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#### PROGRAM and ANNOUNCEMENT



# elharmonic Hall

39th St. and Broadway New York City

The first Central Plant of the New York Electric Music Company

O. T. CROSBY, PRES.

P. C. TODD, VICE-PRES.

C. M. PIHL, MANAGER

### No. 1.

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MR. O. SCHEDA.

MR. KARL W. SCHULZ, Ass't Musical Director

ELLIOTT SCHENCK, Musical Director.

## Recitals and Demonstrations Daily

3.00, 4.45, 8.30 and 9.45 p. m.

Sundays, 8.30 and 9.45 p.m.

Public Service Information in the Business Offices

ELHARMONY, the new art of music, is now given to the public, and the New York press and public unite in declaring it the greatest invention of the century. This enterprise of the Telharmonic system is a vast one, and the demonstrations now being made are only a first step. The system involves and will provide for the production of every musical tone or tone quality known to the human ear, besides many new tones, and utilizes hundreds of electrical dynamos. The 145 dynamos now in operation at Telharmonic Hall are only the first period, the first instalment, in the plant. The further elaborate equipment is now being constructed under the supervision of the inventor, Dr. Thaddeus Cahill, at Holvoke, Massachusetts. With the present equipment and the first double keyboard, all the tones and tone qualities of what are known as the wood wind instruments are produced. These embrace the oboe. English horn, flute, clarinet and bassoon, besides which the French horn, 'cello, drums and some minor effects are approximated.

When the remainder of the plant is installed, six musicians may at the company's key-boards render such a full orchestral selection or program as one may now hear given by a symphonic orchestra of eighty-five pieces, including violins, cornets, trombones, harps etc. So that as a musical instrument alone the Telharmonic system is really the greatest achievement in the

history of music or the science of sound.

But this is not all. No country can have true democracy until the finest music, the greatest pictures and the best books are at the disposal of every citizen. Our free art galleries and great public library systems have already made great strides towards this true democracy as to books and pictures. But fine music, interpreted by the living touch of our greatest artists, is so costly and so fleeting that little progress has been made in letting the masses hear it. Fine music has been a luxury for the rich only. By the Telharmonic system, a wonderful dream will come true. The realization of Edward Bellamy in his remarkable book, "Looking Backward," which pictures the civilization of the year 2000. The greatest artists will be able to sit at our keyboards and play, not to one audience of a few hundred or few thousands, but to twenty thousand audiences at once, in a radius of 150 miles, and be listened to by four million people at the same time! Every man, woman and child in Greater New York can in the future hear our greatest musicians at little cost. Every home can have finely performed music, played by a fine artist, not ground out of a machine.

The system is being rapidly extended by the company's wires. The tones are produced by a new process. Dr. Cahill, in inventing the Telharmonic system, constructed hundreds of alternating current dynamos, each of which produces an electrical current which vibrates or alternates a different rate per second, corresponding to the fundamental vibration of a note in the musical scale. In the present plant, of 145 dynamos, the slowest one produces 40 vibrations a second, which is the lowest tone that the keyboard now provides. The highest one vibrates 4000 times a second, which produces the highest note we can hear. These dynamos are all in motion at once, and each key on the key-board is a delicate switch which controls the currents. When a key is pressed down, it turns the current from several dynamos into a wire. That current runs to a distant telephone receiver and causes its diaphragm to vibrate in unision. Then that vibrating diaphragm produces the sound wave in the air which reaches the ear as a sound. That receiver and diaphragm can be many miles away from the key-board, and 20,000 different receivers can be in connection at once.

But this is not all, Dr. Cahill went to the very root of musical tones. The tone qualities of different instruments differ. The tone of the flute differs from that of the English horn or alto oboe. Why? Because one—the flute—has a single rate of vibrations; it is what is called a ground tone instrument. Now, the tone of the oboe contains that ground tone or single rate of vibrations, but it also contains in lower volume several higher rates of vibration, which produce the overtones or harmonics as they are variously called. These additional overtones vary

according to the tone quality of the instrument.

In the Telharmonic key-board stops enable the performer to introduce the harmonics to any degree he wishes, so as to build any known quality of tone. Thus by adding to the flute tone two other rates of vibration (the second and third harmonics) we build it up into the English horn tone. This synthesis of the ingredients of tone quality is a new science and has hitherto been impossible to perfect. With the Telharmonic system it seems likely to be completed, for here we have tones reduced to their ultimate unit—the single vibration, under perfect control. So the complete plant will provide all the harmonics to produce any instrument's tone. The system is hailed as a revolution in the world of instrumental music by press, public and the technical world, both musical and electrical.

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	1 {	3.00 P.M.	RECITAL	Nocturne in E	flat,	Chopin
SELECTION		4.45 "		Solveg's Song,		Grieg
		8.30 "		Intermezzo, "S	izilietta,	· Blon
		9.45 "		Prelude in E m	inor,	Chopin
	2	3.00 P.M.	RECITAL	Norwegian Poll	Song,	Ole Bull
SELECTION		4.45 "		First Meeting,	•	Grieg
		8.30 "		Second Waltz,	10.00	Godard
		9.45 "		Andantino,		Lemare
ILLUSTRATION ENGLISH HORN AND PLUTE	3	SELECTION, "William Tell," Rossini				
VIOLIN ILLUSTRATION	4	3.00 P.M. RECITAL Nocturne in B flat, . Field				
SELECTION		4.45 "		Intermezzo,	500000 E1 3	Mascagni
		8.30 "		Nocturne in B	flat,	. Field
		9.45 "		Romance,		. Sivors
SELECTION	5 {	3.00 P.M.	RECITAL	Intermerzo,		. Macbeth
		4.45 "		Intermezzo,	18 B.	. Macbeth
		8.30 "		Andante for 'Ce	ello,	Golterman
		9.45 "		"Evening,"		. Schytte
ARC LIGHT SELECTION	6	3.00 P.M. RECITAL Ave Maria. Bach-Gounod				
SELECTION		4.45 "		Ave Marla,	. E	Bach-Gounod
		8.30 "	••	Traumerei,		Schumann
		9.45 "		Traumerei.		Schumann
SELECTION	7 {	3.00 P.M.	RECITAL	Madrigal, .		Simonetti
		4.45 "		Canzonetta,		Godard
		8.30 "	••	Love's Dream a	fter the F	Ball, Czibulka
		9.45 "	••	Stephanie Gav	rotte.	Czibulka
	,	3.00 P.M. RECITAL 'Cello Solo, . Golterman				
SELECTION	8	4.45 "	••	Waltz, "Loin d	u Bal."	Gillet
		8.30 "	••	Minuet, .		Paderewski
		9.45 "		The Letter of M	lanon.	Gillet
SELECTION	9	ORGAN PO	STLUDE,			. Selected