

Now It Is Possible to Hear Every Note of an Opera by Long Distance ...

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Now It Is Possible to Hear Every Note of an Opera by Long Distance Dictograph

Manager Conried Through the Help of a Little Instrument No Bigger Than a Cigar Box Is Able to Listen in His Private Office to an Exact Reproduction of an Operatic Performance.

IN the Metropolitan Opera House—more accurately, in Mr. Conried's private office—there was tested on Wednesday evening a new invention, an ingenious instrument which seems to show that there is no limit to man's ingenuity. The inventor, with the permission of Mr. Conried, placed under the proscenium arch a small box, one so small as to be inconspicuous to the vast audience. Then he hung in Mr. Conried's office a bell-shaped contrivance which had the appearance of an overgrown megaphone.

It had been announced that through the medium of the box and the bell-shaped transmitter the opera could be heard as well in the office of Mr. Conried as it could from an orchestra seat. A representative of THE TIMES who was present at the time of the demonstration hereby testifies that every note that came from the stage was heard as distinctly in the office as it was by any one in the audience.

This somewhat astonishing invention has been named the dictograph by its inventor, but why that name was chosen no one may say. The name conveys no idea of its character, for it neither dictates nor writes. What it does do is to receive the slightest sound and to magnify it to amazing proportions. It is not a phonographic recorder, nor is it a new type of gramophone. On the contrary, its characteristics are distinctly different. No speaking tube, mouthpiece, or receiver of any kind is employed. Nothing whatever is held in the hand. There is no necessity to be close to the instrument or to speak into it, or even toward it. Within the dimensions of any ordinary office you may stand where you will. You may speak in an ordinary voice or in an undertone, or even breathe your words in the faintest whisper. The sound may be practically inaudible to yourself, but the infinitely more sensitive ear of the dictograph will hear it, magnify it intensely, and transfer it.

This new device is one of the most remarkable of all of the later inventions. Its possibilities seem unlimited. By it a busy man may dictate letters, issue instructions to a dozen subordinates at the same time, or engage in a strictly private conversation over a long-distance wire without speaking into a receiver and with no chance of his conversation being overheard by any one except the one for whom it is intended.

The device is the invention of Mr. K. M. Turner of this city. Through it electricity has again been laid under tribute to save time and patience. More wonderful than Pandora's is the little box in which so much is concealed from view. This box is 11 inches in length, 6 inches in height, and 4 inches wide. Two holes in the sides, a few nickel projections at one end, and a row of switches on one side comprise all that an outside view will give. But sedate and unemotional as it appears, it has startling qualities. Vexed with some problem, you may be striding the room of your office and give vent to some expletive or to some thought. Then the box may ask stridently what you said. The attentive young woman in the other room who acts as your stenographer and who has a receiver on her desk may have put the query in the merest whisper, but that whisper the box magnifies into clarion tones.

A Practical Test.

A demonstration of the qualities of the dictograph was given in THE TIMES office a few days ago. The box was placed on a table in one room, the inventor's stenographer taking her seat in another. In a voice so low that it was hardly audible to those who were in the room with the box Mr. Turner, who had turned his back to the instrument and was standing fully a dozen feet from it, said: "Miss Blank, will you take this letter to a firm in Cincinnati?" The box promptly trumpeted forth, "Yes, Sir; all ready." Still standing with his back to the instrument and speaking in a voice so low as to be almost inaudible to those who were in the room at the time, Mr. Turner dictated the letter. "Now," he said, "will you please repeat it to see if you have it right?"

In a much magnified refrain the message came back from the box, word for word as it had been given. Disinterested observers gave other messages, and the result was the same. It was shown that a whisper would suffice, and it was further shown that this whisper would pass through a couple of overcoats which had been placed over the box. It was not necessary to shout into the instrument, or at it. It imposed no tax whatever upon the voice. There was no tuzzling of wires

to interfere. One simply talked naturally, or listened, and the box did the rest. There was no taking down or hanging up of receivers, no uncomfortable attitudes to assume while talking. One could talk while pacing the floor, and there was no difference to the box whether one was talking with back turned or facing it.

In the Broadway office of the inventor other tests were made. By touching a series of buttons Mr. Turner showed that he could bring a dozen people in conversation at one and the same time. By touching one button he opened communication through the box with his bookkeeper. By pressing another he was in communication with the cashier. There was a petty business matter which concerned the three. It was as if the three were in the same room. The box repeated what the cashier had to say; the bookkeeper, listening from some far-off room, said what she had to say when the cashier had finished, and then the inventor, who had listened to both, gave his decision to both at the same time.

"That," Mr. Turner explained, "is one of the novel features of this device. If you wish to bring two or more, or even a dozen, people into conference over any matter, the verbal conference is made possible by this instrument, even though the persons concerned are widely separated. A button pressed here and there, and any number of people up to ten can join in a conference and hear what every one else is saying. On the other hand, I can speak to any one in my office without another soul excepting the one I am talking to knowing what I am speaking about.

"There is a dictograph in use in a detective agency," Mr. Turner continued. "I don't know for what purpose; that doesn't concern me. But supposing you were having a private interview with a man and he gave himself away. With a dictograph in the room—concealed behind a picture, let us say—it might be useful or awkward, according to the point of view.

Two Millions Saved.

"I can, however, tell you an actual incident that happened quite recently. A gentleman belonging to a very big firm called on me. He said he had heard of my invention, and wanted my help. Associated with him in the office were some men who were trying to do the firm, so he said, a big injustice in the way of a Stock Exchange manipulation. Would I fix up an instrument in their room so that what they said could be overheard? I told him I was not in the detective business, but that he could have a dictograph on the usual terms. I heard afterward that there was no place in the room where

one could be fixed without being seen, so they made a few small holes in the ceiling, twenty feet high, and put it over them. I heard later," added Mr. Turner, "that what he managed to hear of their conversation saved the firm a couple of million dollars.

"Prisoners talk a good deal among themselves and to each other when they are in their cells, I am told. With a dictograph fixed in the wall between them the warden in an office fifty yards away would be able to hear their faintest whispers, which might be useful on occasions."

Hardly Noticeable in an Office.

The dictograph is not at all of imposing proportions. In fact, when fixed on a desk it would present the modest appearance of a collection of electric bell pushes, each of which represents communication with a different department. The invention is Mr. Turner's secret, but he explains it in this way. You throw a stone into a pond, and the waves set up ultimately, reach the edge of that pond in the faintest of ripples. They may not be discernible to the naked eye, but they are there all the same. The dictograph takes those ripples—of sound—and magnifies them until they become waves again.

The transmitter, by which the sound is picked up and conveyed, consists of a small circular microphone of special

construction and extreme sensibility fitted into the side of the instrument. It contains a small cone which focuses the sound waves at its point and greatly intensifies them.

To the navy, especially to those of the service who are directly concerned with fire control, this new invention will doubtless make strong appeal. By fire control is meant a system through whose operation the commanding officer can control the fire of every gun. This matter of fire control is now regarded as one of vital importance. The Navy Department recently went to the expense of considerably more than a million dollars to install a fire control system in the sixteen battleships which are now on their way to the Pacific. Costly as was the installation, the system is admittedly far from perfect. This small and relatively inexpensive instrument might have served the purpose better. Emplaced in a battleship, the commanding officer in his conning tower can communicate instantly with any part of the vessel, and what is far more important can at will communicate to each part at the same time.

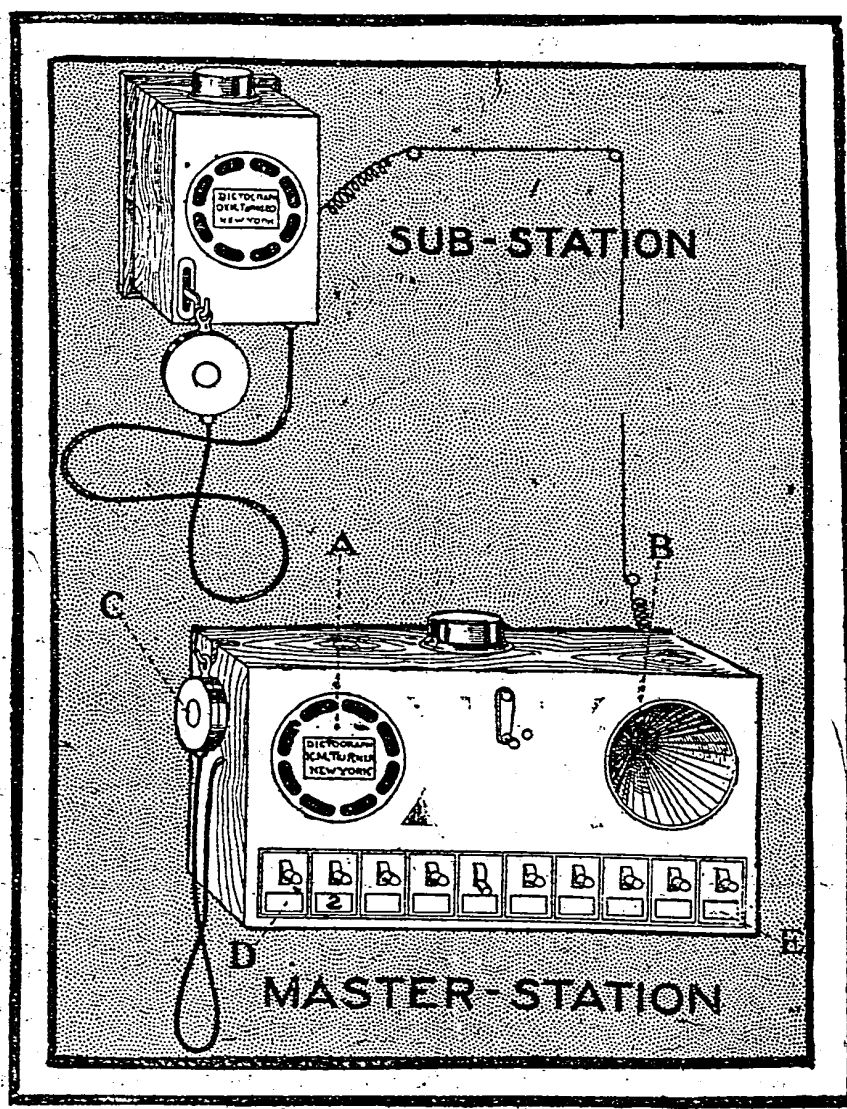
It is only a short time ago that Mr. Turner returned from Europe, where he showed his invention to the rulers of England, France, and Germany. The King and Queen of England were greatly interested in the instrument when it was exhibited to them in Buckingham Palace. Their Majesties congratulated Mr. Turner, and so much interested were they in the device that the audience lasted for more than an hour.

While the invention has undoubted virtues, it also seems capable of adding its own new terrors to life, inasmuch as it is not necessary that the instruments be exposed to view in order to be operative. For while the occupant of a room could shut off his transmitter when he did not wish his remarks to be overheard, a visitor could not be certain that what was being said could not be transmitted elsewhere. Walls equipped with ears of this sort would become so unsafe that confidential conversation would be impossible except in the open air.

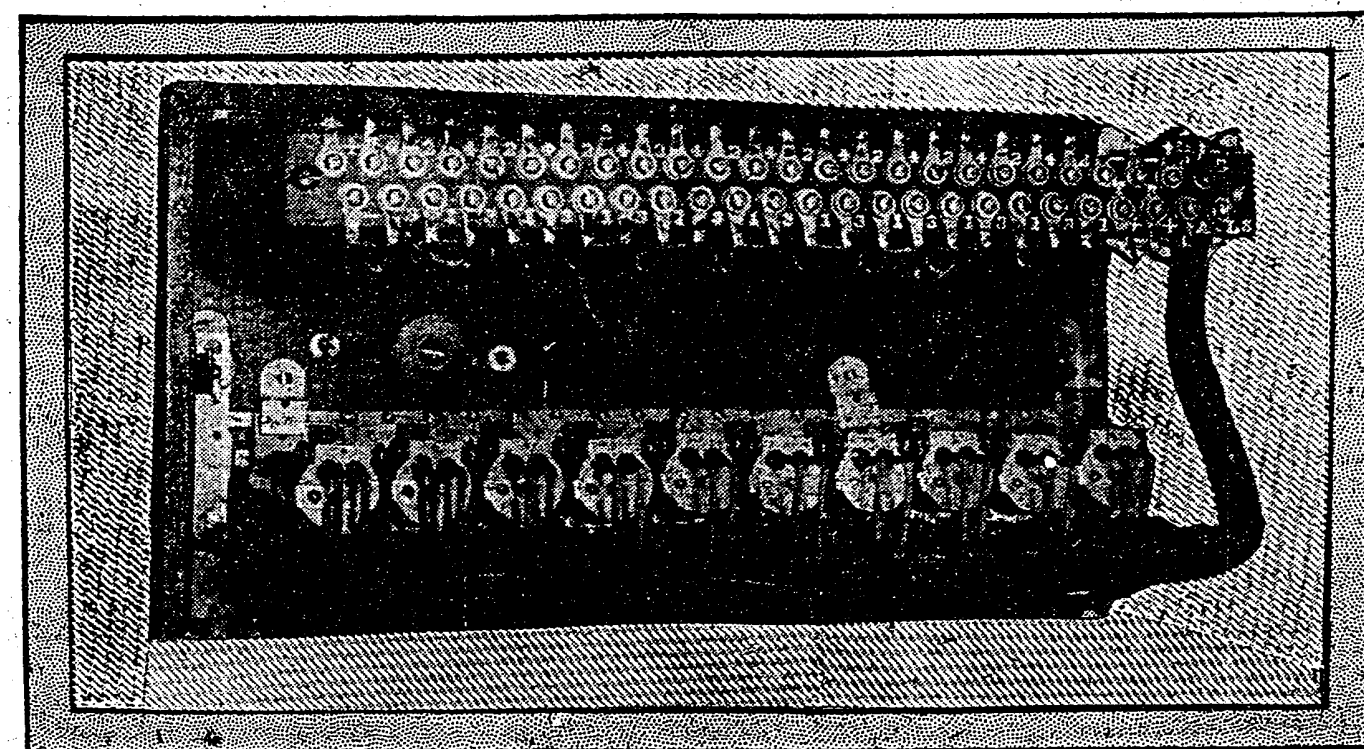
One of the London comic papers points out this possibility, and, asserting that the first good dictograph farce will make a fortune, gives the following hints:

Hint for a Tragedy—or a Comedy.

Act I. The short, stout husband, who has invested in a dictograph, carelessly leaves it working in his office while he is whispering to the typist. (So far the old phonograph manuscript may stand.) Act II. The short, stout man's wife and her friends come to the office to see the wonderful new invention. The dictograph suddenly begins to whisper. The short, stout man rushes at it and huris it to the ground. The dictograph shouts. He breaks it up with the poker, and it dies, with a moan of reproach. A policeman, hearing the moans, rushes in and arrests the short stout man for murder. Wife and friends, thoroughly repentant, try to save him. Useless. Act III. As usual.



The Sound of the Voice Enters the Receiving Instrument Shown at "A." Reply is Heard from "B." "C" Shows Switch and Ear Piece to Insure Privacy. "D" to "E" Shows Switchboard.



Mechanism of the Dictograph.