

Intended for

"O wad some power the giftie gie us
To see oursel's as ithers see us."

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*The First Established and Most Complete
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From *HERALD*

Address *Shulton Ave*

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MUSIC BY WIRELESS.

Est. Melody Transmitted Through the
Ether to a Given Point.

1884

LATEST MARVEL OF SCIENCE.

Telephoning Without Wires Successfully Done From Same Station—Inventor Says In Future We Can Talk From Home With Friends In Midsea.

To the top of the New York Times building from Telharmonic hall, three blocks away, music and telephone messages have just been sent by wireless. The messages received varied in importance from "Harriman has not yet butchered the government" to "Soon every up to date reporter will be equipped with a wireless telephone, which he will ground with his heel in the mud and through which he will tell his city editor that the rumor that Mrs. Blank has abandoned her poodle dog is false."

After many messages had been received in this way the telharmonium people began to send their music through. While the music was being received the wireless stations at 42 Broadway in Bridgeport, Conn., and at the Brooklyn navy yard cut in with their irregular beat of Morse.

All this came to the twenty-fourth floor of the Times building. There the receiving apparatus was arranged. From it two wires led up to the top of the flagstaff on the tower. On the top floor of the Telharmonic building was a transmitting apparatus connected similarly with two wires leading to the flagpole of that building. At the sending end was the source of the current, which was strong enough to light five thirty-two candlepower incandescent globes. By means of an oscillator the direct Edison current was changed into high frequency oscillating currents. These caused the radiation of electric waves from the ends of the flagpole wires at Thirty-ninth street into the ether.

The frequency of these currents is too great to be detected by the human ear at the receiver in telephoning, so a microphone with a diaphragm was inserted in the oscillating circuit in such a way that the vibrations of the diaphragm were reproduced with perfect fidelity at the receiving end.

Dr. Lee De Forest of the De Forest Radio Telephone company, inventor of the wireless telephone, began to receive the messages in the Times tower just before 8 o'clock. He explained that the electric waves, varying in intensity according to the vibrations of the voice at the other end of the wireless line, were transmitted from the flagpole wires at the Times end to a cup of fluid whose resistance to a secondary current of electricity was in direct ratio to the intensity of the waves received. The secondary current of electricity, which flowed from a dry cell battery through a tiny telephone line entirely at the receiving end, was in reality a local telephone for the transformation of modulated electric waves into vibrations which could be distinguished by the ear as sounds.

Consequently with a receiver over the ears not unlike an ordinary telephone receiver the listener could not only hear words, but all other sounds originating at the transmitting end. As the pitch used was much the same as that of wireless telegraphy, the occasional breaking in of the wireless stations could not be obviated, though later experiments with the pitch will change this.

The sending of the music was a different process. By means of inductor the electric current of the telharmonium plant was made to induce its modifications in the Edison current, so that the electric waves eventually were heard as music.

Dr. De Forest will now increase the area of his experiments. Using his laboratory as a sending station, he will receive at different points of increasing distance. Eventually, probably some time this summer, he will set up a station. He hopes to effect an arrangement with some railroad which employs a fleet of tugboats, so that by using the regular telephone into his station from their own offices they can be put into direct communication with their tugs in the bay and the rivers.

In the future he believes that a man sitting in Bridgeport at the telephone in his own house, by calling up the De Forest station can talk to his wife as she sails for Europe even after she is out of sight of land. The wireless telephone has the advantage of not requiring the services of an operator.

Dr. De Forest began experimenting with his present apparatus last December. He had, however, obtained patents some five years ago. His earlier experiments were purely laboratory ones designed to increase the articulation.

The perfection of the wireless telephone will also mean that houses will not have to be wired to receive telharmonic music. With a receiver they can take it from the air.