

During the intermission in the musical programme in the evening, the audience was entertained by vocal or instrumental selections that sounded as if coming from the trees. So well was the transmission made that many believed the musicians were concealed among the branches, while others thought ventriloquists were at work. That it was the echo of some powerful voice or instrument, was the opinion of others. None attributed it to the telephone, so well was the instrument hidden.

for whistling solos 12 volts are used, and for ordinary conversation to be heard clearly over a broad area 24 volts give the best results.

Though one of these transmitters has been used on this work the entire summer season and becomes so heated at every evening's entertainment when in continued operation for 15 or twenty minutes that one could not bear to touch the outer transmitter cup, it is said to have shown no signs of deterioration.



Fig. 2.—Simple Arrangement of Transmitter Suspended on Wall for Transmitting Piano Music.

The mystifying part of the performance was that the music came from trees in different parts of the garden at short intervals during the same selection, such as the cornet obligato in "Il Trovatore," which was accompanied by the orchestra in the band-stand.

The equipment used was the new transmitophone recently devised by the International Telephone Mfg. Co., of Chicago, consisting of one sending instrument with three reproducing lines and an accompanist's circuit.

Figures 3 and 4 show the sending station apparatus, consisting of a local battery portable telephone with batteries and battery case, head receiver and a three-line circuit

The durability and efficiency of this instrument is said to be due to the quality of the electrodes and granular carbon used in its construction. The carbon is made from selected crystal coal with the granules broken to a uniform and proper size, smoothly polished, thoroughly cleaned, and made as hard as possible.

The granular carbon is retained with the electrodes in a chamber that is supported on the diaphragm, and the sharp vibrations of the diaphragm when the instrument is used keeps the granules agitated and prevents packing.

All the working parts are so accurately made and adjusted and the transmitter diaphragm so evenly dampened,



Fig. 3.—Sending Station Apparatus, with Cornetist Playing Directly in Front of Transmitter.

changer and other auxiliary apparatus, which was located in a room in the casino at one end of the park.

The telephone is equipped with an International transmitter made so that it will not fry, pack, sizzle or go dead when used with sufficient battery to produce a vibration of the receiver diaphragm strong enough to throw the sound through a megaphone so that it can be heard by a large audience.

For cornet or vocal solos 18 volts or 12 cells of "1900" dry batteries are connected in series with one ohm primary winding of the induction coil, through the transmitter and back to the battery which completes the primary circuit;



Fig. 4.—One of the Sending Stations Showing Head Receiver Used by Soloist to Assist Her in Keeping Time With Accompaniment.

that the loud blasts of a cornet or brass horn are transmitted as clearly and distinctly as the soft, sweet voice of the lady singer.

The sending station is provided with a switching arrangement with a cam lever key for each reproducing circuit, so that the music can be reproduced through any one of the receivers at intervals, or through any two, or through all three simultaneously.

The circuit changing switch box is provided with proper binding post terminals in order that the lines may be conveniently connected.