

TO MANUFACTURE MUSIC BY ELECTRICAL DEVICE

Inventor Promises to Distribute
It from Power Plant.

TO SOUND FROM TELEPHONES

Vibrations to be Made by Alternators
—Thousands to Hear Tones If
Dr. Cahill Succeeds.

Electric music is the latest promise of this age of electricity. In three months a central power plant will be established in New York, and from this it is declared music made by electricity will be transmitted through telephones to the homes of subscribers. The first plant will be designed to accommodate 1,000 instruments, each of which will send forth the notes made in the power house and transmitted by telephone.

The plan is set forth in yesterday's issue of *The Electrical World*, which tells of the completion by Dr. Thaddeus Cahill of Holyoke, Mass., of plans on which he has worked for many years. Dr. Cahill has an elaborate electrical plant at Holyoke, in which tests have been made.

The inventor dispenses with all strings, reeds, and other devices with which man has been accustomed to sound his notes. He installs a battery of alternators, which will transmit musical electrical waves, and these are adjusted to as many different vibrations as the strings of a piano would be. To play the instrument a piano keyboard is used. The pressing of a key will operate a switch which will close the circuit leading to the alternators adjusted to produce just the note that the piano string would produce.

But the note will not be sounded in the ear of the operator from the battery itself. The vibrations will be communicated to the main wires, which will transmit them through branch wires to the other end of telephones. There the note will be sounded. One of these receiving telephones will be connected with the operator, and thus he will know how his playing sounds to all others connected with the main wires. The receiving telephones will be fitted with a megaphone-like device warranted to carry the notes throughout a room as well as an organ would. In case of a large hall it is said that several of these could be used.

Speaking of the quality of the tones produced, the correspondent of *The Electrical Review*, who visited the plant of Dr. Cahill, says:

"The intonation strikes the listener as remarkably good, and a glance at the steel inductors on the shafts and the steel gears connecting them shows that the tuning must be as permanent as it is perfect.

"In the next place, the system of building up the quality of tone desired, by mixing with the ground tone one or many harmonics, with any strength desired, opens up a new field of timbre control. The wood-wind, brass, and string tones of the orchestra are easily produced, by mixing the required harmonics in the required proportions. In addition to reproducing the leading orchestral tones, a skillful performer can mix the harmonics so as to produce musical timbres unknown before.

"Equally striking with this novel timbre control is the delicacy of the expression, dynamically considered. By the touch of the hand the performer controls the attack and sostenuto and varies the note at every instant. The musicians at

the Cahill laboratory produced very good vibrato effects, and crescendos and diminuendos not inferior to those produced by a good violin.

"When imitating the violin and 'cello the performer controlled, by his touch, the quality and power of the tone so perfectly that the auditor felt sure he heard the bow gliding across the string. The singularly pure quality of the tones and the remarkable control over them which the performer possesses take the listener by surprise."

It is the plan of the promoters of this invention to try at first to distribute the music in hotels and restaurants, where, it is said that any number of guests could enjoy harmonies at their leisure.

Churches, too, could have music without organist or choir.

Ultimately, perhaps, it will be possible to have music with breakfast and dinner, light music for the children, music for afternoon teas or for evening poker parties, and slumber songs at bedtime. And in the novel of the next century may be found this dialogue:

"What shall we hear this evening, dear?" asked Mrs. Gotham, as they were about to dine.

"I'm tired of that mournful stuff they're turning out at St. Petersburg," returned her husband. "They take themselves too seriously. Turn on Paris, and see if they haven't something that'll wake things up."