations which the jury would have the right to consider.

The Trial Judge referred to a certain placard required to be put on cars containing explosives which he said might be taken as an indication of the meaning that the Commission attached to its regulation. This placard had printed thereon this legend in red ink: "Keep fire away" (p. 460, ll. 25-35), and was posted on the cars in question.

A description of this placard and an exact copy thereof is included in defendant's answer to plaintiff's additional interrogatory No. 4 (pp. 341, 2). This answer is taken from section 1666 of the regulations (p. 27).

It should first be noted that if we assume this to be a "regulation," it does not operate to require a carrier to *insure* against fire. The most that could be required is that the carrier exercise reasonable care—or "care commensurate with the risk"—to keep fire away. We have argued under Point V that there was no evidence of the fact of a violation of this regulation, as thus construed. But whether or not we are right in such argument, we submit that it was error to permit the jury to take the legend on this placard into consideration as if it amounted to a *regulation.* It is obvious that this legend on the placard was nothing more nor less than warning to employees that the car on which the placard was placed contained explosives (as indicated by the word "Explosives" in large red letters at the top of the placard). But to say that this warning amounted to a regulation by virtue of which a carrier would be bound to "keep fire away" at all hazards, under penalty of being mulcted in damages in the event that

it did not keep fire away, is to transform a danger sign into a positive prohibition.

That this legend on the placard was never intended by the Commission to be a regulation is further shown by the fact that on this very same placard there appear what are called on the placard "Condensed rules for handling this car" (p. 342); then follow nine paragraphs of directions as to the placing and handling of cars containing explosives; but the direction "Keep fire away" does not appear on the placard as one of these rules. It is printed in red and the letters are of a size corresponding to the word "Explosives" (see Sec. 1666, at p. 27 of Regulations).

If it be said that this statement on the placard was practically equivalent to that part of section 1689 of the Regulations which directed that cars containing explosives should be removed from all danger of fire, and that therefore the remarks of the Trial Judge in his charge wherein the placard is referred to did not prejudice the defendant, the answer is that this placard was offered in evidence and was before the jury at the time they were considering their verdict; it is a large card and the words under consideration are printed in large capitals of a fiery red color. With such a card before them the jury might well be impressed with the idea that the defendant was liable, merely because it failed to "keep fire away" from the explosives; especially might the jury so conclude in view of the statement of the Trial Judge that the placard might be taken "as an indication of the meaning that the Commission attached to its Regulation." Of course we do not mean to say that the defendant in the present case, or in any other like case, might not be held responsible

if a jury should find that it failed to exercise reasonable care with respect to fire or any other dangers to which explosives might be subject, but that is very different from saying that the defendant might be held liable for a violation of a regulation of the Interstate Commerce Commission when in fact the regulation which it is supposed to have violated is not included as a regulation, but is merely an additional warning of the danger of fire.

If it be urged that this regulation was a proper matter for the jury, in view of Kelly's testimony that the fire was burning from five to fifteen minutes before the shells began to pop, the answer is, first, that there was no obligation on the defendant's servants to risk their lives under such circumstances (as to which see Point IX); and secondly, that this supposed regulation obviously would not apply to a case of a failure to put a fire out after it had started. The obvious purpose of this warning was that the defendant's employees, so far as was practicable, should keep fire away from these cars, such as lighted lanterns or cigarettes, and it obviously does not apply to a case where a fire has been started by some third party and is burning in the vicinity of the car or cars containing the explosives.

VII.

Assuming that there was any evidence of a violation of any one or more of the Federal regulations, the plaintiff was nevertheless not entitled to a verdict, in the absence of proof that such alleged violation was the proximate cause of the explosion whereby the plaintiff was damaged.

The mere fact that the defendant may have violated some one or more of the regulations would not of itself entitle the plaintiff to a verdict. It must further appear that such violation was the proximate cause of the damage of which the plaintiff complains. The Trial Judge recognized this well settled rule in his charge to the jury, wherein he said:

> "Therefore the law has provided that the burden rests upon the plaintiff to make out by the greater weight of the evidence that the defendant company has failed in some duty which the plaintiff alleges in its written complaint, by the facts alleged, that the defendant owed, and that the neglect to perform that duty, or the omission to perform that duty was the proximate cause of the injury of which the plaintiff in the case complains and for which he seeks to recover damages" (p. 461, ll. 25 to 35).

He repeated the substance of the charge on this point (p. 462, ll. 10 to 20).

In this respect the charge was undoubtedly correct, as the mere fact that one or more of the regulations may have been violated would not render the defendant liable, unless there was a *causal* connection between such violation and the damage sustained by the plaintiff. *Lindsay* v. *Cecchi,* 80 Atl. 523.

The question therefore is whether there was sufficient proof to go to the jury on whether

any such alleged violations were the proximate cause of the explosion.

In the argument on the motion for non-suit the Trial Judge in referring to the placard to which atention has been called under Point VI expressed his view that the statement therein "Handle Carefully" should be construed to be applicable to the placing of the cars containing explosives in the yard, or "the manner of their adjustment to each other." He said in this connection:

> "The explosives in the cars are handled, I think, within the clear meaning of that language when the cars in which they are contained are handled and located and placed in the yards, with respect to each other."

However, in the charge he did not specifically refer to the part of the placard which contains the direction, "Handle Carefully," but to another part of the placard, together with sections 1689 and 1863 (b).

We submit that there can be no serious claim that the provisions relative to the handling of the cars as found in section 1689 of the regulations, to the effect that the cars must be coupled carefully and unnecessary shocks avoided, and that they must be subject to as little handling as possible, &c., had any *causa* connection with the fire or the explosion. All of the cars were stationary at the time of the fire and explosion, and there is no suggestion that the location of the several cars in the yard was in any way improper or in violation of any of the regulations in question, or any other regulations of the Interstate Commerce Commission.

But it will be urged that other provisions of the regulations were violated by reason of the

failure to remove the cars containing the explosives "from all danger of fire," or by reason of the failure to "keep fire away" as directed in the placard, or by reason of permitting unauthorized persons to have access to the explosives while they were in the custody of the defendant, and that such violations, or one or more of them, were the cause of the fire and the subsequent explosion.

We have shown under Point V that so far as relates to section 1643 (b) there was no evidence to prove that this fire occurred by reason of the "access" of any unauthorized persons; still less is there any proof to show that there was any negligence on the part of the company with respect to the precautions taken by it to keep trespassers from the yard. There is no proof whatever that on the night of this fire there was *any* person in the yard who was not authorized to be there. All of the five watchmen were on duty, and four of them were summoned as witnesses, and not one of them testified that at any time that night was there any trespasser found within the limits of the yard. There were some general statements to the effect that at times the watchmen chased sailors back to their boats, but there is no evidence that there were any such persons in the yard on the night of this explosion. So far as the record shows, the first man to discover the fire was one of the watchmen employed by the Dougherty Detective Agency (p. 83, l. 25; p. 90, l. 20; p. 274, l. 20). When the fire was first reported to the defendant's watchmen it looked as if it were a burning barrel (p. 84, l. 35; p. 273, ll. 1 to 10); the blaze was apparently four or five feet high and about two feet wide (p. 312, ll. 20 to 25). There is no evidence as to who or what started the fire—in-

deed there is grave doubt from the evidence that was produced as to whether the fire started on the defendant's premises at all. Kane says that the first he knew of the fire was when he heard "one of the Dougherty men blow a police whistle" and he then ran to the pump room and met one of the other watchmen, Sloan, and he looked in front of Store G in the direction of Pier 7 (that is the pier at the easterly end of the yard, as will appear by reference to the map); he saw something that looked like a barrel on fire. When asked where the fire was he said, "Down at the very end—as far as I could see it was at the extreme end of the yard" (p. 85, l. 10). He was then asked to state where it was with reference to the cars containing ammunition, and he said that it was in that direction, but he could not tell whether it was the cars at that time or not. He was then asked by the Court whether it appeared to be on the ground or on the cars, and he replied: "I couldn't say whether it was on a boat or on a car or on the dock or where" (p. 87, ll. 1 to 25). When asked to point out more specifically in what part of the yard or on what track it was that he saw the fire first he said that he could not tell, but he finally said it was "Over around 18" (p. 89, ll. 1 to 10). According to the map, track 18 is the most northerly of the tracks in the yard and leads out onto the "North Pier."

Watchman Garrity was seriously injured in the accident so that, as he put it, his mind and memory were "gone" (p. 266, ll. 1 to 10). However, taking his testimony for what it may be worth under such circumstances, we find that he said when he first heard of the fire he was out on his beat walking towards the end of the pier (p. 258, ll. 1 to 30). One of the women on a canal boat hollered fire and he went down and

saw "a little glare"; he did not at that time see any blaze. He then said: "Q Where was it that you saw this glare? A I think it was on a boat. Q You think so? A It seemed to me so" (p. 259, ll. 10 to 25). He said that the explosion came from the direction of Liberty Island, and then testified: "Q Just before the explosion was there any fire there? A It looked a little glare, not much, didn't look—there must be something; it was down the way, I couldn't see it; it must have been on the boat. Q You thought it was? A You think it must be, because it seemed to be low down— Q Did you see anything burning? A No, sir; I only seen the little glare. Q You saw a little glare? A Seen a little glare in the sky, but I could not see anything burning, nor I didn't smell anything. Q Well, now, just before the explosion happened was the glare any larger than it was in the beginning? A I could not say that it was; it was not; not to my knowledge, it was not; but I didn't go down after Dougherty's men sent me up. I could have seen more if he let me down, but he didn't" (p. 264, ll. 5 to 25).

Watchman Sloan says that he heard some one shout on the road near the National Storage buildings, and he walked towards the pump room, when two men ran into him and said "The North Pier is afire" (p. 270, ll. 1 to 20). He then said that he thought these men might be giving him a "steer" so he ran over and looked. (p. 272, l. 18). "Q Then did you see a fire? A I looked down between the cars and I seen a very small blaze and it seemed to be very distant to me; it looked to me like it was on Liberty Island" (p. 272, ll. 30 to 40). He said he could see the fire in between two lines of cars as sort of a lane (p. 273, ll. 30 to 40), and in that

space he saw this blaze "very distant" (p. 274, l. 15). After that he was busy sending in the alarm and attending to the telephone and saw nothing more of the fire except the "red sky" (p. 277, ll. 1 to 10). Sometime after that he noticed that a couple of box cars were burning and that the fire was coming towards him from the direction of the North Pier (p. 278, ll. 1 to 20; p. 279, ll. 35 to 40).

Watchman Kelly was informed of the fire by Sloan and later saw that there was a fire at the North Pier (p. 312, l. 30). The fire seemed to be out in between two strings of cars (p. 313, ll. 30 to 40). Afterwards several cars were burning (p. 314, l. 20). On cross examination he said that when he first looked the fire seemed to be on "the extreme end of the North Pier," but that he could not say whether it was on the pier or on a boat; "it was right straight down from where I was looking" (p. 317, ll. 10 to 20).

The foregoing is all the evidence as to the place where the fire started, and it comes very far from proving that it started on the defendant's premises. Of course if it started on a boat the defendant could not possibly be held responsible, in the absence of any proof that it owned or controlled the boat. If the fire did not start on the defendant's premises it surely could not be said that it violated any obligation to keep fire away (unless it can be said to have been a violation of that regulation to have failed to put the fire out after it had started); hence we submit that the proof was insufficient to show that any of the supposed violations of the regulations was the proximate cause of the starting of the fire.

VIII.

There was no evidence to show that the plaintiff was damaged by the explosion of explosives which were under the defendant's control.

The evidence shows that there were two separate explosions; it also shows that the damage to the glass of which the plaintiff complains was caused by the first explosion. But it did not appear that the first explosion was on the defendant's premises. The evidence of the witnesses who described the location of the fire when it first started makes it very uncertain as to whether the fire, when it *started,* was on the defendant's premises or on some vessel near the North Pier. We have summarized this evidence under Point VII and by reference to same it will appear that Kane could not say whether the fire was on a boat, or on a car, or on the dock; Garrity said this "glare" of the fire when he first saw it was on a boat; Sloan thought that the fire was on Liberty Island; Kelly thought it was at the extreme end of the North Pier, but could not say whether it was on the pier or on a boat.

The plaintiff alleged in its complaint that the defendant used its premises and the waters adjacent to the piers for the tying up of boats, lighters and ships, which carried large quantities of explosives. The answer denied this allegation, except that it said it permitted the use of a certain part of the premises known as the North Pier for the tying up of certain tugs and other vessels, but only while they were being loaded; and that at the time of the explosion there were two barges at said pier, partly loaded, one with shrapnel and the other with

trinitrotoluol (p. 45, ll. 10 to 25). The answers to interrogatories show that these two barges were known as "The Frank" of the Johnson Lighterage Co., and the other was known as "Moran Barge No. 64." On the former, according to the billing, there were loaded 288,375 pounds of trinitrotoluol; on the latter there were 944,844 pounds of combination fuzes and ammunition for cannon (pp. 348, 349).

There is no evidence that the defendant exercised any supervision, direction or control over either of these barges or their contents. Its duty as a common carrier was performed after the explosives had been delivered to these barges, and when such delivery had been made the defendant had nothing further to do with the explosives.

In view of the evidence which tends to show that the fire started at some point *off* of the defendant's premises, it is at least equally probable that the first explosion occurred on a vessel as that it occurred in one of the cars located in the yard. It is true that there is some evidence which indicates that the first explosion, so far as the appearance thereof is concerned, was on the defendant's premises (p. 35, l. 25); but it also appears that when the fire was communicated to the freight cars there was considerable smoke, which prevented the witnesses who were standing to the west of the yard from seeing what was on the other side. The "flare" seemed to come from where the fire was burning, but no witness could tell how *far back of the fire* the explosion occurred (p. 317, ll. 20 to 35). If the first explosion was among the explosives that had been loaded on the two barges, there is no evidence connecting the de-

fendant therewith, or showing any liability on the part of the defendant therefor.

Even if there was evidence from which the jury would be justified in inferring that the first explosion was on the defendant's premises, it does not follow that the defendant would be liable by reason thereof—particularly if the fire did not start on the defendant's premises. The very meagre and unsatisfactory evidence as to the starting of the fire, so far as it shows anything, indicates that the fire did not start on the defendant's premises, but on one of the barges which were loaded with explosives. It might well be that this fire communicated to the contents of one or both of these barges and that when minor explosions occurred in the ammunition that these caused projectiles to be thrown from the barges into and against the cars on the defendant's premises, and that this in turn caused the explosion by which the plaintiff was damaged. Hence under this evidence we submit that the proof failed to show either that the original fire or that the first explosion occurred among the explosives that were under the defendant's direction and control.

In this connection attention may be called to the error on the part of the Trial Judge in admitting in evidence the defendant's original answer (Exhibit P. 3). According to counsel for the plaintiff, this answer was offered in evidence because of certain admissions which it was supposed to contain and he referred particularly to paragraphs 7 and 10 of the First Defense to the First Count; part of paragraph 2 of the Third Defense to the First Count; and paragraph 17 of the First Defense to the Second Count (p. 323, ll. 10 to 30).

Paragraph 10 of the First Defense to the First Count corresponds to paragraph 17 of the First Defense to the Second Count. They read as follows:

> "It admits that on July 30, 1916, a fire occurred on premises possessed by defendant on or in the immediate vicinity of said "Black Tom' pier, and by means thereof certain explosives and munitions became and were ignited and exploded, causing severe shocks and violent concussion of the air, which broke, damage and destroyed certain glass doors and windows," etc. (p. 35, ll. 35 to 40; p. 39, ll. 18 to 30).

In the *amended* answer the defendant admitted that a fire occurred on the land and premises known as the Black Tom yard but then it said:

> "It has no knowledge nor information sufficient to form a belief as to whether, by means of said fire, the said explosives or munitions, or any of them, became and were ignited and exploded; it admits that certain explosives and munitions exploded on said date, thereby causing severe shocks and violent concussions of the air, but it has no knowledge or information sufficient to form a belief as to whether the said severe shocks and concussions, or any of them, broke or damaged or destroyed the glass doors and windows," etc. (p. 45, l. 30; p. 46, l. 10).

The corresponding paragraph (No. 17) in the amended answer admitted that a fire occurred, but denied that there was any negligence on its part in failing to perform its several alleged duties, and denied that by reason of such negligence it suffered a part of said explosives, etc., to become ignited; the answer then said that the defendant had no knowledge nor information sufficient to form a belief as to whether, by means of said fire, said explosives or munitions, or any of them, became and were ignited and exploded;

it also alleged that it had no knowledge nor information sufficient to form a belief as to whether the said fire and detonation of said explosives was communicated to other masses and quantities of explosives on the piers in said yard, or on any vessels adjacent thereot, nor whether the said explosives, or any of them, likewise exploded with great force and violence, etc. (p. 50, ll. 10 to 30).

The difference between the original answer and the amended answer is important, in view of the evidence which showed that there were two entirely separate and distinct explosions, and in view of the claim of the defendant that the evidence was insufficient to show that the explosion which damaged the plaintiff was that of explosives which were under its direction and control. It is conceded that so far as concerns any explosives that admittedly were on the vessels which adjoined the defendant's pier, no responsibility could be charged against the defendant by reason of any explosion from that source, even if the defendant's contention that the proof was sufficient to show that the explosion that damaged the plaintiff came from explosives on its premises, that question was at least one of fact for the jury; and the Trial Judge so charged, saying:

> "Where a portion of the explosive was in a car and a portion in a lighter and the point of the initial explosion and consequent damage is not shown, the burden rests upon the plaintiff to show that an explosion due to the fault of the defendant—and by 'fault' I mean the neglect of the defendant to use a degree of care commensurate with the risk in transporting these combustibles or explosives in the light of the rules which I have read to you from the Interstate Commerce Commission—I say where the ex-

plosion resulted from that kind of fault on the part of the defendant and the explosion is also shown by the greater weight of the evidence to have been the proximate cause of the injury complained of by the plaintiff, then the plaintiff may have a verdict against the defendant'' (p. 462, ll. 1 to 20).

He also charged, as requested by the defendant that:

''The undisputed proofs show that there were larger quantities of explosives on the dock adjacent to defendant's property. There is no proof that such explosives were owned by the defendant or were under its custody or control. If those explosives exploded and caused the damage of which the plaintiff complains the defendant is not legally responsible'' (p. 463, ll. 23 to 30).

And again:

''The proofs show that there were two explosions on the 30th of July, 1916, at or near Black Tom. There is no proof under which the defendant could legally be held responsible for both of said explosions. Even if the jury should reach the conclusion that the defendant is legally responsible for one of said explosions the jury may not find a verdict against the defendant, unless it finds that the explosion for which the defendant it legally responsible is the one which caused the damage of which the plaintiff complains'' (p. 465, l. 30, to p. 466, l. 2).

It therefore became very important for the jury to decide whether the first explosion was on the defendant's premises—in which event the defendant might be held liable—or whether it occurred on some vessel—which was not under the defendant's control and for which the defendant would not be responsible.

From the admissions in the original answer it might be inferred that the defendant conceded that the fire was the direct cause of the explosion on the defendant's premises, and that thereby the plaintiff was damaged, whereas, in fact, there was evidence from which the jury might have been justified in finding either that the original explosion by which the plaintiff was damaged was not on the defendant's premises at all, or if it was on the defendant's premises, that it resulted from the force communicated to the explosives on defendant's premises by the explosion of other explosives which were on one or more of the vessels. The admission of this original answer in evidence was therefore clearly prejudicial to the defendant; and we submit that such admission was legal error.

The admission was attempted to be justified on the theory of certain cases to which the Trial Judge referred (p. 324, ll. 20 to 40). So far as these are cases of *sworn* answers they are not in point, as there is an obvious difference between an answer which has been sworn to, as required in some cases under the equity practice, and an unsworn answer such as the one in question was. The distinction is pointed out in the case of *Maine Development Co.* v. *Northwestern Comm. Co.*, 240 Fed. 583, at page 588, where the Circuit Court of Appeals for the ninth circuit said:

> "While a bill or answer in equity, or a pleading in an action at law, sworn to by a party, is competent evidence against him in another suit as a solemn admission by him of the truth of the facts stated, it is clear that such a pleading, not under oath, nor signed by the party, is not evidence of any fact material to the parties to the cause." Citing Pope *v.* Allis, 115 U. S. 263, 370; 29 L. E. D. 393; Delaware Co. *v.* Diebold Safe Co., 133 U. S. 473, 483; 339 L. E. D. 674.

The rule on the subject is summarized as follows, in 16 Cyc. 971:

> "Although a pleading which has been withdrawn or superseded by amendment is out of the case in its capacity as pleading and the pleader is no longer concluded by it, relevant statements therein may still be competent as extrajudicial admissions. To be so used, the superseded pleading must be introduced in evidence, must be shown to have been originally made as a statement of fact, and connected directly with the party himself, as having been made or authorized and inspired by him. It is not sufficient that the attorney signed and filed the original pleadings. Indeed in many instances the very necessity for amendment arises because counsel has failed to apprehend the facts correctly. Therefore in some of the states where an original has been superseded by an amended pleading, or has been withdrawn, the allegations of the former pleading, *in the absence of special circumstances,* such as payment of money into court *or verification by oath,* are not admissible as evidence even in the same action; and where a pleading is not abandoned voluntarily but because the party is required to elect, or the pleading is stricken out by order of court, the statements contained in it are not admissions."

To the same effect see Vol. 2, Wigmore on Evidence, Section 1064.

We therefore submit that there was no evidence to show that the explosives by which the plaintiff was damaged were under the defendant's control; but in any event, if that matter was one of fact for the jury, it was material error to admit in evidence the original answer filed by the defendant.

IX.

There was no evidence that the fire on the defendant's premises was caused by any negligence properly attributable to the defendant; assuming, but not admitting, that there was evidence that the said fire caused the explosion which damaged the plaintiff, the proofs demonstrated that a condition of emergency existed, and there was no evidence to show that under the conditions there was any negligence properly attributable to the defendant in respect of its conduct after the fire was discovered.

Under Point "V" we have cited the evidence showing the circumstances under which the fire started, and we have attempted to demonstrate that there was no proof that the fire *started* by reason of any negligence on the part of the defendant or any of defendant's servants. We have also attempted to show, under Point "VIII," that there was no evidence that the said fire caused the explosion whereby the plaintiff was damaged. But if we assume for the purpose of the argument that there was evidence from which the jury might have inferred that the fire which was observed by the defendant's watchmen did cause the explosion whereby the plaintiff was damaged, we still submit that there was no proof to show any negligence on the part of the defendant's servants in failing to extinguish the fire it had started.

The Trial Judge permitted the jury to find the defendant liable by reason of negligence on the part of certain of the defendant's servants in failing to extinguish the fire (p. 468, ll. 10 to 15; p. 469, ll. 1 to 15). The verdict was a general one, hence it is impossible to say whether the jury based their conclusion upon the theory that

there was some negligence on the part of the defendant or defendant's servants, whereby the fire was started, or upon the theory that there was some negligence on the part of the defendant or defendant's servants in failing to extinguish the fire after it had started. It should first be observed that the plaintiff failed to produce any proof of negligence on the part of the defendant or its servants by reason of any failure to send prompt notice of the fire to the Fire Department of Jersey City. The fire was discovered between 12.15 and 12.45 a. m. (p. 84, ll. 30 to 40; p. 275, ll. 20 to 25; p. 348, l. 5). The Fire Department received the alarm at 12.45 a. m. (p. 179, l. 15). There was no question of fact for the jury in this respect and the point was not left to them in the charge.

But the point that was left to the jury was whether there was negligence on the part of defendant's servants in failing to approach the fire and put it out after it had been discovered. The present point is limited to a discussion of this alleged negligence.

It was urged that the jury would have been justified in finding negligence on the part of one of defendant's employees in failing to extinguish the fire within a few minutes after it had started and while it was still comparatively innocuous.

In considering this question we must remember that the circumstances were most unusual and extraordinary. On this subject the Trial Judge charged as follows:

> "Now there was some argument in the case about the question of so-called emergencies and sudden matters presented to servants upon which they were required to act upon the instant. The law provides that the rule is well settled that where the sole basis of liability is the omission to per-

form a certain duty suddenly and unexpectedly arising there ought to be at least a consciousness of the facts which raise the duty on the part of the person who is charged with its performance and a reasonable opportunity to discharge it. That I think states the rule perfectly clearly. Another authority lays down the rule: 'The rule is well established that when one is required to act suddenly and in the face of imminent danger, he is not required to exercise the same care as if he had time for deliberation and the full exercise of his judgment and reasoning faclulties.'

"And another case in our own highest court lays down the rule in these words:

" 'If one is placed in the face of grave and apparent peril between two hazards and he makes such a choice as a person of ordinary prudence placed in such a position might make, the fact that if he had chosen the other hazard no damage would have resulted is of no importance.'

"Where a man is called upon to act suddenly why manifestly the suddenness and his own state of mind due to all the surrounding facts within his observation and knowledge must be always taken into consideration by a jury in determining whether when he acted his action was a negligent act or one free from negligence" (p. 467, l. 17, to p. 468, l. 14).

" * * * And so when you are called upon to act in extinguishing a fire, the question is whether a man of ordinary courage and prudence and diligence would go away from the situation because of what he thought would imperil him if he approached it, or whether he would approach it and endeavor to extinguish the fire and thereby not only avoid the peril himself, but avoid the very accident which would occasion the injury. The question is in each case whether in the light of the facts that were known to him and confronted him he acted as a reasonably

> prudent and cautious man would have acted under the circumstances. If he did, he was not negligent. If he did not, he was'' (p. 468, l. 36, to p. 469, l. 13).

We have no fault to find with this statement of the law—it agrees with what was said by this Court in *Hummer* v. *Lehigh Valley R. R. Co.* in 75 N. J. L. 703, at p. 713:

> ''The Court of Appeals of New York, in a well rendered opinion, said that railroads are not liable for a mistaken exercise of judgment on the part of their employes in an emergency, or for a failure to act with the utmost promptitude and in the right direction when circumstances are such as to afford no time for deliberation. Where an employe of a railroad company is confronted with a sudden emergency, the failure on his part to exercise the best judgment the case renders possible, does not establish lack of care or skill upon his part which renders the company liable. It is not responsible in such circumstances, even for his error of judgment. Lewis *v.* Long Island Railroad Co., 162 N. Y. 52 (at p. 62).''

Under the charge of the Trial Judge the jury were permitted to find negligence by reason of the act of the defendant's employee in failing to attempt to extinguish the fire. Whether or not the defendant may have been held liable by reason of the violation of some one or more of the regulations of the Interstate Commerce Commission, or by reason of some other negligence, we urge that it ought not to be held responsible for the act of its employee in failing to run headlong into imminent danger at a time of most extraordinary and unprecedented emergency. To permit the jury to find negligence on the part of this employee under such circumstances, we submit, was clearly erroneous.

The evidence is that the shells began to explode and shoot in all directions within a very few minutes after the fire was first discovered. The testimony on this subject is as follows:

Kane:

> "Q What did you do, if anything, to put the fire out that you first saw? A I could not do nothing. When I came out here the shells was popping and I wouldn't dare go near it" (p. 90, ll. 33-38).

When he first saw the fire he was standing in front of Store "G". This was about 750 feet from the westerly end of the yard proper and about 1,500 feet from the bulkhead of the North Pier.

Garrity was somewhat confused as to just where he was when his attention was first called to the fire. He finally said that he was walking towards the end of the pier and was "about middle way down" when the explosion occurred (p. 258, ll. 1-20). It is not clear just what he meant by this, but at any rate he afterwards said that when he first noticed the "glare" he was at least 1,500 feet from it but not as much as 2,000 feet (p. 259, ll. 20-40).

Sloan was at the pump room near Store "F" when he was first told of the fire (p. 272, ll. 10-40).

Kelly was in charge of the boilers at the grain transfer elevator and was in the elevator at the time he heard the whistle blow indicating that there was a fire, and he came out and went as far as the pump room where Sloan was (p. 312, ll. 10-30).

These were the first employees of the defendant to be informed of the fact that a fire had started. When they first saw it they did not at that time know with any certainty just where

the fire was. It appeared to be in the direction of the North Pier but they were not sure whether it was on one of the vessels lying adjacent to the pier or near one of the cars containing explosives.

Kelly further said that when he first observed the fire it was about 4 or 5 feet high and that it looked like a barrel (p. 312, ll. 20-30; p. 313, l. 20). When he first saw the fire there was no "shooting." He said that the shooting began ten or fifteen minutes thereafter (p. 319, ll. 10-20), but later he said that he was excited and that he was only guessing in attempting to fix the time, and that it might have been only five minutes after the time when he first observed the fire before he heard the noise of exploding ammunition (p. 322, ll. 20-30).

In the argument of the motion for non-suit the Trial Judge expressed the view that it was for the jury to say whether there was time to extinguish the first without great danger before the explosion occurred (p. 448, ll. 10-30). He therefore left it to the jury to determine whether there was negligence on the part of the defendant's servants in the emergency condition that existed. (See part of charge above quoted.) We do not concede that the failure of the defendant's employees to promptly extinguish the fire can be considered as a violation of the injunction in the regulation to "Keep fire away." But whether that be so or not, we further urge that the Trial Judge was not justified in submitting this question to the jury; he should have removed it from the jury's consideration entirely, in view of the undisputed evidence as to the extraordinary emergency that existed. We must remember that the defendant's employees who were on duty in the yard were aware of the fact

that there were many cars in the yard that contained explosives—at least on each car there was a placard stating that the cars contained explosives; indeed, Kelly says that he knew there were explosives there and that they "expected danger" (p. 322, ll. 30-35).

If the ammunition began to explode within five to fifteen minutes after the fire was discovered—as stated by Kelly—surely the watchmen cannot be blamed for not attempting to attach the hose and run it through the yard for the purpose of extinguishing the fire. They had all been on duty earlier during the night of the explosion and had worked in the yard for some time prior thereto, and they were all aware of the fact that cars containing explosives—or at least so marked—were located in or near that part of the yard where the fire was blazing—although they were not sure at the time whether the fire was on the North Pier or on one of the vessels. It would have taken any one of these employees several minutes merely to run to the point where the fire was blazing—as all of them were 1,500 feet or more from that point. It would have taken several minutes more in which to attach the hose to the hydrants;—it is practically certain that before it would have been possible to put the fire out the watchman would have been in the midst of the exploding shells. Under these conditions Kelly cannot be blamed for taking a walk on Ocean avenue about a mile distant (p. 316, ll. 20-30) instead of plunging into the thick of the battle.

Garrity remained at his post near Store "R" and was nearly killed by the explosion (p. 262, ll. 30-40).

Kane went to the pump room, as soon as his attention was called to the fire, and then he ran

to the telephone and tried to get assistance (p. 85, ll. 1-40).

Sloan's first thought was to turn in the alarm, but one of the Dougherty detectives said that he had done that. Thereupon Sloan hurried back to the pump room, blew his whistle, started the pump and began to telephone for assistance (p. 274, l. 20 to p. 275, l. 20).

Under these circumstances, how can it fairly be said that any of these employees were negligent in not attempting to put out the fire? In order to do so they would have to go, as they then supposed, either to the end of the North Pier or to some vessel adjacent thereto. Even if they were wrong in their judgment as to where the fire was, and even if the fire was somewhere in the yard near the point where the crater was afterwards blown by the terrific explosion, they cannot be charged with negligence merely because in the exercise of their best judgment they undertook to get assistance in the quickest possible way. The very worst that could be said is that they may have exercised poor judgment in telephoning for help instead of attempting to put the fire out before it had spread further.

We do not even concede that they exercised poor judgment under the extraordinary circumstances. The event showed that their apprehension of grave danger was well justified. Within a short time after the fire started there were two tremendous explosions—probably unprecedented in intensity this side of the battlefield of Europe; and as a result thereof an enormous crater was blown in the yard, many cars and boats were totally destroyed and others badly damaged, and an enormous amount of glass was shattered—in some cases eight or ten

miles from the scene of the explosion—many thousands of people within the metropolitan area observed the shock. To say that it was a question for the jury to decide whether these employees were negligent under these circumstances because they did not put the fire out within five or ten minutes after it had started goes far beyond any of the cases that hold that in emergency conditions it is not negligence to exercise the best judgment possible, even though the after-event shows that by doing something else the catastrophe might have been avoided.

The following are illustrations of cases where acts of sudden emergencies have been held not to constitute negligence.

In *Floyd* v. *Philadelphia, &c. R. Co.,* 162 Pa. St. 29; 29 Atl. 396, it was held that a flagman was not negligent in frightening a horse, when he attempted to stop the horse in order to prevent accident from an approaching train, although he might have avoided frightening the horse if he had exercised cooler judgment in the manner in which he tried to stop him.

In *Donohue* v. *Kelly,* 37 Atl. 186; 181 Pa. St. 93, an employee in a restaurant picked up a gasolene lamp which had become improperly ignited, and while attempting to carry it to the door he was severely burned and threw the lamp away from him, causing an explosion. Held that his employer was not liable to a third person injured by such explosion.

In *Owen* v. *Cook,* 81 N. W. 285; 9 N. D. 134; 47 L. R. A. 646, held that a person whose property was threatened with destruction by fire may take such steps for its protection by backfiring as are reasonable, and he will not be liable for the negligent destruction of the property of another.

In *Filippone* v. *Reisenburger,* 119 N Y. Supp. 632; 135 App. Div. 707, held that a defendant was not liable when, while stepping upon a barrel near a building excavation, he attempted to save himself from falling into the excavation when the barrel turned over, by catching plaintiff's feet.

In *Ransom* v. *Union Depot Co.,* 176 S. W. 785; 142 Mo. App. 361, held that an employee in charge of an express truck was not guilty of negligence in attempting to move his truck quickly out of the way to avoid collision with an approaching train, although in doing so he caused his truck to collide with another truck and forced the latter to roll so close to the track that it was struck by the train and thrown against the plaintiff.

X.

There should have been a non-suit or a direction of verdict in favor of the defendant.

We have shown under Points I and II that there was no evidence to sustain the allegations of negligence in the complaint. If the complaint be considered as amended to set up a violation of some one or more of the Federal regulations, then we have shown under Point V that the evidence did not show any violation of any of such regulations; and we have shown under Point VII that even if there was a violation of such regulations the evidence did not show that the violation was the proximate cause of the explosion whereby the plaintiff was damaged.

Under Point VIII we have shown that the evidence does not justify the conclusion that the plaintiff was damaged by the explosion of explosives which were under the defendant's con-

trol. In view of the unsatisfactory and contradictory evidence as to the circumstances under which the fire started, we submit that the case calls for the application of the rule in the case of *Hummer* v. *Lehigh Valley R. R. Co.* that the Trial Judge is not justified in leaving a case to the jury where the plaintiff's evidence is equally consistent with the absence, as with the existence, of negligence in the defendant.

So far as relates to the claim that there may have been negligence on the part of the defendant's servants in failing to extinguish the fire after it had started, we have shown that a condition emergency arose and that the defendant cannot be held liable merely because some one or more of its servants failed to exercise the best judgment (if they did so fail) under the extraordinary conditions.

We therefore submit that as the plaintiff has failed to prove either the negligence alleged in the complaint, or any other negligence on the part of the defendant or its servants, the defendant's motion for non-suit or for a direction of verdict in its favor should have been granted.

XI.

The judgment entered in favor of the plaintiff should be reversed and a new trial ordered.

COLLINS & CORBIN,
Attorneys for Defendant-Appellant.

LINDLEY M. GARRISON,
GILBERT COLLINS,
E. H. BOLES,
R. W. BARRETT,
GEO. S. HOBART,
Of Counsel.

New Jersey Court of Errors and Appeals

NEW JERSEY FIDELITY AND PLATE GLASS INSURANCE COMPANY, *Plaintiff-Respondent,* *vs.* LEHIGH VALLEY RAILROAD COMPANY, *Defendant-Appellant.*	*On Appeal from Supreme Court.*

BRIEF OF PLAINTIFF-RESPONDENT.

This action was brought to recover damages to property resulting from the explosion in the defendant's Black Tom yard in Jersey City, on July 30, 1916.

Statement of Facts.

1. All of the evidence in this case was introduced by the plaintiff. The defendant did not offer any evidence.

2. The place of the explosion is shown on the map, Exhibit 1. At the time in question, the defendant had assembled and was holding the various cars of explosives, 38 in number, as indicated by the colored rectangles on the map. These cars had been held there from one to eleven days (p. 329). The contents of these cars averaged not less than 60,000 lbs. (p. 348) so that there were not less than 2¼ million pounds of explosives assembled in that spot, of which 11 cars (p. 346), not less than 600,000 pounds, were trinitrotoluol (pp. 346-347), a very high and dangerous explosive (p. 290), otherwise known as "TNT."

3. Most of the cars of explosives were placarded in accordance with the requirements of the regulations of the Interstate Commerce Commission, headed "EXPLOSIVES—HANDLE CAREFULLY—KEEP FIRE AWAY" and containing the rules set forth in the Exhibit (p. 342).

4. The defendant employed no guards or watchmen in the yard to guard or watch these explosives and ammunition (p. 268). There was a force of men employed as boiler firemen, whose duty it was to keep fire going during the night under various boilers in the elevators and storehouse located to the westward. These men also punched time clocks located at various points in and about the elevators and storehouses (p. 69, *et seq.*), but their stations were from 800 feet to a mile from the freight yard. All of these men (a foreman and four others) had been employed there for many years (pp. 68, 254-269-311), and were the regular staff under peace conditions when the contents of the freight yard consisted only of ordinary merchandise.

5. There were no water plugs, hose lines, or any other equipment suitable for extinguishing fires located in the freight yard (pp. 81-282). Neither did the watchmen at the stores have instructions as to extinguishing fires (p. 78).

6. There were a large number of boats anchored near or tied up to the bulkheads on all sides of the yard. The boatmen frequently walked along the tracks on their way to and from town, and also congregated on the bulkheads for conversation. Sometimes they came back intoxicated and created more or less of a disturbance (pp. 75, 270).

7. On July 30th, 1916, shortly after midnight, some unidentified person ran into the boiler room where the fireman Sloan was stationed, and told him that there was a fire in the freight yard (p. 270). Sloan ran out to the tracks leading toward the yard, and saw a small fire, about the size of a barrel (pp. 273-313), in the space between two lines of cars in the yard. He ran and turned in a fire alarm, which notified the fire department of Jersey City, also the American District Telegraph Company, but he did not go to the fire or take any steps to extinguish the blaze (p. 277). The other men, Kane (p. 84), Kelly (p. 312) and Geraghty (p. 259), learning of the existence of the fire, also ran to various places along the tracks leading to the freight yard, and saw the small blaze in between the ammunition cars (p. 87), but did not go near the fire or take any steps to put it out (pp. 90-91-315-320). The other man, Groat, was located at the oil yard, about a mile to the westward (p. 74).

8. Kelly watched the fire burn for some time (p. 314). Finally he noticed that one or two of the cars were burning (p. 313). About 15 minutes later the car or cars had burned to such an extent that the shrapnel shells began to explode and "make fireworks" (pp. 215, 319-322). These "fireworks" were shooting up in the air when the fire department arrived at 1.10 (pp. 146-201). The firemen coupled their hose to a number of water plugs along the storehouses, but could get no water (pp. 143-150-175-182-237-243), and got no water at all until about 5 o'clock in the morning, when a New York City fire boat began to pump water out of the bay (p. 157).

9. At 2:08 or 2:10 a. m., there was a tremendous explosion which arose from the midst of the cars of explosives (pp. 115, 154-207-315).

This explosion made a hole on the ground where the cars had been standing, 375 feet long and 220 feet wide and 10 to 12 feet in depth. It swept away the store houses, wrecked the piers and docks, and shattered glass doors and windows all over Hudson County, New York City and elsewhere (pp. 96, 98, 100, 101, 102, 104, 106, 108, 248-252).

10. About 20 minutes later there was a second explosion, but it was very light, and there is no evidence that it caused any damage. (*Id.*)

ARGUMENT.

The defendant voluntarily had these explosives in its possession. It was not required by any law or rule to accept for transportation or to transport these high explosives. A railroad company is a common carrier and bound to receive for transport only those commodities which it holds itself out to carry and in respect to which it has filed its tariffs with the Interstate Commerce Commission.

> "Every common carrier has the right to determine what particular line of business he will follow. If he elects to carry freight only, he will be under no obligation to carry passengers, and *vice versa;* so if he holds himself out as a carrier of a particular kind of freight generally, prepared for carriage in a particular way, he will only be bound to carry to the extent and in the manner proposed."
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> 4 *Ruling Case Law,* page 551, Sec. 11.
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> *Knox* v. *Rives,* 14 Ala. 249, 48 Am. Dec. 97;
>
> *Steele* v. *McTyler,* 31 Ala. 667, 70 Am. Dec. 516, overruled on another point in
>
> *Boon & Co.* v. *Steamboat Belfast,* 40 Ala. 184, 88 Am. Dec. 761;

Crescent Coal Co. v. *Louisville, etc. R. Co.,* 143 Ky. 73, 135 S. W. 768, 33 L. R. A. (N. S.) 442;

Levi v. *Lynn, etc. R. Co.,* 11 Allen (Mass.) 300, 87 Am. Dec. 713;

Thompson-Houston Electric Co. v. *Simon,* 20 Ore. 60, 25 Pac. 147, 23 A. S. R. 86, 10 L. R. A. 251.

Kirby v. *Western Union Teleg. Co.,* 4 S. D. 105, 55 N. W. 759; 46 A. S. R. 765, 30 L. R. A. 612.

See also 64 *Am. Dec.* 159.

"In considering the extent of a carrier's duty to receive and transport, it must be borne in mind that an individual or a corporation becomes a common carrier of just what it offers to carry. Therefore a common carrier of goods is not obliged to accept and carry all personal property of every description that may be offered, but, as its duty to the public springs from its offer to the public, its obligation is to carry only according to its public profession and must necessarily be measured by it; as, for example, a carrier who offers only to carry grain in canvas sacks cannot ordinarily be required to carry grain in bulk."

4 *Ruling Case Law,* page 552.

"A railroad company could, for instance, refuse to carry a girder of such length that it would not be loaded so as to travel safely round the curves of the railway, or an animal such as an elephant, or a package of such height or bulk that it would not pass under the bridges of the railway, or liquid in open vessels which would necessarily be spilled in course of transit. In general, and expressing the same rule in a different way, it may be said that the duty of a carrier is confined to accepting and carriyng property of a kind that he undertakes or is accustomed to and can safely and conveniently carry."

4 *Ruling Case Law,* page 663, Sec. 140.

St. Louis, I. M. & S. Ry. Co. v. *Weakly,* 50 Ark. 397, 8 S. W. 134, 7 A. S. R. 104;

Little Rock & Ft. S. Ry. Co. v. *Cravens,* 57 Ark. 112, 20 S. W. 803, 38 A. S. R. 230, 18 L. R. A. 527;

Pittsburgh, C. & St. L. Ry. Co. v. *Morton,* 61 Ind. 539, 28 Am. Rep. 682;

Notes: 130 A. S. R. 1071; 15 L. R. A. 321; 5 L. R. A. (N. S.) 459; 5 Eng. Rul. Cas. 261.

Kirby v. *Western Union Tel. Co.,* 4 S. D. 105, 55 N. W. 759, 46 A. S. R. 765, 30 L. R. A. 612, 4 S. D. 439, 57 N. W. 199, 30 L. R. A. 620.

Sutcliffe v. *Great Western Ry. Co.,* (1910) 1 K. B. (Eng.) 478, 18 Ann. Cas. 224.

Pfister v. *Central Pac. R. Co.,* 70 Cal. 169, 11 Pac. 686, 59 Am. Rep. 404;

Ocean Steamship Co. of Savannah v. *Savannah Locomotive Works & Supply Co.,* 131 Ga. 831, 63 S. E. 577, 127 A. S. R. 265, 15 Ann. Cas. 1044, 20 L. R. A. (N. S.) 867.

"Carriers are not obliged to receive and transport such articles as nitroglycerine, dynamite, gunpowder, aquafortis, oil of vitriol, matches, or other dangerous substances."

4 *Ruling Case Law,* page 666, Sec. 143.

California Powder Works v. *Atlantic & P. R. Co.,* 113 Cal. 329, 45 Pac. 691, 36 L. R. A. 648.

See also *Moore on Carriers,* Second Edition, page 128.

"But the rule appears to be otherwise in the case of certain dangerous explosives such as nitroglycerine, dynamite, and gunpowder. A common carrier is not bound to accept for carriage articles which are in themselves dangerous. If, therefore, he chooses to accept such articles as gunpowder, nitroglycerine, etc., he may do so on such terms and with such limitations of his common law liability as he sees fit. In receiving

> them at all he is doing more than the law requires of him as a common carrier, and in such cases the acceptance of the article itself may well be a sufficient consideration for any qualification of his responsibility." 4 R. C. L., *supra.*

A common carrier may be guilty of a negligence by reason of the careless discharge of its duty in the transportation of explosives. The right to carry them does not include the right to subject persons along the route to dangers from explosives for a longer time or in a greater degree than is reasonably necessary to the proper performance of the carrier's duty. *Id.* (Note 3). The question arises in this case, therefore, whether the defendant was negligent in collecting such a large number of carloads of high explosives, aggregating two million pounds, all in close proximity, without at the same time providing some means or method of guarding these cars against mischief, fire or other accident, and by placing and collecting this vast aggregation of potential destruction in a place where there was neither means nor men to control and cope with trouble, should any arise.

NEGLIGENCE.

The defendant having accumulated upon its premises this vast quantity of high explosives, it was under a legal duty to exercise a high degree of care to prevent the occurrence of those things which would easily and naturally convert this commodity into an agency of incalculable damage and destruction. The degree of care to be exercised must be commensurate with danger involved.

Ft. Worth, etc. R. R. Co. v. *Beauchamp,* 68 S. W. 502; 58 L. R. A. 716.

The degree of care required of persons having the possession and control of dangerous explosives, such as dynamite, is of the highest. The utmost caution must be used that harm may not come to others by reason of the possession of such commodities.

Denver, etc. R. R. v. *Conway,* 5 Pac. 142; 54 Am. Rep. 537.

This duty is a common law duty, and is not abrogated or modified by any of the provisions of the Interstate Commerce Act, or Transportation of Explosives Act. The latter act and the regulations promulgated thereunder require the cars and packages containing explosives to be marked and packed in a certain way, and among other markings, the car must bear a prominent placard, "HANDLE CAREFULLY," and nothing in the statute or rules suggests the abrogation or abandonment of those details of reasonable care dictated by common sense. Congress has legislated in great detail with reference to railroad operations, in requiring automatic couplers, uncoupling levers, air brakes, handholds, standard ash pans, etc. A railroad company may comply to the uttermost with all of these requirements, but the fact that it complies with the requirements of these laws does not absolve it from responsibility for damages resulting from its negligence to exercise care in the operation of a train. The placard requires the carrier to "KEEP FIRE AWAY," but it does not go into details as to how to keep fire away; and "keep fire away" is equivalent to a requirement to take fire away or to put it out as soon as it is discovered.

For convenience we have arranged this brief under the same point numbers used in appellants brief.

I.

The Court expressly withdrew from the jury all questions of a nuisance.

II.-III.-IV.

The respondent's chief contention under these points seems to be that the complaint did not charge any act or omission in violation of the federal regulations, but that they were convicted of such violation, and inversely, that the complaint was founded on negligence, and such issue was not presented to the jury.

Our answers to these contentions are:

First: That the regulations properly construed, do require the observance of the duties charged in the complaint.

Second: If the regulations are to be read and construed strictly, and are held to apply only to the matter of *packing, marking and handling in transit* as expressly mentioned, the promulgation of such regulations did not release the carrier from the duty to exercise due care with respect to conditions not covered by the regulations, and that duty remained in full force and unimpaired by the regulations.

Third: The issue submitted to the jury was whether the defendant was negligent in failing to guard the explosives, and in failing to provide means and take steps to control and extinguish the fire. If the defendant was under a legal duty as charged in the complaint to exercise care in these respects, the question of whether such a duty springs from the common law or from a

statute could not affect the determination of the question of fact as to whether such duty had been observed or violated.

a.

The duty to exercise care as charged in the complaint is fairly within the meaning and spirit of the regulations. (See Case, pp. 342, 345.)

The uniform rule of law gathered from the text books and cases is that a person in charge of explosives is obligated, by reason of the great risk of damage resulting from premature explosions, to exercise such a degree of care as may be commensurate with the danger involved, and this rule is applicable to common carriers. See the exhaustive note on this subject in *L. R. A. 1916—B., 725,* citing and digesting:

Hertz v. *C. I. & S. Ry. Co.,* 154 Ill. App. 80.

Gulf C. & S. F. Ry. v. *Fowler,* 122 S. W. 593 (Tex.).

Henry v. *C. C. C. & St. L. Ry.,* 67 Fed. 426.

Wilson v. *C. & S. Ry.,* 142 Pac. 174 (Col.).

Walker v. *C. R. I. & P. Ry.,* 33 N. W. 224 (Ia.).

Ft. W. & D. C. Ry. v. *Beauchamp,* 68 S. W. 502 (Tex.).

Co. Ry. v *Adkins,* 119 S. W. 820 (Ky.), etc.

We are unable to see why this rule of duty is not covered by the language of the regulations of the Interstate Commerce Commission. The latter says "HANDLE CAREFULLY. KEEP FIRE AWAY." Avoid placing near a possible source of fire. Why? Because they are dangerous and are judicially noticed as such. 11 Ruling Case Law, 653.

How shall they be handled, and fire kept away? The regulations do not specify in detail. There are some specific instructions as to where explosives shall be placed in a moving train, and how the cars shall be coupled, etc., but it does not purport to cover every detail which may be embraced in the injunction to "HANDLE CAREFULLY" or "KEEP FIRE AWAY." *Does this omission of detail mean that there is no detail of duty,*—or are these regulations to be interpreted according to the spirit which led to their promulgation and the authority for their promulgation by the Act of Congress? The statute by its own terms was enacted to secure safety, not to dispense with care and increase danger. If it is conceded that the requirement to handle carefully and keep fire away means that the carrier shall exercise care to do these things, then the measure of that care is necessarily according to the measure of the danger to be apprehended from the place and circumstances of the storage or holding of the explosives. In other words the regulations require no more or no less than what was required at common law, and the correct interpretation of the duty prescribed by the regulations is found in the cases cited.

b.

If the regulations themselves did not require the carrier to guard large quantities of explosives or to provide means or take steps to extinguish fires, then:

1. Such duty still remained under common law, and

2. Was not abrogated or nullified by the regulations.

One of the reasons why the regulations do not cover such a situation in more detail may be found in the limitations of the Act itself. Section 233 provides:

> "Such regulations shall be in accord with the best known practicable means for securing safety *in transit,* covering the packing, marking, loading and handling while *in transit,* and the precautions necessary to determine whether the material when offered is in proper condition to transport."

The regulations thus authorized seem to be confined to the ordinary movements and handling of cars while on the road in the course of transportation, and do not expressly cover the holding of cars in a yard at destination awaiting delivery to a consignee.

This aspect of the law does not affect the question of the exclusive effect of Federal regulation, as such regulations are exclusive only to the extent that they purport to regulate the subject matter.

In *Erwin* v. *Traud,* 90 N. J. L. 209, this Court held that a statute specifying rights and duties in connection with automobile traffic did not dispense with the duty to exercise that degree of care dictated by the circumstances and conditions of traffic. In other words, the statute could not be construed to authorize or justify carelessness in a situation where prudent men would exercise care.

In *State* v. *Lackawanna Railroad of New Jersey,* 86 N. J. L. 62, the Court held that a statute prescribing the duty of a railroad company in the construction of a highway crossing did not prevent the finding of an indictment for violating its duty under the common law, because to have such an effect the statute must have expressly

or impliedly repeated the common law "by embracing the whole subject matter."

Now if we concede, or assume, that in the absence of any regulations by the Interstate Commerece Commission under the authority of Congress, the carrier in possession or control of a vast quantity of dangerous explosives was under a duty to exercise care to prevent explosions and consequent damage, can it be said, as a matter of law or logic, that the act of Congress and the particular regulations promulgated by the Commission, impliedly or expressly abrogated that duty, and made it possible and lawful for the carrier to neglect all common sense precautions for safety so long as it placed a car in a certain part of a train and equipped it with air brakes? We submit that such a doctrine is untenable. Congress has directly legislated on the subject of safety appliances on trains moving in interstate commerce, and requires that the equipment in such trains must be furnished with certain kinds of wheels, couplers, grabirons, handholds, drawbars, airbrakes, sillsteps, handbrakes, ladders, running boards, etc., 27 Stat. L. 531; and a carrier may literally comply with all of these requirements, but it has never been suggested that compliance with these requirements would relieve a carrier from liability for negligence *in the operation of a train* so equipped, or for negligence in failing to maintain in a safe condition *any other part or appliance* of an engine or car not specifically enumerated in the statute. For instance, compliance with all the specific provisions of the safety appliance acts would not relieve the carrier from negligence in furnishing the defective gauge guard mentioned in *Horton* v. *Seaboard Air Line,* 239 U. S. 595.

We submit therefore, conceding that where Congress has legislated on a matter within its powers such legislation is exclusive, it is exclusive only to the extent of its terms, and does not impliedly grant immunity from doing other things under a duty which existed prior to such legislation and which duty is not impliedly or expressly repealed by such statute. In other words we contend that the general duty to exercise reasonable care with respect to these explosives existed independently of the Transportation of Explosives Act, and it was for the jury to say whether such care was exercised in this case.

It is argued this case is governed by the rule that the giving of railroad crossing signals absolves a railroad company from any other duty, citing *Hackett* v. *R. R. Co.,* 58 N. J. L. 4.

Without disputing the soundness of this decision, it does not affect a case where a horse or an automobile may become disabled on a crossing. If such an accident should happen, would it be any excuse for the engineer to say that he blew the whistle and rang the bell, and therefore, as the statute did not require him to apply his brakes, or stop his train, he was perfectly justified in proceeding just as if there was nothing on the track? That there is a duty to exercise care to avoid injury in such a case was expressly recognized by this Court in *Taylor* v. *Lehigh Valley R. R.,* 87 N. J. L. 673. The question therefore under this point is not whether the defendant performed a specific act required by a certain statute, but whether it omitted to perform a duty existing in another general law, and arising from a set of circumstances not mentioned in the statute.

We have not been able to find any reported case which deals with such a vast quantity of explosives as is involved in this case. The cases against the carriers cited on this brief involve at the most a car load of explosives. The case of "The Ingrid," 216 Fed. 72, involved two or three cars of explosives. Here we have 38 cars assembled in one place. We do not say that the accumulation of such an unprecedented amount of explosives calls for the invention or application of new principles of law, but it illustrates the soundness of the principle that the degree of care required in such a situation should be measured by the danger, as such danger would be reasonably anticipated by prudent men. Defendant says in its brief that this explosion was unprecedented in intensity this side of the battlefields of Europe. Can the defendant now be heard to say that the possibility of such an explosion, caused by the detonation of 38 closely packed cars of trinitrotoluol and other high explosives, was only of such stuff as dreams are made of, and that there was no duty under the law of this land to anticipate the possibility of this catastrophe or guard against it? We say that this attitude is contrary to every principle of the law, and that the promulgation of regulations covering the loading, packing and marking of explosives and the handling of cars in transit, were not intended, nor do they purport, to abrogate the just requirements of the common law, and to turn loose upon the public an agency of incalculable damage without restraint of any kind.

c.

THE ISSUES WERE PROPERLY SUBMITTED TO THE JURY.

The Court charged that the federal regulations were exclusive, and that these regulations meant no more and no less than it was the duty of the carrier to exercise a degree of care commensurate with the risk involved in having and holding these explosives in its yard. The facts tending to show the necessity for the exercise of care and the negligence of the defendant in this respect were not disputed.

The evidence is summarized in our statement of facts at the beginning of this brief, and need not be repeated. There are however, in several places on defendant's brief, the statement, repeated and italicized, that the regulations of the Interstate Commerce Commission were not offered in evidence. Because this statement and reiteration and emphasis of it is not according to the facts, we want to call attention to the fact that the defendant complains in its brief that we introduced and exhibited to the jury (without objection) "the large card" with the words "printed in large capitals of a fiery red color" which contain the "condensed rules" (Exhibit, p. 342); also that we read to the jury the regulations set forth in the defendant's answers to interrogations. Why the defendant insists that these rules were not in evidence we do not understand. If as counsel contends, the federal regulations are exclusive, then they are the supreme law of the land, and where they do not merely regulate office procedure, or the internal workings of the departments, but constitute a rule of conduct applicable to all with the force of a statute, in such cases, state courts take

judicial notice of the administrative regulations of the Federal Executive Departments, such as the Interior, the Treasury, 16 Cyc., page 903, note 31; Department of Agriculture, *St. Louis* v. *Kruempeler,* 235 Mo. 710, 139 S. W. 446; *St. Louis* v. *Niehous,* 236 Mo. 8, 139 S. W. 450; *S.* v. *R. Co.,* 141 No. Carolina 846, 852; 54 S. E. 294; the Post Office Department, *Carr* v. *Bank,* 73 N. E. 947; *Indemnity Co.* v. *Fuller,* 73 Atl. 738, 74 Atl. 369; also regulations of the Land Office of the Department of the Interior, *Kimbell* v *McKee,* 104 Cal. 435, 86 Pac. 1089; and the regulations of the Interstate Commerce Commission, *State* v. *Railroad Co.,* 169 N. Carolina, 295, 84 S. E. 283, and this especially true where the regulations are directly authorized by Act of Congress, and the act provides penalties for the violation of such regulations. It is thus made to appear that carloads of explosives transported in interstate or foreign commerce must be placarded "EXPLOSIVES. HANDLE CAREFULLY. KEEP FIRE AWAY," and that various other details must be observed to prevent any injury to such cars. The primary regulation is: "HANDLE CAREFULLY. KEEP FIRE AWAY." The proof is that fire was not kept away and that the explosives were ignited and exploded. The regulation does not say that the carrier must exercise slight care or great care in an effort to prevent the presence of fire or what means shall be employed to that end. It imposes the unqualified duty to "KEEP FIRE AWAY," and as they were highly dangerous, and in the possession of the defendant without protection, and were permitted to be burned and exploded by a fire, which when first discovered, was of insignificant size, it is obvious that the defendant's contention that the proofs failed to

show any violation of this regulation, is without any support.

The complaint charges that the duty imposed by the law of the land included, as a necessary detail, the guarding of these explosives for the purpose of preventing the occurrence of fires, whether of malicious or accidental origin. The Court will take judicial notice that war was waging in Europe, and it is a matter of common knowledge that this country contained thousands of sympathizers with the different belligerents, whose sympathy was expressed by demolishing enemy supplies in this country whenever possible, and that this sentiment might result in incendiarism in such a place as a munition yard, was not beyond the reasonable probabilities.

The proofs also show that the yard and approaches thereto were commonly used during the summer nights by boatmen, some of whom came back to their boats after carousing in town, and the defendant is chargeable with the knowledge that men of this kind might go into the yard (par. 6, statement of facts).

We say further that the duty enjoined by law required the employment of watchmen near these ammunition cars, to put out a fire if one should occur. Fires are usually small in their inception, and can be readily detected at night. The employees of the defendant say it was the size of a hat or a barrel when first notified of it. In view of the quantity of explosives held there and the great damage which would be caused by an explosion, we submit that ordinary prudence required that a sufficient number of watchmen should be present or immediately available at this place.

For the same reasons, and because of the distance of this yard from a public fire department

station, we contend that ordinary care required the provision of some fire fighting devices, extinguishers, etc., near the ammunition cars, to make effective the presence and efforts of the watchmen.

If the defendant, under the circumstances, was under a duty to exercise any care whatever, it at least owed that duty in these particulars, and the proofs show that none of these things was done. In fact nothing was done with respect to these munition cars except to assemble them on tracks 13, 14, 15, 16, 17, at a distance of 800 to 1,500 feet away from the nearest watchman or fire hydrant, and leave them there, without any supervision or protection, subject to anything that might happen. When the fire occurred and was discovered, nothing was done but to send in a fire alarm, and later to switch out some other cars which were in danger of being burnt up.

We therefore submit that a jury question was properly presented as to whether the defendant exercised the degree of care required by law, in its handling and custody of these 11 cars of TNT, 16 cars of shrapnel and the other cars of similar commodities at this place in the heart of New York Harbor.

In *Kerbaugh* v. *Caldwell,* 151 Fed. 194, Judge Lanning said:

> "Whether the act of so storing these explosives constituted a nuisance was a question that could not be properly withheld from the jury. * * * The jury had before them the evidence of the storage of large quantities (10,000 lbs. dynamite, 300 kegs of powder) within 1,000 feet of plaintiff's dwelling house. What constitutes a nuisance is a question of fact to be determined by the jury."

In the report of the foregoing case in 10 Ann. Cas. 453, the note states:

> "Where the keeping or storing of explosives does not amount to a nuisance *per se,* thereby fixing an absolute liability on the person so storing or keeping it, the question of the liability of such person should be submitted to the jury to be passed upon by them in the light of all the circumstances and conditions, the question * * * depends upon the locality, the proximity of other buildings, the character of the magazine, the quantity of material stored, and all the other surrounding circumstances."

The same questions must be considered in determining whether there was any negligence.

We are unable to find any precedent in a comparable case which confers any immunity upon or absolves from responsibility a common carrier having explosives in its possession. Such a plea of justification or confession and avoidance was rejected vigorously by Chancellor Runyon, speaking for the Court of Errors in *McAndrews* v. *Collerd,* 42 N. J. L. 189. In that case legislative authority was pleaded in justification for keeping the explosives, and as granting immunity from the consequences thereof. The Court said: "Nothing but the most imperious and absolute necessity would justify such a conclusion; the legislature could not be charged with authorizing a nuisance dangerous to life and property in a community."

On the same point, see note to *Whaley* v. *Sloss-Sheffield Steel Co.* (164 Ala. 216), in 20 Ann. Cas. 827.

On the question of negligence, the rule deducible from the authorities there collected is as follows:

> "As the keeping and storing of explosives is a dangerous business, the person in pos-

session of them is bound, as to third persons, to exercise the highest degree of care, and failure to take any reasonable precaution to prevent an explosion is negligence."

The defendant's argument, stated in simple terms, is that the federal regulations do not specifically, by express words, indicate what a carrier shall do to safeguard the public against damage or injury from possible explosion when it has assembled and while it is holding a million pounds of explosives in cars in a terminal yard; therefore, notwithstanding the danger which may be present in such a situation, or the fact that common prudence dictates otherwise, the carrier is under no obligation to do anything which is not within the letter of the written law; and as the regulations do not specify what if anything shall be done in case a fire is discovered in or near a train of munition cars, the plain meaning and intent of the regulations is that they should let it burn, irrespective of the consequences. The absurdity of such a conclusion shows the fallacy of the argument. We respectfully submit that the regulations contained in the placard (p. 340) construed with reference to the Act of Congress which authorized them, clearly enjoins the exercise of care to prevent fires and explosions, even though such regulations do not specify the particular actions or measures to be taken to accomplish the desired result. We, therefore, contend that the failure to watch and guard these explosives, and the failure to have men and equipment on hand to cope with and control a fire when started and discovered, is a failure to comply with the requirements of the placard to "Keep fire away * * * handle carefully * ** avoid placing near a possible source

of fire." The regulations do not undertake to define what a "possible source of fire" is, and leaves it to the carrier to determine, in the exercise of due care, what may be a possible source of fire. Obviously, one way to avoid placing the explosives near a possible source of fire to guard the explosives in a sufficiently efficient manner either to prevent the occurrence of fire, or to discover it immediately and extinguish it, and we submit that the allegations that the defendant failed to exercise care in these particulars, is a sufficient charge of a violation of the duties imposed by the regulations.

V.

Under this point the defendant endeavors to meet the charge of negligence in failing to provide adequate men and means to cope with the incipient fire among the munition cars in the yard.

In the first place, all of the boiler firemen, who acted as watchmen, were stationed at the storehouses and not in or near the munition yard, but from 800 feet to a mile away. In fact the brief attempts to excuse the failure to put out the fire on the plea that these men were not near enough to it to even determine where it was. Obviously these men were not a factor in the matter at all. None of them even discovered the fire, or knew that there was a fire, until some man, who is not identified, ran into Sloan's boiler room and told him about it. The brief mentions detectives from the Dougherty Detective Agency, but there is nothing in this record to show whether any such detectives were in the yard, or how many there were or what they were doing. As the defendant refrained from putting in any evidence, any assumption

with respect to such individuals is pure speculation.

Next, as to fire apparatus. It appears from the answer in this case that the National Storage Company owns the series of warehouses shown on the map, and that these warehouses are more or less protected against fire by the maintenance of hose carts and water plugs distributed alongside of and in between the warehouses, but another glance at the map shows that these plugs and hose carts (if the defendant had the right to use them) would be of no avail in case of a fire *in the yard.* It is admitted that if all the hose were coupled together in one line, it would just about reach down to the yard, and what might happen to that single line of hose, when the locomotives arrived to pull out the cars in the south side of the yard, can be easily conjectured.

In short, the entire argument of the defendant to excuse its non-action under the circumstances is a clear confession that no *adequate* means were provided to meet the situation which it created. We do not contend that if this yard was filled with cars containing machinery, building materials, grain, coal and miscellaneous freight, there would be any duty to provide special men or means to control a possible fire, for the worst to be anticipated from such a fire would be the destruction of such freight and the adjacent structures. But a million pounds of high explosives presents an entirely different set of circumstances. It is entirely clear from the record, and not disputed, that notwithstanding the assembling and holding of this vast quantity of potential destruction, the defendant did not add one man to its force of boiler firemen-watchmen, as Kane, Sloan, Kelly and

Geraghty all testified that they had been holding their respective jobs for from five to fifteen years. This fact demonstrates without question that the defendant took no more precaution with all these explosives than if it had been so much cast iron.

So far as the pumps and hydrants are concerned, the map shows that they are not located with reference to the yard, but solely with reference to the safety of the warehouses; but irrespective of their location, the testimony of all of the members of the Jersey City Fire Department who responded to the alarm is to the effect that they could get no water from these connections, and in fact did not get any water until morning, when they coupled to a New York City fireboat which pumped the water from the bay. And we may again remark that all the apparatus and equipment in the world was of no use without men to operate it.

Under this point the defendant also argues that it was entitled to an instruction that the jury could not find it negligent unless it failed to adopt the customary methods for the care of explosives in other yards. As we have pointed out elsewhere, there was no evidence that there was a custom in this respect; nor is there any justification for assuming that there was any comparable quantity of high explosives assembled by any railroad company anywhere in the United States. Such an instruction would simply tend to confuse the jury.

VI.

Under this point the defendant argues that the notice on the placard "KEEP FIRE AWAY," is a warning to the railroad employees and not to the railroad company. We do not believe that

the framers of this placard intended such a subtle distinction. As indicating the narrow view which the defendant takes of its duties, the closing sentence of the brief under this point is illuminating: Referring to the rules on the placard, it says:

> It obviously does not apply to a case where a fire has been started by some third party, *and is burning in the vicinity of cars containing explosives.*

VII.

Under this point the defendant discusses the proximate cause of the explosion. We think, however, that the question should be as to the proximate cause of damage. The immediate and proximate cause of the damage was the explosion.

The explosion was the direct result of the defendant's failure to take any precautions against the occurrence and spreading of fire, in the particulars we have already discussed. It is stated in the brief that "there is no suggestion that the location of the several cars in the yard was in any way improper." The complaint alleges that it was the duty of the defendant to exercise a high degree of care to store, handle, and dispose of said explosives and munitions so as to prevent and control the ignition and communication of fire and detonation from one portion or mass of the same to any other portion or mass of the same." That it tends to increase the danger by assembling explosives is manifest, as the intensity of this explosion was due to the simultaneous explosion of the eight cars of TNT strung along on track 14, and of the other explosives on the adjacent tracks, which left the "crater" shown on the map. The cars were so disposed by the defendant that a fire in one of

them, unless promptly attacked and controlled, would soon involve the others, and this fact was doubtless a contributing cause to the unusual force and intensity of the explosion.

But the burden of the argument under this point is that the plaintiff had no right to recover because it did not point out the *remote* caused of the fire, *i. e.*, the incipient blaze which the watchman, Kelly, described as burning down among the munition cars, the size of a man's hat. Frankly, we do not know definitely what caused that little fire, but we do say that the fire was allowed to start among a vast quantity of high explosives; that the defendant did not have any men to guard against such a contingency or to discover its occurrence; nor did it have or employ any reasonable means to control it when discovered, and that its negligence in these respects was the proximate cause of the ensuing fire involving the shrapnel and other cars which in turn detonated the 400,000 pounds of trinitrotoluol on track 14.

The only witnesses available to the plaintiff as to the time and place of the little fire were the watchmen employed by the defendant, and from their testimony, there is no doubt that the fire started in the yard and in and between the munition cars. Kane, the foreman, testified (p. 87):

> "Q Well, now, with reference to the ammunition cars, where was this fire? A Well, it was in that direction, I couldn't say whether it was them cars at that time or not."

Later when the fire had grown to some proportions, he testified (p. 88):

> "All I could see from where I was is the flames from one car, and, of course, the car next to it; that is, about all I could see was the two cars."

To the same effect is Sloan's testimony (pp. 277, 278); also Kelly (p. 313):

> "Q Yes, and this fire was how close to the cars? A Well, it was right in—like in between them—it looked to me right in between them."

As stated before, there was no proof that the fire started anywhere else, the defendant did not see fit to offer any evidence, but it merely argues that upon this testimony the jury could not find that the fire started on its property. We do not see how he jury could find otherwise.

VIII.

Under this point the defendant argues that the jury could not find that the explosives which exploded and caused the damage, were under the defendant's control. This argument is based upon the fact that there were two explosions. The first explosion admittedly caused the damage. The effect was so great as to cause damage ten miles away. It resulted from the blowing up of the eight cars of TNT on track 14, leaving a hole 375 feet long and 200 feet wide, and demolished the storehouses. It came right from the burning cars (Lieut. Costerman, p. 115), and was the cause of all the damage. From this evidence it was entirely permissible for the jury to find that this explosion did not take place on a boat out in the bay. The second explosion occurred 20 minutes later, and caused no damage whatever.

Under this heading the defendant also complains of the admission in evidence of the original answer filed in this action.

The complainant charged a number of facts relating to the cause, occurrence and effect of

the fire and explosion and these allegations were admitted in the original answer and denied in the amended answer. The original answer was competent evidence to prove the admissions of fact contained therein and like all other admissions was subject to explanation or contradiction and was admitted upon the authority of the cases cited by Judge Speer (p. 324). The subject is fully covered in Wigmore on Evidence, Sec. 1067, "Superseded or Amended Pleadings."

The defendant also spends considerable time in its brief in complaining that Judge Speer announced to counsel that he would submit this case to the jury on the issue of whether the defendant had exercised due care in the premises, without specifically instructing them as to the source of the duty to do so. This was satisfactory to counsel, but when Judge Collins started to sum up for the defendant he immediately launched into a discussion of the requirements of the federal regulations. This led to Judge Speer's opening remark to the jury (p. 458). It does not behoove the defendant now to come to this Court and complain of the action of the Trial Judge.

IX.

Under this point the defendant argues that it was not guilty of negligence after the discovery of the fire, *i. e.*, that the fire was an emergency beyond its responsibility and control.

In this connection it is admitted that there was no employee near enough to the fire to discover it, or to attack it, nor were there any means at hand to extinguish it. It is also admitted that nothing was done to control or ex-

tinguish the fire except to send in a fire alarm, and it is also shown that when the fire department arrived, some time after one o'clock, they could draw no water from the plugs. Here again the defendant ignores the fact that it assembled this aggregation of explosives in an unguarded place, and now pleads that if a fire did occur, all it could do is to let it burn and explode. As this begs the question of the defendant's duty in the premises, which we have already discussed, we will not here repeat what we have said on that subject. The charge of the Court was as favorable to the defendant as it could ask.

X.-XI.

Conclusion.

We earnestly submit that the uncontradicted evidence in this case shows that the defendant was absolutely indifferent as to its responsibilities in assembling and holding these explosives; that it had a fair trial on all the issues, and the judgment should be affirmed.

CONGLETON, STALLMAN & HOOVER,
Attorneys of Respondent.

EDWIN F. SMITH,
MAXIMILIAN M. STALLMAN,
Of Counsel.

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FORM T-686

SUPERSEDES FORM T-629 EFFECTIVE MARCH 31, 1912.

Lehigh Valley Railroad Company

Regulations

FOR THE

Transportation of Explosives and Other Dangerous Articles by Freight

AND

SPECIFICATIONS FOR SHIPPING CONTAINERS

PRESCRIBED UNDER THE ACT OF MARCH 4, 1909, AND SECTION 15 OF THE ACT TO REGULATE COMMERCE, AS AMENDED JUNE 18, 1910

EFFECTIVE OCTOBER 1, 1914, EXCEPT AS NOTED HEREIN

PARAGRAPHS ARE NUMBERED TO CORRESPOND TO THE RULES AND REGULATIONS OF THE AMERICAN RAILWAY ASSOCIATION

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American Railway Association Rules and Interstate Commerce Commission Regulations for the Transportation of Explosives and Dangerous Articles Other Than Explosives by Freight.

NOTE.—Paragraphs 1401 to 1697 inclusive, refer to Interstate Commerce Commission Regulations for the Transportation of Explosives; Paragraphs 1701 to 1959, inclusive, refer to Interstate Commerce Commission Regulations for the Transportation of Dangerous Articles other than Explosives; Paragraphs 1301 to 1307 refer to the American Railway Association Rules.

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THE AMERICAN RAILWAY ASSOCIATION

RULES

FOR THE

TRANSPORTATION OF EXPLOSIVES AND OTHER DANGEROUS ARTICLES BY FREIGHT.

GENERAL NOTICE.

The following rules are prescribed in order to make effective for interstate and intrastate shipments of articles subject thereto, the Interstate Commerce Commission Regulations for the Transportation of Explosives and other Dangerous Articles published July 2, 1914 to become effective October 1, 1914.

It is necessary for railway employes and shippers to become familiar with their specific duties. Railway employes are specially designated to perform certain duties under these regulations, and the paragraphs referred to in the following rules should be studied carefully.

RULES.

1301. Serious violations of the regulations and fires or accidents occurring in connection with the transportation or storage of dangerous articles on railway property, must be reported promptly to the proper official, who will forward reports to the Chief Inspector, Bureau of Explosives, 30 Vesey Street, New York City. Samples of blank forms for reporting such violations, accidents, fires or explosions, will be furnished by the Bureau on request.

1302. Dangerous articles for railway use (not explosives) may be shipped in emergency in baggage cars or caboose cars when properly packed and protected by the prescribed labels. Such packages should not be shipped in these cars unless a railway employe is riding therein.

1303. Inspectors of the Bureau of Explosives are furnished with a red credential card bearing thereon their photographs and an impression of the Bureau seal, and in the following form:

Bureau for the Safe Transportation of Explosives and Other Dangerous Articles

PHOTO

THE AMERICAN RAILWAY ASSOCIATION

This certifies that

Mr. _____

IS AN INSPECTOR OF THIS BUREAU.

DATED AT 30 VESEY STREET,
NEW YORK, N. Y.

_____ 191

_____
CHIEF INSPECTOR

Inspectors presenting this credential card properly signed, are authorized to inspect everything pertaining to the transportation, handling and storing of explosives or dangerous articles other than explosives, and should be given full opportunity to do so, and all necessary assistance in the performance of their duties.

1304. Should the services of an Inspector of the Bureau of Explosives be required, application should be made by the Agent to the Superintendent or other designated official.

1305. **Trainmasters, Yardmasters and Station Agents** should study carefully the regulations. They will be held responsible respectively, for the proper instruction of the employes under them and for their compliance with the regulations.

1306. The following mentioned paragraphs have specific reference to the duties devolving on the employes in the various classes named:

Employes Receiving Freight. Paragraphs 1404, 1422 to 1425, 1427, 1428, 1430, 1431, 1500, 1501, 1531, 1641, 1654, 1656, 1687, 1702, 1704, 1711 to 1713, 1801, 1807, 1822, 1864 to 1867, 1871, 1877, 1895, 1902, 1904.

Employes Billing Freight. Paragraphs 1428, 1652, 1654, 1657, 1712, 1871, 1873, to 1876.

Employes Loading and Unloading Freight. Paragraphs 1422, 1433, 1434, 1531, 1642 to 1651, 1655 to 1657, 1661 to 1667, 1682, 1687, 1692, 1714, 1715, 1833 (*f*), 1871, 1890 to 1894, 1903, 1909, 1910, 1912, 1913, 1941, 1943.

Employes Delivering Freight. Paragraphs 1434, 1531, 1643, 1656, 1657, 1692, 1714, 1715, 1871 (*c*), 1890, 1903, 1909, 1910, 1912.

Yard and Train Employes. Paragraphs 1654 to 1657, 1661 to 1667, 1680 to 1692, 1697, 1715, 1874 to 1877, 1890 to 1895, 1902 to 1911, 1913, 1941, 1943, 1946, 1951 to 1959.

Employes Inspecting Cars. Paragraphs 1434, 1654, 1655, 1661 to 1667, 1680, 1681, 1691, 1822 (*d*), (*e*), (*f*), 1946, 1951 to 1959.

Wreck Crews. Paragraphs 1697, 1946, 1951 to 1959.

LOADING CHART.

1307. The following chart shows the explosives and other dangerous articles which must not be loaded or stored together, and this chart should be used by employes in charge of loading as a means of ready reference:

LOADING CHART.

CONDENSED RULES FOR
Railway Employe (or Shipper) Supervising Loading or Unloading.

Packages of explosives and other dangerous articles are considered and designated below as:

First.—DANGEROUS EXPLOSIVES, designated a, b, c, d, e, f, and g; must be properly loaded and stayed (See B. E. Pamphlet No. 6) and transported in certified car placarded "Explosives."

Second.—LESS DANGEROUS EXPLOSIVES, designated 1, 2 and 3; may be transported in box cars in good condition without Car Certificate or Explosive placard, but cars must be placarded "Inflammable."

Third.—RELATIVELY SAFE EXPLOSIVES, designated 4, 5, 6, 7 and 8; may be treated as valuable merchandise and transported in box cars in good condition without Car Certificate or any placard.

Fourth.—INFLAMMABLE ARTICLES, COMPRESSED GASES AND ACIDS, designated 9, 10, 11 and 12; transported in suitable cars, placarded "Inflammable" or "Acid" according to labels on packages. (Non-inflammable Gases, Light Green Label require no placard.)

The following table shows the explosives and other dangerous articles which must not be loaded or stored together.

The letter X at an intersection of horizontal and vertical columns shows that these packages must not be loaded or stored together: for example; Blasting Caps (d) horizontal column must not be loaded or stored with High Explosives (b) vertical column. See above for placarding of cars, etc.

			Low Explosives, or Black Powder	High Explosives	Wet Fulminate of Mercury	Blasting Caps, (including Electric Blasting Caps), in quantity exceeding 1,000 caps (See Note 1.)	Ammunition for Cannon with Explosive Projectiles	Explosive Projectiles, or Explosive Topedoes	Detonating Fuzes	Ammunition for Cannon With Empty, sand loaded or solid Projectiles, or without Projectiles	Smokeless Powder for Cannon, or Smokeless Powder for Small Arms	Fireworks (Common or Special)	Small Arms Ammunition	Primers Cannon or Small Arms; or Empty Cartridge Bags—Black Powder Igniters; or Empty Cartridge Shells Primed or Combination Primers; or Percussion Caps	Percussion Fuzes, or Tracer Fuzes	Time or Combination Fuzes	Safety Fuse, Cordeau Detonant and Safety Squibs	Inflammable Liquids or Compressed Inflammable Gases, Red Label	Inflammable Solids or Oxidizing Materials, Yellow Label	Acids or Corrosive Liquids, White Label	Compressed Non-Inflammable Gases, Light Green Label
			a	b	c	d	e	f	g	1	2	3	4	5	6	7	8	9	10	11	12
FIRST. Dangerous Explosives	Low Explosives, or Black Powder	a			x							x						x	x	x	x
	High Explosives	b			x	x			x			x						x	x	x	x
	Wet Fulminate of Mercury	c	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	Blasting Caps, (including Electric Blasting Caps), in quantity exceeding 1,000 caps (See Note 1.)	d		x	x		x	x				x						x	x	x	x
	Ammunition for Cannon with Explosive Projectiles	e			x	x			x			x						x	x	x	x
	Explosive Projectiles, or Explosive Topedoes	f			x	x			x			x						x	x	x	x
	Detonating Fuzes	g		x	x		x	x				x						x	x	x	x
SECOND. Less Dangerous Explosives	Ammunition for Cannon with Empty, sand loaded or solid Projectiles, or without Projectiles	1			x															x See Note 2	
	Smokeless Powder for Cannon, or Smokeless Powder for Small Arms	2			x															x See Note 2	
	Fireworks (Common or Special)	3	x	x	x	x	x	x	x												
THIRD. Relatively Safe Explosives	Small Arms Ammunition	4			x																
	Primers Cannon or Small Arms; or Empty Cartridge Bags—Black Powder Igniters; or Empty Cartridge Shells Primed; or Combination Primers; or Percussion Caps	5			x																
	Percussion Fuzes, or Tracer Fuzes	6			x													/			
	Time or Combination Fuzes	7			x																
	Safety Fuse, Cordeau Detonant and Safety Squibs	8			x																
FOURTH. Inflammable Articles, Compressed Gases and Acids	Inflammable Liquids or Compressed Inflammable Gases, Red Label	9	x	x	x	x	x	x	x												
	Inflammable Solids or Oxidizing Materials, Yellow Label	10	x	x	x	x	x	x	x											x See Note 2	
	Acids or Corrosive Liquids, White Label	11	x	x	x	x	x	x	x	x	x								x See Note 2		
	Compressed Non-Inflammable Gases, Light Green Label	12	x	x	x	x	x	x	x												

Note 1. Blasting caps in any quantity must not be loaded or stored with High Explosives, Wet Fulminate of Mercury, Ammunition for Cannon with Explosive Projectiles, Explosive Projectiles or Explosive Torpedoes.

Note 2. Unless loaded in opposite ends of a car, Acid must not be loaded with Yellow Label articles, Ammunition for Cannon or Smokeless Powder.

REGULATIONS

FOR THE

TRANSPORTATION OF EXPLOSIVES BY FREIGHT.

Prescribed under act of March 4, 1909. Originally formulated and published January 15, 1910, effective 90 days thereafter. Revision formulated and published July 2, 1914, effective October 1, 1914, and superseding the regulations published January 1, 1912.

GENERAL NOTICE.

1401. (*a*) As the use of explosives is essential to various business activities throughout the country, it is the duty of interstate railroad carriers to accept and transport such explosives under these regulations. When local conditions make the acceptance, transportation, or delivery unusually hazardous, local restrictions, as provided by paragraph 1429 herein, may be imposed.

(*b*) It is also the duty of carriers and shippers to make these regulations effective and to thoroughly instruct their employees in relation thereto.

1402. The Bureau for the Safe Transportation of Explosives and other Dangerous Articles, hereinafter called Bureau of Explosives, organized by the railways under the auspices of the American Railway Association, is an efficient bureau in charge of an expert chief inspector. This bureau will make inspections and conduct investigations, and will confer with manufacturers and shippers with a view to determining what specifications and regulations will within reasonable limits afford the highest degree of safety in packing and preparing these dangerous articles for shipment and in transporting the same. The Commission will seek to avail itself of the expert knowledge thus developed, and in formulating amendments to these regulations or specifications supplemental thereto, while not bound thereby, will give due weight to such expert opinions.

1403. The Commission will make further provision as occasion may require for new explosives not included in or covered by the following regulations.

1404. These regulations apply to all shipments of explosives as defined herein, including carrier's material and supplies.

GENERAL RULES.

1421. Unless specifically authorized by these regulations, explosives must not be packed in the same outside packages with each other or with other articles.

1422. Explosives, when offered for shipment by rail, must be in proper condition for transportation and must be packed, marked, loaded, stayed, and handled while in transit in accordance with these regulations. All packages of less-than-carload shipments must also be plainly marked on the outer covering or boxing (outside package) with the name and address of the consignee.

1423. Except on through bills of lading to a foreign destination, shipments of dangerous explosives as named in paragraph 1661 must not be accepted when consigned "order notify."

1424. **Empty boxes or kegs** previously used for high explosives are dangerous and must not be again used for shipments of any character. Empty boxes which have been used for the shipment of other explosives than high explosives must have the old marks thoroughly removed before being used for the shipment of other articles. **Empty metal kegs** which have been used for the shipment of black powder which was not contained in an interior package must not be again used for shipment of any explosive, and if used for the shipment of other articles must have the old marks thoroughly removed or obliterated.

1425. (*a*) Explosives except such as are forbidden (see par. 1501) may be offered for transportation to railroads engaged in interstate commerce, provided the following regulations are complied with, and provided their method of manufacture, packing, and storage, so far as it affects safe transportation, is open to inspection by a duly authorized representative of the initial carrier or of the Bureau of Explosives. Shipments of explosives that do not comply with these regulations must not be received.

(*b*) Shipments offered by the War and Navy Departments of the United States Government may be packed, including limitations of weight, as required by their regulations.

1426. When practicable at any point, **regular and separate days** should be assigned for receiving from shippers less-than-carload lots of dangerous explosives named in paragraph 1661.

1427. To enable the carrier to provide proper cars at stations where less-than-carload shipments of the dangerous explosives named in paragraph 1661 are accepted for loading by the carrier, the shipper must give to the carrier not less than **24 hours' notice** of his intention to offer such shipments, and state their destinations. When a regular day to receive all explosive shipments offered at such a station has been appointed, this notice may be waived by the carrier, but the explosive shipments must be delivered on such days in time to permit proper inspection, billing, and loading, on that day.

1428. Before any shipment of dangerous explosives as named in paragraph 1661 destined to a point beyond the lines of the initial carrier is accepted from a shipper, the initial carrier must ascertain that the shipment can go forward via the route designated.

1429. All carriers must report to the chief inspector of the Bureau of Explosives for compilation and publication, full information as to **restrictions** which may be imposed as provided in paragraph 1401 (a) against the acceptance, delivery, or transportation of explosives over any portion of their lines.

1430. (*a*) **Forbidden explosives,** as defined in paragraph 1501, and explosives condemned by the Bureau of Explosives (except properly repacked samples for laboratory examination), must not be offered for shipment.

(*b*) Samples of any **new explosive must be examined** and approved as safe for transportation by the Bureau of Explosives before shipments (except samples for this examination not exceeding 5 pounds net in weight) can be accepted. For this purpose a **new explosive** is defined to be the product of a new factory or an explosive of an essentially new composition made by any factory.

1431. **Leaking or damaged packages** of explosives must not be offered for shipment. Should any package of high explosives when offered for shipment show excessive dampness or be mouldy or show outward signs of any oily stain or other indication that absorption of the liquid part of the explosive is not perfect, or that the amount of the liquid part is greater than the absorbent can carry, it must be refused in every instance. The shipper must substantiate any claim that a stain is due to accidental contact with grease, oil, or similar substance. In case of doubt, the package must be rejected.

1432. **Condemned or leaking dynamite** must not be repacked and offered for shipment unless the repacking is done by a competent person in the presence of, or with the written consent of an inspector, or with the written authority of the chief inspector of the Bureau of Explosives.

1433. Carriers must forward shipments of explosives promptly and within 48 hours after acceptance at originating point or receipt at transfer station or at interchange point, and consignees must remove such shipments from the carrier's property within 48 hours after notice of arrival at destination, Sundays and holidays not included.

1434. (*a*) Serious **violations** of these regulations (such as defective packing, improper staying, rough treatment of car, broken packages, etc.) and **accidents** or **explosions** occurring in connection with the transportation or storage on carrier's property of explosives must be reported by the carrier to the chief inspector, Bureau of Explosives, 30 Vesey Street, New York City.

All violations must be corrected before forwarding the explosives.

(*b*) Consignees should report promptly to the chief inspector, Bureau of Explosives, all instances of improper staying and broken or defective packages of explosives in shipments received by them.

SECTION 1.

INFORMATION AND DEFINITIONS.

GROUPING.

1500. For transportation purposes, explosives are divided into the following groups:

1. **Forbidden explosives.**
2. **Acceptable explosives.**

GROUP 1.—FORBIDDEN EXPLOSIVES.

1501. The following are forbidden explosives:

(*a*) **Liquid nitroglycerin.**

(*b*) **Dynamite** containing over 60 per cent of nitroglycerin (except gelatin dynamite).

(*c*) **Dynamite** having an unsatisfactory absorbent, or one that permits leakage of nitroglycerin under any conditions liable to exist during transportation or storage.

(*d*) **Nitrocellulose** in a dry and uncompressed condition, in quantity greater than 10 pounds, net weight in one exterior package.

(*e*) **Fulminate of mercury in bulk** in a dry condition, and fulminates of all other metals in any condition except as a component of manufactured articles whose transportation is not forbidden herein.

(*f*) **Fireworks** that combine an explosive and a detonator or blasting cap.

(*g*) **Explosive compositions** including **fireworks** that ignite spontaneously or undergo marked decomposition when subjected for 48 consecutive hours to a temperature of 75° C. (167° F.)

(*h*) **Firecrackers** whose dimensions exceed 5 inches in length or three-quarters of an inch in diameter or whose explosive charges exceed 45 grains each in weight.

(*i*) **Toy torpedoes** exceeding 1½ inches in diameter, or toy caps containing more than an average of thirty-five hundredths of a grain of explosive composition per cap.

(*j*) **Fireworks** that can be exploded en masse by a blasting cap placed in one of the units or by the impact of a rifle bullet or otherwise.

Such articles may be shipped when packed, marked, and certified in accordance with these regulations and offered for shipment as high explosives.

(*k*) **Fireworks** containing a match tip or head, or similar igniting point or surface, unless each individual tip, head, or similar igniting point or surface is entirely covered and securely protected from accidental contact or friction with any other surface.

(*l*) **Fireworks or explosives** containing an ammonium salt and a chlorate.

(*m*) **New explosives** (except samples for laboratory examinations) until approved for transportation by the Bureau of Explosives.

(*n*) **Explosives properly condemned** by the Bureau of Explosives (except properly repacked samples for laboratory examinations.) Parties who are dissatisfied with the decision of the Bureau may appeal to the Com-

mission and if it is a question of chemical composition the Commission will arrange to have a test made by a disinterested government laboratory.

GROUP 2.—ACCEPTABLE EXPLOSIVES.

1502. **Low explosives and black powder** are general names that may be used to describe all explosives having a composition similar to that of ordinary black powder, such as carbonaceous material, sulphur, and a nitrate of sodium or potassium, and that cannot be detonated by a commercial blasting cap. Examples are, rifle, sporting, cannon, and blasting powders.

1503. **High explosives** are all explosives more powerful than ordinary black powder, except smokeless powders and fulminates. Their distinguishing characteristic is their susceptibility to detonation by a blasting cap. Examples of high explosives are the dynamites, picric acid,[1] picrates, chlorate powders, nitrate of ammonia powders, dry trinitrotoluol, dry nitrocellulose (gun cotton), and fireworks that can be exploded en masse.

1504. **Smokeless powders** are those explosives from which there is little or no smoke when fired. They include smokeless powder for cannon and smokeless powder for small arms. **Smokeless powder for cannon** used in the United States at the present time consists of a nitrocellulose colloid, and is comparatively safe to handle and transport. **Smokeless powders for small arms** may consist of nitrocellulose or nitrocellulose combined with nitroglycerin. Detonable picrate or chlorate mixtures are classed as high explosives.

1505. **Fulminates** are fulminates of mercury or of other metals in bulk form, that is, not made up into percussion caps, detonators, blasting caps, toy torpedoes, or exploders.

1506. **Small-arms ammunition** (such as is used in sporting or fowling pieces, or in rifle or pistol practice, etc.), consists usually of a paper or metallic shell, the primer, and the powder charge, with or without shot or bullet, the materials necessary for one firing being all in one piece.

1507. **Ammunition for cannon** embraces all fixed or separate-loading ammunition too heavy for use in small arms. When the component parts are packed in separate outside packages such packages may be shipped as smokeless powder for cannon, explosive projectiles, empty (including solid and sand loaded) projectiles, primers, or fuzes. Igniters composed of black powder may be attached to packages in shipments of smokeless powder for cannon.

1508. **Explosive projectiles** are loaded shells for use in cannon. They are not liable to be exploded except by fire of considerable intensity, and the flying fragments would then be very dangerous.

1509. **Blasting caps** contain from 5 to 50 grains of dry fulminate of mercury, or other substance similar to or in combination with fulminate of mercury, packed in a thin copper shell and fired by a slow-burning safety fuse. When a small "bridge" of fine wire is imbedded in a suitable priming material and arranged to fire the fulminate by heating the bridge by means of an electric current, the cap is called an "electric blasting cap." They cause explosions of a high order, or "detonations." This means the instantaneous conversion of the entire explosive into gas instead of the gradual conversion known as "combustion." Dynamite "detonates" and smokeless powder for cannon "burns."

1510. **Detonating fuzes** are used in the military service to detonate the high explosive bursting charges of projectiles or torpedoes. In addition to a powerful detonator they may contain several ounces of a high explosive, such as picric acid or dry nitrocellulose, all assembled in a heavy steel envelope.

1511. **Primers, percussion and time fuzes** are devices used to ignite the black powder bursting charges of projectiles, or the powder charges of ammunition. For small-arms ammunition the primers are usually called "small-arms primers" or "percussion caps." **Tracer fuzes** consist of a device which is attached to a projectile and contains a slow-burning composition to show the flight of projectiles at night.

1512. **Safety fuse** consists ordinarily of a core of granular black powder, which is surrounded by yarn, tape, pitch, rubber, etc.

Cordeau detonant is a fuse containing trinitrotoluol, assembled in a drawn lead tube.

Safety squibs are small paper tubes containing a small quantity of black powder, one end of each tube being twisted and generally tipped with sulphur.

1513. **Fireworks** include everything that is designed and manufactured primarily for the purpose of producing a visible or an audible pyrotechnic effect by combustion or by explosion. They consist of common fireworks and special fireworks. (See par. 1501 (*j*).)

1514. **Common fireworks** include all that depend principally upon nitrates to support combustion and not upon chlorates; that contain no phosphorus and no high explosive sensitive to shock and friction; that produce their effect through color display rather than by loud noises. If noise is the principal object, the units must be small and of such nature and manufacture that they will explode separately and harmlessly, if at all, when one unit is ignited in a packing case. They must not be designed for ignition by shock or friction. Examples are Chinese firecrackers, Roman candles, pinwheels, colored fires, rockets, serpents, railway fusees, flash powders, etc.

1515. **Special fireworks** include all that contain any quantity of phosphorus, a fulminate, or other high explosive sensitive to shock or friction, or that contain units of such size that the explosion of one while being handled would produce a serious injury, or that require a special appliance or tool, mortar, holder, etc., for their safe use, or that are designed for ignition by shock or friction. Examples are giant firecrackers, bombs, and salutes (not high explosives), toy torpedoes and caps, ammunition pellets fired in a special holder, railway torpedoes, etc.

[1] Picric acid for medicinal purposes, and not exceeding 4 ounces in one outside package, may be shipped without other restrictions when in securely closed glass bottles, properly cushioned to prevent breakage.

SECTION 2.

PACKING, MARKING, AND CERTIFYING ACCEPTABLE EXPLOSIVES.

1531. (*a*) The construction of **shipping containers** purchased hereafter and used in shipping explosives must conform to specifications approved by the Interstate Commerce Commission that apply, and excepting shipments offered by the United States Government, each container must be stamped, labeled, or marked "Complies with I. C. C. Spec'n. No. ———" or equivalent marking, as stated in the specification.

(*b*) In addition to standing the tests prescribed, the design and construction of packages must be such as to prevent the occurrence in individual packages of defects that permit leakage of their contents under the ordinary conditions incident to transportation. The results of experience, gained by an examination of broken or leaking packages on arrival at destination, must be reported to and recorded by the Bureau of Explosives, to the end that further use of any particular kind of package shown by experience to be inefficient may be prohibited by the Commission.

(*c*) Pending approval and promulgation by the Commission of specifications for types of shipping containers other than those for which specifications are published herein, containers may be used which after investigation made by the Bureau of Explosives or by other competent testing laboratory in the presence of a representative of the Bureau of Explosives, are shown to possess the general efficiency and the protection against leakage of contents afforded by the standard types of corresponding capacity described in the specifications published herein, provided they are labeled or marked to show compliance with this requirement.

SAMPLES OF EXPLOSIVES TOGETHER.

1532. **Samples of explosives** (except blasting caps) in separate interior containers may be packed in the same outside package of gross weight not exceeding 50 pounds, provided the weight of any one sample does not exceed eight ounces, and provided the interior packages are so cushioned and protected as to insure their transportation without rupture or leakage of contents. The package must be marked and described with the name of the most dangerous explosive included among the samples, such as "HIGH EXPLOSIVE," "BLACK POWDER," etc.

LOW EXPLOSIVES AND BLACK POWDER.

1533. **Packing.**—Packages containing less than 12½ pounds of black powder or low explosives must be inclosed in a tight wooden box complying with specification No. 16. Each inside package containing less than 12½ pounds and more than 1½ pounds must be so placed in the outside box that the filling hole will be up. The boxes must be marked on top "THIS SIDE UP" and also as prescribed by paragraph 1536.

1534. Twelve and a half pounds or over of black powder or low explosives must be packed in packages that comply with specification No. 11 or 13. Kegs less than 8 inches long must be boxed as prescribed by paragraph 1533.

1535. **Weight.**—Packages must not weigh over 200 pounds gross.

1536. **Marking.**—Each outside package must be plainly marked, stamped, or stenciled "BLACK POWDER" or "LOW EXPLOSIVES," and may also show "BLASTING," "RIFLE," etc., as "BLACK BLASTING POWDER," "BLACK RIFLE POWDER," "LOW BLASTING EXPLOSIVE," etc. Additional marks, trade names, etc., may appear if desired by shipper, but such additional marking must not be more conspicuous nor must it obscure the marking prescribed herein.

HIGH EXPLOSIVES.

1551. **High explosives** consisting of a liquid mixed with an absorbent material must have the absorbent (wood pulp or similar material) in sufficient quantity and of satisfactory quality, properly dried at the time of mixing; nitrate of soda must be dried at the time of mixing to less than 1 per cent of moisture; and the ingredients must be uniformly mixed so that the liquid will remain thoroughly absorbed under the most unfavorable conditions incident to transportation.

1552. Explosives containing nitroglycerin must have uniformly mixed with the absorbent material a satisfactory antacid which must be in quantity sufficient to have the acid neutralizing power of an amount of magnesium carbonate equal to 1 per cent of the nitroglycerin.

1553. (*a*) **Packing.**—High explosives containing more than 10 per cent of nitroglycerin must be made into cartridges not exceeding 4 inches in diameter or 8 inches in length, and must not be packed in bags or sacks. This does not apply to gelatin dynamite.

(*b*) High explosives containing not more than 10 per cent of nitroglycerin may be shipped in bags or sacks. Each bag or sack must not contain more than 12½ pounds of explosive, and must be placed in a box with filling end up. These bags or sacks and the coverings of all cartridges must be strong and so treated that they will not absorb the liquid constituent of the explosive.

1554. (*a*) All boxes in which high explosives in cartridges, bags, sacks, or in bulk are packed must be lined with strong paraffined paper or other suitable material. The lining must be without joints or other openings at the bottom or on the sides of the box, and must be impervious to water and to any liquid ingredient of the explosive.

(*b*) In packing cartridges of nitroglycerin explosives at least one-quarter of an inch thickness of dry, fine wood pulp or saw-dust must be spread over the bottom of the lined box before inserting the cartridges, and all the vacant space in the top must be filled with this material.

(*c*) All cartridges exceeding 4 inches in length, except explosive gelatin or gelatin dynamite, must be placed horizontally in boxes.

1555. Inside packages containing not more than 1 pound each of dry uncompressed nitrocellulose, wrapped

in strong paraffined paper or other suitable spark-proof material, will be accepted for shipment if securely packed in an outside package that complies with Specification No. 14 and is marked as prescribed in paragraph 1559. Outside packages must not contain more than 10 pounds of dry nitrocellulose.

1556. (*a*) High explosives containing no explosive liquid ingredient and not having, with their normal percentage of moisture, a sensitiveness to percussion greater than measured by the blow delivered by an 8-pound weight dropping from a height of 7 inches on a compressed pellet of the explosive three-hundredths of an inch in thickness and two-tenths of an inch in diameter confined rigidly between hard steel surfaces, as in the standard impact-testing apparatus of the Bureau of Explosives, may be shipped in bulk when securely packed in authorized containers. These explosives may also be packed in cartridges, and must be so packed when their sensitiveness is greater than the above limit. Wooden boxes or wooden kegs provided with suitable linings to prevent leakage must be used for chlorate powders.

(*b*) When the addition of water to any such explosive will make it nonexplosive according to tests made by the Bureau of Explosives, the wet material may be shipped and handled in transit as prescribed by the Regulations for the Transportation of Dangerous Articles other than Explosives by Freight and by Express.

1557. **Containers** for high explosives must comply with Specifications Nos. 11, 14, 20, 21, and 22 as specified therein.

1558. (*a*) **Weights.**—Packages of high explosives containing an explosive liquid ingredient must not exceed 75 pounds gross weight.

(*b*) Packages of high explosives containing no liquid explosive ingredient whose shipment in bulk is authorized by paragraph 1556 must not exceed 125 pounds gross weight.

(*c*) The gross weight of an outside package containing not exceeding 10 pounds net of dry nitrocellulose, not compressed, packed as prescribed in paragraph 1555, must not exceed 35 pounds. Compressed sticks or blocks of dry nitrocellulose (gun cotton) wrapped in strong paraffined paper may be shipped in outside packages complying with specification No. 14, with a gross weight not exceeding 75 pounds.

1559. **Marking.**—Boxes must be plainly marked on top and on one side or end and kegs must be marked on one end "HIGH EXPLOSIVE—DANGEROUS," in letters not less than $\frac{7}{16}$ inch in height. The tops of boxes must be marked "THIS SIDE UP."

SMOKELESS POWDER FOR CANNON.

1571. **Packing.**—Smokeless powder for cannon must be packed in tight wooden boxes free from loose knots and cracks, or in wooden barrels that comply with Specification No. 11, or in metal barrels or kegs that comply with Specification No. 13. Smokeless powder for cannon may be packed in water in metal barrels or in strong wooden barrels of the type used for alcohol.

1572. **Weight.**—Packages must not weigh over 180 pounds gross unless the powder is packed in water.

1573. **Marking.**—Each package must be plainly marked "SMOKELESS POWDER FOR CANNON," or "SMOKELESS POWDER FOR CANNON IN WATER."

SMOKELESS POWDER FOR SMALL ARMS.

1575. **Packing.**—Packages containing less than 9 pounds of smokeless powder for small arms must be inclosed in a tight wooden box complying with Specification No. 16. Each inside package containing less than 9 pounds and more than 1½ pounds must be so placed in the outside box that the filling hole will be up. The box must be marked on top "THIS SIDE UP" and also as prescribed by paragraph 1578.

1576. Quantities of 9 pounds or over of smokeless powder for small arms must be packed in tight wooden boxes free from loose knots or cracks, or in wooden barrels that comply with Specification No. 11, or in metal barrels or kegs that comply with Specification No. 13. Kegs less than 8 inches long must be boxed as prescribed by paragraph 1575. Smokeless powder for small arms may be packed in water in metal barrels or in strong wooden barrels of the type used for alcohol.

1577. **Weight.**—Packages must not weigh over 150 pounds gross.

1578. **Marking.**—Each outside package must be plainly marked "SMOKELESS POWDER FOR SMALL ARMS," or "SMOKELESS POWDER FOR SMALL ARMS, IN WATER."

FULMINATES.

1591. **Packing.**—Fulminate of mercury in bulk must contain when packed not less than 25 per cent of water, and must in this wet condition be placed in a bag made of heavy cotton cloth of close mesh, equal in quality and weight to the cotton twill used for pockets in high-grade clothing. There must be placed inside the bag and over the fulminate a cap of the same cloth and of the diameter of the bag, and the bag must be tied securely and placed in a strong grain bag, which must, in turn, be tied securely and packed in the center of a cask or barrel in good condition and of the kind used for shipment of alcohol. The grain bag must not contain more than 150 pounds dry weight of fulminate and it must be surrounded on all sides by tightly packed sawdust not less than 6 inches thick. The cask or barrel must be lined with a heavy, close-fitting jute bag, closed by secure sewing to prevent escape of sawdust. After the barrel is properly coopered it must be filled with water and the bung sealed. The barrel must be inspected carefully and all leaks stopped.

1592. **Marking.**—Each cask or barrel must be plainly marked "WET FULMINATE OF MERCURY —DANGEROUS."

SMALL-ARMS AMMUNITION.

1601. **Packing.**—Small-arms ammunition must be packed in pasteboard or other boxes, and these boxes

must be packed in strong outside wooden or metal containers.

Small-arms ammunition in pasteboard or other boxes, and in quantity not exceeding a gross weight of 75 pounds, may be packed with nonexplosive and noninflammable articles and with small-arms primers or percussion caps (see par. 1619), provided the outside wooden or metal container is marked as prescribed in paragraph 1602.

1602. **Marking.**—Each outside package or case must be plainly marked "SMALL-ARMS AMMUNITION."

1603. No restrictions, other than proper packing and marking, are necessary for the shipment of small-arms ammunition.

AMMUNITION FOR CANNON.

1604. **Packing.**—Ammunition for cannon must be well packed and properly secured in strong wooden or metal containers.

1605. **Marking.**—Each outside package must be plainly marked "AMMUNITION FOR CANNON WITH EXPLOSIVE PROJECTILES," or "AMMUNITION FOR CANNON WITH EMPTY PROJECTILES," or "AMMUNITION FOR CANNON WITH SAND-LOADED PROJECTILES," or "AMMUNITION FOR CANNON WITH SOLID PROJECTILES," according as the projectiles do or do not contain a bursting charge, or "AMMUNITION FOR CANNON WITHOUT PROJECTILES."

Empty cartridge bags having attached black powder igniters must be marked "EMPTY CARTRIDGE BAGS—BLACK POWDER IGNITERS."

1606. No restrictions other than proper marking are prescribed for shipments of material relating to ammunition for cannon, but containing no explosive or other dangerous article, such as cartridge cases, "dummy" or "drill" cartridges, etc.

EXPLOSIVE PROJECTILES.

1607. **Packing.**—Explosive projectiles must be packed in strong wooden or metal boxes and each projectile must be properly secured. Projectiles exceeding 100 pounds in weight may be shipped without being boxed, if desired. When necessary, detonating fuzes of an approved type may be assembled in explosive projectiles.

1608. **Weight.**—The gross weight of a box containing more than one explosive projectile must not exceed 160 pounds.

1609. **Marking.**—Each exterior package or projectile must be plainly marked "EXPLOSIVE PROJECTILE," "SAND-LOADED PROJECTILE," "SOLID PROJECTILE," "EMPTY PROJECTILE," "EXPLOSIVE TORPEDO," or "EMPTY TORPEDO."

No restrictions, other than proper marking, are prescribed for the shipment of sand-loaded projectiles, empty projectiles, solid projectiles, or empty torpedoes, and tracer fuzes of an approved type may be assembled in projectiles.

BLASTING CAPS.

1611. **Packing.**—Blasting caps contain such a sensitive and dangerous explosive that very efficient packing is necessary, and the outside of all caps must be free from fulminate.

(*a*) Blasting caps must be packed in strong interior packages or containers, in which they must fit snugly, and the caps must be closed securely by teats projecting from a plate of suitable elastic material placed over the caps. Not more than 100 blasting caps may be packed in a single inside container. All inside containers must then be packed snugly in cartons or wrappings made of paper or pasteboard.

(*b*) For not more than 5,000 caps the inside containers in cartons or wrappings must be packed in an outside box which must comply with Specification No. 15, and they must be separated from the outside box by at least 1 inch of tightly packed sawdust, excelsior, or equivalent cushioning material.

(*c*) For more than 5,000 caps the inside containers, in cartons or wrappings, must be packed in an inside box made of sound lumber or in a hermetically sealed metal box made of not less than 30 gauge United States standard, and this inside wooden or metal box must then be packed in an outside box made of sound lumber; both of these boxes must comply with Specification No. 15. Tightly packed sawdust, excelsior, or equivalent cushioning material at least 1 inch thick at all points must separate the inside box from the outside wooden box.

(*d*) More than 20,000 blasting caps must not be placed in one outside package.

(*e*) Not more than five tin boxes, containing not more than 100 blasting caps in each box, may be packed with safety fuse, each box to be placed in the center of a coil of fuse, and in this case the outside box must be made of sound lumber, complying with Specification No. 15.

(*f*) Electric blasting caps must be packed in pasteboard cartons containing not more than 50 caps each. These cartons must be packed in a wooden box, complying with Specification No. 15.

1612. **Weight.**—The gross weight of an outside package containing blasting caps or electric blasting caps must not exceed 150 pounds.

1613. **Marking.**—Each outside package must be plainly marked "(number) BLASTING CAPS—HANDLE CAREFULLY," or "(number) ELECTRIC BLASTING CAPS—HANDLE CAREFULLY." In addition, each box must bear the marking "DO NOT STORE OR LOAD WITH ANY HIGH EXPLOSIVE."

DETONATING FUZES.

1615. **Packing.**—Detonating fuzes must be packed in strong, tight wooden boxes, and each fuze must be well secured.

1616. **Weight.**—The gross weight of one outside package must not exceed 165 pounds.

1617. **Marking.**—Each outside package must be plainly marked "DETONATING FUZES—HANDLE CAREFULLY."

PRIMERS, PERCUSSION AND TIME FUZES.

1619. (*a*) **Packing.**—Primers, percussion and time fuzes must be packed in strong, tight wooden outside boxes, with special provision for securing individual packages of primers and fuzes against movement in the box.

(*b*) Small-arms primers containing anvils must be packed in cellular inside packages, with partitions separating the layers and columns of primers, so that the explosion of a portion of the primers in the completed shipping package will not cause the explosion of all of the primers.

(*c*) Percussion caps may be packed in metal or other inside boxes containing not more than 500 caps, but the construction of the cap and the kind and quantity of explosives in each must be such that the explosion of a part of the caps in the completed shipping package will not cause the explosion of all of the caps.

(*d*) Small-arms primers and percussion caps may form a part of the gross weight of 75 pounds of small-arms ammunition that may be packed with other articles as authorized by paragraph 1601.

1620. **Weight.**—The gross weight of one outside package must not exceed 150 pounds.

1621. **Marking.**—Each outside box must be plainly marked "SMALL-ARMS PRIMERS—HANDLE CAREFULLY," or "PERCUSSION CAPS—HANDLE CAREFULLY," or "CANNON PRIMERS—HANDLE CAREFULLY," or "COMBINATION PRIMERS—HANDLE CAREFULLY," or "PERCUSSION FUZES—HANDLE CAREFULLY," or "COMBINATION FUZES—HANDLE CAREFULLY," or "TRACER FUZES—HANDLE CAREFULLY," etc.

1622. No restrictions other than proper packing and marking are necessary for the shipment of primers, percussion and time fuzes. No restrictions other than proper marking are prescribed for the shipment of "Empty cartridge shells, primed."

COMMON FIREWORKS.

1631. **Packing.**—Common fireworks must be in a finished state, exclusive of mere ornamentation, as supplied to the retail trade, and must be securely packed in strong, tight, spark-proof wooden barrels that comply with Specification No. 11, or in boxes complying with Specification No. 12A.

1632. **Weight.**—The gross weight of one outside package containing common fireworks must not exceed 325 pounds, except that exhibition set pieces when specially packed may have weight not exceeding 400 pounds.

1633. **Marking.**—Each outside package must be plainly marked in letters not less than $\frac{7}{16}$ inch in height "COMMON FIREWORKS—KEEP FIRE AWAY."

SPECIAL FIREWORKS.

1634. **Packing.**—Special fireworks must be in a finished state, exclusive of mere ornamentation, as supplied to the retail trade, and must not contain forbidden fireworks. (See par. 1501 (*f*) to (*l*), inclusive.)

Special fireworks must be securely packed in strong, spark-proof wooden barrels that comply with Specification No. 11, or in boxes complying with Specification No. 12.

1635. **Weight.**—The gross weight of one outside package containing special fireworks must not exceed 200 pounds, and the gross weight of a package containing toy torpedoes must not exceed 65 pounds.

1636. **Marking.**—Each outside package containing special fireworks or a mixture of common and special fireworks must be plainly marked in letters not less than $\frac{7}{16}$ inch in height "SPECIAL FIREWORKS—HANDLE CAREFULLY—KEEP FIRE AWAY."

SAFETY FUSE, CORDEAU DETONANT, AND SAFETY SQUIBS.

1638. **Safety fuse, cordeau detonant, and safety squibs** must be packed in strong wooden boxes or barrels properly marked, and may be loaded in any car with any other kind of an explosive or inflammable substance or with other freight. Cordeau detonant must not be packed in the same package with blasting caps, or with any high explosive.

SHIPPING ORDER.

1641. (*a*) **Shipper's certificate.**—The shipping order for any package containing an explosive named below must show each article under its proper name as specified in this paragraph, and must show the following certificate in the lower left-hand corner, over the written or stamped facsimile signature of the shipper or of his duly authorized agent:

This is to certify that the above articles are properly described by name and are packed and marked and are in proper condition for transportation according to the regulations prescribed by the Interstate Commerce Commission.

LIST OF SHIPPING NAMES.

Low explosives.
Black powder.
High explosives.
Smokeless powder for cannon.
Smokeless powder for small arms.
Wet fulminate of mercury.
Ammunition for cannon with explosive projectiles.
Ammunition for cannon with empty projectiles.
Ammunition for cannon with sand-loaded projectiles.
Ammunition for cannon with solid projectiles.
Ammunition for cannon without projectiles.
Explosive projectiles.
Explosive torpedoes.
Detonating fuzes.
(Number) blasting caps.
(Number) electric blasting caps.
Common fireworks.
Special fireworks.

(*b*) The following acceptable explosives must be described under their proper names as given below, but shipper's certificate is not required:

Small-arms ammunition.
Small-arms primers.
Cannon primers.
Empty cartridge shells, primed.
Empty cartridge bags—black powder igniters.
Combination primers.
Percussion caps.
Percussion fuzes.
Time fuzes.
Tracer fuzes.
Combination fuzes.
Safety fuse.
Cordeau detonant.
Safety squibs.
Empty projectiles.
Sand loaded projectiles.
Solid projectiles.
Empty torpedoes.

(*c*) Whenever orders are placed in foreign countries for the importation of explosives, to be forwarded from port of entry by carriers subject to these regulations, the importer must furnish with the order to the foreign shipper, and also to the forwarding agent at the port of entry, full and complete information as to the necessary packing and marking required by these regulations. The forwarding agent must file with the originating carrier a properly prepared and certified shipping order as prescribed herein.

SECTION 3.

RULES FOR HANDLING.

1642. In handling packages of explosives at stations and in transferring them to and from cars the greatest care must be taken, and shocks or falls liable to injure the containing package must be avoided. Where an inclined chute is employed such chute shall be constructed of 1-inch planed boards, with side guards 4 inches high extending 3 inches above top face of bottom of chute and throughout its length, fastened with brass screws. D-shaped strips or runners, not more than 6 inches apart and running lengthwise of chute, must be fastened to the upper surface of the bottom board by means of glue and wooden pegs extending through the bottom board and runners. Chutes must be occasionally wiped down with waste moistened with machine oil when dynamite packages are being handled.

A stuffed mattress, 4 feet wide by 6 feet long and not less than 4 inches thick, or a heavy jute or hemp mat of like dimensions, must be placed under the discharging end of the chute.

1643. (*a*) Careful men must be chosen to handle explosives, the platform and the feet of the men must be as free as possible from grit, and all possible precautions must be taken against fire. Suitable provision must be made, outside of the station when practicable, for the safe storage of explosives, and every effort possible must be made to reduce the time of this storage. If a shipment of explosives is not removed within 48 hours after notice of arrival at destination, it must be disposed of by return to the shipper, or by storage at the expense of the owner, or by sale, or when necessary to safety by destruction under supervision of a competent person.

(*b*) Unauthorized persons must not have access to explosives or other dangerous articles at any time while such articles are in the custody of the carrier.

LOADING IN CAR.

1644. (*a*) Packages receive their greatest stresses in a direction parallel to the length of the car and must be loaded so as to offer their greatest resistance in this direction. Boxes of dangerous explosives named in paragraph 1661 when loaded in the car must rest on their bottoms and with their long dimension parallel to the length of the car.

(*b*) A car must not contain more than 70,000 pounds gross weight of explosives. This limit does not apply to shipments of small-arms ammunition or ammunition for cannon.

(*c*) When the lading of a car includes explosives and exceeds 5,000 pounds the weight of the lading must be distributed in approximately equal parts in both ends of the car.

1645. Explosives packed in kegs, except when boxed, must be loaded on their sides with ends toward ends of the car; and packages of explosives must not be placed in the space opposite the doors unless the doorways are boarded on the inside as high as the lading.

Large casks, barrels, or drums may be loaded on their sides or ends as will best suit the conditions.

1646. (*a*) Packages containing any of the explosives for the transportation of which a certified and placarded car is prescribed (see par. 1661), must be stayed (blocked and braced) by the one who loads the car, by methods not less efficient than those described in Bureau of Explosives Pamphlet No. 6, to prevent change of position by the ordinary shocks incident to transportation. Special care must be used to prevent them from falling to the floor or from having anything fall on them or slide against them during transit.

(*b*) To prevent delays to local freight trains, when there are shipments of explosives for different destinations loaded in a "peddle car" or "way car," the shipments for each destination must be stayed separately.

(*c*) Forwarding and transfer stations for explosives must be provided with the necessary materials for staying.

(*d*) Shippers must furnish the material for staying packages loaded by them.

1647. Detonating fuzes or blasting caps, or electric blasting caps, must not be loaded in a car or stored with high explosives of any kind, including explosive projectiles, nor with wet nitrocellulose.

1648. Wet fulminate of mercury must not be loaded with any explosive or inflammable article.

1649. Fireworks must not be loaded in the same car nor stored on carriers' property with any explosive named in paragraph 1661.

1650. Explosives named in paragraph 1661 that require a certified car, placarded "EXPLOSIVE," must

not be transported in the same car with nor stored on railway property near any of the dangerous articles for which labels are prescribed by the Regulations for the Transportation of Dangerous Articles other than Explosives by Freight.

1651. In a car containing explosives all packages of other freight must be loaded, and when necessary must be stayed to prevent injury to packages of explosives during transit. When practicable explosives should be loaded so as to avoid transfer at stations.[1]

WAYBILLING.

1652. (*a*) The carrier must see that each shipment of explosives is properly described on the shipping order and on the revenue waybill under one of the names in the "List of shipping names," paragraph 1641, and that the correct gross weight is given.

(*b*) The revenue waybill or astray waybill for a shipment, and the card waybill and envelope containing revenue waybill when used as a card waybill for a car containing any of the following explosives:

Low explosives,
Black powder,
High explosives,
Wet fulminate of mercury,
Ammunition for cannon with explosive projectiles,
Explosive projectiles,
Explosive torpedoes,
Detonating fuzes,
Blasting caps, Electric blasting caps, } In quantity exceeding 1,000 blasting caps or 1,000 electric blasting caps,

must have plainly stamped or plainly written across the top, in letters not less than three-eighths of an inch high, the word "EXPLOSIVES."

(*c*) The revenue waybill and astray waybill for a shipment, and the card waybill and envelope containing revenue waybill when used as a card waybill for a car containing:

Ammunition for cannon with empty projectiles,
Ammunition for cannon with sand-loaded projectiles,
Ammunition for cannon without projectiles,
Ammunition for cannon with solid projectiles,
Smokeless powder for small arms,
Smokeless powder for cannon,
Common fireworks, or
Special fireworks,

must have plainly stamped or plainly written across the top, in letters not less than ⅜ of an inch high, the word "INFLAMMABLE."

(*d*) No indorsements are required on revenue waybills, card waybills, or other billing for shipments or for cars of the following explosives:

Small-arms ammunition.
Small-arms primers.
Cannon primers.
Empty cartridge shells, primed.
Empty cartridge bags—black powder igniters.
Combination primers.
Percussion caps.
Percussion fuzes.
Time fuzes.
Tracer fuzes.
Combination fuzes.
Safety fuse.
Cordeau detonant.
Safety squibs.
Empty projectiles.
Sand-loaded projectiles.
Solid projectiles.
Empty torpedoes.
Blasting caps. Electric blasting caps. } In quantity not exceeding 1,000 caps.

SHIPMENTS FROM CONNECTING LINES.

1654. (*a*) Cars containing explosives named in paragraph 1661 which are offered by connecting lines must be carefully inspected by the receiving line on the outside, including the roof, and if practicable the lading must also be inspected. These cars must not be forwarded until all discovered violations have been corrected.

(*b*) If the car shows evidence of, or if there is any reason to suspect that it has received rough treatment, the lading must be inspected and placed in proper condition before the car is permitted to proceed. When interchange occurs and inspection is necessary after daylight hours, electric flash lights or other suitable covered lights should be provided. Naked lights must not be used.

(*c*) Shipments of explosives offered by connecting lines must comply with these regulations, and the revenue waybill, freight bill, manifest of lading, card waybill, switching order, or other billing must bear the indorsement "EXPLOSIVE" or "INFLAMMABLE" prescribed by paragraph 1652 (*b*) and (*c*).

DISPOSITION OF INJURED, CONDEMNED, AND ASTRAY PACKAGES.

1655. **Packages found injured or broken** in transit may be recoopered when this is evidently practicable and not dangerous. A broken box of high explosives that can not be recoopered should be reinforced by stout wrapping paper and twine, placed in another strong box, and surrounded by dry, fine sawdust, or dry and clean cotton waste, or elastic wads made from dry newspaper. A ruptured can or keg should be inclosed in a grain bag of good quality and boxed or crated. Injured packages thus protected and properly marked may be forwarded.

1656. **Condemned packages** of leaking explosives should (1) be returned immediately to shipper if at point of shipment; or (2) disposed of to a person who is competent and willing to remove them from railway property, if leakage is discovered while in transit; or (3) removed immediately by consignee if shipment is at destination.

When disposition cannot be made as above, the leaking boxes must be packed in other boxes large

[1] At stations where it is necessary to handle explosives at night it is recommended that incandescent electric lights be provided.

enough to permit, and the leaking box must be surrounded by at least 2 inches of dry, fine sawdust, or dry and clean cotton waste, and be stored in station magazine or other safe place until arrival of an inspector of the Bureau of Explosives or other authorized person to superintend the destruction or disposition of the condemned material.

1657. When name and address of consignee or shipper are known, an **astray shipment** must be forwarded to its destination or returned to the shipper by the most practicable route, provided a careful inspection shows the packages to be in proper condition for safe transportation.

When a package in an astray shipment is not in proper condition for safe transportation (see par. 1655), or when name and address of consignee and shipper are unknown, disposition will be made as prescribed by paragraph 1656.

SELECTION AND PREPARATION OF CARS.

DANGEROUS EXPLOSIVES.

1661. For the transportation of carloads or less-than-carload lots of—

Low explosives,
Black powder,
High explosives,
Wet fulminate of mercury,

Blasting caps, Electric blasting caps, } In quantity exceeding 1,000 blasting caps or 1,000 electric blasting caps.

Ammunition for cannon with explosive projectiles,
Explosive projectiles,
Explosive torpedoes, or
Detonating fuzes,

only certified and placarded box cars may be used.

CERTIFIED CAR PLACARDED "EXPLOSIVES."

1662. Certified cars must be inspected inside and outside and must conform to the following specifications:

(*a*) Box car not less than 60,000 pounds capacity with friction draft gear. Steel underframe cars should be used when available. On narrow-gauge and other railroads, all of whose freight cars are of less than 60,000 pounds capacity, explosives may be transported in car of less than that capacity, provided the available cars of greatest capacity and strength are used for this purpose.

(*b*) Must be equipped with air brakes and hand brakes in condition for service.

(*c*) Must have no loose boards or cracks in the roof, sides, or ends, through which sparks may enter.

(*d*) The doors must shut so closely that no sparks can get in at the joints, and, when necessary, they must be stripped. The stripping for doors should be on the inside and be fastened to the door frame where it will form a shoulder against which the closed door is pressed by means of wedges or cleats in door shoes or keepers. The openings under the doors should be similarly closed. The hasp fastenings must be examined with doors closed and fastened and must be cleated when necessary to prevent door shifting.

(*e*) The journal boxes and trucks must be carefully examined and put in such condition as to reduce to a minimum the danger of hot boxes or other failure necessitating the setting out of the car before reaching destination. The lids or covers of journal boxes must be in place.

(*f*) The car must be carefully swept out before it is loaded. For less-than-carload shipments the space in which the packages are to be loaded must be carefully swept.

Holes in the floor or lining must be repaired and special care taken to have no projecting nails or bolts or exposed pieces of metal which may work loose or produce holes in packages of explosives during transit.

(*g*) When packages of explosives are to be loaded over exposed draft bolts or kingbolts, these bolts must have short pieces of solid, sound wood with beveled ends (2-inch plank) spiked to the floor over them (or empty packages of the same character may be used for this purpose) to prevent possibility of their wearing into the packages of explosives.

(*h*) The roof of the car must be carefully inspected from the outside for decayed spots or broken boards, especially under or near the running board, and such spots must be covered or repaired to prevent their holding fire from sparks. A car with a roof generally decayed, even if tight, must not be used.

(*i*) The carrier must have the car examined by a competent employee to see that it is properly prepared, and must have a "Car certificate" signed in triplicate upon the prescribed form (see par. 1665) before permitting the car to be loaded.

(*j*) Cars not in proper condition, as above specified, must not be furnished to the shipper or used for the transportation of explosives.

LESS DANGEROUS EXPLOSIVES IN CAR PLACARDED "INFLAMMABLE."

1663. (*a*) Carloads or less-than-carload lots of—
Ammunition for cannon with empty projectiles,
Ammunition for cannon with sand-loaded projectiles,
Ammunition for cannon with solid projectiles,
Ammunition for cannon without projectiles,
Smokeless powder for small arms,
Smokeless powder for cannon, or
Fireworks,

may be loaded in any box car which is in good condition into which sparks can not enter and whose roof is not in danger of taking fire through unprotected decayed wood. These cars do not require the car certificate but must have attached to both side doors and both ends the "INFLAMMABLE" placard prescribed by paragraph 1667, and the doors if not tight must be stripped to prevent the entrance of sparks.

RELATIVELY SAFE EXPLOSIVES IN CAR WITHOUT PLACARDS.

(*b*) Carloads or less-than-carload lots of—
Small-arms ammunition,
Small-arms primers,
Cannon primers,
Empty cartridge shells, primed,
Empty cartridge bags—black powder igniters,
Combination primers,
Percussion caps,
Percussion fuzes,
Time fuzes,
Tracer fuzes,
Combination fuzes,
Safety fuse,
Cordeau detonant,
Safety squibs,
Empty projectiles,
Sand-loaded projectiles,
Solid projectiles,
Empty torpedoes, and not exceeding 1,000 blasting caps, or 1,000 electric blasting caps,
may be loaded in any box car which is in good condition, without car certificate or placards.

(*c*) When specially authorized by the carrier, explosives in quantity not exceeding 150 pounds may be carried in construction or repair cars when the packages of explosives are placed in a "magazine" box made of sound lumber not less than 1 inch thick, covered on the exterior with metal, and provided with strong handles. This box must be plainly stenciled on the top, sides, and ends, in letters not less than 2 inches high "EXPLOSIVES—DANGEROUS—HANDLE CAREFULLY." The box must be provided with strong hinges and with a lock for keeping it securely closed. Vacant space in the box must be filled with a cushioning material such as sawdust or excelsior, and the box must be properly stayed in the car to prevent movement. The car, when not occupied by a responsible employee, must be placarded "EXPLOSIVES."

PLACARDING OF CARS AND CERTIFICATION OF CONTENTS.

1664. Uniform practice is important and the prescribed forms of car certificates and placards must be used.

1665. (*a*) **Car certificate.**—The following certificate (prescribed by par. 1662 (*i*)), printed on strong tagboard measuring 7 by 7 inches, must be duly executed in triplicate by the carrier, and by the shipper if he loads the shipment. The original must be filed by the carrier at the forwarding station on a separate file, and the other two must be attached to the outside of the car doors, one on each side, the lower edge of the certificate not less than 4½ feet above the floor level.

(*b*) At stations where explosives are loaded into a properly certified and placarded car received with other shipments of explosives, or carload shipments are reconsigned, a record must be kept of the car, originating point, carrier's name and date of car certificate.

CAR CERTIFICATE.

No. 1. ——— Station, ———, 19——.

I hereby certify that I have this day personally examined ——— car No. ———, and that the roof and sides have no loose boards, holes, or cracks, or unprotected decayed spots liable to hold sparks and start a fire; that the kingbolts or draft bolts are properly protected and that there are no uncovered irons or nails projecting from the floor or sides of the car which might injure packages of explosives; also that the floor is in good condition and has this day been cleanly swept before the car was loaded; that I have examined all the axle boxes and that they are properly covered, packed, and oiled, and that the air brakes and hand brakes are in condition for service.

———————————
Railway employee inspecting car.

———————————

No. 2. ——— Station, ———, 19——.

I hereby certify that I have this day personally examined the above car; that the floor is in good condition and has been cleanly swept and that the roof and sides have no loose boards, holes, cracks, or unprotected decayed spots liable to hold sparks and start a fire; that the kingbolts and draft bolts are protected, and that there are no uncovered irons or nails projecting from the floor or sides of the car which might injure packages of explosives; that the explosives in this car have been loaded and stayed and that the car has been placarded according to paragraphs 1644 to 1651, inclusive, 1661, and 1666, of the Regulations for the Transportation of Explosives prescribed by the Interstate Commerce Commission; that the doors fit or have been stripped so that sparks can not get in at the joints or bottom.

———————————,
Shipper.

———————————,
Railway employee inspecting loading and staying.

NOTE.—Both certificates must be signed. Certificate No. 1 by the representative of the carrier. For all shipments loaded by the shipper he or his authorized agent must sign certificate No. 2, and the representative of the carrier must certify as to loading and staying and general condition. When the car is not loaded by shipper, certificate No. 2 must be signed only by the representative of the carrier. A shipper should decline to use a car not in proper condition.

"EXPLOSIVE" PLACARD.

1666. **Placard.**—A certified car for the dangerous explosives specified in paragraph 1661, must be protected by attaching to each outside end, and side door, the lower edge not less than 4½ feet above the car floor, a standard placard 12 by 14 inches, on which appears in conspicuous red and black printing on strong tag board the following notice:

14 Inches

——————— R ——— Company

EXPLOSIVES

(TO BE PRINTED IN RED)

HANDLE CAREFULLY

KEEP FIRE AWAY

(TO BE PRINTED IN RED)

12 Inches

——————— STATION ——— 19——

CONDENSED RULES FOR HANDLING THIS CAR

1. This car must not be placed in a passenger train, nor in a mixed train if avoidable.
2. Cars containing explosives must be near center of train and may be together if desired; must be at least 15 cars from engine and 10 cars from caboose when length of train will permit.
3. This car must not be placed next to cars bearing the inflammable or the acid placard or cars containing lighted heaters. Whenever it is possible to avoid so doing it must not be placed next to tank cars or flat cars or next to carloads of lumber, poles, iron, pipe, or other articles liable to break through end of car from rough handling.
4. The air and hand breaks on this car must be in service.
5. In shifting have a car between this car and engine whenever possible, and do not cut this car off while in motion.
6. Avoid all shocks to this car and couple carefully.
7. Avoid placing it near a possible source of fire.
8. Engines on parallel track must not be allowed to stand opposite or near this car when it can be avoided.
9. This placard must be removed from car when the explosives are unloaded.

Note. Carriers will be permitted to use their present supply of placards, but all new supplies must conform to the amended form.

"INFLAMMABLE" PLACARD.

1667. A placard of diamond shape printed on strong tag board measuring 10¾ inches on each side and bearing in red and black letters the inscription prescribed by paragraph 1913 must be placed on each outside end and side door of a car containing any quantity of smokeless powder for cannon, or smokeless powder for small arms, or ammunition for cannon with empty projectiles, or ammunition for cannon with sand-loaded projectiles, or ammunition for cannon with solid projectiles, or ammunition for cannon without projectiles, or fireworks.

HANDLING CARS CONTAINING EXPLOSIVES.

1680. The phrase "cars containing explosives" as used in this and subsequent paragraphs, excepting paragraph 1697, refers to the dangerous explosives specified in paragraph 1661, which require a certified car placarded "EXPLOSIVES."

1681. Under no circumstances must a car known to require the "EXPLOSIVE" placard be taken from a station, including transfer stations or interchange points, a siding, or yard, unless it is property placarded as per paragraphs 1665 and 1666, nor unless the car is in proper condition. The carrier must see that its representative in charge of a freight train makes a thorough check of the cars bearing "INFLAMMABLE," "ACID," and "EXPLOSIVE" placards with the billing to see that all placards required are attached and that those not required are removed.

1682. Every possible effort must be made to expedite the movement of cars containing explosives, and no unnecessary delay must occur at initial, interchange, or transfer stations.

1683. When a car containing explosives is in a train, the carrier must make proper provision for notifying its train and engine employees of the presence and location of such car in the train before leaving the initial station.

1684. Such cars must be frequently inspected to see that the placards and car certificates are intact. Whenever any of these become detached or lost in transit, they must be replaced on arrival at the next division terminal yard, if in through freight train, or at first station stop if in local freight train.

1685. On lines where regular trains are operated for freight service only, cars containing explosives must not be hauled in a train that carries passengers. Where only a mixed train service is operated or where passengers are carried in the caboose car of a freight train, a car containing a freight shipment of explosives may be hauled, but it must not be placed next to a car carrying passengers, and whenever it is practicable to do so, such a car or cars must be placed between freight cars not bearing "ACID" or "INFLAMMABLE" placards. Cars containing explosives must have air and hand brakes in service.

1686. (*a*) In through freight trains they must be placed near the middle of the train, and two or more such cars may be placed together if desired. They must be at least 15 cars from the engine and 10 cars from the caboose when length of the train will permit. They must not be placed next to cars bearing the "INFLAMMABLE" or the "ACID" placard, or cars containing lighted heaters. Whenever it is possible to avoid so doing they must not be placed next to tank cars or wooden-frame flat cars or next to carloads of lumber, poles, iron, pipe, or other articles liable to break through end of car from rough handling.

(*b*) These requirements apply also to local freight trains except that to avoid the danger of otherwise unnecessary switching at way stations, cars containing explosives may be placed not closer than the second car from caboose or the second car from engine. They must be placed between cars that do not bear the "INFLAMMABLE" or "ACID" placards, if such cars are in the train.

1687. (*a*) If shipments of explosives are accepted at nonagency stations, provision must be made for the proper certification and placarding of cars, examination of shipments, and loading and staying of packages in cars.

(*b*) Shipments of explosives must not be unloaded at nonagency stations unless the consignee is there to receive them, or unless proper storage facilities are provided at that point for their protection.

1688. When handling cars containing explosives in yards or on sidings, they must, if it is practically possible, be coupled to the engine protected by a car between, and they must never be cut off while in motion.

Cars containing explosives must not be handled in switching or in trains, with doors open.

1689. They must be coupled carefully and all unnecessary shocks must be avoided. Other cars must not be cut off and allowed to strike a car containing explosives. They must be so placed in yards or on sidings that they will be subject to as little handling as possible, and be removed from all danger of fire. They must not be placed on tracks under bridges, and, when avoidable, engines on parallel tracks must not be allowed to stand opposite or near them.

1690. At points where trains stop and time permits, cars containing explosives and adjacent cars must be examined to see that they are in good condition and free from hot boxes or other defects liable to cause damage. If cars containing explosives are set out short of destination for any cause the carrier must arrange that proper notice be given to prevent accident.

1691. Whenever a car containing explosives is opened for any purpose and in every instance after such a car has received rough treatment, inspection must be made of the packages of explosives as soon as practicable without unnecessary disturbance of lading to see that they are properly loaded and stayed and in good condition. Upon the discovery of leaking or broken packages, they must be carefully removed to a safe place. Loose powder or other explosives must be swept up and carefully removed. If the floor is wet with nitroglycerin, the car is unsafe to use and a representative of the Bureau of Explosives should be immediately called to superintend the thorough mopping and washing of the floor with a warm, saturated solution of concentrated lye or sodium

carbonate. If necessary, the car must be placed on an isolated siding and proper notice given.

1692. **Removal of placards.**—The certificates and placards prescribed in paragraphs 1665, 1666 and 1667 must be removed from the car as soon as the explosives are unloaded.

IN CASE OF A WRECK.

1697. In case of a wreck involving a car containing explosives, the first and most important precaution is to prevent fire. Before beginning to clear a wreck in which a car containing explosives is involved all unbroken packages should be removed to a place of safety and as much of the broken packages as possible gathered up and likewise removed, and the rest saturated with water. Many explosives are readily fired by a blow or by the spark produced when two pieces of metal or a piece of metal and a stone come violently together. In clearing a wreck, therefore, care must be taken not to strike fire with tools, and in using the crane or locomotive to tear the wreckage in pieces the possibility of producing sparks must be considered. With most explosives thorough wetting with water practically removes all danger of explosion by spark or blow; but with the dynamites wetting does not make them safe from blows. With all explosives mixing with wet earth renders them safer from either fire, spark, or blow. In case fulminate has been scattered by a wreck, after the wreck has been cleared the wet surface of the ground should be removed, and, after saturating the area with oil, be replaced by fresh earth. If this is not done, when the ground and fulminate become dry small explosions may occur when the mixed material is trodden on or struck.

REGULATIONS

FOR THE

TRANSPORTATION OF DANGEROUS ARTICLES OTHER THAN EXPLOSIVES BY FREIGHT.

Prescribed under act of March 4, 1909, and section 15 of the act to regulate commerce, as amended June 18, 1910. Revision formulated and published July 2, 1914, effective October 1, 1914, and superseding regulations published January 1, 1912.

GENERAL NOTICE.

1701. Special precautions are necessary in preparing for shipment packages of dangerous articles other than explosives, and in handling these packages during transit. Any failure of a shipper, or of a carrier, to perform the duties imposed upon him in this respect may be the actual or a contributory cause not only of destructive fires but of disastrous explosions, since large quantities of explosives are transported frequently through thickly populated districts and in trains containing cars loaded with other dangerous articles.

1702. Sections 235 and 236 of the act of March 4, 1909, require the shipper of dangerous articles to describe and mark his packages properly and to inform the agent of the carrier of the true character of their contents. Heavy penalties are provided for the shipper who knowingly solicits the transportation of dangerous articles without complying with these requirements, as well as for the carrier that knowingly tranports them.

1703. To promote the uniform enforcement of law and to minimize the dangers to life and property incident to the transportation by land in interstate commerce of dangerous articles other than explosives, the following regulations are prescribed to define these articles for freight transportation purposes, to state the precautions that must be observed by the shipper in preparing them for shipment, and by the carrier in handling them while in transit. It is the duty of each such carrier and shipper to make the prescribed regulations effective and to thoroughly instruct their employees in relation thereto.

1704. These regulations apply to all shipments of dangerous articles other than explosives, including carriers' material and supplies.

1705. Specifications as to containers, methods of packing for shipment, etc., will be considered and prescribed from time to time. Orders prescribing such specifications will be given effective dates as conditions and investigations may appear to warrant.

1706. The Bureau for the Safe Transportation of Explosives and other Dangerous Articles, hereinafter called Bureau of Explosives, organized by the railways under the auspices of the American Railway Association, is an efficient bureau in charge of an expert chief inspector. This bureau will make inspections and conduct investigations and will confer with manufacturers and shippers with a view to determining what specifications and regulations will within reasonable limits afford the highest degree of safety in packing and preparing these dangerous articles for shipment and in transporting the same. The Commission will seek to avail itself of the expert knowledge thus developed and, in formulating amendments to these regulations or specifications supplemental thereto, while not bound thereby, will give due weight to such expert opinions.

GENERAL RULES.

1711. Carriers that are subject to the act to regulate commerce must not receive shipments of articles defined as dangerous by these regulations when the shipments are not packed, marked, labeled, described, and certified as prescribed herein. The method of manufacture and packing of articles defined as dangerous by these regulations, so far as it affects safe transportation, must be open to inspection by a duly authorized representative of the initial carrier or of the Bureau of Explosives.

1712. All shipments of articles subject to these regulations offered for transportation in interstate commerce must be properly described by the shipper in his shipping order and bill of lading under the specific or general name provided for the description of such freight by the carrier's classification and tariff governing.

The same description of contents must be marked plainly on the outside of each package.

In less-than-carload shipments each package must be marked also to show plainly the name and address of the consignee. This address, the name of contents, and the required label or "no label required" marking, should be as near together as practicable.

1713. All shipments of articles defined as dangerous by these regulations, and for which detailed instructions for packing are not given herein, must be securely packed in containers strong enough to stand without rupture or leakage of contents all ordinary shocks incident to reason-

ably careful handling during transit. It is the duty of shippers, where leakage from their shipping containers is known to be a probable source of fire or material damage to other freight, to exercise special care in constructing shipping containers for such articles, even though their names do not appear in the list of dangerous articles, paragraph 1807.

1714. Carriers must forward shipments of dangerous articles other than explosives promptly and within 48 hours after acceptance at originating point or receipt at transfer station or at interchange point, and consignees must remove such shipments from the carrier's property within 48 hours after notice of arrival at destination, Sundays and holidays not included.

1715. (*a*) **Serious violations of these regulations** such as the discovery of leaking or broken packages of dangerous articles, **and accidents or fires** in connection with the transportation or storage on carrier's property of dangerous articles must be reported by the carrier to the chief inspector of the Bureau of Explosives, 30 Vesey Street, New York City.

(*b*) Consignees should report promptly to the chief inspector, Bureau of Explosives, all instances of broken or defective containers in shipments of dangerous articles received by them.

SECTION 1.

INFORMATION AND DEFINITIONS.

1800. For transportation purposes dangerous articles other than explosives are divided into the following groups:

1. **Forbidden articles.**
2. **Acceptable articles.**

GROUP 1.—FORBIDDEN ARTICLES.

1801. The following are **forbidden articles:**

(*a*) Outside packages containing in the same compartment interior packages, the mixture of whose contents would be liable to cause a dangerous evolution of heat, gas, or corrosive materials.

(*b*) Cylinders containing gases capable of combining chemically.

(*c*) Packages containing dangerous articles in a leaking condition or in such an insecure condition as to make leakage probable during transit.

(*d*) Rags or cotton waste oily with more than 5 per cent of vegetable or animal oil, or wet rags.

(*e*) Charcoal screenings from wet charcoal, or wet screenings, or screenings that have been wet. (See par. 1833 (*c*).)

(*f*) Dangerous articles not properly packed, marked, labeled, described, and certified.

(*g*) Iron sponge and spent oxide that has not been properly oxidized during manufacture.

GROUP 2.—ACCEPTABLE ARTICLES.

DEFINITIONS.

INFLAMMABLE LIQUIDS—RED LABEL.

1802. This group includes any liquid or liquid mixture that gives off inflammable vapors (as determined by flash point from Tagliabue's open-cup tester, as used for test of burning oils) at or below a temperature of 80° F.

INFLAMMABLE SOLIDS—YELLOW LABEL.

1803. This group includes all substances other than those classified as explosives that are liable under conditions incident to transportation to cause fires by self-ignition through friction, through absorption of moisture, or through spontaneous chemical changes.

OXIDIZING MATERIALS—YELLOW LABEL.

1804. This group includes all substances, such as chlorates, permanganates, peroxides, and nitrates, that yield oxygen readily to stimulate the combustion of organic matter.

CORROSIVE LIQUIDS—WHITE LABEL.

1805. This group includes the strong mineral acids (in strength greater than one-half[1] concentrated, i. e. 47 per cent sulphuric, 34 per cent nitric, 20 per cent hydrochloric) and other strongly corrosive liquids that are liable to cause fires when mixed with chemicals or with organic matter, or are liable, in case of leakage from their shipping containers, to damage other freight materially.

COMPRESSED GASES—RED OR GREEN (GAS) LABEL.

1806. This group includes all inflammable or non-inflammable gases assembled for shipment under pressure exceeding 25 pounds per square inch, except when such gases are in cylinders or tubes not exceeding ⅞ inch outside diameter and of not more than 4 fluid ounces water capacity.

LIST OF PRINCIPAL DANGEROUS ARTICLES.

1807. (*a*) The following list shows the names of well-known articles in general use, other than explosives, that are dangerous; the kind of label required on outside packages; the quantities that may be shipped in one outside package without a label when certified and marked "No label required," and the label exemptions on account of specified packing. (See column 5 of list.)

(*b*) When a shipment described under a name not in the following list is defined as a dangerous one by paragraphs 1802 to 1806, inclusive, the shipper must inform the carrier of the fact by use of the proper label prescribed herein, and the shipping order must show the certificate prescribed by paragraph 1867. The maximum quantity of any such article shipped in one outside package without label, when certified and marked "No label required," except as specified herein, must not exceed the limit prescribed by column 3 of the list for dangerous articles of similar flash point or characteristics.

[1] For express transportation, greater than one-fourth concentrated.

(*c*) Inflammable liquids as defined by paragraph 1802, in securely closed glass, earthenware, or metal containers of not exceeding one pint capacity each, when flash point is 20° F., or lower, and of not exceeding one quart capacity when flash point is above 20° F., packed and cushioned in fiber board or corrugated strawboard containers, wooden boxes, kegs, or barrels, complying with shipping container specifications that apply, may be shipped without labels when certified and marked "No label required."

(*d*) A shipment described under a definite and proper name not in the following list and on a shipping order with no notation as to labels applied and no shipper's certificate, will be assumed by the carrier in the absence of knowledge to the contrary, to be not dangerous under these regulations.

(*e*) When articles described under names in the following list marked with (*) are not dangerous under the regulations, the shipper must, unless otherwise provided in said list, state on his shipping order, as a part of the description of such article, "No label required," and must also furnish the certificate prescribed by paragraph 1867 and mark the package "No label required."

(*f*) When several dangerous articles are placed in one outside package without violating these regulations, labels must be applied, when the combined quantity of the articles of any one group exceeds the lowest limit prescribed by column 3 for any of the articles of that group that are included.

(*g*) When dangerous articles requiring the red label are shipped in the same outside package with dangerous articles requiring yellow or white labels, the outside package must be labeled with the red label only.

LIST OF PRINCIPAL DANGEROUS ARTICLES.

Names of Dangerous Articles.	Group Names and Flash Points— Inf.L.–Inflammable liquid. Inf.S.–Inflammable solid. Oxi. M.–Oxidizing material. Cor. L.–Corrosive liquid. Comp.G.–Compressed gas.		Maximum quantity in one outside package which may be shipped without a label when marked and certified "No label required."	Kind of label required when quantity exceeds the limits prescribed for "No label required."	References for packing requirements, paragraph numbers, remarks for information, and rules for exceptions of similar articles.
1	2		3	4	5
		° F.			
*Acetate, amyl	Inf. L.	70-80	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
Acetate, ethyl	do	40	do	do	Do.
Acetate, methyl	do	40	do	do	Do.
Acetone (ethyl methyl ketone)	do	35	do	do	Do.
*Acid, hydrochloric (muriatic)	Cor. L.		5 pints (6 pounds)	White	Pars. 1805, 1851, 1852, and 1856.
Acid, hydrofluoric	do		do	do	Pars. 1851, 1852, and 1854.
Acid, nitrating (mixed acid)	do		No exemption.	do	Mixed nitric and sulphuric acids, par. 1858.
*Acid, nitric	do		do	do	Pars. 1805, 1851, 1852, and 1857.
*Acid, sulphuric	do		5 pints (9 pounds)	do	Pars. 1805, 1851, 1852, and 1855.
Alcohol	Inf. L.	57-65	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
Alcohol, denatured	do	40-60	do	do	Do.
Alcohol, wood	do	45	do	do	Do.
Ammonium perchlorate	Oxi. M.		25 pounds	Yellow	Pars. 1822 and 1841.
Barium, chlorate of	do		do	do	Do.
Barium, nitrate of, in bags	do		100 pounds (in one shipment).	do	Pars. 1822 and 1841. (See Nitrates)
Barium, peroxide (binoxide, dioxide)	do		25 pounds	do	Pars. 1822 and 1841.
Benzol (benzene)	Inf. L.	20	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
Benzine	do	†0	do	do	Do.
Bromine	Cor. L.		5 pints	White	Par. 1853.
Bronzing liquid	Inf. L.	0-70	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
Burnt cotton	Inf. S.		No exemption.	Yellow	Par. 1837.
Calcium phosphide	do		do	do	Par. 1835.
Carbon bisulphide	Inf. L.	†0	5 pounds	Red	Pars. 1807(c), 1822, 1824 to 1827.
Celluloid scrap	Inf. S.		No exemption.	Yellow	Par. 1839.
Cement, leather	Inf. L.	†0	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
*Cement, liquid, n. o. s.	do	0-80	do	do	Do.
*Cement, roofing (liquid)	do	0-80	do	do	Do.
Cement, rubber	do	†0	do	do	Do.
Charcoal, wood, ground or pulverized	Inf. S.		100 pounds (in one shipment).	Yellow	Par. 1833. Charcoal "in bottles," "in boxes," "in barrels," or "in tablets," "case-hardening charcoal," "animal charcoal," or "bone charcoal" is exempt from label and certificate requirements, when so described. Lump charcoal made by old kiln or pit method which provides long air exposure before shipment is exempt from label and placard requirements when certified and marked "No label required" or "No placard required."
*Charcoal, wood, lump	do		2,000 pounds (in one shipment).	do	
Charcoal, wood, screenings	do		No exemption.	do	Par. 1833.
Chlorates n. o. s	Oxi. M.		25 pounds (in one shipment)	do	Pars. 1822 and 1841.
Chloride of phosphorus	Cor. L.		No exemption.	White	Par. 1855.
Chlorides, anhydrous, liquid	do		do	do	Do.
Chloride of sulphur	do		do	do	Pars. 1822, 1851, 1852, and 1855.
*Cleaning fluid (or liquid)	Inf. L.	0-80	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
*Coal-tar light oil	do	0-80	do	do	Do.
*Coal-tar naphtha	do	0-80	do	do	Do.
Collodion	do	†0	do	do	Do.
Cologne spirits (alcohol)	do	60	do	do	Do.
Columbian spirits (alcohol, wood)	do	45	do	do	Do.
*Compounds, paint or varnish removing, liquid.	do	0-80	do	do	Do.
*Compounds, polishing, liquid	do	0-80	do	do	Do.
*Compounds, type cleansing, liquid	do	0-80	do	do	Do.
*Compounds, vulcanizing	do	0-80	do	do	Do.
*Compounds, vulcanizing	Cor. L.		do	White	Pars. 1822, 1851, 1852, and 1855.
*Distillate	Inf. L.	0-80	do	Red	Pars. 1807(c), 1822, 1824 to 1827.
*Dressing, leather	do	0-80	do	do	Do.
*Driers, paint or japan	do	0-80	do	do	Do.
*Eradicators, paint or grease, liquid	do	0-80	do	do	Do.
Ether	do	†0	5 pounds	do	Do.
*Extracts, liquid (flavoring)	do	20-80	1 gallon	do	Pars. 1807(c), 1822, 1824 to 1827. Bark, tanner's, medicinal and wood extracts, are exempt from label and certificate requirements when properly so described.
Gases, compressed:					
Acetylene (see Note 1)	Comp. G.		No exemption.	Red (gas)	Pars. 1861 to 1863.
Air, compressed	do		do	Green (gas).	Pars. 1861 and 1862.
Anhydrous ammonia	do		do	do	Do.
Blaugas	do		do	Red (gas)	Pars. 1861 to 1863.
Carbonic acid	do		do	Green (gas).	Pars. 1861 and 1862.
Chlorine	do		do	do	Do.
Coal gas	do		do	Red (gas)	Do.
Dental	do		do	Green (gas).	Do.
Hydrogen	do		do	Red (gas)	Pars. 1861 to 1863.
Liquefied petroleum gas	do		do	do	Pars. 1824 and 1861 to 1863.
Oxygen	do		do	Green (gas).	Pars. 1861 and 1862.
Pintsch	do		do	Red (gas)	Pars. 1861 to 1863.
Sulphur dioxide	do		do	Green (gas).	Pars. 1861 and 1862.
Compressed gases n. o. s	do		do	Red or green (gas)	Pars. 1861 to 1863.
Gas drips (hydrocarbon)	Inf. L.	†0	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
Gasoline (See Note 1)	do	†0	do	do	Pars. 1807(c), 1822, 1824 to 1827. Gasoline made by compressing natural gas or by blending liquefied petroleum gas with refinery gasoline or naphtha may be described and shipped as gasoline, provided the

LIST OF PRINCIPAL DANGEROUS ARTICLES—*Continued.*

Names of Dangerous Articles.	Group Names and Flash Points— Inf. L.–Inflammable liquid. Inf. S.–Inflammable solid. Oxi. M.–Oxidizing material. Cor. L.–Corrosive liquid. Comp. G.–Compressed gas.		Maximum quantity in one outside package which may be shipped without a label when marked and certified "No label required."	Kind of label required when quantity exceeds the limits prescribed for "No label required."	Reference for packing requirements, paragraph numbers, remarks for information, and rules for exceptions of similar articles.
1	2		3	4	5
		° F.			
High wines (alcohol)	Inf. L	60-80	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
*Insecticide (vermin exterminator), liquid.	do	0-80	do	do	Do
Lacquer	do	0-80	do	do	Pars. 1807(c), 1822, 1824 to 1827. (See Paint.)
Lead, nitrate of, in bags	Oxi. M		100 pounds (in one shipment).	Yellow	Pars. 1822 and 1841. (See Nitrates.)
Liquefied petroleum gas	Inf. L	†0	No exemption	Red	Pars. 1807(c), 1822, 1824 to 1827.
Matches "Strike Anywhere"	Inf. S		do	Yellow	Pars. 1822 and 1836.
Naphtha	Inf. L	†0	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
*Naphtha Distillate	do	0-80	do	do	Do.
Nitrates, in bags	Oxi. M		100 pounds (in one shipment).	Yellow	Pars. 1822 and 1841. Nitrates in boxes, kegs, or barrels are exempt from label and certificate requirements when properly so described.
Nitrocellulose, wet with solvent	Inf. L	40	No exemption	Red	Must contain not less than 30 per cent by weight of a solvent whose flash point is not lower than 40° F. and must be packed in glass bottles (par. 1824) or in securely closed metal vessels that will stand the drop tests prescribed for metal barrels. (Specification No. 5.)
Nitrocellulose or nitrostarch, wet with 20 per cent water.	Inf. S		do	Yellow	Par. 1834. Dry nitrocellulose and dry nitrostarch are high explosives.
*Oil, gas	Inf. L	0-80	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
*Oil described as "Oil," or "Oil n. o. s.," or "Petroleum oil" or "Petroleum oil n. o. s."	do	0-80	do	do	Do.
Paint, aluminum, bronzing, or gold	do	0-70	do	do	See Paint.
*Paint, liquid	do	0-80	do	do	Pars. 1807(c), 1822, 1824 to 1827. Inflammable paint, varnish, wood filler, or wood stain, liquid, in glass or earthenware vessels, or in metal cans, all packed in wooden barrels or boxes and marked to show compliance with specifications (see par. 1822), are exempt from labels when marked and certified "No label required." Non inflammable paint is not subject to these packing requirements, but must be marked and certified "No label required." Dry paint is exempt from label and certificate requirements when properly so described.
Pentane	do	†0	½ gallon	do	Pars. 1807(c), 1822, 1824 to 1827.
Perchlorate of ammonium	Oxi. M		25 pounds	Yellow	Pars. 1822 and 1841.
Perchlorate of potash	do		do	do	Do.
Permanganate of potash	do		do	do	Do.
*Petroleum, crude (crude oil)	Inf. L	0-80	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
Petroleum naphtha	do	†0	do	do	Do.
Phosphorus trichloride	Cor. L		No exemption	White	Pars. 1822 and 1855.
Phosphorus (white or yellow)	Inf. S		do	Yellow	Par. 1832.
Picric acid, wet with 10 per cent water	do		do	do	Par. 1834.
*Polish, metal, liquid	Inf. L	0-80	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
*Polish, stove, liquid	do	0-80	do	do	Do.
Potash, bromate	Oxi. M		25 pounds	Yellow	Pars. 1822 and 1841.
Potash, chlorate of	do		do	do	Do.
Potash, nitrate of, in bags	do		do	do	Pars. 1822 and 1841. (See Nitrates.)
*Potash described as "Potash," or "Potash n. o. s."	do		25 pounds (in one shipment).	do	Pars. 1822 and 1841.
Potassium, metallic	Inf. S		No exemption	do	Par. 1831.
Potassium sulphide (fuzed and ground)	do		do	do	Par. 1835.
Pyroxylin plastic scrap	do		do	do	Par. 1839.
Pyroxylin solution	Inf. L	0-80	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
*Rubber scrap, shoddy, regenerated or reclaimed rubber.	Inf. S		10 pounds	Yellow	Par. 1840.
Saltpeter, in bags	Oxi. M		100 pounds (in one shipment).	do	Pars. 1822 and 1841.
Shellac, varnish	Inf. L	40-70	1 gallon	Red	See Paint.
Soda, chlorate of	Oxi. M		25 pounds	Yellow	Pars. 1822 and 1841.
Soda, nitrate of, in bags	do		100 pounds (in one shipment).	do	Pars. 1822 and 1841. (See Nitrates.)
Soda, nitrite of	do		25 pounds	do	Pars. 1822 and 1841.
Sodium, metallic	Inf. S		No exemption	do	Par. 1831.
Sodium, peroxide	Oxi. M		do	do	Pars. 1822 and 1841.
Sodium sulphide (fused and ground)	Inf. S		do	do	Par. 1835.
Strontia, nitrate of, in bags	Oxi. M		100 pounds (in one shipment).	do	Pars. 1822 and 1841. (See Nitrates.)
Sulphur, chloride of	Cor. L		No exemption	White	Pars. 1822, 1851, 1852, and 1855.
Tin, bichloride, liquid (tetrachloride of)	do		do	do	Par. 1855.
Toluol (toluene)	Inf. L	55	1 gallon	Red	Pars. 1807(c), 1822, 1824 to 1827.
Trinitrotoluol, wet with 10 per cent water.	Inf. S		No exemption	Yellow	Par. 1834.
*Varnish	Inf. L	0-80	1 gallon	Red	See Paint.
Zinc flue dust	Inf. S		10 pounds	Yellow	Par. 1830.

* See Paragraph 1807 (*e.*) † At or below.

SECTION 2.

RULES FOR PACKING.

1821. Dangerous articles for which the yellow and white labels, respectively, are prescribed must not be packed in the same package, unless the bottle containing the corrosive liquid is cushioned by incombustible absorbent material in tightly closed metal containers, as prescribed by paragraph 1851. Cylinders of compressed gases must not be packed with other articles.

1822. (*a*) The construction of barrels, drums, boxes, cans, carboys, or other containers purchased subsequent to March 31, 1912, and used in shipping dangerous articles other than explosives must conform to specifications approved by the Interstate Commerce Commission that apply; and each container must be stamped, labeled, or marked "Complies with I. C. C. Spec'n No. —." or equivalent marking as stated in the specification.

(*b*) In addition to standing the tests prescribed, the design and construction of packages must be such as to prevent the occurrence in individual packages of defects that permit leakage of their contents under the ordinary conditions incident to transportation. The results of experience, gained by an examination of damaged or broken packages on arrival at destination, must be reported to and recorded by the Bureau of Explosives, to the end that further use of any particular kind of package shown by experience to be inefficient may be prohibited by the Commission.

(*c*) Pending approval and promulgation by the Commission of specifications for types of shipping containers other than those for which specifications are published herein, containers may be used which after investigation made by the Bureau of Explosives, or by other competent testing laboratory in the presence of a representative of the Bureau of Explosives, are shown to possess the general efficiency and the protection against leakage of contents afforded by the standard types of corresponding capacity described in the specifications published herein, provided they are labeled or marked to show compliance with this requirement.

(*d*) Tank cars used for the shipment of dangerous articles other than explosives must comply with Master Car Builders' rules, and a tank car that leaks or one that has any defect which would make leakage during transit probable or that has not been tested and stenciled in compliance with Master Car Builders' rules, must not be used for the shipment of any inflammable liquid.

(*e*) The tanks and their fittings must be examined by the shipper to see that they are in proper condition for loading. Tanks must be examined for evidence of previous leaks; safety and outlet valves, dome covers, and outlet-valve caps must be in proper condition before loading; after loading, tanks must not show any dropping of liquid contents at the seams or rivets, and should such dropping appear cars must be properly repaired; outlet valves must not permit more than a dropping of the liquid with valve caps off, otherwise valve must be reground and repaired. Dome covers, and valve caps provided with suitable gaskets, must be properly screwed in place before cars are tendered to the carrier.

(*f*) Loaded tank cars tendered for shipment must be inspected by the carrier to see that they are not leaking, that the air and hand brakes, journal boxes, trucks, and safety appliances are in proper condition for service, and that the car has been tested within limits prescribed by Master Car Builders' rules.

(*g*) Tests of all tank cars and their safety valves, as made in compliance with Master Car Builders' rules, must be certified by the party making the tests to the owner of the tank car and to the chief inspector, Bureau of Explosives; and this certification must show the initials and number of the tank car, the service for which it is suitable, the date of test, place of test, and by whom made.

INFLAMMABLE LIQUIDS—RED LABEL.

1824. (*a*) All inflammable liquids must be shipped in packages complying with specifications that apply, as follows:

(*b*) In tightly closed metal cans of not exceeding 10 gallons capacity, packed in wooden boxes complying with Specification No. 2 or cushioned in wooden barrels or kegs complying with Specification No. 11.

(*c*) In well-stoppered glass or earthenware vessels of not exceeding 1 gallon capacity, cushioned in wooden boxes complying with Specification No. 2 or cushioned in wooden barrels or kegs complying with Specification No. 11, or in a well-stoppered glass or earthenware vessel of not exceeding 5 gallons capacity, well cushioned in a wooden box and not more than one such vessel in the box. The completed package must comply with swing and drop tests prescribed for boxed carboys by Specification No. 1.

(*d*) In well-stoppered glass, earthenware, or metal vessels of not exceeding 1 pint capacity when flash point is 20° F., or lower, and 1 quart capacity when flash point is above 20° F., cushioned in fiber board or corrugated strawboard containers complying with Specification No. 24.

(*e*) In wooden kits of not exceeding 10 gallons capacity, packed in wooden boxes complying with Specification No. 2, or cushioned in wooden barrels or kegs complying with Specification No. 11.

(*f*) In metal-jacketed cans of not exceeding 10 gallons capacity, complying with Specification No. 23.

(*g*) In well-stoppered carboys of not exceeding 13 gallons capacity, cushioned in wooden boxes complying with Specification No. 1.

(*h*) In wooden barrels or kegs complying with Specification No. 10 when the flash point of the liquid is not lower than 20° F., or in wooden barrels or kegs complying with Specification No. 9 when the flash point is lower than 20° F., unless otherwise provided in the tariffs under which shipment moves.

(*i*) In metal barrels or drums complying with Specification No. 5.

(*j*) In tank cars complying with Master Car Builders' specifications, provided the vapor tension of the inflammable liquid corresponding to a temperature of 100° F. (90° F. Nov. 1 to Mar. 1) does not exceed 10 pounds per square inch. After January 1, 1915, a tank car must not

be used for shipping inflammable liquids with flash point lower than 20° F., unless it has been tested with cold-water pressure of 60 pounds per square inch and stenciled as required by Master Car Builders' rules.

(*k*) Liquefied petroleum gas is a condensate from the "casing-head gas" of petroleum oil wells, whose vapor tension at 100° F. (90° F. Nov. 1 to Mar. 1) exceeds 10 pounds per square inch. Liquefied petroleum gas must be shipped in metal drums or barrels which comply with Specification No. 5, or in tank cars especially constructed and approved for this service by the Master Car Builders' Association. When the vapor pressure at 100° F. exceeds 25 pounds per square inch, cylinders as prescribed for compressed gases (see pars. 1861 to 1863, inclusive) must be used.

(*l*) Carbon bisulphide in interior packages of capacity greater than ½ gallon must be shipped in metal cans of not less than 28 gauge, boxed, complying with Specification No. 2; or in metal barrels or drums complying with Specification No. 5, such barrels or drums after January 1, 1916, not to exceed 55 gallons capacity. Carbon bisulphide may also be shipped in tank cars complying with paragraph 1824 (*j*).

1825. (*a*) Packages containing inflammable liquids must not be entirely filled. Sufficient interior space must be left vacant to prevent leakage or distortion of containers, due to increase of temperature during transit. In all such packages, this vacant space must not be less than 2 per cent of the total capacity of the container. In tank cars the vacant space must not be less than 2 per cent. of the total capacity of the tank i. e., the shell and dome capacity, combined. If the dome of tank cars does not provide this 2 per cent, sufficient vacant space must be left in the shell of the tank to make up the difference.

(*b*) In packages containing alcohol, cologne spirits, high wines, or other distilled spirits, the vacant interior space or allowance for wantage or ullage must conform to the United States Internal Revenue Regulations.

1826. Interior packages, containing 1 quart or more of an inflammable liquid must be packed with their filling holes up and the top of the outside package must be plainly marked "THIS SIDE UP."

1827. Wooden-jacketed cans and wooden kits must not be used for the shipment of inflammable liquids, except as inside containers as provided by Specification No. 2 or 11.

INFLAMMABLE SOLIDS—YELLOW LABEL.

1830. All inflammable solids except those for which specially constructed containers are prescribed must be shipped as follows:

(*a*) In wooden barrels or kegs complying with Specification No. 11.

(*b*) In wooden boxes complying with Specification No. 19.

(*c*) In metal barrels or drums complying with Specification No. 20.

(*d*) In wooden or fibre drums complying with Specification No. 21 or 22.

(*e*) Charcoal may also be shipped in bags, barrels, boxes, or in bulk, as prescribed by paragraph 1833.

1831. Metallic sodium or potassium, in quantity not greater than 1 pound, must be placed in neutral oil, and this in a well-stoppered bottle protected by a tin container and boxed (see Specification No. 18); or these substances may be packed in hermetically sealed tin cylinders, boxed (see Specification No. 18); or in tight iron drums (see Specification No. 20, part A).

1832. White or yellow phosphorus must be placed in water in sealed metal vessels inclosed in wooden boxes. (See Specification No. 18.)

1833. (*a*) All charcoal made in ovens or retorts must be cooled thoroughly in air-tight containers and it must be exposed thereafter to the atmosphere under conditions favorable to good circulation of air through the charcoal in order to remove the danger of spontaneous ignition. Charcoal made in the round retorts and transferred to air-tight metal cans must be cooled 24 hours or more; but charcoal burned in slatted cars should be kept for two periods of 24 hours each in first and secondary air-tight cooling chambers, respectively. After proper cooling the exposure of the charcoal to good fresh-air circulation must continue for not less than 44 consecutive hours. The charcoal during this air exposure must be protected from the weather. Where the charcoal is aired by spreading on a floor it must not be piled more than 1 foot in depth. A total of not less than 72 hours must elapse from the time the air exposure of the charcoal commences before a car loaded with it is closed for shipment or before lump charcoal is placed in tight bags.

When fire occurs in charcoal during the air exposure it should be extinguished with as little water as possible or placed in a cooler until the fire is extinguished. Any charcoal wet in this way must be dried by again heating in the retorts or ovens, and cooled and aired in the usual manner, or set aside and allowed to dry for not less than 30 days before shipment.

(*b*) Lump charcoal must be dry and free from screenings and brands and must be loaded into a tight box car. When a chute is used in loading a car, the chute must contain a properly constructed screen, not less efficient than three-fourths-inch mesh, which must be kept clean. No water must be used in loading the car; forks with prongs not less than 1 inch apart must be used instead of shovels to handle the coal, and the screenings which accumulate in the doorway of the car must be removed before loading in the doorway. Car should be swept before loading, the doors closed tight before the car is forwarded, and a car which has contained lime must not be used without thorough cleaning.

When preferred by the shipper, the carrier may permit lump charcoal made from soft wood to be shipped in open or stock cars.

(*c*) Charcoal screenings consist of small pieces varying from about one-half inch in their maximum dimension to grains of charcoal dust. Experience shows these screenings to be more liable than other forms of charcoal to produce fires. Charcoal screenings from wet charcoal, or wet screenings, or screenings which have been wet, must not be offered for shipment unless these screenings

are dried for not less than 12 hours in a retort or oven and then subjected to a period of not less than 10 days airing and cooling before shipment. During this period of cooling and airing the screenings must be under cover and either in the slatted cars or in loosely piled bags.

(*d*) Charcoal screenings intended for shipment, or from which granulated or ground charcoal is to be prepared for shipment, must be stored in loosely piled bags freely exposed to the air for a period of not less than five days after separation from the lump charcoal and before shipment or before grinding. Lump charcoal intended for the production of granulated or ground charcoal, which will be subsequently shipped, must be stored subject to ventilation and protected from the weather for not less than 12 days after removal from the coolers before grinding.

(*e*) Charcoal screenings and brands or ground charcoal must be packed in tight wooden boxes or barrels containing not more than 4 bushels each; or in strong and securely closed paper bags, or in strong bags with tight paper linings; or in strong jute bags. Paper bags or paper-lined bags must not contain more than 2½ bushels each; unlined jute bags must not contain more than 4 bushels each, and all boxes, barrels, or bags after filling should whenever practicable be allowed to remain open and freely exposed to the air and protected from the weather for not less than 24 hours before being closed.

(*f*) Charcoal screenings or ground or pulverized charcoal in bags must be so loaded that the bags are laid horizontally in the car, parallel to the length of the car, and so piled that there will be two longitudinal spaces the full length of the car completely dividing the lading into three approximately equal portions. These spaces must not be less than 4 inches wide. Transverse wooden strips must be laid between the bags and extending the full width of the car; these strips should be approximately 2 feet apart vertically and longitudinally. These strips serve to maintain the bags in their relative positions. The bags must not be piled to within 6 inches of the top of the car, and no more than 26,000 pounds of screenings, ground or pulverized charcoal, shall be loaded in a car. A tight car must be used, and any loose material must be swept up and removed from the doorway of the car before completing the loading. Other methods of loading may be used when investigations by the Bureau of Explosives show such methods to be equally efficient in securing the necessary ventilation.

NOTE.—Experience having shown that charcoal screenings from "Pinon" wood can be shipped in bulk without danger of spontaneous heating, this method of shipment may be used for those screenings when rules of individual carriers permit.

(*g*) Charcoal burned in pits or kilns must be thoroughly cooled in the sealed kilns. After the kilns are opened, the charcoal must be allowed to stand in the open kilns or elsewhere exposed to the air for not less than 24 hours before loading in a freight car. Charcoal burned in kilns may be loaded in open cars or in box cars, but after loading in box cars, the cars must be allowed to stand not less than 24 hours with doors open before shipment.

(*h*) Reburned charcoal must be cooled and exposed to good fresh air circulation for not less than 5 days after removal from the reburning furnaces, and before being shipped or ground to produce ground or pulverized charcoal.

1834. Nitrocellulose or nitrostarch uniformly wet with not less than 20 pounds of water to 80 pounds of dry material and picric acid or trinitrotoluol wet with not less than 10 pounds of water to 90 pounds of dry material must be placed in waterproof containers, securely packed in a strong and tight box, keg, or barrel (see Specification Nos. 10 and 17), and marked "WET NITROCELLULOSE—20 PER CENT WATER," or "WET NITROSTARCH—20 PER CENT WATER," or "WET TRINITROTOLUOL —10 PER CENT WATER," or "WET PICRIC ACID— 10 PER CENT WATER."

The gross weight of any package must not exceed 400 pounds.

1835. (*a*) Calcium phosphide must be placed in hermetically sealed metal cans inclosed in metal-lined wooden boxes (see Specification No. 18); or this material may be shipped in securely closed iron or steel barrels. (See Specification No. 20, part A.)

(*b*) Sodium sulphide fused or potassium sulphide fused, if ground or powdered, must be placed in hermetically sealed metal cans, or in securely closed glass bottles, each bottle enclosed in a tightly fitting metal can with tight cover. The cans must be packed in a strong wooden box (see Specification No. 18), with elastic packing, such as sawdust, excelsior, or similar material. This material may also be shipped in securely closed metal barrels complying with Specification No. 20, part A.

1836. (*a*) "Strike Anywhere" matches must be packed in individual containers consisting of an outer sliding shuck or cover and an inner holding tray or box. Individual containers consisting of a holding tray or box with a top that telescopes over the box, may be used. Boxes of suitable "hang-up" type may also be used, if approved by the Bureau of Explosives. All match boxes, covers, and trays must be made of cardboard, wood, or metal, except that paper wrappings may be used for block or card matches.

Individual containers must be wrapped in paper, with not more than 12 boxes or individual containers in each paper-wrapped package. These packages must be secured on the ends and on the lapping side with glue, or similar satisfactory adhesive, making each 12 boxes or less of matches a serviceably wrapped and well-secured package.

(*b*) No individual container (not including card or block matches), shall contain more than 700 "Strike Anywhere" matches in any one container, box, or package. When more than 300 matches are packed in any individual container, box, or package, the matches must be arranged in two nearly equal portions with the heads of the two portions placed in opposite directions. All individual containers containing 350 or more matches must have placed over the matches a center holding or protecting strip made of cardboard which can be scored or bent without fracture. This protecting strip shall be not less than 1¼ inch wide and shall be flanged down at least ⅝ inch on each end to hold the matches in position when the container is nested into the shuck or cover, or withdrawn therefrom.

(c) All individual containers must be placed in outside packages complying with Specification No. 6. Such outside containers shall have plainly marked thereon the words "Strike Anywhere matches" and in addition shall show the name of the manufacturer and the brand or trademark under which such matches are manufactured and distributed to the trade. If the matches are manufactured in a foreign country, the name of the foreign manufacturer shall be printed in English.

(d) Matches of any kind which ignite spontaneously when subjected for 8 hours to a temperature of 200° F., in a properly conducted laboratory test, must not be offered for shipment.

(e) Matches of any kind must not be packed in the same outside package with any other article.

(f) "Strike Anywhere" matches packed and marked in accordance with regulations effective March 31, 1912, may be shipped under such packing and marking until December 31, 1914.

1837. "Burnt cotton" is cotton that has been on fire, and which has not been subsequently repicked and rebaled. It must not be offered or accepted for shipment at an originating station until it has been reconditioned by picking and repacking in bales, or until not less than 5 days have elapsed since the last evidence of fire in it. It must be marked and described on shipping orders and bills of lading as "burnt cotton, yellow label," and cars containing any quantity of it must be protected by the inflammable placard.

When the fire occurs in transit at a point where the cotton can not be reconditioned, and where arrangements can not be made with the originating line to sell it, all burnt cotton in the shipment must be stored under observation in as safe a place as practicable for not less than 10 days, and without further evidence of fire before forwarding. The billing must be changed to read "burnt cotton," and the material must be forwarded as an inflammable article as described above.

When burnt cotton is picked and repacked the separated cotton not affected by the fire is not classed as an inflammable article and is not subject to this regulation.

1838. (a) Unless the preparation and nature of fibers or fabrics impregnated or saturated with animal or vegetable oils, is such as to prevent all spontaneous heating in transit, such materials must be placed in hermetically sealed metal-lined wooden boxes or crates.

(b) Rags or cotton waste containing more than 5 per cent of animal or vegetable oil must not be offered for shipment. Oily cotton waste must not be included in bales of rags.

1839. Pyroxlin plastic scrap (celluloid, fiberloid, pyralin, viscoloid, zylonite, etc., scrap) must be packed in tight wooden barrels (Specification No. 11) or in sparkproof wooden boxes (Specification No. 19).

1840. Rubber shoddy, regenerated rubber, or reclaimed rubber, must be packed in tight metal containers or in wooden boxes complying with Shipping Container Specification No. 17, except when in the form of dense homogeneous nonporous sheets or rolls, the sheets of thickness of ⅛ inch or greater, packed flat or in rolls.

Rubber scrap if ground, powdered, or granulated, whose rubber content exceeds 45 per cent as determined by subtracting the sum of the per-cent ash and the per-cent acetone extract from 100, must be packed in tight metal containers, or in wooden boxes complying with Specification No. 17.

OXIDIZING MATERIALS—YELLOW LABEL.

1841. (a) All oxidizing materials (except those for which specially constructed containers are prescribed, see Specifications Nos. 18 and 20) should be shipped in metal packages complying with Specification No. 20. When such metal packages are not available, strong and tight wooden boxes complying with Specification No. 19, or drums, kegs, or barrels, complying with Specifications Nos. 11, 21, or 22, must be used.

(b) Peroxide of sodium must be placed in tight metal vessels packed in wooden boxes or barrels (Specifications 18 and 11) or in bulk in metal containers complying with Specification No. 20.

(c) Nitrates may also be shipped in bags, or in bulk in tight cars.

(d) Barium peroxide in bulk must be placed in strong and tight metal containers complying with Specification No. 20.

CORROSIVE LIQUIDS—WHITE LABEL.

1851. (a) Bottles containing corrosive liquids named in the list, paragraph 1807, unless cushioned by incombustible absorbent material in tightly closed metal containers, must not be packed in the same outside package with any other article, except that acid for fire extinguisher charges may be packed in the same outside package with bicarbonate of soda, when the acid and soda are placed in separate inside compartments.

(b) Interior packages containing corrosive liquids must be packed with their filling holes up, and the top of the outside package must be plainly marked "THIS SIDE UP."

1852. (a) All glass carboys used for the shipment of acids named in paragraph 1807 must be made and tested by the manufacturer under Specification No. 1. Straight-sided carboys, as distinguished from the "balloon" carboys, must be used for all shipments of nitric acid or nitric-acid mixtures, and for less-than-carload shipments of the other dangerous acids, except hydrofluoric acid.

The necks of all carboys must be protected by wooden or metal hoods securely attached to the boxes.

1853. Bromine must be in glass bottles of not more than one-half gallon capacity or earthenware vessels of not more than 2 gallons capacity with glass or earthenware stoppers well secured. These vessels must be packed in strong barrels or kegs complying with Specification No. 11, or in wooden boxes, cushioned by non-

combustible packing material, such as whiting, mineral wool, or sifted ashes.

1854. Hydrofluoric acid must be placed in india rubber or ceresine bottles hermetically sealed, packed in wooden boxes or wooden barrels complying with Shipping Container Specification No. 2 or 11; or in lead carboys hermetically sealed and boxed, complying with Specification No. 1; or acid of not exceeding 30 per cent strength may be shipped in tight hardwood barrels complying with Specification No. 9, or in wooden tank cars lined with asphaltum or similar protective coating. The barrels and tank cars must be securely hooped and carefully inspected by the shipper. The vacant space in containers of this acid must be sufficient so that when raised to a uniform temperature of 130° F. the vapor tension shall not exceed 6 pounds per square inch.

1855. (*a*) Sulphuric acid and anhydrous liquid chlorides must be in well-stoppered earthenware or glass vessels packed in strong barrels (Specification No. 11), or wooden boxes (Specification No. 2), or in standard carboys (Specification No. 1), or in metal drums or barrels (Specification No. 5), or in tank cars. The inner containers must be well cushioned by excelsior, hay, straw, or equivalent packing material.

(*b*) For phosphorus trichloride the cushioning material must be incombustible.

1856. Hydrochloric acid must be packed as prescribed for sulphuric acid, except that it must not be shipped in unlined wooden or iron barrels, drums, or tank cars.

1857. (*a*) Special attention must be given to bottles or vessels of any kind used for nitric acid. The following containers are authorized for shipment of nitric acid of the specific gravity stated:

(1) Glass bottles not exceeding 7 pounds capacity, in metal containers. All gravities.

(2) Glass bottles not exceeding 7 pounds capacity. Not to exceed 1.49 gravity.

(3) Glass carboys, Specification No. 1. Not to exceed 1.43 gravity.

(4) Glass carboys, metal covered. Not to exceed 1.49 gravity.

(*b*) All glass bottles, (1) and (2), must have glass stoppers ground to fit and these stoppers must be held in place by plaster of Paris covered by strong cloth securely tied. The bottles, well cushioned by material that will not be ignited by the acid, must be packed in strong wooden boxes, barrels, or kegs. When the specific gravity of the acid exceeds 1.49, each bottle must be packed in a tightly closed metal container.

(*c*) Glass carboys, (3), must be well cushioned by material that will not be ignited by the acid.

(*d*) A glass carboy (4), containing acid of gravity exceeding 1.43 and not exceeding 1.49, must be well cushioned by incombustible packing material in a tight cylindrical iron case not less than $\frac{1}{16}$ inch thick that covers the bottom and sides of the carboy and fits tightly in the outside wooden box.

1858. Mixed nitric and sulphuric acids must be shipped in securely closed iron drums that comply with Specification No. 5 or in tank cars complying with Master Car Builders' specifications; or mixed nitric and sulphuric acids may be shipped in carboys, provided these carboys are placed in a tight cylindrical iron case as prescribed by paragraph 1857 (*d*), and boxed as prescribed in Specification No. 1.

COMPRESSED GASES—RED OR GREEN (GAS) LABEL.

1861 (*a*) Gases that may combine chemically must not be shipped in one cylinder. Cylinders purchased hereafter for the shipment of compressed gases must be made in accordance with Specifications Nos. 3, 3A, 4, 7, and 8.

(*b*) Each cylinder in which compressed gases are shipped, except as specified hereinafter, must be subjected at least once in 5 years to a test by interior hydrostatic pressure in a water jacket, or other apparatus of suitable form, to furnish reliable data. In this test the pressure must be applied for not less than 30 seconds, and as much longer as may be necessary to insure complete expansion of the cylinder. The gauge indicating the expansion of the cylinder under the pressure applied must be such that a permanent expansion of 10 per cent of the total expansion may be easily recognized.

A cylinder must be condemned when it leaks or when the permanent expansion, as determined by the water jacket method of testing, or other equally efficient method of testing approved by the Bureau of Explosives, exceeds 10 per cent of the total expansion.

(*c*) For cylinders in which liquefied gases are shipped, the test pressure must be not less than $1\frac{1}{4}$ times the interior pressure that would result from heating the cylinder uniformly in its maximum charged condition to a temperature of 130° F., except that, for cylinders used for shipping carbonic acid gas, this pressure must not be less than 3,000 pounds per square inch; provided, that when the charging pressure is less than 300 pounds per square inch at 70° F., it will not be necessary to measure the permanent expansion in quinquennial pressure tests, if the cylinder in question has previously passed the test.

(*d*) For cylinders used for shipping nonliquefied gases or gases in solution, under a pressure exceeding 300 pounds per square inch at 70° F., the test pressure must be not less than $1\frac{2}{3}$ times the charging pressure for such cylinders, corresponding to a temperature of 70° F., provided that the minimum allowable test pressure shall be 600 pounds per square inch.

(*e*) For cylinders used for shipping nonliquefied gases or gases in solution, under a pressure not exceeding 300 pounds per square inch at 70° F., the test pressure must be not less than twice the charging pressure for such cylinders corresponding to a temperature of 70° F; provided, that old cylinders in service that have been once so tested, or new cylinders that have been manufactured, tested to three times the charging pressure and reported as prescribed by Specification Nos. 7 or 8, will not be required to be tested quinquennially thereafter.

(*f*) Cylinders used for shipping any gas, liquefied or otherwise, will not be required to stand the quinquennial test, provided they have an outside diameter of less than 2 inches and a length of less than 2 feet.

(*g*) The weight of gas charged into any cylinder must not, at a temperature of 130° F., cause an interior pressure that would be injurious to the cylinder. Cylinders must not be charged beyond the safe pressure for which they are designed.

(*h*) The filling weight of carbonic acid gas in all cylinders must be checked by the use of proper scales and not by pressure.

(*i*) By December 31, 1914, all cylinders used for the shipment of compressed gases must be plainly stamped with the date of last test—for example "4—09" for April, 1909. Cylinders that have not been tested and marked as prescribed herein must not be charged and shipped after December 31, 1914, until properly tested and marked.

(*j*) Cylinders containing acetylene gas must be made of tough steel and must be completely filled with a porous material that has been tested with satisfactory results by the Bureau of Explosives and this material must be charged with acetone, or its equivalent, not to exceed 40 per cent of the interior volume capacity of the cylinder. The pressure in cylinders containing acetylene gas must not exceed 250 pounds per square inch at a temperature of 70° F.

1862. (*a*) After December 31, 1914, each cylinder exceeding 12 inches in length containing liquefied gases or gases in solution, or other gases under a pressure of more than 300 pounds per square inch at 70° F. (except anhydrous ammonia), must be equipped with a safety device tested by the Bureau of Explosives and found to prevent explosion of the normally charged cylinder when it is placed in a fire.

(*b*) Chlorine gas may also be shipped in special tank cars complying with Master Car Builders' rules and specifications.

1863. (*a*) When cylinders containing inflammable gases are not boxed or crated for shipment, the discharge valves must be strong enough to avoid injury during transit or they must be protected by strong metal caps that can not be detached by rolling the cylinders.

(*b*) Shipments of cylinders (that under individual carriers' arrangements can be transported without transfer), if loaded by the shipper, to be unloaded by the consignee, may be transported without crating or boxing, provided the cylinders are loaded compactly in an upright position in the end of the car, and are securely braced to prevent any relative movement during transit, according to the general methods prescribed by B. E. Pamphlet No. 6 for bracing shipments of explosives.

LABELS.

1864. (*a*) Unless exempted on account of quantity or method of packing (see columns 3 and 5, list, par. 1807), all packages containing dangerous articles named in the list, paragraph 1807, and similar articles defined by paragraphs 1802 to 1806, inclusive, must be conspicuously labeled by the shipper. Labels should be applied when practicable to that part of the package bearing the consignee's name and address.

(*b*) Labels will not be required on packages in carload shipments to be unloaded by the consignee, but the proper placards must be obtained from the carrier and applied by the shipper to the car loaded by him. When it is known, however, that subsequent shipments of these packages in less-than-carload quantities, and in the original outside packages, will probably be made by the consignee, the original manufacturing shipper should attach labels to the packages.

(*c*) Shippers must furnish and attach the labels prescribed for their packages. Labels must not be applied to packages containing articles which are not subject to these regulations, nor to packages which are exempt from labels on account of quantity or method of packing. (See columns 3 and 5, list, par. 1807). Packages containing articles which are subject to these regulations and which are thus exempt from labels, must be plainly marked "NO LABEL REQUIRED."

(*d*) Containers shipped as "EMPTY" (except in carload shipments to be unloaded by consignee) must have the old red, yellow, white, or green labels removed or completely covered by a square white label measuring not less than 6 inches on each side, and bearing thereon the word "EMPTY" in letters not less than 1 inch high.

1865. Labels must be of diamond shape, with each side 4 inches long. The color is *red* for inflammable liquids and compressed inflammable gases, *yellow* for inflammable solids and oxidizing materials, *green* for noninflammable compressed gases, and *white* for corrosive liquids. Labels must conform to standards as to size, printing, and color and samples will be furnished, on request, by the chief inspector of the Bureau of Explosives, 30 Vesey street, New York City.

1866. The wording must be in black letters inside of a black line border measuring 3½ inches on each side, and as follows:[1]

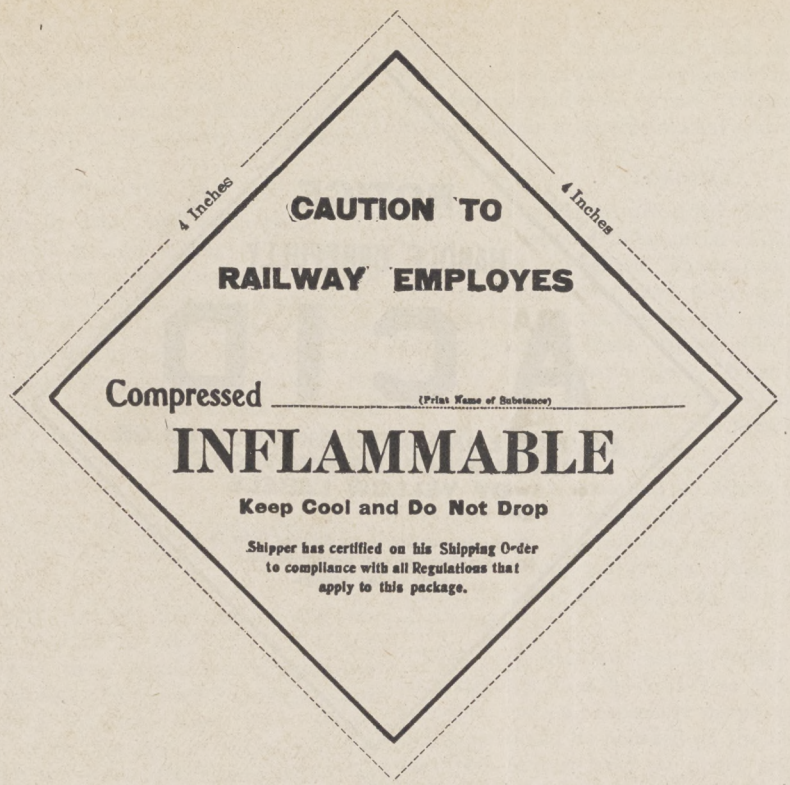
[1] The carrier's name and form number, or the shipper's name and address, may be printed on the labels, in type not larger than 10 point, if placed within the black line border and in the upper or lower corner of the diamond.



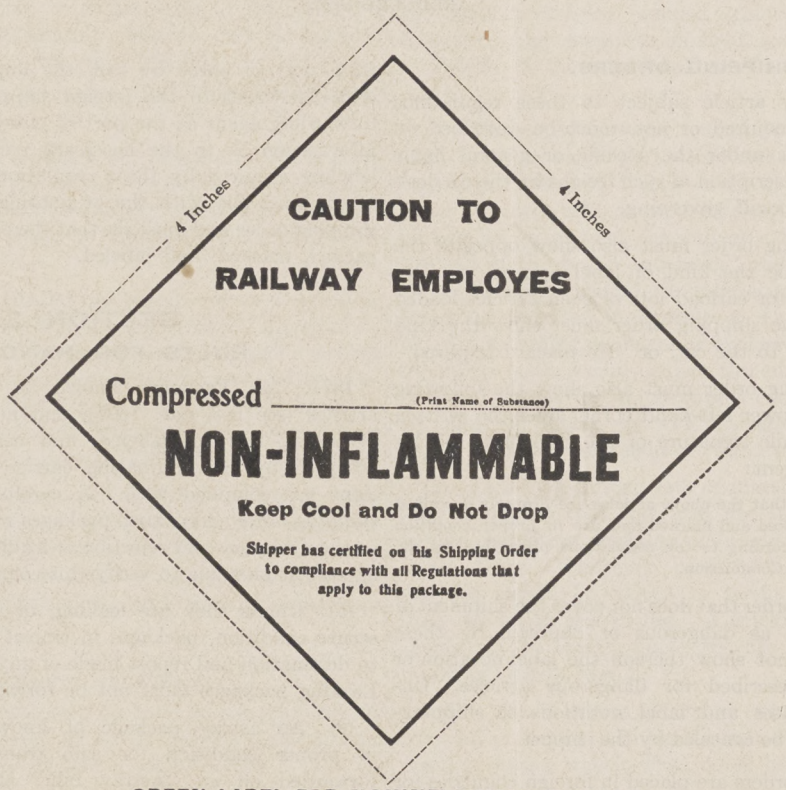
RED LABEL FOR INFLAMMABLE LIQUIDS.
(REDUCED SIZE)



YELLOW LABEL FOR INFLAMMABLE SOLIDS AND OXIDIZING MATERIALS.
(REDUCED SIZE)



RED LABEL FOR INFLAMMABLE GASES.
(REDUCED SIZE)



GREEN LABEL FOR NONINFLAMMABLE GASES.
(REDUCED SIZE)



WHITE LABEL FOR ACIDS.
(REDUCED SIZE)

SHIPPING ORDERS.

1867. (*a*) Any article subject to these regulations whether label is required or not, must be described on the shipping order under the specific or general name provided for the description of such freight by the carrier's classification and tariff governing.

(*b*) The shipping order must also show opposite the entry of the article the kind of label applied, or "No label required." For carload lots of such articles loaded by the shipper, the shipping order must show the kind of placard applied to the car, or "No placard required."

(*c*) The shipping order must also show the following certificate in the lower left-hand corner over the written or stamped facsimile signature of the shipper or of his duly authorized agent:

This is to certify that the above articles are properly described by name and are packed and marked and are in proper condition for transportation according to the regulations prescribed by the Interstate Commerce Commission.

(*d*) A shipping order that does not cover the shipment of an article classed as dangerous or doubtful by these regulations must not show thereon the label notation or the certificate prescribed for dangerous articles. Unnecessary certificates and label notations on shipping-order blanks must be canceled by the shipper.

(*e*) Whenever orders are placed in foreign countries for the importation of dangerous articles to be forwarded from port of entry by rail, the importer must furnish with the order to the foreign shipper and also to the forwarding agent at the port of entry, full and complete information as to the necessary packing, marking and labeling required by these regulations. The forwarding agent must file with the originating carrier a certified shipping order and must see that the packages are properly packed, marked, and labeled.

SECTION 3.
RULES FOR HANDLING.

1871. (*a*) Packages known to contain dangerous articles (see list, par. 1807), and not properly packed, described, marked, labeled, and certified must not be accepted by the originating carrier until these regulations are complied with. A careful inspection of the shipping order and of such packages with special attention to the discovery and rejection of leaking or insecure packages must be made to verify this compliance.

(*b*) Unless they are leaking, or in a manifestly insecure condition, packages in transit must be forwarded to destination and report made of any violation observed. Leaking packages must not be forwarded.

(*c*) An astray package of known destination and in proper condition for safe transportation must be forwarded on an "Astray bill," showing the proper label notation

When necessary to replace labels, and doubt exists as to the kind, the red label should be used.

(*d*) Unauthorized persons must not be allowed to have access to explosives or other dangerous articles at any time while such articles are in the custody of the carrier.

WAYBILLING.

1873. The revenue or other waybill prepared from the shipping order, and transfer billing to connecting carrier for dangerous articles in list, paragraph 1807 and for other articles not in the list, but properly offered for shipment as dangerous articles, must properly describe these articles by classification or tariff name and state for less-than-carload shipments the color of label applied. For carload shipments they must show the kind of placard applied. The shipper's certificate must be in possession of the initial carrier when these indorsements are made on original billing.

The revenue waybill must also have plainly stamped or written at the top the words "INFLAMMABLE" or "ACID."

1874. (*a*) The card waybill, the running slip, the envelope containing waybills or other billing for any loaded car which under these regulations should bear the inflammable or the acid placard or for an empty tank car protected by such placards, must have plainly stamped or written across the top in letters not less than ⅜ inch in height the words "INFLAMMABLE" or "ACID."

(*b*) In the absence of information to the contrary, empty tank cars not bearing placards, may be assumed not to require them. (See par. 1903 (*b*).)

(*c*) For tank cars not loaded, the billing must show the word, "Empty."

1875. When the lading is not dangerous, but is properly described by one of the doubtful names, distinguished by an asterisk in the list, paragraph 1807, the billing for the car must be indorsed "No placard required."

1876. When the initial movement is over a switching line the switching ticket, and copies thereof, prepared by the shipper, or by the carrier under the shipper's written authority, must bear the shipper's certificate and the placard notation prescribed by paragraph 1867; for other switching movement the switching ticket prepared by a railway employee must show the kind of placard required.

1877. Shipments of dangerous articles offered by connecting lines must comply with these regulations, and the revenue way bill, freight bill, manifest of lading, card waybill, switching order, or other billing, must bear the label and placard endorsements prescribed by paragraphs Nos. 1873 and 1874.

HANDLING PACKAGES.

1889. Carriers must keep on hand an adequate supply of labels. Lost or detached labels must be replaced from information given on revenue or other waybill.

1890. In handling packages containing dangerous articles at stations and to and from cars care must be taken to prevent their falling or being broken. Heavy packages should be trucked, rolled, or moved by use of skids or other satisfactory devices and must not be dropped from trucks, platforms, or cars. Planks for rolling trucks from platforms to cars should have beveled ends.

LOADING.

1891. (*a*) A box car placarded "INFLAMMABLE," or known to contain inflammable liquids must not be entered with a lighted lantern, torch, or other fire until both car doors have been opened and sufficient time allowed for ventilation and escape of any vapors. The presence of these vapors will generally be indicated by characteristic odors. When leakage is continuous ventilation will not remove the danger. The leaking package should be located and removed, using electric lights or waiting for daylight.

(*b*) Packages protected by labels must be loaded so that they can not fall to the car floor and so that other packages of freight can not fall on them. Packages protected by white and yellow labels, respectively, must not be loaded in the same end of a car or stored near each other.

1892. (*a*) Carload lots of "strike anywhere" (friction) matches must be loaded as compactly as possible to avoid motion, especially lengthwise the car. Car doorways should be boarded on the inside to keep packages from contact with the doors, and the inside lining of the car should be supplemented when necessary by strips nailed to the car and close enough together to keep the boxes from being jammed against the studding and broken by high pressures on small areas. The strongest dimension of the box should be loaded lengthwise the car.

(*b*) When packages are loaded over or near exposed draft bolts or kingbolts the bolts should be covered by boards not less than 1 inch thick, or by empty wooden boxes of proper size, and the ends of these boards should be beveled to prevent the end of a box resting against the end of the board and being crushed by it. Partial layers of boxes should be interlocked with the lower layers as described in Bureau of Explosives Pamphlet No. 6, for loading packages of explosives. The cars used should be made secure against the entrance of sparks or rain and should be the strongest cars available. Under no condition should any car be loaded with more than 48,000 pounds gross weight of "strike anywhere" matches.

(*c*) Less-than-carload lots of matches should be carefully loaded so that they can not fall to the car floor and so that other packages of freight can not fall on or injure them. Whenever practicable the packages of matches should be placed to facilitate ready removal from the car in case of fire. A smoking box of matches should not be broken open; the fire will cease of itself if air can be kept from it.

1893. (*a*) Carboys of acid or other corrosive liquids must be so blocked and braced that they can not change position during transit when being handled with reasonable care.

NOTE.—For convenient forms of trucks for handling acid carboys see B. E. Pamphlet No. 6.

(*b*) When less-than-carload shipments are loaded with other freight the carboys must be placed near the doorways and must have wooden strips not less than 1 inch thick nailed to the car floor about 6 inches from the carboy boxes. These strips must be arranged so that the liquid from a broken carboy will drain toward the doorway and outside the car. The space between the strips and the floor braces, or blocking used for staying the carboy boxes, must be covered with at least 1 inch thickness of clean and dry sand (not sawdust or other combustible material).

(*c*) Cylinders containing compressed gases must be loaded on their sides, except when packed in boxes or crates or when placed in suitable permanent racks in cars, or braced as prescribed by paragraph 1863 (*b*).

1894. (*a*) Carload lots of crude camphor, cotton, cotton batting, cotton wadding, cotton waste, excelsior, fiber, hay, hemp, jute, oakum, oil-well cables, rags, sawdust, sulphur, tow, or straw, or other articles liable to be ignited by sparks, as well as unslacked lime and calcium carbide, both of which must be protected from water, should when practicable be loaded in tight cars, with doors stripped, and when practicable these cars must not be placed next to cars placarded "EXPLOSIVES."

(*b*) Lime, coke, chipped bone, ashes, or similar substances must not be loaded in cars until thoroughly cooled.

(*c*) Charged electric batteries must be well insulated to prevent short circuits and must not be loaded or stored with explosives.

1895. (*a*) Empty barrels, kegs, or drums previously used for the shipment of an inflammable or corrosive liquid, must have their filling and vent holes properly closed. They should be loaded in open or stock cars when practicable. Labels are not required on such packages, and cars should not be placarded, but lighted lanterns or other open-flame lights should be kept away.

(*b*) Empty carboys in less-than-carload lots and in carload lots to be unloaded by carriers must be supplied with stoppers and neck protectors well secured, and they must be loaded with their necks up. Whenever practicable they should not be loaded in cars containing valuable or perishable freight.

PLACARDS AND HANDLING CARS.

1901. Carriers must keep on hand an adequate supply of placards. Placards will be furnished by carriers to shippers for attachment to cars loaded by them.

1902. The carrier must verify the attachment of the proper placard by the shipper, as soon as a car requiring a placard is accepted by the carrier for transportation. A daily record showing the initials and numbers of all cars placarded must be kept on file at originating and transfer stations.

1903 (*a*) When the lading requiring the placard is removed from cars placards must be removed, except that "INFLAMMABLE" placards must remain on *tank* cars moved as "empty" until such cars are known to have been properly cleaned with steam or reloaded with a substance that does not require the placard. As provided in paragraph 1941 (*b*) acid placards which are painted or stenciled on tank cars may be allowed to remain.

(*b*) Many fatal accidents have resulted from using lanterns or lighted matches to examine the interior of empty tank cars or in using hot rivets to repair unsteamed tank cars, which may contain inflammable vapors even when the previous lading was not of flash point below 80° F. Only incandescent electric lights should be used for this examination.

(*c*) Dome covers on empty tank cars must be securely placed in proper position before the cars are offered for movement.

1904. A carrier must not move from a station, yard, or siding a car known to require placards until the proper placards are attached. Placards lost in transit must be replaced by the carrier.

1905. (*a*) Tank cars placarded "INFLAMMABLE" must be placed in trains, if possible, at least 5 cars from the engine and 5 cars from the caboose, but must not be placed next to a car placarded "EXPLOSIVES." When length of train does not permit this, they must be placed as near the middle of the train as practicable; and in all cases carriers must see that their train crews are informed of the presence and location of such cars in the train.

Special care must be taken to avoid rough treatment and unnecessary switching of placarded tank cars.

(*b*) The carrier must see that its representative in charge of a freight train makes a thorough check of the cars bearing inflammable, acid, or explosive placards, with the billing, to see that all placards required are attached and those not required are removed.

1906. When cars protected by "INFLAMMABLE" placards are received or held in yards, particularly at night, the carrier must see that all necessary precautions are taken to prevent accidents. These precautions must include provision for quickly isolating them in case of fire.

1907. In classification yards, and in switching, it must be determined by inspection and trial that such a car has its brakes in first-class order before a draft containing it is cut; and a tank car placarded "INFLAMMABLE" must not be started down a ladder track, incline, or hump until the preceding car has cleared the ladder. It also must clear the ladder before another car is allowed to follow.

1908. (*a*) Cars bearing "INFLAMMABLE" placards and cars adjacent to them must be watched with extra care to discover hot journals.

(*b*) All available opportunities must be utilized, by noting the odor of inflammable liquids or otherwise, to discover leaks in these cars and to protect leaking cars from ignition of contents by flame of inspectors' lanterns or torches, by burning fusees, by switch lights, by switch-thawing flames, by fires on side of track, by coals from locomotives passing over a road bed strewn with leakage, or otherwise. (See par. 1956.)

1909. Whenever a tank car, loaded with an inflammable liquid, is discovered in transit in a leaking condition, all unnecessary movement of the car must cease until the unsafe condition of the car is remedied. Every possible precaution necessary to prevent ignition of the contents must be observed and the general precautions indicated in paragraphs 1951 to 1957, inclusive, should be followed.

1910. When fire occurs in charcoal in transit, water should not be used if it is practicable to locate and remove the material on fire, since wet charcoal is much more liable to ignite spontaneously, and the fire can not be stopped permanently by the use of water.

1911. Whenever a car bearing the acid placard is discovered in transit with packages in leaking condition, all unnecessary movement of the car must cease and at the first opportunity an examination must be made of the lading, and if practicable any broken or leaking packages of nitric or mixed acids should be removed promptly to prevent fire. Any acid remaining on the car floor or on surrounding packages should be washed away with a plentiful supply of water.

1912. In unloading tank cars, the following rules should be observed:

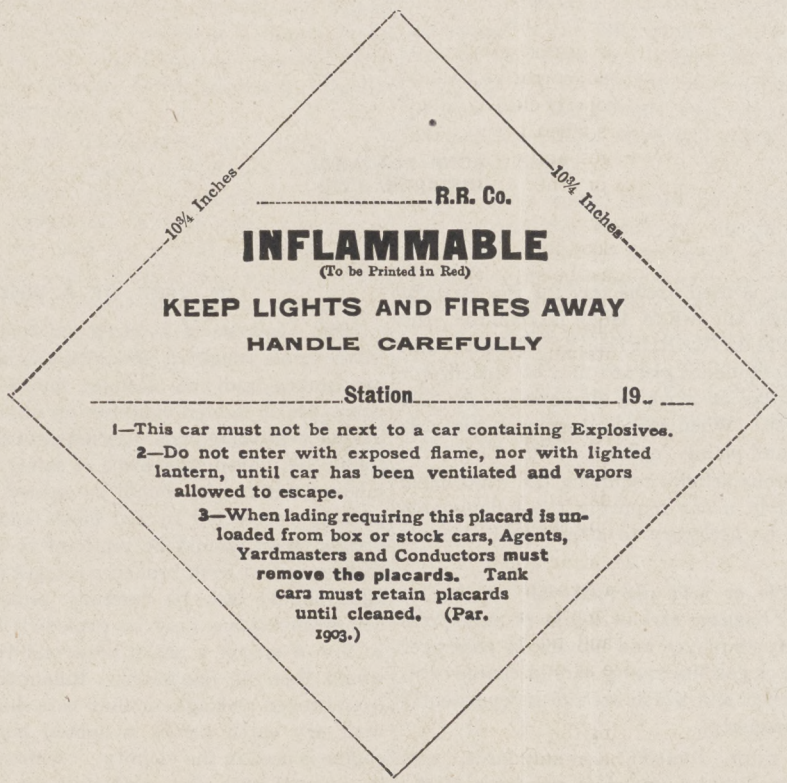
(*a*) The dome cover should be unscrewed by placing a bar between the dome-cover lug and the knob; the valve-rod handle in the dome should be moved back and forth a few times, to ascertain if the valve is properly seated, and if seated, the valve cap should then be removed with a suitable wrench, having a pail to catch any liquid that may be in the valve nozzle.

(*b*) The unloading connection should be securely attached to the valve nozzle, and valve should then be raised by working the valve-rod handle. The dome cover should be placed over the dome opening, resting on a piece of wood, to allow air to enter the tank. The dome cover should not be replaced while unloading, as this action may result in collapse of the tank. After tank is unloaded the valve should be seated, valve cap and dome cover replaced. "INFLAMMABLE" placards must not be removed.

(*c*) When necessary to unload tank cars from the dome, or when necessary to transfer the contents of one tank car through the outlet valve into the dome of another tank car, care should be observed to see that all of the connections are tight and that the pipe or hose, when inserted into the open manhole for pumping or filling purposes, is surrounded by wet burlap to prevent the escape of vapors and to avoid igniting them.

INFLAMMABLE PLACARD.

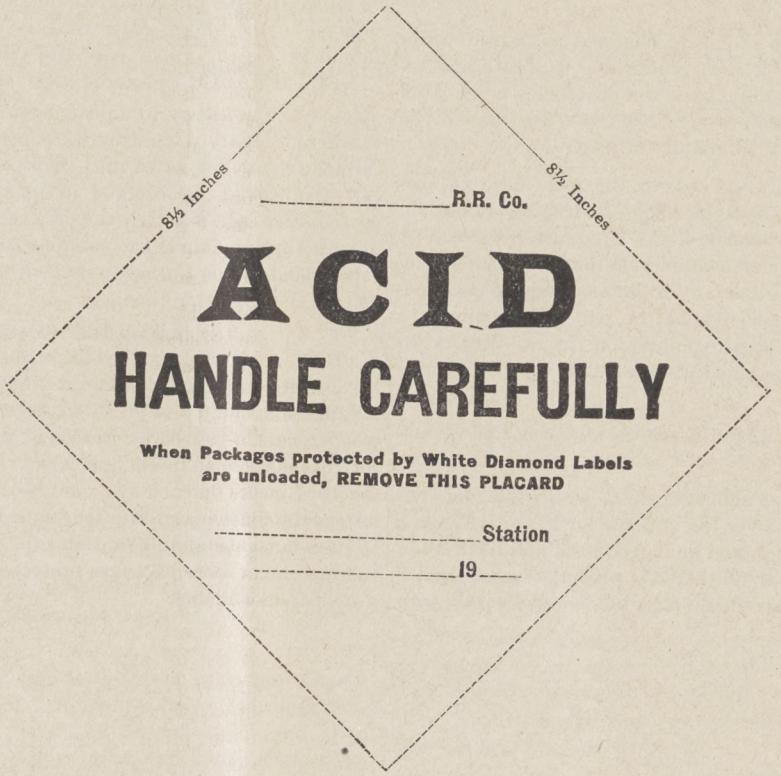
1913. A placard of diamond shape, printed on strong, thin, white paper for pasting on tank cars, containing an inflammable liquid and on strong tag board for tacking to wooden cars or to wooden boards of suitable size attached for this purpose to metal box cars or tank cars, measuring 10¾ inches on each side, and bearing in red and black letters the following inscription, must be securely attached to each outside end and to each side door of a car containing one or more packages protected by the *red* or the *yellow* diamond label:



INFLAMMABLE PLACARD.
(REDUCED SIZE)

ACID PLACARD.

1941. (*a*) There must be securely attached to each outside end and to each side door of a car containing one or more packages protected by the *white* diamond label a placard of diamond shape on strong, thin, white paper for pasting on tank cars and on strong tag board for tacking to wooden cars or to wooden boards of suitable size attached to tank cars, measuring 8½ inches on each side, and bearing in black letters the following inscription:



ACID PLACARD.
(REDUCED SIZE)

(*b*) If a tank car is used exclusively for the carriage of articles for which the white label is required, the words "ACID—HANDLE CAREFULLY," of the size and style as shown on the standard placard may be stenciled or painted in black letters on a white diamond on the car, in lieu of the placards. When this is done such placards must be kept fresh and plainly legible.

(*c*) When dangerous articles requiring the white label are properly loaded in a car requiring the inflammable placard, it will not be necessary to attach acid placards to the car.

1943. Inflammable or acid placards will not be required on express or baggage cars in charge of an express messenger or railway employee and moving in passenger trains, or on electric or gasoline motor cars in charge of an employee of the carrier, and which are run independently of cars carrying passengers.

1944. Placards must conform to standards, and samples will be furnished by the chief inspector of the Bureau of Explosives on request.

IN CASE OF A WRECK.

1946. In case of a wreck involving a car containing inflammable freight it should be assumed that packages are broken and that leakage has occurred which may cause fire if lighted lanterns or other flames are taken into or near these cars. As much of the train as possible should be moved to a place of safety. A car containing inflammable freight should be opened for ventilation and packages protected by red labels and cylinders of compressed gases should be removed to a safe place. Substances spilled from broken packages protected by yellow label should also be carefully removed. Cylinders of compressed gases may be exploded if they are exposed to fire or struck a sharp blow and the flying fragments would then be dangerous. Inflammable liquids spilled from broken packages or tank cars should be well covered with dry earth before a lighted lantern, torch, or an engine is used in the vicinity. Acids spilled in cars should be covered with dry earth and the car floor should be thoroughly swept.

LEAKING TANK CARS.

1951. Action in any particular case will depend upon existing conditions, and good judgment will be necessary to avoid disastrous fires on the one hand and the useless sacrifice of valuable property on the other.

Volatile (or combustible) liquids, such as gasoline, naphtha, etc., in large quantity and spread over a large surface will form vapors that will ignite at a considerable distance, depending on the kind and quantity of liquid and the direction and force of the wind. Many of the liquids, regarded as safe to carry under ordinary conditions and transported in tank cars without the inflammable placard, should still be treated as dangerous in handling a wreck.

1952. When oil cars are leaking all lights or fires near them that can possibly be dispensed with should be extinguished or removed. Incandescent electric lights or portable electric flashlights should be used when available. Whenever practicable the work of handling a wrecked oil car should be done during daylight.

1953. Lanterns necessarily used for signaling should be kept on the side from which the wind is blowing and at as high an elevation as can be obtained. The vapors will go with the wind but not against it. The ash pan and fire box of a locomotive or steam derrick, especially on the side of a wrecked or leaking tank car toward which the wind is blowing, is a source of danger. Wrecks involving oil cars should in no case be approached with lighted pipes, cigars, or cigarettes.

1954. Effort should be made to prevent the spread of oil over a large surface by collecting it in any available vessels or draining it into a hole or depression at a safe distance from the track. When necessary, trenches should be dug for this purpose.

It is not safe to drain inflammable oil in large quantities into a sewer, since vapors may thus be carried to distant points and there ignited. Care should be exercised also not to permit oil to drain into streams of water which may be used by irrigation plants or for watering stock. Dry earth spread over spilled oil will decrease the rate of evaporation and the danger. A stream of oil on the ground should be dammed and dry earth be thrown on the liquid as it collects.

1955. Sudden shocks or jars that might produce sparks or friction should be avoided. When possible, jack the wrecked cars carefully into position after removing other cars and freight that might be injured by fire. Only as a last resort, to meet an emergency, should a wrecked tank car be moved by dragging, and when this is done all persons should be kept at a safe distance.

1956. No unnecessary attempt should be made to transport a damaged tank car from which inflammable liquid is leaking. Safety in short movements may be secured by attaching a vessel under small leaks to prevent spread of inflammable liquid over tracks. Cover tracks at intervals in rear of a moving car with fresh earth to prevent fire overtaking the car. Keep engines away; also spectators who may be smoking. If wrecked or derailed, and not in a position to obstruct or endanger traffic, it should have its leak stopped as far as possible and be left under guard until another tank car or sufficient vessels can be provided for the transfer of the liquid, which should be transferred by pumping when practicable.

Even a tank that is not leaking is liable to be ruptured by use of slings, and the slipping of chain slings may produce sparks. Saving of the contents of the tank is not as important as the prevention of fire.

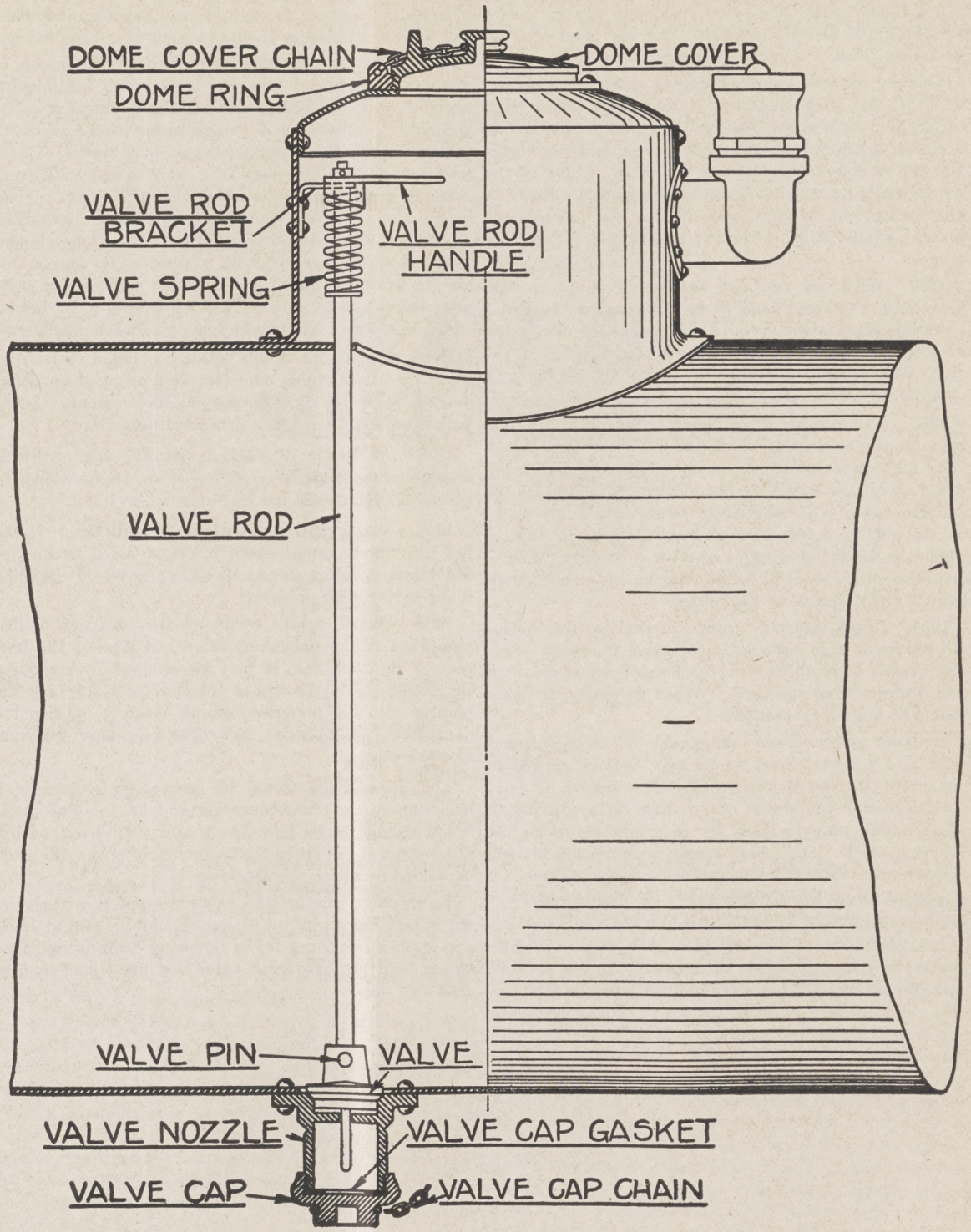
1957. An empty or partially empty tank car, with or without placards, is very liable to contain explosive gases, and lights must not be brought near it.

1958. **Water will not quench an oil fire.**—If the fire can not be smothered by use of earth, steam, or wet blankets, effort should be concentrated on confining it and saving other property.

1959. Should a leak occur by the breakage or displacement of the unloading valve and pipe at the bottom of the tank car, it may be stopped by removing the dome cap on the top of the tank and dropping the plunger into the plunger seat, as a shock sufficient to damage the outlet valve and pipes may have unseated also the plunger.

The dome cover should be unscrewed by placing a bar between the dome-cover lug and knob. The dome cover should not be hammered, and should not be unscrewed until the absence of vapor pressure in the tank is verified by lifting the safety valve.

To ascertain whether the valve is properly seated, the valve rod handle in the dome should be moved back and forth a few times. The following drawing indicates the general plan covering valve rod and unloading or discharge valve:


DOME COVER CHAIN
DOME COVER
DOME RING
VALVE ROD BRACKET
VALVE ROD HANDLE
VALVE SPRING
VALVE ROD
VALVE PIN
VALVE
VALVE NOZZLE
VALVE CAP GASKET
VALVE CAP
VALVE CAP CHAIN

Interstate Commerce Commission Specifications for Shipping Containers.

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SHIPPING CONTAINER SPECIFICATIONS

Shipping Container Specification No. 1.

(See par. 1822 (a).)

For carboys and outside containers of same when used for the shipment of inflammable or corrosive liquids.

Revised July 2, 1914. Effective October 1, 1914.

1. All carboys and carboy boxes purchased hereafter and used for the shipment of acids or inflammable liquids must comply with the following specifications. Carboys purchased between March 31, 1912, and the effective date of these specifications, if used for the shipment of acids or inflammable liquids, must comply with the specifications effective March 31, 1912, or with these specifications.

GLASS CARBOYS.

WEIGHT.

2. Any glass container with a nominal capacity not less than 10 gallons shall be classed as a carboy, and no carboy used for the shipment of acids or inflammable liquids shall have a nominal capacity of more than 13 gallons.

3. A carboy with a capacity of 12 gallons must contain a minimum of 16 pounds of glass. A carboy with a capacity of 13 gallons must contain a minimum of 16¾ pounds of glass.

NOTE.—The glass in the side walls of molded carboys should be as well distributed as practicable and the minimum thickness should be not less than 2/32 inch.

ANNEALING.

4. Each carboy must be annealed for not less than 30 hours in ovens, or for not less than 9 hours in lehrs, at a temperature of from 1,000° F. to 1,100° F. and then gradually cooled to the necessary finishing temperature required by local conditions.

INSPECTION.

5. Each carboy must be carefully examined and tested to detect any weakness or defect due to variation in thickness of glass, or to other causes, and all such defective carboys must be rejected.

MARKING.

6. An identifying mark must be blown in the bottom or neck of each carboy to enable the manufacturer's name and year of manufacture to be determined. A copy of this mark must be filed with the chief inspector, Bureau of Explosives, 30 Vesey Street, New York City. If the carboys are covered with a fiber or other composition, this mark must also be placed on the covering.

CLOSING.

7. The carboy must be closed (*a*) by having an earthenware or glass stopper inserted into the mouth of the carboy, sealed in place by clay, plaster of Paris, or similar material in a plastic condition, and securely fastened with burlap or other suitable material drawn tight and securely tied under the lip of the mouth with strong cord; (*b*) by a glass stopper with gasket, secured by metal fastenings; (*c*) by a glass stopper ground to fit, secured by burlap or other suitable material; (*d*) if the contents of the carboy are not corrosive, by a cork or other similar closing device securely fastened in place to prevent leakage.

LEAD CARBOYS.

8. Any lead container of nominal capacity not less than 5 gallons shall be classed as a carboy and no lead carboy shall have a nominal capacity of more than 11 gallons.

9. Lead carboys shall be made with their sides and bottoms of not less than 8-pound lead and their tops of 10-pound lead.

10. The carboys must be closed with stoppers securely fastened in place to prevent leakage.

11. Lead carboys must be tested with 5 pounds per square inch internal pressure before each shipment and must show no leakage under this test.

OTHER INSIDE CONTAINERS.

12. Stoneware and other similar containers, for which specifications are not included herein, and which, under tests made by the Bureau of Explosives or by other competent testing laboratory in the presence of a representative of the Bureau of Explosives, are shown to possess an efficiency and protection against leakage of contents equal or superior to the glass carboys prescribed herein, may be authorized by the Bureau of Explosives for use until such time as they may be acted upon by the Interstate Commerce Commission.

OUTSIDE CONTAINERS.

13. The body of carboy must be completely inclosed in a strong wooden box and so cushioned by proper packing material (see pars. 1855 to 1858) that the glass will not come in contact with the wooden or iron covering. (This requirement does not apply to the wooden or metal elastic strips used to cushion the carboy.)

Iron cases, barrels, and other types of outside containers for carboys, for which specifications are not published herein, and which, under tests made by the Bureau of Explosives or by other competent testing laboratory in the presence of a representative of the Bureau of Explosives, are shown to possess an efficiency and protection against leakage of contents equal or superior to the wooden boxes prescribed herein, may be authorized by the Bureau of Explosives for use until such time as they may be acted upon by the Interstate Commerce Commission.

If the neck of the carboy projects, it must be protected by a suitable hood or cap.

WOODEN BOXES.

14. All wooden carboy boxes used as outside containers for carboys must comply with the following specifications:

MATERIAL.

15. The material from which these boxes are made must be good sound white pine or any wood of equal or superior strength. All lumber must be dry and well seasoned, and must not have loose knots in any part. Minimum thickness of lumber specified refers to the actual thickness in the finished boxes.

THICKNESS OF LUMBER.

16. The thickness of the top, bottom, ends, and sides must be not less than seven-eighths of an inch.

17. The four vertical edges must be reinforced in a suitable manner to secure strength and stiffness. For rectangular lead carboys this reinforcement is not required, but two of the sides must be of lumber not less than 1¼ inches in thickness.

NAILING.

18. The box must be nailed with nails not smaller than 7-penny at approximately 2-inch centers or 8-penny nails at approximately 2½-inch centers. The sides and ends of the box must be nailed together and also to the reinforcing pieces.

CLEATS.

19. There must be two cleats not less than ⅞ by 1¾ inches, one placed on each end of the box for carrying, and two cleats not less than ⅞ by 1¾ inches across the ends of the bottom of the box to act as shoes and to protect the bottom of the carboy.

CUSHIONING SUPPORT.

20. The cushioning support[1] for all carboys must be such that the type of box, when containing the carboy filled with water to the lower edge of the neck and properly packed and cushioned, must be able to withstand the following tests:

[1] If no cushioning is required, then boxed carboys shall be tested without it.

NOTE.—For carboys cushioned with hay or similar material the space between the sides of the carboy and the box should be about 1½ inches.

TESTS OF COMPLETE PACKAGE.

(*a*) By dropping on its bottom onto a concrete or brick floor from each of the heights of 6 inches, 12 inches, 18 inches, 24 inches, etc., in succession. Each box must withstand the first three drops without serious injury, and in testing not less than three packages the average maximum drop withstood by at least two of them without breakage of the carboy must not be less than 24 inches.

(*b*) By suspending as a 14-foot pendulum and swinging against a concrete or brick wall with successive swings, the vertical components of which are 6 inches, 9 inches, 12 inches, 15 inches, 18 inches, etc. Each box must withstand the first four blows without serious injury, and in testing not less than three packages the average maximum swing withstood by at least two of them without breakage of the carboy must be a swing with a vertical component of not less than 15 inches.

BOXES USED MORE THAN ONCE.

21. When these boxes are used more than once, they must be carefully examined before each shipment, and any parts broken or decayed or rotted by corrosion must be replaced. The cushioning support must also be in good condition, and when it is found rotted or broken or inefficient in any way it must be replaced or repaired before shipment.

MARKING.

22. The outside container must be marked: "COMPLIES WITH I. C. C. SPEC'N No. 1," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:

I. C. C.-1

The letters and figures in this symbol must be at least ½ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification; provided, that for carboys purchased previous to the date when specifications therefor went into effect this certification will be held applicable only to closing devices, boxes, and cushioning support.

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

Shipping Container Specification No. 2.

(See par. 1822 (a).)

Metal Cans, Glassware, Earthenware, Wooden Pails or Kits, Etc., for Inflammable or Corrosive Liquids and Boxes for Outside Containers of Same.

Revised July 2, 1914. Effective October 1, 1914.

CANS.

1. Metal cans, glassware, earthenware, wooden pails, or kits, etc., and wooden boxes for outside containers of same, purchased hereafter and used for the shipment of inflammable liquids or corrosive liquids, must comply with the following specifications: Metal cans and boxes purchased between March 31, 1912, and the effective date of these specifications, if used for the shipment of inflammable liquids, must comply with the specifications effective March 31, 1912, or with these specifications.

2. Cans boxed under this specification shall not exceed 10 gallons capacity each.

3. Cans exceeding 1 gallon and not exceeding 10 gallons capacity must be made of metal not lighter than 30 gauge, United States standard (28 gauge for cans containing carbon bisulphide). Cans not exceeding 1 gallon capacity may be made of metal lighter than 30 gauge, United States standard, but it must be such as will provide proper protection against leakage in transit.

4. Each completed can must be tested by its manufacturer and must not leak air when tested under water with interior air pressure of at least 5 pounds per square inch.

GLASS AND EARTHENWARE.

5. Glassware or earthenware containers boxed under this specification shall not exceed 1 gallon capacity each.

6. Bottles, jars, jugs, etc., made of glass or earthenware must be strong and must be sufficiently cushioned by excelsior, sawdust, or other suitable packing to provide proper protection against breakage in transit. They must be securely closed in a manner to prevent leakage.

WOODEN KITS AND PAILS.

7. Wooden kits and pails boxed under this specification shall not exceed 10 gallons capacity each.

8. The construction and method of closing of these containers shall be such as to prevent leakage during transit and if necessary they must be cushioned in the box.

BOXES.

9. Boxes must be made of good sound white pine, or any wood of equal or superior strength, dry and well seasoned and with no loose knots or knots liable to get loose in any part.

10. Thickness of lumber in any part of the finished box must not be less than required by this specification except that a variation of $\frac{1}{64}$ inch be allowed for material $\frac{5}{16}$ inch or less in thickness and a variation of $\frac{1}{32}$ inch be allowed for material over $\frac{5}{16}$ inch in thickness.

11. When the ends are single cleated the cleats must run across the grain of the wood in the ends. The sides or tops and bottoms must extend out over the cleats and the nailing must be staggered, at least 40 per cent of the nails being driven into the ends and at least 40 per cent into the cleats.

12. When the ends are double cleated the sides, top, and bottom must extend out over the cleats and the nailing must be staggered, at least 40 per cent of the nails being driven into the ends and at least 40 per cent into the cleats.

13. Nailed boxes not cleated must have ends of one-piece material or tongued and grooved and glued, provided, that other joints may be used which after investigation made by the Bureau of Explosives are shown to possess strength equal to the tongued and grooved and glued joint.

14. All nails driven through sides, tops, or bottoms into ends or cleats, or to fasten cleats to ends, must be at not greater than 2½-inch centers.

15. All nails driven through tops or bottoms into sides must be at not greater than 8-inch centers.

16. Gauge of nails used shall be not less than the following sizes, depending upon the thickness of lumber into which they are to be driven:

2 penny into $\frac{5}{16}$-inch lumber.
3 penny into $\frac{3}{8}$-inch lumber.
4 penny into $\frac{7}{16}$ to $\frac{1}{2}$ inch lumber.
5 penny into $\frac{9}{16}$ to $\frac{5}{8}$ inch lumber.
6 penny into $\frac{11}{16}$ to $\frac{13}{16}$ inch lumber.
7 penny into $\frac{7}{8}$-inch or thicker lumber.

For example—nails driven through a ½-inch side into a ¾-inch end must be 6-penny. Screws of equal efficiency may be used in place of nails.

17. The boxes must cover the inside containers which must fit tightly in the boxes. The filling hole must be securely closed, and if not entirely covered by the box cover it must be completely protected by it.

MARKING OF BOXES.

18. Each box must be plainly marked with the words "COMPLIES WITH I. C. C. SPEC'N NO. 2," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:

I. C. C.—2

The letters and figures in this symbol must be at least ½ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

19.

BOX FOR SINGLE CONTAINER OF CAPACITY NOT OVER 2 GALLONS.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	⅜	$\frac{5}{16}$	$\frac{5}{16}$	.....
Single-cleated boxes	⅜	$\frac{5}{16}$	$\frac{5}{16}$	⅜ by 1½
Double-cleated boxes	$\frac{5}{16}$	$\frac{5}{16}$	$\frac{5}{16}$	⅜ by 1½
Nailed boxes not cleated	½	$\frac{5}{16}$	$\frac{5}{16}$	.....

20.

BOX FOR SINGLE CONTAINER OF CAPACITY OVER 2 GALLONS BUT NOT OVER 5 GALLONS.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	$\frac{9}{16}$	⅜	⅜	.....
	½	½	½	.....
Single-cleated boxes	⅝	⅜	⅜	⅝ by 1⅞
	½	½	½	½ by 1⅞
Double-cleated boxes	½	⅜	⅜	½ by 1⅞
Double-cleated boxes of this size may have ends of ¼-inch material with cleats ⅝ by 1¼ inches if cleats are tenoned and fastened to ends with clinched nails.				
Nailed boxes not cleated	¾	⅜	⅜	.....
	⅝	⅝	⅝	.....

21.

BOX FOR SINGLE CONTAINER OF CAPACITY OVER 5 GALLONS BUT NOT OVER 10 GALLONS.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	⅝	½	½	.....
Single-cleated boxes	⅝	½	½	⅝ by 1⅞
Double-cleated boxes	½	½	½	½ by 1⅞
Nailed boxes not cleated	¾	½	½	.....

22.

BOX FOR MORE THAN ONE CONTAINER. COMBINED CAPACITY OF ALL CONTAINERS IN BOX NOT OVER 2 GALLONS.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	3/8	5/16	5/16	.....
Single-cleated boxes	3/8	5/16	5/16	3/8 by 1 1/2
Double-cleated boxes	5/16	5/16	5/16	3/8 by 1 1/2
Nailed boxes not cleated	1/2	5/16	5/16	.....

23.

BOX FOR MORE THAN ONE CONTAINER. COMBINED CAPACITY OF ALL CONTAINERS IN BOX OVER 2 GALLONS BUT NOT OVER 6 GALLONS.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	9/16	3/8	3/8	.....
	1/2	1/2	1/2	.....
Single-cleated boxes	5/8	3/8	3/8	5/8 by 1 7/8
	1/2	1/2	1/2	1/2 by 1 7/8
Double-cleated boxes	1/2	3/8	3/8	1/2 by 1 7/8
Nailed boxes not cleated	3/4	3/8	3/8	.....

24.

BOX FOR MORE THAN ONE CONTAINER. COMBINED CAPACITY OF ALL CONTAINERS IN BOX OVER 6 GALLONS BUT NOT OVER 12 GALLONS.

(Provided that two cans with a capacity not exceeding 5 gallons each may be shipped in a box made according to paragraph 26.)

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	3/4	1/2	1/2	.....
	5/8	5/8	5/8	.....
Single-cleated boxes	3/4	1/2	1/2	3/4 by 1 7/8
	5/8	5/8	5/8	5/8 by 1 7/8
Double-cleated boxes	5/8	1/2	1/2	5/8 by 1 7/8
Nailed boxes not cleated	7/8	5/8	5/8	.....
	13/16	13/16	13/16	.....

25.

BOX FOR MORE THAN ONE CONTAINER. COMBINED CAPACITY OF ALL CONTAINERS IN BOX OVER 12 GALLONS BUT NOT OVER 20 GALLONS.

(Provided that three cans with a capacity not exceeding 5 gallons each may be shipped in a box made according to paragraph 27).

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	7/8	5/8	5/8	.....
	3/4	3/4	3/4	.....
Single-cleated boxes	7/8	5/8	5/8	7/8 by 3
	3/4	3/4	3/4	3/4 by 3
Double-cleated boxes	3/4	5/8	5/8	3/4 by 3
Nailed boxes not cleated	1 1/16	13/16	13/16	.....

26.

BOX FOR TWO CANS WITH A CAPACITY OF NOT OVER 5 GALLONS EACH.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	5/8	1/2	1/2	.....
Single-cleated boxes	5/8	1/2	1/2	5/8 by 1 7/8
Double-cleated boxes	1/2	1/2	1/2	1/2 by 1 7/8
Nailed boxes not cleated	3/4	1/2	1/2	.....

27.

BOX FOR THREE CANS WITH A CAPACITY OF NOT OVER 5 GALLONS EACH.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	3/4	9/16	9/16	.....
	5/8	5/8	5/8	.....
Single-cleated boxes	3/4	9/16	9/16	3/4 by 3
	5/8	5/8	5/8	5/8 by 3
Double-cleated boxes	11/16	9/16	9/16	11/16 by 3
Nailed boxes not cleated	1	3/4	3/4	.....
	7/8	7/8	7/8	.....

WIRE-BOUND BOXES.

28. Wire-bound packing boxes for containers of any authorized capacity containing inflammable or corrosive liquids, must be made of sound lumber of not less than the following thicknesses and in accordance with the following specifications.

29. The boxes must cover the inside containers which must fit tightly in the boxes. The filling hole must be securely closed and if not entirely covered by the box, cover it must be completely protected by it.

30. Good sound white pine or any wood equal or superior in strength is acceptable. All lumber used must be dry and well seasoned; no loose knots in any part.

Minimum thickness of lumber specified refers to the actual thicknesses in the finished boxes.

31. There must be four cleats at each end of each box not less than 11/16 x 15/16 inch.

The binding wire at each end must be firmly stapled to each cleat by staples not less than No. 16 gauge and having legs not less than 1 1/8 inches long, extending over the wire, through each board, and into the cleats. The other wire or wires must be firmly stapled to each board by staples not less than No. 18 gauge, extending over the wire, through each board, and firmly clinched on the inside. Staples shall not be more than 3 inches apart. Each wire shall be continuous with the ends tightly twisted at one side.

The distance between the encircling wires on each box shall not exceed 8 inches in any instance.

The ends shall be firmly fastened to the inside of cleats with staples not less than No. 16 gauge, whose legs are not less than 13/16 inch long, placed approximately 3 inches apart, or with nails not less than 7/8 inch long.

WIRE-BOUND BOX FOR A SINGLE CONTAINER OF ANY SIZE.

32. Binding wires shall not be less than No. 16 gauge. Lumber shall not be less than $\frac{3}{16}$ inch thick.

WIRE-BOUND BOX FOR MORE THAN ONE CONTAINER. COMBINED CAPACITY OF ALL CONTAINERS IN BOX NOT OVER 6 GALLONS.

33. Binding wires shall not be less than No. 16 gauge. Lumber shall not be less than $\frac{3}{16}$ inch thick.

WIRE-BOUND BOX FOR MORE THAN ONE CONTAINER. COMBINED CAPACITY OF ALL CONTAINERS IN BOX OVER 6 GALLONS BUT NOT OVER 12 GALLONS

34. Binding wires shall not be less than No. 15 gauge. Lumber shall not be less than $\frac{3}{16}$ inch thick.

WIRE-BOUND BOX FOR MORE THAN ONE CONTAINER. COMBINED CAPACITY OF ALL CONTAINERS IN BOX OVER 12 GALLONS BUT NOT OVER 20 GALLONS.

35. Binding wires shall not be less than No. 14 gauge.

Lumber shall not be less than $\frac{1}{4}$ inch thick. An additional cleat or batten $\frac{11}{16}$ by $\frac{15}{16}$ inch shall be placed vertically at the center of each end where the end exceeds 10 inches in width. This additional cleat or batten shall fit in between the horizontal cleats and be held by nails through these cleats into their ends.

MARKING OF BOXES.

36. Each box must be plainly marked as required by paragraph 18 of this specification.

Shipping Container Specification No. 3.

(See par. 1822 (a).)

Cylinders for the shipment of Carbonic Acid Gas, Nitrous Oxide Gas, Blaugas, and any liquefied gas whose charging pressure at 70° F. exceeds 300 pounds per square inch.

NOTE.—These cylinders may also be used for nonliquefied gases where charging pressure at 70° F. does not exceed 1,800 pounds per square inch, though Specification No. 3A is especially applicable to such cylinders.

Revised July 2, 1914. Effective October 1, 1914.

1. Cylinders purchased hereafter and used for the shipment of carbonic acid gas, nitrous oxide gas, blaugas, or any liquefied gas whose charging pressure at 70 F. exceeds 300 pounds per square inch must comply with the following specifications. Such cylinders purchased between March 31, 1912, and the effective date of these specifications must comply with the specifications effective March 31, 1912, or with these specifications.

2. Cylinders must be made seamless, of steel of uniform quality.

CHEMICAL ANALYSIS.

3.

	Per cent.
Carbon must not exceed	0.55
Phosphorus must not exceed	0.04
Sulphur must not exceed	0.05

ANNEALING.

4. All cylinders after finishing must be uniformly and properly annealed. All dirt and scale must be removed from both inside and outside of the cylinders.

FLATTENING TEST.

5. From each lot of 200 or less a representative finished cylinder, after annealing and after having passed the hydrostatic test, must be selected at random and must withstand, without cracking, flattening between rounded knife-edges to a thickness of six times the thickness of the wall of the cylinder, this measurement to be made between the outside surfaces of the walls of the cylinder.

Provided, That when, on account of the small number of cylinders in any lot or order, it is impracticable to make the regular crushing test herein prescribed, the physical and crushing test may, in cases of lots not to exceed thirty cylinders each, be made on a ring not less than eight inches long, cut from each cylinder, and subjected to the same annealing and other heat treatment as the finished cylinder.

The knife edges must be of wedge shape, converging at an angle of 60°, the point being rounded off with a radius of ½ inch. If any one cylinder from any lot fails to pass this test, two others from the same lot must be selected, and these must pass it in order to have the lot accepted.

If it should appear that failure in the test is due to improper annealing, the manufacturer has the privilege of reannealing the lot and repeating the test.

PHYSICAL TESTS.

6. One out of each lot of two hundred or less finished cylinders after annealing must be selected at random and tests made on test specimens cut longitudinally therefrom to determine the elastic limit, the tensile strength, and the elongation of the material. These test specimens should, when practicable, be taken from the same cylinders which are used for the flattening test.

The elongation must be not less than 10 per cent on an 8-inch test specimen.

The elastic limit must not be more than 70 per cent of the tensile strength.

HYDROSTATIC TEST.

7. Each finished and annealed cylinder must be subjected to a hydrostatic test of not less than 3,000 pounds per square inch in a water jacket, or other apparatus of suitable form, to furnish reliable data. The permanent volumetric expansion must not exceed 10 per cent of the whole volumetric expansion at this pressure.

This test must be made without subjecting the cylinder to any previous internal pressure in excess of 1,000 pounds.

In the hydrostatic test the water gauge indicating the expansion must be of such interior diameter that the total expansion will cause the water to rise at least 45 centimeters in the gauge, except when this will make the interior diameter less than 4 millimeters; the pressure must be applied for not less than 30 seconds and as much longer as may be necessary to insure complete expansion of the cylinder. The expansion must be recorded in terms of cubic centimeters.

MARKING.

8. Each cylinder must be plainly and permanently marked on the shoulder with a serial number and with the name or initials of the original purchaser.

9. Each cylinder must also be plainly and permanently marked on the shoulder with the words "COMPLIES WITH I. C. C. SPEC'N No. 3," or, if desired by the purchaser, this may be abbreviated to "I. C. C.—3." This marking must be placed immediately above the serial number and in letters not less than ¼ inch high.

10. The date of the hydrostatic test must also be stamped on the cylinder (for example 4-09 for April, 1909) in such manner that the dates of subsequent quinquennial tests required by paragraph 1861 (*i*) may be easily added thereto.

GENERAL CONSTRUCTION.

11. All billets, plates, or tubes from which cylinders are made must be free from seams, cracks, laminations, or any defects which might be injurious to the finished cylinder.

12. The manufacture of the cylinders must be completed with the best appliances and according to the best modern methods. All finished cylinders must show reasonably smooth and uniform surface finish, inspection of inside surface to be made before necking down; the threading of the cylinder neck must be even and without checks, and the cylinders must show no defects of workmanship or material likely to result in any appreciable weakness of the finished cylinder. A close inspection of each completed cylinder must be made before acceptance to discover any defect.

INSPECTION.

13. The purchaser must provide for inspection of all material and all tests by a competent and disinterested inspector.

14. The inspector must keep complete records of the various melts from which the steel is taken for the manufacture of the cylinders. Certified chemical analyses of these melts must be supplied to him by the manufacturer, or, if desired by the purchaser, he must procure samples from each melt from which other chemical analyses may be made. The heat number must be stamped on the plates and billets at the steel mill, and the inspector must also stamp his initials or personal sign on each plate or billet accepted by him, and no plate or billet must be used for the manufacture of cylinders unless so marked.

Provided, that when cylinders are to be made from drawn seamless tubing under conditions such that the various heats of steel can not be properly traced through to the finished cylinders, a certificate from the manufacturer of the tubing (see note at end of report, par. 19, for form of certificate), together with check analyses of samples taken from one out of each lot of 200 or less finished cylinders, shall be accepted.

15. The inspector shall make such inspection as may be necessary to see that the requirements of paragraphs 11 and 12 are complied with, shall see that the finished cylinders are properly annealed, and shall witness all hydrostatic and flattening tests.

The hydrostatic and flattening tests must be made by the manufacturer, but under the direction and supervision of the inspector or other representative of the purchaser.

16. The inspector shall stamp his initials or his personal sign immediately beneath the serial number on each cylinder which he passes as accepted and shall make a certified report (see par. 19) to the maker, to the purchaser, and to the chief inspector, Bureau of Explosives, 30 Vesey Street, New York City, showing the serial numbers of all cylinders which are accepted, together with a copy of all data relating to the material and the tests.

EXEMPTIONS FOR CYLINDERS OF SMALL DIMENSIONS.

17. (*a*) Cylinders and other containers which have an outside diameter of less than 2 inches and a length of less than 2 feet shall be accepted without complying with the requirements of paragraphs 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, and 19 of this specification under the following conditions; provided, that cylinders having an outside diameter not greater than ⅞ inch and a capacity of not more than 4 fluid ounces are not subject to specifications.

(*b*) All such containers of whatever size or shape shall be considered and known as cylinders.

(*c*) From each lot of 500 or less a representative finished cylinder must be selected at random and subjected to hydrostatic pressure until it bursts. The bursting pressure must be noted in the report required by paragraph 17 (*f*), and must not be less than 6,000 pounds per square inch.

(*d*) Each cylinder must be subjected to a hydrostatic pressure of not less than 3,000 pounds per square inch without showing any apparent defect.

(*e*) Each cylinder must be plainly and permanently marked as follows:

X—XX—I. C. C.—3.

the X's to be replaced by a date showing month and year of manufacture (for example 5-13 to indicate May, 1913).

(*f*) A report on all cylinders placed in service, giving complete data and certifying that all requirements of this specification have been complied with, must be made to the chief inspector, Bureau of Explosives, 30 Vesey Street, New York City. This report may be rendered by the manufacturer instead of by an outside inspector.

ADDITIONAL REQUIREMENTS.

18. The purchasers of cylinders may impose additional requirements not inconsistent with these specifications.

REPORTS.

19. The report required by paragraph 16 must be submitted in the following form:

(Place)..... .....

(Date)..... .....

Report of inspection of.....cylinders
numbered from.....to....., inclusive.
Manufactured by the.....company.
Inspected for the.....company.

[1]The steel from which these cylinders were manufactured was made by the..... company. Chemical analyses were made from samples representing each melt of steel, as will be observed from the report of chemical test hereto attached.

The [2](plates)—(tubes) from which these cylinders were manufactured were inspected by ...., and those which were accepted were found free from seams, cracks, laminations, or any defects which might prove injurious to the strength of the cylinder.

Each and every cylinder before [2](necking down)—(closing) was inspected inside and outside for surface defects. The thickness of walls was measured at points not more than 8 inches from the open end of the cylinder with a pair of calipers and the minimum thickness of wall noted was.....

Each and every cylinder was [2](necked down)—(closed) and was uniformly and properly annealed, and then the cylinders were again inspected in order to discover any defects which might have been caused by this process.

One out of each lot of 200 or less finished cylinders was selected by the inspector and subjected in his presence to a flattening test as required by the Interstate Commerce Commission specifications. All of the cylinders passed this test satisfactorily.

Two longitudinal test pieces were cut from each crushed cylinder and pulled.

The record of the physical and flattening tests is attached hereto.

Each and every cylinder was subjected to a hydrostatic test of not less than 3,000 pounds in the presence of the inspector. The record of the hydrostatic tests is attached hereto.

Each and every cylinder was stamped with the initials .....of the purchasing company and with the date of test.

Each and every cylinder was stamped on the shoulder with a serial number.

Each and every cylinder was stamped with the personal sign.....of the inspector immediately beneath the serial number of the cylinder.

[3]Each and every cylinder was plainly stamped..... just above the serial number.

I hereby certify that all of these cylinders proved satisfactory in every way and comply with the requirements of the Interstate Commerce Commission Specification No. 3 and with paragraph 1822a of the Interstate Commerce Commission Regulations.

....
Inspector.

[1]If the cylinders are made from drawn seamless tubing under such conditions that it is impossible to trace the various heats of steel through to the finished cylinder (see par. 14), this paragraph should be replaced by the following:

The tubing from which these cylinders were manufactured was made by the..... company under orders No. ....., and their certificate stating that its chemical composition complies with the requirements is attached hereto. Check analyses were made from samples representing each lot of 200 or less cylinders, as will be observed from the report of chemical tests attached hereto.

Also, the report must be accompanied by a certificate from the manufacturer of the tubing, as follows:

(Place).....

(Date).....

This is to certify that the tubing furnished to the..... Company on orders No..... does not contain more than 0.55 per cent of carbon, nor more than 0.04 per cent of phosphorus, nor more than 0.05 per cent of sulphur.

.....
(Signature of manufacturer of tubing.)

This form to be used only when cylinders are made from drawn seamless tubing. (See par. 14.)

[2]Draw a line through word not required.

[3]Insert marking used. See paragraph 9.

(Place).....

(Date).....

Record of chemical analysis of melts from which steel was taken for the manufacture of.....cylinders by the.....Company for the.....Company.

Test No.	Melt No.	Test piece represents.	Chemical analysis.						Accepted or rejected.	Remarks.
			C.	P.	S.					

(Signed).....

(Place).....

(Date).....

Record of physical and flattening tests made on.....cylinders, manufactured by the.....Company for the.....Company.

Test No.	Numbers of cylinders represented by test.	Elastic limit per square inch.	Tensile strength per square inch.	Elongation per cent in 8 inches.	Reduction of area per cent.	Flattening test.	Accepted or rejected.

(Signed).....

(Place).....

(Date).....

Record of hydrostatic tests made on.....cylinders, ...inches O. D. by .....inches long, manufactured by the.....Company for the.....Company.

Number of cylinder.	Test pressure.	Weight.	Total expansion (c. c.).	Permanent expansion (c. c.).	Per cent.

Shipping Container Specification No. 3A.

(See par. 1822 (a).)

Steel cylinders for the shipment of nonliquefied gases whose charging pressures at 70° F. exceed 300 pounds per square inch.

Effective October 1, 1914.

NOTE.—If these cylinders are manufactured and marked for a charging pressure of 1,800 pounds per square inch (see par. 9) they may also be used for liquefied gases, though specification No. 3 is especially applicable to such cylinders.

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1. Cylinders purchased hereafter and used for the shipment of nonliquefied gases whose charging pressures at 70° F. exceed 300 pounds per square inch must comply with the following specifications. Such cylinders purchased between March 31, 1912, and the effective date of these specifications must comply with the specifications effective March 31, 1912, or with these specifications.

2. Cylinders must be made seamless, of steel of uniform quality.

CHEMICAL ANALYSIS.

3.

	Per cent.
Carbon must not exceed	0.55
Phosphorus must not exceed	0.04
Sulphur must not exceed	0.05

ANNEALING.

4. All cylinders after finishing must be uniformly and properly annealed. All dirt and scale must be removed from both inside and outside of the cylinders.

FLATTENING TEST.

5. From each lot of 200 or less a representative finished cylinder, after annealing and after having passed the hydrostatic test, must be selected at random and must withstand, without cracking, flattening between rounded knife-edges to a thickness of six times the thickness of the wall of the cylinder, this measurement to be made between the outside surfaces of the walls of the cylinder.

Provided, That when, on account of the small number of cylinders in any lot or order, it is impracticable to make the regular crushing test herein prescribed, the physical and crushing test may, in cases of lots not to exceed thirty cylinders each, be made on a ring not less than eight inches long, cut from each cylinder, and subjected to the same annealing and other heat treatment as the finished cylinder.

The knife-edges must be of wedge shape, converging at an angle of 60°, the point being rounded off with a radius of ½ inch. If any one cylinder from any lot fails to pass this test, two others from the same lot must be selected, and these must pass it in order to have the lot accepted.

If it should appear that failure in the test is due to improper annealing, the manufacturer has the privilege of reannealing the lot and repeating the test.

PHYSICAL TESTS.

6. One out of each lot of two hundred or less finished cylinders after annealing must be selected at random and tests made on test specimens cut longitudinally therefrom to determine the elastic limit, the tensile strength, and the elongation of the material. These test specimens should, when practicable, be taken from the same cylinders which are used for the flattening test.

The elongation must be not less than 10 per cent on an 8-inch test specimen.

The elastic limit must not be more than 70 per cent of the tensile strength.

HYDROSTATIC TEST.

7. Each finished and annealed cylinder must be subjected to a hydrostatic test in a water jacket, or other apparatus of suitable form, to furnish reliable data. The test pressure must be not less than 1⅔ times the charging pressure corresponding to a temperature of 70° F. for which the cylinder is designed, except that the minimum allowable test pressure shall be 600 pounds per square inch. The permanent volumetric expansion must not exceed 10 per cent of the whole volumetric expansion at this pressure.

This test must be made without subjecting the cylinder to any previous internal pressure in excess of one-third of the test pressure.

In the hydrostatic test the water gauge indicating the expansion must be of such interior diameter that the total expansion will cause the water to rise at least 45 centimeters in the gauge, except when this will make the interior diameter less than 4 millimeters; the pressure must be applied for not less than 30 seconds and as much longer as may be necessary to insure complete expansion of the cylinder. The expansion must be recorded in terms of cubic centimeters.

MARKING.

8. Each cylinder must be plainly and permanently marked on the shoulder with a serial number and with the name or initials of the original purchaser.

9. Each cylinder must also be plainly and permanently marked with the words "COMPLIES WITH I. C. C. SPEC'N No. 3A * * *," or, if desired by the purchaser, this may be abbreviated to "I. C. C.—3A * * *." The stars to be replaced by figures indicating the charging pressure for which the cylinder is designed which will be not more than three-fifths of the pressure used in the test prescribed by paragraph 7. This marking must be placed immediately above the serial number and in letters not less than ¼ inch high.

10. The date of the hydrostatic test must also be stamped on the cylinder (for example, 4-09 for April, 1909) in such manner that the dates of subsequent quinquennial tests required by paragraph 1861 (i) may be easily added thereto.

GENERAL CONSTRUCTION.

11. All billets, plates, or tubes from which cylinders are made must be free from seams, cracks, laminations, or

any defects which might be injurious to the finished cylinder.

12. The manufacture of the cylinders must be completed with the best appliances and according to the best modern methods. All finished cylinders must show reasonably smooth and uniform surface finish, inspection of inside surface to be made before necking down; the threading of the cylinder neck must be even and without checks and the cylinders must show no defects of workmanship or material likely to result in any appreciable weakness of the finished cylinder. A close inspection of each completed cylinder must be made before acceptance to discover any defect.

INSPECTION.

13. The purchaser must provide for inspection of all material and all tests by a competent and disinterested inspector.

14. The inspector must keep complete records of the various melts from which the steel is taken for the manufacture of the cylinders. Certified chemical analyses of these melts must be supplied to him by the manufacturer, or, if desired by the purchaser, he must procure samples from each melt from which other chemical analyses may be made. The heat number must be stamped on the plates and billets at the steel mill and the inspector must also stamp his initials or personal sign on each plate or billet accepted by him, and no plate or billet must be used for the manufacture of cylinders unless so marked, provided, that when cylinders are to be made from drawn seamless tubing under conditions such that the various heats of steel can not be properly traced through to the finished cylinders a certificate from the manufacturer of the tubing (see note at end of report, par. 19, for form of certificate), together with check analyses of samples taken from one out of each lot of 200 or less finished cylinders, shall be accepted.

15. The inspector shall make such inspection as may be necessary to see that the requirements of paragraphs 11 and 12 are complied with, shall see that the finished cylinders are properly annealed, and shall witness all hydrostatic and flattening tests.

The hydrostatic and flattening tests must be made by the manufacturer, but under the direction and supervision of the inspector or other representative of the purchaser.

16. The inspector shall stamp his initials or his personal sign immediately beneath the serial number on each cylinder which he passes as accepted, and shall make a certified report (see par. 19) to the maker, to the purchaser, and to the chief inspector, Bureau of Explosives, 30 Vesey Street, New York City, showing the serial numbers of all cylinders which are accepted, together with a copy of all data relating to the material and the tests.

EXEMPTIONS FOR CYLINDERS OF SMALL DIMENSIONS.

17. (*a*) Cylinders and other containers which have an outside diameter of less than 2 inches and a length of less than 2 feet shall be accepted without complying with the requirements of paragraphs 5, 6, 7, 8, 9, 10, 13, 14, 15, 16, and 19 of this specification under the following conditions; provided, that cylinders having outside diameters not greater than ⅞ inch and capacity of not more than 4 fluid ounces are not subject to specifications.

(*b*) All such containers of whatever size or shape shall be considered and known as cylinders.

(*c*) From each lot of 500 or less a representative finished cylinder must be selected at random and subjected to hydrostatic pressure until it bursts. The bursting pressure must be noted in the report required by paragraph 17 (*f*), and must be not less than 6,000 pounds per square inch.

(*d*) Each cylinder must be subjected to a hydrostatic pressure of not less than 3,000 pounds per square inch without showing any apparent defect.

(*e*) Each cylinder must be plainly and permanently marked, as follows:

X—XX—I. C. C.—3.

the X's to be replaced by a date showing month and year of manufacture (for example, 5-13 to indicate May, 1913).

(*f*) A report on all cylinders placed in service, giving complete data and certifying that all requirements of this specification have been complied with, must be made to the chief inspector, Bureau of Explosives, 30 Vesey Street, New York City. This report may be rendered by the manufacturer instead of by an outside inspector.

ADDITIONAL REQUIREMENTS.

18. The purchasers of cylinders may impose additional requirements not inconsistent with these specifications.

REPORTS.

19. The report required by paragraph 16 must be submitted in the following form:

(Place).....

(Date).....

Report of inspection of .....cylinders numbered.....to....., inclusive.
Manufactured by the.....Company.
Inspected for the.....Company.

[1]The steel from which these cylinders were manufactured was made by the.....Company. Chemical analyses were made from samples representing each melt of steel, as will be observed from the report of chemical test hereto attached.

The [2](plates)—(tubes) from which these cylinders were manufactured were inspected by....., and those which were accepted were found free from seams, cracks, laminations, or any defects which might prove injurious to the strength of the cylinder.

Each and every cylinder before [2](necking down)—(closing) was inspected inside and outside for surface defects. The thickness of walls was measured at points not more than 8 inches from the open end of the cylinder with a pair of calipers, and the minimum thickness of wall noted was.....

Each and every cylinder was [2](necked down)—(closed) and was uniformly and properly annealed and then the cylinders were again inspected in order to discover any defects which might have been caused by this process.

One out of each lot of 200 or less finished cylinders was selected by the inspector and subjected in his presence to a flattening test as required by the Interstate Commerce Commission specifications. All of the cylinders passed this test satisfactorily.

Two longitudinal test pieces were cut from each crushed cylinder and pulled.

The record of the physical and flattening tests is attached hereto.

Each and every cylinder was subjected to a hydrostatic test of.....pounds in the presence of the inspector. The record of the hydrostatic tests is attached hereto.

Each and every cylinder was stamped with the initials ..... of the purchasing company and with the date of test.

Each and every cylinder was stamped on the shoulder with a serial number.

Each and every cylinder was stamped with the personal sign..... of the inspector immediately beneath the serial number of the cylinder.

[3]Each and every cylinder was plainly stamped ....just above the serial number.

I hereby certify that all of these cylinders proved satisfactory in every way and comply with the requirements of the Interstate Commerce Commission Specification No. 3A and with paragraph 1822 (a) of the Interstate Commerce Commission Regulations.

....., Inspector.

[1]If the cylinders are made from drawn seamless tubing under such conditions that it is impossible to trace the various heats of steel through to the finished cylinder (see par. 14), this paragraph should be replaced by the following:

The tubing from which these cylinders were manufactured was made by the.....Company under orders No. ....., and their certificate stating that its chemical composition complies with the requirements is attached hereto. Check analyses were made from samples representing each lot of 200 or less cylinders, as will be observed from the report of chemical tests attached hereto.

Also, the report must be accompanied by a certificate from the manufacturer of the tubing as follows:

(Place).....

(Date).....

This is to certify that the tubing furnished to the..... Company on orders No.....does not contain more than 0.55 per cent of carbon, nor more than 0.04 per cent of phosphorus, nor more than 0.05 per cent of sulphur.

.....
(Signature of Mfr. of tubing.)

This form to be used only when cylinders are made from drawn seamless tubing. (See para. 14.)

[2]Draw a line through word not required.

[3]Insert marking used. (See par. 9.)

(Place).....

(Date).....

Record of chemical analysis of melts from which steel was taken for the manufacture of.....cylinders by the.....Company for the.....Company.

Test No.	Melt No.	Test piece represents.	Chemical analysis.						Accepted or rejected.	Remarks.
			C.	P.	S.					

(Signed).....

(Place).....

(Date).....

Record of physicial and flattening tests made on.....cylinders, manufactured by the.....Company for the.....Company.

Test No.	Numbers of cylinders represented by test.	Elastic limit per square inch.	Tensile strength per square inch.	Elongation per cent in 8 inches.	Reduction of area per cent.	Flattening test.	Accepted or rejected.

(Signed).....

(Place).....

(Date).....

Record of hydrostatic tests made on.....cylinders,.....inches O. D. by .....inches long, manufactured by the.....Company for the.....Company.

Number of cylinder.	Test pressure.	Weight.	Total expansion (c. c.).	Permanent expansion (c. c.).	Per cent.

Shipping Container Specification No. 4.

(See par. 1822 (a).)

Cylinders for the shipment of Anhydrous Ammonia.

Revised July 2, 1914. Effective October 1, 1914.

1. Cylinders purchased hereafter and used for the shipment of anhydrous ammonia, must comply with the following specifications. Such cylinders purchased between March 31, 1912, and the effective date of these specifications must comply with the specifications effective March 31, 1912, or with these specifications.

2. Cylinders must be manufactured from lapwelded pipe, made of soft steel of the best welding quality, free from blisters, cracks, or other injurious defects. Cylinders may be made seamless, or of seamless pipe with heads welded in, if all other requirements of this specification are complied with.

CHEMICAL ANALYSIS.

3.

	Per cent.
Carbon must not exceed	0.20
Phosphorus must not exceed	0.11
Sulphur must not exceed	0.05

MANUFACTURE OF PIPE.

4. The pipe from which these cylinders are to be made must be manufactured by the best appliances and according to the best modern practice, each length after being cut into lengths for the manufacture of the cylinders to be inspected separately for defects inside and outside. Each length of pipe must be subjected to an internal hydrostatic pressure of not over 600 pounds per square inch, under which it must not show any signs of leaking.

FLATTENING TEST.

5. Each crop end cut from the pipe from which the cylinders are to be made must be subjected to, and must withstand without cracking, flattening between rounded knife-edges to a thickness of six times the thickness of the wall of the pipe. This measurement must be made between the outside surfaces of the walls of the pipe and the test must be applied with the weld not more than 45° away from the side which is subjected to the greatest stress.

The knife-edges must be of wedge shape, converging at an angle of 60°, the point being rounded off with a radius of ½ inch. If any crop end fails to pass this test, then another ring cut from the same end of the pipe may be tested.

If the cylinders are made seamless or of seamless pipe, then they must be annealed before the testing prescribed by paragraph 8 and, as there will be no crop ends available, the flattening test must be applied to one out of each lot of 200 or less finished cylinders.

ANNEALING.

6. Each cylinder after finishing should be uniformly and properly annealed. This may be done after the testing prescribed in paragraph 8. Dirt and scale must be removed before painting.

PHYSICAL TEST.

7. One out of each lot of 200 or less finished cylinders after annealing must be selected at random and tests made on test specimens cut longitudinally therefrom to determine the elastic limit, the tensile strength, and elongation of the material.

The elongation must not be less than 20 per cent on an 8-inch test specimen.

The elastic limit must not be more than 70 per cent of the tensile strength.

HYDROSTATIC TEST.

8. Each finished cylinder must be subjected to a hydrostatic test pressure of not less than 1,000 pounds per square inch in a water jacket, or other apparatus of suitable form, to furnish reliable data. The permanent volumetric expansion must not exceed 10 per cent of the whole volumetric expansion at this pressure.

This test must be made without subjecting the cylinder to any previous hydrostatic pressure; provided, however, that a preliminary pressure of not more than 80 per cent of the prescribed test pressure may be applied once only, previous to the official test, for the purpose of rounding out the cylinder.

9. In the hydrostatic test the water gauge indicating the expansion must be of such interior diameter that the total expansion will cause the water to rise at least 45 centimeters in the gauge, except when this will make the interior diameter less than 4 millimeters; the pressure must be applied for not less than 30 seconds and as much longer as may be necessary to insure complete expansion of the cylinder. The expansion must be recorded in terms of cubic centimeters.

MARKING.

10. Each cylinder must be plainly and permanently marked with the name or initials of the owner or owning company.

11. Each cylinder must also be plainly and permanently marked on the head with a serial number and with the words "COMPLIES WITH I. C. C. SPEC'N No. 4" or, if desired by the purchaser, this may be abbreviated to "I. C. C.—4." This marking must be placed immediately above the serial number and in letters not less than ¼ inch high.

The date of the hydrostatic test must also be plainly stamped on the head of cylinder. (For example, 4-09 for April, 1909.)

12. When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

GENERAL CONSTRUCTION.

13. The manufacture of the cylinders must be completed with the best appliances and according to the best modern methods. All finished cylinders must show reasonably smooth and uniform surface finish, inspection of inside surface being made before putting in the heads and bottoms; the threading of valve seat must be even and without checks and the cylinders must show no defects of workmanship or material likely to result in any appreciable weakness of the finished cylinder. A close inspection of each completed cylinder must be made before acceptance to discover any defects.

INSPECTIONS.

14. The purchaser must provide for inspection of all material and all tests by a competent and disinterested inspector.

15. The inspector shall make such inspection as may be necessary to see that the requirements of paragraphs 4 and 13 are complied with, shall note the minimum thickness of wall of the pipe used, and shall witness all the hydrostatic tests.

16. The inspector shall obtain from the manufacturer of the cylinders a certificate signed by the manufacturer of the steel from which the cylinders are made (see Reports, par. 18, for form of certificate) and submit it with his report.

17. The inspector shall stamp his initials or his personal sign immediately beneath the serial number of each cylinder which he passes as accepted and shall make a certified report (see par. 18) to the maker, to the purchaser, and to the Chief Inspector, Bureau of Explosives, 30 Vesey Street, New York City, showing the serial numbers of all cylinders which are accepted together with a copy of all data relating to the material and the tests.

REPORTS.

18. The reports required by paragraphs 16 and 17 must be submitted in the following form:

(Place).....

(Date).....

Report of inspection of ..... cylinders numbered from.....to....., inclusive.
Manufactured by the.....Company.
Inspected for the..... Company.

The steel from which these cylinders were manufactured was made by the.....Company under orders Nos..... Their certificate stating that the chemical composition of the steel complies with the requirements of Specification No. 4 is attached hereto.

Each crop end cut from the pipe from which the cylinders were made was subjected to a flattening test as required by Specification No. 4. All of the crop ends passed this test satisfactorily.

Each and every pipe before closing was inspected inside and outside for defects, and those which were accepted were found free from seams, cracks, laminations, or any defects which might prove injurious to the strength of the cylinder. The thickness of walls was measured with a pair of calipers and the minimum thickness of wall noted was.....

Each and every cylinder [1](was)—(was not) uniformly and properly annealed, and then the cylinders were again inspected in order to discover any defects which might have been caused by this process.

Two longitudinal test pieces were cut from one out of each 200 or less finished cylinders and pulled. The record of the physical tests is hereto attached.

Each and every cylinder was subjected to a hydrostatic test of..... pounds per square inch in the presence of the inspector. A rounding out pressure of not more than ..... pounds per square inch [1] (was) — (was not) made. The record of the hydrostatic tests is attached hereto.

Each and every cylinder was stamped on the..... with the initials.....of the purchasing company.

Each and every cylinder was stamped on the head with its serial number and with the initials..... of the inspector immediately beneath the serial number of the cylinder and with the date of test.

Each and every cylinder was plainly stamped..... on the head immediately above the serial number with the wording required by paragraph 11 of Specification No. 4. (State which form was used.)

I hereby certify that all of these cylinders proved satisfactory in every way, and comply with the requirements of the Interstate Commerce Commission Specification No. 4 and with paragraph 1822 (a) of the Interstate Commerce Commission regulations.

....., *Inspector.*

NOTE.—If any defects are found in completed cylinders, state kind and cause, and that said cylinders were rejected.

CERTIFICATE OF COMPOSITION OF STEEL.

(Place).....,

(Date).....

This is to certify that the steel furnished to the ..... Company on orders No. .... does not contain more than 0.20 per cent of carbon, nor more than 0.11 per cent of phosphorus, nor more than 0.05 per cent of sulphur.

.....
(Signature of manufacturer of steel.)

[1] Draw a line through words not required.

(Place).....

(Date).....

Record of physical tests made on.....cylinders, manufactured by the.....Company for the.....Company.

Test No.	Numbers of cylinders represented by test piece.	Elastic limit per square inch.	Tensile strength per square inch.	Elongation per cent in 8 inches.	Reduction of area per cent.	Accepted or Rejected.

(Signed).....

(Place).....

(Date).....

Record of hydrostatic tests made on.....cylinders, ...inches O. D. by .....inches long, manufactured by the.....Company for the.....Company.

Number of cylinder.	Test pressure.	Weight.	Total expansion (c. c.).	Permanent expansion (c. c.).	Per cent.

(Signed).....

Shipping Container Specification No. 5.

(See par. 1822 (a).)

Iron or Steel Barrels or Drums for Inflammable Liquids or Acids as prescribed by I. C. C. Regulations.

Revised July 2, 1914. Effective October 1, 1914.

1. Iron or steel barrels or drums purchased hereafter and used for the shipment of inflammable liquids or acids as prescribed by I. C. C. Regulations must comply with the following specifications. Such barrels or drums purchased between March 31, 1912, and the effective date of these specifications must comply with the specifications effective March 31, 1912, or with these specifications.

2. It is recommended that, when nature of contents will permit, each such container should be coated on the inside and outside in such manner and with such material as will prevent corrosion.

3. An iron or steel barrel or drum with a nominal capacity of over 55 gallons but not over 110 gallons must be constructed of metal the minimum thickness of which in any part of the completed barrel or drum must not be less than full No. 14 gauge, United States standard.

The weight of a barrel or drum with a nominal capacity of 100 to 110 gallons must be not less than 130 pounds in the black exclusive of the rolling hoops.

4. An iron or steel barrel or drum with a nominal capacity of over 35 gallons but not over 55 gallons must be constructed of metal the minimum thickness of which in any part of the completed barrel or drum must not be less than full No. 16 gauge, United States standard.

The weight of a barrel or drum with a nominal capacity of 50 to 55 gallons must be not less than 70 pounds in the black exclusive of the rolling hoops.

5. An iron or steel barrel or drum with a nominal capacity of over 10 gallons but not over 35 gallons must have a minimum thickness of metal in any part of the completed barrel or drum of not less than full No. 18 gauge, United States standard.

6. An iron or steel barrel or drum with a nominal capacity of not more than 10 gallons must have a minimum thickness of metal in any part of the completed barrel or drum of not less than full No. 20 gauge, United States standard.

7. Each barrel or drum must be tested under water or with all seams covered with soapsuds or heavy oil,

by interior compressed air at a pressure of not less than 15 pounds per square inch sustained for not less than two minutes, and must stand this test without leaking.

8. The type of barrel or drum must be capable of standing without leaking a hydrostatic test pressure of not less than 40 pounds per square inch, sustained for not less than 5 minutes.

9. When filled with water to 98 per cent of its capacity the type of barrel or drum must also be capable of standing without leakage a test by dropping it diagonally on its chime from a height of 4 feet upon a solid concrete foundation.

10. Factory tests of the type package must be made with sufficient frequency to insure that the product complies with paragraphs 8 and 9.

11. Provision must be made for closing the bung-holes and other openings in such manner as to prevent leakage. Bungs or other closing devices projecting beyond the chime or rolling hoops must be capable of withstanding the same test drop as prescribed by Paragraph 9. Threaded metal plugs must be close fitting and threads in the reinforcements and on the plugs must be cut at right angles to the faced surfaces thereof to insure a uniform and solid bearing throughout the entire circumference of the gasket. Gaskets[1] must be made of lead, fiber, leather, or other suitable material. Wooden bungs[2] must be compressed, tapered bungs, and must be covered with a suitable coating and have a driving fit into a smooth bung hole tapered the same as the bung.

12. The method of manufacturing the barrel or drum and the materials used must be well adapted to producing a uniform product. Leaks caused by defective manufacture of a barrel or drum must not be stopped by soldering, but must be repaired by the method used in constructing the barrel or drum.

13. The name or initials of the manufacturing company or an identifying mark, a copy of which shall be filed with the Chief Inspector of the Bureau of Explosives, 30 Vesey Street, New York, must be plainly and permanently marked on each barrel or drum.

14. Each barrel and drum must be plainly and permanently marked with the words "COMPLIES WITH I. C. C. SPEC'N No. 5," or, if desired, this marking may be indicated by a symbol as follows:

I. C. C. - 5

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

All letters and figures in this marking must be at least ½ inch high.

Each such container of domestic manufacture shall also have plainly stamped thereon the date of manufacture thereof.

15. When offered for shipment the package must also bear such other description as may be required by the I. C. C. regulations for the particular article contained therein.

16. Wherever practicable the manufacture of these barrels or drums should be subjected to the inspection of a competent and disinterested inspector.

17. All manufacturers who make metal barrels or drums to comply with this specification must forward to the chief inspector, Bureau of Explosives, 30 Vesey Street, New York City, a report of each order completed. Such report must be submitted in the following form:

(Place).....

(Date).....

Report of metal [3](barrels-drums) manufactured under our factory order No..... in accordance with I. C. C. specification No. 5.

Number of barrels.....
Serial numbers, if any.....
Nominal capacity.....
Galvanized or not galvanized.....
Minimum gauge (U. S. standard) of metal in body .....
Minimum gauge (U. S. standard) of metal in heads .....
Weight in the black exclusive of rolling hoops.....

Each and every [3](barrel-drum) was subjected to an internal air pressure of ..... pounds per square inch and showed no leakage.

Each and every [3](barrel-drum) is marked as required by paragraphs 13 and 14 of I. C. C. container specification No. 5.

We hereby certify that these [3](barrels-drums) comply with the requirements of the Interstate Commerce Commission specification No. 5, and that the type package of this kind will stand the hydrostatic and drop tests prescribed by paragraphs 8 and 9 of that specification. Date of last test of type package under paragraphs 8 and 9 was.....

.....
Manufacturer.

By.....

[1] The gaskets and the flange of the bung should be coated with gum shellac dissolved in alcohol to about the consistency of molasses and then the bung should be set down tight with a wrench having a handle at least 18 inches long. The barrel should then be allowed to stand on end for a few hours until the shellac dries, after which the barrel should be placed bung down to test for leakage before offering for shipment.

[2] Wooden bungs should be long enough to extend about ⅛ inch inside of the barrel and should be soaked in hot water or hot, thin glue for about a minute before driving into the bung hole so that the interior end of the bung will swell and form a shoulder on the inside of the bung hole.

[3] Erase the word barrel or drum as may be required. A drum is a straight sided cylindrical container without bilge.

Shipping Container Specification No. 6.

(See par. 1822 (a).)

Cases for "Strike Anywhere" matches.

Revised July 2, 1914. Effective October 1, 1914.

1. Cases purchased hereafter and used for the shipment of "strike anywhere" matches must comply with the following specifications. Such cases for "strike anywhere" matches as may have been purchased between July 1, 1912, and the effective date of these specifications must comply with the specifications effective July 1, 1912, or with these specifications.

MAXIMUM SIZE OF CASE.

2. No case may have an internal volume exceeding that of a 20-inch cube, or 8,000 cubic inches.

MAXIMUM WEIGHT OF CASE AND CONTENTS.

3. No case constructed of glued-ply fiber board or pulpboard, corrugated strawboard, or solid-fiber millboard composed of not less than 50 per cent sulphite fiber, shall have a weight, including its contents, exceeding 60 pounds.

No case of the wire-bound type shall have a weight including its contents, exceeding 75 pounds.

No wood lock-cornered case built in accordance with the accompanying specifications shall have a weight, including its contents, exceeding 85 pounds unless both head connections to the sides, top, and bottom are strapped with iron binding, continuous strips $\frac{5}{8}$-inch wide, nailed with not more than 5-inch spacing; and under no condition shall the weight of a single wood case and its contents exceed 100 pounds.

MAXIMUM CONTENTS OF CASES.

4. The maximum number of match boxes contained in any one case shall be as follows:

NUMBER OF BOXES.	NOMINAL NUMBER OF MATCHES PER BOX.
½ gross	Not over 700
1 gross	Not over 500
2 gross	Not over 400
3 gross	Not over 300
5 gross	Not over 200
12 gross	Not over 100
20 gross	Over 50 Under 100
25 gross	Not over 50

MARKING.

5. The outside container must be marked "COMPLIES WITH I. C. C. SPEC'N. No. 6," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:

I. C. C. - 6

The letters and figures in this symbol must be at least ½-inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also be marked as required by paragraph 1836 of the I. C. C. Regulations.

WOOD CASES.

MATERIAL.

6. Wood cases must be made of white pine, spruce, or material of similar strength and of suitable quality for the purpose used, reasonably sound, commercially dry, and free from open or loose knots.

CONSTRUCTION.

7. The four edge corners connecting the sides with the head or ends must be lock-jointed and glued. The ends, sides, top, and bottom, when made with more than one piece, must have tongued and grooved joints glued, or compression joints glued. There must be as good shift of butts at the corners as is possible, using commercial lumber. The top and bottom must be nailed in an efficient manner.

8. MINIMUM THICKNESS OF LUMBER FOR CASES.

SIZES OF HEADS, SIDES, TOP, OR BOTTOM.

MAXIMUM DIMENSION.	MINIMUM DIMENSION.	THICKNESS OF HEAD.	THICKNESS OF SIDES, TOP, AND BOTTOM.
Inches.	*Inches.*	*Inch.*	*Inch.*
Under 12	Under 12	1/2	3/8
12-15	Under 12	1/2	3/8
12-15	12-15	9/16	3/8
15-18	Under 6	1/2	3/8
15-18	6- 9	9/16	3/8
15-18	9-12	9/16	3/8
15-18	12-15	9/16	3/8
15-18	15-18	5/8	7/16
18-21	Under 9	9/16	3/8
18-21	9-12	5/8	3/8
18-21	12-15	5/8	3/8
18-21	15-18	11/16	7/16
18-21	18-21	11/16	7/16
21-24	Under 9	5/8	3/8
21-24	9-12	5/8	3/8
21-24	12-15	11/16	7/16
21-24	15-18	11/16	7/16
21-24	18-21	11/16	7/16
21-24	21-24	3/4	1/2
24-27	Under 12	11/16	3/8
24-27	12-15	3/4	7/16
24-27	15-18	3/4	7/16
24-27	18-21	3/4	7/16
24-27	21-24	13/16	1/2
24-27	24-27	13/16	1/2
27-30	Under 12	13/16	3/8
27-30	12-15	13/16	7/16
27-30	15-18	13/16	7/16
27-30	18-21	13/16	7/16
27-30	21-24	13/16	7/16
27-30	24-27	13/16	1/2
27-30	27-30	13/16	1/2
30-33	Under 15	13/16	7/16
30-33	15-18	13/16	7/16
30-33	18-21	13/16	1/2
30-33	21-24	13/16	1/2
30-33	24-27	13/16	1/2
30-33	27-30	13/16	9/16
30-33	30-33	13/16	9/16

9. Cases made of tough spruce or other lumber suitable for case making showing a resistance to bending and tensile strength 15 per cent or more in excess of that of white pine commercial case lumber may have the sides, top, and bottom reduced in thickness $\frac{1}{16}$ inch and the ends $\frac{1}{8}$ inch from the above specified thicknesses, but in no case must any side, top, or bottom be made less than $\frac{3}{8}$ inch in thickness or any end less than ½ inch in thickness.

WIRE-BOUND CASES.

MATERIAL.

10. Reasonably sound well-seasoned wood, veneered or sawed, absolutely free from open or loose knots must be used, the construction being such that the edges and connections will produce a case as near air-tight as the general wire-bound type of construction will permit.

Veneered wood when used must be practically straight and true to surface with each side, top, bottom, or end of case, made of one piece of veneer. If any side, top, bottom, or end is made of more than one piece of veneer or of sawed stock the joints or butts of the various pieces producing one side, top, bottom, or end shall be tongued and grooved and efficiently glued. No material shall be used that has a minimum thickness of less than ¼ inch.

CONSTRUCTION.

11. There must be four cleats at each end of each case not less than $\frac{15}{16}$ by $\frac{11}{16}$ inch. The binding wire at each end must be firmly stapled to each board and each cleat by staples having legs not less than $1\frac{1}{8}$ inches long extending over the wire through each board and into the cleats. The other wire or wires must be firmly stapled to each board by staples extended over the wire and through each board and firmly clinched on the inside. Binding wires shall be not less than No. 16 gauge for cases less than 50 pounds weight, case and contents, and not less than No. 14 gauge for cases over 50 pounds weight, case and contents, the longitudinal spacing of side binding wires being not more than $6\frac{1}{2}$ inches. Staples on binding wires at each end shall be not less than No. 16 gauge and on other wires not less than No. 18 gauge for No. 16 binding wires, and not less than No. 16 gauge for No. 14 binding wires. All staples shall be placed not more than $2\frac{1}{2}$ inches apart. Each wire shall be continuous with the ends tightly twisted at one side. When any case exceeds 12 inches in width perpendicular batten or battens not less than $1\frac{1}{2}$ inches wide by $\frac{11}{16}$ inch thick shall be firmly stapled or nailed provided nails are not less than $1\frac{1}{4}$ inches in length, to each end and also be fastened by nails driven through the bottom and top into the battens, so that the space between battens or cleats shall not exceed 10 inches. The ends shall be firmly fastened to inside of cleats with staples whose legs are not less than $\frac{13}{16}$ inch long or with nails not less than $\frac{7}{8}$ inch in length.

FOR FIBER BOARD, PULPBOARD, OR MILLBOARD CASES.

MATERIAL.

12. Fiber board or pulpboard used in making fiber board or pulpboard match cases must be three-ply or more, all plies firmly glued together, the outer ply waterproofed, and no single ply less than 0.02 inch in thickness. Solid-fiber millboard used in making match cases must be composed of not less than 50 per cent of sulphite fiber and must be waterproofed throughout.

WEIGHT LIMIT 25 POUNDS, CASE AND CONTENTS.

13. When the glued-ply fiber board or pulpboard used in making cases is not less than 0.08 inch in thickness, having a resistance of not less than 200 pounds to the square inch, Mullen test, and the outside dimensions of the case, length, width, and depth added, do not exceed 45 inches, the gross weight of the case and its contents shall not exceed 25 pounds.

14. When the solid-fiber millboard composed of not less than 50 per cent sulphite fiber used in making cases is not less than 0.08 inch in thickness, having a resistance of not less than 240 pounds to the square inch, Mullen test, and the outside dimensions of the case, length, width, and depth added, do not exceed 45 inches, the gross weight of the case and its contents shall not exceed 25 pounds, provided, however, that the two ends shall consist of scored and flanged solid-fiber millboard not less than 0.08 inch in thickness, having a resistance of not less than 240 pounds to the square inch, Mullen test, and each of these heads or ends shall be reinforced by a straight, unflanged piece of solid-fiber millboard of the same thickness and strength of the heads or ends. The reinforcing board shall be secured to the case ends by metal stitching around the edges and through the center spaced not more than 3 inches apart.

WEIGHT LIMIT 40 POUNDS, CASE AND CONTENTS.

15. When the glued-ply fiber board or pulpboard used in making cases is not less than 0.10 inch in thickness, having a resistance of not less than 275 pounds to the square inch, Mullen test, and the outside dimensions of the case, length, width, and depth added, do not exceed 55 inches, the gross weight of the case and its contents shall not exceed 40 pounds.

16. When the solid-fiber millboard composed of not less than 50 per cent sulphite fiber used in making cases is not less than 0.08 inch in thickness, having a resistance of not less than 320 pounds to the square inch, Mullen test, and the outside dimensions of the case, length, width, and depth added, do not exceed 55 inches, the gross weight of the case and its contents shall not exceed 40 pounds, provided, however, that the two ends shall consist of scored and flanged solid-fiber millboard not less than 0.08 inch in thickness, having a resistance of not less than 320 pounds to the square inch, Mullen test, and each of these heads or ends shall be reinforced by a straight, unflanged piece of solid fiber board of the same thickness and strength of the heads or ends. The reinforcing board shall be secured to the case ends by metal stitching around the edges and through the center spaced not more than 3 inches apart.

WEIGHT LIMIT 60 POUNDS, CASE AND CONTENTS.

17. When the glued-ply fiber board or pulpboard used in making cases is not less than 0.10 inch in thickness, having a resistance of not less than 275 pounds to the square inch, Mullen test, and an inner mantle of glued-ply fiber board or pulpboard is arranged and constructed to closely fit inside the case, this mantle having a thickness of not less than 0.06 inch, and a resistance of not less than 175 pounds to the square inch, Mullen test, and the outside dimensions of the case, length, width, and depth added, do not exceed 60 inches, the gross weight of the case and its contents shall not exceed 60 pounds.

The mantle must be made in one piece of fiber board or pulpboard, with side lap not less than 2 inches wide. Four head laps not less than $1\frac{1}{2}$ inches wide, with mitered corners, shall be fitted to the mantle at each end.

18. When the solid-fiber millboard composed of not less than 50 per cent sulphite fiber used in making cases is not less than 0.09 inch in thickness, having a resistance of not less than 375 pounds to the square inch, Mullen test, and the outer dimensions of the case, length, width, and depth added, do not exceed 60 inches, the gross weight of the case and its contents shall not exceed 60 pounds, provided, however, that the two ends shall consist of scored and flanged solid-fiber millboard not less than 0.08 inch in thickness, having a resistance of not less than 320 pounds to the square inch, Mullen test, and each of these heads or ends shall be reenforced by a straight, unflanged piece of solid-fiber millboard of 0.09 inch in thickness and a resistance of not less than 375 pounds to the square inch, Mullen test. The reenforcing board shall be secured to the case ends by metal stitching around the edges and through the center spaced not more than 3 inches apart.

TRANSVERSE DIAPHRAGM.

19. All cases constructed of solid-fiber millboard which is composed of not less than 50 per cent sulphite fiber, that have a total weight, case and contents, exceeding 30 pounds, shall have placed transversely in the center of their length a diaphragm or division with scored and flanged connection to the sides, top, and bottom of said case. This intermediate transverse diaphragm shall be composed of solid-fiber millboard not less than 0.08 inch in thickness, having a resistance of not less than 320 pounds to the square inch, Mullen test.

CUTTING AND SCORING.

20. The heads of all glued-ply fiber board or pulpboard cases must be formed of four laps of length within $\frac{3}{8}$ inch of short dimension of head. When the short dimension of head is greater than one-half of the long dimension, one of

the short-dimension laps must be cut at center of case and one of the long-dimension laps must be scored in the center to bend over the shortened lap.

21. Cases constructed of glued-ply fiber board or pulpboard or of solid-fiber millboard composed of not less than 50 per cent sulphite fiber must be creased, not cut, to produce a reenforcing fillet on the inner side of fold. This requirement will apply alike to flanged ends and flanged intermediate transverse diaphragms as well as to the side members.

FORMING.

22. The side lap of glued-ply fiber board or pulpboard cases must be at least 1½ inches wide, double stitched, or glued and stitched, with flat wire not less than ⅛ inch wide and of suitable thickness, with stitches spaced not more than 2½ inches apart. Machine used must be capable of driving the wire through the fiber board so that the stitching when completed will be perfect.

23. Cases constructed of solid fiber board composed of not less than 50 per cent sulphite fiber, where the weight of the case and its contents shall not exceed 30 pounds, shall have the side lap not less than 1 inch wide, single stitched with flat wire not less than ⅛ inch wide and of suitable thickness, with stitches spaced not more than 1½ inches apart. Machine used must be capable of driving the wire through the solid-fiber millboard so that the stitching when completed will be perfect.

24. The cases constructed of solid-fiber millboard composed of not less than 50 per cent sulphite fiber, where the weight of the case and its contents shall exceed 30 pounds, shall have the side lap not less than 1¾ inches wide, double stitched with flat wire not less than ⅛ inch wide and of suitable thickness, with stitches spaced not more than 1½ inches apart. Machine used must be capable of driving the wire through the solid-fiber millboard so that the stitching when completed will be perfect.

25. Rivets, if equal or superior in strength to the wire stitching, may be used.

CLOSING.

26. The heads of all glued-ply fiber-board or pulpboard cases must be closed with animal glue coated on the entire contact surfaces.

27. Cases constructed of solid-fiber millboard composed of not less than 50 per cent sulphite fiber must have heads flanged out, both flanges being stitched to the case, sides, top, and bottom with flat wire not less than ⅛ inch wide and of suitable thickness spaced not more than 1½ inches apart. The width of flanges on heads and diaphragms must not be less than 1 inch, including the fillet.

28. Rivets, if equal or superior in strength to the wire stitching, may be used.

WEIGHT LIMIT.

29. No case constructed of glued-ply fiber board, pulpboard, or solid-fiber millboard composed of not less than 50 per cent sulphite fiber may be used as a container for the shipping and transportation of matches that has an aggregate weight, case and contents, exceeding 60 pounds, or is of such size that the sum of the three dimensions (length, width, and depth) exceeds 60 inches.

FOR DOUBLE-FACED CORRUGATED STRAWBOARD CASES.

MATERIAL.

30. Double-faced corrugated strawboard used in making double-faced strawboard cases must be made of corrugated strawboard with inner and outer facings of fiber board or pulpboard, both facings having proper bending qualities, firmly glued to the corrugated sheet with the outer facings waterproofed.

WEIGHT LIMIT 25 POUNDS, CASE AND CONTENTS.

31. When the outer facing of the double-faced corrugated strawboard is not less than 0.018 inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen test, and the inner facing is not less than 0.018 inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen test, the combined board having a resistance of not less than 200 pounds to the square inch, Mullen test, and the outside dimensions of the case (length, width, and depth) added do not exceed 45 inches, the gross weight of the case and its contents shall not exceed 25 pounds.

WEIGHT LIMIT 40 POUNDS, CASE AND CONTENTS.

32. When the outer facing of the double-faced corrugated strawboard is not less than 0.018 inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen test, and the inner facing is not less than 0.018 inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen test, the combined board having a resistance of not less than 200 pounds to the square inch, Mullen test, and an inner mantle of double-faced corrugated strawboard is arranged and constructed to closely fit inside the case, this mantle having a resistance of not less than 175 pounds to the square inch, Mullen test, and the outside dimensions of the case—length, width, and depth—added do not exceed 55 inches, the gross weight of the case and its contents shall not exceed 40 pounds.

The mantle shall be made in one piece of double-faced corrugated strawboard, with side lap not less than 2¼ inches wide. Four head laps, not less than 1¾ inches wide, with mitered corners, shall be fitted to the mantle at each end.

WEIGHT LIMIT 60 POUNDS, CASE AND CONTENTS.

33. When the outer facing of the double-faced corrugated strawboard is not less than 0.018 inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen test, and the inner facing is not less than 0.018 inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen test, the combined board having a resistance of not less than 200 pounds to the square inch, Mullen test, and an inner mantle of double-faced corrugated strawboard is arranged and constructed to closely fit inside the case, this mantle having a resistance of not less than 200 pounds to the square inch, Mullen test, and the outside dimensions of the case (length, width, and depth) added do not exceed 60 inches, the gross weight of the case and its contents shall not exceed 60 pounds.

The mantle shall be made in one piece of double-faced corrugated strawboard, with side lap not less than 2¼ inches wide. Four head laps, not less than 1¾ inches wide, with mitered corners, shall be fitted to the mantle at each end.

DETAILS OF CONSTRUCTION.

34. Each double-faced corrugated strawboard case shall be made out of one piece of material. The edge connection of the side to the end must be close fitting and be secured by a single cloth or sealing strip not less than 2 inches in width and having a resistance of not less than 120 pounds to the square inch, Mullen test, extending the entire length of the seam and secured by animal glue to the box. Double-cloth sealing strips may be used if the inner strip is made not less than 1½ inches wide and the outer strip not less than 2½ inches wide, each cloth having a resistance of not less than 60 pounds to the square inch, Mullen test, each thickness extending the entire length of the seam, the inner being firmly glued to the case, and the outer being efficiently and firmly glued to the inner cloth and to the case.

35. The heads of all double-faced corrugated-strawboard cases with a weight limit not exceeding 25 pounds, case and contents, must be formed with four flaps, each

pair of flaps butting at approximately the center line of the head. Cases with a weight of over 25 pounds but not over 40 pounds, case and contents, must have the two inner flaps butt at the center line of the head and the two outer flaps each cover the entire head. Cases with a weight of over 40 pounds but not over 60 pounds, case and contents, must have both inner and outer flaps cover the entire area of the head. Provided, that cases with a weight of over 25 pounds but not over 60 pounds, case and contents, may consist of two complete double-faced corrugated-strawboard cases, one fitted closely inside the other, the inner case made of double-faced corrugated strawboard having a resistance of not less than 175 pounds to the square inch, Mullen test, and the outer case made of double-faced corrugated strawboard having a resistance of not less than 200 pounds to the square inch, Mullen test, fully complying with these requirements and specifications, and with the heads of each case formed with four flaps, each pair of flaps butting at the center line of the head.

CLOSING.

36. Heads must be closed with animal glue coated on the entire contact surfaces.

WEIGHT LIMIT.

37. No double-faced corrugated-strawboard case may be used as container for the shipping and transportation of matches that has an aggregate weight, case and contents, exceeding 60 pounds, or is of such size that the sum of its three dimensions (length, width and depth) exceeds 60 inches.

MISCELLANEOUS TYPES OF CASES.

38. Types of packing cases other than those herein discussed will be approved, provided they conform to the following requirements:

OTHER TYPES OF WOOD CASES.

39. Wood nailed cases will be approved, provided that they conform to all the requirements before specified for wood lock-cornered ases with the omission of the lock-corner requirements, and with the following exceptions: The heads, top and bottom, to be made $\frac{1}{16}$ inch thicker, and the sides $\frac{3}{16}$ inch thicker than the scantlings before specified for lock-cornered cases.

40. Wood nailed cases will be approved when they conform to all requirements before specified for wood lock-cornered cases with the omission of the lock-corner construction and without increasing the thickness of the scantlings, provided the cases are constructed with vertical and horizontal cleats on the ends; cleats to be at least three-quarters as thick as the material specified for the ends of the lock-corner cases and not less than $1\frac{7}{8}$ inches wide.

41. All wood nailed cases having a weight, case and contents, exceeding 55 pounds, must have the connection of the heads to the sides, top, and bottom metal strapped, the metal bands being $\frac{5}{8}$ inch wide, with nails spaced 5 inches apart. Intermediate nails must be worked connecting the sides, top, and bottom to said heads, making the spacing of fastening not more than $2\frac{1}{2}$-inch centers. The nail spacing on cases under 50 pounds shall under no condition exceed 3 inches.

OTHER TYPES OF WIRE OR METAL BOUND CASES.

42. Cases made with metal or wood end frames that are securely connected to the sides, top, and bottom, will be approved, provided the scantlings are equal to or in excess of those required for the wire-bound cases before described and the following requirements are complied with:

Wire or metal encircling bands must be securely fastened to the sides, top, and bottom of the case as before specified for wire-bound cases, and the tensile strength of said wire or straps and strength of staple shall be at least equal to that specified for wire-bound cases.

No fiber board shall be used for the sides, top, bottom, or ends of wire-bound cases unless the resistance of said board, Mullen test, is 50 per cent in excess of the combined fiber board case and its inner mantle before described under the designation of "fiber board cases."

OTHER TYPES OF FIBER BOARD CASES.

43. Other fiber board cases with flanged heads or ends will be approved provided said flanged heads or ends are composed of material having a resistance, Mullen test, 50 per cent in excess of that of the sides, with the inner mantle specified under the heading of "Fiber board cases." All heads or ends must have the flanges project outward, both flanges being metal sewed to the case sides, top, and bottom. The width of the flange shall not be less than 1 inch in the clear, excluding the fillet.

44. Fiber board cases may be fitted with wood frames for the heads or ends, but under these conditions the head frames shall not be less than those specified for wire-bound cases, and the scantlings for fiber board cases, top and bottom, shall not be less than those specified for fiber board cases, with the exception that the heads shall have a resistance, Mullen test, 50 per cent in excess of that required for the sides, top, and bottom, including the inner mantle, wherever specified.

45. Fiber board cases fitted with wood frames on the sides or top and bottom longitudinally or fitted with external battens, will be approved providing the scantlings for fiber board in no case exceed that specified for fiber board cases; the strength of the mantle whenever specified must be added to that of the sides, top, or bottom, when the strength of any case described under "Fiber board cases" is considered.

46. Fiber board cases complying with the requirements of paragraphs 1, 2, 3, 4, 5, 12, 13, 15, 17, and 29 of this specification are approved when made as follows:

The body of the case shall be made of one piece and shall be closed by a flap, in width not less than one-half the depth of the case, this flap to extend from the top of the case down over the side and to be firmly glued in place with animal glue after filling the case.

Each head shall be formed of four flaps fitted to the body by flanges. Material used in the head flap shall be the same thickness and strength as that used for the body. The width of the flanges shall not be less than 1 inch, excluding the fillet. The flanges shall be metal sewed to the body by stitches of flat wire not less than $\frac{1}{16}$ inch wide, which shall not be less than $1\frac{3}{4}$ inches apart, center to center.

The flaps flanged to the sides of the case shall both be the full size of the end of the case.

The flaps flanged to top and bottom of the case may be of general triangular shape, but must extend from the flange not less than $\frac{3}{4}$ inch along the sides of the case.

All four head flaps shall be securely fastened together at the center of the end of the case by a $1\frac{1}{2}$-inch screw fastener, consisting of metal plug and cap.

METAL CANS.

47. Metal cans made of not less than No. 30 gauge plate, United States standard, and of liquid capacity not to exceed 5 gallons, will be approved as containers for block, or book matches, provided the cans are sound and well soldered at all joints and seams, and provided that after matches are packed therein the cans are securely closed by soldering so as to supply an air-tight package.

Shipping Container Specification No. 7.

(See par. 1822 (a).)

Cylinders for the shipment of any gas, not liquefied, and not in solution, whose charging pressure does not exceed 300 pounds per square inch at 70° F.

Effective October 1, 1914.

1. Cylinders purchased hereafter and used for the shipment of any gas, not liquefied, and not in solution, whose charging pressure does not exceed 300 pounds per square inch, at 70° F., must comply with the following specifications. Such cylinders purchased between April 1, 1912, and the effective date of these specifications must comply with the specifications approved by the Bureau of Explosives, effective April 1, 1912, or with these specifications.

MATERIAL.

2. (*a*) Cylinders must be made of basic, open-hearth steel.

(*b*) Chemical analysis:

	Per cent.
Carbon	.06 to .20
Phosphorus (not to exceed)	.04
Sulphur (not to exceed)	.05

The chemical analysis must be verified by check analyses made on samples taken from one out of each order or lot of 200 or less plates, shells or tubes from which the cylinders are to be made. Provided, that one analysis from any one heat of steel is sufficient.

INSPECTION OF MATERIAL.

3. All plates, shells, or tubes from which cylinders are to be made must be carefully inspected before being made up into cylinders and those which show cracks, laminations, or other defects must be rejected.

ANNEALING.

4. All seamless cylinders must be uniformly and properly annealed.

All steel from which cylinders (not seamless) are to be made must be uniformly and properly annealed after any hot or cold drawing process or after any cold-rolling process. If not drawn or cold rolled, it must be capable of bending on itself cold, without cracking.

PHYSICAL TEST.

5. The material from which the cylinders are made must have an elastic limit of not more than 45,000 pounds per square inch. This must be verified by check tests on specimens cut from one out of each order or lot of 200 or less of the plates, tubes, shells, or finished cylinders. If the material has been hot or cold drawn or cold rolled, these tests must be made after the final annealing required by paragraph 4.

OPENINGS FOR CONNECTIONS.

6. The length of thread for connections, such as valves, fuse plugs, gauge, etc., must be equal to the standard lengths specified for different sizes of pipe thread tappings.

Standard taper pipe threads must be employed on all threading for connections to cylinder and these connections must be tapped to gauge with clean-cut threads, so as to insure tight joints.

PROTECTION OF CONNECTIONS.

7. When a cylinder to contain inflammable gas is not to be boxed or crated for shipment (except as provided in par. 1863 *b*), the safety and discharge valves and other connections must be made safe from injury during transit: (1) By being set into a recess of the cylinder so that it will be impossible for them to be struck if the cylinder is dropped on a flat surface; or (2) by a cap, or collar, fastened to the cylinder (not to the valve or connection), this cap or collar to be capable of withstanding a blow delivered in any direction of a 30-pound weight falling 4 feet, and constructed so that this blow will not be transmitted to the valve or connection; or (3) by such construction of the valves and connections that they will withstand a test consisting of standing the cylinder upright on its base and gradually tipping it over, allowing it to fall so that the end of the valve or connection will strike on a block of some unyielding substance, such as stone or iron (not wood). The block must be so arranged that the end of the valve or connection will strike the block just before the side of the cylinder strikes the floor or ground. No leak must develop under this test. During the test indicated in (3) above the cylinder must contain compressed air or gas under a pressure of at least 50 pounds per square inch, and the absence of leakage after the test is completed must be verified by application of soapsuds or by other suitable method.

MAXIMUM PERMITTED CHARGING PRESSURE.

8. The maximum permitted charging pressure must not exceed 300 pounds per square inch corresponding to a temperature of 70° F.

MARKING.

9. Each cylinder must be plainly marked by etching or stamping on the shell or by a name plate soldered on the shell, such marking to indicate serial number of cylinder, compliance with these specifications, maximum permitted charging pressure at 70° F., and the name of manufacturer of the cylinder as follows:

NO._____
COMPLIES WITH I. C. C. SPECIFICATION NO. 7.
MAXIMUM PERMITTED PRESSURE_____LBS. AT 70° F.
_____CO.

If desired, the words "COMPLIES WITH I. C. C. SPEC'N No. 7" may be abbreviated to "I. C. C.—7."

The date of manufacture must also be plainly stamped on the cylinder. (For example 4-13 for April, 1913).

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

STANDARD PRESSURE TEST.

10. One completed cylinder selected at random out of every lot of 200 or less must be subjected to a hydrostatic test in a water jacket, or other apparatus of suitable form, to furnish reliable data, to an official test pressure of not less than three times the maximum permitted charging pressure per square inch, corresponding to a temperature of 70° F. The permanent volumetric expansion must not exceed 10 per cent of the total volumetric expansion at this pressure; provided, that if these cylinders are to be tested quinquennially, as prescribed by paragraph 1861(*e*) of the I. C. C. Regulations, the Standard Pressure Test herein prescribed may be made at a pressure of two times the charging pressure. In this case there must be added to the marking prescribed by paragraph 9 of this specification the words, "THIS CYLINDER MUST BE RETESTED EVERY 5 YEARS."

No pressure in excess of 100 pounds per square inch shall be applied to the cylinder previous to this test, except that a pressure of 100 pounds less than the official test pressure may be applied once previous to the official test for the purpose of rounding out the cylinder.

In the hydrostatic test the water gauge indicating the expansion must be of such interior diameter that the total expansion will cause the water to rise at least 45 centimeters in the gauge, except when this will make the interior diameter less than 4 millimeters; the pressure must be applied for not less than 30 seconds and as much longer as may be necessary to insure complete expansion of the cylinder. The expansion must be recorded in terms of cubic centimeters.

If this cylinder fails to pass this test, two others from the same lot may be selected at random, and these two must pass the test in order to have the lot accepted.

If the lot of cylinders is rejected under the above test, the manufacturer may have the privilege of testing each of the remaining cylinders of the lot in the manner indicated above, and those cylinders which pass the test may be accepted.

SERVICE PRESSURE TEST.

11. Each completed cylinder before being put into service must be subjected to a uniform pressure of not less than two times the maximum permitted charging pressure per square inch, corresponding to a temperature of 70° F., and they must not show any defect under this test.

INSPECTION.

12. The purchaser must provide for the inspection of all material and all tests by a competent inspector, and a report must be made, as provided in paragraph 15 of this specification, to the chief inspector of the Bureau of Explosives, 30 Vesey Street, New York City.

CYLINDERS NOW IN SERVICE.

13. Cylinders now in service must be tested before December 31, 1914, to a pressure of at least two times the maximum permitted charging pressure per square inch, corresponding to a temperature of 70° F., without showing any apparent defects, and must be marked as prescribed by paragraph 1861 (*i*) of the I. C. C. Regulations, or if not so tested before December 31, 1914, they must then not be shipped after December 31, 1914, until they have been so tested.

EXEMPTION FROM QUINQUENNIAL TEST.

14. New cylinders that have been manufactured, tested to three times the charging pressure, and reported as prescribed herein, and cylinders now in service that have been tested as prescribed by section 13, need not be tested quinquennially (par. 1861 (*e*) of the I. C. C. Regulations). New cylinders tested during manufacture to only two times the charging pressure are not exempted from these retests.

FORMS FOR REPORTS.

15. The report required by paragraph 12 must be submitted in the following form:

(Place).....,

(Date).....

Report of inspection of.....cylinders..... inches O. D. by ..... inches long, numbered from ..... to....., inclusive. Manufactured by the..... Company. Inspected for the ..... Company.

These cylinders were manufactured as follows.....[1]

The steel from which these cylinders were manufactured complies with the requirements of paragraphs 2 and 5 of Specification No. 7 as to chemical analysis and physical characteristics as will be observed from the certificate of the manufacturer of the steel attached hereto.[2]

A sample was selected at random from the steel used in the manufacture of each order or lot of 200 or less of these cylinders and a check chemical analysis was made. The report thereof is attached hereto.

A sample was selected at random from each order or lot of 200 or less of the [3](plates)—(tubes)—(shells)—(finished cylinders) and a check physical test was made. The report thereof is attached hereto.

The [3](plates)—(tubes)—(shells) from which these cylinders were manufactured were inspected by....., and those which were accepted were found free from seams, cracks, laminations, or any defects which might prove injurious to the strength of the cylinder.

The walls were measured with a pair of calipers and the minimum thickness of wall noted was....

One cylinder out of each lot of 200 or less was selected at random and was subjected to a hydrostatic pressure of .....pounds per square inch, in the presence of the inspector. A rounding-out pressure of.....pounds per square inch [3](was)—(was not) applied. The record of these tests is attached hereto.

Each and every cylinder was subjected to a hydrostatic pressure of.....pounds per square inch and showed no defect.

Each and every cylinder is marked with the date of manufacture and with the wording required by paragraph 9 of Specification No. 7 and shows the..... Company as the manufacturing company.

I hereby certify that these cylinders proved satisfactory in every way and comply with the requirements of the Interstate Commerce Commission Specification No. 7 and with paragraph 1822 (a) of the Interstate Commerce Commission Regulations.

.....,

Inspector.

---

[1] State as to whether seamless, or seamless body with heads brazed in, or brazed throughout, or welded throughout, etc.

[2] This certificate may be in any form but must include a complete definite statement as to the requirements which the steel complies with.

[3] Draw a line through the words not required.

(Place).....

(Date).....

Record of check chemical analysis of the steel used for the manufacture of.....cylinders by the .....Company for the.....Company.

Test No.	Cylinders represented by test.	Chemical analysis.						Accepted or rejected.	Remarks.
		C	P	S					

(Signed).....

(Place).....

(Date).....

Record of check physical tests made on material used in.....cylinders, manufactured by the .....Company for the.....Company.

Test No.	Numbers of cylinders represented by test piece.	Elastic limit per square inch.	Tensile strength per square inch.	Elongation per cent in 8 inches.	Reduction of area per cent.	Accepted or rejected.

(Signed).....

(Place).....

(Date).....

Record of hydrostatic tests made on one cylinder out of each lot of 200 or less, manufactured by the.....Company for the.....Company.

Serial number of cylinder tested.	Numbers of cylinders represented by test cylinder.	Total expansion (c. c.).	Permanent expansion (c. c.).	Per cent expansion.	Accepted or rejected.

(Signed).....

Shipping Container Specification No. 8.

(See par. 1822 (a).)

Cylinders for the shipment of acetylene gas.

Effective October 1, 1914.

MATERIAL.

1. Cylinders purchased hereafter and used for the shipment of acetylene gas must comply with the following specifications. Such cylinders purchased between April 1, 1912, and the effective date of these specifications must comply with the specifications approved by the Bureau of Explosives, effective April 1, 1912, or with these specifications.

2. (*a*) Cylinders must be made of basic, open-hearth steel.

(*b*) Chemical analysis:

	Per cent.
Carbon	0.06 to 0.20
Phosphorus (not to exceed)	0.04
Sulphur (not to exceed)	0.05

The chemical analysis must be verified by check analyses made on samples taken from one out of each order or lot of 200 or less plates, shells, or tubes from which the cylinders are to be made; provided, that one analysis of any one heat of steel is sufficient.

INSPECTION OF MATERIAL.

3. All plates, shells, or tubes from which cylinders are to be made must be carefully inspected before being made up into cylinders, and those which show cracks, laminations, or other defects must be rejected.

ANNEALING.

4. All seamless cylinders must be uniformly and properly annealed.

All steel from which cylinders (not seamless) are to be made must be uniformly and properly annealed after any hot or cold drawing process or after any cold-rolling process. If not drawn or cold rolled it must be capable of bending on itself cold, without cracking.

PHYSICAL TEST.

5. The material from which the cylinders are made must have an elastic limit of not more than 45,000 pounds per square inch. This must be verified by check tests on specimens cut from one out of each order or lot of 200 or less of the plates, tubes, shells or finished cylinders. If the material has been hot or cold drawn or cold rolled, these tests must be made after the final annealing required by paragraph 4.

OPENINGS FOR CONNECTIONS.

6. The length of thread for connections, such as valves, fuse plugs, gauge, etc., must be equal to the

standard lengths specified for different sizes of pipe thread tappings.

Standard taper pipe threads must be employed on all threading for connections to cylinder, and these connections must be tapped to gauge with clean-cut threads, so as to insure tight joints.

PROTECTION OF CONNECTIONS.

7. When a cylinder to contain inflammable gas is not to be boxed or crated for shipment (except as provided in paragraph 1863 (*b*),) the safety and discharge valves and other connections must be made safe from injury during transit: (1) By being set into a recess of the cylinder so that it will be impossible for them to be struck if the cylinder is dropped on a flat surface; or (2) by a cap or collar, fastened to the cylinder (not to the valve or connection), this cap or collar to be capable of withstanding a blow delivered in any direction, of a 30-pound weight falling four feet, and constructed so that this blow will not be transmitted to the valve or connection; or (3) by such construction of the valves and connections that they will withstand four successive blows delivered by a weight of 30 pounds falling four feet, these blows to strike at right angles to the axis of valve or connection, and at points 90 degrees apart, without any leak developing; provided, that if there is any point or part of the valve or connection which is relatively weak or whose injury by a blow would be liable to cause leakage, then one of the above-mentioned blows must strike on that point and no leak must result. During the test indicated in (3) above, the cylinder must contain compressed air or gas under a pressure of at least 50 pounds per square inch. The blows of the weight must strike as nearly at the end of the valve or connection as may be possible, and the absence of leakage after the test is completed must be verified by application of soapsuds or by other suitable method.

FILLING.

8. The porous filling employed in these cylinders must be thoroughly dried before being placed in the cylinder, must show a porosity of between 75 per cent and 80 per cent, and must be assembled so as to leave no voids within the cylinder. In the event of a filling being used which is poured into the cylinder, and dried therein, such filling must be absolutely free from water or voids before the cylinder is put into service.

The filling must possess such structure as to render impossible any disintegration or sagging when wet with the solvent.

It must not be possible to explode a charged cylinder by locally applied heat.

MAXIMUM PERMITTED CHARGING PRESSURE.

9. The maximum permitted charging pressure must not exceed 250 pounds per square inch corresponding to a temperature of 70° F.

MARKING.

10. Each cylinder must be plainly marked by etching or stamping on the shell or by a name plate soldered on the shell, such marking to indicate serial number of cylinder, compliance with these specifications, and the maximum permitted charging pressure at 70° F., as follows:

NO._____

COMPLIES WITH I. C. C. SPECIFICATION NO. 8.

MAXIMUM PERMITTED PRESSURE_____LBS. AT 70° F.

If desired, the words "Complies with I. C. C. Specification No. 8" may be abbreviated to "I. C. C.—8."

The date of manufacture must also be plainly stamped on the cylinder. (For example 4-13 for April 1913).

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

STANDARD PRESSURE TEST.

11. One completed cylinder selected at random out of every lot of 200 or less must be subjected to a hydrostatic test in a water jacket, or other apparatus of suitable form, to furnish reliable data, to an official test pressure of not less than three times the maximum permitted charging pressure per square inch, corresponding to a temperature of 70° F. The permanent volumetric expansion must not exceed 10 per cent of the total volumetric expansion at this pressure.

No pressure in excess of 100 pounds per square inch shall be applied to the cylinder previous to this test, except that a pressure of 100 pounds less than the official test pressure may be applied once previous to the official test for the purpose of rounding out the cylinder.

In the hydrostatic test the water gauge indicating the expansion must be of such interior diameter that the total expansion will cause the water to rise at least 45 centimeters in the gauge, except when this will make the interior diameter less than 4 millimeters; the pressure must be applied for not less than 30 seconds and as much longer as may be necessary to insure complete expansion of the cylinder. The expansion must be recorded in terms of cubic centimeters.

If this cylinder fails to pass this test, two others from the same lot may be selected at random, and these two must pass the test in order to have the lot accepted.

If the lot of cylinders is rejected, under the above test, the manufacturer may have the privilege of testing each of the remaining cylinders of the lot in the manner indicated above, and those cylinders which pass the test may be accepted.

SERVICE PRESSURE TEST.

12. Each completed cylinder, after being packed with filling and before being put into service, must be subjected to a uniform pressure of not less than two times the maximum permitted charging pressure per square inch corresponding to a temperature of 70° F., and they must not show any defect under this test.

INSPECTION.

13. The purchaser must provide for the inspection of all material and all tests by a competent inspector, and a report must be made, as provided in paragraph 16, of this specification, to the chief inspector of the Bureau of Explosives, 30 Vesey Street, New York City.

CYLINDERS NOW IN SERVICE.

14. Cylinders now in service must fulfill the requirements of section 8 of these specifications, must be tested before December 31, 1914, to a pressure of at least two times the maximum permitted charging pressure per square inch corresponding to a temperature of 70° F. without showing any apparent defects and must be marked as prescribed by paragraph 1861 (*i*) of the I. C. C. Regulations, or if not so tested before December 31, 1914, they must then not be shipped after December 31, 1914, until they have been so tested.

EXEMPTION FROM QUINQUENNIAL TEST.

15. New cylinders that have been manufactured, tested and reported as prescribed herein, and cylinders now in service that have been tested as prescribed by section 14, need not be tested quinquennially (paragraph 1861 (*e*) of the I. C. C. Regulations).

FORMS FOR REPORTS.

16. The report required by paragraph 13 must be submitted in the following form:

(Place).....,

(Date).....

Report of inspection of ..... cylinders, ... inches O. D. by ..... inches long, numbered from ..... to ....., inclusive. Manufactured by the .....Company. Inspected for the .... Company.

These cylinders were manufactured as follows.[1]

The steel from which these cylinders were manufactured complies with the requirements of paragraphs 2 and 5 of specification No. 8 as to chemical analysis and physical characteristics, as will be observed from the certificate of the manufacturer of the steel attached hereto.[2]

A sample was selected at random from the steel used in the manufacture of each order or lot of 200 or less of these cylinders and a check chemical analysis was made. The report thereof is attached hereto.

A sample was selected at random from each order or lot of 200 or less of the [3](plates)—(tubes)—(shells)—(finished cylinders) and a check physical test was made. The report thereof is attached hereto.

The [3](plates)—(tubes)—(shells) from which these cylinders were manufactured were inspected by ..... and those which were accepted were found free from seams, cracks, laminations, or any defects which might prove injurious to the strength of the cylinder.

The walls were measured with a pair of calipers and the minimum thickness of wall noted was.....

One cylinder out of each lot of 200 or less was selected at random and was subjected to a hydrostatic pressure of .....pounds per square inch, in the presence of the inspector. A rounding out pressure of..... pounds per square inch [3](was)—(was not) applied. The record of these tests is attached hereto.

Each and every cylinder was subjected to a hydrostatic pressure of.....pounds per square inch and showed no defect.

Each and every cylinder has been completely filled with.....in the form of..... The porosity of the filling is between 75 per cent and 80 per cent as determined from tests made at random.

Each and every cylinder is marked with the date of manufacture and with the wording required by paragraph 10 of Specification No. 8.

I hereby certify that these cylinders proved satisfactory in every way and comply with the requirements of the Interstate Commerce Commission Specification No. 8 and with paragraph 1822 (*a*) of the Interstate Commerce Commission Regulations.

....., *Inspector.*

[1] State as to whether seamless, or seamless body with heads brazed in, or brazed throughout, or welded throughout, etc., etc.

[2] This certificate may be in any form, but must include a complete definite statement as to the requirements which the steel complies with.

[3] Draw a line through the words not required.

(Place).....,

(Date).....

Record of check chemical analysis of the steel used for the manufacture of.....cylinders by the.....Company for the.....Company.

Test No.	Cylinders represented by test.	Chemical analysis.						Accepted or rejected.	Remarks.
		C	P	S					

(Signed).....

(Place).....,

(Date).....

Record of check physical tests made on material used in.....cylinders manufactured by the.....Company for the.....Company.

Test No.	Numbers of cylinders represented by test piece.	Elastic limit per square inch.	Tensile strength per square inch.	Elongation per cent in 8 inches.	Reduction of area per cent.	Accepted or rejected.

(Signed).....

(Place).....,

(Date).....

Record of hydrostatic tests made on one cylinder out of each lot of 200 or less manufactured by the.....Company for the.....Company.

Serial number of cylinder tested.	Numbers of cylinders represented by test cylinder.	Total expansion (C. C.).	Permanent expansion (C. C.).	Per cent expansion.	Accepted or Rejected.

(Signed).....

Shipping Container Specification No. 9.

(See par. 1822 (a).)

Wooden barrels, half barrels, and kegs for the shipment of inflammable liquids in bulk whose flash point is less than 20° F., as long as these containers are not prohibited for such articles, and for those acids which are allowed to be shipped in bulk in wooden barrels.

Effective October 1, 1914.

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1. Wooden barrels, half barrels, and kegs purchased hereafter and used for the shipment of inflammable liquids in bulk whose flash point is less than 20° F., for such time as these containers are not prohibited for such liquids, or for those acids which are allowed to be shipped in bulk in wooden barrels, must comply with the following specifications:

MATERIAL.

2. Material from which the barrel, half barrel, or keg is constructed must be white oak of good quality, thoroughly kiln-dried. It must be free from seed holes and rotten sap.

THICKNESS OF STAVES AND HEADS.

3. The staves and heads must be as follows:

(*a*) For barrels (capacity over 32 gallons and not over 55 gallons), the staves in the finished barrel must be not less than ¾ inch in thickness. The heads must be not less than 1 inch thick in the finished barrel.

(*b*) For half barrels and kegs (capacity 18 gallons and not over 32 gallons), the staves and heads must be not less than ⅝ inch in thickness in the finished barrel.

(*c*) For kegs (capacity 5 gallons and not over 18 gallons), the staves and heads must be not less than $\frac{9}{16}$ inch in thickness in the finished keg.

(*d*) For kegs (capacity under 5 gallons), the staves and heads must be not less than ½ inch in thickness in the finished keg.

HOOPS.

4. The hoops must be made of hoop iron and must be not less in number nor smaller in size than the following:

For barrels (capacity over 32 gallons and not over 55 gallons), six hoops:

Head hoops 1¾ inches by 16 gauge.
Quarter hoops 1½ inches by 18 gauge.
Bilge hoops 1¾ inches by 17 gauge.

For half barrels and kegs (capacity over 18 gallons and not over 32 gallons), six hoops:

Head hoops 1½ inches by 19 gauge.
Other hoops 1¼ inches by 19 gauge.

For kegs (capacity 5 gallons and not over 18 gallons), six hoops:

Head hoops 1¼ inches by 19 gauge.
Other hoops 1⅛ inches by 19 gauge.

For kegs (capacity under 5 gallons), four hoops:

Head hoops 1 inch by 20 gauge.
Other hoops ⅞ inch by 21 gauge.

INTERIOR COATING

5. The barrels, half barrels, and kegs must be coated on the inside with glue, asphaltum, or other coating suitable to prevention of leakage of the contents. When glued, there must be used at least two coats of good commercial glue so as to insure a uniform covering of the inside surface and averaging in total at least one-half pound to each barrel, and for half barrels and kegs an amount proportional to their inside surfaces.

OPENINGS.

6. Bungholes and other openings must be provided with secure closing devices that will not permit leakage through them. Compressed tapered wooden bungs must be covered with a suitable coating and must have a driving fit into a tapered hole. They should be soaked in hot water for about one minute before driving into the bunghole.

MANUFACTURE.

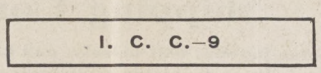
7. The method of manufacture and the materials used must be well adapted to producing a uniform product.

BARRELS USED MORE THAN ONCE.

8. Barrels, half barrels, and kegs which have been used at least once, must be thoroughly recoopered when necessary, and must be reglued with at least one coat of glue before each refilling. Badly bulged or warped heads must be replaced.

MARKING.

9. These barrels, half barrels, and kegs must be marked "COMPLIES WITH I. C. C. SPEC'N. No. 9," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:



The letters and figures in this symbol must be at least ½ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

Shipping Container Specification No. 10.

(See par. 1822 (a).)

Wooden barrels, half barrels, and kegs used for the shipment of inflammable liquids in bulk whose flash point is not lower than 20° F. and for other articles as prescribed by I. C. C. Regulations.

Effective October 1, 1914.

1. Wooden barrels, half barrels, and kegs purchased hereafter and used for the shipment of inflammable liquids in bulk, whose flash point is not lower than 20° F., must comply with the following specifications:

MATERIAL.

2. Material from which the barrel, half barrel, or keg is constructed must be oak, or other suitable hardwood, thoroughly kiln-dried; provided, that kegs of a capacity not greater than 18 gallons may be constructed of soft wood if the thickness of staves and heads is one-eighth of an inch greater than that required for the oak kegs.

THICKNESS OF STAVES AND HEADS.

3. The staves and heads must be not less than the following thickness when the barrel, half barrel, or keg is finished:

For barrels (capacity over 32 gallons and not over 55 gallons), $\frac{11}{16}$ inch.

For half barrels and kegs (capacity over 18 gallons and not over 32 gallons), $\frac{5}{8}$ inch.

For kegs (capacity 5 gallons and not over 18 gallons), $\frac{9}{16}$ inch.

For kegs (capacity under 5 gallons), $\frac{1}{2}$ inch.

HOOPS.

4. The hoops must be not less in number nor smaller in size than the following:

For barrels (capacity over 32 gallons and not over 55 gallons), six hoops:

Head hoops, $1\frac{11}{16}$ inches by 17 gauge.
Quarter hoops, $1\frac{7}{16}$ inches by 18 gauge.
Bilge hoops, $1\frac{11}{16}$ inches by 17 gauge.

For half barrels and kegs (capacity over 18 gallons and not over 32 gallons), six hoops:

Head hoops, $1\frac{1}{2}$ inches by 19 gauge.
Other hoops, $1\frac{1}{4}$ inches by 19 gauge.

For kegs (capacity 5 gallons and not over 18 gallons) six hoops:

Head hoops, $1\frac{1}{4}$ inches by 19 gauge.
Other hoops, $1\frac{1}{8}$ inches by 19 gauge.

For kegs (capacity under 5 gallons), four hoops:

Head hoops, 1 inch by 20 gauge.
Other hoops, $\frac{7}{8}$ inch by 21 gauge.

OPENINGS.

5. Bungholes and other openings must be provided with secure closing devices that will not permit leakage through them. Compressed tapered wooden bungs must be covered with a suitable coating and must have a driving fit into a tapered hole. They should be soaked in hot water for about one minute before driving into the bunghole.

MANUFACTURE.

6. The method of manufacture and the materials used must be well adapted to producing a uniform product.

CONTAINERS USED MORE THAN ONCE.

7. Barrels, half barrels, and kegs which have been used at least once must be thoroughly recoopered when necessary. Badly bulged or warped heads must be replaced.

MARKING.

8. These barrels, half barrels, and kegs must be marked "COMPLIES WITH I. C. C. SPEC'N. No. 10," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:

I. C. C.—10.

The letters in this symbol must be at least $\frac{1}{2}$ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

Shipping Container Specification No. 11.

For wooden barrels, half barrels, and kegs used for the shipment of inflammable solids or oxidizing materials or fireworks in bulk or in inside containers, or for the shipment of inflammable liquids or corrosive liquids when the same are packed in proper inside containers, as authorized by the I. C. C. Regulations. These packages may also be used for the shipment of low explosives, black powder, smokeless powder, or high explosives as authorized by paragraph 1556 of the I. C. C. Regulations, providing the contents are inclosed in a strong cloth sack securely closed to prevent leakage or in two Arkell paper bags, one outside the other, and both being securely tied.

Effective October 1, 1914.

TYPE

1. Wooden barrels, half barrels, and kegs purchased hereafter and used for the shipment of inflammable solids or oxidizing materials or fireworks in bulk or in inside containers or for the shipment of inflammable liquids or corrosive liquids when the same are properly packed in inside containers, as authorized by the I. C. C. Regulations, or for the shipment of low explosives, black powder, smoke-

less powder, or high explosives as authorized by paragraph 1556 of the I. C. C. Regulations, must comply with the following specifications:

The barrels, half barrels, and kegs may be either "tight" or "slack".

"Tight" barrels, half barrels, and kegs of the types prescribed in specifications Nos. 9 and 10 may be used, and in this case they would not have to be glued; but they must be headed up in the usual manner before shipment.

CLASSIFICATION.

2. All slack barrels, half barrels, and kegs are divided into classes limited both as to capacity and weight of contents as follows:

Class A. Capacity not over 10 gallons, and to contain not over 100 pounds net weight.

Class B. Capacity not more than 17 gallons, and to contain not over 150 pounds net weight. The average container of this class is the ordinary 12½ by 18 inches keg.

Class C. Capacity not more than 25 gallons, and to contain not over 200 pounds net weight. The average container of this class is the ordinary half flour barrel, 13½ by 24 inches.

Class D. Capacity not more than 35 gallons, and to contain not over 400 pounds net weight. The average container of this class is the ordinary flour barrel, 17⅛ by 28 inches.

Class E. Capacity not more than 45 gallons, and to contain not over 600 pounds net weight. The average container of this class is the ordinary sugar barrel, 19⅛ by 30 inches.

Class F. Capacity not more than 55 gallons, and to contain not over 750 pounds net weight. The average container of this class is practically the ordinary oil barrel, 20½ by 34 inches.

MATERIAL.

3. The material from which the barrels, half barrels, and kegs are constructed must be of good hard wood (except when specifically provided otherwise), thoroughly kiln-dried, and must be free from knots.

STAVES.

4. The staves must be not less than the following thickness:

HARDWOOD.

Classes A, B, and C: Six staves to 2 inches (cut or sawed.)
Classes D and E: ⅜ inch each (cut) or five staves to 1⅞ inches (sawed.)
Class F: $\frac{7}{16}$ inch.

SOFTWOOD.

Classes A and B: $\frac{7}{16}$ inch.
Class C, D, E, and F: Softwood not allowed.

HEADS.

5. The heads must be not less than the following thickness:

Oak, beech, maple, and red gum: $\frac{7}{16}$ inch for all classes.
Basswood, cottonwood, tupelo gum, and other similar woods: ½ inch for all classes.
Softwood: $\frac{9}{16}$ inch for classes A and B. Softwood not allowed for heads of classes C, D, E, and F.

The heads of classes D, E, and F must be cleated or battened across the cants with cleats not less than 4 by ½ inch.

HOOPS.

6. The hoops shall not be less in number than the following:

Wooden hoops:
Six hoops for classes A and B.
Eight hoops for classes C and D.
Twelve hoops for classes E and F.
Steel hoops:
Four hoops for classes A, B, C, and D.
Six hoops for classes E and F.

The hoops shall not be smaller in size than the following:

Wooden hoops:
Thickness $\frac{5}{16}$ to $\frac{3}{16}$ inch and width 1⅜ inches, inside measurement, for all classes.

Steel hoops:
For classes A and B—
Head hoops 1⅜ inches by 23 gauge.
Bilge hoops 1⅜ inches by 23 gauge.
For classes C and D—
Head hoops 1⅝ inches by 21 gauge.
Bilge hoops 1⅜ inches by 23 gauge.
For classes E and F.
Head hoops 1⅝ inches by 21 gauge.
Bilge hoops 1⅜ inches by 23 gauge.
Quarter hoops 1⅜ inches by 23 gauge.

Gauge mentioned refers to United States standard.

7. If desired, half of the wooden hoops may be replaced by steel wire hoops, the wire to be directly under the wooden hoops (between the hoop and the bilge) and to be not less than No. 11 gauge for classes A, B, C, and D and not less than No. 9 for classes E and F.

8. If desired, the standard wooden hoops may be replaced by oval bark hoops (so-called "half-round"), three circumferences of which will be required to take the place of one standard hoop.

9. If the Brainerd steel hoop is used, the rolled edge shall be included in measuring the width of the hoops.

10. All steel hoops must be nailed or bradded in place, except wire hoops, which must be stapled, and all wooden hoops must be nailed or stapled in place, with at least 4 nails, brads, or staples in classes A, B, C, and D, and 6 nails, brads, or staples in classes E and F.

11. The ends of wooden hoops must be joined together with at least one staple clinched on the inside and with at least two additional nails or staples clinched on the inside.

HEADING.

12. Both heads must be headed up in the usual manner before shipment and must not be closed by gunny sacking, boarding, or other like methods.

The heads must fit into a croze or notch in the staves and in addition there must be an outer lining hoop to hold the heads in place. These lining hoops must extend entirely around the inside of the chime and must be held in place by nails at intervals of about 5 inches.

MANUFACTURE.

13. The method of manufacture and the materials used must be well adapted to producing a uniform product. The staves and heads must be well fitted together and the complete package must be sufficiently tight to prevent the escape of any of the contents under ordinary conditions of transportation, and if necessary must be lined to secure tightness.

The finished package must be of the grade known generally in the trade as No. 1 grade.

CONTAINERS USED MORE THAN ONCE.

14. Barrels, half barrels, and kegs which have been used at least once must be thoroughly recoopered when necessary before using again.

MARKING.

15. These barrels, half barrels, and kegs must be marked:

"COMPLIES WITH I. C. C. SPEC'N. No. 11," or, if desired, this marking may be indicated by a symbol consisting of a rectangle, as follows:

I. C. C. - 11

The letters and figures in this symbol must be at least ½ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

Shipping Container Specification No. 12.

(See par. 1531.)

Boxes to be used as outside containers for shipping special fireworks, or common fireworks when in the same box with special fireworks.

Effective October 1, 1914.

1. Boxes purchased hereafter and used for outside containers for the shipment of special fireworks, or common fireworks in the same box with special fireworks, must comply with the following specifications. Such boxes purchased previous to the effective date of this specification must comply with the requirements of paragraph 1634 of the I. C. C. Regulations, effective March 31, 1912, or with these specifications.

2. Must be made of good sound white pine or any wood of equal or superior strength, dry and well seasoned, and with no loose knots or knots liable to get loose in any part.

3. No box containing special fireworks shall weigh, including contents, more than 200 pounds.

4. All nailed boxes of gross weight, including contents, exceeding 65 pounds must be cleated.

5. Boxes when cleated must have two vertical and two horizontal cleats at each end.

6. In all cleated boxes the sides, top, and bottom must extend out over the cleats and the nailing must be staggered, at least 40 per cent of the nails being driven into the ends and at least 40 per cent into the cleats.

7. When sides, ends, tops, or bottoms are made of more than one piece the pieces must be tongued and grooved, and in making up the boxes the joints must be staggered.

8. All lock or dovetail corners must be glued.

9. Nails driven through sides, top, and bottom into ends must be at not greater than 3-inch centers.

10. Nails driven through top and bottom into sides must be at not greater then 6-inch centers.

11. Gauge of nails used shall be not less than the following sizes, depending upon the thickness of lumber into which they are to be driven:

2-penny into $\frac{5}{16}$-inch lumber.
3-penny into $\frac{3}{8}$-inch lumber.
4-penny into $\frac{7}{16}$ to $\frac{1}{2}$ inch lumber.
5-penny into $\frac{9}{16}$ to $\frac{5}{8}$ inch lumber.
6-penny into $\frac{11}{16}$ to $\frac{13}{16}$ inch lumber.
7-penny into $\frac{7}{8}$-inch or thicker lumber.

For example, nails driven through a ½-inch side into a ¾-inch end must be 6-penny. Screws of equal efficiency may be used in place of nails.

12. When boxes are set up the bottoms and lids must fit accurately on the frame.

13. Each box must be plainly marked "COMPLIES WITH I. C. C. SPEC'N No. 12," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:

I. C. C.—12

The letters and figures in this symbol must be at least ½ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear the wording required by paragraph 1636 of the I. C. C. Regulations.

14. The thickness of lumber in the finished box must not be less than the following, except that a variation of $\frac{1}{32}$ inch may be accepted.

14 (*a*).

BOX AND CONTENTS NOT OVER 30 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	⅜	⅜	⅜	.....
Cleated boxes	⅜	⅜	⅜	⅜ by 1⅞
Nailed boxes not cleated	⅝	½	½	.....

14 (*b*).

BOX AND CONTENTS OVER 30 POUNDS BUT NOT OVER 65 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	9/16	3/8	3/8	.....
Cleated boxes	9/16	3/8	3/8	9/16 by 1 7/8
Nailed boxes not cleated.	13/16	1/2	1/2	.....

14 (*c*).

BOX AND CONTENTS OVER 65 POUNDS BUT NOT OVER 125 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	3/4	1/2	1/2	.....
Cleated boxes	3/4	1/2	1/2	3/4 by 1 7/8
Nailed boxes not cleated.	(1)	(1)	(1)	(1)

[1] Not authorized.

14 (*d*).

BOX AND CONTENTS OVER 125 POUNDS BUT NOT OVER 200 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	7/8	5/8	5/8	.....
Cleated boxes	7/8	5/8	5/8	7/8 by 1 7/8
Nailed boxes not cleated.	(1)	(1)	(1)	(1)

[1] Not authorized.

TESTS

15. When nonexplosive material of equal weight is substituted for the contents of package and the outside package is dropped two times successively on its end to solid brick or concrete from a height of 4 feet, the outside package must not open nor rupture nor must any portion of the contents escape therefrom.

Shipping Container Specification No. 12A.

(See par. 1531.)

Boxes to be used as outside containers for shipping common fireworks.

(If any special fireworks are in the box, it must be made in accordance with Specification No. 12.)

Effective October 1, 1914.

1. Boxes purchased hereafter and used as outside containers for the shipment of common fireworks must comply with the following specifications:

2. Must be made of good sound white pine or any wood of equal or superior strength, dry and well seasoned and with no loose knots or knots liable to get loose in any part.

3. No box containing common fireworks shall weigh, including contents, more than 325 pounds, except that boxes containing "special exhibition set pieces" may weigh, including contents, not to exceed 400 pounds.

4. All nailed boxes of gross weight, including contents, exceeding 65 pounds must be cleated.

5. Boxes when cleated must have two cleats at each end and the sides or top and bottom must extend out over the cleats and the nailing must be staggered, at least 40 per cent of the nails being driven into the ends and at least 40 per cent into the cleats.

6. When sides, ends, tops, or bottoms are made of more than one piece, the pieces must be tongued and grooved, and in making up the boxes the joints must be staggered.

7. All lock or dovetail corners must be glued.

8. Nails driven through sides, top, and bottom into ends must be at not greater than 3-inch centers.

9. Nails driven through top and bottom into sides must be at not greater than 6-inch centers.

10. Gauge of nails used shall be not less than the following sizes, depending upon the thickness of lumber into which they are to be driven:

2-penny into 5/16-inch lumber.
3-penny into 3/8-inch lumber.
4-penny into 7/16 to 1/2 inch lumber.
5-penny into 9/16 to 5/8 inch lumber.
6-penny into 11/16 to 13/16 inch lumber.
7-penny into 7/8-inch or thicker lumber.

For example, nails driven through a 1/2-inch side into a 3/4-inch end must be 6-penny. Screws of equal efficiency may be used in place of nails.

11. When boxes are set up the bottom and lids must fit accurately on the frame.

12. Each box must be plainly marked "COMPLIES WITH I. C. C. SPEC'N No. 12A," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:

I. C. C.—12A

The letters and figures in this symbol must be at least 1/2 inch high.

The symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear the wording required by paragraph 1633 of the I. C. C. Regulations.

13. Imported "Chinese" firecrackers may be packed in the package in which they are imported, provided these packages consist of wooden boxes completely covered with strong matting and do not weigh more than 100 pounds gross weight.

14. The thickness of lumber in the finished box must not be less than the following, except that a variation of $\frac{1}{32}$ inch may be allowed:

14 (*a*).

BOX AND CONTENTS NOT OVER 30 POUNDS GROSS WEIGHT

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	3/8	3/8	3/8	.....
Cleated boxes	3/8	3/8	3/8	3/8 by 1 7/8
Nailed boxes not cleated	5/8	1/2	1/2	.....

14 (*b*).

BOX AND CONTENTS OVER 30 POUNDS BUT NOT OVER 65 POUNDS GROSS WEIGHT

	Ends.	Sides.	Top and bottom	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	1/2	3/8	3/8	.....
Cleated boxes	1/2	3/8	3/8	1/2 by 1 7/8
Nailed boxes not cleated	3/4	1/2	1/2	.....

14 (*c*).

BOX AND CONTENTS OVER 65 POUNDS BUT NOT OVER 125 POUNDS GROSS WEIGHT

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	5/8	3/8	3/8	.....
Cleated boxes	5/8	3/8	3/8	5/8 by 1 7/8
Nailed boxes not cleated	7/8	5/8	5/8	.....

14 (*d*).

BOX AND CONTENTS OVER 125 POUNDS BUT NOT OVER 200 POUNDS GROSS WEIGHT

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	3/4	1/2	1/2	.....
Cleated boxes	3/4	1/2	1/2	3/4 by 1 7/8
Nailed boxes not cleated	(1)	(1)	(1)	(1)

[1] Not authorized.

14 (*e*).

BOX AND CONTENTS OVER 200 POUNDS BUT NOT OVER 325 POUNDS GROSS WEIGHT

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	7/8	5/8	5/8	.....
Cleated boxes	7/8	5/8	5/8	7/8 by 3
Nailed boxes not cleated	(1)	(1)	(1)	(1)

[1] Not authorized.

14 (*f*). Boxes containing "special exhibition set pieces" of common fireworks and weighing, including contents, between 325 and 400 pounds must be made of lumber not less than 7/8 inch thick. Nailed boxes of this kind must be double cleated.

15. When nonexplosive material of equal weight is substituted for the contents of package and the outside package is dropped two times successively on its end to solid brick or concrete from a height of 4 feet, the outside package must not open nor rupture nor must any portion of the contents escape therefrom.

Shipping Container Specification No. 13.

(See par. 1531.)

Metal kegs for use as outside containers for the shipment of low explosives, black powder, or smokeless powder.

Note.—Metal kegs containing less than 9 pounds of smokeless powder for small arms, or less than 12½ pounds of low explosives or black powder, must be boxed, and Specification No. 16 will apply in this case.

Effective October 1, 1914.

1. Metal kegs purchased hereafter and used as outside containers for the shipment of low explosives, black powder, or smokeless powder must comply with the following specifications:

CHARACTER AND CHEMICAL ANALYSIS OF MATERIAL.

2. Material must be sheet steel with chemical analysis of:

	Per cent.
Carbon not more than	0.14
Sulphur, not more than	0.05
Phosphorus, not more than	0.11

and must be box annealed "dead soft" and adaptable for turning a good double crimp without cracking.

3. **THICKNESS OF MATERIAL AND METHODS OF MANUFACTURE OF KEGS.**

Note: The dimensions specified in this table are the minimum requirements.

	Gross weight of kegs and contents.			
	Not over 15 pounds.	Not over 30 pounds.	Over 30 pounds but not over 75 pounds.	Over 75 pounds but not over 150 pounds.
Thickness of material:				
Body	30 gauge	28 gauge	24 gauge	24 gauge
Head	30 gauge	28 gauge	28 gauge	24 gauge
Width of lap for side seam	$\frac{5}{16}$ inch	$\frac{7}{16}$ inch	$\frac{7}{16}$ inch	$\frac{1}{2}$ inch
Number of corrugations in each end of body	3	3	5	7
Minimum depth of corrugations	$\frac{1}{16}$ inch	$\frac{3}{32}$ inch	$\frac{3}{32}$ inch	$\frac{3}{32}$ inch
Width of lap on body for head seam	$\frac{3}{16}$ inch	$\frac{3}{16}$ inch	$\frac{3}{16}$ inch	$\frac{5}{16}$ inch
Width of lap on head for head seam	$\frac{5}{16}$ inch	$\frac{3}{8}$ inch	$\frac{3}{8}$ inch	$\frac{3}{4}$ inch
Head seams	Double lap	Double lap	Double lap	Single lap

4. The corners of the sheet from which the body of the keg is made must be trimmed off slightly to avoid an excess of metal in the head seam at its intersection with the side seam. The amount of this trimming must be regulated accurately, as otherwise a point of weakness will be caused. The double lapping of head seam must be done in a manner to avoid allowing any eccentricity in the fitting of the head to the body.

5. In kegs with gross weight, including contents, of more than 75 pounds, all seams must be welded, soldered, brazed, or riveted. The rivets must be at not greater than 5-inch centers.

6. Each keg having a gross weight, including contents, of more than 30 pounds, must be lined with a cloth bag and, after filling, the neck of the bag must be securely tied and pushed through the bunghole into the keg.

METHODS OF CLOSING.

7. The bung-closing device must consist of:

(*a*) A slide holder necked on to the head of the keg and held in place by laps at least $\frac{3}{32}$ inch wide. A washer of felt paper or other suitable material not less than 0.025 inch thick covering the bunghole and extending at least $\frac{3}{16}$ inch beyond the sides of the bunghole. A metal drop with depression to fit into the bunghole and hold the washer in place. A slide to cover the metal drop, washer, and bunghole and held in place by laps on the slide holder or slide, or both. These laps must extend throughout all sides of the slide holder or slide, or both, and must be at least $\frac{3}{16}$ inch wide, except in the case of a circular slide and slide holder, in which case the slide or cap must have a depression to fit into the bunghole, and the lap fastenings must consist of not less than four prongs $\frac{3}{8}$ inch long and at least $\frac{3}{8}$ inch wide along their inside ends.

(*b*) A metal screw-cap holder necked on to the head of the keg and held in place by laps at least $\frac{3}{32}$ inch wide. A metal screw cap. The screw cap and cap holder must be locked together by a positive fastening so that the cap can not become unscrewed in transit.

(*c*) A metal screw-cap holder cast over the bunghole and fastened to the head so that it can not turn. A metal screw cap. The screw cap and cap holder must be locked together by a positive fastening so that the cap can not become unscrewed in transit.

TESTING.

8. The type of keg, when filled with an equal weight of fine dry sand in place of the explosive, must be capable of withstanding, without leakage, four successive drops on its head onto solid concrete from a height of 4 feet.

MARKING.

9. Each package must be plainly and permanently marked with the words "COMPLIES WITH I. C. C. SPEC'N No. 13," or, if desired, this marking may be indicated by a symbol as follows:

I. C. C.—13

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment each package must also be marked as required by regulations for marking of smokeless powder for small arms, or low explosives, or black powder, as the case may be.

Shipping Container Specification No. 14.

(See par. 1531.)

Boxes for use as outside containers of high explosives.

Effective October 1, 1914.

1. Boxes purchased hereafter for use as outside containers for the shipment of high explosives must comply with the following specifications. Boxes purchased previous to the effective date of these specifications must comply with the requirements of paragraph 1557 of the I. C. C. Regulations, effective March 31, 1912, or with these specifications.

2. Must be made of good sound white pine or any wood of equal or superior strength, dry and well seasoned, and with no loose knots or knots liable to get loose in any part.

3. When sides, ends, tops, or bottoms are made of more than one piece the pieces must be tongued and grooved and glued, and the joints in making up the boxes must be staggered.

4. All lock and dovetail corner joints must be glued.

5. Nails driven through sides, tops, and bottoms into ends must be at not greater than 3-inch centers for boxes not more than 12 inches in width and at not greater than 4-inch centers for boxes of width greater than 12 inches.

6. Nails driven through tops and bottoms into sides must be at not greater than 6-inch centers for boxes not more than 24 inches in length and at not greater than 8-inch centers for boxes of length more than 24 inches.

7. Gauge of nails used shall be not less than the following sizes, depending upon the thickness of lumber into which they are to be driven:

2-penny into $\frac{5}{16}$-inch lumber.
3-penny into $\frac{3}{8}$-inch lumber.
4-penny into $\frac{7}{16}$ to $\frac{1}{2}$ inch lumber.
5-penny into $\frac{9}{16}$ to $\frac{5}{8}$ inch lumber.
6-penny into $\frac{11}{16}$ to $\frac{13}{16}$ inch lumber.
7-penny into $\frac{7}{8}$-inch or thicker lumber.

For example, nails driven through a $\frac{1}{2}$-inch side into a $\frac{3}{4}$-inch end must be 6-penny. Screws of equal efficiency may be used in place of nails.

8. When boxes are set up the bottoms and lids must fit evenly on the frame.

9. Each box must be plainly marked "COMPLIES WITH I. C. C. SPEC'N No. 14," or, if desired, this marking may be indicated by a symbol consisting of a rectangle, as follows:

I. C. C. - 14

The letters and figures in this symbol must be at least $\frac{1}{2}$ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear the wording prescribed by paragraph 1559 of the I. C. C. Regulations.

10. Thickness of lumber in the finished box must be not less than the following:

10 (*a*).

BOX AND CONTENTS NOT OVER 75 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.
	Inch.	*Inch.*	*Inch.*
For nailed boxes	$\frac{7}{8}$	$\frac{1}{2}$	$\frac{1}{2}$
For lock or dovetail corner boxes.	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$

10 (*b*).

BOX AND CONTENTS OVER 75 POUNDS BUT NOT OVER 125 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.
	Inch.	*Inch.*	*Inch.*
For nailed boxes	$1\frac{1}{8}$	$\frac{5}{8}$	$\frac{5}{8}$
For lock or dovetail corner boxes.	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$

The thickness of the ends of nailed boxes of over 75 pounds gross weight may be reduced to $\frac{7}{8}$ inch if they are cleated with two vertical cleats and two horizontal cleats not less than $1\frac{7}{8}$ inches wide and $\frac{5}{8}$ inch thick, and in this case the sides, top, and bottom must extend over the cleats and the nailing must be staggered, at least 40 per cent of the nails being driven into the ends and at least 40 per cent into the cleats.

TESTS.

11. When inexplosive material of equal weight is substituted (fine and dry sand for a granular explosive, dummy cartridges for high explosive cartridges) for the contents of package, and the outside package is dropped two times successively on its end to solid brick or concrete from a height of 4 feet, the outside package must not open nor rupture nor must any portion of the contents escape therefrom.

Shipping Container Specification No. 15.

(See par. 1531.)

Boxes for use as shipping containers of blasting caps.

Effective October 1, 1914.

1. Boxes purchased hereafter for use in the shipment of blasting caps must comply with the following specifications. Boxes purchased previous to the effective date of these specifications must comply with the requirements of paragraph 1611 of the I. C. C. Regulations, effective March 31, 1912, or with these specifications.

2. Must be made of good sound white pine or any wood of equal or superior strength, dry and well seasoned, and with no loose knots or knots liable to get loose in any part.

3. No box containing blasting caps or electric blasting caps shall weigh more than 150 pounds, including contents, or contain more than 20,000 caps.

4. When the sides, ends, tops, or bottoms are made of more than one piece the pieces must be tongued and grooved and glued, and in making up the boxes the joints must be staggered.

5. All lock and dovetail corners must be glued.

6. Nails driven through tops, bottoms, and sides into the ends must be at not greater than 3-inch centers.

7. Nails driven through tops and bottoms into sides must be at not greater than 6-inch centers.

8. Gauge of nails used shall be not less than the following sizes, depending upon the thickness of lumber into which they are to be driven:

2-penny into $\frac{5}{16}$-inch lumber.
3-penny into $\frac{3}{8}$-inch lumber.
4-penny into $\frac{7}{16}$ to $\frac{1}{2}$ inch lumber.
5-penny into $\frac{9}{16}$ to $\frac{5}{8}$ inch lumber.
6-penny into $\frac{11}{16}$ to $\frac{13}{16}$ inch lumber.
7-penny into $\frac{7}{8}$-inch or thicker lumber.

For example, nails driven through a $\frac{1}{2}$-inch side into a $\frac{3}{4}$-inch end must be 6 penny. Screws of equal efficiency may be used in place of nails.

9. When boxes are set up the bottoms and lids must fit evenly on the frame.

10. Each box must be plainly marked with the words "COMPLIES WITH I. C. C. SPEC'N No. 15," or, if desired, this marking may be indicated by a symbol consisting of a rectangle, as follows:

I. C. C.—15

The letters and figures in this symbol must be at least $\frac{1}{2}$ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear the wording prescribed by paragraph 1613 of the I. C. C. Regulations.

11. Thickness of lumber in the finished box must be not less than the following:

FOR ELECTRIC BLASTING CAPS.

11 (*a*).

BOX CONTAINING NOT MORE THAN 500 CAPS, NOR WEIGHING MORE THAN 75 POUNDS, INCLUDING CONTENTS.

	Ends.	Sides.	Top and bottom.
	Inch.	*Inch.*	*Inch.*
For nailed boxes	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$
For lock or dovetail corner boxes	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$

11 (*b*).

BOX CONTAINING MORE THAN 500 CAPS, OR WEIGHING MORE THAN 75 POUNDS, INCLUDING CONTENTS.

	Ends.	Sides.	Top and bottom.
	Inch.	*Inch.*	*Inch.*
For nailed boxes	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{7}{8}$
For lock or dovetail corner boxes	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{7}{8}$

FOR OTHER BLASTING CAPS.

11 (*c*).

BOX CONTAINING NOT MORE THAN 1,000 CAPS.

	Ends.	Sides.	Top and bottom.
	Inch.	*Inch.*	*Inch.*
For nailed boxes	$\frac{5}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
For lock or dovetail corner boxes	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$

11 (*d*).

BOX CONTAINING MORE THAN 1,000 CAPS BUT NOT MORE THAN 5,000 CAPS.

	Ends.	Sides.	Top and bottom.
	Inch.	*Inch.*	*Inch.*
For nailed boxes	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$
For lock or dovetail corner boxes	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$

11 (*e*).

BOX CONTAINING MORE THAN 5,000 CAPS BUT NOT MORE THAN 20,000 CAPS.

	Outside box, ends, sides, top and bottom.	Inside box, ends, sides, top and bottom.
	Inch.	*Inch.*
For nailed boxes	$\frac{7}{8}$	$\frac{3}{8}$
For lock or dovetail corner boxes	$\frac{7}{8}$	$\frac{3}{8}$

There must be 1 inch of space between inside and outside box for sawdust or other cushioning.

If desired, a hermetically sealed metal box of not less than 30 gauge United States standard may be used instead of the inside $\frac{3}{8}$-inch wooden box for packages to contain more than 5,000 caps.

TESTS.

12. When inexplosive material of equal weight is substituted for the contents of package and the outside package is dropped two times successively on its end to solid brick or concrete from a height of 4 feet, the outside package must not open nor rupture nor must any portion of the contents escape therefrom.

Shipping Container Specification No. 16.

(See par. 1531.)

Boxes for use as outside containers of explosives in tight inside containers, except in cases otherwise specifically provided for.

Effective October 1, 1914.

1. Boxes purchased hereafter for use as outside containers for the shipment of explosives in tight inside containers, except in cases otherwise specifically provided for, must comply with the following specifications:

2. Must be made of good sound white pine, or any wood of equal or superior strength, dry and well seasoned and with no loose knots or knots liable to get loose in any part.

3. Boxes when cleated must have two vertical and two horizontal cleats at each end; the sides, top, and bottom must extend out over the cleats, and the nailing must be staggered, at least 40 per cent of the nails being driven into the ends and at least 40 per cent into the cleats.

4. All lock or dovetail corners must be glued.

5. Nails driven through sides, top, and bottom into end must be at not greater than 3-inch centers.

6. Nails driven through top and bottom into sides must be at not greater than 6-inch centers.

7. Gauge of nails used shall be not less than the following sizes, depending upon the thickness of lumber into which they are to be driven:

2-penny into $\frac{5}{16}$-inch lumber.
3-penny into $\frac{3}{8}$-inch lumber.
4-penny into $\frac{7}{16}$ to $\frac{1}{2}$ inch lumber.
5-penny into $\frac{9}{16}$ to $\frac{5}{8}$ inch lumber.
6-penny into $\frac{11}{16}$ to $\frac{13}{16}$ inch lumber.
7-penny into $\frac{7}{8}$-inch or thicker lumber.

For example, nails driven through a $\frac{1}{2}$-inch side into a $\frac{3}{4}$-inch end must be 6-penny. Screws of equal efficiency may be used in place of nails.

8. When boxes are set up, the bottoms and lids must fit evenly on the frame.

9. Each box must be plainly marked "COMPLIES WITH I. C. C. SPEC'N No. 16," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:

I. C. C.—16

The letters and figures in this symbol must be at least $\frac{1}{2}$ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

10. Thickness of lumber in the finished box must be not less than the following:

10 (*a*).

BOX AND CONTENTS NOT OVER 25 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	$\frac{7}{16}$	$\frac{3}{8}$	$\frac{3}{8}$	.....
Cleated boxes	$\frac{7}{16}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{7}{16}$ by $1\frac{7}{8}$
Nailed boxes not cleated	$\frac{5}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	.....

10 (*b*).

BOX AND CONTENTS OVER 25 POUNDS BUT NOT OVER 75 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	$\frac{9}{16}$	$\frac{3}{8}$	$\frac{3}{8}$	.....
Cleated boxes	$\frac{9}{16}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{9}{16}$ by $1\frac{7}{8}$
Nailed boxes not cleated	$\frac{13}{16}$	$\frac{1}{2}$	$\frac{1}{2}$	.....

10 (*c*).

BOX AND CONTENTS OVER 75 POUNDS BUT NOT OVER 150 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	$\frac{3}{4}$	$\frac{9}{16}$	$\frac{9}{16}$	.....
Cleated boxes	$\frac{3}{4}$	$\frac{9}{16}$	$\frac{9}{16}$	$\frac{3}{4}$ by $1\frac{7}{8}$
Nailed boxes not cleated	1	$\frac{3}{4}$	$\frac{3}{4}$	.....

TESTS.

11. When inexplosive material of equal weight is substituted (fine and dry sand for a granular explosive), for the contents of package and the outside package is dropped two times successively on its end to solid brick or concrete from a height of 4 feet, the outside package must not open nor rupture nor must any portion of the contents escape therefrom.

Shipping Container Specification No. 17.

(See pars. 1822 (a) and 1834.)

Boxes for use as outside containers of Wet Nitrocellulose—20 per cent water, Wet Nitrostarch—20 per cent water, and other substances as prescribed by I. C. C. Regulations.

Effective October 1, 1914.

1. Boxes purchased hereafter for use in the shipment of wet nitrocellulose or wet nitrostarch, etc., must comply with the following specifications:

2. Must be made of good sound white pine or any wood of equal or superior strength, dry and well seasoned, and with no loose knots or knots liable to get loose in any part.

3. No box containing wet nitrocellulose, wet nitrostarch, etc., shall weigh, including contents, more than 400 pounds.

4. Each box must be lined with zinc not less than 0.012 inch in thickness (approximately No. 30 gauge, United States standard) with side and bottom seams soldered to prevent leakage. The package must be made

safe from leakage at the top by soldering or by a gasket of suitable material so fitted that it will hermetically seal the joint between the zinc of the top and the zinc of the body of the package.

5. Cleated boxes must have two vertical and two horizontal cleats on each end, and the sides, top, and bottom of the box must extend out over these cleats and the nailing must be staggered, at least 40 per cent of the nails being driven into the ends and at least 40 per cent into the cleats.

6. When sides, ends, tops, and bottoms are made of more than one piece, the pieces must be tongued and grooved and glued, and in making up the boxes the joints must be staggered.

7. All lock and dovetailed corners must be glued.

8. Nails driven through sides, tops, and bottoms into the ends and cleats must be at not greater than 3-inch centers.

9. Nails driven through tops and bottoms into sides must be at not greater than 6-inch centers.

10. Gauge of nails used shall be not less than the following sizes, depending upon the thickness of lumber into which they are to be driven:

2-penny into $\frac{5}{16}$-inch lumber.
3-penny into $\frac{3}{8}$-inch lumber.
4-penny into $\frac{7}{16}$ to $\frac{1}{2}$ inch lumber.
5-penny into $\frac{9}{16}$ to $\frac{5}{8}$ inch lumber.
6-penny into $\frac{11}{16}$ to $\frac{13}{16}$ inch lumber.
7-penny into $\frac{7}{8}$-inch or thicker lumber.

For example, nails driven through a $\frac{1}{2}$-inch side into a $\frac{3}{4}$-inch end must be 6-penny. Screws of equal efficiency may be used in place of nails.

11. When boxes are set up the bottoms and lids must fit evenly on the frame.

12. Each box must be marked "COMPLIES WITH I. C. C. SPEC'N No. 17," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:

I. C. C.—17

The letters and figures in this symbol must be at least $\frac{1}{2}$ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear the wording prescribed by paragraph 1834 I. C. C. Regulations.

13. Thickness of lumber in the finished box must be not less than the following; provided, that cleated boxes made of $\frac{7}{8}$-inch lumber throughout are acceptable.

13 (*a*).

BOX AND CONTENTS NOT OVER 25 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
For nailed boxes not cleated	$\frac{5}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	.....
For lock or dovetail corner boxes	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	.....
For cleated boxes	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$ by $1\frac{7}{8}$

13 (*b*).

BOX AND CONTENTS OVER 25 POUNDS BUT NOT OVER 75 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
For nailed boxes not cleated	$\frac{13}{16}$	$\frac{1}{2}$	$\frac{1}{2}$	.....
For lock or dovetail corner boxes	$\frac{9}{16}$	$\frac{3}{8}$	$\frac{3}{8}$	.....
For cleated boxes	$\frac{9}{16}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{9}{16}$ by $1\frac{7}{8}$

13 (*c*).

BOX AND CONTENTS OVER 75 POUNDS BUT NOT OVER 125 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
For nailed boxes not cleated	$\frac{15}{16}$	$\frac{3}{4}$	$\frac{3}{4}$	.....
For lock or dovetail corner boxes	$\frac{11}{16}$	$\frac{1}{2}$	$\frac{1}{2}$	.....
For cleated boxes	$\frac{11}{16}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{11}{16}$ by $1\frac{7}{8}$

13 (*d*).

BOX AND CONTENTS OVER 125 POUNDS BUT NOT OVER 200 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
For nailed boxes not cleated	$1\frac{1}{16}$	$\frac{13}{16}$	$\frac{13}{16}$	.....
For lock or dovetail corner boxes	$\frac{13}{16}$	$\frac{5}{8}$	$\frac{5}{8}$	.....
For cleated boxes	$\frac{13}{16}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{13}{16}$ by $1\frac{7}{8}$

13 (*e*).

BOX AND CONTENTS OVER 200 POUNDS BUT NOT OVER 300 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats
	Inch.	*Inch.*	*Inch.*	*Inch.*
For nailed boxes not cleated	$1\frac{1}{8}$	$\frac{7}{8}$	$\frac{7}{8}$	.....
For lock or dovetail corner boxes	$\frac{15}{16}$	$\frac{11}{16}$	$\frac{11}{16}$	.....
For cleated boxes	$\frac{15}{16}$	$\frac{11}{16}$	$\frac{11}{16}$	$\frac{15}{16}$ by 3

13 (*f*).

BOX AND CONTENTS OVER 300 POUNDS BUT NOT OVER 400 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
For nailed boxes not cleated	$1\frac{3}{16}$	$\frac{15}{16}$	$\frac{15}{16}$	.....
For lock or dovetail corner boxes	1	$\frac{3}{4}$	$\frac{3}{4}$	.....
For cleated boxes	1	$\frac{3}{4}$	$\frac{3}{4}$	1 by 3

Shipping Container Specification No. 18.

(See par. 1822 (a).)

For metal cans and boxes purchased hereafter and used for the shipment of metallic sodium or potassium, of calcium phosphide, of sodium or potassium sulphide fused and ground, of sodium peroxide, or of white or yellow phosphorus, etc.

Effective October 1, 1914.

1. Metal cans and boxes purchased hereafter and used for the shipment of metallic sodium or potassium, of calcium phosphide, of sodium or potassium sulphide fused and ground, of sodium peroxide, or of white or yellow phosphorus, etc., must comply with the following specifications:

CANS.

2. Metal vessels as required by regulations must be made of metal not lighter than 30 gauge, United States standard.

3. Each can must be tested by its manufacturer and must not leak air when tested under water with interior air pressure of at least 5 pounds per square inch; or this test may be made, after filling, by the application of pressure to the top of the can. There must be no leak under this test.

4. Each can must be hermetically sealed after filling; provided, that for metallic sodium or potassium or for sodium or potassium sulphide fused and ground, packed in well-stoppered bottles, the cans are not required to be hermetically sealed after the bottles are placed therein.

5. Cans must fit tightly in the boxes or be so cushioned as to prevent movement or injury to the cans.

BOXES.

6. Must be made of good sound white pine or any wood of equal or superior strength, dry and well seasoned and with no loose knots or knots liable to get loose in any part; provided, that for calcium phosphide the boxes must be lined with metal of not less than No. 30 gauge, United States standard.

7. No box made under this specification shall weigh, including contents, more than 275 pounds.

8. Boxes when cleated must have two vertical and two horizontal cleats on each end, and the sides, top, and bottom of the box must extend out over those cleats and the nailing must be staggered, at least 40 per cent of the nails being driven into the ends and at least 40 per cent into the cleats; provided, that the cleats may be omitted if the boxes are strapped around both ends with strap iron, not less than ¾ inch by 24 gauge, or wire of equal or superior strength, securely nailed or stapled in place.

9. When ends, sides, tops, or bottoms are made of more than one piece the pieces must be tongued and grooved, and in making up the box the joints must be staggered.

10. All lock and dovetail corners must be glued.

11. Nails driven into the ends must be at not greater than 3-inch centers. Those driven through tops and bottoms into sides must in no case be at greater than 8-inch centers.

12. Gauge of nails used shall be not less than the following sizes, depending upon the thickness of lumber into which they are to be driven:

2-penny into $\frac{5}{16}$-inch lumber.
3-penny into $\frac{3}{8}$-inch lumber.
4-penny into $\frac{7}{16}$ to $\frac{1}{2}$ inch lumber.
5-penny into $\frac{9}{16}$ to $\frac{5}{8}$ inch lumber.
6-penny into $\frac{11}{16}$ to $\frac{13}{16}$ inch lumber.
7-penny into $\frac{7}{8}$-inch or thicker lumber.

For example, nails driven through a ½-inch side into a ¾-inch end must be 6-penny. Screws of equal efficiency may be used in place of nails.

13. When boxes are set up the bottoms and tops must fit accurately on the frame.

14. Each box must be marked "COMPLIES WITH I. C. C. SPEC'N No. 18," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:

I. C. C.—18

The letters and figures in this symbol must be at least ½ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

15. Thickness of lumber in the finished box must be not less than the following:

15 (*a*).

BOX AND CONTENTS NOT OVER 25 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
For nailed boxes not cleated	⅝	½	½	.....
For lock or dovetail corner boxes	⅜	⅜	⅜	.....
For cleated boxes	⅜	⅜	⅜	⅜ by 1⅞

15 (*b*).

BOX AND CONTENTS OVER 25 POUNDS BUT NOT OVER 75 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
For nailed boxes not cleated	$\frac{13}{16}$	½	½	.....
For lock or dovetail corner boxes	$\frac{9}{16}$	⅜	⅜	.....
For cleated boxes	$\frac{9}{16}$	⅜	⅜	$\frac{9}{16}$ by 1⅞

15 (*c*).

BOX AND CONTENTS OVER 75 POUNDS BUT NOT OVER 150 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
For nailed boxes not cleated	(1)	(1)	(1)	(1)
For lock or dovetail corner boxes	3/4	9/16	9/16	.....
For cleated boxes	3/4	9/16	9/16	3/4 by 1 7/8

1 Not authorized, but see paragraph 8.

15 (*d*).

BOX AND CONTENTS OVER 150 POUNDS BUT NOT OVER 275 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
For nailed boxes not cleated	(1)	(1)	(1)	(1)
For lock or dovetail corner boxes	7/8	3/4	3/4	.....
For cleated boxes	7/8	3/4	3/4	7/8 by 1 7/8

1 Not authorized, but see paragraph 8.

Shipping Container Specification No. 19.

(See par. 1822 (a).)

Boxes for inflammable solids or oxidizing materials and for mixed shipments of any dangerous articles which may be packed in the same outside container without violation of I. C. C. Regulations (except as provided in Specifications Nos. 2, 6, 17, and 18).

Effective October 1, 1914.

1. Boxes purchased hereafter for the shipment of inflammable solids or oxidizing materials and for mixed shipments of any dangerous articles which may be packed in the same outside container without violation of I. C. C. Regulations (except as provided in Specifications Nos. 2, 6, 17, and 18), must comply with these specifications.

BOXES.

2. Boxes must be made of good sound white pine, or any wood of equal or superior strength, dry and well seasoned and with no loose knots or knots liable to get loose in any part.

3. When the ends are single cleated, the cleats must run across the grain of the wood in the ends. The sides or tops and bottoms must extend out over the cleats, and the nailing must be staggered, at least 40 per cent of the nails being driven into the ends and at least 40 per cent into the cleats.

4. When the ends are double cleated, the sides, top, and bottom must extend out over the cleats and the nailing must be staggered, at least 40 per cent of the nails being driven into the ends and at least 40 per cent into the cleats.

5. Nailed boxes not cleated must have ends of one-piece material or must be tongued and grooved and glued; provided, that other joints may be used which after investigation made by the Bureau of Explosives are shown to possess strength equal to the tongued and grooved and glued joint.

6. All nails driven through sides, tops, or bottoms into ends or cleats or to fasten cleats to ends must be at not greater than 2½-inch centers.

7. All nails driven through tops or bottoms into sides must be at not greater than 8-inch centers.

8. Gauge of nails used shall be not less than the following sizes, depending upon the thickness of lumber into which they are to be driven:

2-penny into 5/16-inch lumber.
3-penny into 3/8-inch lumber.
4-penny into 7/16 to ½ inch lumber.
5-penny into 9/16 to 5/8 inch lumber.
6-penny into 11/16 to 13/16 inch lumber.
7-penny into 7/8-inch or thicker lumber.

For example, nails driven through a ½-inch side into a ¾-inch end must be 6-penny. Screws of equal efficiency may be used in place of nails.

MARKING OF BOXES.

9. Each box must be plainly marked with the words "COMPLIES WITH I. C. C. SPEC'N NO. 19," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:

I. C. C.—19

The letters and figures in this symbol must be at least ½ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein

10. The thickness of lumber in the finished box must not be less than the following, except that a variation of 1/64 inch be allowed for material 5/16 inch or less in thickness and a variation of 1/32 inch be allowed for material over 5/16 inch in thickness:

10 (*a*).

BOX AND CONTENTS NOT OVER 25 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	3/8	5/16	5/16	.....
Single-cleated boxes	3/8	5/16	5/16	3/8 by 1 7/8
Double-cleated boxes	5/16	5/16	5/16	3/8 by 1 7/8
Nailed boxes not cleated	1/2	5/16	5/16	.....

10 (*b*).

BOX AND CONTENTS OVER 25 POUNDS BUT NOT OVER 75 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	1/2	3/8	3/8	.....
Single-cleated boxes	1/2	3/8	3/8	1/2 by 1 7/8
Double-cleated boxes	7/16	3/8	3/8	7/16 by 1 7/8
Nailed boxes not cleated	3/4	3/8	3/8	.....

10 (*c*).

BOX AND CONTENTS OVER 75 POUNDS BUT NOT OVER 125 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	5/8	3/8	3/8	.....
Single-cleated boxes	5/8	3/8	3/8	5/8 by 1 7/8
Double-cleated boxes	1/2	3/8	3/8	1/2 by 1 7/8
Nailed boxes not cleated	7/8	1/2	1/2	.....

10 (*d*).

BOX AND CONTENTS OVER 125 POUNDS BUT NOT OVER 200 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	3/4	1/2	1/2	.....
Single-cleated boxes	3/4	1/2	1/2	3/4 by 1 7/8
Double-cleated boxes	5/8	1/2	1/2	5/8 by 1 7/8
Nailed boxes not cleated	1	5/8	5/8	.....

10 (*e*).

BOX AND CONTENTS OVER 200 POUNDS BUT NOT OVER 300 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	7/8	5/8	5/8	.....
Single-cleated boxes	7/8	5/8	5/8	7/8 by 3
Double-cleated boxes	3/4	5/8	5/8	3/4 by 3
Nailed boxes not cleated	1 1/16	3/4	3/4	.....

10 (*f*).

BOX AND CONTENTS OVER 300 POUNDS BUT NOT OVER 400 POUNDS GROSS WEIGHT.

	Ends.	Sides.	Top and bottom.	Cleats.
	Inch.	*Inch.*	*Inch.*	*Inch.*
Lock or dovetail corner boxes	1	3/4	3/4	.....
Single-cleated boxes	1	3/4	3/4	1 by 3
Double-cleated boxes	7/8	3/4	3/4	7/8 by 3
Nailed boxes not cleated	1 1/8	7/8	7/8	.....

Shipping Container Specification No. 20.

(See par. 1822.)

For metal barrels and drums purchased hereafter to be used as outside containers of inflammable solids and oxidizing materials in bulk. These packages may also be used for the shipment of high explosives as authorized by paragraph 1556 of the I. C. C. Regulations except chlorate powders and picric acid.

Effective October 1, 1914.

1. Metal barrels and drums purchased hereafter and used for the shipment of inflammable solids and oxidizing materials in bulk or for the shipment of high explosives as authorized by paragraph 1556 of the I. C. C. Regulations, except chlorate powder and picric acid, must comply with the following specifications:

PART A.

2. Metal barrels or drums for metallic sodium or potassium; or for calcium phosphide; or for sodium or potassium sulphide fused and ground; or for other similar articles of an extra hazardous character; or for any inflammable solids or oxidizing materials if the barrels or drums are to be refilled and reshipped; must be made as follows:

3. This container shall be made of iron or steel and the minimum thickness of metal in any part must be not less than full No. 20 gauge, United States Standard, for a package to contain not over 112 pounds net weight; not

less than full No. 18 gauge, United States Standard, for a package to contain over 112 pounds but not over 210 pounds net weight; and not less than full No. 16 gauge, United States Standard, for a package to contain over 210 pounds but not over 410 pounds net weight.

4. No container of this class shall contain more than 410 pounds net weight.

5. The seams must be riveted, brazed, or welded in such manner as to make the container water-tight, and afford an efficient seam.

6. The containers must be hermetically sealed, or have a closing device consisting of a cap or cover fitting closely on a seat in the head with a packing of asbestos, rubber or other suitable material to insure a tight joint, and the cap must be securely held in place by a cap fastening of the ordinary "milk-can" type or other suitable fastening which may be locked fast so that it can not jar loose during transit.

7. The package must be capable of being filled with fine sand to a weight equal to the contents for which it is designed and successively dropped diagonally on its chime onto solid concrete from heights of 1 foot, 2 feet, 3 feet, and 4 feet without leakage.

8. Each container must be plainly marked with the date of manufacture and the capacity of the container in pounds.

Each container must also be marked "COMPLIES WITH I. C. C. SPEC'N. No. 20A," or, if desired, this marking may be indicated by a symbol, as follows:

I. C. C.—20A

The letters and figures in this symbol must be at least ½ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

PART B.

9. Metal barrels or drums for inflammable solids or oxidizing materials, except as specified in Part A of this specification, must be made as follows:

10. This container shall be made of iron or steel and the thickness of metal used must be not less than the following:

For a package to contain not more than 115 pounds net weight, the heads must be not less than 24 gauge and the body not less than 25 gauge, United States standard.

For a package to contain more than 115 pounds but not more than 230 pounds net weight, the heads must be not less than 22 gauge and the body not less than 24 gauge, United States standard.

For a package to contain more than 230 pounds but not more than 345 pounds net weight, the heads must be not less than 21 gauge and the body not less than 23 gauge, United States standard.

For a package to contain more than 345 pounds but not more than 460 pounds net weight, the heads must be not less than 20 gauge and the body not less than 21 gauge, United States standard.

For a package to contain more than 460 pounds but not more than 575 pounds net weight, the heads must be not less than 19 gauge and the body not less than 20 gauge, United States standard.

For a package to contain more than 575 pounds but not more than 690 pounds net weight, the heads must be not less than 18 gauge and the body not less than 19 gauge, United States standard.

No container of this class shall contain more than 690 pounds net weight.

11. The seams must be riveted, brazed, welded, or lapped in such manner as to make the container tight and afford an efficient seam.

12. The containers must be hermetically sealed, or have a closing device consisting of a cap or cover fitting closely on a seat in the head with a packing of asbestos, rubber, or other suitable material to insure a tight joint, and the cap must be securely held in place by a cap fastening of the ordinary "milk-can" type or other suitable fastening which may be locked fast so that it can not jar loose during transit.

13. The package must be capable of being filled with fine sand to a weight equal to the contents for which it is designed and successively dropped diagonally on its chime onto solid concrete from heights of 1 foot, 2 feet, 3 feet, and 4 feet, without leakage.

14. Each container must be plainly marked with the date of manufacture and the allowable capacity in pounds.

Each container must also be marked "COMPLIES WITH I. C. C. SPEC'N No. 20B," or, if desired, this marking may be indicated by a symbol, as follows:

I. C. C.—20B

The letters and figures in this symbol must be at least ½ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

Shipping Container Specification No. 21.

(See pars. 1531 and 1822 (a).)

Fiber drums or barrels to be used for the shipment of inflammable solids or oxidizing materials in bulk when such a container is authorized or for the shipment of picric acid, ammonium picrate, or trinitrotoluol.

Effective October 1, 1914.

1. Fiber drums or barrels purchased hereafter and used for the shipment of inflammable solids or oxidizing materials in bulk, when such a container is authorized, or for the shipment of picric acid, ammonium picrate, or trinitrotoluol, must comply with the following specifications. Until more complete specifications are approved, this specification shall apply to drums not larger than 11 inches in diameter or 19 inches long, outside measurement.

2. The body of the drum must be formed of not less than eight plies of fibrous board reinforced by a sheet of

expanded metal. Each ply must be not less than 0.022 inch thick and must have a resistance of not less than 60 pounds to the square inch, by the Mullen test. The reinforcing sheet must be steel of not less than No. 28 United States standard and not less than 6 inches wide before being expanded. In expanding this sheet a band $\frac{5}{8}$ inch wide must be left on each side of the sheet, these bands to form a part of the chimes of the drum.

3. The fibrous board and the steel reinforcing sheet must be rolled together into one integral piece, the steel reinforcing sheet being wound between the fifth and sixth plies of the fibrous board, and the whole being cemented solidly together by silicate of soda.

4. The heads of the drum must be made of hardwood not less than $\frac{7}{16}$ inch in thickness, and, if they are made of more than one piece, the pieces must be tongued and grooved to prevent leakage. The edges of the heads must be notched to receive a steel collar. This steel collar must be not less than No. 26 United States standard gauge and must be flanged and fitted over the chime and into the notches of the head in such manner as to give protection to the edge of the chime and prevent leakage around the head of the drum.

5. The heads must be nailed to the body by not less than 6 nails (size of nails must be not less than 3d common) passing through the fiber sides, through the band of the steel reinforcing sheet, through the steel collar, and into the heads.

6. The method of manufacturing the drums and the materials used must be well adapted to producing a uniform product.

7. The type of drum, when filled with fine dry sand, must be capable of withstanding, without leakage, successive drops on its side, end, or chime onto solid concrete from heights of 12, 18, 24, 30, and 36 inches.

8. Each drum must be plainly marked with the words "COMPLIES WITH I. C. C. SPEC'N No. 21," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:

I. C. C.—21

The letters and figures in this symbol must be at least ½ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the partciular article contained therein.

Shipping Container Specification No. 22.

(See pars. 1531 and 1822 (a).)

Wooden veneer drums to be used for shipment of inflammable solids or oxidizing materials in bulk when such a container is authorized, or for the shipment of picric acid, ammonium picrate, or trinitrotoluol.

Effective October 1, 1914.

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1. Wooden veneer drums purchased hereafter and used for the shipment of inflammable solids or oxidizing materials in bulk when such a container is authorized, or for the shipment of picric acid, ammonium picrate or trinitrotoluol, must comply with the following specifications. Until more complete specifications are approved, this specification shall apply to drums not larger than 14 inches in diameter or 21 inches long, outside measurement.

2. The body of the drum must be formed of two or more plies of wood veneer with a total thickness of not less than $\frac{7}{32}$ inch. The grain of the inner and outer plies must be parallel to the axis of the drum, and the joints must be staggered so as to prevent leakage or the possible entrance of sparks.

3. The drum must be held together by at least four wooden hoops not less than 2 by $\frac{5}{32}$ inches in size. Two of these hoops must be at the ends of the drum and the other two approximately equally spaced between them. The ends of these hoops must be fastened together by at least one staple clinched on the inside and by at least two additional nails or staples clinched on the inside. All of these hoops must be nailed to the body of the drum by nails spaced at not greater than 5 inch centers and clinched on the inside. The two end hoops must be reinforced by steel hoops not less than $\frac{7}{8}$ inch wide and 0.025 inch thick, placed around the wooden hoops and securely nailed to them.

4. The heads of the drum must be of wood not less than $\frac{7}{16}$ inch thick and strengthened by a cleat or batten not less than 2 by $\frac{7}{16}$ inches nailed across the grain of the head and extending nearly across the head.

5. The body of the drum must be lined with fiber board or strawboard not less than 0.035 inch in thickness made into a tight cylinder by gluing the edges together. The ends must be lined with fiber board or strawboard not less than 0.055 inch in thickness so formed as to just fit in the end of the drum.

If desired, a stout cloth bag securely closed and of a character not to allow sifting of contents may be used in place of the lining.

6. The heads of the drum must be held in place by interior and exterior lining hoops. The interior lining hoops must have gaskets of thick cloth or other suitable material so arranged that the head linings will fit tightly thereon and be held in place by the head to prevent leakage.

7. The method of manufacturing the drums and the materials used must be well adapted to producing a uniform product.

8. The type of drum, when filled with fine dry sand, must be capable of withstanding without leakage, successive drops on its side, end, or chime onto solid concrete from heights of 12, 18, 24, 30, and 36 inches.

9. Each drum must be plainly marked with the words "COMPLIES WITH I. C. C. SPEC'N No. 22," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:

I. C. C.—22.

The letters and figures in this symbol must be at least ½ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must bear also such other descriptions as may be required by the I. C. C. Regulations for the particular article contained therein.

Shipping Container Specification No. 23.

(See par. 1822 (*a*).)

Iron or steel jacketed cans for inflammable liquids.

Effective October 1, 1914.

CANS

1. Cans jacketed under this specification shall not exceed 10 gallons capacity each.

2. Cans exceeding 1 gallon and not exceeding 10 gallons capacity must be made of metal not lighter than 30 gauge United States standard.

3. Cans not exceeding 1 gallon capacity may be made of metal lighter than 30 gauge United States standard, but it must be such as will provide proper protection against leakage in transit.

4. Each completed can must be tested by its manufacturer and must not leak air when tested under water with interior air pressure of at least 5 pounds per square inch.

JACKETS.

5. Jackets must consist of not more than two pieces, each thoroughly riveted, welded, or brazed. They must be made of metal the minimum thickness of which is not less than No. 20 gauge United States standard.

6. Tops and bottoms of jackets may be made of either wood or metal.

Wooden tops and bottoms must be made of good sound lumber, dry and well seasoned, and must be in not more than two pieces tongued and grooved and glued and nailed to jacket flush with the top and bottom of the sides of jacket. Nails must be at not greater than 2-inch centers. Thickness of lumber in top and bottom of the finished jacket must be not less than $\frac{9}{16}$ inch for the package of capacity not over 3 gallons and $\frac{5}{8}$ inch for the package with capacity over 3 gallons.

Metal tops and bottoms must be made of metal the minimum thickness of which is full No. 20 gauge United States standard.

7. The can must be completely covered by the jacket and the jacket must be so constructed as to prevent any vertical movement of the can inside the jacket.

8. The upper part of the jacket must be securely and evenly adjusted to the lower part of the jacket with suitable metal lugs or other device so as to make accidental removal of the upper part of the jacket impossible.

9. The type of package must be capable of standing without leakage successive drops on its ends or side onto solid concrete from heights of 1 foot, 2 feet, 3 feet, and 4 feet.

10. Each completed package must be plainly and permanently marked with words "COMPLIES WITH I. C. C. SPEC'N NO. 23," or, if desired, this marking may be indicated by a symbol as follows:

I. C. C. – 23

The letters and figures in this symbol must be at least ½ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

The package when offered for shipment must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

Shipping Container Specification No. 24.

(See par. 1822 (*a*).)

Fiber board, pulpboard, corrugated strawboard, or solid-fiber millboard, cases for the shipment of inflammable liquids as authorized by paragraphs 1824 and 39 of the Regulations.

Effective October 1, 1914.

1. Fiber board, pulpboard, corrugated strawboard, or solid-fiber millboard cases purchased hereafter and used for the shipment of inflammable liquids as authorized by paragraphs 1824 and 39 of the I. C. C. Regulations must comply with the following specifications:

MAXIMUM SIZE OF CASE.

2. No case may have an internal volume exceeding that of a 20-inch cube, or 8,000 cubic inches.

MAXIMUM AUTHORIZED CAPACITY.

3. The combined capacity of all containers in any case constructed of glued-ply fiber board or pulpboard, corrugated strawboard, or solid-fiber millboard composed of not less than 50 per cent sulphite fiber, shall not exceed 8 quarts.

MARKING.

4. The outside container must be marked "COMPLIES

WITH I. C. C. SPEC'N No. 24," or, if desired, this marking may be indicated by a symbol consisting of a rectangle as follows:

I. C. C. - 24.

The letters and figures in this symbol must be at least ½ inch high.

This symbol shall be understood to certify that the package complies with all the requirements of this specification.

When offered for shipment the package must also bear such other description as may be required by the I. C. C. Regulations for the particular article contained therein.

INSIDE CONTAINERS AND CUSHIONING.

5. Mixed shipments of inflammable and noninflammable liquids in the same outside case must be packed the same as would be required if they were all inflammable liquids.

6. The inside containers must be securely closed in such manner as to prevent leakage of the liquid during transit.

7. Inside containers must not exceed 1 pint capacity each for liquids with a flash point below 20° F. or 1 quart capacity each for liquids with a flash point from 20° F. to 80° F.

8. Each inside container must be wrapped separately in single-faced corrugated strawboard wrappers. If the inside containers exceed ½ pint capacity each they must also be separated by double-faced corrugated strawboard partitions or packed separately in double-faced corrugated strawboard cartons or boxes; provided, that containers of not more than 1 ounce capacity each, packed in wooden boxes or double-faced strawboard cartons and cushioned when necessary to prevent breakage, may be packed in outside cases without the wrappers or partitions prescribed above.

FOR FIBER BOARD, PULPBOARD, OR MILLBOARD CASES.

MATERIAL.

9. Fiber board or pulpboard used in making fiber board or pulpboard cases must be 3-ply or more, all plies firmly glued together, the outer ply waterproofed, and no single ply less than 0.02 inch in thickness. Solid fiber millboard used in making cases must be composed of not less than 50 per cent of sulphite fiber and must be waterproofed throughout.

COMBINED CAPACITY OF ALL CONTAINERS IN CASE NOT OVER 4 QUARTS.

10. When the glued-ply fiber board or pulpboard used in making cases is not less than 0.08 inch in thickness, having a resistance of not less than 200 pounds to the square inch, Mullen test, the combined capacity of all containers in the case must not exceed 4 quarts.

11. When the solid-fiber millboard composed of not less than 50 per cent sulphite fiber used in making cases is not less than 0.08 inch in thickness, having a resistance of not less than 240 pounds to the square inch, Mullen test, the combined capacity of all containers in the case must not exceed 4 quarts; provided, however, that the two ends shall consist of scored and flanged solid-fiber millboard not less than 0.08 inch in thickness, having a resistance of not less than 240 pounds to the square inch, Mullen test, and each of these heads or ends shall be reinforced by a straight, unflanged piece of solid-fiber millboard of the same thickness and strength of the heads or ends. The reinforcing board shall be secured to the case ends by metal stitching around the edges and through the center, spaced not more than 3 inches apart.

COMBINED CAPACITY OF ALL CONTAINERS IN CASE NOT OVER 6 QUARTS.

12. When the glued-ply fiber board or pulpboard used in making cases is not less than 0.10 inch in thickness, having a resistance of not less than 275 pounds to the square inch, Mullin test, and an inner mantle of glued-ply fiber board or pulpboard is arranged and constructed to closely fit inside the case, this mantle having a resistance of not less than 175 pounds to the square inch, Mullen test, the combined capacity of all containers in the case must not exceed 6 quarts.

The mantle shall be made in one piece of glued-ply fiber board or pulpboard or double-faced corrugated strawboard and shall be accurately fitted to the inside of the container with a close-fitting edge butt arranged longitudinally along the center of one of the sides (not heads) of the case. This flush-edge butt to be located approximately midway between the top and bottom edges of said side of case.

13. When the solid-fiber millboard composed of not less than 50 per cent sulphite fiber used in making cases is not less than 0.08 inches in thickness, having a resistance of not less than 320 pounds to the square inch, Mullen test, the combined capacity of all containers in the case must not exceed 6 quarts; provided, however, that the two ends shall consist of scored and flanged solid-fiber millboard not less than 0.08 inch in thickness, having a resistance of not less than 320 pounds to the square inch, Mullen test, and each of these heads or ends shall be reinforced by a straight, unflanged piece of solid fiber board of the same thickness and strength of the heads or ends. The reinforcing board shall be secured to the case ends by metal stitching around the edges and through the center, spaced not more than 3 inches apart.

COMBINED CAPACITY OF ALL CONTAINERS IN CASE NOT OVER 8 QUARTS.

14. When the glued-ply fiber board or pulpboard used in making cases is not less than 0.10 inch in thickness, having a resistance of not less than 275 pounds to the square inch, Mullin test, and an inner mantle of glued-ply fiber board or pulpboard or double-faced corrugated strawboard is arranged and constructed to closely fit inside the case, this mantle having a resistance of not less than 175 pounds to the square inch, Mullen test, the combined capacity of all containers in the case must not exceed 8 quarts.

The mantle shall be made in one piece of glued-ply fiber board or pulpboard or double-faced corrugated strawboard and shall be accurately fitted to the inside of the container with a close-fitting edge butt arranged longitudinally along the center of one of the sides (not heads) of the case. This flush-edge butt to be located approximately midway between the top and bottom edges of said side of case.

15. When the solid-fiber millboard composed of not less than 50 per cent sulphite fiber used in making cases is not less than 0.09 inch in thickness, having a resistance of not less than 375 pounds to the square inch, Mullen test, the combined capacity of all containers in the case must not exceed 8 quarts; provided, however, that the two ends shall consists of scored and flanged solid-fiber millboard not less than 0.08 inch in thickness, having a resistance of not less than 320 pounds to the square inch, Mullen test, and each of these heads or ends shall be reinforced by a straight, unflanged piece of solid-fiber millboard of 0.09 inch in thickness and a resistance of not

less than 375 pounds to the square inch, Mullen test. The reinforcing board shall be secured to the case ends by metal stitching around the edges and through the center, spaced not more than 3 inches apart.

TRANSVERSE DIAPHRAGM.

16. All cases constructed of solid-fiber millboard which is composed of not less than 50 per cent sulphite fiber, that contain more than a total of 6 quarts, shall have placed transversely in the center of their length a diaphragm or division with scored and flanged connection to the sides, top and bottom of said case. This intermediate transverse diaphragm shall be composed of solid-fibre millboard not less than 0.08 inch in thickness, having a resistance of not less than 320 pounds to the square inch, Mullen test.

CUTTING AND SCORING.

17. The heads of all glued-ply fiber board or pulpboard cases must be formed of four laps of length within ⅜ inch of short dimension of head. When the short dimension of head is greater than one-half of the long dimension, one of the short-dimension laps must be cut at center of case and one of the long-dimension laps must be scored in the center to bend over the shortened lap.

18. Cases constructed of glued-ply fiber board or pulpboard or of solid-fiber millboard composed of not less than 50 per cent sulphite fiber must be creased, not cut, to produce a reinforcing fillet on the inner side of fold. This requirement will apply alike to flanged ends and flanged intermediate transverse diaphragms as well as to the side members.

FORMING.

19. The side lap of glued-ply fiber board or pulpboard cases must be at least 1½ inches wide, double stitched, or glued and stitched, with flat wire not less than ⅛ inch wide and of suitable thickness, with stitches spaced not more than 2½ inches apart. Machine used must be capable of driving the wire through the fiber board so that the stitching, when completed, will be perfect.

20. Cases constructed of solid fiber board composed of not less than 50 per cent sulphite fiber where the total contents do not exceed 6 quarts shall have the side lap not less than 1 inch wide, single stitched with flat wire not less than ⅛ inch wide and of suitable thickness, with stitches spaced not more than 1½ inches apart. Machine used must be capable of driving the wire through the solid-fiber millboard so that the stitching when completed will be perfect.

21. The cases constructed of solid-fiber millboard, composed of not less than 50 per cent sulphite fiber where the total contents exceed 6 quarts, shall have the side lap not less than 1¾ inches wide, double stitched with flat wire not less than ⅛ inch wide and of suitable thickness, with stitches spaced not more than 1½ inches apart. Machine used must be capable of driving the wire through the solid-fiber millboard so that the stitching when completed will be perfect.

22. Rivets, if equal or superior in strength to the wire stitching, may be used.

CLOSING.

23. The heads of all glued-ply fiber board or pulpboard cases must be closed with animal glue coated on the entire contact surfaces.

24. Cases constructed of solid-fiber millboard composed of not less than 50 per cent sulphite fiber must have heads flanged out, both flanges being stitched to the case, sides, top, and bottom with flat wire not less than ⅛ inch wide and of suitable thickness, spaced not more than 1½ inches apart. The width of flanges on heads and diaphragms must be not less than 1 inch, including the fillet.

25. Rivets, if equal or superior in strength to the wire stitching, may be used.

FOR DOUBLE-FACED CORRUGATED STRAWBOARD CASES.

MATERIAL.

26. Double-faced corrugated strawboard used in making double-faced strawboard cases must be made of corrugated strawboard with inner and outer facings of fiber board or pulpboard, both facings having proper bending qualities, firmly glued to the corrugated sheet, with the outer facings waterproofed.

COMBINED CAPACITY OF ALL CONTAINERS IN CASE NOT OVER 4 QUARTS.

27. When the outer facing of the double-faced corrugated strawboard is not less than 0.018 inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen test, and the inner facing is not less than 0.018 inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen test, the combined board having a resistance of not less than 200 pounds to the square inch, Mullen test, the combined capacity of all containers in the case must not exceed 4 quarts.

COMBINED CAPACITY OF ALL CONTAINERS IN CASE NOT OVER 6 QUARTS.

28. When the outer facing of the double-faced corrugated strawboard is not less than 0.018 inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen test, and the inner facing is not less than 0.018 inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen test, the combined board having a resistance of not less than 200 pounds to the square inch, Mullen test, and an inner mantle of double-faced corrugated strawboard is arranged and constructed to closely fit inside the case, this mantle having a resistance of not less than 175 pounds to the square inch, Mullen test, the combined capacity of all containers in the case must not exceed 6 quarts.

The mantle shall be made in one piece of double-faced corrugated strawboard, and shall be accurately fitted to the inside of the container with a close-fitting edge butt arranged longitudinally along the center of one of the sides (not heads) of the case. This flush-edge butt to be located approximately midway between the top and bottom edges of said side of case.

COMBINED CAPACITY OF ALL CONTAINERS IN CASE NOT OVER 8 QUARTS.

29. When the outer facing of the double-faced corrugated strawboard is not less than 0.018 inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen test, and the inner facing is not less than 0.018 inch in thickness, having a resistance of not less than 85 pounds to the square inch, Mullen test, the combined board having a resistance of not less than 200 pounds to the square inch, Mullen test, and an inner mantle of double-faced corrugated strawboard is arranged and constructed to closely fit inside the case, this mantle having a resistance of not less than 200 pounds to the square inch, Mullen test, the combined capacity of all containers in the case must not exceed 8 quarts.

The mantle shall be made in one piece of double-faced corrugated strawboard, and shall be accurately fitted to the inside of the container with a close-fitting edge butt arranged longitudinally along the center of one of the sides (not heads) of the case. This flush-edge butt to be located approximately midway between the top and bottom edges of said side of case.

DETAILS OF CONSTRUCTION.

30. Each double-faced corrugated strawboard case shall be made out of one piece of material. The edge connection of the side to the end must be close fitting and be secured by a single cloth or sealing strip not less than 2 inches in width and having a resistance of not less than 120 pounds to the square inch, Mullen test, extending the entire length of the seam and secured by animal glue to the box. Double-cloth sealing strips may be used if the inner strip is made not less than 1½ inches wide and the outer strip not less than 2½ inches wide, each cloth having a resistance of not less than 60 pounds to the square inch, Mullen test, each thickness extending the entire length of the seam, the inner being firmly glued to the case, and the outer being efficiently and firmly glued to the inner cloth and to the case.

31. The heads of all double-faced corrugated strawboard cases, containing a total of not more than 4 quarts, must be formed with four flaps, each pair of flaps butting at approximately the center line of the head. Cases containing a total of more than 4 quarts but not more than 6 quarts, must have the two inner flaps butt at the center line of the head and the two outer flaps each cover the entire head. Cases containing a total of more than 6 quarts but not more than 8 quarts, must have both inner and outer flaps cover the entire area of the head; provided, that cases containing a total of more than 4 quarts but not more than 8 quarts may consist of two complete double-faced corrugated strawboard cases, one fitted closely inside the other, the inner case made of double-faced corrugated strawboard having a resistance of not less than 175 pounds to the square inch, Mullen test, and the outer case made of double-faced corrugated strawboard having a resistance of not less than 200 pounds to the square inch, Mullen test, fully complying with these requirements and specifications, and with the heads of each case formed with four flaps, each pair of flaps butting at the center line of the head.

CLOSING.

32. Heads must be closed with animal glue coated on the entire contact surfaces.

OTHER TYPES OF FIBER BOARD CASES.

33. Other fiber board cases with flanged heads or ends will be approved, provided said flanged heads or ends are composed of material having a resistance, Mullen test, 50 per cent in excess of that of the sides, with the inner mantle specified under the heading of "fiber board cases." All heads or ends must have the flanges project outward, both flanges being metal sewed to the case, sides, top, and bottom. The width of the flange shall not be less than 1 inch in the clear, excluding the fillet.

34. Fiber board cases may be fitted with wood frames for the heads or ends, but under these conditions the head frames shall not be less than $\frac{15}{16}$ by $\frac{11}{16}$ inch; and the scantlings for fiber board cases, top and bottom, shall not be less than those specified for fiber board cases, with the exception that the heads shall have a resistance, Mullen test, 50 per cent in excess of that required for the sides, top, and bottom, including the inner mantle, wherever specified.

35. Fiber board cases fitted with wood frames on the sides or top and bottom longitudinally, or fitted with external battens, will be approved providing the scantlings for fiber board in no case exceed that specified for fiber board cases; the strength of the mantle whenever specified must be added to that of the sides, top, or bottom when the strength of any case described under "fiber board cases" is considered.

36. Fiber board cases complying with the requirements of paragraphs 1, 2, 3, 4, 9, 10, 12, and 14 of this specification are approved when made as follows:

The body of the case shall be made of one piece and shall be closed by a flap, in width not less than one-half the depth of the case, this flap to extend from the top of the case down over the side and to be firmly glued in place with animal glue after filling the case.

Each head shall be formed of four flaps, fitted to the body by flanges. Material used in the head flap shall be the same thickness and strength as that used for the body. The width of the flanges shall not be less than 1 inch, excluding the fillet. The flanges shall be metal sewed to the body by stitches of flat wire not less than $\frac{1}{10}$ inch wide, which shall not be less than 1¾ inches apart, center to center.

The flaps flanged to the sides of the case shall be the full size of the end of the case.

The flaps flanged to top and bottom of the case may be of general triangular shape but must extend from the flange not less than ¾ inch along the sides of the case.

All four head flaps shall be securely fastened together at the center of the end of the case by a 1½-inch screw fastener, consisting of metal plug and cap.

APPENDIX

ACT OF MARCH 4, 1909, EFFECTIVE JANUARY 1, 1910.

By an act entitled "An act to codify, revise, and amend the penal laws of the United States," approved March 4, 1909, to take effect and be in force on and after the 1st day of January, 1910, the act entitled "An act to promote the safe transportation in interstate commerce of explosives and other dangerous articles, and to provide penalties for its violation," approved May 30, 1908, is repealed, and the following sections of said act to codify, revise, and amend the penal laws of the United States are substituted therefor:

SEC. 232. It shall be unlawful to transport, carry, or convey, any dynamite, gunpowder, or other explosive, between a place in a foreign country and a place within or subject to the jurisdiction of the United States, or between a place in any State, Territory, or District of the United States, or place noncontiguous to but subject to the jurisdiction thereof, and a place in any other State, Territory, or District of the United States, or place noncontiguous to but subject to the jurisdiction thereof, on any vessel or vehicle of any description operated by a common carrier, which vessel or vehicle is carrying passengers for hire: *Provided*, That it shall be lawful to transport on any such vessel or vehicle small arms ammunition in any quantity, and such fuses, torpedoes, rockets, or other signal devices, as may be essential to promote safety in operation, and properly packed and marked samples of explosives for laboratory examination, not exceeding a net weight of one-half pound each, and not exceeding twenty samples at one time in a single vessel or vehicle; but such samples shall not be carried in that part of a vessel or vehicle which is intended for the transportation of passengers for hire: *Provided further*, That nothing in this section shall be construed to prevent the transportation of military or naval forces with their accompanying munitions of war on passenger equipment vessels or vehicles.

SEC. 233. The Interstate Commerce Commission shall formulate regulations for the safe transportation of explosives, which shall be binding upon all common carriers engaged in interstate or foreign commerce which transport explosives by land. Said commission, of its own motion, or upon application made by any interested party, may make changes or modifications in such regulations, made desirable by new information or altered conditions. Such regulations shall be in accord with the best known practicable means for securing safety in transit, covering the packing, marking, loading, handling while in transit, and the precautions necessary to determine whether the material when offered is in proper condition to transport. Such regulations, as well as all changes or modifications thereof, shall take effect ninety days after their formulation and publication by said commission and shall be in effect until reversed, set aside, or modified.

SEC. 234. It shall be unlawful to transport, carry, or convey liquid nitroglycerin, fulminate in bulk in dry condition, or other like explosive, between a place in a foreign country and a place within or subject to the jurisdiction of the United States, or between place in one State, Territory, or District of the United States, or a place noncontiguous to but subject to the jurisdiction thereof, and a place in any other State, Territory, or District of the United States, or place noncontiguous to but subject to the jurisdiction thereof, on any vessel or vehicle of any description operated by a common carrier in the transportation of passengers or articles of commerce by land or water.

SEC. 235. Every package containing explosives or other dangerous articles when presented to a common carrier for shipment shall have plainly marked on the outside thereof the contents thereof; and it shall be unlawful for any person to deliver, or cause to be delivered, to any common carrier engaged in interstate or foreign commerce by land or water, for interstate or foreign transportation, or to carry upon any vessel or vehicle engaged in interstate or foreign transportation, any explosive, or other dangerous article, under any false or deceptive marking, description, invoice, shipping order, or other declaration, or without informing the agent of such carrier of the true character thereof, at or before the time such delivery or carriage is made. Whoever shall knowingly violate, or cause to be violated, any provision of this section, or of the three sections last preceding, or any regulation made by the Interstate Commerce Commission in pursuance thereof, shall be fined not more than two thousand dollars, or imprisoned not more than eighteen months, or both.

SEC. 236. When the death or bodily injury of any person is caused by the explosion of any article named in the four sections last preceding, while the same is being placed upon any vessel or vehicle to be transported in violation thereof, or while the same is being so transported, or while the same is being removed from such vessel or vehicle, the person knowingly placing, or aiding or permitting the placing, of such articles upon any such vessel or vehicle, to be so transported, shall be imprisoned not more than ten years.