Morning Session_1st day

SECOND PUBLIC HEARING

JOINT COMMITTEE OF THE LEGISLATURE TO INQUIRE INTO AND INVESTIGATE WIRE TAPPING AND THE UNAUTHORIZED RECORDING OF SPEECH GENERALLY BY MECHANICAL OR ELECTRONIC DEVICES OR ANY OTHER APPARATUS - CREATED PURSUANT TO SENATE CONCURRENT RESOLUTION NO. 4 (1956)

Held:
Assembly Chamber, State House
Trenton, New Jersey
September 25, 1956

MEMBERS OF COMMITTEE

Present: Senator Malcolm S. Forbes, Chairman
Senator Frank W. Shershin
Senator Donal C. Fox
Assemblyman Dominic A. Cundari
Assemblyman Joseph M. Thuring

Absent: Assemblyman Paul M. Salsburg

APPEARANCES:

Russell T. Kerby, Esq., counsel
to the Committee

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SENATOR MALCOLM S. FORBES (THE CHAIRMAN): The Joint Legislative Wire Tap Committee will open its second public hearing this morning. Before we get underway, for the benefit of all concerned, I will read the Senate Concurrent Resolution under which the Committee has been conducting its investigation and which sets forth the objectives of the Legislature creating this Committee:

(Reading: A CONCURRENT RESOLUTION creating a joint committee of the Legislature to inquire into and investigate wire tapping and the unauthorized recording of speech generally by mechanical or electronic devices or any other apparatus.

BE IT RESOLVED by the Senate of the State of New Jersey (the General Assembly concurring):

1. There is hereby created a joint committee of the Legislature to consist of 6 members, 3 to be appointed from the membership of the Senate by the President thereof and 3 to be appointed from the membership of the General Assembly by the Speaker thereof, who shall serve without compensation. Vacancies in the membership of the committee shall be filled in the same manner as the original appointments were made.

2. The committee shall organize as soon as may be after the appointment of its members and shall select a chairman from among its members and a secretary who need not be a member of the committee.

3. It shall be the duty of said committee to make a study and investigation of the subject of wire tapping and the recording of speech generally by mechanical or electronic devices or any other apparatus; to inquire into and investigate whether unauthorized wire tapping and unauthorized recording of speech, generally, by mechanical or electronic devices or any other apparatus is being carried on by public or private bodies or agencies or by individuals in the State; to determine the need for broadening, if necessary, our present statutory provision covering wire tapping, and the need, if any, for legislation covering unauthorized recording of speech.

4. The committee shall have all the powers of a joint legislative committee provided by chapter 13 of Title 52

of the Revised Statutes and shall be entitled to call to its assistance and avail itself of the services of such employees of any State, county or municipal department, board, bureau, commission or agency as it may require and as may be available to it for said purpose, and to employ such stenographic and clerical assistants and incur such traveling and other miscellaneous expenses as it may deem necessary, in order to perform its duties, and as may be within the limits of funds appropriated or otherwise made available to it for said purposes.

5. The committee may meet and hold hearings at such place or places as it shall designate during the sessions or recesses of the Legislature and shall report its findings and recommendations to the Legislature, accompanying the same with any legislative bills which it may desire to recommend for adoption by the Legislature.

That, I think, pretty well explains what we are doing and why we are doing it.

We have had a number of private hearings to put together material that will help this Committee formulate recommendations pertaining to the statutes on wire tapping and the recording of speech generally, as it says here, by mechanical or electronic devices.

I might, just for the purposes of illumination, read the existing statute on wire tapping. This is the law that is now on the books in the State of New Jersey:

(Reading) Any person who willfully and maliciously:

a. Cuts, breaks, taps or makes any connection with a telegraph or telephone line, wire, cable or instrument belonging to any other person; or

b. Reads, takes, copies, makes use of, discloses, publishes or testifies concerning a message, communication or report intended for any other person and passing over any such telegraph or telephone line, wire or cable in this state; or

c. Uses any apparatus unlawfully to do any of such acts--

Is guilty of a misdemeanor.

That is the existing statute. Now, it is a question, as I say, of whether that statute is adequate, whether it is violated, whether it should be broadened to cover devices that may not be covered in that language. That is the subject that concerns this Committee and its purpose is to make recommendations to the Legislature in its report, which subsequently may be enacted into law.

We might as well get underway. We will ask this morning first if Mr. Raymond J. Smith of the New Jersey Bell Telephone Company will please come forward. Mr. Smith, will you be sworn.

R A Y M O N D J. S M I T H, being duly sworn according to law, testifies as follows:

EXAMINATION BY MR. FORBES:

Q Mr. Smith, will you tell us what your title and connection or association with the Telephone Company is?

A Senator Forbes, Mr. Chairman, and members of the Committee, my name is Raymond J. Smith, and my residence is Summit, New Jersey, and my business office is 540 Broad Street, Newark, and my present service or assignment is that of Assistant General Plant Manager of the New Jersey Bell Telephone System.

Q Could you explain to the Committee what mechanically takes place when a telephone call is made, where the signal travels, and where possible interceptions may be made?

A Yes, Senator, I would be glad to describe the plant that could be involved by any investigation by this Committee. I have a chart that I think will help the Committee and if Mr. Lester

will place it somewhere so that you gentlemen can see it, I think it might be helpful to the Committee to learn just how the circuit works.

(Chart placed before the Committee)

MR. SMITH: The telephone plant, as we all know it, is by nature a very complex arrangement. The focal point in any telephone system is really the central office or wire center from which cables containing wires spread out or fan out geographically in an area. Now, the size of this geographical area or the size of the central office building depends entirely on the density of the business population and also the telephone or resident population. Now, in the State of New Jersey, gentlemen, we have 178 central offices. Now, if you can visualize, there is one here in Trenton, one in Mercerville, Pennington, and other places. The largest central office we have carries or contains 22,000 lines, and the smallest in New Jersey serves 125,000. A central office is connected to every other central office by what we call trunk control cables. Now, these cables go from frame to frame, the frame of one building to the frame of the next. I doubt if this Committee is particularly interested in that kind of a circuit because it is not exposed. It is really from frame to frame. However, the part of the telephone plant which I think would be of interest to this Committee is the part which is directly associated with a telephone number and a subscriber line. Now, that is the kind of plant that really originates here in the central office at what we call the main frame and carries on out to the subscriber's frame. That is an individual line associated with a

particular number.

Now, the focal point of operation is the central office. In the central office are switchboards, switching arrangements, and also operating equipment that will permit one subscriber line to be terminated or perhaps connected with some other subscriber line and switched as we see fit. Also it provides an opportunity for any subscriber in this area to cross connect and go to another office over a trunk line. The central office is on this main distributing line here. This is where the cables come in from the outside and they are attached to verticals. There are two sides to this frame. One is the vertical side and the other is the horizontal. The vertical side is where the cables come in from the street. It is at that point where the cable receives its number.

Now, on the other side of this frame, we have connected what we call the central office equipment to that, so that a cross connection may be run from the vertical side to the horizontal side.

(Demonstrates by means of a chart to the Committee how the telephone plant functions.)

SENATOR SHERSHIN: Mr. Smith, excuse me. I think your voice is not being recorded. I am wondering, if you are going to use that chart, if you will please stand near one of the microphones so that your voice may be recorded.

SENATOR FORBES: Now, you have explained this generally to this Committee. Now, could you explain this business about pair and cables, bridging points, terminal and junction boxes, cheese box, and service observing shoes and some of the other terms that are the jargon of the telephone business and of

the wire tapping experts.

MR. SMITH: I will try to explain some of it. You see the number on the vertical side of the frame and also the cable. As these cables leave the vertical side of the main frame, they have a very definite number; that is, a cable number and also a pair number. Wherever those pairs are terminated, by obtaining a specific number; for example, in this case here, the count might be 1 to 16 of cable #1, and the terminal- the pairs are assigned and terminate at that terminal. Likewise, the pairs would appear here, and in that particular terminal, the count might be 6 to 21 of that same cable, and so on. Now, in the case of a building, the same principle would be followed but, instead of it being a 16 pair terminal, it might be a hundred pair terminal.

SENATOR FORBES: In making a tap, a person needs to know those pair/cable numbers?

MR. SMITH: Yes, sir.

SENATOR SHERSHIN: That cable, is that encased in lead or is that just a fiber cable?

MR. SMITH: I'm glad you raised that question. It is usually in lead but there is something new which they call Al-pack now, which is the same thing. It's a sheaf which is around the outside of the cable. It's really enclosed in lead.

SENATOR FORBES: There's a note on here about service observing shoes. What's that?

MR. SMITH: Well, a service observing shoe, Senator, is used in the central office here and it is an attachment that

can be made to the horizontal side of the frame to observe on a circuit.

SENATOR FORBES: What do you mean by "observe on a circuit"?

MR. SMITH: Well, I'll tell you. I'm not too familiar with that particular phase, Senator, about the observation, but a shoe is used, for example, where we are testing and that sort of thing, where we would go in on a line to determine how the line is working.

SENATOR FORBES: It's a means of listening to see if the service is working?

MR. SMITH: It's a means of attaching onto that circuit, yes, sir.

MR. KERBY: Are those in constant use, Mr. Smith?

MR. SMITH: No, sir.

MR. KERBY: When would they be put on?

MR. SMITH: Well, in the plant department, and I am speaking for the Plant Department, Mr. Kerby, we would put them only in a case where we had trouble; that is, if we had trouble, where we were testing, that is where we would use a shoe.

MR. KERBY: In other words, the subscriber might call you and say, "There is some difficulty with my line," and in that case you would put up a service observing shoe and listen?

MR. SMITH: That's right. I didn't say we would listen in on the line, no. We would put it up for test purposes.

MR. KERBY: Just to test.

SENATOR FOX: Well, boiling it down, a shoe is a device or an instrument that you use to test the efficiency of a line to find out whether it is working; is that it?

MR. SMITH: Well, Senator--

SENATOR FOX: To see whether there is any defect in it?

MR. SMITH: Well, I think you can broaden that a bit. It's an arrangement really to attach or monitor into a circuit; in other words, you could go on to these lugs as we call them here, and you monitor on to the circuit.

SENATOR FOX: When you use the technical term "monitor," what do you mean by that?

MR. SMITH: I mean, we use that as a means to attach to that circuit without opening up the pairs or that sort of thing.

SENATOR FORBES: In other words, you can listen in?

MR. SMITH: That is correct.

MR. KERBY: Will you explain the term "no test selector"? Is that a familiar one to you?

MR. SMITH: No, it isn't.

MR. KERBY: We had the term mentioned at one of our hearings. We'll have someone else explain it later on, perhaps.

SENATOR SHERSHIN: Mr. Smith, assuming that one of the employees of your company were making a test in the field or at the central office, what method can a subscriber pursue to determine whether or not that is a proper interception of a message by your employee, by way of splitting the conversation? What can a subscriber do to determine whether or not someone is legally or illegally on the wire?

MR. SMITH: Of course, our employees are instructed, if they go in on a line for test purposes, if there is any

conversation on it, they are supposed to get off that line immediately. Now, the only thing a subscriber could get, in my opinion, would be a click, as a result of test clicks or something of that kind, but if there is any conversation on the line, our people are instructed to get off of it.

SENATOR SHERSHIN: Well, suppose someone called an unlisted number and indicated that he was a representative of the Telephone Company, how could the subscriber check that out to see if he actually was an employee of the Telephone Company?

MR. SMITH: Well, in fact, I don't know any way that he could. This is a call that came into his telephone?

SENATOR SHERSHIN: This is a call that comes in to an unlisted number, and the man says, "This is the Telephone Company," how can you check that out to find out whether or not the person on the wire is actually working for the Telephone Company or whether it is somebody fooling around with the wires and using the excuse that he is the Telephone Company, while he is probably listening in and making a tap?

SENATOR FORBES: I suppose you could get his name and address and write back and ask the Telephone Company if he is employed and if that's his duty, and is he on that job at this time.

MR. SMITH: I think if it was a telephone employee, he would identify himself in some way immediately.

SENATOR SHERSHIN: For the record, I would like to say that perhaps it's not within your experience, but I have been advised that when that occurs, the proper question to ask is

for the man's badge number and immediately to call the supervisor - ask him for his name as well as his badge number, and then the supervisor will check, to determine whether or not that employee is actually an employee of the telephone company and, secondly, whether or not the telephone company itself is working in that particular area. If they are working in that particular area, they can, within a period of 12 hours, determine whether or not it's a tap or whether it is actually the telephone company itself working and servicing the area.

MR. SMITH: I would think that would be it.

SENATOR SHERSHIN: Well, that is the procedure, I wanted it in the record.

MR. CUNDARI: Mr. Smith, you said before that in order to consummate a tap, it would require knowing the pair number. Is that correct, sir?

MR. SMITH: Yes, sir. Pair and cable number.

MR. CUNDARI: How would anyone pick up that pair and cable number? How would you be able to determine that pair and cable number?

MR. SMITH: Well, we don't think that they could; that is, we have set up a practice and a plan whereby the only location where the telephone number, the pair number, and the cable number appear is either at a test bureau or an assignment bureau, and only telephone employees are admitted there and very few of them.

MR. CUNDARI: Then it is your viewpoint that if a tap

is consummated, it could only have been consummated as the result of someone in the telephone company giving out the pair number and the cable number.

MR. SMITH: Well, I won't go so far as saying that it could only come from an employee giving out that information. I will say this, that I think, if a person taps a line, they must have the telephone number, the pair number, and the cable number.

MR. CUNDARI: But the only source from which they could obtain this information is from the telephone company, one way or the other?

SENATOR FORBES: In other words, those numbers are not available in any general way.

MR. SMITH: That's right. The only place that there is a record of those three items, that is, the telephone number, the pair number, and the cable number is in the telephone company.

MR. CUNDARI: Then, as a matter of necessity, any wire-tapping that is done must have some conspiracy or some sort of connection with the telephone company. Is that correct, sir?

SENATOR FORBES: Well, I don't think that's quite fair.

MR. SMITH: I don't think I could quite agree with that.

SENATOR FORBES: Well, in other words, if somebody who knew their way around, they could go in there, the same way that they rob safes, and steal the information. You don't mean to imply that it has to be with the cooperation of the telephone company?

MR. CUNDARI: No. I don't mean a company employee; it could be a man who had been employee and got fired, but the initial source must be the telephone company.

MR. SMITH: That is the only source of information.

SENATOR FOX: Let's get this down, too. Boiling it down in connection with Senator Shershin's question: From a technical aspect, there is really no way that a customer of the telephone company can by himself determine whether or not his wire is being tapped; is that so?

MR. SMITH: I believe that to be so, Senator.

SENATOR FORBES: Would the telephone company use this service observing shoe to observe the line of a suspected bookmaker?

MR. SMITH: No, sir, the company would not.

MR. KERBY: Mr. Smith, isn't it also important to know the terminal box location? In other words, the same pair and cable go along with many other pairs and cables for some time and then they go into a terminal box. Wouldn't someone who is tapping a line of a particular residence need to know the terminal box location also?

MR. SMITH: Yes, I think he would, Mr. Kerby. He would need to know the location where those particular pairs come out, on the pole or basement, or whatever that might be.

SENATOR FORBES: He would need to know the ropes, so to speak.

MR. SMITH: That's right, Senator Forbes.

SENATOR FORBES: To pursue this other question - If the telephone company gets a complaint, say from a law enforcement agency, in terms of a suspected bookmaking establishment - that seems to be an operation involving telephones - how do they proceed on such a complaint? Do they do any of the investigatory work in connection with such a complaint, or

if the company itself suspects there is use of their service for illegal purposes, how do they proceed for their own self-protection to detect, prove, or discontinue service?

MR. SMITH: The telephone company, when we receive a request of that nature, dispatches a supervisor and a workman to make a field inspection as to just what they find, and report back and then it is referred in our organization to our legal department as to what we find and the report, and on the basis of the finding the decision is made, Senator, as to what we will do.

SENATOR FOX: Will you repeat that again, Senator? I just want to get that straight.

MR. SMITH: When we receive a complaint, let's say, of bookmaking or alleged bookmaking, which is perhaps a better word, we send a supervisor and a workman to inspect that particular station or service--

SENATOR FOX: To inspect that line?

MR. SMITH: That's right. -- and report back and, if anything is found that is irregular at all, it is turned over to the legal department and they make the decision as to what procedure we should follow.

MR. KERBY: Mr. Smith, do you think it is possible for somone to tap a wire in a particular residence by observation; in other words, by observing a line; couldn't he go to the house and see the wires going into the basement and trace them up to the terminal box and come back at night and do it without knowing the exact pair and cable numbers?

MR. SMITH: Well, Mr. Kerby, when you say "possible," I'm not going to say it is impossible. It may be highly improbable, but to say it's impossible, I don't think I can go that far. I think a person who was ingenious and knew his way around and that sort of thing - in fairness to your question, I think it could be done.

MR. CUNDARI: In your central office where you have, as you said before, 125,000 lines, the possibility is easier than where you only have 40,000; is that correct?

MR. SMITH: Well, I think that is true.

MR. KERBY: Is there a terminal box on every telephone pole?

MR. SMITH: No, Mr. Kerby. We use these terminals for distribution and, for example, if we are going through an area where there are no houses and that sort of thing, there are no terminals, but wherever it is densely populated there is a terminal on every pole.

MR. KERBY: Within the terminal box, is there an identification of the pair and cable so that one could tell what goes to what number?

MR. SMITH: Yes, sir. I think the terminals are stenciled, Mr. Kerby, as to the number.

MR. KERBY: Would the telephone number be on there?

MR. SMITH: No. The telephone number appears no place other than in the centralized record.

MR. KERBY: I have heard of instances where in basements of apartments, they sometimes have the telephone numbers right

on there. Have you ever heard of that?

MR. SMITH: No, I never have. There is no record of telephone numbers at all.

MR. THURING: Mr. Smith, when a complaint comes in with reference to alleged bookmaking, you don't go into a detailed investigation of the complaint that is extended; is that correct?

MR. SMITH: That's right.

MR. THURING: Do you ever use the service of the accused to find out anything by tapping the wire or listening in?

MR. SMITH: No.

MR. THURING: Why don't you use that? That would be a lot quicker, wouldn't it?

MR. SMITH: We have never resorted to monitoring on a private line, or that sort of thing, Assemblyman, in my experience.

MR. THURING: Well, will you describe for us briefly the type of investigation you do make to determine whether or not bookmaking is going on?

MR. SMITH: Well, I thought I covered bookmaking with Senator Fox; that is, we send a foreman and a workman on it and they inspect the line all the way from the central office out, right to the residence, and report back whether they find any attachments, any extensions, or anything of that kind on the line, and that is reported to us. If there is anything that is irregular over and above what the line or that station should have, then we talk to the legal department and decide what we are going to do.

MR. THURING: Over what period of time does it take between the time of the complaint coming in to the end of your investigation, normally?

MR. SMITH: Oh, I think it's done within a day.

MR. THURING: A day?

MR. SMITH: That's right, because those things usually, when we get them, Mr. Thuring, it's a red flag.

SENATOR SHERSHIN: Mr. Smith, is it true that lines encased in a lead cable are less likely to be tapped than lines encased in a fiber material?

MR. SMITH: No, I think a fiber cable, this All-pack that I am speaking of, is just as strong and just as tap proof as lead cable.

SENATOR SHERSHIN: Then you say lead is tap proof?

MR. SMITH: Yes, I think so.

SENATOR SHERSHIN: So that if my particular line were encased from the pole where the terminal is, that particular terminal, right to my building, there can be no tap on my line unless it were made at the pole or in my basement; is that right?

MR. SMITH: Well, I believe it is. I think it would be most difficult to get into a lead cable. If you can visualize some of these cables; for example, in the largest cable, I think there are 2100 pairs of wires underground, 2100. Now, if you go into 2100 pairs and pick out any particular pair-- and I think if you ever went into a cable like that, you would put so darn much trouble in there that we would know it immediately; that is, water gets in there,

other lines get crossed up; we'd have half the city out. I think the possibility of going into a lead cable is very remote.

SENATOR FORBES: Well, if there are no more questions, Mr. Smith, the Committee would like to thank you very much.

MR. CUNDARI: I would like to ask you one question, Mr. Smith: In the event a law enforcement agent had knowledge of some crime being committed and consummated a tap, can you tell us in a few words, how he could possibly consummate a tap?

MR. SMITH: No, I don't think I could, Assemblyman. I don't know how he would, other than having this information that I have referred to, having the number of the telephone.

MR. CUNDARI: And that is not available to him?

MR. SMITH: That is not available to him.

SENATOR FORBES: I just might make one observation: You find, in terms of running down complaints concerning the misuse of phones - whether it is for bookmaking or some other illegal purpose - that you can make investigations without wiretapping?

MR. SMITH: Yes, sir, very definitely.

SENATOR FORBES: Thank you very much.

MR. SMITH: Thank you.

MR. FORBES: Now the Committee would like to ask Mr. Bernard Spindel if he could demonstrate to us some of the methods of tapping wires. Mr. Spindel's only connection with this Committee is that we've heard he has an extensive knowledge in the field of wire tapping and that he has consented to assist the Committee by putting on this demonstration this morning of various ways and means of doing it. And I think that he can probably illuminate the Committee to a considerable extent in the ways and wherefors of wiretapping and electronic devices for the recording of speech.

B E R N A R D B. S P I N D E L, called as a witness, being duly sworn, testified as follows:

Mr. Chairman, before I present the demonstration of some of the electronic devices, I'd like to take exception to certain statements made by the previous witness. He has testified that - well, on this point, for the clarity of the Committee --

MR. FORBES: Wait just a minute. Now, I think if you would just confine it to the explanation of your own demonstration; in other words, you can explain your techniques and so forth. Now, this afternoon, or later when you will be a witness before the Committee --

MR. SPINDEL: Well, it is part of my testimony anyway in that the method of tapping and the electronic devices which enable us to do it, --

MR. FORBES: Well, it may be that you know more about a wire tap than the telephone company.

MR. SPINDEL: I'd like to state this that in installing our

instruments, we do not at any time -

MR. FOX: Now wait a minute. If this witness is going to testify, he should testify to exactly what he is going to tell us and it should not concern anything else. I see no reason whatsoever why he should take exception or make any statements with respect to the testimony of the previous witness of the telephone company. He can testify in his own behalf. That is what we are interested in and that is what we want to hear.

MR. FORBES: Well, in other words, Mr. Spindel, would you give us the demonstration, and in the course of it you can explain how it's done and where it's done. And maybe later on today we can go into the other things and information that you think would be helpful to the Committee. This morning we will confine it to the demonstration if that's all right with you.

MR. SPINDEL: I have here on the table before the Committee an automatic tape recorder which is designed exclusively for the use of wire tapping. This device here when installed, and it can be installed at a distance from the subscriber or the subject of the tap anywhere from his premises to ten, fifteen or even twenty miles away. This unit will operate automatically, and will only function when the telephone is lifted off the receiver cradle. When the subscriber hangs up, the equipment will cease. This unit as it is designed at present will take seven hours and twenty minutes of conversation and it only will operate during the period when the 'phone is actually in use. There is no wasted time.

I have before me here a telephone which is alive and in picking up the telephone instrument you will notice that the recorder will go. Hanging up the instrument will automatically stop it. One other

feature that is built into this unit here and is not generally known is that any telephone located anywhere in the world can, with the addition of one wire be converted to a live microphone, even though the 'phone is hung up in its cradle and without affecting normal telephone service.

MR. FOX: Now, will you go over that again.

MR. SPINDEL: This telephone here at present, and I'll turn this on so that you can hear the dial tone when I pick it up, (demonstrating) Now, the unit as it sits, it may be in your living room, in your office, or in your home in your bedroom, is a live microphone at all times. We could sit ten miles away from your home or your office and record anything that is said within thirty feet of that telephone.

MR. KERBY: In the home?

MR. SPINDEL: In the home or in an office.

MR. KERBY: With the receiver on?

MR. SPINDEL: With the receiver in its cradle and without affecting normal telephone service.

MR. FOX: You say with the telephone receiver in its cradle.

MR. SPINDEL: As it is sitting there now it is a live microphone.

MR. FOX: And you do have means whereby that can be converted into a microphone.

MR. SPINDEL: That is correct.

MR. KERBY: But you don't have the automatic turn-off shut-off with that.

MR. SPINDEL: Yes we do. This microphone is alive. (demonstrating) You can hear it, and then remove the microphone, and she's dead now.

This telephone microphone is actually one of the best microphones that you can use for this purpose, and if a person knows the proper electronic units to go with this, it is actually one of the most sensitive microphones in the world.

MR. FOX: Let me ask you this. In other words if you run this wire that you speak of into this 'phone you can utilize the microphone in the cradle, or in the receiver, even though it be in the cradle and not in active use to gain information or the conversation going on within that person's home.

MR. SPINDEL: That is absolutely correct.

MR. FORBES: You don't have to run a wire in, as I understand.

MR. SPINDEL: You run a wrist wire here, normally with a telephone it's either a two-conductor or a three-conductor wire. The switching of this wire, this one presently now, is a four conductor. We could use the three conductor on certain types of service other than party line service. We wouldn't even have to change this wire. We would just run an additional pair of wires to our microphone from the building on out. In most cases we might not even have to enter the premises in order to accomplish this.

MR. CUNDARI: Then you don't need a pair number or a terminal number in order to make a microphone out of the telephone.

MR. SPINDEL: No. That is not required at all

MR. CUNDARI: Or even to use it as a wire tap instrument, you don't need the terminal number or pair number.

MR. SPINDEL: No. This unit here will switch from automatic telephone use. In other words, if I pick up the telephone the unit will start on the telephone side. When I hang it, it will automatically switch it to room conversation. And I will demonstrate here a voice

instrument which goes in conjunction with this, that if no one is in your home or in your office, the recorder will not run or will not waste any tape. But if you walk into the room your footsteps will trip it, and if you start talking your human voice will start the recorder going, and it will stay on as long as you keep talking. And then by delayed action it will stop after you leave the room, or you stop talking beyond the delayed action time.

MR. CUNDARI: Let me ask you this: the wire that goes into this receptacle must also come from another source, origin undetermined, is that correct?

MR. SPINDEL: Your microphone starts right from the original telephone.

MR. CUNDARI: Where does the wire that goes into the microphone start from?

MR. SPINDEL: That starts in this cord. That would be connected to a terminal block in the wall. From this terminal block we would take it and bring it outside the building, or perhaps if it is an office building, in the basement of that building; or if it is an apartment building, in the basement or in another apartment, and there we would set up our listening device.

MR. CUNDARI: Then there is no connection at all with the cable that goes into the house?

MR. SPINDEL: Not necessarily on the microphone, but on the telephone end it would. To clarify that point in your mind, I will state this to the Committee, that in order to tap the telephone, I do not have to know the telephone number; I do not have to know the cable number or the pair number. It may come as a surprise, but that is actual fact. A professional wiretapper does not require that

information from any other source. We can find it ourselves, and without the aid of anyone else.

Let us assume that you took me to an area outside the suburbs of Trenton, and you pointed out a specific house that you wanted that telephone tapped. Now you know the man has a special unpublished number, and you do not know the number, and therefore you can't give it to us. We would go up and observe the wire going from the subscriber's home to the telephone pole. We would climb up to that pole and look at the box, which is stencilled as to a particular pair number. Even if it wasn't stencilled, it's still immaterial to us. We know that that particular terminal is now subscriber's line that we want to tap. By putting our hand set on an adjacent pair - we'll say this is an inside wire block, it is not an outside block, but an outdoor weather proof version of this would appear on the telephone pole. This will hold six telephone lines. Now, let us say that the line coming from the subscriber's house that we want to tap goes on to the third pair here, and you would see a wire coming through here attached to this third pair. Now, I would put my hand set on perhaps the pair before the subscriber that we're going to tap, and I can tell with my hand set that that is a live line, because by pushing the button I would get a dial tone. Now I will dial operator and ask the operator to ring the subscriber, - by the technical means of pushing the button down, it cuts me out of the circuit, and the operator will ring the subscriber on the second terminal, and I will tell the party that we are checking some wires, what is the address of this telephone, and she will tell us a particular address - it may be three blocks away. Now, we know one thing from that telephone call. We know that pair number two on this block also comes out as a bridge

point at the given address where that party told us that their telephone is connected. And about 99 out of 100 times, if this one appears adjacent to this one, it will also appear three blocks away where that address is of the party that we called gave us. So that we now know we can go to that address, and 99 out of 100 times we will find the subject of our tap in the pair below the one at that location.

Again, we still do not know the subject's telephone number, nor do we know the cable number. We might possibly know the pair number if it's stencilled. In not all cases is it stencilled. If it is, sometimes it's worn off by weather and for other reasons obscured and you can't read it. But we could actually go to the second location now and hook up to this pair, ring back and be able to tap that line, and we still don't know the telephone number.

MR. FOX: That was for an unlisted number. Would you go to that trouble for a listed number, or is there an easier way.

MR. SPINDEL: We generally go to that trouble because rather than seek aid from a telephone official, it is easier for us, and less time consuming to do it by this method.

MR. FOX: You don't have to get aid from the telephone people then. Then may I ask this question. In order to obtain the information that you have just given to us, number one, any individual doing this would test the poles as a telephone employee, is that so?

MR. SPINDEL: Not necessarily so, but they generally do.

MR. FOX: Well, I'm not going to quibble about words, but where you 'phone in and you ask the number, in order to do that technically you have to trespass on the property of the telephone company. Isn't that so?

MR. SPINDEL: That is correct.

MR. SHERSHIN: Is it necessary for you to insert the microphone in that earphone, going back to that telephone.

MR. SPINDEL: That is standard equipment. That is supplied with every telephone that's manufactured, and every telephone that is installed contains the necessary ingredients for making it a live microphone, or as it is commonly known in the trade, as a bug.

MR. SHERSHIN: You say you have to put one other wire.

MR. SPINDEL: Yes. We attach one of the wires internally in the base of this.

MR. FOX: So you would have to come into the house and right to the instrument.

MR. SPINDEL: Yes.

MR. FOX: That's for a microphone attachment, but for a wiretap it's not necessary, is it.

MR. SPINDEL: No where near the home would you be required to go.

MR. FOX: You wouldn't enter the home to put that third wire on the telephone, would you. You said you could come in to the terminal box.

MR. SPINDEL: To bug the 'phone. You know, in our work with the anti-crime committee in New York City in breaking the scandal last year, we found that more often than not people were able to gain the cooperation of telephone people - and the majority of telephone people are very honest. It's a shame that they were involved in this; and because of perhaps two or three of the entire employee staff of the telephone company, they had a bad reflection. But with aid of someone, you could do this and many other things.

MR. FOX: I want to ask you this. You say to make a wiretap you have to come into the home.

MR. FORBES: Not a wiretap. To make a microphone out of your telephone they have to come in.

MR. FOX: Then I would assume that in several cases it is done without the home owner or the average citizen giving their consent, right?

MR. SPINDEL: Not necessarily.

MR. FOX: Well, it might be.

MR. SPINDEL: It might be, yes, that's very true.

MR. FOX: In other words, you are entering the privacy of a man's home.

MR. SPINDEL: Illegally or through subterfuge would be the general procedure for it. One of the best ways, if I didn't want the assistance of anyone would be to go out on the telephone pole and short that telephone line out momentarily causing an interruption in service, or putting other devices on which would make it a defective line, and then go to the subscriber's home and tell him that his telephone is out of order and we have come to repair it. Once we get into the house, we can switch that wire, and tell them it will be repaired in a few minutes; go back on the pole and remove your trouble-making device and you're back in business, and you already have your live microphone installed.

MR. FOX: You say that this recording device you have here is principally used in wiretap.

MR. SPINDEL: That's true.

MR. FOX: Who is that manufactured by?

MR. SPINDEL: I designed and manufactured these.

MR. FOX: Is that made commercially?

MR. SPINDEL: You can buy the commercial equivalent of it without the automatic features. There are several companies that are making automatic features, but not of this particular type.

MR. FOX: But you can buy what is tantamount to that commercially?

MR. SPINDEL: Yes. I can show you the parts. Here are two parts which cost less than ten dollars, and these two items will convert any radio, any phonograph, any TV set, any recording, any other electronic amplifyer into a wiretapping device; just these two units is all that's required. With the addition of perhaps fifty dollars in parts any standard recorder can be converted to a fully automatic device such as this.

MR. CUNDARI: Can this device also be used in a legal fashion when the owner of a 'phone requests you to come in and bug his telephone for microphone purposes where he wants to find out if something is going on?

MR. SPINDEL: That is correct.

MR. CUNDARI: Would you consider that then to be legal.

MR. SPINDEL: That would be legal.

MR. FORBES: It varies with the laws of each State, I presume.

MR. SPINDEL: Yes. Now, we mentioned before, the question was brought up whether these units will operate automatically. This is a voice actuator, and that unit will follow the human voice.

I will have to cut the sensitivity of this down. One, two, three, four -- every time the green light goes on it indicates we are speaking. Now to delay the action, all I have to do is throw my time delay on and the green light will remain on as long as I remain talking. Now I can put the microphone down here and boost the sensitivity of that to a point that I can actually go 35 feet away - 30 to 35 feet - and that green light will remain on. That indicates that the recorder is on. Now, if we can have silence just for a few seconds, I think I have it set for about a 10-second delay. You will notice that without any noise, the unit will stop. One, two -- but we can actually make it go within 35 feet. One, two (clicking noise from the machine). That's the sensitivity of these automatics. Now, this particular unit is built into this automatic here.

And again I would like to remind you that when it is set for wire tap - the recorder is set for wire tap - and you throw it to full automatic - when the phone is not in use, the voice actuator is in use so that we don't miss any room conversation. But when you pick up the phone, it cuts out the microphone and it transmits the line back to the telephone line and it will record both sides of the conversation.

MR. FOX: I would like to ask you this question again, without several of the features that you mentioned, the automatic features, you say this equipment is manufactured commerially and can be obtained commercially?

MR. SPINDEL: Yes, the equivalent.

MR. FOX: Yes, the equivalent of that. And is it possible to obtain the names of the manufacturers of that particular type of equipment?

MR. SPINDEL: Sure.

MR. FORBES: Well, that equipment is not manufactured explicitly for the use of wire tapping, it's adaptable to this purpose, is that it?

MR. FOX: Well, you used the term exclusively used in wire tapping.

MR. SPINDEL: Well, there are several manufacturers that will only sell to law enforcement agencies and other people who have official or semi-official reasons.

MR. FOX: And others that will sell to anybody.

MR. SPINDEL: That's true.

MR. CUNDARI: And then others can go to individuals who manufacture just the automatic.

MR. SPINDEL: You buy any recorder that you want and bring the recorder down and they will convert it.

MR. FOX: Is there any registration of names or addresses of the persons to whom they are sold?

MR. SPINDEL: No. To stop the use of equipment of this nature in wire tapping, is a very difficult thing because these items that convert it to wire tapping devices

are standard and can be purchased in any radio store. These condensers cost about, I would say, 30 cents each; and this transformer, I would say roughly, would be about six or seven dollars, and that's all that's required by someone who knows what they are doing, to convert a unit. The biggest problem that I think you have in enforcing wire tapping or attempting to enforce it is discovering wire tapping in progress. I have here a demonstration board showing an ordinary pair of wires that would normally appear on the wall of any office or any home. There is nothing connected to this wire, yet this wire is tapped in four locations, and it is absolutely invisible.

MR. CUNDARI: At the present time?

MR. SPINDEL: At the present time that wire is tapped in four locations.

MR. FOX: Show us where.

MR. SPINDEL: Well, one location is here (indicating), another one here (indicating), another one here (indicating), and another one here (indicating). Now you will notice this wire. Physically these are just ordinary telephone staples that are used to hold the telephone wire in place. These staples are insulated and cannot conduct, and they are actually in between the wires itself and there is no direct connection between these staples and this board. I can assure you, and if you like I'll lend you a hacksaw when I am finished and you can cut this in half, there are no wires buried within this wood, the front, the back or in the center.

The method of tap here is a method that was developed after the war and presently is obsolete, and there are two

new methods which supersede this and even make it more effective. Now to show you that this line is actually tapped --

MR. FOX: When you say supersede -- You don't mind me interrupting you, do you?

MR. SPINDEL: No, go ahead.

MR. FOX: I mean was that discovered by any governmental agency or by research of any particular company?

MR. SPINDEL: You are referring to this particular method or the new method?

MR. FOX: Well, the new method.

MR. SPINDEL: The new methods/that are methods I have discovered and I have worked on. And the effectiveness of this, the best way I can demonstrate that, I think, is in New York last September we had a much publicized Wiener case in which there were 19 telephone inspections both by the telephone company and by private wire tappers in an attempt to find a tap that they believed was present, and they ran across this particular type of tap and two new ones. They couldn't locate it and last year when we appeared in court they tried to bring out that it was impossible to have that line tapped on the dates that we said it was tapped, for the reason that the telephone company had inspected it on those days, and yet we produced the conversation of the telephone men talking to the central office testing the equipment and testing the line. They said that it could not be tapped and we played back their conversation and the tap remained in effect almost nine months undisturbed. The peculiarity of these types of taps are, as I will demonstrate to the Committee, if an

attempt is made to find it other than by electronic means, and the telephone company generally sends out a supervisor and a repairman or an installer to inspect the lines, but generally they do not use specialized electronic equipment which is required to find this type of tap. In inspecting this line, attempting to find it, you would destroy the tap without any telltale signs that it ever existed.

MR. CUNDARI: Let me ask you one question and see if I can clear it up. If a telephone company went in to determine if a tap was on, and that type of a tap was utilized, the probability is by checking the wires they would not discover it, is that correct?

MR. SPINDEL: That's correct.

MR. CUNDARI: Couldn't they discover it in a very simple method by a monitoring service that they have? In other words, if they feel that a certain line is tapped and they have met all physical possibilities to find out whether it is and it comes out negative, couldn't they by monitoring on their central office board determine whether conversation is being carried over that phone or not.

MR. SPINDEL: Well conversations would be carried over that phone by the subscriber and once we install the tap, we never touch it, there are no telltale signs that the tap is installed and I can flatly state today that there is no known device today, electronic or otherwise, that can prevent or detect a wire tap.

Now, I am now hooking up this telephone line to this line here. Now, I have a spare telephone instrument

here which is not connected to anything but two clips. Here are the two clips that it's connected to (demonstrating) and I am going to hook up on the other end of this wire. Just to make sure that we have a telephone circuit will somebody please pick that up so I will be able to -- (telephone picked up by Senator Forbes) Can you hear me all right?

MR. FORBES: I can hear you fine.

MR. SPINDEL: All right. Now, you see between this wire there is no physical connection to these terminals here. Now I will hook up the same instrument to these two screws and I will be able to hold conversation with someone on that other phone.

MR. CUNDARI: When you are attaching to those two screws means you've found the

MR. SPINDEL: Yes. All right, you can hear me now?

MR. FORBES: Yes.

MR. SPINDEL: Right. Not only can this method be used for shifting to concealed points -- now, these two screws primarily designed if this was to be mounted, actually these screws are conductors and will hold a tap conversation. We can make every nail in the wall alive to hold a conversation if we want to. Would you pick that up, please? Can you hear me all right?

MR. FORBES: Yes, probably

MR. SPINDEL: Oh, that's because of the taps down below here. Now there is nothing on the back of this cord and there are no wires hidden here at all. And the answer to that -- this is a pure silver solution dissolved

in special solvent, which can be applied to any paint, tint it any color we want, and that line there is as good as if we had a solid copper wire. It will dry within three minutes. We can paint the line completely across the board with normal paint and it will conduct a telephone or other conversation the same as any other --

MR. FOX: You just hitch that phone up to that line there?

MR. SPINDEL: Right. We can talk right across it.

MR. FOX: Can you do it just as you have here?

MR. SPINDEL: I can put it on and let it dry and I'll show you.

MR. FOX: That's what I mean.

MR. SPINDEL: All right.

MR. CUNDARI: What do you do, repaint that again?

MR. SPINDEL: Generally we do. You can mix this solution and suspend the silver so that it drops to the bottom. Well, we can mix that with normal pigment and it will drop to the bottom and the normal pigment will coat it on top so that you can't see it, and we can match any color that you want. We can paint over that.

MR. THURING: When you actually take that wire off, you destroy the pigmentation and the conduction?

MR. SPINDEL: That's right. Now I will demonstrate the break that we have in here. Now, this meter normally when any wire shorts, like this, the meter will swing forward. Now this is in the drying stage. It takes about five minutes. Now as this begins to conduct the needle, you'll notice, -- I'll touch that later and the needle will make a complete

short circuit. Now, this is a normal box as would appear in any building or home or an office building generally and this is the type used in the hallway to supply maybe five or six offices with telephone service. Now the same method that was employed here is employed on this block here. There are two terminals here that are tapped, the second from the bottom and the second from the top actually have the equivalent of a wire jumped between them. Now if we wanted to tap a subscriber whose pair was up here and we were suspicious that the subject might request a tap inspection, we have transferred this pair down to here and when a foreman or a repairman goes out to make an inspection they look to see if there is a pair of wires attached to this terminal here. I'm going to hook this terminal block up. The way they determine, and the general procedure has been up till last year when some of these new items were released, was to make a physical inspection. If they only found one pair, they assumed that there was no tap on, and this would fool them because they would see only one pair here but we are actually tapping down here which is a spare pair. We pick a pair which is absolutely spare. Now, again, no physical connection and by hooking up this telephone on the bottom pair we would be able to talk over that same pair of telephones. There is no physical connection between the two. Can you hear me all right now?

MR. FORBES: Yes.

MR. SPINDEL: That is one of the great dangers and this, I would like to remind you again, is two years

obsolete.

MR. KERBY: Is that tap conducted by the paint method?

MR. SPINDEL: That's conducted by the paint method and yet for normal inspection, if we want to make this look really good , we have synthetic dust which comes in spray cans the same as you buy spray paint. Now we will coat that with dust and you would never know that that thing had been opened.

MR. CUNDARI: There are spare pairs in every circuit?

MR. SPINDEL: Yes. After the war they made our lives pretty miserable by not having sufficient spare lines to provide service but the situation has eased up.

The methods are the same here. Now I just want to show you the fact that this is (demonstrating) -- Now, you notice this meter is swung, when I touch this terminal it shows this wire (indicating) and this wire are directly into the connector as long as the cable swings. Now I am going to break the connection in one location here (indicating). Now there are a couple more locations which I will have to break in order to clear that line. Now you can tell me when it's --

MR. FOX: There.

MR. SPINDEL: Okeh. Now, is she up?

MR. FOX: She's still up.

MR. SPINDEL: (demonstrates). Now here is a point that is too well tapped. Now, if you examine the board, it will be very difficult for you to tell where this was

actually located.

MR. CUNDARI: Now, if you wanted to retap that, would you do it with that silver paint that's under the wire again?

MR. SPINDEL: Yes.

MR. CUNDARI: That's all that would be necessary.

MR. FOX: Now as I have this information that you gave before, if I am correct, it is virtually impossible today to detect a well planned tap even with the electronic equipment?

MR. SPINDEL: That's right. There is no known device available to us today that will even read a line and tell us that it's tapped. None whatsoever, and I am speaking of any tap other than the crudest type, but any tap done by a professional, it's impossible. There is no way of determining. There are tap testers on the market which will tell the ordinary run-of-the-mill type of tap but, again, a professional would use electronic means of tapping that line that no instrument would detect.

MR. FOX: So that there are no instruments whatsoever, electronic or otherwise, that have been devised today by any companies in the electric field or the apparatus field that would enable them to detect a well planned tap, is that correct?

MR. SPINDEL: There is none. There is none, and I told the Congressional Committee last year in Washington that the situation at present is absolutely hopeless in that respect.

MR. THURING: The fact is, Mr. Spindel, that when a wire is tapped for recording purposes that is making a noise when it is recorded and the only way you could pick that up is by another tap, is that right?

MR. SPINDEL: No. There is no noise given by the tap, there is none.

MR. CUNDARI: Mr. Spindel, since you were able enough to make such a tap which is undetectable, couldn't you make something which would be able to detect that tap which you did so well?

MR. SPINDEL: We've tried, because the man that finds that answer will make himself a million dollars over night.

MR. CUNDARI: You mean your job was done so well that now you can't, yourself, devise a method that will pick up such a tap.

MR. SPINDEL: Due to the complexity of the telephone system, telephone wires, there is no instrument -- we can make an instrument that is sensitive enough to find an ordinary attachment but things like weather and moisture in the air will also set the alarm of a super-sensitive tap.

MR. CUNDARI: Assume that the tap was of the nature of this board which you showed us today and you utilized the purposes of the tap over a period of two months or three months and obtained evidence and so forth, you would then discontinue, of course, this receiving device which had given you the information, that tap, physical tapping that you had accomplished probably

would remain there for the rest of a lifetime, and ten years later you could probably plug into the same thing.

MR. SPINDEL: No, sir, the methods here were the direct type of tap. We have indirect, such as induction type where you need not make any physical connection to the telephone. I can show that to you.

MR. FOX: Is that what you mean by use of induction coil?

MR. SPINDEL: That's correct.

MR. SHERSHIN: What one of the two innovations would work better?

MR. SPINDEL: Well, the innovations are of the same order, they are completely invisible, and it is a trifle hard to detect because of its possible use in maximum security I would like to refrain from divulging that. But the method is very frightening, there is no defense against it. This can be readily detected by special electronic instruments which make it preferred but costly, and a man must be almost in the expert class in order to use the instruments to find this type of tap.

MR. SHERSHIN: Well, if these two other types of methods are being used, are they readily available to anyone?

MR. SPINDEL: Fortunately they are not known. They are only known to two or three people in the country at present, and the unfortunate part is that it is only a question of time until someone wakes up some fine morning and it dawns on him the possible method similar to ours. That has been one of the greatest fears in the

development of equipment, its getting into the wrong hands, and for every good purpose we can put the equipment to they can always find ten bad purposes. And that has been the general trend today, to have use of this type of equipment.

MR. CUNDARI: Are you the originator of the statement that wire tapping or electronic devices have now gone so far that they do more harm than good?

MR. SPINDEL: That's true. I testified to that effect before the Congressional Committee last year. This induction type here (demonstrating) this will pick up the conversations (demonstrating). You can actually take it off the receiver at a distance -- I don't want to make it too loud.

MR. CUNDARI: Do you have the microphone bug in there?

MR. SPINDEL: Yes, it's still in there. Now I wanted to show you the board -- it should have dried by now -- and how it would conduct that piece of strip that we painted in there. This is normal charting which you read and this is soft (indicating) and we can use conductor paint up to a maximum of about 50 feet and then the resistance of it goes too high. But the advantage of this type of unit is that even if I wanted to tap this wire (indicating) by driving a nail between the wire and piercing it and then underneath coating it to the nail, I can drive a long enough nail to get it through the other side of the wall and pick it up from there, the same as I've made these screws alive, pick it up on the other side of the screw and

from there, which would be invisible to the subscriber, run it off to any location that I want. This method also is effective if you are using telephone cable, ordinary 12, 26, or 52 pair cable. We can open up a cable at a junction point and insert this between two pairs of wires and transfer a live line to a spare line, and yet from all appearances there is no physical connection between them. In opening up the splice to find out if there is anything in there, by doing it you would automatically destroy this. You were speaking of some electric units that are available, here is a company that manufactures a unit called a Speak-a-Phone, it's obsolete, it's not used very much. A Unit of this nature costs about $150. It comes with induction coil, a coil of wire, headphones, contact microphone with the driving nails to observe conversation in another room through an adjacent wall, and by throwing the switch you can go from your line tap microphone to a contact microphone.

MR. FOX: Is that exclusively for wire tapping?

MR. SPINDEL: It's designed for eavesdropping.

MR. FOX: And there are no records kept of --

MR. SPINDEL: These people do keep a record of this particular one.

MR. FOX: Do they keep a record of the sale of the instrument itself --

MR. SPINDEL: Yes.

MR. FOX: -- and to whom it is sold?

MR. SPINDEL: Yes, but they make no check. You could walk in there and say you were John Jones and you

wanted to buy a unit and they would record the serial number and the name of John Jones.

MR. CUNDARI: You wouldn't have to show your license or any identification?

MR. SPINDEL: No, nothing is required. But in effect that is equivalent to a complete tapping device. From that you can feed it to a standard recorder, it is not automatic but it can be converted in a matter of several hours to a fully automatic device.

MR. FOX: What is this so-called parabolic mike?

MR. SPINDEL: A parabolic mike? This (indicating) is the extended version of a parabolic mike. Notice that will ride in and out similar to that of a reflector, a spot-light reflector. The purpose of it being that if you were standing across the street talking to someone and we wanted to intercept your conversation we would beam this directly at you and this is effective -- wait a minute, now this is not a telephonic

MR. FOX: A group conversation or face to face the way we are talking now.

MR. SPINDEL: The way you and I are talking now, that's correct. We would beam this directly at you and it would be effective, this particular reflector here would be effective up to 370 or 400 yards. We are actually picking up sound waves. This particular unit will not penetrate glass, it will penetrate cloth.

MR. FOX: Are there such units that will penetrate glass?

MR. SPINDEL: Yes. We can go through glass, brick,--

MR. FOX: Well, let me ask you this: Mr. Cundari and I are having a conversation in an office, in our office, and you were in another office opposite a courtyard, on the opposite side of the building, you could beam that through the window in the office that you were in and into the office where he and I were having a conversation and hear our conversation?

MR. SPINDEL: That's correct, we could, and you could close the window, draw the drapes and pull the blinds, and we will get through and get the conversation out and never go anywhere near your building or even across the street to it.

MR. CUNDARI: Brick walls?

MR. SPINDEL: That's correct.

MR. CUNDARI: How do you hook that up?

MR. SPINDEL: It's electronic, completely electronic.

MR. FOX: Can you demonstrate that to us?

MR. SPINDEL: Well, there's a problem. I testified to that in executive session before the Congressional Committee last year. I stated to them in open session -- I told them in my preliminary talk that this was available but I would not go into it because of the effect on national security, but the government is concerned and is working on that very same problem.

MR. FOX: This is then not really -- that doesn't involve wire tapping in any manner, shape or form?

MR. SPINDEL: This is eavesdropping.

MR. FOX: This is peculiarly eavesdropping?

MR. SPINDEL: That's right. If you left your window open on a nice warm spring day this would intercept the conversation being fed into this recording machine.

MR. CUNDARI: Would you be able to distinguish between my voice and the Senator's voice?

MR. SPINDEL: Oh, yes, very definitely so. This is used commercially. The original design of this unit was by RCA and the National Broadcasting Company, made the prototype, the original of this, and it was designed to pick up marching feet, parades, and at football games pick up crowds and they could stand with their 36 inch parabolic mike and put it at the top of the stadium and as the football team goes into the huddle and calls the signals they will record the signals from the top of the stadium with their parabolic reflectors.

MR. FOX: And you said, of course, that this is being utilized in research being conducted by the national security people.

MR. SPINDEL: Yes. And this is used, incidentally, to record bird calls when they want to get bird calls two or three hundred yards away, and they can't approach them without having them leave the area. In fact, all bird calls are recorded with parabolic reflectors.

MR. FORBES: Do you have any trouble with interference?

MR. SPINDEL: This can be beamed down to approximately a thirty-six inch film. In fact, when we get into critical areas this object here on the side is a telescope sight, the same as you use on a rifle to zero it into your target. You use your scope and your earphones until you get your sound area down to the point that you want. It's very helpful in our work. People don't want to talk, and they go out in a rowboat in Central Park, but we'll get them. It's no problem at all. I would be happy to answer any questions tht you might have from a technical standpoint, or any others.

MR. FORBES: Well, we'll concern the questions to the technical aspects this morning. This afternoon, Mr. Spindel will be a witness before the Committee. Tell me something, Mr. Spindel, one of the problems that the Committee is concerned with is the business of eavesdropping. Our statutes seem, to me at least, to be fairly comprehensive on the subject of wiretapping, and whether it's with a tap spliced on the wire, or by any other means of recording by indirection things that pass over the telephone lines, or any

other wires, but this area of recording conversation, bugging, eavesdropping, in short, that area is not covered by a statute specifically. Whether it should be, and to what degree and how, is the concern of the Committee. What you have demonstrated with this parabolic mike is one means of eavesdropping; this recording device is another. In other words, I suppose that would come under wire tapping because ipso facto you get telephone conversations in addition to room conversations. But what are some of the devices used for eavesdropping or recording. In other words, I might have a conversation with you, can you record that unbeknownst to me?

MR. SPINDEL: Yes, very definitely so. We have - and unfortunately they are in the field being used now - transmitters which are the size of a king size pack of cigarettes. The microphone, transmitter, and its battery supply is concealed in this type of instrument. If you wanted to talk to me and wouldn't talk to me at any given location, you said let's walk down the street and talk, with this in my pocket, you could search me; I have no pocket recorder or any briefcase, and our conversation would be transmitted by a transmitter and one of my men would be sitting in a car receiving it by radio to record both sides of that conversation.

MR. FORBES: How far away could he be?

MR. SPINDEL: It is depending on the power of this. Generally in an area within the city you can take it roughly about two to three blocks. In an area rural of this type, we can go one to two to three miles.

MR. FOX: How far away from the individual could you go and have that instrument effective?

MR. SPINDEL: Generally all our microphones are good up to 35 feet.

MR. FOX: In other words, let's say if a couple were in a public place - I think a case occurred in New York - if a couple were, let's say, in a public place, a bar, sitting over there, you seated at a point up to thirty feet away could hear the entire conversation.

MR. SPINDEL: Well, that's where the parabolic reflector comes in.

MR. FOX: Would the parabolic reflector be practical in that instance?

MR. SPINDEL: No, not in that instance.

MR. FOX: All right. Then my question to you then is directed, leaving the parabolic reflector aside completely, is it a fact that there is a device which if they were seated over there and you were seated at a distance thirty-five or forty feet away you could hear their conversation?

MR. SPINDEL: If my ear could hear it. In other words, if it would reach my ear with this type of device, I would record that.

MR. FOX: That's what I mean.

MR. CUNDARI: By any chance have you devised, or do you know of any device whereby you can obtain my thought processes?

MR. SPINDEL: I testified briefly last year on that subject, and the press took me to task on that point. And by coincidence, a week later one of the large laboratories here in New Jersey made a

public announcement confirming my original statement. I said that it is now possible to intercept brain waves at a distance, which it is. And it is a reality just as I am standing here.

MR. CUNDARI: Are you now trying to tell me that you can also determine what I am thinking?

MR. SPINDEL: Not what you're thinking. I did not say what you are thinking. I said we could intercept your brain waves at a distance. The practical experimental distance has been six to eight feet. The project that was launched and a great sum of money made by one of the most outstanding electronic laboratories in the country was to interpret the electronic signals that we get. We could sit you down and give you twenty questions which required a yes or no answer, and by preliminary questioning of you before we started the questioning we could write down on a separate piece of paper and have you write down on a separate piece of paper an answer to each question. And our average is 98.9 as to the accuracy of the yes and no.

MR. FORBES: Before he said it?

MR. SPINDEL: Before he writes it. He doesn't say it. We ask him a question and he will write the answer yes or no, and we will do the same. The big problem is the interpretation of the electronic signals.

MR. FOX: Isn't that somewhat similar to the encephalograph?

MR. SPINDEL: Yes, except that that is a direct contact. And this is a little superior because you can intercept portions of the brain that are not normally exposed.

MR. KERBY: Mr. Spindel, although this equipment seems

somewhat advanced, what would you say would be the minimum, the very simplest type of equipment that could be used for a wire tap.

MR. SPINDEL: An ordinary pair of earphones and a pair of condensers. That would be approximately in the neighborhood of about less than five dollars.

MR. KERBY: Do you think that type of equipment is probably in much greater use than this more complicated equipment?

MR. SPINDEL: I would say about half and half at the present.

MR. SHERSHIN: Do you have any suggestions for the Committee as to what steps might be taken to have a more careful check on the so-called intruders who are trespassing upon people's property?

MR. SPINDEL: No. I'd be glad to. I have done an awful lot of thinking on the subject, and I have been involved in this from the original expose in New York. I would be glad to, after lunch, make up a detailed list for the Committee and submit it with what recommendations I have and why.

MR. CUNDARI: You have heard of Mr. Dunninger and the way he operates on the stage. Do you suppose he utilizes one of those electrical devices you are talking about to get brain impulses?

MR. SPINDEL: I don't know. Anything is possible

MR. FORBES: In connection with the eavesdropping devices, Mr. Spindel, what are some of the other commonly used devices for bugging a room unbeknownst to the occupants?

MR. CUNDARI: Suppose you had bugged a room and I put the radio on very loud. Can you hear the conversation?

MR. SPINDEL: No. That is about the best method of jamming us. There is only one superior method, and that is to go into the

bathroom and turn the shower on. That kills all interception sound, although we can filter some of it out. In the use of the shower - and incidentally, most intelligence agents in discussing something in hotels will always go into the bathroom to discuss it. If there are any mikes around, you get as close to the water as you can so that he can hear you, and no further away than that. Get as close to that shower as you can, and you can be pretty sure that nobody has intercepted that conversation.

MR. FORBES: Again, I am still on the subject of eavesdropping. What are some of the common types of equipment.

MR. SPINDEL: We have the pocket recorders which are made in Germany, the Miniphone, and there are several manufactured here in the United States.

MR. FORBES: We have also heard or come across a so-called wrist gadget.

MR. SPINDEL: Yes. You can have a wristwatch, or you can have a tie clasp like this with a microphone in it. You can have a belt buckle. In fact, we have built a complete transmitter, a transisterized transmitter in a normal man's belt. You no doubt have seen these round decorative type of belt. Well, the belt buckle is the microphone, and the transistor and the supplier are in the belt, and the stitching is the antenna. It is actually wired. That is the antenna for the transmitter.

MR. FORBES: In other words, there is no trick at all in bugging a conversation if one party wants to do so unbeknownst to the person he is talking to.

MR. SPINDEL: If I was put in the corner, I would say this, that in ninety percent of the cases where someone wants to overhear your

conversation, we will find a means and a device to do it, providing, of course, they can afford it. But it can be done in ninety percent of the cases without too much difficulty. There are some devices that are not generally available.

MR. FORBES: Where does a person get training for this sort of thing? I mean suppose it was all on the up and up and legal, you would have some inspector or detective in charge of this type of thing. Where do they go now for training?

MR. SPINDEL: Well, generally for telephone tapping the corps from which they draw, the majority of tappers who do official police work, is from former telephone company employees who have a general background of the telephone system. To go into the more elaborate details of electronics such as this it takes a peculiar combination of knowledge of the telephone system and basic radio and electronics in general.

MR. FORBES: I mean for eavesdropping, is there a school, is there a place where the police department in New York City, for instance, where they can have their men trained.

MR. SPINDEL: Not that I know of.

MR. FORBES: Any formal schooling for that?

MR. SPINDEL: No, no formal courses on that. Most people who are in the field have learned it the hard way.

MR. CUNDARI: Most people, if they want to have a private conversation, go out in the car in the country some place and talk to their heart's content. Do you have a device whereby you can bug a car to obtain their conversation?

MR. SPINDEL: Not only can we bug the car, but we will permit you to get in your car - you don't know where you are going and neither do I - and give you a five minute head start, and no matter where you turn and where you go, when you pull up your brakes, we will be five minutes behind you. And if we want to intercept the conversation, we'll do it.

MR. CUNDARI: You have to attach something to the car in order to accomplish that?

MR. SPINDEL: That's right. It will give us both your conversation, and it will give us your direction. Now with automatic direction finders, it gives us your degree bearing from where we are, and when you get in your car, we usually attach a thermostatic control, a miniature type to the tail part, or the muffler, or to your manifold exhaust, and the moment you start your engine, the heat of the engine turns it on and keeps it on generally about an hour after you have parked your car, so that if we lost you somewhere en route, the transmitter will send its signal, and we'll pick you up and be right behind you. But you can't get too far away from us.

MR. FORBES: Well, thanks very much, Mr. Spindel. I think it has been thoroughly illuminating to the Committee. Now, it has been suggested by some of the Committee members, that we ask if Mr. Smith would mind coming back to comment and to answer a few questions about some of the testimony made here. And then, Mr. Spindel, we will recess for lunch, and afterward when you're a witness before the Committee you can comment in any way you want on the situation. Mr. Smith, would you mind coming forward?

R A Y M O N D J. S M I T H, having been sworn previously, resumes the stand and testifies as follows:

EXAMINATION BY SENATOR FORBES:

Q Mr. Smith, some of the committee members wanted, in view of the testimony of Mr. Spindel as to some of these methods which make it, shall we say difficult for the telephone company to detect a wire tap, to know if you would care to comment on that and if you feel there are methods whereby the telephone company is able to detect such types of taps? A Well, I appreciate the opportunity of commenting, Senator Forbes, because we feel that this inspection method of ours, with trained men and a supervisor, who are familiar with really the details of the telephone service, and also in our opinion many of those fellows are experts in electronics and swtiching and that sort of thing-- that we are sending out people who are really resourceful and, in our opinion, that is the best way to detect it.

Q How could they detect that demonstrated tap with the mercury paint? A Well, I can't answer that, Senator Forbes. It would be most difficult. Now, whether they could tell by inspection, whether there is any sort of ridge or that sort of thing where they could follow where the paint leaves a ridge on the baseboard, I don't know.

Q If you weren't looking for it, you certainly wouldn't find it? A It would be most difficult to find.

SENATOR SHERSHIN: Mr. Smith, don't you feel, in view of the testimony that was given here this morning, that your

company certainly ought to do a little research to determine what steps they might take to school a staff that could help a subscriber, an innocent subscriber?

MR. SMITH: Well, I think that's an excellent point, Senator. Now, what steps the company will take, I don't know.

MR. CUNDARI: Mr. Smith, it was testified this morning that in order to consummate a tap-- in the examination of the other witness, he seems to feel it is not necessary to know the pair and cable number, etc. Do you subscribe to his theory, or do you feel that's a fallacy?

MR. SMITH: I still believe my original theory that there are three things you have to have: You have to have the telephone number, the cable number, and the pair number, and they have got to get together somewhere in order to make the tap.

MR. CUNDARI: He testified that he could obtain the pair very readily by calling the subscriber and asking for the address, etc.

MR. SMITH: No, calling the adjacent pair.

MR. CUNDARI: Is that possible in your estimation?

MR. SMITH: I think it could be done. I am not too familiar with it.

MR. CUNDARI: Then he wouldn't have to have the information from the inside?

SENATOR FORBES: On the method he demonstrated, he could do it without having gotten the information from the telephone company.

MR. SMITH: Well, he could, but I still think he would

have difficulty in finding out what pair was spare and that sort of thing, and again I don't think it would last very long because we are constantly testing the pairs, etc.

SENATOR FORBES: Now, tell me this: I think you might know the answer to this; we did discuss it in closed session with Mr. Bittig who will be a witness tomorrow: The approximate number of complaints that you would get - I understand they would percolate up to you at one point or another - if a subscriber says, "I think my phone is tapped," and a check is ordered on the line, how often to your knowledge, in your sphere where these things have been done, would you succeed in finding a tap?

MR. SMITH: Well, starting at the end point, Senator, I have not in my experience been able to find a tap. Now, so far as the number of reports, well that is difficult to answer. We have about 2500 subscriber reports in a day, you gentlemen must realize. We are talking in terms of up to a million subscriber reports in a year. Now, they come in from all sources about all kinds of things. Now, I can't tell you how many that come in from that particular source. I can tell you how many would be given to me; in other words, the only time that I would get in on an alleged wire tap case would be if something was actually found.

MR. CUNDARI: Are there many of those and, if so, how many have come to your attention, we will say, in the last two years?

MR. SMITH: In the last two years I have not had a bona fide case of wire tapping.

SENATOR FORBES: Then, in other words, in making the inspection where they turned up no evidence of a tap--

MR. SMITH: That's right. In other words, in making the inspection the test was O.K.

SENATOR FORBES: Would you conclude from that that there were no wire taps in New Jersey, or simply that the methods used didn't lend themselves to the detection of them.

MR. SMITH: Well, Senator, the answer to that would merely be a conjecture on my part. But from our records, we have actually no record of finding a wire tap.

MR. THURING: Well, do you agree with the statement made by Mr. Spindel that when a wire is tapped there is no visible evidence of that tap by noise? Is that so?

MR. SMITH: Well, I can't agree to that entirely. It depends upon the nature or the kind of tap; that is, whether it is bridged, or just how it is handled. I think certain kinds leave a noise, and certain others wouldn't.

MR. CUNDARI: Isn't it true that you stated you never saw a tap, physically?

MR. SMITH: That's right.

MR. CUNDARI: So you wouldn't know whether or not it would make a noise of some sort, because you have never had the opportunity in the last two years to find out?

MR. SMITH: That's correct.

MR. THURING: Didn't you testify that it took twelve hours to follow through if a complaint came through, as to whether or not the wire was tapped?

MR. SMITH: Well, I think I said that in the course of one day, if a request was received, we would complete the inspection and have the information back.

MR. THURING: You don't have a flying squad or someone who could, immediately upon receipt of a complaint, go to that station location in a matter of minutes or a half hour to determine whether a tap is being made or not, do you?

MR. SMITH: Not specifically, no, but our repair service is usually operated on a two-hour or four-hour basis, and a case like that coming in as a subscriber report, we would send on it maybe within two to four hours.

MR. THURING: Well, the reason I raised the question, Mr. Smith, is that the testimony we have is that the taps are not left on for any appreciable length of time, and the purpose of that is probably to prevent detection, and therefore that is why I asked the question as to how soon you arrive after receiving the complaint.

MR. SMITH: Well, it would vary but I can assure you, gentlemen, that in a case of that kind, it receives what we call "red flag" attention; that is, we go on it immediately, as soon as we can.

SENATOR FORBES: What is the procedure and who makes the decision when Joe Smith thinks his phone is tapped and he picks it up and says to the operator, "Connect me with the business office," or "Connect me with the service department," and when he gets the service department he says, "I think my phone is tapped." Where does that complaint percolate to; who makes the decision to make the check, to whom is it

referred before action is taken? Who makes the decision and who notes the complaint and the result? I mean, at what point does the thing activate?

MR. SMITH: We have 25 test bureaus in the State, Senator; the subscriber report is received in that test bureau on the log sheet and a complaint of that kind is immediately given to the test bureau wire chief, who is the manager in charge of that particular bureau, and he sends a detailment and repair foreman out immediately.

SENATOR FOX: Let me pinpoint this particular thing by asking you this question: Do you have any particular division or department in the telephone company that is devoted to complaints or any other work done with respect to wire tapping?

MR. SMITH: No, sir.

SENATOR FOX: In other words, that is handled by your ordinary service department?

MR. SMITH: That is handled by our regular repair service.

SENATOR FOX: So there would be no statistics or records with respect to incidents of this particular type; is that right?

MR. SMITH: Yes. Well, I might add this if I may: that special treatment is given. With respect to an ordinary piece of trouble, we would send a repairman on it, but if we get one of these alleged wire tap cases, we augment the repairman with a supervisor.

SENATOR FOX: But you have no uniform system of any kind?

MR. SMITH: No. As to how many come in, as I say, we get better than 2500 a day and we get up to a million subscriber reports. I would say from my experience that the alleged wire tap cases are infinitesimal.

SENATOR FOX: Are you connected at all with the research department of your company?

MR. SMITH: No.

MR. THURING: Mr. Smith, to pursue my question relative to noise made when wire taps are in operation, could that noise, in your estimation, be picked up on the system that you have for listening in, and if you so decide from listening in and report it to one of the central offices, you could actually hear this noise at listening posts in your central location, could you not?

MR. SMITH: Well, I am not going to admit that we would listen in on a circuit, and we don't.

MR. THURING: Well, let's assume that you would and you could, and then, number 2, there was a peculiar noise given out showing that a wire tap was in progress; assuming this, I am not saying it can be done. You as a public utility and being closest to the problem of wiretapping, being in the telephone business, wouldn't it be a simple solution for permission to be granted to you to listen in under these particular circumstances. You could immediately determine that, couldn't you, whether or not wiretapping was underway?

MR. SMITH: I think you could determine that there was trouble on the line. Whether you could, by listening in, diagnose that trouble or that there was wiretapping versus

a cross or a ground or something of that kind, I don't know whether you could pinpoint it by listening to it and saying "That is wiretapping."

MR. THURING: So far as you know, by research or otherwise, there are actually no peculiar sounds given off by wire tapping. Is that correct?

MR. SMITH: So far as I know.

MR. THURING: Can you differentiate between wiretapping, atmospheric interference, or otherwise?

MR. SMITH: I can't answer that. That is a little too far--

MR. CUNDARI: One final question, Mr. Smith. I know you have a man from the legal department of the New Jersey Bell Telephone Company here and he has been employed there for over 30 years, I think he testified at the closed hearing.

MR. SMITH: Thirty-five years, I believe.

MR. CUNDARI: Do you have any knowledge whether in 35 years the telephone company has ever been sued legally for failure to detect a wire tap?

MR. SMITH: No, I don't recall any such case.

MR. CUNDARI: You don't recall any case where the telephone company has ever been sued for a wire tap--

MR. SMITH: Neither for wire tap detection or for having a wire tap found.

SENATOR FORBES: All right. If there are no more questions--

SENATOR SHERSHIN: One more question: The men who are employed in your repair service generally carry through until retirement age; is that so?

MR. SMITH: Yes.

SENATOR SHERSHIN: You have a very low percentage of mortality--

MR. SMITH: That is correct.

SENATOR SHERSHIN: Could you estimate what the mortality is?

MR. SMITH: Yes. In the repair department at the present time we have very nearly 9,000 employees - 8700, and of the 8700, I would say that 5500 are workmen; that is, what we call vocation workers, and the others are the staff, engineers, etc. So we roughly have around 5500 people on the streets in the State of New Jersey at the present time, and I would estimate that our normal attrition, the mortality, in the course of a year due to death, resignation, retirement or promotion, at the present time would run about 150 to 200 people out of that group.

SENATOR SHERSHIN: Then it's safe for me to conclude that most of these men make a career with the telephone company once they enter the telephone company's employment.

MR. SMITH: Very, very definitely.

SENATOR SHERSHIN: You do have a pension system, do you not?

MR. SMITH: Yes, sir.

SENATOR SHERSHIN: That is, that accrues to the benefit of the employee?

MR. SMITH: Yes.

SENATOR SHERSHIN: Are there any rules and regulations which prevent any of these pensioners , if they are detected

in wiretapping activites, from receiving their pension--where they lose their pension?

MR. SMITH: Well, I don't know that it's spelled out.

SENATOR FORBES: Well, I think that's a labor question, Senator Shershin. Perhaps Mr. Bittig could better answer that.

SENATOR SHERSHIN: Well, I just wondered whether as a matter of policy they do discourage any of these men from going into the wiretapping field.

SENATOR FORBES: Well, thank you very much, Mr. Smith. We are going to recess now. It is 12:20, and we will resume at 1:15 here, for the afternoon session. Thanks very much.

(R E C E S S)