

TELHARMONIC HALL.

TELHARMONIC HALL
BROADWAY AND 39TH STREET
TELEPHONE, 6170-38TH ST.

THE FIRST AUDITORIUM, MACHINERY HALL AND
CENTRAL GENERATING STATION
OF THE
CAHILL SYSTEM OF ELECTRIC MUSIC
"MUSIC BY WIRE"

EXHIBITION CONCERTS

SATURDAY AFTERNOON - - - AT 3.00 P. M.
DAILY, EVENINGS - - - AT 8.30 P. M.
INCLUDING SUNDAY EVENING, BEGINNING DEC. 29

Reserved Seats..... 50
Divan Seats..... 1.00

Special Rates to School Classes and Musical
Organizations in Parties of Ten or More.

GENTLEMEN'S SMOKING ROOM DOWN STAIRS
LADIES' RETIRING ROOM AT LEFT OF STAGE

LOST ARTICLES SHOULD BE RETURNED TO THE
BOX OFFICE, WHERE THEY MAY BE CALLED FOR

BOX OFFICE WILL BE OPEN FROM 10.00 A. M.
TO 10 P. M.

MACHINERY HALL, DYNAMO ROOM, SWITCH-
BOARDS, TONE MIXERS, ETC., IN BASEMENT
STAIRWAY IN THE REAR OF THE AUDITORIUM

BUSINESS STAFF:

Carl Herbert, Manager.
G. W. Todd, Treasurer.

MUSICAL STAFF:

Karl W. Schulz, Musical Director.
Franklin Harris, Assistant Musical Director.
William H. Curley, Clarence Reynolds,
Arnold R. Janser, Chester B. Searle.

ELECTRICAL STAFF:

Henry Morgan, Supt. of Construction.
Percival G. Burgess, Engineer.
A. M. P. Maschmeyer, Plant Supt.

Except for its different touch the Telharmonic keyboard is played by the musician as he would play a piano or organ. Standard musical score, printed or written, is used, but every musical authority who has played the Telharmonic keyboards concedes the infinitely finer delicacy of expression possible thereat as compared with any other creative instrument.

As in all concerted musical effects, the expression of Telharmonic music is guided by a director, the individual members of the staff each reflecting in expression the demands of the score as interpreted by the leader.

Before the regular performance in the hall, visitors are invited to an inspection of Telharmonic Machinery Hall with its half acre of dynamos and tone mixing and tone building electric mechanism, where the causes and effects of mechanical phases of Telharmony are made clear.

Information concerning Telharmony in all its elements, historic, musical, utilitarian and commercial not conveyed in the demonstration lectures, will be furnished

PROGRAM WEEK OF DECEMBER 30th

TELHARMONIC HALL PERFORMANCES.

3 and 8.30 p. m. Daily.

VIEW OF MACHINERY HALL.

NOTE:—Every person should arrive at these performances in time to view the machinery in the basement before the program begins. Only in this way can one realize the magnitude of the process by which the entire production is made possible. Reached by stairway in rear of auditorium.

1. **OPENING SELECTION**.....Announced
2. **INTRODUCTORY ANNOUNCEMENT**
Outlining the significance of the Telharmonic process as it is viewed by the leaders of thought of the world.
3. **SELECTION,**
Illustrating how tone is produced wherever desired, in different tone qualities.
4. **SELECTION** telharmonic equivalent of string quality.
Solo by KARL W. SCHULZ
5. **SELECTION** revealing the diaphragm and horn with which tone is evoked from electric currents.
6. **SELECTION** during which the tone converter is dissected, discussing the method of tone production direct from electric currents. Currents through the human body shown rendering music.
7. **SELECTION** illustrating the use of resistance boxes, by which every one of thousands of users of Telharmonic Music can in his own premises control the volume of the music. Drum and Fife and Trumpet band.
8. **VIEW OF THE MUSIC CURRENTS** producing light in an ordinary incandescent lamp at the same time they produce sound. Selection.....Announced (accompanied by the light in the lamp)
9. **SELECTION**.....Announced
10. **THE MUSICAL ARC LAMPS**
Selection played.
11. **MINOR APPROXIMATIONS—**
a. Scotch Bagpipes.
b. Intoned Bells and Chimes.
12. **SELECTION**.....Announced
13. **ADDRESS**
Explaining the process, with an illustration of the marvelous capacity of the Telharmonic System to produce the partials or overtones which are the very elements of tone quality in different instruments. This is the first musical instrument in history upon which a pure fundamental tone may be produced, making the elements of tone, as elements, separately available to the musician.
14. **SELECTION, "William Tell,"**.....Rossini
Solo by KARL W. SCHULZ
15. **SELECTION**.....Announced
History of the Telharmonic enterprise and its proposed scope.

to all persons signing names with addresses in the Guests' Register in the rear of the Auditorium or upon the Visitors' Cards distributed to the audience at every performance.

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Literature of the service embodying matters of interest may be had upon application at the box office.

The offices of the Telharmonic Securities Company, in the Knickerbocker Theatre Annex Building, diagonally opposite the Thirty-ninth Street entrance of the hall, Rooms 120, 121, 122, 123, 124, 125, 126, 127, are open daily from 8 A.M. to 6 P.M.

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Why the Telharmonic process of music is regarded by musical authorities as bringing a new age of music—of tone production:

1. *Mathematical certainty* of intonation. It is absolutely impossible for any note to be out of tune—sharp or flat—in the faintest degree. This gives the tones a charm imparted by no other instrument.

2. *Any* division of notes or intervals is possible. Instead of only 12 tones to the octave, as in the piano and all other keyed instruments, 48 tones are here,

PROGRAM

of the

CONCERTS BY WIRE

(To Outside Subscribers.)

Rendered daily from 1.30 to 2.15 P.M. and 6.15 to 8.15 P.M.

Rendered to various private subscribers, clubs, and among other notable public places, to the

NEW YORK THEATRE
Broadway and 45th Street.

Programs A and B will be played as announced to the respective subscribers daily.

(Weekly change of programs.)

A

1. MARCH, "Telharmonic,".....Schulz
2. SELECTION, "The Red Mill,".....Herbert
3. WALTZ, "You and You,".....Strauss
4. TWO IRISH SONGS,.....Selected
5. YANKIANA MARCH,.....Loftis
6. SOLO, "William Tell,"
(Andante for Flute and Oboe from "William Tell" Overture)
Solo by KARL W. SCHULZ
7. CUPID'S GARDEN,.....Eugene
8. BOLERO,.....Moszkowsky
9. SELECTION, "Babes in Toyland,".....Herbert
10. Andante from Concerto for Violoncello by Golterman.
Solo by KARL W. SCHULZ
11. SERENADE,.....Thomas
12. MARCH, "It Happened in Nordland,".....Herbert

B

1. MARCH, "Indianola,".....Hartz
2. SELECTION, "Chimes of Normandy,"
.....Planquette
3. WALTZ, "It Happened in Nordland,"
.....Herbert
4. SCHELM D'AMOURE,.....Eilenberg
5. SIMPLE AVEU,.....Thorne
6. SOLO, "William Tell,"
(Andante for Flute and Oboe from "William Tell" Overture)
Solo by KARL W. SCHULZ
7. CARMEN MARCH,.....Bizet
8. "Love's Dream After the Ball,".....Czibulka
9. SELECTION, "The Fortune Teller,".....Herbert
10. Andante from Concerto for Violoncello by Golterman.
Solo by KARL W. SCHULZ
11. SPRING SONG,.....Mendelssohn
12. YANKEE GRIT,.....Holzmann

making possible, as Daniel Gregory Mason, the noted musical critic, observed in *The Outlook*: "a smoothness of harmony unfamiliar to musical ears since the days of Palestrina."

3. The various harmonics or overtones which in their certain combinations give each instrument its peculiar tone quality, are here under separate control for the first time in all the centuries of musical history. So that the musician can actually *build* any tone quality desired. *This is unprecedented.*

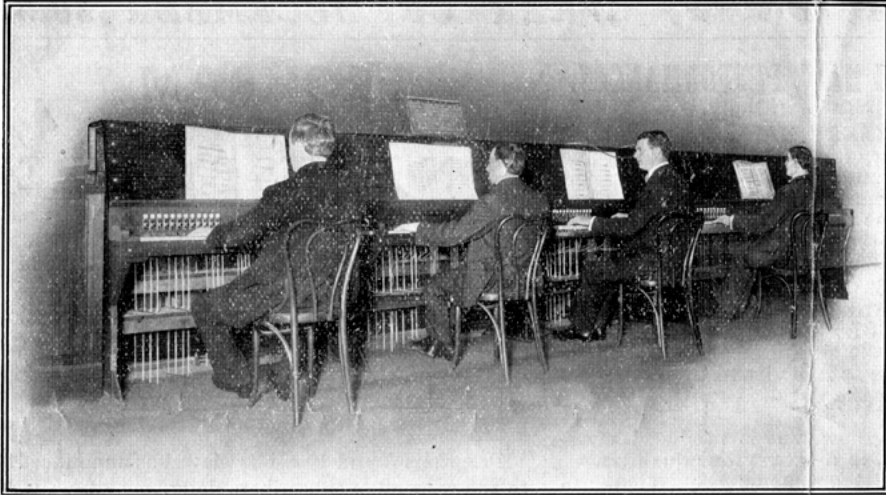
Arturo Vigna, the distinguished musical leader of the Metropolitan Opera House says it "will eventually mean the death of the present orchestral system."

Enrico Caruso, the famous tenor, predicts that "it will bring a revolution into the musical world, both through its artistic expression and by bringing really good music to all kinds of people."

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Telharmonic concerts can be furnished by wire daily and nightly to residences, apartments, hotels, restaurants and stores between Twenty-third and Fifty-ninth Streets and from Madison Avenue to Eighth Avenue. The charge for the service is surprisingly low.

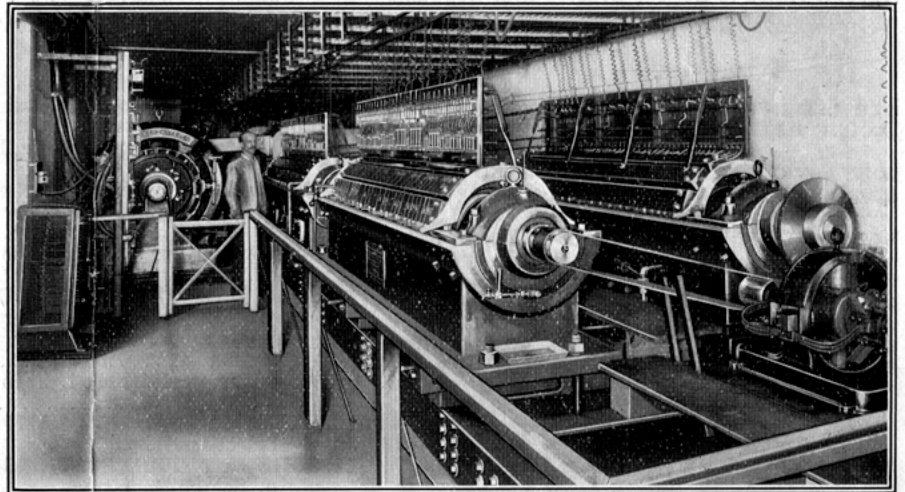
TELHARMONIC HALL.



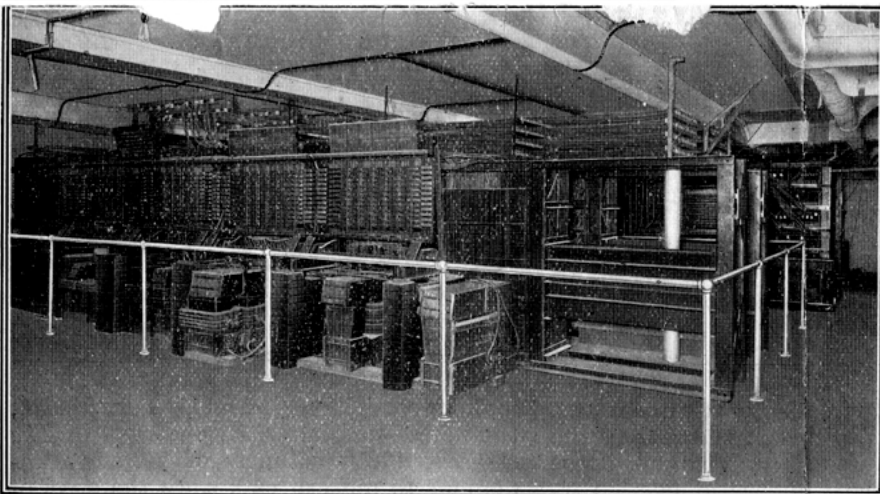
THE MUSICIANS SEATED AT THE KEYBOARDS
AT
TELHARMONIC HALL
Broadway and 39th Street

These four keyboards are sets of electric switches put into this form merely for the convenience of the musician. Each key or switch, as operated, controls a certain one of the currents generated in the dynamo room.

Thus the musician, wishing to play a given selection, presses the keys called for by the score. These keys acting as switches set free those particular currents which have already been organized to produce those notes.



THE ALTERNATING CURRENT DYNAMOS.



THE SWITCHBOARDS.

In order to render the music at the place of the subscriber it is now necessary to convert this musical current into sound. This is done by passing the current through two small electro magnets, in front of which is placed an iron diaphragm. This device is known as a sound converter and is not much larger than an ordinary incandescent lamp; it can be concealed in a vase or in any manner desired, and gives a volume of sound sufficient to fill the room in which it is placed.

To produce music in homes, restaurants, offices, hotels, places of public amusement, etc., etc., the musical currents must be transmitted to these places by wires. But it is impracticable to run wires from each dynamo to each subscriber. Thus these currents (after they have been organized by the musician) are run into the transformers shown above, which, without destroying their individuality, reduce them to a composite form. In this form they can be sent broadcast over two wires.

Here are 145 alternating current dynamos, each dynamo so constructed that each will generate an electric current, vibrating (or alternating) a different number of times per second.

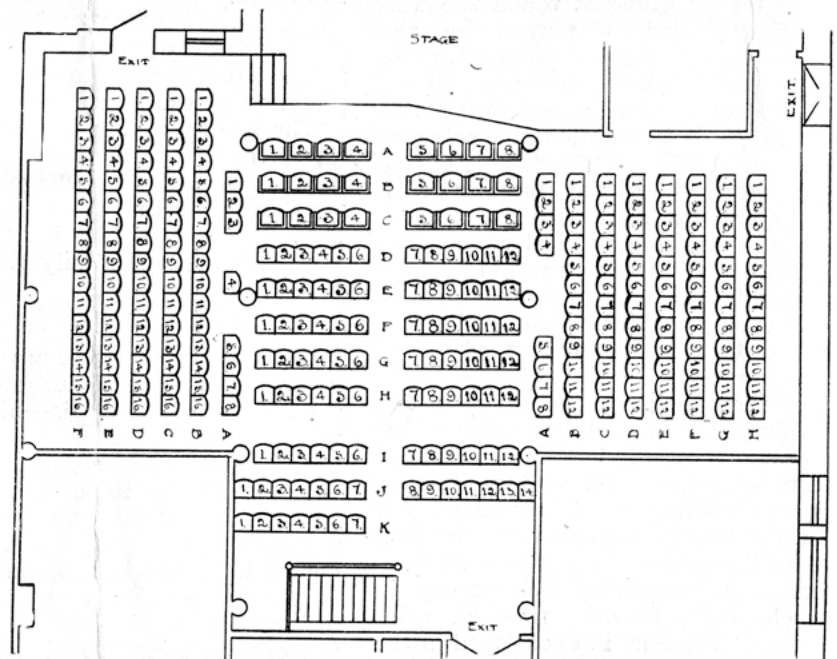
All notes (i. e., musical notes) are produced by a definite number of vibrations.

The musical scale is made up of 84 notes.

Thus 84 of our dynamos are so constructed that each gives the given number of vibrations necessary to produce one of the 84 notes of the musical scale.

The 61 other dynamos are so constructed that the currents from any of them, when used in combination with any of the 84, give a different quality to that note.

Telharmonic electric currents, like any other electric currents, can be transmitted by wires wherever desired.



EXIT DIAGRAM OF TELHARMONIC HALL.