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COMMISSIONERS

APPOINTED TO ASCERTAIN THE

RIGHTS OF THE STATE

AND OF RIPARIAN OWNERS

TO THE

LANDS LYING UNDER WATER.

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TRENTON, N. J.:

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1865.

## COMMISSIONERS' REPORT.

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*To the Senate and General Assembly of the State of New Jersey:*

The Commissioners appointed under the act entitled "An Act to ascertain the rights of the State, and of the riparian owners in the lands lying under the waters of the Bay of New York, and elsewhere in the State," approved April 11th, 1864, respectfully present the following report:

The principal duties and powers of this Board are enumerated in the first section of the act. It will be convenient here to recite the same in the words of the section.

It is there enacted, that the Board of Commissioners shall have power, and it shall be their duty "to cause the necessary surveys and examinations to be made by competent surveyors, of the lands lying under the waters of the Bay of New York, and of the Hudson River, and of the lands adjacent thereto, the Kill Von Kull, Newark Bay, Arthur's Kill, the Raritan Bay, and the lands lying under the waters of the Delaware River, opposite to the county of Philadelphia, the right to reclaim which has not been granted by the State, and to obtain all needful information from other sources, in order to ascertain the present rights of the State in the same, and the value of said rights; and to fix and establish an exterior line in the said bays and rivers beyond which no pier, wharf, bulkhead, erection or permanent obstruction of any kind shall be permitted to be established; and to report to the next legislature on or before the first day of February next, the result of the information thus obtained, and the value of the said rights, together with the evidence upon which the same is founded.

"And second, that they shall recommend to the legislature such plans and provisions for the improvement, use, renting, or leasing of the said lands, under water, as they shall deem necessary for, and most conducive to the interest of the State, and to have prepared and submit, with their report, maps of said land, exhibiting the exterior line fixed and established by them in said bays and rivers, and the lines of the existing piers, wharves and bulkheads, and also showing any grants of land under the water of said bays and river which have not been occupied, and also the original shore line, as far as the same

can be ascertained, with such field notes, measurements and elucidations as they shall deem necessary for a full exposition and understanding on the subject."

The Commissioners, on the tenth day of May last, issued and caused to be published in the manner required by the act, a notice of the time and place for their first regular meeting. This meeting took place pursuant to the notice, at Jersey City, on the thirty-first day of the same month of May, and the subsequent sessions have been numerous, and at such times and places as were found most convenient for the prosecution of the business. All these meetings have been held pursuant to public adjournments, and have been accessible to any who chose to avail themselves of the opportunity. Many valuable suggestions have been derived from individuals who have attended us on such occasions.

It was soon seen that no important progress could be made in the determination of most of the matter referred to us before preliminary surveys and explorations had been made of the shore, the margin of upland adjoining the shore, and the submerged lands in front of and adjacent to the margin.

It was therefore determined that an accurate survey must be made, and suitable maps prepared to show as nearly as practicable the true shore line, and the extent and position of the water front of the numerous proprietors of the contiguous upland, and also the soundings in the waters immediately in front of such proprietors. It was also desired that examinations should be made, and information collected, as to several other particulars, among which we mention, the nature and depth of the moveable deposits at the bottom of said waters, the location and extent of rocks and ledges, and the depth of these below the surface of the water, the line of the natural shore at places where the same has been obliterated by encroachments and improvements beyond the ancient margin, the dimensions, character and use of such encroachments, the positions and boundaries of the tracts that have been heretofore specifically granted by the State, or by its authority, below the high water line, the positions, depths and general characteristics of channels, the deflections of the tidal currents from the general direction of the shores, with the probable causes and effects of such deflections, and under what conditions and laws the contraction of water space would effect more remote ship channels at the gates of the ocean. These constitute material elements in the proper location of such exterior lines as shall be "most conducive to the interests of the State." We believe that any considerable encroachments upon the tide waters referred to in the act, especially those in the Hudson River and the Bay, and its approaches from the ocean, if made without regard to most of the above conditions, would be hazardous to the commercial interests of New Jersey. With rivers and harbors on our borders, unsurpassed for the convenience and safety of shipping and commercial operations, by any in the world, artificial interference with their magnificent adaptations would be a calamity which no values of the lands reclaimed from these waters would ever compensate. Hence the propriety of extreme caution in the licensing of works that

would contract the capacity of any of these receptacles of the tides of the ocean.

A certain extent of encroachment along the shores of all good harbors and navigable rivers is of course necessary to enable ships to receive and deliver their freight at the mainland. So much of reclamation as is required for suitable piers, docks and warehouses along the margins of public waters is not ordinarily a detriment, but a benefit to navigable waters; and such improvement is therefore rather to be encouraged by public authority, than repressed.

It is clearly a mistake to assume, as some have done, that all contractions of the water space of rivers and harbors have a tendency to injure navigation. Who does not see that without considerable reclamations of the shallow flats on the margins of public waters, the commercial progress of New York, Liverpool and London would have been retarded?

But so obscure and hidden are as yet the laws of currents, eddies, and accretions, that except in rare and well defined instances, science partially fails to guide and control to certain results. Several instances are known of the ruin of harbors and rivers by filling up from slight changes and disturbances in currents. Schleswig, for about six hundred years the principal commercial city of Denmark, has lost its eminence from this cause. Yarmouth, Sunderland, Dundee, and Aberdeen are also examples in point.—*American Encyclopedia, McCulloch's Com. Dict.*

In view of the delicacy of the responsibility implied by the above considerations we found it would not be advisable to attempt within the year to accomplish all that the act under which we were appointed contemplates. The first section above recited embraces the extensive range of shore, probably the most valuable in the State, from the Rockland County line to Constable's Hook, thence along the Kill Von Kull to Bergen Point and both sides of Newark Bay, thence continuing down Arthur's Kill to Perth Amboy, and along the long reach of Raritan Bay, besides an important district of the Delaware opposite Philadelphia. It is manifest that much more than one season is needed to accomplish all this. We have limited ourselves exclusively to the districts which seemed most to need immediate attention on account of several enterprises for improvements therein being actually begun or in contemplation.

The commissioners instructed Robert C. Bacot, Esq., who had been appointed by them to direct and superintend the surveys in the easterly part of the State, to confine his operations during the season to those sections which extend from the Rockland County line on the Hudson down along said river and New York Bay into Kill Von Kull as far as Enyard's Dock, a short distance west of Constable's Hook. Edward H. Saunders, Esq., of Camden, was appointed to superintend the surveys on the Delaware, and to confine himself for the present to that tract which lies between Cooper's Point and Kaighn's Point in front of Camden City. Walter S. Oliphant, Esq., of Mount Holly, was appointed secretary of the commission.

It was not probable that any extensive alterations in the tide waters

would be begun or projected for the present upon the residue of the territory included in the act. We felt justified on that account in postponing all inquiry as to such localities, until we could dispose of the districts assigned to our surveyors as above stated.

The reports of Mr. Bacot, and of Mr. Saunders are hereto annexed, marked respectively, appendix A, and appendix B. We wish to make special reference to these reports as containing a detailed description of the exterior lines adopted by us, beyond which no obstructions of any kind should hereafter be permitted, and many valuable observations upon other matters pertinent to the present investigations. We shall not repeat here the minute descriptions of lines, improvements and designs furnished by those reports, and the maps accompanying them, inasmuch as it would be needless repetition. The execution of the surveys and maps has received our decided approbation, and we take great pleasure in presenting them to the legislature for their inspection. The plan for exterior lines between Cooper's point and Kaighn's point on the Delaware, is exhibited by a single map, showing the position of the improvements at this time, the general line of original high water, an approximation to the line of low water, and such soundings as are deemed necessary to elucidate the subject of fixing exterior lines between the points designated.

This portion of the Delaware as navigable water is somewhat peculiar. The set of the tide is decidedly along the Pennsylvania side. An island stretches in front of the city of Camden at the distance of about rods from the present ferries. From this island a bar extends northwardly, nearly as far as Cooper's point. Between the island and the Camden shore, there is a weak current during the ebb, but a much stronger one during the flood. But both currents are of far less velocity than in the main channel near the Philadelphia side. It is evidently important that these currents should not be diminished in strength and velocity between the island and the main land at Camden. This is essential to prevent the channel from rapidly filling up with mud. Accretions are now going on near the Camden shore. It is said that in some places a deposit of eight feet has been made within a few years. While the Commissioners desired to avoid the removal of any permanent structures already made in the river at Cooper's point near the bend of the river, behind which the most considerable accretions were observed, and regarding the extension of the piers at Kaighn's point as sufficiently prominent, we adopted these points as the extremities of our outer line. The effect of a further extension of structures of any kind at these extreme points would, we think, be attended with a still further retardation of the movement of the ebb tide, and also of the flood between the Camden shore and the island and bar, and consequently the more rapid filling up of the whole channel in slackened water would be expected. The exterior line as fixed by us between the extreme points above named, conforms to some extent to the fixed improvements and plan of the city, and does not injuriously contract the channel between the shore and the opposite island and bar. It is expected that this determination if adhered to will cause an acceleration of the current through the channel.

If this expectation should be realized, the benefit to the channel will be of great value. The example furnished by the East River at New York may be repeated to a limited degree here. While, however, in that case the acceleration of the current has for obvious reasons, proved a detriment to navigation, in this, for reasons equally obvious, the result would be an advantage. In the East river the current was always strong and rapid; while here it is weak and sluggish. At all events we see no probability of diminishing the power of the flow by extending the improvements to the line indicated on the map, provided the extremities are kept free from barriers against the entrance and passage of both tides. An examination of Mr. Saunder's map will suggest the pertinency of these observations.

Nine maps accompany the report of Mr. Bacot; all of them have reference to the district assigned to him for exploration and survey. Two of these maps (lettered A and B) are intended to furnish a general view of the whole ground. The one reaches from the State line to Castle Point, Hoboken, a distance of about eighteen miles and a half, and is protracted by a scale of 1,300 feet to the inch. The other extends from Castle Point to Enyard's Dock in Kill Von Kull, a distance of over fourteen miles, and is made upon a scale of one thousand feet to the inch. An interesting feature of these two maps, and especially of the last mentioned, is that the diverging lines of travel and transportation centreing at Jersey City and Hoboken, are shown, tending to illustrate the present and prospective value of the tide waters upon which they terminate, and suggesting the importance of keeping in view the largest accommodations for shipping, and warehouses at our shores.

The other seven maps are sections of the former two, and are protracted by the scale of 400 ft. to the inch. These afford a more distinct view of the shore and the improvements and grants heretofore made, and a correct location of the docks, wharves and piers on the New York side of the river, as they exist at the present time.

Upon these maps will be found the precise positions of the exterior lines adopted by us for improvements, the descriptions of which will be found accurately noted in Mr. Bacot's report.

Open piers may in most places be thrown out beyond the bulkhead line. We have, therefore, adopted double lines—the inside one nearer the shore as the limit for solid filling or bulkhead, and the outer one for the heads or outer extremities of piers, to be constructed from the bulkhead into the river upon piles, or in such other manner as will allow a free flow of the water under them. The consent by the board to this system of pier head lines as adopted by us, is based specially upon the condition that the water currents should not be materially interrupted in their natural direction outside of the line of solid filling. But for this condition we would have been constrained to locate the lines very much further back, especially at the more contracted parts of the river.

It is intended to establish a number of permanent monuments as marks from references to which the places of these exterior lines may be correctly found. No time has as yet been had to make these reference marks.

No serious difficulties or uncertainties have attended the determination of the exterior lines between Castle Point and the State line, a distance of eighteen miles and a half. Above Castle Point there is but one cove or recess of any considerable extent, known as the Weehawken cove. It contains about one hundred and twenty acres of shallow flats. Throughout the remainder of the distance to the State line the river has but slight indentations on either side. "The average depth of the river is from thirty to fifty feet, the channel being on the New York side, and the Jersey shore being bordered by a flat of an average width of 400 yards, upon which there is at most eighteen feet of water."—*Coast survey rep.* 1857, page 368.

The deepest water is for the most part close in upon the Westchester side. From an examination of the charts of the coast survey, we found that the average depth reached by our exterior lines is a great deal less than is found within a quarter of the distance from the high-water line on the Westchester shore, and that the displacement of water by our bulkhead line is in considerable compared with the cubic capacity of the whole river. The diminution would be scarcely appreciable. The current has a general tendency towards the New York side, the deep channel being there, and the few feet assigned to our shore for access to a useful depth of water will hardly have any perceptible effect in disturbing the body of the current at any point in this extended range. Engineers tell us that "whatever changes the direction and velocity of the current must change the regimen of the harbor for good or for evil." But it appears plainly that the direction of the current cannot be affected along this front of eighteen miles by our lines otherwise than to make it more equable near the shore, which more than counterbalances the almost imperceptible degree of acceleration that may be given to the velocity. No barriers being placed any where in the strong flood of the river, the banks being made even and more nearly parallel with the direction of the main current, and the allowed improvements occupying so little of the water space, it is to be expected that an equal bulk of water will continue to pass this portion of the river with each tide and ebb, with that which now finds its way through it. The line of solid filling may be considered as altogether within the eighteen feet curve, and the pier head line very rarely passes beyond that depth between Castle Point and the Rockland boundary. While we are satisfied to recommend these exterior lines for the sections between Castle Point and the State line as useful to that district and harmless to the river and harbor below, we much regret that there has not been sufficient time to complete the soundings which we intended should be actually made upon our exterior lines. Constant reference has indeed been made to such charts of the coast survey as were accessible to us. Yet we see that it would have enhanced the value of our maps could they have shown the present soundings along and within the pier and bulkhead lines. Usually the coast survey charts (those at least which we have seen) do not show very numerous soundings so close in to the high water mark, especially on the New Jersey side. It is true that they give general indications of the whole by the occasional figures

which are seen here and there very near the margin of the river on the shoal side. But for the purposes of our survey we desired to obtain several hundred more particulars of this kind between the water's edge and the exterior lines. Proprietors of the shore who may wish to improve and to obtain grants for that purpose would be much aided by a reliable chart of frequent soundings opposite their lands, and to the extent of grants desired by them; besides, the valuation of the grant would in some measure depend upon a minute knowledge of the same facts.

There would also have been an advantage in showing the depths of the mud or moveable deposits at short intervals along the pier lines of these sections. The stress of an inclement winter drove the sounding party from the water, before any important progress had been made in their work along these sections. The same remark will apply in part to other localities further down the river, and in the harbor.

Several months more would be required to complete these, and some other details included in our plans of exploration in the river, the bay and the Kill Von Kull. The incompleteness of this portion of the proposed examination is a defect which we wish could have been avoided.

Sufficient data have been obtained however whereon to rest the conclusion that the lines established by us throughout all the sections of the survey are not too far out. It is possible that at certain points in the bay, subsequent and more extended examinations of proper relations may justify a wider range for reclaiming lands under water than has been here allowed. In the river, and the Kill Von Kull every imaginable want consistent with reason will be met by the plan as reported.

We therefore, respectfully recommend to the legislature, that these lines as now fixed and determined by this board be adhered to, at least until, by further explorations and examination, departures beyond any parts of these lines shall be demonstrated to be entirely safe as well as desirable. } B

It may be presumed that the prominent objects of the legislature to pass the present law were in the first place the prevention of a public injury from undue encroachments upon the more important harbors and rivers of the State, and secondly, a purpose to adapt such encroachments as could be tolerated, to the development of facilities of commercial navigation to our shores.

The natural fitness of the New Jersey side of the harbor of New York, and of the lower sections of the Hudson River, for the construction of convenient accommodations for shipping, and the business of warehousing must have been observed by those enterprising pioneers in improvements on the westerly borders of these waters, who at the commencement of the present century secured lands for the sites of the cities now in the full tide of expansion and prosperity; their sagacity penetrated beyond the conception of a quiet, easy resting place on these shores from the clamor and clangor associated with the trade, commerce, and artizanship of the metropolis. Mere town plots for villas and shady bowers are not the prominent ideas suggested by the reading of such charters as those of the Jersey associates, and of the land and improvement companies. The privileges so providently se-

cured for erecting docks, wharves and piers in the tide water for the *improvement* of said town sites, and the *benefits of commerce* imply a great deal more good sense and intelligent fore-cast than the mere reclamation of building lots and villa sites from the domain of the waters to the destruction of *commerce*, and the ruin of the means of *real improvement*. These companies would have sought their upland space inland, if *more land* was desired for further improvement. Nothing seems more absurd to us than the supposition that the mere enlargement of territory irrespective of the detriment to the harbor and river, and the uses to which they are adapted to all the citizens of this State, was the object of the granting of such privileges as those.

But we do understand the counsels of those corporate proprietors of upland adjoining the margin of the Hudson, when they speak of the policy of making their land, so fortunately situated, available as the depots and landing places of extensive commerce and navigation, and so far as their extensions into the water are concerned, we conceive that they are to be limited strictly to what directly pertains to that end. We by no means admit that they have the *right* to extend to the middle of the river, nor even to any injurious extent for the purpose of making land. The solid land over which they acquired rights by their acts of incorporation they had already from other sources. All that they acquired from the State was a liberal privilege of making the navigable waters useful to those lands as the depots of public commerce; the limit to that privilege being a discretion restrained only by the rules of public law.

Therefore the privileges granted by these charters needed not to have awakened jealousy in New York. The chartered privileges on this side used and restricted according to the understanding of them above indicated, would not prove to be a detriment to that city, but on the contrary a fortunate fact. Several years ago it had already become apparent that a hundred per cent. more of dock and wharf room was required for the shipping of the port, than existed within a convenient distance from the centre of business. It was urged by a number of merchants of the city of Brooklyn in a paper submitted to the New York Harbor Commissioners in 1856, that "The accommodations for shipping in the harbor of New York are already becoming insufficient for the business of the port, which is increasing in a ratio beyond that of any previous period. It is now a common occurrence for vessels to lie for days and sometimes for weeks after their arrival awaiting berths, and at last getting inferior accommodations from the crowded state of the wharves.

"This fact tends to render the port obnoxious to ship owners and foreign merchants, and the expenses and delays of business thus occasioned have no doubt their influence in diverting commerce to neighboring ports."

The testimony of a wharfinger of thirty-five years standing, who was consulted by the same Commissioners, confirms the same view. Upon being asked whether the wharf accommodations of the city of New York, were then equal to the demands of commerce, he replied: "They are not:—they ought to be increased a hundred fold."

Much stress was laid by that board upon the extension of dock and wharf-room required by the growing necessities of commerce. The eminent engineers who were detailed by the consent of the President of the United States to assist that Board of Commissioners as an advisory counsel, consisting of Professor Bache, Commander Davis and General Totten, gave special attention to the same subject. They repeatedly urged most powerful reasons for liberal provisions for the enlargement of dock room to meet the present wants of shipping, and to induce the still more rapid extension of the commercial operations of the port. The examples of the magnificent erections of this kind which within the present century have stimulated the commerce of the great entrepots of trade in England, and on the continent, were held forth to induce similar enterprises here, before the proper waters should be filled up and converted to other uses. Several hundred acres of land formerly occupied by thousands of the inhabitants of the city of London have been excavated along the margins of the Thames for the construction of docks at an expense of over fifty millions of dollars. The "London Docks," for example, occupy ground upon which stood about thirteen hundred houses; and "St. Katharine's Docks," the products of the wants of business at a later period, are located within one hundred rods from the custom house, upon the site of which stood, we are told, twelve hundred and fifty houses (including St. Katharine's Hospital), inhabited by eleven thousand three hundred persons.

With such facts before us and the known tendency of business from all parts of the foreign world more and more to concentrate at the port of New York, as the centre of exchange and distribution for the American continent, we are led to the determination that every improvement to be permitted or encouraged in the waters of this harbor ought to be subservient to, and not in the way of the development of our opportunities for the accommodation of shipping. This policy will appear the more eligible if we look for a moment at the general map marked B, of the superintendent. Upon the New Jersey side of the harbor converge lines of travel and transportation by canal and railroads, which reach not only the more important agricultural, manufacturing and mineral districts of our own state, but penetrate and conduct to our shores a large share of the immense products of territory extending more than a thousand miles westward. Consider the ratio of the increase of these transportations from the interior to these tide waters in past years, and that the developments of the resources of the great west are confessedly only in their incipient stages, and it will not appear chimerical to think of provisions for a very large increase in the future. Nor need it be thought that these advantages are to pertain exclusively to the emolument of New York. The benefits may by a considerate policy be mutual to both States. The proper use of our advantages by us will advance both; our neglect or perversion of these advantages will be a calamity to both.

The jealousy and antagonism that Liverpool formerly manifested, in a spirit of contracted selfishness, towards the little fishing village on the opposite side of the Mersey, when Birkenhead was about to adapt

This is not an original copy of the report of the Board of Commissioners.

its capacities to the conveniences of the growing commerce of the great western port, have happily been driven out before the necessities of business. The greatness of Liverpool is now supported by the noble docks of Birkenhead. These are now doing most to promote the extraordinary increase in the population, commerce and wealth of both places. Under the present circumstances the progress and attractions of the one are shared by the other.

So it must be here. The city of New York has already appropriated of the deep waters of the Hudson to her own use nearly if not quite as much as the safety of the harbor and the authority of her state government will permit. These appropriations have unfortunately not been made so much for the construction of ship basins, piers and quays, as for the acquisition of solid acres for more private purposes. Owing to this perversion of her valuable water front, New York finds herself lacking room for her shipping within convenient distance from the custom house. It is not probable that the scooping out of basins in the inhabited parts of that city will be resorted to as has to be done in the city of London, so long as ample room exists on this side of her harbor for the shelter and accomodation of her shipping. The example of Birkenhead and Liverpool must surely be repeated here.

We look forward then to that kind of improvement along our whole harbor front, which will tend most directly to the landing of shipping, and the location of warehouses, as improvements that will be the most conducive to the interests of New Jersey.

The more acquisition of solid land for building lots, irrespective of dock and wharf improvements we deem entirely too low a motive to induce the legislature to grant an acre of the water room of this harbor, with or without compensation. Lands thus acquired may indeed be to a certain extent, and incidently devoted to such uses, but then only when the grant as a whole tends to extend the benefits of the harbor to commercial navigation. Entertaining such views we proceeded to fix the limits for filling in and for making piers in front of the shore examined by us: as to the future construction of piers, we recommend that they be at least two hundred feet apart at all places except at ferries where they may be erected nearer to each other. And we would further state that at such places as by the maps, are not provided with the pier head line, no piers are intended to be allowed. It will be seen that this exception applies chiefly to a portion of the bulkhead lines of the large basin south of South street in Jersey City. Aside from the provision for bulkheads and open piers as referred to in this report, and in appendix A with the maps accompanying that document, and the basins provided for, and described in the same papers, we are not prepared at this time to describe more particularly plans and modes of improvement. The piers, and the water space between them will afford a very extensive addition to the landing room of the harbor.

We trust however that the general observations already made in the preceding part of this report, and the well considered observations in appendix A on this subject, will be a guide to any more spe-

cial determinations that may hereafter be settled upon. It is to be presumed that the interests of those who are, or may become private proprietors of submerged lands will prompt them to adopt in several opportune localities, the suggestions made in reference to wet basins, and ware-house and storage facilities upon the margins, and within the walls of such basins. We see that there is convenient room at several points within the range of this survey for docks of at least equal magnitude and accomodations with those of the Atlantic Docks at Brooklyn. A part of what remains of Harsimus cove, as well as portions of Communipaw cove could be conveniently and profitably adapted to this use. We find that the enterprize which is reclaiming Weehawken cove, has already taken this direction.

In looking over the history of such basins in the city of London, we discover that the importunities of commerce extended these improvements towards the centres of business; that no expense that was necessary to secure this advantage was spared. The "East India Docks" were built in 1799, at the distance of about four miles from the custom house. A few years later the "West India Docks" were laid out about three miles from the same point. The "London Docks" are found within one mile from the custom house, and the "St. Katharine's Docks," commenced in 1824, are still nearer than the last. The enormous cost of the more recent of these structures which were excavated out of the improved part of the city, is an indication of the superiority of advantage to be attained by a more central and convenient location for such basins.

Is there any reasonable proof that such a system of improvement is practicable upon the shoals and flats about Jersey City and Hoboken? We beg leave to extract a passage upon this subject from a paper addressed by Professor Bache, and his distinguished colleagues of the advisory council, to the New York Harbor Commissioners in 1856. "The obvious method of turning to account this now useless and unprofitable ground (the Jersey flats) is by appropriating it to basins and their accompanying buildings." "Here, for example, the warehousing system might be pursued opposite New York, as it is at the Commercial Docks, opposite London, on the south side of the Thames, and at Birkenhead, on the west shore of the Mersey, opposite Liverpool." "The cartage from Jersey City to the lower part of New York is less, it seems, than from Canal street, and the repose of the ferry boat saves a great deal in wear and tear of beast and vehicle." In this connection we refer to a number of interrogations and answers found annexed to the reports of the New York Harbor Commissioners, of 1856 and 1857, which corroborated the well known facts, that the New Jersey shore is an eligible site for the harborage of vessels, quite as good as the North river side of New York in summer, and much better in winter; that it is easier of access for vessels from sea, and that vessels outward bound can sail thence with a wind from every quarter, except the east; that being a windward shore, vessels may there remain at their berths till ready for departure, and that by a peculiarity of the current, assisted by the prevailing winds, the ice in win-

ter sets on the opposite side, while our shore remains free from this obstacle.—*Appendix C.*

The exterior lines in Communipaw cove are by us placed much further out than those which were suggested by Professor Bache and his associates in 1856. These distinguished and experienced engineers laid down a line commencing at the Morris Canal pier at South street, thence running westward near to South street, as far as Van Vorst street, and thence more southwesterly to within a few rods from the village of Communipaw, and keeping near shore along the curve of three feet soundings to Constable's Hook. But it appears by the reports of the same engineers that their line was intended to be only temporary. They say: "we recommend *for the present*, to prevent encroachments, that a line of bulkheads be drawn around the eastern shore of the Bergen neck, at the three feet curve, similar to that in Gowanus bay."

Indeed no valuable purpose for the accommodation of commerce could be effected without carrying the limits of construction very far out into the cove. The eighteen feet curve lies outside of Bedloe's and Ellis's Island. These islands, by the treaty between the two States, belong to New York. Behind them and in front of the exterior lines designated by us are evidences of a natural channel, now filled up with mud, while further west are frequent obstructions of boulders and rocky reefs.

Whether the currents will be sufficiently accelerated, by the contraction of water space between the line of the islands and the Robins' Reef light-house, on the one side, and our bulkheads on the other, to open or to assist in opening this natural channel, is, perhaps, uncertain. But we think that this channel may easily be deepened by artificial means so as to give access for large vessels to the proposed piers and docks, along the whole range from Jersey City to Constable's Hook, a result, which if realized, will vastly enhance the attraction of the harbor, and promote the substantial interests of our State to an extent perhaps seldom conceived of by the most sanguine of those who have studied her resources and labored to add to her renown.

Until the merits of this plan of improvement in that cove shall have received better elucidation from experience and science, we would have the legislature adhere to the exterior lines where we have placed them. It will never do, according to the received scientific opinions of the present day, to extend the encroachments up to or even near to the line of the islands and light-house. That would involve the displacement of a water area approximating to four thousand acres of the average depth of five feet, at low tide—an experiment that would hazard the destruction of the entire harbor. At any rate we should postpone such an invasion until it shall have been demonstrated to a certainty, that so large a diminution of the influx and efflux of tidal water would not operate directly to still further contract, and shoal the channels at the entrance and over the bars, between the Narrows and Sandy Hook. We know that changes have been going on there during the last seventy-five years, which are full of admonition to

those who would interfere with the arrangements of nature in these waters. We would counsel the utmost caution and moderation in such enterprises.

Nor will it be prudent to permit any part of this large cove to be crossed with solid work, from the shore to the line of the islands, or near to them. Even a narrow belt of obstructions thrown across this space would very quickly produce the same result as the deliberate reclamation of the whole cove. The forward movements of the currents being, by such a contrivance, necessarily abated, eddies would take place, from which would inevitably be deposited sediment with such rapidity as soon to fill up the whole space.

While we would deplore any unnecessary restraint to improvements as the result of our views, we conceive that a mistake in this direction will be attended with less hazard, and be more easily and readily remedied than one of the opposite nature would be. Land once reclaimed and covered with buildings and other expensive business investments would hardly be again removed, until the evil effects of their presence had become actually intolerable, and then only upon the expenditures of vast sums of money.

We direct special attention to the large basin reserved by our plans, south of the present improved part of Jersey City. For an accurate description of that part of our designs, we refer again to the maps and the reports explanatory of the same by the superintendent of the survey. We adopt that reservation of water space, with its piers, bulkheads and crossings as laid down and described in said maps and in said reports, not desiring to report the details thereof here. The cove, as will be seen by the maps, here recedes abruptly to the west a great distance. A large part of Jersey City, and an interesting and rapidly growing district of the adjoining municipality, now border upon the westerly and northwesterly shore of this abrupt recess, and unless some reservation of the kind here proposed is now secured by the firm authority of the State, which happily, as we understand it, yet controls this locality, the southwesterly part of Jersey City, and an important portion of the town of Bergen, now upon the confines of the bay, will, by the urgency of private enterprise be shut off far away from the privilege and advantage of public navigation. By the proposed basin a valuable and extensive water front will be secured on the south of the city; its facilities for commerce will be greatly enlarged; one or more public docks may be acquired to assist the present and rapidly expanding business of the city which, strange as it may seem, can lay claim at this time to but a single public wharf of moderate dimensions. The just anticipations of those who are now riparian owners along this part of the shore, will not be unreasonably disappointed, and the interests of the proprietors of corporate privileges in the vicinity liberally provided for.

An examination of the position and surroundings of this proposed reservation will readily suggest to any person all that we could desire to say in its favor.

The increasing and already very extensive business of a canal company and a railroad company, claiming a location upon deep water in

this vicinity would naturally tend to occupy the more valuable line of deep water in front of the recess, and as a consequence interpose a solid barrier of embankment on the south, and thereby hem in a very large area of the water space of the harbor from access to the public.

There is another consideration which shows the desirableness of this reservation of public water: Mill creek, which sets up from Communipaw cove, near the head of the proposed basin, is a public river. The preservation of this creek in direct communication with the open waters of the bay, may be of much value to the adjacent property. By dredging that stream it will be as usefully available to that portion of Jersey City and the town of Bergen, as what is known as the Chicago river is to the interior of that western metropolis.

While the consideration of this reservation and of other exterior lines in this part of the bay was pending, we were obliged to examine somewhat the claims of title which it was insisted precluded this commission from advising any measure or regulations which would interfere with work there begun or contemplated by the Morris Canal and Banking Company, and the Central Railroad Company of New Jersey. We found the former had cribbed in below South street toward Ellis's Island, as far as the present corporate limits of Jersey City, with narrow openings or breaks left in the easterly and westerly walls of said basin, affording ingress and egress to and from the waters of the cove behind said crib. We found at the same time the Central Railroad Company engaged in constructing a roadway by piers and solid embankments from the Communipaw shore easterly to deep water, a distance of over 5,000 feet, and cutting through the southerly portion of the Morris Canal's basin above referred to. Both companies claimed to have adjusted the difference between themselves that had formerly existed, and now urged that the powers and duties of this commission ought not to be exercised prejudicially to the works they had then in progress, or in contemplation, and that their works were located upon grounds vested in them by authority of the State.

Recognizing in both these powerful corporations valuable accessions to the wealth and enterprise of New Jersey, and special advantages to the neighborhoods where they reach the tide waters of the Hudson, this board were disposed to concede to each of them every consideration which our duty, as Commissioners under this act, would clearly permit.

Doubts, however, arose at an early stage in our proceedings, as to the sufficiency of the title of the railroad company, above named, below low-water mark, and those doubts not being removed, we felt that we would be unfaithful to the rights of the State, if by our acquiescence, as her representatives, we should conclude the State against any just claims she might have had in that place. We therefore desired that pending the proceedings of the commission, the further operations of the company could have been suspended until clearer confirmation of their right, below low-water, could be procured. We are all of the opinion that the evidence is not clear that the State's title to those lands has been extinguished, and deem it to be our duty so

to report, in order that a distinct grant may, if it should be necessary, be made upon proper terms to secure both parties.

But if we concede to both these corporations, powers, titles, rights and privileges in these waters, below South street, upon the basis on which they respectively claim to possess them, we yet hold that these are, from their nature, subordinate to the public rights of navigation. Such titles and privileges cannot, especially when they are not defined by metes and bounds by the sovereign authority, be allowed to subvert or to any important extent interfere with those things which by the public law ought to be and are implied reservations. One of such implied reservations, perhaps the principal one, consists of the substantial and more important features of a navigable river or public harbor considered as a thing for the use of public navigation and commerce. Every substantial feature of such river or harbor ought to be considered inviolable.

Inasmuch as we conceive that it is expected of us, that we are to point out plans and provisions how such use may be conserved consistently with proper liberties for private improvements and advantages, we do not hesitate to recommend that the interests of the State will require that at least as much of a reservation for navigable uses as this basin contemplates be maintained in this recess of the harbor, and that the passage thereto be required to be opened where it is artificially obstructed, unless it shall appear that the title of the State has already been extinguished as claimed.

Between thirteen and fourteen acres of basin room will be left within the bulkheads, as they now lie. This may be disposed of, if it is desired, for the private uses for which it was designed; considering its situation, such use as a still-water basin would be the most suitable.

While the act demands of us to furnish information as to submerged lands, "the right to reclaim which has not been granted by the State," and "the present right of the State therein," and "plans and provisions for the improvement, use," &c., of said lands under water, and enjoins upon us to "not interfere with any rights already granted," it cannot be possible that we were expected to settle disputed titles. That is the province of the judiciary, and we do not mean to be understood as undertaking the absurdity of usurping their functions. We inform the legislature of the modes by which we think they may consistently and beneficially improve the public waters, and promote the just, and as we conceive, the unencumbered interests of the State.

We have sought all information that came in our way, and have gladly received all that was offered, pertinent to the merits and demerits of this part of our work. What we now offer in respect to it is advisory, and we say that we have seen no clear act of cession, grant or permission, whereby the extinguishment or diminution of the right of the State has been brought about so as to prohibit the preservation of this basin as public, and its improvement as provided for in the maps and report describing them.

Upon the general subject of right in lands under tide water, but little remains to be said at this day, in New Jersey. That question

is fully settled. The State is the successor to the King of Great Britain, in this title, and at the revolution became invested with it as a sovereign, and as the representative or trustee of her people.

We have, however, the peculiar feature in the cases of the Delaware and the Hudson, that the completeness of a single river essentially depends upon and consists of portions of it resting upon the soil of two independent and coterminus States. Each of such States is entitled to the completeness of the river. Each of them has some sort of right, we think, to the good faith of the other, against the mutilation or disturbance of that completeness as a navigable highway for both; add to this the common interest that all the States may have in the maintenance of the same unit of completeness as a thing for common use.

The result of this peculiarity is, that a State, though by prerogative and as proprietor for her people, invested with the title of submerged lands within her borders, finds it necessary as a matter of good faith, to insert in, or *imply by all her grants*, to lands under the waters of public rivers, particularly those between herself and an adjoining State, the injunction or proviso, that the interests of navigation are not to be injuriously interfered with.

We are to understand then that each of these States, New Jersey, New York and Pennsylvania, while justified as the true and legal owner of the soil under water within her boundaries, to grant and convey portions of such submerged lands to individuals, the uses to which such lands are to be put are to be restrained by the same maxim which pertains to the use and enjoyment of other possessions and privileges. Each is to use his own in such a manner as will not wantonly or needlessly injure his neighbor.

Under such circumstances New Jersey stood the owner of these lands overflowed by tide waters, and under such conditions she was free, consistently with good faith, to convey them from the high water mark to her boundary. If there is any exception to this, it is found in the case of such royal patents as in a few instances may have been made to extend to the low water mark. Though the effect of such a grant, made by the royal authority, has been a subject of controversy so far as the shore or space between high and low water is concerned, we do not know that this particular question needs to arise in this investigation. There has been at least one such patent within the scope of these maps, but we apprehend no controversy can now arise concerning it.

We have had our attention directed to an opinion that some individuals hold, that the proprietary right to lands under tide water within the ancient towns of Bergen and Woodbridge, pertains to said towns and not to the State; that they hold them by charters as successors in the proprietorship to the Duke of York, and those who held under him; and that said towns became invested with said title before the surrender by the proprietors to Queen Anne, in 1702; that said lands not being included in the surrender, remain to the respective towns above named. We do not consider this position tenable, nor do we find that it has ever been seriously entertained by more than a few persons, though it still has advocates. We

think the idea takes its rise from a misapprehension of the terms employed in the ancient charters referred to.

While the State was, in strictness, the owner of these lands to high water mark, we cannot but be struck with the remarkable fact, that the State throughout the whole period of her independent legislation, so frequently by express terms, limited her grants of lands under the public water, to the space in front of the uplands of the grantees, and that so seldom the full power was attempted to be exerted to grant the submerged lands to a stranger to the opposite upland. The extreme paucity of instances of the latter kind, and the abounding number of instances of the other description had almost driven the courts to abandon the strict common law doctrine.

But the passage of the law commonly known as the "Wharf act," of March 18th, 1851, served, we think, as a very decided indication of the policy which the State had determined to establish with reference to the relation of riparian owners to submerged lands.

The Legislature finding that in innumerable instances, by her own sufferance, individuals had acquired title to reclaimed lands in contact with their upland, and that the same thing was sure to occur in countless more cases, gave a general license, in accordance with the prevailing sentiment of the people, in its favor, to all persons to improve in front of their lands to low water mark, and by express terms gave the improvements when made to the improver's own exclusive use. And it has now become a settled rule that, "if the owner of land bounded by the shore upon tide water make improvements upon or reclaim the *shore* adjoining his lands, the part of *the shore* so improved or reclaimed belongs to him." And in the other branch of the wharf act, we find that though license must be obtained under the State authority to improve beyond the low water line, yet that license must by direction of the Legislature be limited to the riparian owner alone, and cannot be extended to another.

Taking then the effect of the judicial decision, the limitations in numerous special grants made at remote periods, prior to 1851, the terms of the wharf act, and numerous grants subsequent thereto with the same limitation, and the absence of express legislation to the contrary effect in more recent years, especially in reference to private grantees, and we think the conclusion a fair one, that the State prefers the riparian owner to a stranger as a grantee of lands in front of such riparian owner. The effect of the above circumstances is not necessarily to debar the State from making her grants to others if she chooses so to do. Neither is it that the State is bound to convey to the riparian owner, whether she wishes to do so or not. But it certainly shows that she will prefer the shore owner to any other. To this extent, we believe, we may safely go in determining the relation in which the shore owner stands at the present time to the State in respect to submerged lands.

We advise that the present system with regard to the shore, that is, the land between high and low water mark, be continued leaving it lawful for the owner of lands situate "along or upon tide water to build docks or wharves upon the shore in front of his lands and in

any other way to improve the same, and when so built upon to appropriate the same to his own use," and further that no absolute grant be made of the State's title in such shore unimproved, except to the owner of the adjacent upland in front of which the shore lies, and that such grant, which the State is to have the option to make or not, shall if made be without compensation but under such other conditions as the interests of navigation shall seem to require in that instance.

And we also recommend that within the next succeeding five years no grants of land under tide water below low water mark shall be made to any other than to the riparian owner, in front of whose shore line such lands below low water lie, and that such grants do not extend beyond the exterior lines fixed as the limit for improvements; and that such grants be upon such conditions and such restrictions in each instance as the Legislature may choose to impose for the improvement of navigation and commerce; and that such grantee pay unto the treasury of the State as a consideration for the grant, one-fourth of the appraised marketable value of the lands, to be ascertained at the time of such grant, the remaining three-fourths to be retained by the grantee as an inducement for making the improvement; that so much of the wharf act as relates to the granting of licenses for improvements below low water be repealed; and that provision be made by law for making such grants, and appraising the compensation to be paid therefor. It should in all cases be optional with the State to convey or not as the circumstances and discretion may dictate.

We are not prepared to take the lead in advising that the shore owner has now by law an absolutely vested right to this preference, indefeasible except by force of the power of eminent domain and bringing compensation for the defeasance. We find that the opinions of learned men differ on this point, and we prefer to leave the settlement of that question to the constitutional tribunals.

Neither are we now prepared, nor can we be prepared without a great deal more time and opportunity for examination, to decide two other matters that relate to the making of future grants.

Those two matters are the following: first, what lands shall be deemed to be in front of each particular riparian owner? second, what value have these lands beyond low water as the subjects of sale?

As to the first, it is found that although what is sometimes called the Massachusetts rule explained in *Deerfield vs. Anns* 17, Pick 41, which has found much favor in some states, appears to be applicable to much of the territory contained in these maps, yet there are localities where partial deviations would be unavoidable.

The equitable adjustment of those portions among proprietors as the shore is now owned, would require a great deal of care and time, and until the exterior lines shall be adopted, the apportionment will be premature; for that apportionment will be somewhat dependent upon these exterior lines.

It is manifest that equal areas could not be allotted to all who own an equal base of shore line; because the relative location of the exterior lines constantly differs throughout the whole range of the survey. This disparity is therefore unavoidable.

In the absence of any special rule in our State whereby to make such apportionment, we presume it will be proper for the Legislature to designate what the allotments shall be.

The report of Mr. Bacot furnishes an illustration of one plan that may easily determine this matter, and we respectfully refer to what he says upon the subject. No opportunity has been had for fully testing that plan throughout the entire survey; and yet it is evident that if shore owners alone are hereafter to be grantees, the making of the very first grant that may hereafter be applied for, will involve the application of some fixed rule upon this subject.

The matter of valuation is still more minute in its details than the former. Scarcely any two consecutive areas of an acre each are of the same value as subjects of sale, and constantly changing surroundings cause continual fluctuations of values.

In very many places within the range of these maps, these variations will be perpetually going on. We do not see how a fixed appraisal could now be arranged that would not work great injustice in the future.

As was urged in the earlier part of this report, the greatest benefit which the State is to derive from such improvements as alone should be tolerated on any terms, is to arise from the commercial navigation and its incidents, which such improvements will surely stimulate on our shores. Compared with these results, any mere pecuniary compensation upon the sale of these lands would be insignificant. Still when private emolument is to be made from the acquisition of these lands and the advantages and privileges connected with them, it is not amiss that the State should receive a share of the benefit for the use of all her citizens.

Inasmuch as applications for water grants may become more and more frequent hereafter, it would perhaps be advisable that the State should constitute a board with discretion and power to investigate such applications, to determine values and conditions, and to attend minutely to all that may be necessary or desirable to be adjusted before the consummation of the transaction.

By the laws of New York there is a state board called the commissioners of the land office, and consists of the Lieutenant Governor, the Speaker of the Assembly, the Secretary of State, the Comptroller, the Treasurer, the Attorney General and Surveyor General, to whom all applications for grants of land under the navigable waters must be made, and by whom, according to certain rules grants are to be consummated.

A suitable board of fewer persons for ascertaining and settling at least all preliminaries for grants might be of much use here. We allude to the subject as one worthy of consideration.

Should the investigation of the subject referred to us by the present act be pursued hereafter more in detail, and to completion, there is no doubt that more definite information upon almost all these matters would be elicited.

We have appended abstracts of such grants and licenses for improvements as belong to the range of these surveys. Some of these

grants have not as yet been improved, others are obsolete. These abstracts in connection with the maps will furnish all the information on this head that will be expected in a report so general as this.—Appendix D and Appendix E.

There remains but one other topic to which we are prepared to allude. We refer to the property of individuals invested in oyster beds or plantations upon ground that may be reclaimed or disturbed by dredging in making the improvements within the exterior lines.

The space within the bulkhead lines will be filled up and the bottom outside dredged and deepened for channels and recesses between piers. The oystermen have invested their money upon these lands for the purposes of a legitimate business, and by the sufferance of the State.

It should be obligatory upon all who by their improvements either destroy this property or require its removal, to make full compensation for the damage sustained by such destruction or removal, and provision should be made to ascertain such damage by fair and impartial arbitration or appraisal, or by such other mode as the legislature shall deem best, and suitable measures should be enacted to enforce the payment of such damages.

We have now laid before you such suggestions and facts as could be made by us at this time, relative to the very extensive subject comprehended in the terms of the act. The work is far from being complete, and as has already been stated, could not have been completed in detail at this time. We trust, however, that far short as it is of what may be desired or even expected, enough has been exhibited to show the importance of the whole subject, and especially to admonish us that grants in the public waters should not be made without a comprehensive understanding of their effects upon the interest of commercial navigation.

All of which is respectfully submitted.

J. R. WORTENDYKE,  
F. S. LATHROP,  
JOHN L. N. STRATTON,  
JNO. LINN,  
JAMES T. CROWELL,  
JAMES B. DAYTON.

February 1st, 1865.

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## REPORT

OF

R. C. BACOT, SUPERINTENDENT OF SURVEY.

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## APPENDIX "A."

*To the Honorable the Board of Commissioners appointed to ascertain the rights of the State, and of riparian owners, to the lands lying under the waters of the Hudson river and the bay of New York, and the lands adjacent thereto :*

GENTLEMEN—The undersigned, charged with the duty of superintending the surveys and examinations of that part of the state of New Jersey, lying upon the Hudson river and bay of New York, and of recommending exterior lines beyond which no encroachments should be permitted, would respectfully submit the following report of the progress of the survey, and a description of the exterior lines which are recommended for your adoption.

It being apparent that the work contemplated in the act prescribing the duties of your honorable body, could not be fully accomplished before the present session of the legislature, that portion of the shore front deemed most important, by reason of its liability to speedy improvement, was selected for investigation.

Two surveying parties commenced operations about the middle of July last. To the first, under the direction of Mr. Thomas Hughes, was entrusted the examination of the shores and lands lying under water in front thereof, from the northerly boundary line of the state, on the Hudson river, to Castle point, near the city of Hoboken—a distance of eighteen and one half miles.

The second party, under Messrs. F. J. Mallory and William W. Miller, city surveyors of Jersey city, continued the line of survey, from Castle point southerly to Enyard's wharf, on the Kill Von Kull river—a distance of fourteen miles.

The work accomplished thus far by these gentlemen, who continued their examinations as long as the season would permit, is divided into sections of convenient size, as exhibited on the accompanying maps, showing the peculiarities of the formation of the shores, and such particulars as were deemed essential to a full elucidation of the subject.

These sectional maps are drawn on a scale of four hundred feet per inch, and numbered from one to seven inclusive.

Two general maps are also furnished, marked "A" and "B," containing all the data and particulars of those first mentioned, on a

reduced scale, for the purpose of giving a comprehensive view of the entire shore front which has been surveyed.

On map "B" is also included a correct delineation of the territory embraced within an area of ten miles west of the harbor of New York, consisting of portions of the counties of Hudson, Essex and Union, showing the routes of the various lines of railroads, canals and other public improvements, traversing this section of the state, and having their termini upon our shores. This map gives a just conception of the vast commercial interests already located upon these shores, and exhibits the necessity of making early and ample provision for its future accommodation and development.

Upon the sectional maps are shown the positions of the bulkheads, piers and other structures on the water front existing at the present time, with their dimensions; also the original shore lines, as far as could be determined from authentic data, together with the reputed ownership of water fronts, and the grants which have been made by the state, or by boards of freeholders, under the wharf act of 1851.

The lines recommended and drawn on the maps, as exterior lines for solid filling and for piers, will be taken up and described in the order of the sections, as laid down thereon.

SECTION No. 1.—From the northerly boundary line of the state to Closter's landing.

This section has a shore frontage of three and five-eighth miles upon the Hudson river, the average width of the river being one mile.

The precipitous walls of the Palisades extend along its entire length, leaving little or no breadth of shore at the base, and consequently form a barrier to any communication with the interior. This, together with its remoteness from the centre of business, present obstacles such as will preclude any probability of its early or practicable improvement.

As a guide, however, for extensions which may be made from the easterly shores of the river, the exterior line for solid filling is drawn at an average distance of four hundred feet from the natural shore, and the pierhead line is extended five hundred feet easterly of, and parallel with the line of solid filling.

SECTIONS Nos. 2, 3 and 4.—From Closter's landing to Bull's ferry.

Similar remarks, as observed of the preceding, will apply to the probable remote improvement of the shores of these sections—the steep walls of the Palisades continuing as far as Fort Lee, with high bluffs extending south of this point, to Weehawken cove.

At a point about three thousand feet northerly of Fort Lee, and at Pleasant Valley landing, south of the same, which are respectively opposite Fort Washington and Manhattanville, on the New York side, occur two important contractions in the width of the river. At the point opposite Fort Washington, the river is three thousand five hundred feet in width, and opposite Pleasant Valley landing, four thousand two hundred and fifty feet.

At these points the line for solid filling is drawn near the natural shore. With these exceptions, the lines indicated for solid filling, and for the extension of piers, are the same as recommended for the first

section. The shore front embraced by these sections is eleven miles; and the average width of the river is one mile.

SECTION No. 5.—From Bull's ferry to Castle point, at Hoboken.

The shores of the southerly portion of this section already exhibit evidences of commercial activity.

The uniformity of the currents in this locality, together with the protection afforded from the prevailing winds of winter, offer great facilities for the establishment of wet basins, warehouses, shipyards and improvements of a like character. The shore of the river here makes the first important deflection from its general course, the greatest indentation being twenty-two hundred feet, forming what is known as the Weehawken cove. Immediately south of this cove, the rocky bluff known as Castle point, projects into the river, narrowing the stream to a width of three thousand feet.

The line of solid filling recommended for this section commences at Bull's ferry on the north, six hundred and seventy feet easterly from the shore, and continues in a straight line to the shore at Brower's point; thence to the northeasterly corner of the basin of the Hudson River Coal Company; thence, in a curved line, to the end of the pier of the Venango Oil Company, and from thence curves to a point thirty feet easterly of the stone wall at Castle point.

The pierhead line commences five hundred feet easterly of the line of solid filling at Bull's ferry, and continues parallel with the line of solid filling, to a point five hundred feet easterly of the northeasterly corner of the basin of the Hudson River Coal Company; thence, in a curved line, to a point two hundred feet easterly of the line of solid filling at Castle point.

It is recommended that in the construction of all piers which may be extended into the Hudson river, within these limits, beyond the line of solid filling, no crib work of stone and timber shall be permitted; but that the piers shall be built on piles, for the purpose of allowing the unobstructed passage of the water beneath them.

The width of the river between the shores of New Jersey and New York, upon this section, is as follows: at Bull's ferry four thousand six hundred feet, at Weehawken ferry four thousand nine hundred and fifty feet, at Day's point four thousand six hundred feet, and at Castle point three thousand feet.

The river front of the above five sectional maps is shown by the general map marked "A," on a scale of one thousand three hundred and twenty feet per inch.

The general shoalness of the water on this side of the river makes it advisable that the exterior lines for solid filling and for piers should be carried out to a much greater extent than is necessary on the New York side, where, from the direction of the currents, deep water is found near the shore. Care, however, has been observed, in determining the location of these lines, to preserve, as much as possible, the capacity and general direction of the stream.

The surveys of the shores embraced within these five sections having occupied the greater part of the season during which such work could be conducted, no opportunity was allowed for obtaining the

soundings necessary to their completion. From the best information, however, that could be obtained in regard to them, and with data furnished by the coast survey charts, it is believed that the positions indicated by these lines will afford sufficient depth of water for commercial purposes. They are consequently recommended for your adoption until time is permitted for their verification by actual measurement of such soundings.

Where the lines are described on the maps, opposite points where no designated monuments exist, it will be necessary to determine them hereafter, should they be adopted, by permanent landmarks.

SECTION No. 6.—From Castle point, near Hoboken, to the southeasterly corner of the bulkhead of the Central Railroad Company, of New Jersey.

This section embraces the river front of the cities of Hoboken and Jersey city, and is in length four miles.

Immediately below Castle point, the river commences to increase in width, and so continues until, at the Pavonia ferry, it becomes five thousand two hundred feet wide; at the Central Railroad Company's ferry it is five thousand feet wide.

South of the city of Hoboken, Harsimus cove, the second deep indentation of the shore as it formerly existed, has been in a great measure obliterated, in the filling up of the flats, by the Long Dock and Erie Railway companies, and by individuals.

A bulkhead of stone and timber has been extended along the easterly line of Hudson street, from Pavonia avenue to the city of Hoboken, and the intervening space, west of the same, is now being rapidly reclaimed and converted into building sites for railroad depots, warehouses and commercial purposes.

South of Pavonia avenue, as far as South Seventh street, the cove still preserves its original boundaries, with one or two unimportant reclamations of land under water on its western margin.

The narrow projection of land, formerly known as North point, on the southern side of the cove, with the contiguous lands under water, has, within the last five or six years, been filled up by enclosing the space south of the centre of South Seventh street, and west of Hudson street, with a bulkhead, and reclaiming the lands, principally with the mud dredged from the bed of the river.

The shore front east of Hudson street, between Wayne street and the Morris canal basin, has been extended to an average distance of about three hundred and twenty-five feet, into the river.

The only remaining reclamation of lands under water, to be noticed, is that commenced by the Central Railroad Company of New Jersey, on the southerly side of Jersey city, within the last two years, and which is now progressing on either side of the route of the road, as shown on the map.

The centre line of the road is about one thousand four hundred and fourteen feet southerly of and parallel with South street, Jersey city. The inclosure made since the year 1862 by the Morris Canal Company, by bulkheads forming a basin containing about thirty-three acres, lies south of South street, Jersey city, between Hudson street and a

point seventy-five feet easterly of Washington street. It is understood that the southerly portion of this basin is now occupied by the Central Railroad Company of New Jersey, in pursuance of an agreement between these companies.

The line of solid filling recommended for this section commences thirty feet easterly of the stone wall at Castle point, and curving meets the straight line drawn to the head of the pier at the foot of Second street, in the city of Hoboken; thence to the intersection of the northerly line of North Fifth street, in Jersey city, produced three hundred and fifty feet easterly of the bulkhead at Hudson street (as said street is laid down on the map of Pavonia, eighteen hundred and four); thence it continues, in a straight line, to a point four hundred feet easterly of Hudson street (as said street is laid down on map of the associates of the Jersey Company), in the southerly line of South street produced.

The easterly side of the bulkhead of the Central Railroad Company of New Jersey is indicated as the line of solid filling in front of their improvements, being three hundred feet easterly of and parallel with the line of Hudson street.

The pierhead line commences two hundred feet easterly of the line of solid filling at Castle point, and curving, meets the straight line drawn to a point four hundred feet easterly of the end of the pier at Second street, Hoboken; thence to a point five hundred and seventy-five feet easterly of the line of solid filling at North Fifth street, Jersey city; thence continues, in a straight line, to a point four hundred and five feet easterly of the line of solid filling at South street produced.

Opposite the bulkhead of the Central Railroad Company of New Jersey, the pierhead line is extended four hundred feet easterly of, and parallel with the line of solid filling.

On the south side of Jersey city, the extension of the Central railroad into the bay will, unless provision shall be made for a tidewater basin in the intermediate space, entirely cut off riparian owners, west of the westerly bulkhead of the Morris Canal Company, from access to tide water, and will also deprive the inhabitants of Jersey city, of the commercial advantages naturally to be expected from the ownership or possession of said right.

To avoid an evil which must prove so detrimental to public and private rights, a plan of basins for shipping and warehousing purposes is presented, which will, it is believed, obviate this difficulty and prove, should this plan in your judgment seem feasible and consistent with the rights of others—highly advantageous both to the shore-owners and to the public generally.

The plan proposes the formation of two wet basins on the southerly side of Jersey city, and north of the line of solid filling, marked out for the Central Railroad Company's improvements. The smaller basin will be formed, on its easterly and westerly sides, by the bulkheads put down by the Morris Canal Company, and now existing between points sixty feet east of Hudson and seventy-five feet east of Washington streets; and on its northerly and southerly sides, by the

southerly line of South street, and a bulkhead to be put down three hundred feet northerly of and parallel with the line of solid filling shown for the improvements to be made by said company. It will be necessary that portions of the easterly and westerly bulkheads should be removed for the purpose of securing a passage way (intended to be three hundred feet in width) for vessels to the larger basin on the west. This basin will contain a water space of about thirteen acres.

The larger basin will be bounded, on its northeasterly side, by the line of solid filling drawn three hundred feet southerly of and parallel with the northerly line of South street; on its westerly side by the same line drawn one hundred feet easterly of and parallel with Varick street; on its southerly side by the line of solid filling marked for the improvements of the Central Railroad Company of New Jersey; and on its easterly side by the westerly bulkhead of the smaller basin, with the passage way of three hundred feet in width, as above described. This basin will contain a water space of about fifty-three acres.

Piers projecting three hundred feet into this basin are shown at the terminations of Washington, Van Vorst, Warren, Henderson and Grove streets, Jersey city, which are designed to be connected at Washington, Van Vorst and Grove streets, by means of bridges (having draws of fifty feet in width) with the lands to be formed on the southerly side, adjoining the Central Railroad of New Jersey.

The waters of Mill creek will flow into the basin at its westerly termination.

SECTION No. 7.—From the bulkhead of the Central Railroad Company of New Jersey to Enyard's dock, on the river Kill Von Kull.

This section includes the great bay, on the southerly side of Jersey city, known as Communipaw cove, divided into two parts by the projecting headland of Cavan point. The length of the northerly portion of the cove, between the improvements of the Central Railroad Company and Cavan point, is two miles measured along the shore lines, and its greatest indentation six thousand eight hundred feet from Bedloe's Island. The shore line of the southerly portion, between Cavan and Constable points, is five and one-eighth miles in length—its greatest indentation twelve thousand five hundred feet west of Robbin's reef light.

The depth of water on the flats at mean high tide is shown, by the soundings, to be of a uniform average of nine feet, no perceptible increase of deposit appearing to have taken place upon them since similar examinations were made by the Coast Survey department, and shown upon their charts. From borings which have been made upon these flats, between Cavan point and Jersey city, the depth of mud is found to vary from eighteen to twenty-five feet, to the hard bottom; and nothing appears to exist in the material composing these flats, that would likely offer any serious obstacle to the formation of a navigable channel on the westerly sides of Ellis', Bedloe's and Oyster islands.

The increasing demands made, within a few years past, by the

great lines of railroads, canals and other public and private enterprises, for enlarged accommodations and facilities at their termini on the western shores of the harbor, have attracted public attention to the improvement of these coves and the abutted lands in front of them. With the advantages universally conceded to the shores of New Jersey, in affording safe and convenient anchorages for vessels at all seasons of the year, with an almost entire freedom from ice during the winter, enabling shipping to arrive and depart without delay or difficulty, no doubt exists that these coves will ere long be improved and made available for the purposes of commerce, and that basins, piers and warehouses, to accommodate the great traffic which must inevitably centre upon them, will be constructed.

Any plan of improvement which may be devised to accomplish this object, must also keep in view an important consideration—namely, to preserve the harbor from encroachments, so extensive in their character as to impair the main channels and currents of the bay, and consequently, its usefulness for the general requirements of commerce.

Between the two states, enjoying in common the unrivaled advantages afforded by the position and capacity of the harbor of New York, no difference of interest can be anticipated; therefore, the waters which wash the respective shores should be jealously guarded from encroachments which, if unwisely permitted by either, must prove a common calamity.

The State of New York, about the year 1856, impressed with these views, instituted a commission to investigate this subject, which resulted in the establishment of exterior lines for solid filling, and for the extension of piers in front of the shores of that state. The elaborate report of this commission upon the subject, predicated upon the advice of an advisory council, composed of officers of the Coast Survey and of the most eminent engineers of the country, has furnished data and scientific observations of great value to those charged with a similar duty by the authorities of this state.

One of the many important conclusions resulting from their examination of the subject, the correctness of which cannot be controverted, has special reference to these extensive coves which indent the western sides of the harbor—namely, that they form the great tidal reservoirs which serve to furnish and keep up the volume of water, essential to the preservation of the currents and channels of the harbor, and that should these receptacles of the tides be materially diminished, disastrous consequences to the general usefulness and safety of the harbor must ensue.

The question then arises, how far can these coves be filled up and made available for the purposes of settlement and commerce, without incurring a liability to this danger?

The proposition advocating the extension of an exterior line to the deep water of the channel, east of Ellis' and Bedloe's islands, and reclaiming the immense area of flats lying between this line and the present shores of the coves, would—even if practicable or probable of accomplishment—most certainly so disturb the present channels and

currents of the bay, and lessen the volume of tidal water, as to involve the serious consequences predicted of such a proceeding.

The plan recommended and shown on the section—wherein the exterior line for solid filling is extended about midway between the present shores and the line of islands, and a navigable channel proposed between these shores thus extended and the islands—seems to meet both of these requirements, in furnishing ample space for business purposes, without abstracting materially the volume of water now flowing over this space. By the filling up of the flats to this solid line, and thus confining the flow of the water, in its passage to and from the sea, to straight and easy curved lines, it is not unreasonable to believe that the soft alluvial soil composing the material of these flats will yield to the increased action of the tides and currents, and that thereby a navigable channel, of from eighteen to twenty feet in depth at mean high water, will be formed.

This result might be materially hastened should dredging be resorted to, and since the mud can be used with advantage in reclaiming the portion to be filled up, the cost of this dredging would be greatly diminished, and both operations might be carried out simultaneously. In this way the volume of water abstracted from the reclaimed space will be restored by the deepened part forming the channel, and no disturbing influences be created in the adjacent parts of the harbor. The piers to be extended out in front of the line of solid filling should be constructed so as to allow the free passage of the water beneath them.

An examination of the map must convince a casual observer, that by the obliteration of the headlands of Cavan point and other minor projections of the cove, by filling, and the substitution of the proposed easy curves and regular lines indicated for solid filling, the tides, in their daily flow to and from the sea into and through such an opening, must naturally produce the effect of removing this mud from the bottom, and form a channel, as described.

Should, however, the actual operation of this plan prove contrary to our anticipations, it is evident that no injurious effect will be produced upon any interest, by the limitation of the exterior line to its present position.

With these views, the lines shown as exterior lines for solid filling and for piers, on this section, are recommended for your consideration, and may be described as follows:

The line for solid filling commences at the southeasterly corner of the bulkhead of the Central Railroad Company of New Jersey, and from thence runs westerly and parallel with the centre line of said railroad, twenty-four hundred feet (2400); thence southerly, in a straight line, to a point twenty-five hundred feet (2500) distant (in a course south forty-one (41) degrees and thirty (30) minutes east), from the most easterly extremity of Cavan point; thence curving to the right, with a radius of thirteen hundred and thirty feet (1330), a distance of thirteen hundred feet (1300); thence on a tangent sixteen hundred and twenty (1620) feet; thence curving to the right, with a radius of nineteen hundred and seventy (1970) feet, a distance of

nineteen hundred and fifty (1950) feet; thence on a tangent, for a distance of sixty-five hundred and sixty (6560) feet; thence curving to the left, with a radius of twenty-six hundred and ninety (2690) feet, a distance of thirty-two hundred and fifty (3250) feet; thence on a tangent, a distance of twenty-six hundred and forty (2640) feet; thence curving to the right, with a radius of six hundred and thirty (630) feet, a distance of nine hundred and forty (940) feet, to a point two hundred and thirty (230) feet northeasterly of the pier of the Hazard Powder Company, at Constable's point; thence on a tangent a distance of two hundred and thirty (230) feet, to a point twenty (20) feet northerly of the head of said pier.

The exterior line for piers commences at a point four hundred (400) feet easterly of and at right angles with the bulkhead of the Central railroad; thence curving to the right, with a radius of five hundred (500) feet, a distance of seven hundred and ninety (790) feet; thence on a tangent, sixteen hundred and thirty (1630) feet; thence curving to the left, with a radius of six hundred and twenty-five (625) feet, a distance of six hundred and seventy (670) feet; thence in a straight line parallel with the line of solid filling, and five hundred (500) feet easterly thereof, a distance of seventy-nine hundred and sixty (7960) feet; thence curving to the left, with a radius of eighteen hundred and thirty (1830) feet, a distance of seventeen hundred and eighty (1780) feet; thence on a tangent, and parallel with the line of solid filling, sixteen hundred and twenty (1620) feet; thence curving to the left, with a radius of fourteen hundred and seventy (1470) feet, a distance of fourteen hundred (1400) feet; thence parallel with the line of solid filling, sixty-five hundred and eighty (6580) feet; thence curving to the left, with a radius of twenty-one hundred and ninety (2190) feet, a distance of twenty-six hundred and ninety (2690) feet; thence parallel with the line of solid filling, twenty-three hundred (2300) feet; thence in a gradual curve, nineteen hundred and forty (1940) feet to a point two hundred and five (205) feet, southeasterly of the line of solid filling, at the pier of the Hazard Powder Company, at Constable's point.

#### KILL VON KULL RIVER.

The surveys of this channel, between the waters of Newark bay and the bay of New York, have extended to the distance of about two miles west of Constable's point. From Constable's point to the dock of the Sulphur works, its width between the opposite shores is two thousand feet; west of the last mentioned point, it widens to two thousand five hundred feet, occasioned by the divergence of the northerly shore, and forming what is known as Northeast harbor.

Deep water is found at an average distance of about one hundred and fifty feet from the general line of the shore, except in front of that portion lying opposite the above mentioned cove, where the distance between the line of twenty feet water and the shores of this cove, at the mouth of Platty Kill creek, is nine hundred and fifty feet.

This channel forms one of the principal avenues of inland transportation and travel to the south and west, and being the outlet for the extensive shipping interests of several cities and towns in the state, the avoidance of any encroachments calculated to lessen its general width, or the direction of its currents, becomes an important consideration.

The exterior line recommended for solid filling, between Constable's Point and the dock of the Sulphur works, is drawn at an average distance of two hundred feet from the shore. Opposite the northeast harbor, as far west as the line of lands of the Delaware and Raritan Canal Company, it is drawn at an average distance of four hundred feet from the shores of the cove. For the remaining distance, at an average distance of one hundred feet from the same, gradually drawn in to the natural shore at a point two hundred feet easterly of Enyard's wharf.

The exterior line recommended for piers, between Constable's Point and the dock of the Sulphur works, extends two hundred feet southerly of the line of solid filling. Along the front of the northeast harbor it is drawn at an average distance of three hundred feet from the line of solid filling, gradually drawn in to the end of the pier known as Enyard's wharf.

The position of these lines will leave the average width of this part of the channel unimpaired and free from all encroachments calculated to disturb its channels or currents.

Under a license granted by the Board of Freeholders of the county of Hudson, in July, 1863, the Delaware and Raritan Canal Company was authorized to build certain docks and piers, in front of their lands, lying upon the Kill Von Kull river. The contemplated position and extent of this improvement is shown on the map by the dotted lines drawn opposite the lands of this company.

Great injury must certainly ensue to the adjacent shores, and to the currents of the channel, should these piers be projected for so great a distance into the stream, and no necessity appears to exist for this unusual extension, deep water being found quite near the shore at this locality.

It is recommended, therefore, that these erections, when constructed, be confined to the limits indicated by the exterior lines shown on the map.

It will be necessary that the lines described in the foregoing sections, if adopted, should be determined by permanent monuments (where existing landmarks are not referred to), to be placed at such points as will afford convenient reference.

The several points established by the triangulations should also be permanently designated.

Suggestions having been requested from me as to the directions in which improvements should be made, by riparian owners, from the points where their boundary lines reach the shore to the exterior line of solid filling, which (if the plan herein devised is adopted) will become the water front, I would respectfully say: Whereas, it is obvious that the directions for these lines, along such parts of the shore

as run parallel, or nearly so, with the channel, are at right angles therewith, the establishment of such a rule becomes alone important in cases where projections or indentations of the shores occur, forming coves or bays, rendering it necessary that an apportionment should be made of such lands, within and in front of the newly established line, as will give to each shore owner an equitable share thereof.

The questions arising upon this complex matter have been agitated for many years among the people of the different States, and the opinions which I entertain will therefore be offered with great diffidence.

I think the equitable rule, in such cases would be, where there are no important projections in the cove or hollow shore, to draw a line defining the exterior line of solid filling along the front of such indentations, and permit the riparian owners to reclaim the submerged lands, on lines converging to such exterior line, in proportion to the number of feet held by them respectively on the original shore.

Should projections occur, or re-entrant coves exist, as last stated, I would suggest the drawing of an additional line, running from the most prominent points of such projections, along and corresponding with the general line of the inner shore. To this line, thus drawn, improvements might be made by lines converging from the shore, according to the dimensions of the original shore front of each owner, and thence extended in the manner designated where no projections exist.

This method of division is mentioned in the case of Deerfield vs. Pliny Arms, 17 Pickering, p. 41, and although requiring modification, according to the peculiar circumstances of each case, seems calculated, in its general application, to avert any injustice to proprietors of coterminous shores.

An illustration of the general rule, as well as of its modification, is presented upon sectional map No. 7, showing the directions which would be given to the lines of shore owners in the cove existing between Cavan and Constable's Point, and the width which they would respectively acquire by this plan of apportionment, on the newly formed water front.

Sufficient opportunity, however, has not been afforded for the proper consideration of this, and other equally important subjects, to which our attention has been directed, and it would be hazardous to indicate definitely the positions of these lines, and the consequent apportionment of the lands under water, without further investigation and reflection.

The following is an estimate of the number of acres of submerged lands, lying between the present shores and the exterior line for solid filling, as shown upon the maps:

	Acres.
Section No. 1—State Line to Closter's Landing.....	170
“ “ 2—Closter's Landing to Bloomer's.....	220
“ “ 3—Bloomer's to Fort Lee.....	86
“ “ 4—Fort Lee to Bull's Ferry.....	160

	Acres.
Section No. 5—Bull's Ferry to Castle Point.....	258
“ “ 6—Castle Point to bulkhead of C. R. R. Co.....	374
“ “ 7—C. R. R. to Enyard's wharf, on K. V. Kull....	1810
Total.....	3078

## GENERAL REMARKS.

The subject under consideration opens so vast a field for inquiry and mature reflection, that to some the views which have been advanced, as to the extent and future development of commercial interests upon these shores, may seem speculative and premature. Should such an opinion be entertained, its fallacy might be made apparent by the experience, and course of action attendant thereon, of the principal commercial cities of the world.

It may be confidently affirmed, that there is no commercial port of importance in Europe which is not to-day seeking room for expansion. And it is well known that in the commercial emporiums of England improvements of the most substantial and magnificent proportions have given way to the constantly increasing demands of commerce.

In London and Liverpool—neither of which cities are comparable, so far as regards natural advantages, with the shores of the county of Hudson, fronting upon the bay of New York—extensive portions of thickly populated districts have been purchased and converted into basins, docks and warehouses, in order that suitable accommodations and facilities might be secured for mercantile interests.

The expense incurred in the purchase of such lands, and their appurtenances, is almost incredible, and should serve to awaken our people to a full realization of their future wants, and to the wisdom of devoting a large portion of the lands lying upon and in front of our shores to these objects.

I have specifically referred to the method which I think should be adopted for the improvement of the southerly shore front of Jersey City. This appeared important, inasmuch as the necessities for public wharves and commercial conveniences have already elicited the serious attention of the business men of our city. It is a fact, strange as true, that with a municipality numbering thirty-five thousand inhabitants, and evidently designed for a flourishing seaport, there should exist no more than one public wharf for the accommodation of the business operations of the community.

Is it surprising that under such circumstances the channels of commercial prosperity should have flowed, almost entirely into the metropolis of the Union, on the east side of the Hudson River?

It is owing to the lethargy manifested upon this subject by the public, and which, if continued, will result in the entire absorption, by individual enterprise, of all the avenues which should legitimately be placed under the supervisory directions of the municipal authorities.

No suggestions have been made as to the mode which should be adopted for the improvement of the shores lying within the exterior

lines, by shore owners, inasmuch as such recommendations, previous to the adoption of these lines by the Legislature, would be premature; and it may be questioned whether the arrangement and determination of such plans should not be left to individual enterprise, and to the constantly changing necessities of commerce.

I would suggest, however, the advantages to be derived from a mode of improvement, essential to a well-devised management of the subject under consideration. I allude to the formation on such shores of a well-digested system of wet basins, with their warehousing and shipping facilities. The extensive flats which still exist in Weehawken, Harsimus and Communipaw coves, can probably be more speedily reclaimed and rendered more valuable by this species of improvement than by any other—and in this way, an extensive water front, which is the great desideratum sought in Jersey City, Hoboken, and their adjacent shores will be secured.

By way of illustration, I would refer to the proposed wet basins recommended to be formed on the southerly front of Jersey City, where we find, that instead of a water front of about one thousand feet in length, which would be produced by continuing the line of Hudson street southerly to the bulkhead of the Central Railroad Company, by the construction of these basins we obtain nearly two miles of such frontage, answering practically the wants and conveniences of a mercantile community.

To secure these important advantages at a reasonable cost, we cannot be too prompt in carrying into practical operation this mode of improvement; and the present period should not be permitted to pass, as indications exist that unless this extended water front is secured, the same difficulties which have compelled the purchase of improved parts of other cities will arise, to cause a retrospect of our want of prudence and foresight.

The shores of Hudson County have already become the termini of the most important railroads and canals in the country; and as may be seen by an inspection of the appropriate map of this section, are destined to be the receptacle for the products of the West and South, and will become by judicious management not alone the depository for their treasures, but the port of their transshipment to the harbors of the world.

The commercial facilities of the city of New York are no doubt great and well established, and it may be thought impossible that any great amount of trade can be diverted from its accustomed channels, but it must be recollected, that the portion of that city best calculated for mercantile enterprise, is now occupied to its fullest extent, so that the merchants of that city have already directed their attention to the neighboring cities for more suitable and enlarged commercial accommodation.

With these views, I have ventured to attract your attention, by the above general remarks, to the commercial advantages nationally belonging to our position on the bay of New York, and have endeavoured to forshadow the prosperity which must flow upon us, from well directed efforts in the improvement of our shores.

The fact that this investigation is novel to the people of this State and the extensive and elaborate character of such an undertaking, combine in satisfactorily showing that the time limited for the performance of its duties has been inadequate to a full exposition of the practical detail; I think, however, that a more extended examination would serve to establish the truth and practicability of the views herein expressed.

Before closing this report, I would acknowledge, the professional assistance and services rendered by D. E. Culver Esq., Civil Engineer of Jersey City, as consulting engineer, and also the energy and skill displayed by the surveyors Messrs. Mallory, Miller and Hughes, in the prosecution of the surveys, and the preparation of the accompanying maps, all of which is respectfully submitted.

R. C. BACOT,

*C. Eng'r and Superintendent of Survey.*

Jersey City, Jan. 25, 1865.

## APPENDIX "B."

*To the Hon. James B. Dayton, John L. N. Stratton et al., Commissioners, &c.*

GENTLEMEN: In accordance with your request, as made by Mr. Dayton, I herewith submit to you for consideration a plan of the river front of the city of Camden, from Cooper's Point to Kaighn's Point (inclusive), showing the position of the most extended improvements at this time, as relating to fixed lines and objects on the land,—the general line of original high water,—an approximation to the line of low water,—and such soundings of the river Delaware as I think necessary to elucidate the subject of fixing an exterior wharf line between the points above named.

As an exterior line beyond which wharves or piers shall not hereafter be projected, I recommend the following described line, to wit: Beginning at a point in the river Delaware, in the extended north line of Main street at Cooper's Point, and seven hundred feet westward from the northwest corner of Main and Water streets (in the city of Camden), thence, southward, along the said river, parallel with Front street, in the city of Camden, to a point in the boundary line between lands of A. Browning and others, and lands of "the Camden and Philadelphia Steamboat Ferry Company," thence, still southward, along said river, in one straight line, to a point opposite, and one hundred and twenty-five feet distant, westward, from the southwest corner of the pier lately erected by I. W. and I. F. Starr, thence, still southward, in one straight line to the southwest corner of the wharf upon which the main building of "the National Iron Armor and Ship Building Company" stands, at Kaighn's Point, and there ending. All of which is respectfully submitted.

EDW'D H. SAUNDERS,

Camden, N. J., 27th Jan'y 1865.

## APPENDIX "C."

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In May 1856, Albert Woodruff, a merchant and wharf owner of Brooklyn, was asked "what do you suppose to be the average number of vessels waiting at this port (New York) for berths?"

*Ans.* "Of the larger class, not including sloops and small craft, at least 300."

Abraham Turnure, a harbor master of the port of New York, testifies as follows, June 9, 1856.

*Q.* "Do you regard the Jersey shore as an eligible site for the harborage of vessels?"

*A.* "I do."

*Q.* "Is it as good a harbor as the New York shore of the North River?"

*A.* "Quite as good, and in winter better, as it is a weather shore."

*Q.* "Are there any greater objections to sending a vessel to load or discharge at Jersey City, than to a pier on the New York side of the North River?"

*A.* "None, except the expense of ferriage, and the time lost in crossing the river."

*Q.* "Then if the expense of ferriage were no greater than the increased expense of cartage from Hammond street to the lower parts of the city, the advantages incident to both would be about the same?"

*A.* "They would."

*Q.* "To accommodate the increasing commerce of the port, vessels must then go to the upper parts of the city, to Brooklyn, or to the shores of New Jersey?"

*A.* "They must."

*Q.* "Is the Jersey shore a better site for the accommodation of vessels than Brooklyn?"

*A.* "It is, except that the conveniences of crossing and re-crossing to New York are at present greater than between New York and Jersey City."

John Maguire, a Sandy Hook pilot, testifies May 14, 1856.

*Q.* "Is the Jersey shore an eligible site for commerce?"

*A.* "I answer unhesitatingly, it is."

*Q.* "Is it as good as the shores of New York or Brooklyn?"

*A.* "It is as good as New York and better than Brooklyn."

*Q.* "In what respects is it better than the Brooklyn shore?"

A. "It is on the weather, while Brooklyn is on a lee shore; the currents of the North River run with more regularity and with less velocity than the East river; the ice sets from the Jersey shore while it sets on to the Brooklyn shore. In every respect, I think the Jersey shore is better for the accommodation of commerce than Brooklyn."

Q. "Are the advantages counter-balanced by any disadvantages?"

A. "None that I know of, except the trifling expense of transportation, and between Brooklyn and Jersey City, this item of expense must be about the same."

## APPENDIX "D."

*To the Honorable Jacob R. Wortendyke, Francis S. Lathrop, James B. Dayton, John L. N. Stratton, James T. Crowell, and John Linn, Commissioners.*

SIRS,—You have asked me to make an abstract of all the grants made by the Legislature of the State of New Jersey, of lands under water in the bay of New York, and along the Hudson River from the New York State line to a point little east of the southern end of Bergen Point. I have made such examination, and have arranged the same under three classes:

1. *Grants in terms of lands under water.*
2. *The incorporation of companies with rights in the bay.*
3. *Licenses taken out by riparian owners to build wharves and piers, from the Chosen Freeholders of Hudson County.*

The first legislative grant, which has come to my knowledge, is that to Nathaniel Budd, passed November 22d, 1802. Laws of 1802, 154.

The act appoints commissioners to lay out a road to Budd's Ferry, situate on the west side of the Hudson River, directly opposite to the city of New York.

2d Section. After reciting that it shall be lawful for Budd to maintain a ferry, enacts, "that it shall and may be lawful to and for the said Nathaniel Budd, his heirs and assigns, to erect ferry houses, stables and other buildings, at or near the said dock and ferry stairs, on two acres of the land so as aforesaid, in controversy, lying on each side of the road so as aforesaid, directed to be laid out by the said commissioners.

An act to incorporate "*The Associates of the Jersey Company.*" Passed Nov. 10th, 1804. Laws of 1804, 367.

The preamble recites: That Richard Varick, Jacob Radcliff, and Anthony Dey, have become the proprietors, by purchase from Cornelius Van Vorst; of all that certain tract or parcel of land and meadow, situate, lying and being in the township of Bergen, county of Bergen, and State of New Jersey, commonly called Powle's Hook; bounded on the east by Hudson's River; on the north by said river, or the bay commonly called Harsimus Bay; on the south by said river, or the

bay commonly called Communipaw Bay; and on the west by a line drawn from a stake, standing on the west side of the small creek on the south-west side of the said tract, (from which stake the flag-staff on Ellis's Island bears south, one degree twenty minutes east; and from which the chimney of the house of Stephen Vreeland, on Kaywan, bears south, fifty-six degrees ten minutes west; and from which the steeple of the Bergen church bears north fifty degrees, twenty-five minutes west), north twenty-six degrees, thirty minutes east, to Harsimus Bay aforesaid; together with the right of ferry from the said tract or parcel of land, across Hudson's River and elsewhere; and the right and title of the said Cornelius Van Vorst, under the water of the Hudson River and the bays aforesaid, opposite the said premises, as far as the right of the said Cornelius Van Vorst extends."

1 Sec. Authorizes them to hold the said "tract and premises herebefore described, with the privileges and appurtenances aforesaid."

By the 3d Section they have the privilege "of erecting or building any docks, wharves, and piers, opposite to and adjoining the said premises in Hudson's River and the bays thereof, as far as they may deem necessary for the improvement of said premises, or for the benefit of commerce, and to appropriate the same to their own use."

A grant to *Aaron Ogden* in 1837, Pamphlet laws of 1837—64.

Preamble recites that Aaron Ogden had acquired by deeds, all that tract of land under water, situate in New York Bay, opposite to the meadow of Stephen Vreeland, in the township of Bergen, in the county of Bergen, and state of New Jersey aforesaid, beginning at the distance of twenty chains in a course south forty degrees fifteen minutes east, from the shore, and at the end of the two following courses and distances from the highest rock on Black Tom's reef, to wit: one, north forty-five degrees thirty minutes east, one chain; two, north forty degrees fifteen minutes west, fourteen chains seventy links, from which rock Daniel Crane's house at Jersey City bears north, forty-five degrees thirty minutes east; and from said beginning Michael Vreeland's barn bears north, forty degrees fifteen minutes west; thence from said beginning, at the end of the said fourteen chains seventy links, running, one south thirty-nine degrees and forty-five minutes west, ten chains; thence, two, south forty degrees and fifteen minutes east, ten chains and thirty links; thence, three, north thirty-nine degrees forty-five minutes east, ten chains; thence, four, north forty degrees fifteen minutes west, ten chains thirty links, to the place of beginning, containing ten acres strict measure.

1st Section of act recites,—“That the right of the state of New Jersey of, in, and to the lot of land covered with water in the bay of New York as above specified and described, be, and the same is hereby released to the said Aaron Ogden, his heirs and assigns, forever, with all privileges and appurtenances thereunto appertaining and belonging. The State reserving the right of sovereignty over the same.

Grant to *Nathaniel Budd*. Passed November 8th 1836. Acts of 1836—37, page 13.

Section 1, Grants "all the right and title of the state of New Jersey to a certain tract of land situate along the beach on the west side of the North River or Hudson's River, and running into the same, between Powles Hook and Hoboken, in the county of Bergen, in the state of New Jersey, containing fifty-three acres and fifty-hundredths of an acre, which was conveyed to the said Nathaniel Budd by Elisha Boudinot by deed dated January 2d, 1804, as aforesaid, be, and the same hereby are granted and conveyed to the said Nathaniel Budd, his heirs and assigns forever; reserving the right of jurisdiction and sovereignty.

By act of February 21st, 1833 (*P. Laws*, 92), the *Hoboken Land and Improvement Company* were authorized, with very large and extensive powers,

Section 1. To hold, acquire and convey one thousand acres of land;

Section 2. To improve such lands, laying out the portion situate north of Fourth street, into streets, &c.; making thereon all such wharves, work-shops, factories, &c., as may be deemed necessary, ornamental or convenient; to fill up, occupy, and possess, and enjoy, *all land covered with water fronting and adjoining* the lands that may be owned by them, and construct thereon wharves, harbors, piers, and slips, and all other structures requisite or proper for commercial and shipping purposes, and when they shall have purchased the ferry-right from the owners thereof, to enjoy the same, and purchase and build steamboats; not, however, to fill up in front of a riparian owner, *without his consent in writing*.—Act limited to ninety nine years from date, and repealable.

The act of February 24th, 1838, (*P. Laws*, 157,) to incorporate the *Bergen Land and Improvement Company*, on the memorial of Samuel Swartwout, the owner of three hundred and fifty acres of land at Hoboken, authorizes the subscription of capital to two millions of dollars —By

Section 5. Among other things, the company is authorized to purchase, fill up, and occupy *all land covered with water fronting and adjoining* the premises that may be owned by them, and construct thereon wharves, piers and slips, and all other structures requisite or proper for commercial and shipping purposes, may purchase ferry-right, &c.; provided it shall not be lawful to fill up any land covered with water, nor construct any wharf immediately in front of land of any other person *owning down to the water*, without his consent, &c.

By act of March 13th, 1837, (*P. Laws*, p. 443), of similar powers, a capacious, safe, and convenient harbor opposite the city of New York, was to be constructed in front of lands then or thenceafter acquired by the Corporators, at Pavonia or Harsimus, between Hoboken and Jersey City, with power to hold by purchase one thousand acres of land, *under and above water*, reclaim land, build bulk-heads, locks, piers, wharves and docks, and occupy all land covered with water within the aforesaid limits; nevertheless not to construct wharf, dock, or pier, between high and low water mark, without consent in writing of the owner; the act to become null unless within one year \$1,000,000

be subscribed, and operations begun in five years, and \$500,000 be expended within ten years.

By supplement of February 24th, 1838, the time extended to three years for such subscription :

Section VII. Contains, as to location of branch railroads a saving of the rights of Hoboken ; the act is limited to ninety-nine years, and the legislature may alter, amend, or modify it.

A grant was made beginning at the northeast termination of the water line at Fort Lee, near Bull's Ferry, by act of March 9th, 1844, to Robert Annett, a riparian owner, he having erected two wharves in front of his land, extending a little below low water mark, it was made lawful for him to maintain the same as fully as if an act of the Legislature had first authorized the building of said wharves, and he was further authorized to extend the same one hundred feet in Hudson River.

By act of February 28, 1848 P. Laws 75, commissioners were appointed to ascertain the boundary of lands of Stephen Vreeland in the county of Hudson.

Whereas, Stephen Vreeland by his petition has represented to the Legislature of this State, that he is the owner in fee of certain lands in the county of Hudson, adjoining lands claimed by the State of New Jersey, and that owing to the continued encroachments of the waters of New York on the shore, his ancient landmarks have been destroyed and he has great difficulty in designating the metes and bounds of his said lands, thereby causing great inconvenience and difficulty, therefore, by Sec. 1, commissioners were appointed to ascertain the metes and bounds of the said lands.

Section 3. Report of commissioners to be filed in the Clerk's Office of Hudson county.

The said commissioners have made such survey, and filed the same in the clerk's office of Hudson county, and Stephen Vreeland has accepted the same. I have annexed the metes and bounds as on file in the clerk's office.

All that land lying between the present high water marks and a line beginning at a point one chain and fifty links distant from stone monument marked and run upon said map as monument No 1, in a course of south sixty-two degrees west, which said monument is erected in the most southerly line of a six acre lot lately owned by the said Stephen Vreeland and by him conveyed to the George Bommer New York Manure Company, distant from the most easterly corner of said lot two chains and ten links in a course of south sixty-two degrees west, thence 1 : running southerly to a point distant eight chains and sixty-six links in a course of south twelve degrees and fifty minutes east from said monument No 1 ; thence 2 south thirty-nine east two chains ; thence 3 north eighty-seven degrees and eleven minutes east two chains and sixty-five links ; thence 4 south seventy-four degrees east, three chains and twelve links ; thence 5 north seventy-eight degrees and forty-five minutes east, three chains and seventy-seven links ; thence 6 north forty-seven degrees and twenty-one minutes east, two chains and four links ; thence 7 north sixteen degrees

and two minutes east, five chains and ten links ; thence 8 north thirty-nine degrees west, two chains to a point distant nine chains and sixty-six links in a course of south fifty-five degrees and thirty-five minutes east, from a stake, marked and known on said map as monument No 2 ; thence 9 the same course fourteen chains and ninety links to a point distant two chains in a course of south thirty-nine degrees, east from a stake marked and known on said map as monument No 3 ; thence 10 north forty-two degrees and ten minutes east, seventeen chains and eighty-two links ; thence 11 north thirty-one degrees and fifty minutes east, three chains and seventy four links to a point distant two chains a course of south forty degrees and twenty minutes, east from the centre of a flat rock marked and known on said map as monument No 4 ; thence 12 north sixty degrees and thirty minutes east, twenty-two chains and ten links ; thence 13 north one degree and ten minutes west, to the mouth of Communipaw Creek as said metes and bounds, courses and distances are more particularly laid down, marked and designated on the said map heretofore referred to, which we have drawn thereof, and do herewith, in accordance with the requirements and provisions of the aforesaid act, return and have signed together with this our report and as a part of this our said report, with the aforesaid metes and bounds, courses and distances and most remarkable places and the aforesaid monuments laid down, marked and designated.

In witness whereof we, the said Cornelius S. Van Wagoner, William F. Day and Richard R. Paulison, Commissioners aforesaid, have hereto subscribed our respective names this eighteenth day of July in the year of our Lord one thousand eight hundred and forty-nine.

C. S. VAN WAGONER,  
WM. F. DAY,  
R. R. PAULISON.

Act of February 22d, 1849, P. Laws 85, granting to SAMUEL D. INGHAM and MATTHEW C. JENKINS power to erect and build all such docks, wharves and piers, and other appliances, in front of the land now owned by them, situate at Bergen Point, and between Bergen Point and Constable Point, in the county of Hudson, for purpose of coal depot, and repair of vessels, and to extend the same below low water line in the said Kill Von Kull, as far as may be necessary for said purposes ; and to reclaim and improve the lands under water, in front of the lands owned as aforesaid, so far as may be necessary for the purpose aforesaid, and to hold and enjoy the same, to them, their heirs and assigns, forever ; and to lay vessels along said docks, wharves and piers, and to charge dockage or wharfage therefor ; provided, however, that nothing herein contained shall be so construed as to impair the legal rights of any person or corporation whatever, or the common rights of the citizens of this State, or to authorize said Samuel D. Ingham and Matthew C. Jenkins to build upon or reclaim the lands covered with water lying in front of the lands of any other person or persons owning down to the said Kill Von Kull ; and provided also, that nothing herein contained shall be

so construed as to authorize them so to improve or reclaim the lands in front of their own shore as to interrupt or interfere with the navigation of the said Kill Von Kull; and provided further, that nothing in this act shall be construed to confer any rights of ferry upon the owner or owners of said wharf.

By Act entitled "*An Act to Incorporate the Pavonia Ferry Company in the County of Hudson*," passed February 28th, 1849.

Section 5. Gives the company "power to establish and conduct a ferry across the Hudson River, between Pavonia, in the township of Van Vorst, and county of Hudson, and the city and county of New York, from such point or place in Pavonia aforesaid, to such place or places in the city of New York as they may deem best for the public accommodation and the interest of said company; and for that purpose they may purchase or lease any real estate as may be necessary for the use of said ferry, and erect and construct all such wharves, piers, slips, buildings, and other appendages as may be necessary to carry into effect the purpose of this act, and hire, purchase, or build steamboats, vessels, or other ferry boats, of such descriptions and dimensions as they may think proper, and it shall be the duty of said company to keep a steamboat or boats running across said river throughout the year for the accommodation of the public, except when the navigation thereof is impracticable or dangerous; *provided*, that the said company, in making their docks, wharves, piers, or other improvements, shall not occupy, in the waters of the Hudson river, or Harsimus cove, any greater space in width than they shall be the owners of land on the shore, or have lawful title, by lease or otherwise, to occupy; *and provided further*, that if the said company, in locating their wharves, piers or docks, shall pass over or across the tract of land claimed under Nathaniel Budd, deceased, they shall construct the pier or avenue from the upland to the bulkhead, or ferry landing, in a direct and continuous line with some one of the streets laid down on the map of Harsimus, Pavonia and Hoboken, made by Douglass & Bacot, and of the same width with such street, until the same passes the easterly line of said tract; and that, after passing such easterly line, it shall be lawful for said company to occupy, in breadth or width of the land covered with water, four hundred and eighty feet, and no more; and that so much of said pier, wharf, or avenue as passes over the tract of land aforesaid, shall be taken and deemed to be a public highway, and liable to be regulated, worked and used as such; *and provided also*, that nothing in this act shall in any wise interfere with or impair any legal rights or privileges, if any, heretofore granted by the State of New Jersey."

By an act entitled "*An Act to Incorporate The Weehawken Ferry Company*," passed March 25, 1852.

Section 1. The corporators therein named are thereby "created a body corporate and politic," by the name of "The Weehawken Ferry Company" for the purpose of establishing a ferry between some suitable point or points in New York, and a point north of Deas' Point, in the county of Hudson, with power to build boats, wharves, piers, bulkheads, and all other improvements necessary to carry out the ob-

jects of this Corporation," and "also to lease, purchase, and hold, such real and personal estate as may be necessary for the purposes of said Corporation, and sell, lease, allot, and parcel the same or any part thereof, in such manner as the said Corporation may determine, together with all the powers, and privileges and subject to such restrictions, limitations and conditions, as are specified in the act entitled "An Act concerning Corporations, approved April 14, 1846."

Section 3. "That it may be lawful for said Corporation to establish a ferry from a point north of Deas' Point, in the county of Hudson, to the city of New York; to construct piers, wharves, bulkheads, or such other improvements as may be made thereon by the said Corporation, and keep up and maintain the same upon the land now covered by the water in front of the lands of said Company; *provided*, the same shall not obstruct the navigation of the Hudson River; and to erect ferry houses and other buildings."

Section 8. Owners of vessels not to use dock without consent of Company.

Section 9. "That this act shall continue in force thirty years, and that unless said Company, within five years from the passage of this act, shall have established a ferry, and have the same in operation, this act shall be void."

A supplement to the above was passed March 20, 1857.

A further supplement to the above was passed February 3, 1860, and by

Section 2. It was enacted "That it shall and may be lawful for the said Company to purchase and hold such lands adjoining or near the said ferry as they may deem necessary, and to pay for the same in the shares of the capital stock, or in the bonds of said company, and may receive, hold, and execute all instruments and conveyances necessary for the purchase, sale, allotment, division, lease, mortgage, or other disposition of such property by subscription or otherwise, as said company may deem most advantageous, anything to the contrary notwithstanding; and shall have the right to improve any land held by them, by laying out into lots, streets, roads, squares, cemeteries or other divisions, and to level, grade or tunnel the same; and may build any structures which they may deem necessary for the said ferry, commercial, shipping or other purposes, and shall have the right to collect, receive, demand, and sue for all wharfage, dockage and craning which they may levy upon any wharf, dock, pier, slip, or bulkhead created or owned by the said company."

Section 3. "That all things in said Act, and in the supplement thereto, approved March 20th, 1857, inconsistent with this supplement, are hereby repealed, and this act shall continue in force thirty years; *provided*, such company shall only hold lands and carry on their operations in the counties of Hudson and Bergen, and shall not hold more than one thousand acres at any one time."

By an act entitled "*An act to incorporate The Jersey Shore Improvement Company*." Passed March 3, 1854.

The preamble sets forth: "Whereas, it is represented that Marshall O. Roberts, Charles A. Heckscher, Moses Taylor, and others, their

associates, now own certain tracts of land, and land covered with water, and are about purchasing other tracts, situate in the county of Hudson, which they intend to fill in and reclaim from the water, and to divide into suitable building and other lots, and to sell and dispose of the same, for the benefit of the association, with the object of erecting a town with docks, wharves, bulkheads, ferry-slips and ferry-houses, and also of improving the said land; and whereas, it is necessary for the success of the undertaking, of the said associates, that they should be able to convey the said premises, from time to time, to such persons as may be desirous to purchase, notwithstanding death or other cause, affecting the individuals owning, or who may own the said land; and in order to give greater efficiency and concentration to their efforts for the improvement of said land." Therefore,

Section 1. Enacted, that the corporators therein named, and their successors, "shall be, and they are hereby incorporated and made a body politic and corporate, in fact and in law, by the name of 'The Jersey Shore Improvement Company.'"

Section 6. "That as soon as the said Company shall be organized, it shall be authorized to receive conveyances for the lands now owned as aforesaid, and which it is intended to purchase, and to hold and execute all instruments and conveyances necessary in the purchase and sale of such property; and the said company are hereby authorized to purchase and hold any lands adjoining or near the above mentioned tracts, within the limits of Jersey City, Hoboken, and North Bergen townships, which they may deem necessary for improving or enlarging said town, and to pay for all lands, with the shares of its capital stock, at not less than par value."

Section 7. "That the said company are authorized to improve all and every portion of the said lands, and lands under water, held or purchased by them as aforesaid, by erecting buildings, and laying out said land into lots, streets, squares, docks, lanes, alleys, or other divisions, and by levelling, grading, raising or tunnelling the said land, streets, lanes and alleys, and they shall have liberty to fill up, raise, occupy, possess and enjoy as their own property, all lands covered with water, which they may hold or purchase, and may build enlarge and improve all and any wharf or wharves, bulkhead or bulkheads, piers, slips, and other structures, which they may deem necessary for commercial, shipping, or other purposes; *provided*, that in carrying out the provisions of this section, they shall not injure the navigation of the Hudson River, or interfere with the legal rights or privileges of others; and, so far as relates to their lands, or lands under water, within the corporate limits of Jersey City, they shall be governed by the ordinances of that city; *and provided further*, that the said company or their assigns shall not be authorized or empowered by virtue of this act to improve, fill up, occupy, use or enjoy any lands lying under water in the Hudson River, south of the northerly line of the tract of land claimed by the grantees of Nathaniel Budd, in said river; *and provided further*, that the said company shall commence the improvements within two years from the first day of January, A. D. 1854, and actually expend three hundred thousand

dollars in the improvements named in this act, within five years from the first day of January, A. D. 1854; and if said company shall fail to comply with the requirements of this proviso, then all the rights, privileges, and powers granted by this act, shall be forfeited, and said act be void and of no effect."

Section 9. "That this Act shall continue in force for twenty-five years, and that the Legislature may alter, modify, or repeal the same, whenever in their opinion the public good may so require."

By a supplement to the act of the Jersey Shore and Improvement Company. Approved Jan. 30, 1855.

So much of the 7th section of the former act as prohibited the company from improving the lands south of the northerly line of the Nathaniel Budd grant, be and the same was repealed, *provided*, the consent in writing, of the said grantees of Budd be first obtained.

By a supplemental act to an act, entitled "An act to incorporate the Jersey Shore Improvement Company," passed March 21st, 1863, it was enacted:

Section 1. "That the time limited by the third proviso of the seventh section of the act to which this is a supplement, for the expenditure of three hundred thousand dollars in the improvement authorized by said act, be, and the same is, hereby extended to five years from the first day of January, 1864."

By an act entitled "*An Act to Incorporate the Long Dock Company*," passed February 26, 1856.

Section 1. The corporators named therein, "and such other owners of that part of the property in the fourth ward of Jersey City, known as the Long Dock property, which is south of the centre line of Pavonia avenue, as they may associate with them, and their successors, shall be and they are hereby incorporated and made a body politic by the name of 'The Long Dock Company.'"

Section 6. "That as soon as the said company shall be organized it shall be authorized to receive conveyances for the part of the Long Dock property above mentioned, and to purchase and hold such other lands adjoining or near the same in Jersey City, or the City of Hudson, which they may deem necessary for the improvement of their property, and to pay for all lands in the shares of their capital stock at not less than its par value."

Section 7. "That said company may improve all lands, and lands under water, that shall be purchased or held by them, by erecting buildings thereon, and laying out said land into blocks, lots, squares, and streets, or other divisions, and shall have liberty to fill up, raise, occupy, possess and enjoy as their own property all lands covered with water which they may hold or purchase, or which may lie in front of lands along any shore which they may hold or purchase, and may build, enlarge and improve on such lands any dock, pier, wharf, bulkhead, slip, or other structure which they may deem necessary for commercial or other purposes, not extending the same south of the centre line of South Second street; *provided*, that in carrying out the provisions of this section, they shall not injure the navigation of the Hudson River, and shall not interfere with the legal rights or privileges of

others, or fill in or reclaim any lands under water, except in front of the lands which they may purchase along the shore; and only in such direction as those of whom they shall purchase may have by existing laws the right to fill in and reclaim in front of the same; and that so far as relates to their lands under water within the corporate limits of Jersey City, they shall be governed by the ordinances of Jersey City."

Section 8. Company may establish a ferry to New York.

Section 9. Company may construct branch railroads from their lands to intersect within the limits of said cities any other railroad authorized by law, such branch railroad shall be invested with the same powers and privileges, and subject to the same liabilities and restrictions as were conferred and imposed upon "The New Jersey Railroad and Transportation Company," by the act incorporating the said company and the supplement thereto.

Section 11. "That this act shall continue in force for thirty years from the passage thereof; *provided*, that if said company shall not commence the improvements authorized by this act in two years, and expend upon the same one hundred thousand dollars in five years from the passage of this act, then this and everything herein contained shall be void, and the Legislature may, whenever in their opinion the public good so requires, modify, alter or repeal this act."

By a supplement to the above act, passed March 4, 1858, it was enacted:

Section 1. "That the time limited to the establishment of the ferry authorized by the eighth section of the act to which this is a supplement, be and the same is hereby extended to the 26th day of February, A. D. 1859."

By a further supplement to the above, passed March 11, 1858, the time for establishing the above ferry was extended to July 26, 1861.

The act to *Incorporate the American Dock and Improvement Company*. Approved April 11th, 1864, appears to be so important, I have annexed the entire act.

*An Act to incorporate the American Dock and Improvement Company.*

*Whereas*, it is represented that John S. Gilbert, Preston H. Hodges, James Hoy, Henry L. Gilbert, and Moses B. Bramhall, and others, their associates, now own certain tracts of land situate in the townships of Bergen and Greenville, in the county of Hudson, and desire to acquire from the State other tracts of land contiguous thereto, covered by water, which they desire to fill in and reclaim from the water and to divide into suitable building and other lots, and to sell and dispose of the same for the benefit of the association, with the object of erecting a town, with docks, wharves, and bulkheads, so as to afford facilities to secure to this State a portion of the commerce and shipping of the city of New York: and

*Whereas* it is necessary for the success of their undertaking that they should be able to convey the said premises from time to time to such persons as may be desirous to purchase, notwithstanding death or other cause affecting the individuals owning or who may own the

said land, and in order to give greater efficiency and concentration to their efforts for the improvement of the said land, now, therefore,

1. *Be it enacted by the Senate and General Assembly of the State of New Jersey:*

That John S. Gilbert, Preston H. Hodges, James Hoy, Henry L. Gilbert, and Moses B. Bramhall, and such other persons as they may associate with them, and their successors, shall be and they are hereby incorporated and made a body politic and corporate, in fact and in law, by the name of "The American Dock and Improvement Company;" and that the capital stock of the said company shall be three million dollars, divided into shares of one hundred dollars each, which shall be subscribed and paid in at such times, and upon such notice, and in such manner and instalments as the directors of said company, by their by-laws, or otherwise may direct: that such payment shall be made either in money or in land situate in said townships of Bergen and Greenville, in the county of Hudson; and in case of payment in land, the directors may issue in payment therefor the stock of said company, upon such terms as may be deemed best for its interests; and that in case of the failure of any stockholder to pay the instalments on his or her stock, at the place and within thirty days of the time appointed for the payment thereof, such stockholder shall incur a forfeiture of his or her share or shares, and of all previous payments thereon, for the use of the company.

2. *And be it enacted*, That the capital stock of the said company shall be deemed personal property, and the shares shall be transferable in such manner as the board of directors by their by-laws may direct; and every share shall entitle the holder to one vote, either in person or by proxy.

3. *And be it enacted*, That the affairs of the company shall, after the organization of the company, be managed by not less than five directors, or more than nine, to be chosen by the stockholders of the said company, annually, at such time and in such manner as the by-laws of the company may direct, who shall serve for one year, and until others are chosen in their stead, notice of which election shall be previously given for two weeks in a newspaper published in the county of Hudson. The said directors shall from time to time elect a President from their number, and may also appoint such other officers as may be convenient or necessary, who shall receive such compensation as the by-laws may direct.

4. *And be it enacted*, That John S. Gilbert, Preston H. Hodges, James Hoy, Henry L. Gilbert, and Moses B. Bramhall, shall be the first directors of the company, a majority of whom shall, as soon as convenient after the passage of this act, assemble and organize such company, and shall continue in office until others as hereinbefore directed shall be chosen in their stead.

5. *And be it enacted*, That as soon as the said company shall be organized, it shall be authorized to receive conveyances for the lands now owned as aforesaid between the south line of the lands of "The Central Railroad Company of New Jersey, (where it intersects the New York bay,)" and Cavan Point, to hold and execute all instru-

ments and conveyances necessary for the purchasing, leasing or selling of such property; and the said company are hereby authorized to purchase and hold any lands adjoining or near the above mentioned tracts, which they may deem necessary for improving and enlarging said property, and to pay for all lands with the shares of its capital stock, at such prices as the company may deem best for its interest; provided they shall not hold at any time over two hundred acres above the present high water mark, in addition to the tracts mentioned in this section.

6. *And be it enacted*, That the said company be, and hereby are authorized to improve all and every portion of the said lands under water, held or purchased by them as aforesaid, by erecting buildings and laying out said lands into lots, streets, squares, docks, lanes, alleys, or other divisions, and by levelling, grading, raising or tunnelling the said land, streets, lanes and alleys; and they shall have liberty to fill up, raise, occupy and enjoy as their own property, all lands covered with water which they may hold or purchase, or which may lie in front of any land which they may hold or purchase, and may build, enlarge or improve (or sell and convey to others to improve), all and any land or lands under water, wharf or wharves, bulkhead or bulkheads, piers, slips and other structures which they may deem necessary for commercial, shipping or other purposes, provided that in carrying out the provisions of this act, they shall not injure the navigation of the Hudson river, nor interfere with the legal rights of others, nor build out beyond the easterly line of Hudson street in Jersey City, extended southwardly, or such other exterior line as may be fixed by law; and that the southerly line of improvements, into the bay, shall be on a line commencing on the southerly side of Cavan Point, at the boundary line of lands of late belonging to Stephen B. Vreeland, and at the point where said boundary line strikes the shore of New York bay, and from thence running south forty-six degrees and thirty-nine minutes east to the channel of the Hudson River, provided that the northerly line shall be parallel to and with the said southerly line, and provided always the said company shall pay for the oysters planted, if any there be, upon any land under water which they may improve, to the person or persons by whom they were planted or shall give them at least one year's notice to remove the same; and in case the value of such oysters cannot be agreed upon, then in such case, either party, upon twenty days' notice to the other, may apply to the court of common pleas of the county of Hudson, whose duty it shall be to appoint three disinterested freeholders of said county, to appraise the same, whose reports or the report of any two of them made in writing to the said court, shall be final and conclusive; and in determining said value, the said appraisers shall be governed by the like rules as arbitrators; and provided further that nothing contained in this act shall be so construed as to give the said company any power to make any improvement whatever upon the tract of land under water in New York bay, heretofore granted to Aaron Ogden, without the consent in writing of the said Aaron Ogden, or his legal representatives.

7. *And be it enacted*, That the said company shall have the right to

demand and recover by action at law, all wharfage, dockage and cranage which may be levied upon any wharf, dock, pier, slip, or bulkhead erected by them upon their said land by virtue of this act.

8. *And be it enacted*, That unless the aforesaid improvement shall be commenced within one year from the passage of this act, then this act shall be null and void.

9. *And be it enacted*, That the Legislature may alter, modify or repeal this act, whenever in their opinion the public good may so require.

10. *And be it enacted*, That a majority of the Board of Directors shall, after the expiration of the first year of the organization of this company, be residents of this State, and that there shall be maintained at Jersey City a principal office for the conduct of the business of said company.

11. *And be it enacted*, That the said company shall pay to the Treasurer of this State, on or before the first day of July, A. D. eighteen hundred eighty-five, the sum of twenty-five dollars for each and every foot of the shore embraced and contained in this bill; the amount of the same to be ascertained by a commission to be appointed by the Governor, and the extent of the shore front is to be ascertained and measured as follows: commencing at a point on the southerly side of Cavan Point, at the boundary line of lands of late belonging to Stephen B. Vreeland, and at the point where said boundary line strikes the shore of the New York bay, and thence northerly in a straight line to the south line of the land of the Central Railroad Company of New Jersey, where it intersects the New York bay, and upon the aggregate amount so ascertained as aforesaid, the said company shall pay to the State interest, from the first day of July, eighteen hundred sixty-five, at the rate of six per centum per annum, payable semi-annually, and the said aggregate amount so ascertained, as aforesaid, shall be and remain a lien upon said lands until the payment of the same, with the interest thereon, and a certificate of the said commissioners, signed by them and the president of said company, of the measurement of the shore line, made as aforesaid, shall be filed in the office of the Secretary of State.

12. *And be it enacted*, That the payment of a proportionate part of the aggregate amount of money provided to be paid as aforesaid, shall release from the force and effect of this lien corresponding proportionate part of the land under water, embraced and contained in the bill, and the interest upon the amount paid shall cease from the time of such payment; and upon such payment being made to the treasurer of this State, the said treasurer shall give to the said company a certificate thereof, and the same being duly acknowledged, may be recorded in the office of the clerk of the county of Hudson.

13. *And be it enacted*, That this act shall take effect immediately.

*Approved, April 11th, 1864.*

*Secondly. The incorporation of companies with rights in the bay. The Morris Canal and Banking Company.*

Claim 1. By purchase from the Associates of the Jersey Company,

under the grant which the Associates got in 1804, and above set out.

*Secondly.* By various provisions in their charter.

By Act of December 31, 1824, a company was incorporated, "to form an artificial navigation between the Passaic and Delaware Rivers." By

Section 1. The corporators therein named, their successors and assigns, were incorporated by the name of the "Morris Canal and Banking Company," and among other things, they had power and authority given them "to purchase, receive in donation, possess, enjoy and retain, demise, grant, alien and sell all such lands, tenements, hereditaments, waters, streams, and water privileges, rights, goods, chattels and effects of every description whatsoever, as may be necessary for carrying into effect any of the provisions of this act, and under the restrictions and limitations therein mentioned."

Section 5. It was enacted, "That it shall be lawful for the said company to construct, make and execute a canal or artificial navigation, to connect the waters of the Delaware River, near Easton, with the tide waters of the Passaic River, and passing through the county of Morris, with all the locks, works, devices, wharves, toll houses and offices, necessary for the use of said canal." And it also makes it lawful "for the said company, by its President and directors, and by any agent, &c., or any other person or persons employed in the service of said company, to enter on lands, whether covered with water or not, for the purpose of exploring or surveying the route or routes for said canal, and locating the several works as above specified—doing thereto no unnecessary damage, and when the said route or routes shall have been fixed upon, and a survey thereof deposited in the office of the Secretary of State, then it shall be lawful for the said company, and for any agent, superintendent, or any person or persons employed in the service of said corporation, at any time to enter upon, take possession of, and use all and singular such lands, waters and streams, subject to such compensation to be made therefor as is hereafter directed."

Section 6. Authorizes them to take land, waters and streams by purchase and assessment by commissioners, &c.

By act of January 26th, 1828, the "Morris Canal and Banking Company" were authorized to extend the Morris Canal to the waters of the Hudson, at or near Jersey City," and all the provisions of the original act were extended by said supplement.

By act of February 13th, 1845, "*The Hudson County Dry Dock and Wet Dock Company*," was incorporated; for—

Section 1. The purpose of building, erecting, and constructing dry docks or wet docks, and other conveniences and structures, to be used to raise, repair and build ships, &c., and also to build and construct all such piers, bulkheads and abutments, as may be necessary or desirable to aid in the accomplishment of the purpose of this act, &c., and by their corporate name, may also have, purchase, possess and enjoy to them and their successors, lands, tenements and hereditaments, goods, chattels and effects, of what nature and kind soever, necessary for the purpose of this Corporation; and they may grant, de-

mise, alien and dispose of, at pleasure for the benefit of said company; and the said corporation shall have the power to lease or hire such lands, tenements, and hereditaments as may be necessary and convenient to carry into effect the objects of the said company."

Section 10. "The act to continue in force for and during the term of twenty years from the passage thereof."

By supplement of March 17, 1860, the above act.

Section 1. Is continued and extended for and during the time of twenty years, from and after the time fixed by the tenth section of said act, for its continuance.

By an act entitled "*An act to establish a ferry from Fort Lee to the city of New York*," passed February 10th, 1854, it was enacted,

Section 1. That Robert Annett be authorized to establish, keep, and maintain a ferry from his dock or wharf on the Hudson River, at Fort Lee in the county of Bergen, to such place or places in the city of New York as he may deem proper, and that the same may be maintained by him, his heirs and assigns, owners of said wharf or dock."

Section 2. "That the Legislature may at any time alter, amend, or repeal this act whenever in their judgment the public good require."

By a supplement to the act to incorporate the "*New Jersey Railroad and Transportation Company*," Approved February 16, 1853.

Among other things, the first section authorizes them to make improvements at the Hudson River, with the possession of property and other privileges, as may be necessary for furnishing ample accommodation for the transportation and ferriage of passengers and merchandise, and to give full facilities to the increasing business of the several railroad companies passing and to pass by this route to and from the city of New York.

An act was passed March 16th, 1854 (P. Laws, 360), incorporating the "*Point Breeze Ferry and Improvement Company*."

Section 6. Authorizes them to acquire lands by conveyances, and to hold the same, not exceeding one hundred and fifty acres. They are authorized to construct all such docks, piers, wharves, bulkheads, ferry-slips and ferry-houses, and such other improvements as they may deem necessary, in front of the said land so owned or occupied as aforesaid, sufficient for the accommodation of a ferry, as hereinafter authorized; *provided*, that in carrying out the provisions of this section, they shall not interfere with the navigation of the Hudson River, or the legal rights and privileges of others. No improvement to be made in front of lands to which they had not previously acquired the title. All planted oysters to be paid for by the Company, upon lands taken by them.

Section 7. Authorizes a ferry from Point Breeze to the city of New York.

Section 8. Continues the act in force for twenty-five years; and the legislature may alter, amend or repeal the same, whenever in their opinion the public good may require it.

Note.—Point Breeze is on New York bay, about midway between Cavan Point and Constable's Point.

By a supplement to the Morris and Essex Railroad Company,

approved March 6th, 1857: Section 1 provides that the road may be extended from the city of Newark, to, or near the Hudson river, or New York bay, in the county of Hudson, with right to take lands, &c.

Section 2. Authorizes them to erect and maintain the necessary docks, wharves and piers in said Hudson river and New York bay, at the terminus of said road, for the transportation of their passengers and freight, to and from the city of New York, and to have, maintain and use any steamboats or other vessels necessary for that purpose only, &c.

Section 3. Authorizes them to have, own and hold by lease, contract, or deed of conveyance, all such land and real estate at the terminus of said road, on said river or bay, as shall or may be necessary for docks, wharves and piers, as aforesaid, and for passenger car and store houses, and for the convenient transaction of their business.

Section 4. Authorizes them to acquire bonds as provided in their original charter.

By an act entitled "An act to incorporate *The Hoboken and Hudson River Turnpike Company*," passed March 16th, 1857, by

Section 1. That the incorporators therein named, "their successors and assigns, shall be and they are thereby created a body politic and corporate, by the name of 'The Hoboken and Hudson River Turnpike Company.'"

Section 7. "That it shall be lawful for said company to lay out, make, construct and maintain a turnpike road in the county of Hudson, to commence at a point at or near Bull's ferry, and thence to run southerly, chiefly along or near the shore of the Hudson River, to some point on the Bergen turnpike in the city of Hoboken, said road to be laid out below or east of the Palisades, or high bluffs, near the west shore of the river, and not to extend so far into the river as to interfere with navigation, and in no part to be at an elevation of more than twenty-five feet above the level of ordinary high water in said river; said road shall be laid out not more than four, or less than three rods wide, and at least twenty-four feet in width of the same shall be sufficiently arched and drained to keep the same dry, and shall be sufficiently bedded and faced with stone, gravel, plank or other hard material, to make a solid, firm and even road at all seasons of the year; and no part of said road shall rise above an angle of three degrees with the plane of the horizon; and when the same shall pass over the waters of the Hudson, or any other stream, it shall be lawful for said company to construct, keep, and maintain good and sufficient bridges on the line of said road, not less than sixteen feet in width, and protected by sufficient railings on each side."

Section 15. "That this act shall continue in force twenty years, and the Legislature may at any time, when the public good so requires alter, amend, or repeal this act."

A supplement to the above was passed, March 18, 1858.

A further supplement to the above was passed February 15, 1860, and by

Section 1. *It was enacted*: "That the Hoboken and Hudson River

Turnpike Company were authorized and empowered to extend their turnpike road from the point where it now terminates, at Bull's Ferry, northerly over the public road, according to most recent survey of said public road, to a point opposite Tillou's dock."

By an act entitled "An act to incorporate *The Constable's Hook and New York Ferry Company*," passed February 16, 1858.

Section 1. The incorporators therein named, "and their successors, were created a body corporate and politic by the name of 'The Constable's Hook and New York Ferry Company.'"

Section 6. "That said company shall have the exclusive right, privilege, and authority to establish a steamboat ferry, from any part of Constable's Hook or Point, to the city of New York, and that it shall be the duty of said company to keep and maintain the said ferry, from sunrise to sundown, at all seasons of the year, except when it shall be deemed impracticable or dangerous."

Section 7. "That for the purpose of carrying out the objects of this act, the said company may purchase or lease real estate, and erect wharves, piers, slips buildings and other necessary appendages, and may build, purchase, or hire steamboats, vessels, and other ferry boats, as they may deem necessary for the establishment and continuance of a complete ferry or ferries between said places."

Section 9. To continue in force thirty years, and possess the general powers, and be subject to the restrictions and liabilities contained in the act entitled "An act concerning Corporations," passed February 14, 1846.

By supplement to act incorporating the *Bergen Point and Staten Island Ferry Company*. Approved March 11th, 1858 (P. Laws 310) the company by Section 4th, were authorized to maintain a ferry from any part of Bergen Point, within four hundred yards of the termination of the plank road, to the point of land known as Constable's Hook, including said Constable's Hook, to any point or points on the shore of Staten Island, on the opposite side of Kill Von Kull.

Section 5. Authorizes them to build and maintain all such wharves and piers as they shall deem necessary and proper to carry out the objects of this act.

The time for establishing said ferry was extended for two years from the date of the above supplement.

By act of March 23d, 1859 (P. Laws 617), The Bergen Point and Staten Island Ferry Company and the Constable's Hook and New York Company were consolidated, and shall hereafter be known by the name of "*The Bergen Point, Staten Island and New York Ferry Company*" and to have all the powers granted under the original acts.

By supplement passed March 22d, 1860 (P. Laws 547.) The time for commencement of said ferry was extended until the completion of the Jersey City and Bergen Railroad Company, provided the ferry was then established between the termination of said road and Kill Von Kull.

By act of February 9, 1831, "*The Elizabethtown and Somerville Railroad Company*" was incorporated.

Section 1. The corporators "were ordained, constituted, and declared to be a body corporate and politic, in fact and in name, by the name of 'The Elizabethtown and Somerville Railroad Company,' and by that name, they and their successors and assigns shall and may have continued succession, and shall be persons in law, capable of suing and being sued, &c.; and they and their successors, by the same name and style, shall be capable of purchasing, holding and conveying any lands, tenements, goods and chattels whatsoever, necessary or expedient to the objects of this incorporation."

Section 6. That the President and Directors of said company be, and they are hereby authorized and invested with all the rights and powers necessary and expedient to survey, lay out, and construct a railroad, or lateral roads, from one or more suitable place or places in the village of Somerville, to one or more place or places in Elizabethtown, passing, as near as practicable through Boundbrook, Plainfield, Scotch Plains, and Westfield, not exceeding sixty-six feet wide, with as many sets of tracks and rails as they may deem necessary; and it shall be lawful for the said President and Directors, their agents, engineers, superintendents, or others in their employ, to enter at all times upon all lands or water, for the purposes of exploring, surveying, levelling, or laying out, the route or routes of such railroad, or lateral roads, and of locating the same, and to do and erect all necessary works, buildings, and appendages thereof, doing no unnecessary injury to private or other property, and when the route or routes of such road or lateral roads shall have been determined upon, and a survey of such route or routes deposited in the office of the Secretary of State, then it shall be lawful for the said company, by its officers, agents, engineers, superintendents, contractors, workmen, and other persons in their employ, to enter upon, take possession of, hold, have, use, occupy, and excavate any such lands, and to erect embankments, bridges, ferries, and all other works necessary to lay rails, and to do all other things which shall be suitable or necessary for the completion or repair of the said road or roads, subject to such compensation as is hereinafter provided: *provided always*, that the payment, or tender of the payment of all damages for the occupancy of lands through which the said railroads may be layed out, be made before the said company, or any person under their direction or employ, shall enter upon or break ground in the premises, except for the purpose of surveying and laying out said road or roads, unless the consent of the owner or owners of such land be first had and obtained."

Section 12. "That if any person shall wilfully impair, injure, destroy or obstruct the use of any railroad constructed under the provisions of this act, by the said company, or any of their necessary works, wharves, bridges, carriages, or machines, such person or persons so offending shall forfeit and pay to the said company the sum of fifty dollars, to be by them recovered in any court having competent jurisdiction, in an action of debt; and further, shall be liable for all damages."

Section 13. "That the said company may have and hold real estate, at the commencement and termination of said road or roads, not

exceeding two acres at each place, and may erect and build thereon houses, warehouses, machine-shops, and such other buildings and improvements as they may deem expedient for the safety of property and construction of carriages, and other necessary uses, and take and receive the rents, profits and emoluments thereof, and shall have the privilege and authority to erect, build, and maintain on the Elizabeth creek or sound and at the point, respectively, such wharves, piers, bridges, and other facilities, as they may think expedient and necessary for the full enjoyment of all the benefits conferred by this act; *provided*, that nothing herein contained shall be so construed as to give the company hereby incorporated the right to establish or carry on a ferry for the carrying of passengers or freight, on or from lands taken by inquest."

Section 19. "That this act shall be deemed and taken as a public act, and shall at all times be recognized as such, in all courts and places whatsoever."

By a supplement to an act entitled "An Act to incorporate the Elizabethtown and Somerville Railroad Company," passed February 8, 1832, it was enacted:

"That it shall be lawful for the Elizabethtown and Somerville Railroad Company, incorporated on the 9th of February, 1831, to continue the railroad authorized by said act, from the village of Somerville, in the county of Somerset, on the most eligible route, to the village of Clinton, in the county of Hunterdon, and from thence to the Delaware River, opposite to the village of Belvidere, in the county of Warren, with a branch, if they shall deem it expedient, from any convenient point on the route of said road to the Delaware River, between the mouth of the Muscanetcong creek and the Eastern Delaware bridge; which said road shall be of the same width, dimensions and construction as the road authorized to be erected by the act to which this is a supplement, from Elizabethtown to Somerville; and for that purpose the said company shall have the same rights, powers and privileges, given and granted by the said act to which this is a supplement, and shall be subject to all the restrictions, limitations, conditions and provisions in the said act contained, in the same manner, and to the same extent and effect, as if the same were herein again repeated," &c.

Section 4. "That the said company shall complete the said road, and branch thereof, to the points or places above mentioned, within ten years from the time of the passage of this act; otherwise this act, and all the powers and privileges hereby granted, shall cease and become void and of no effect."

By a further supplement to an act entitled, "An act to incorporate the Elizabethtown and Somerville Railroad," passed February 16, 1836, it was enacted:

"That it shall be lawful for the Elizabethtown and Somerville Railroad Company, incorporated by an act entitled, 'An act to incorporate the Elizabethtown and Somerville Railroad Company,' passed ninth day of February, 1831, to have and to hold real estate, at such convenient places along the line or lines as may be sufficient and necessary

for the use of said company, and at the commencement and termination or terminations of the road or roads authorized to be constructed by the said act, or by the act entitled, 'A supplement to an act entitled, an act to incorporate the Elizabethtown and Somerville Railroad Company,' passed February 9, 1833, as the said company may deem expedient and necessary for the uses and purposes mentioned in the thirteenth section of the said original act; *provided*, that the real estate authorized by this act, to be held by the said company, shall not exceed four acres in any one county, through which the said railroad or railroads shall pass, shall be subject to the same taxes as other freehold estate, and that the proviso to the thirteenth section of the said original act be, and the same is, hereby repealed."

A further supplement to the said last mentioned original act was passed March 7, 1837.

An act to incorporate the "*Somerville and Easton Railroad Company*," passed February 26, 1847.

By a supplement to the above, passed February 22, 1849; the said "*Somerville and Easton Railroad Company*" were authorized to purchase "the Elizabethtown and Somerville Railroad Company."

Section 3. "That the railroad so purchased, to be subject to the provisions of the charter of the Somerville and Easton Railroad Company, and that from the time of the said purchase, the said Somerville and Easton Railroad Company shall be known by the name of 'The Central Railroad Company of New Jersey.'"

Section 5. "That it shall, and may be lawful for the said company to purchase and hold lands at the termination of the said railroad at the Sound, in the township of Elizabeth, in the county of Essex, not to exceed twenty acres, for the purpose of erecting thereupon such depots, buildings and shops, and such piers, wharves and other fixtures as may be necessary for the purposes of the said company, and for the accommodation and transportation of passengers and merchandise; *provided*, that the aforesaid lands and improvements shall be subject to the same assessment, and payment of township and county taxes, as other real estate is, or shall by law be subjected to."

By "further supplement to act entitled, an act to incorporate the Somerville and Easton Railroad Company," passed March 17, 1854. It was enacted:

Section 1. "That it shall be lawful for 'The Central Railroad Company of New Jersey to erect, build or extend such wharves, docks or piers opposite to, and adjoining any lands owned by them in the township of Elizabeth, as far in the sound or bay as may be necessary for the purposes of facilitating the transshipment of coal, and their general transporting business; and also to have and hold whatever wharves, piers, lauds or lots, steamboats, sailing vessels, and such other facilities, in the city of New York or elsewhere, as may be necessary, or for the management of their business."

Section 9. "That if the said company shall, within six months from the passage of this act, file in writing their assent to and acceptance of all the provisions of this act, then the said act shall take effect immediately thereafter, but in case the said company shall refuse or

neglect so to do within the time specified, then this act shall be null and void."

A further supplement to an act entitled "An Act to incorporate *The Somerville and Easton Railroad Company*," passed February 23, 1860.

Section 1. Corporation authorized to extend road. "That it shall and may be lawful for the Central Railroad Company of New Jersey to extend their railroad from some point in their track in the city of Elizabeth, to some point or points on New York bay, in the county of Hudson, at or south of Jersey City; and for that purpose, in its construction and completion, maintenance, use, and enjoyment, all and every provision of the act entitled "An Act to incorporate *The Somerville and Easton Railroad Company*," and of the several supplements thereto, shall extend and be applicable to the railroad now authorized to be constructed, in every respect as if the same had been originally authorized under the said act to which this is a supplement."

Section 2. To construct suitable bridges over any navigable water that they may cross, with a pivot draw with two openings, &c.

Section 4. That nothing herein contained shall be construed to prejudice the claims of riparian shore owners, &c.

By act of March 11th, 1862, a ferry was authorized from Edgewater, in the county of Bergen, to the city of New York, from any dock or docks now built, or hereafter to be built, upon any land at Edgewater, Bergen county, opposite Manhattanville, New York, late of Jane Dempsey, deceased.

By an act entitled "An act to incorporate *The New Jersey Steamboat Company*," passed March 2, 1854, it was enacted:

Section 1. "That the corporators therein named, and their successors, are thereby declared and constituted a body politic and corporate, in fact and in law, by the name of 'The New Jersey Steamboat Company,' and by that name the said Corporation shall have succession, with power to sue and be sued," and "may also acquire, by purchase or otherwise, and hold, lease, and convey such real and personal estate, and in general have such rights, privileges, and powers appertaining to corporate bodies, as may be necessary and useful for the purposes and objects of this incorporation."

Section 7. "That the capital stock of this Company shall be considered as personal property, transferrable upon the books of the Company, and shall be employed as the said board, or a majority of them, may deem expedient, in the purchasing, building, repairing, and altering any vessel or vessels propelled by steam, and in the navigation of the same upon the waters of the Hudson River, and the bays, and sounds adjacent thereto, and in the purchase, repair, and building suitable landing places, wharves, and storehouses at Jersey city, or its vicinity, which may be necessary for successfully conducting the affairs of the said company; and it shall be the duty of the said board, or a majority thereof, to make from time to time such dividends of the net profits of the said company, as may be deemed advisable."

Section 9. "That this act shall continue in force for thirty years,

unless sooner modified or repealed, and that the Legislature may at any time hereafter alter, modify or repeal the same."

By act approved March 31, 1864, P. Laws 619, *The New Jersey and Pacific Steamship Company* was incorporated.

Section 6. Requires them to keep an office in Jersey city, and authorizes them to purchase, acquire, hold and convey, such real estate, docks, wharves and piers as may be necessary to enable them conveniently to carry on their business.

Section 1. Authorizes them to own vessels, to be propelled by steam or other motive power, and to be used in navigation to and from Jersey city and the city of New Orleans, and the waters of the Gulf of Mexico, in the waters of the Atlantic ocean, and in the waters of the Pacific ocean or elsewhere, to touch at any intermediate port or place between said cities or in said waters.

Capital to be \$1,500,000 with liberty to increase the same, not to exceed \$4,000,000.

To continue in existence for thirty years, but to be subject to the payment of the tax provided by the act entitled; "An act to increase the revenues of the State of New Jersey," Approved March 6, 1858.

3. Licenses taken out by riparian owners to build wharves and piers, from the chosen freeholders of Hudson county, in the bay of New York.

By the wharf act all licenses expire within five years from the date of the grant.

License granted September 13, 1854, recorded in the clerk's office of Hudson county, September 14, 1854, to *Charles F. Morton, Edward L. Morton, and Robert Fish*, to make the following improvement, viz.: to build a dock, wharf or breakwater on New York bay, beyond the limits of ordinary low water, in front of the following described land: the first piece belonging to said Charles F. Morton, commencing at the southeast corner of the land of Richard Cadmus, in the line of high-water mark; running thence, southerly, into said bay, on said Cadmus' line, sixty feet; thence easterly, parallel to high water line, fifty feet; thence northerly, parallel to Cadmus' line, sixty feet; and thence westerly, fifty feet, to the point of beginning. The second lot belonging to said Robert Fish and Edward L. Morton, commencing at a point in the line of said high-water mark, fifty feet easterly from said Cadmus' line; running thence, southerly, along the lot last described, sixty feet; thence easterly, fifty feet; thence northerly, sixty feet; and thence westerly, fifty-six feet, to the place of beginning. The last lot belonging to said Charles F. Morton, and commencing at a point in said high-water line, distant one hundred and six feet, easterly from said Cadmus' line; running thence, southerly, along the line of the lot last described, sixty feet; thence easterly, eighty feet, to the line of the land of William Morrell; thence northerly, along said Morrell's line, sixty feet; and thence westerly, eighty feet, to the place of beginning: the same to be not more than twenty-five feet wide, and to extend into said tide-water, in a southerly direction, not more than four hundred feet from high-water mark, and in a westerly direction, one hundred and eighty six feet, more or less,

to a point in a parallel line with the said easterly line of said Cadmus' land; the easterly side or line of said dock is to run on a line parallel with the westerly line of said Morrell's land.

License granted October 9, 1854, recorded October 10, 1854, in the clerk's office of Hudson county, to *David S. Manners, Peter Bentley*, and others, to build a wharf in front of their lands in Harsimus cove, in Jersey City. Such wharf to extend from a line drawn parallel to and one hundred feet north of the north side of Pavonia avenue, near the Long Dock, to a line drawn through the middle of South Fourth street, and between said lines from and beyond the limits of ordinary low-water, to a line drawn parallel to, and two hundred feet easterly from the east side of the most easterly street laid out on Mangin's map of Harsimus, sometimes called Hudson street.

Note.—This grant is understood to have expired by the limitation in the wharf act.

License granted December 13th, 1854. Recorded December 19th, 1854, in the clerk's office of Hudson county. To *David S. Manners, Peter Bentley, Andrew Clerk, Abraham O. Zabriskie, Mary Bell, Stephen D. Harrison and Abraham S. Jewell*, to build a dock, wharf or pier in the Harsimus cove, of the following dimensions: Commencing at a point in the centre of Ohio or Meadow street, on the northerly line of North Fourth street, and from thence running south sixty-six degrees, east eleven hundred and sixty feet, to the base line drawn on the map from the head land at North Point, Jersey City, to the head land at Hoboken, thence parallel with North Third street, south seventy-seven degrees, west five hundred feet, to a point two hundred feet easterly from the easterly line of Hudson street, thence south thirteen degrees, west and parallel with Hudson street, seven hundred and five feet, to a point one hundred feet northerly from the northerly line of Pavonia avenue, thence parallel with the northerly line of Pavonia avenue, one hundred feet distant therefrom, north seventy-seven degrees, west to ordinary low water mark.

Note.—This license is understood to have expired.

License granted January 17, 1855, recorded February 6, 1855, in the clerk's office of Hudson county, to *Albert N. Brown*, to build a dock, wharf or pier, of the following dimensions: to extend beyond the limits of ordinary low-water mark, into New York bay aforesaid, which said dock, wharf or pier, shall commence at a point on the most northeasterly part of the said tract, where the division line between the lands of George Vreeland and the said tract terminates, at high-water mark; from thence, running south, twenty-six and one-half degrees east, along the continuation of the said line, to a point two hundred feet beyond ordinary low-water mark; from thence by a line, to be drawn in a southwesterly direction, seven hundred and seventy feet, more or less, and at right angles with the last mentioned line, as continued, till the same would intersect the line between the lands of the said Brown and Stephen Vreeland and Mary his wife, extended in the course of the same, into New York Bay; thence, along the line between the lands of Albert N. Brown and Stephen Vreeland and

Mary his wife, as extended, north, twenty-six and one-half degrees west, to high-water mark.

License to *Charles G. Waterbury, William B. Reynolds, and Thomas K. Downing*, dated August 10, 1859, recorded August 12, 1859, in the clerk's office of Hudson county. The said license states that the parties aforesaid are joint owners of lands situate along and upon the tide-waters of the Hudson river, being described as follows: Situate, lying and being in the township of North-Bergen, at Weehawken, in the county of Hudson, and State of New Jersey, containing about six acres, being a part of Slang's Meadow; bounded north by land of Clarence C. Moore, west by lands of David Pollock and Francis Price, on the south by land of Miller, formerly of the heirs of Deas, and east by the Hudson river. The grant is to build a dock or pier into the said river, beyond ordinary low-water mark, in front of their said lands, and of the following dimensions and location, to wit: A bridge one hundred and eighty-two feet long, by thirteen feet wide, supported by piles, open to the tide, to be built out into said river; the northerly side thereof to be one hundred and fifty feet south of the northerly line of said land, with a solid dock, seventy feet long, northerly and south, by eighteen feet wide, to be built against the easterly end of said bridge, at the centre of said dock; the dock to have a solid return at each end, to be twenty feet long from east to west, by eighteen feet wide.

Licenses to *The Delaware and Raritan Canal Company, and The Camden and Amboy Railroad and Transportation Company*. Dated July 30th, 1863; recorded in the clerk's office of Hudson county September 15th, 1863.

The petition sets out that the companies own a certain tract of land at Bergen Point, in the township of Bayonne, in the county of Hudson, lying on the north shore of the Kill Von Kull, and being fourteen hundred feet in length along said shore, and lying between the lot or tract of meadow which was conveyed by Peter Crary and wife to Samuel D. Ingham and Matthew C. Jenkins, by deed bearing date the fourth day of May, 1848, and the other lot or tract of meadow, which was conveyed by the said Crary and wife to Samuel D. Ingham and Matthew C. Jenkins by a certain other deed, bearing date the 23d day of May, 1848; bounded on the west by the said lot described and conveyed in the deed first above referred to, on the east by the lot described and conveyed in the deed secondly above referred to, on the north by lands of E. H. Coutant, and on the south by the Kill Von Kull.

The license authorizes said companies to build docks, wharves, and piers of the following dimensions, to extend beyond the limits of ordinary low water mark into the waters of Kill Von Kull aforesaid.

Beginning at a point on the northerly shore of the Kill Von Kull at low water mark, where lands of the Delaware and Raritan Canal, and Camden and Amboy Railroad and Transportation Companies join the lands of Hewlett, and from thence running southerly towards the channel of said Kill Von Kull, at right angles from the line of low water, in front of the lands of the Delaware and Raritan Canal and

Camden and Amboy Railroad and Transportation Companies one hundred feet; thence easterly in a straight line, parallel with the general course of said shore line seventy-five feet; thence southerly at right angles from said shore, and towards the channel of said Kill Von Kull, two hundred feet; thence easterly and parallel with the shore fifty feet; thence northerly and at right angles towards said shore two hundred feet; thence easterly and parallel with said shore and distant therefrom one hundred feet, two hundred and fifty feet; thence southerly at right angles from said shore three hundred and fifty feet towards the channel of said Kill Von Kull; thence easterly and parallel with the shore fifty feet; thence northerly, at right angles towards said shore three hundred and fifty feet, to a point one hundred feet from the line of low water; thence easterly, and parallel with said shore two hundred and fifty feet; thence southerly, at right angles from the shore four hundred feet, towards the channel of said Kill Von Kull; thence easterly, parallel with said shore fifty feet; thence northerly, and at right angles towards said shore, four hundred feet, to a point distant one hundred feet from low water mark; thence easterly, and parallel with the shore two hundred and fifty feet; thence southerly, at right angles from said shore, three hundred feet, towards the channel of the said Kill Von Kull; thence easterly, and parallel with said shore fifty feet; thence northerly, and at right angles towards said shore, three hundred feet, to a point one hundred feet distant from low water mark; thence easterly, and parallel with said shore two hundred and fifty feet; thence at right angles from said shore, two hundred feet, to the channel of said Kill Von Kull; thence easterly, and parallel with said shore fifty feet; thence southerly, and at right angles towards said shore, two hundred feet, to a point one hundred feet from low water mark; thence easterly, and parallel with said shore seventy-five feet; thence southerly, and at right angles towards the said shore of said Kill Von Kull one hundred feet, to low water mark, at a point on the southeasterly corner of the lands of the said Delaware and Raritan Canal and Camden and Amboy Railroad and Transportation Companies.

The foregoing embraces all the grants that have come to my knowledge after careful research, and I believe the same to be complete.

Very respectfully yours,

JACOB WEART.

Jersey City, February 11, 1865.

## APPENDIX "E."

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*An abstract of all grants made by the Legislature of the State of New Jersey, of lands under water in the Delaware River, in front of the city of Camden, between Kaighn's Point and Cooper's Point.*

1st. "An act to incorporate the Camden and Philadelphia Steamboat Ferry Company," Approved February 23, 1848.

Section 1. Authorizes said company "to erect a Steamboat ferry between the city of Camden and Philadelphia, at or adjoining the north side of Spruce street, in said city of Camden."

May purchase or lease real estate, erect wharves, piers, slips, buildings and other necessary appendages.

By a supplement to the above passed March 25, 1852. The incorporate name of the above mentioned Ferry Company was changed to "The Union Steamboat Ferry Company," and they were empowered to erect their ferries, between the cities of Camden and Philadelphia, at any point or points they may select, and purchase or lease for that purpose, real estate."

By an act, entitled, "*An act to incorporate the West Jersey Ferry Company,*" passed January 31, 1849.

Preamble sets forth, "Whereas, Abraham Browning and others own the ferries between Market street, in the city of Camden, and the city of Philadelphia, with the real estate, boats, slips, and appendages belonging thereto; which property not being in its nature susceptible of division without great prejudice, and liable to embarrassment and inconvenience by death or other misfortune, while thus jointly held, the said owners desire to be incorporated, that they may, with greater security to themselves and advantage to the public, improve said ferries."

Section 1. That the persons named in the above preamble, "and such other person or persons as may be hereafter associated with them, shall be, and hereby are, ordained, constituted, and declared a body politic and corporate, in fact and in law, by the name of '*The West Jersey Ferry Company,*' for the purpose of continuing, establishing, and improving the ferry or ferries now owned by them, from, at, or

near the foot of Market street, in the city of Camden, to some point or points upon the river Delaware, within the city or county of Philadelphia; and for that purpose the said company may purchase or lease real estate, and erect wharves, piers, slips, buildings, and other necessary appendages, at or near the foot of said Market street, and at their landing place or places within the said city or county of Philadelphia; and may build or purchase steamboats, vessels, and other ferry boats, of such description and dimensions as they may think proper, and as may be necessary for the establishment and continuance of a complete ferry or ferries between said cities; and it shall be the duty of said company to keep a steamboat or boats running at said ferry or ferries in the daytime, for the accommodation of the public at all seasons of the year, under the penalty of fifty dollars for each failure or refusal, to be sued for by the party demanding and refused to be taken across said river, in any court of record in this State: *provided*, that the said forfeiture shall not attach, or be recovered when the navigation of said river is impracticable or imminently dangerous.

Section 2. "That it shall and may be lawful for the said corporations, or any one of them, to lease, or sell, convey or assign, all or any portion of their said ferry property, real or personal, to the said company; and any lease, deed of conveyance, assignment, or other transfer, made and executed by them, or any of them, shall be as good and sufficient to pass the term, property, or estate, therein mentioned and described, as the same would be if made and executed by any other person or persons."

Section 10. Penalty for injuring works, &c.

Section 11. "That this act shall continue in force for thirty years, and shall be deemed and taken as a public act; and the Legislature reserves the right, at any time, to alter, amend, or repeal the same."

3d. By an act, entitled, "*An act to incorporate The Philadelphia Ferry Company*," passed February 5, 1850, the

Preamble sets forth, "that Richard F. Loper and others own the ferries between Gloucester City, in the State of New Jersey, and in the county of Philadelphia, in the State of Pennsylvania, with the real estate, boats, slips, and appendages belonging thereto, &c.; while thus jointly held, the said owners desire to be incorporated, that they may, with greater security to themselves, and advantage to the public, improve said ferries."

Section 1. "That the said Richard F. Loper, William M. Baird, and Benjamin T. McMurtree, and such other person or persons as may be hereafter associated with them, shall be, and hereby are, ordained, constituted, and declared to be a body politic and corporate, in fact and in law, by the name of "*The Philadelphia Ferry Company*," for the purpose of continuing, establishing, and improving the ferry or ferries now owned by the persons named in the above preamble, from Gloucester, in the State of New Jersey, to some point or points on the river Delaware, in the city or county of Philadelphia, in the State of Pennsylvania, and for that purpose the said company may purchase

or lease real estate, and erect wharves, piers, slips, buildings, and other necessary appendages, and may build or purchase steamboats, vessels and other ferry-boats, of such description and dimensions as they may think proper, and as may be necessary for the establishment of a complete ferry or ferries between said places; and it shall be the duty of said company to keep a steamboat or boats running at said ferry or ferries, in the daytime, for the accommodation of the public, at all seasons of the year, under the penalty of fifty dollars for each failure or refusal, to be sued for by the party demanding and refused to be taken across said river, in any court of record in this State; *provided*, that the said forfeiture shall not attach or be recovered when the navigation of said river is impracticable or imminently dangerous."

Section 2. "That it shall and may be lawful for the said corporations, or any of them, to lease, sell, convey or assign, all or any portion of their said ferry property, real or personal, to the said company; and any lease, deed of conveyance, assignment or other transfer, made and executed by them, or any of them, shall be as good and sufficient to pass the term, property and estate therein mentioned and described, as the same would be if made and executed by any other person or persons."

Section 9. "That all the joint stock, property, money and effects of said company shall be answerable for all contracts made by said company, or any of its authorized agents, and for all just claims against the same."

Section 12. Penalty for injuring works.

Section 13. "That this act shall continue in force for thirty years, and shall be deemed and taken as a public act, and the legislature reserves the right at any time to alter, amend or repeal the same."

By an Act entitled "*An Act to incorporate the Cooper's Point Ferry Company*," passed February 23, 1850.

Section 1. "That Joseph W. Cooper and others, and their associates, and all other persons who shall become subscribers and owners of the capital stock hereby created, shall be, and they and their successors and assigns are hereby made and declared to be a corporation and body politic, by the name of "*The Cooper's Point Ferry Company*."

Section 6. "That the board of directors shall have power to erect a steamboat ferry between Cooper's Point in the city of Camden and Philadelphia, at such place or places as may best serve the public convenience, and interest of said corporation; and for that purpose may purchase or lease real estate, erect wharves, piers, slips, buildings and all other necessary appendages, and may build steamboats, vessels, and ferry boats, of such description and dimensions as the said board shall order and direct; *provided always*, that it shall be the duty of said corporation to keep a steamboat or boats running all the year for the accommodation of the public; and they shall not fail or refuse to carry any person or persons across the Delaware river in the daytime, under the penalty of fifty dollars for each failure or refusal, to be sued for by the party demanding and refused to be

taken across the said river, in any court of record in this state; *provided* the said forfeiture shall not attach or be recovered when the navigation of said river is impracticable or imminently dangerous."

Section 9. Penalty for injuring works.

Section 10. "This act shall continue in force for thirty years, and shall be deemed and taken as a public act."

By an Act entitled "*An Act to incorporate the South Camden Ferry Company*," passed March 14, 1851.

Section 1. "The incorporators and their associates, and all other persons who shall become subscribers of the capital stock hereby created, shall be, and they and their successors and assigns, are hereby made and declared to be a corporation and body politic, by the name of '*The South Camden Ferry Company*.'"

Section 6. "That the board of directors shall have power to erect a steamboat ferry, from the foot of Ferry street, at Kaighn's Point, in the city of Camden, to such place or places in the city and county of Philadelphia, as may best serve the public convenience and interest of said corporation; and for that purpose may purchase or lease real estate, erect wharves, piers, slips, buildings, and all other necessary appendages, and may build steamboats, vessels, and ferry-boats, of such description and dimensions as the said board shall order and direct. *Provided always*, that it shall be the duty of the said corporation to keep a steamboat or boats running all the year for the accommodation of the public; and they shall not fail or refuse to carry any person or persons across the Delaware River in the daytime, under the penalty of fifty dollars for each failure or refusal, to be sued for by the party demanding and refused to be taken across the said river, in any court of record in this State; *provided* the said forfeiture shall not attach or be recovered when the navigation of the said river is impracticable or imminently dangerous."

Section 9. Penalty for injuring works.

Section 10. "That this act shall continue in force for thirty years, and shall be deemed and taken as a public act."

By "supplement" to the above act, passed February 24, 1853, the said "*South Camden Ferry Company*," were authorized to establish their ferry at the foot of Kaighn's Point avenue, formerly called Market street, at Kaighn's Point, in the city of Camden. "And erect and maintain the necessary wharves, slips, gates," &c.

Section 2. "So much of the said original act as requires the said company to erect their ferry at Ferry street, in the city of Camden, is repealed."

By an act entitled "*An Act to incorporate the Kaighn's Point and Philadelphia Ferry Company*," passed March 15, 1859, the said "*Kaighn's Point and Philadelphia Company*" was granted the same powers and privileges that "*The South Camden Ferry Company*" held by their charter of March 14, 1851. An abstract of which charter is given above.

By an act entitled "*An act to incorporate the Gloucester and Philadelphia Ferry Company*," passed February 25, 1861. By this act, the said "*Gloucester and Philadelphia Ferry Company*" had the same powers and privileges given them as the above recited ferry companies.

By "An Act to authorize Joseph W. Souder and William W. Deklyne, of the city of Philadelphia, to build, maintain, and keep in repair a dock or wharf in front of their lands, in the township of Chester, in the county of Burlington."

Section 1. "That it shall and may be lawful for the said Joseph W. Souder and William W. Deklyne, their heirs and assigns, to build, maintain, and keep in repair a dock or wharf upon and in front of their lands, in the township of Chester, in the county of Burlington, a sufficient distance into said river for the purposes aforesaid, and from time to time to rebuild and repair the same; and to lay vessels at said dock or wharf, and receive dockage or wharfage therefor from all persons using the same; *provided*, that nothing in this act shall be construed to confer any right to ferry, upon the owner or owners of said dock or wharf, nor to authorize the extension of said dock or wharf so far into said river as to injure or impede the navigation of the same."

Section 2. Penalty for injuring dock.

By "An Act to authorize Andrew Manderson and James Manderson to build, maintain, and keep in repair a dock, wharf, or wharves, in front of their lands in the township of Newton, in the county of Camden," passed March 19, 1851. The powers and privileges same as the above.

"An act to authorize John W. Mickle to build wharves in front of his lands in the township of Newton, in the county of Camden," passed March 17th, 1854. The powers and privileges same as the above.

"An act to authorize Joseph W. Cooper to build wharves in front of his lands, in the city of Camden, in the county of Camden," passed February 6, 1858. The powers and privileges same as the above.

By "An act to authorize and confirm the erection of wharves and piers, by the National Iron Armor and Ship Building Company, in the county of Camden," passed January 28th, 1864.

Section 1. "That all wharves, piers, docks, or other works, heretofore erected, now in course of erection, on or in front of the lands of the National Iron Armor and Ship Building Company, on the river Delaware, in the county of Camden, shall be and are hereby confirmed and declared to be valid and effectual in like manner as though the same had been erected or commenced to be erected under the authority of an act of the legislature of this state."

Section 2. Penalty for injuring works.

An act to incorporate the "Camden and Atlantic Railroad Company." Approved March 19th, 1852, page 253.

By Section 6. The president and directors of said company were authorized to survey, lay out and construct a railroad from the city of Camden, in the county of Camden, or from some point within one mile of said city, to run through the counties of Camden and Atlantic, to the sea at or near Absecom inlet, in the said county of Atlantic.

Section 13. That the said company may purchase, have and hold real estate at the termini of the railroad, and at any intermediate depots upon the line of the same, not exceeding five acres at each place, and may erect or build thereon, such houses, warehouses and machine shops, and other buildings and improvements, as they may deem expedient for the safety of property, and the construction and repairing of cars, carriages, steam engines, and for other necessary uses.

"An act to incorporate the New Jersey Ocean Steam Navigation Company." Approved February 19th, 1855. (88)

Section 1. Power "to build, lease, &c., steamboats and other vessels, and to purchase, lease, construct, at the city of Camden, and at other ports and places upon the river Delaware, such wharves, piers, storehouses, &c., as they shall deem necessary; and also power to transport and carry freight and passengers, from the cities of Camden and Philadelphia, and other ports and places upon the river Delaware, to the cities of New York and Brooklyn, provided they shall not make any erection upon the river Delaware so as to impair the navigation of said river.

"An act to incorporate the Farmers' and Citizens Ferry Company." Approved March 10th, 1856. (186)

Section 6. Authorizes the board of directors of said company to erect a steamboat ferry from the foot of Cooper street, or some other point in the city of Camden, to such place or places in the city of Philadelphia, as may best serve the public convenience and interest of said corporation. May purchase or lease real estate, erect wharves, piers, &c., and build ferry boats, &c.



