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THE MAGNETA  
COMPANY  
ZURICH, SWITZERLAND



Canadian Representative  
FRED. M. FISHER  
TORONTO

# THE MAGNETA COMPANY

## ZURICH, SWITZERLAND

MANUFACTURERS OF

ELECTRIC CLOCKS WITHOUT  
BATTERIES OR CONTACTS

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ELECTRIC TIME STAMPS  
TIME RECORDING SYSTEMS

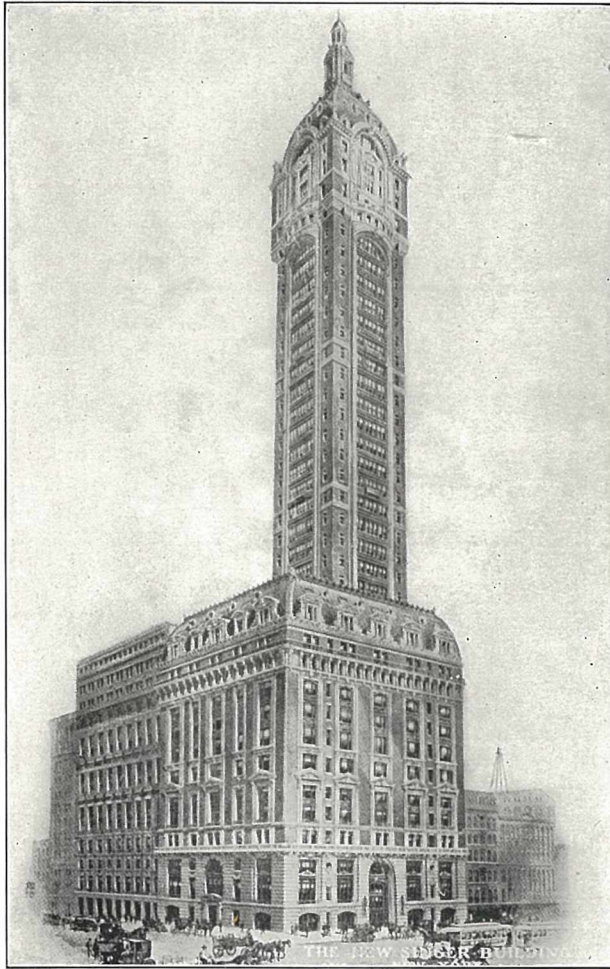
BRANCHES

NEW YORK  
PARIS  
LONDON  
BERLIN

Canadian Representative

**FRED. M. FISHER**  
1203 Traders Bank, Toronto  
Telephone Main 7244





ERNEST FLAGG, ARCHITECT, N. Y.

THE SINGER BUILDINGS  
Equipped throughout with "Magneta" Clocks

## INTRODUCTION

ELECTRIC ENERGY, from its easy application, and from its affording the means of actuating with absolute precision and certainty any number of distant and widely distributed indicators controlled from a central point, has long been acknowledged as an ideal principle to apply to the problem of providing uniform time for large buildings, as well as for entire towns and districts.

From time to time many attempts have been made to devise a thoroughly practical system, and some of these have met with a certain degree of success. The broad principle or method common to all these systems is generally known, even by persons having no special knowledge of the subject, and consists in the use of a *battery* furnishing the necessary electric current, and also contact points, where the current is alternately applied and interrupted, as a means of producing intermittent impulses for actuating the system of distant dials or secondary clocks.

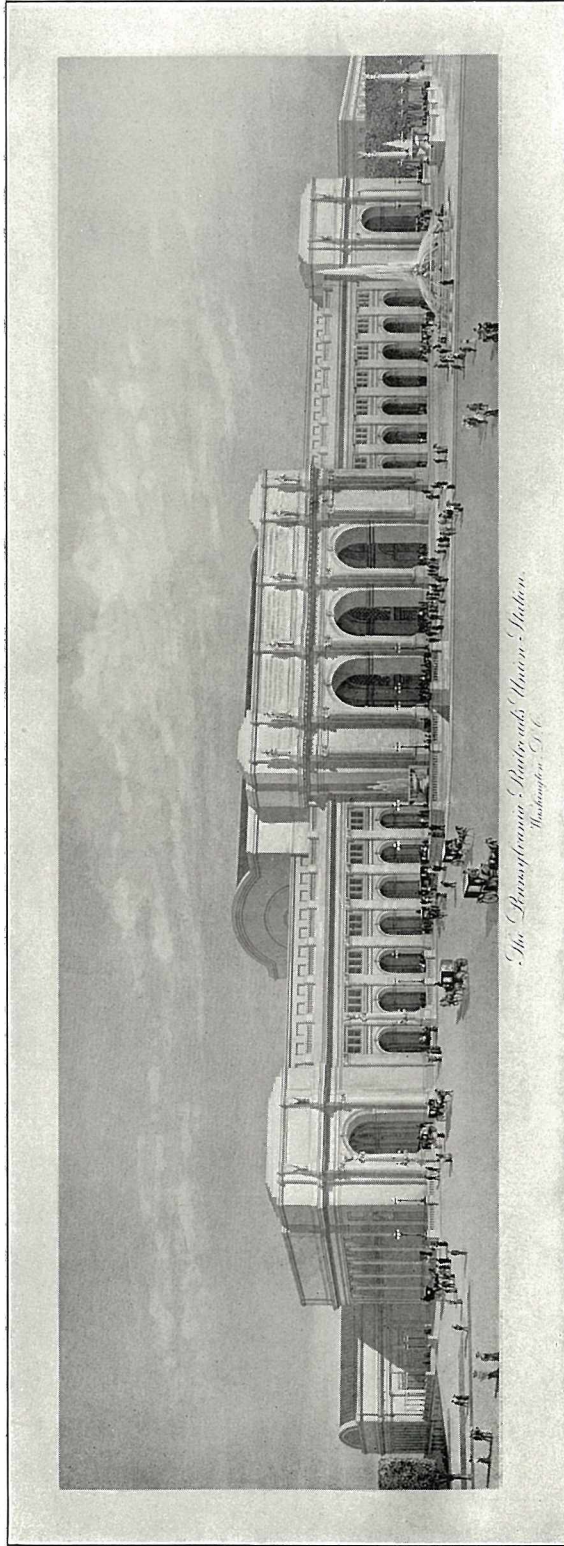
However, the uncertainty of the batteries and the rapid destruction and oxidization of the contact points, have been the cause of continual trouble, necessitating frequent inspection, entailing skilled attendance at a considerable annual expenditure. Furthermore, in systems of more than about thirty secondary clocks, battery systems have proven to be an absolute failure.



THE MAGNETA COMPANY'S  
SYSTEM OF  
ELECTRIC CLOCKS  
WITHOUT BATTERIES OR CONTACTS

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THE invention forming the basis of this system consists, as is frequently the case with important developments, in the application of a very simple principle. It may almost be assumed as general knowledge, that the generation of electric current for lighting, motive power and industrial purposes generally is effected by induction, whereby a closed coil is brought into the sphere of a magnetic field (the respective position of the two being properly arranged and disposed), this, the now historic discovery of Faraday, is the basis of all dynamo electric generators. This principle has been applied by The Magneta Company to electric clock systems. The fundamental quality of this method of producing electric current is its certainty; whenever a closed coil is suddenly brought into or withdrawn from the influence of a magnetic field, then a current of definite strength must always result. The clock which is destined to be the master clock of the system, is provided with a magnetic inductor of special form, consisting of an iron core placed within a fixed coil, and so arranged with respect to a permanent magnet that the core becomes alternately magnetized and de-magnetized by a semi-rotation; once every minute, the master clock actuates this inductor, thus generating a momentary current, which passes into the circuit of the secondary clocks, thus giving them an impulse, which takes place synchronously with the movement of the inductor. The wires from the inductor are led away without interruption or break to the circuit of the system with which the circuit of the inductor is permanently joined.



D. H. BURNHAM & CO., ARCHITECTS, CHICAGO, ILL.

Equipped throughout with "Magna" Clocks





H. J. HARDENBERGH, ARCHITECT, N. Y.

### THE "PLAZA "

Has a "Magneta " Clock in every suite and throughout  
basement and ground floors

IT is claimed for the *Magneta Company's apparatus* that it provides an absolutely *trustworthy and efficient system*, and this claim has been more than substantiated by the faultless working of both the large and small installations which the Company has erected. This is further borne out by the fact that although a short time has elapsed since the Company began to exploit its system, it has erected large installations in the most prominent buildings and steamers throughout the world.

The **advantages of the system** may be summarized as follows :

Batteries and contact points of any form entirely superseded; therefore *nothing to renew!*

Absolute Saving of the annual expenditure needed for the maintenance and repair of battery clocks.

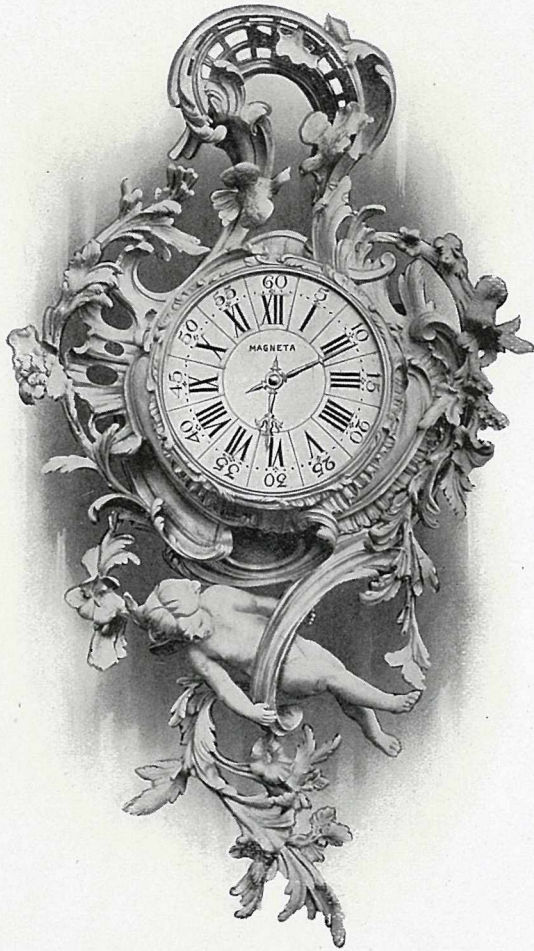
No supervision, no maintenance or attention of any kind is required; the entire system being self-acting.

Highest time-keeping qualities, secured by the extreme simplicity of construction.

No oiling of the secondary clocks required.

Absolute impossibility of the secondary clocks not to show uniform time, the operative current being alternating.

Large systems and clocks located at long distance from the master clock, which in all other systems were absolute failures;—are a perfect success, by employing “Magneta” clocks, as is proven by the large number of “Magneta” systems now in operation, some of them having more than five hundred secondary clocks connected to one master clock.







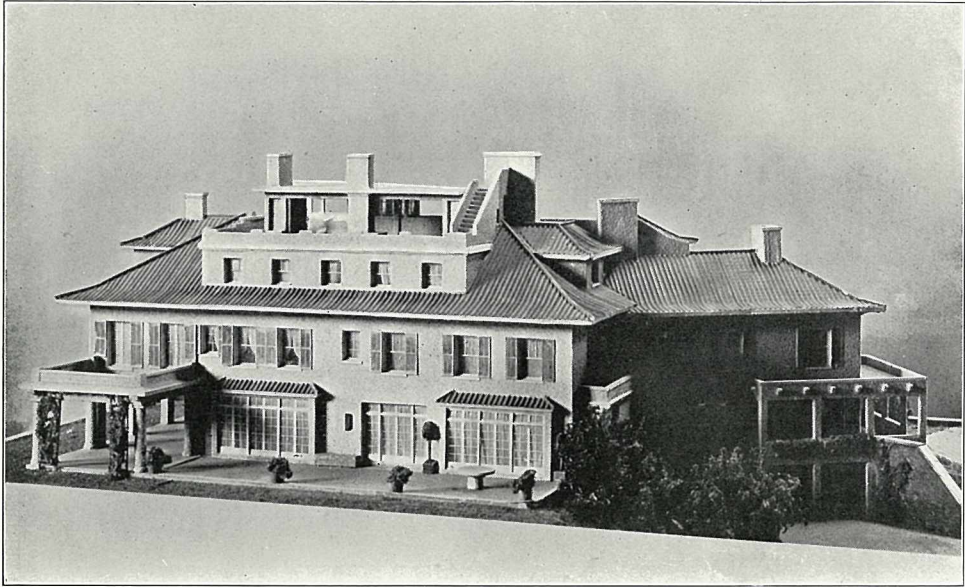
Installed in "St. Regis" Hotel

## "MAGNETA" CLOCKS IN PRIVATE RESIDENCES

Electric clocks, so long as they were operated by batteries, did not find their way into homes, owing to their fundamental shortcoming, and the absolute necessity of technical supervision.

Mechanical clocks, too, cannot be relied upon for uniform and correct time, as they require adjustment, oiling, etc., not to say anything of the fact that it is often overlooked to wind them, and their use is accompanied with inconveniences, and a considerable annual outlay.

If you want your maid, your chauffeur, your coachman to be punctual, and not to shift responsibility upon "time" use "*Magneta clocks.*"



JOHN A. CURD  
ARCHITECT

RESIDENCE OF WILLIAM C. DE LANOY  
at Short Hills, New Jersey

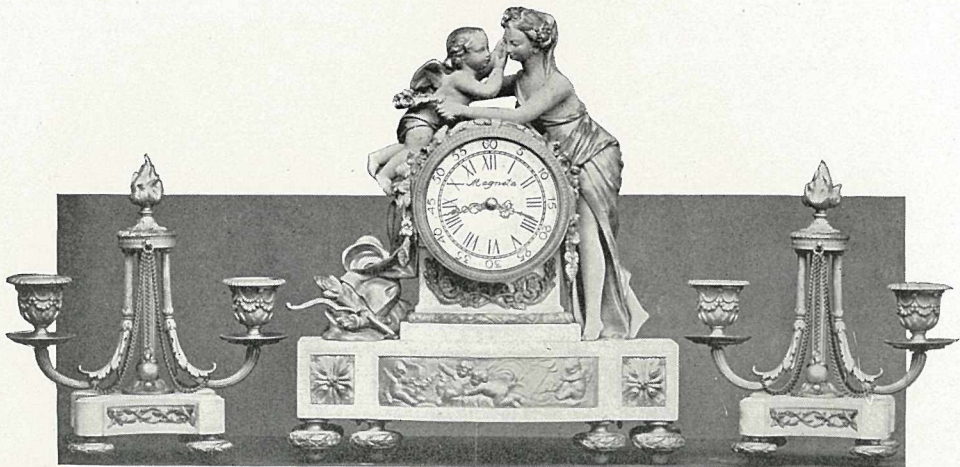
BUILT BY  
BENJAMIN A. HOWES

The secondary clocks show uniform time all the time, and do not even require oiling, nor any other attention.

You will find them the most convenient of all the modern improvements, and having once used them, you will never do without them; this is the consensus of opinion of those who have used them.

The master clock may be installed in the entrance hall, and thus is not only a time-piece, but also an ornament.

If you have an old, valuable case that you do not care to part with, we can equip it with our mechanism.







CASS GILBERT, ARCH., N. Y.

200 "Magneta" clocks placed in U. S. Custom House, New York

# LIST

GIVING PARTICULARS OF THE VARIOUS TYPES  
AND OTHER DETAILED INFORMATION

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WE MANUFACTURE ALL TYPES OF  
**MASTER CLOCKS, PROGRAM CLOCKS, SECONDARY CLOCKS,  
TIME STAMPS, TIME RECORDERS**

ALSO REGULATING APPARATUS FOR TOWER AND TURRET CLOCKS

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## OUR PRICES

We do not make "cheap" clocks ; but our prices are moderate, considering the workmanship and material employed.

Our master clocks are the finest Precision Regulators obtainable ; they are equipped with either a Riefler Compensation Pendulum, or a French Invar Steel Pendulum, either of which give far better results than a mercurial pendulum.

The escapement employed in the " Magneta " clocks is actuated by the " Remontoire " mechanism ; this is the same type as applied to the finest Astronomical Regulators and Tower clocks, where the highest accuracy is required.

Only the very best hardened brass, Phosphor-Bronze, Steel and Magnalium (non-corrosive) enter into the manufacture of our clocks, and we invite the most critical inspection to substantiate these statements. The bearings and their finish are unequalled.

Furthermore, the most up-to-date, yet simplest, devices known to Horological Science have been applied to the " Magneta " clocks, and hence they cannot be "cheap".

Whereas the initial cost of our System is somewhat higher than that of the battery-systems, its future inexpensive maintenance and thorough reliability, greatly offset this.



## MASTER CLOCKS

Comprising the precision regulator with weights and pendulum (beating seconds) in either oak, walnut or mahogany case.

						HAND-WOUND	SELF-WINDING
Capable of driving	1	to	16	units*	Type A—8-day		_____
" " " 1 " 25 "	"	"	"	"	" C "		_____
" " " 1 " 32 "	"	"	"	"	" c—2-day	EA 32	
" " " 1 " 45 "	"	"	"	"	" d "	EA 45	
" " " 1 " 100 "	"	"	"	"	" f "	EA 100	
" " " 1 " 200 "	"	"	"	"	" g "	EA 200	
" " " 1 " 300 "	"	"	"	"	" h "	EA 300	
" " " 1 " 500 "	"	"	"	"	" i "	EA 500	

### TO BE WOUND UP WEEKLY

(Working period 8 days)

Type A. Capable of driving 1 to 16 units.  
 " C. " " " 1 " 25 "

These clocks are specially adaptable for installation in homes, residences, etc.

## PROGRAM CLOCKS

For ringing any system of Time Signals, for changing classes, opening and closing periods, starting and stopping work, etc. This is simply an extra attachment to the Master Clock.

## SECONDARY CLOCKS

- I. Comprising electric clock movement, *oak or alder wood circular case*, with white dial, black aluminum hands and stout glass front.

8	inch	diameter	of	dial	(equal	to	1	unit*)
10	"	"	"	"	"	"	1	"
12	"	"	"	"	"	"	1	"
16	"	"	"	"	"	"	3	"
20	"	"	"	"	"	"	3	"
24	"	"	"	"	"	"	8	"
28	"	"	"	"	"	"	8	"

Prices will be quoted on application, also for smaller and larger dimensions.

\* 1 unit equal to a secondary clock of 12" diameter of dial.

## SECONDARY CLOCKS

- II. Comprising electric clock movement, circular metal case, white dial, black aluminum hands and water-tight glass front (these clocks are specially adapted for damp premises and outdoor use).

8 inch diameter of dial (equal to 1 unit)*						
10	"	"	"	"	"	1 "
12	"	"	"	"	"	1 "
16	"	"	"	"	"	3 "
20	"	"	"	"	"	3 "
24	"	"	"	"	"	8 "
28	"	"	"	"	"	8 "
32	"	"	"	"	"	8 "
36	"	"	"	"	"	8 "
40	"	"	"	"	"	20 "
48	"	"	"	"	"	20 "
60	"	"	"	"	"	30 "
70	"	"	"	"	"	40 "
80	"	"	"	"	"	40 "

Prices will be quoted on application, also for smaller and larger dimensions.

## III. TRANSPARENT DIALS

Illuminated at night by electric light.

## IV. DIALS

In carved wood or fancy frames.

## REGULATING APPARATUS FOR TOWER CLOCKS

This apparatus, which can be attached to existing Tower and Turret Clocks, without taking them apart, allows the automatic regulation of the tower clock with the precision master clock, to which it is connected by wires.

## TIME STAMPS, TIME RECORDERS

For information concerning these, see Supplement "B" to this catalogue.

\* 1 unit equal to a secondary clock of 12" diameter of dial.



## **PARTIAL LIST**

OF SOME RECENT INSTALLATIONS

### **RAILROADS**

Pennsylvania Terminal, Washington, D. C.  
Norfolk & Southern Railway Co.  
Sheffield Depot, Midland Railway.  
The Interborough-Metropolitan Co., New York.  
The Rock Island System, New York.  
etc., etc.

### **BANKS, CORPORATIONS, ETC.**

American Bank Note Company, New York.  
American Woolen Company, New York.  
Gorham Mfg. Company, New York.  
Lord & Taylor Stores, New York.  
Mercantile National Bank, New York.  
New McCreery Store, New York.  
Trust Co. of America, New York.  
Girard Trust Company, Philadelphia, Pa.  
Union National Bank, Pittsburg, Pa.  
Union National Bank, Wilmington, Del.  
German Bank, Leipzig, Germany.  
etc., etc.

### **HOSPITALS, BATHS, ETC.**

Mount Sinai Hospital, New York.  
Fleishman Baths, New York.  
St. Thomas' Hospital, London.  
Rothschild's Hospital, Paris.  
Vanderbilt Hospital, Paris.  
etc., etc.

### **PUBLIC AND OFFICE BUILDINGS**

U. S. Custom House, New York.  
Brunswick Building, New York.  
City Investing Building, New York.  
Reed & Barton Building, New York.  
Seligman Bank Building, New York.  
Singer Buildings, New York.  
Trinity Building, New York.  
U. S. Realty Building, New York.  
Wall-Exchange Building, New York.  
etc., etc.

### **NEWSPAPERS, ETC.**

Brooklyn Daily Eagle, Brooklyn, N. Y.  
New York Staats-Zeitung, New York.  
Evening Bulletin, Philadelphia, Pa.  
Evening Post Building, New York.  
Press Exchange, London.  
The Daily Mirror, London.  
La Prensa, Paris.  
La Grosse Prensa, Buenos Ayres.  
etc., etc.

### **HOTELS**

The Plaza, New York.  
The Hotel St. Regis, New York.  
The Hotel Knickerbocker, New York.  
The Belmont Hotel, New York.  
The Empire Hotel, New York.  
The Hotel St. Francis, San Francisco, Cal.  
The Ritz Hotel, London.  
The Savoy Hotel, London.  
The Grand Hotel, Paris.  
Hotel Meurice, Paris.  
Hotel Winter Palace, Nice.  
Palace Hotel, Lucerne.  
Palace Hotel, Frankfurt a/Main.  
The Bauer au Lac, Zurich.  
etc., etc.

### **SCHOOLS, RESIDENCES, ETC.**

New York Club, New York.  
Asbury High School, Asbury Park, N. J.  
S. R. Ball Residence, Knollwood, N. Y.  
De Lanoy Residence, Short Hills, N. J.  
Hohenzollern Apartments, New York.  
Hendrik Hudson Apartments, New York.  
etc., etc.

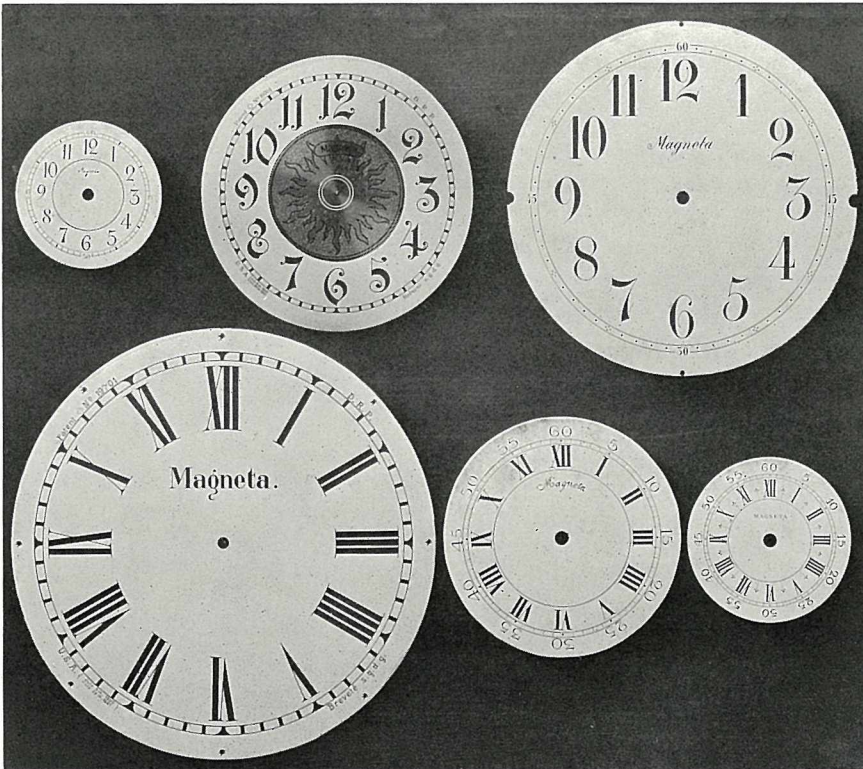
### **MARINE INSTALLATIONS**

The S. S. "Lusitania."  
The S. S. "Mauretania."  
The S. S. "Kaiserin Augusta Victoria."  
The S. S. "Adriatic."  
The S. S. "Amazon."  
The S. S. "Uruguay."  
etc., etc.



## DIALS

SOME SUGGESTIONS REGARDING THE SELECTION OF DIALS



### ZINC ENAMELED DIALS

These are the standard dials for offices, schools, etc., and are made *in any diameter*. They are the most satisfactory for general use, and answer almost every requirement; they are neat, substantially made, and are far superior to paper or celluloid dials.

### PORCELAIN ENAMELED DIALS

These are the finest dials obtainable; they are enameled on pure copper, and have a high class finish. They are particularly desirable

for use in such places as homes, hotels, banking offices, etc., and range in size from 3" up to and including the 12" size, but no larger.

They come in two grades :

- a. Domestic.
- b. Imported.

The latter are of a much finer grade and finish than the former.

### **SILVER-PLATED DIALS**

These are silver-plated on brass, and have engraved numerals with engraved sunburst in the center. They are used for all better class offices, etc., and come in sizes up to and including the 16" size.

### **MARBLE DIALS**

These are the most suitable dials for larger clocks, etc., for use in banking quarters, corridors, etc., and range in size from 16" to 60". They are usually furnished in connection with bronze frames, have raised bronze numerals, fancy hands, and stout glass fronts. (See illustration, p. 26.)

We are in a position to furnish these clocks in accordance with architects' designs.

### **ILLUMINATED DIALS**

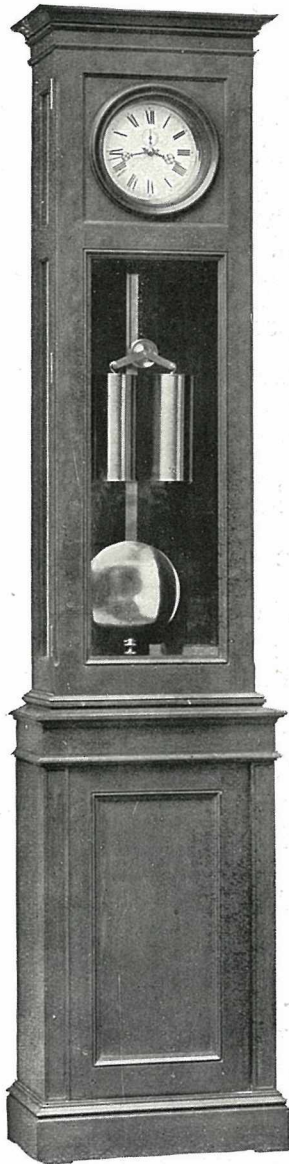
These are made of Novus or Opal glass in sizes up to 24" in diameter. For larger sizes, ground glass, buffed, is used. Dials larger than 6' in diameter are made in sections.

### **LIGHTING DEVICE**

Particular attention is paid to the lighting equipment of our illuminated clocks. They are so constructed that access is easily had to the interior and the exchanging of lamps is readily accomplished; attention has also been given to the proper ventilation of these clocks.

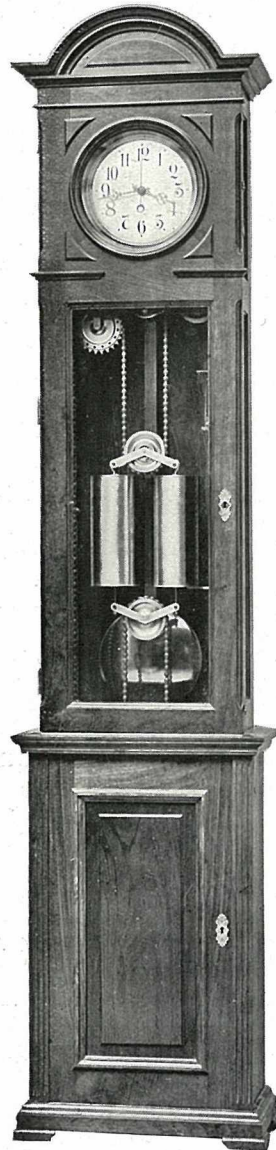


## MASTER CLOCKS



Type A—Hand Wound  
Capable of Driving 20 Units

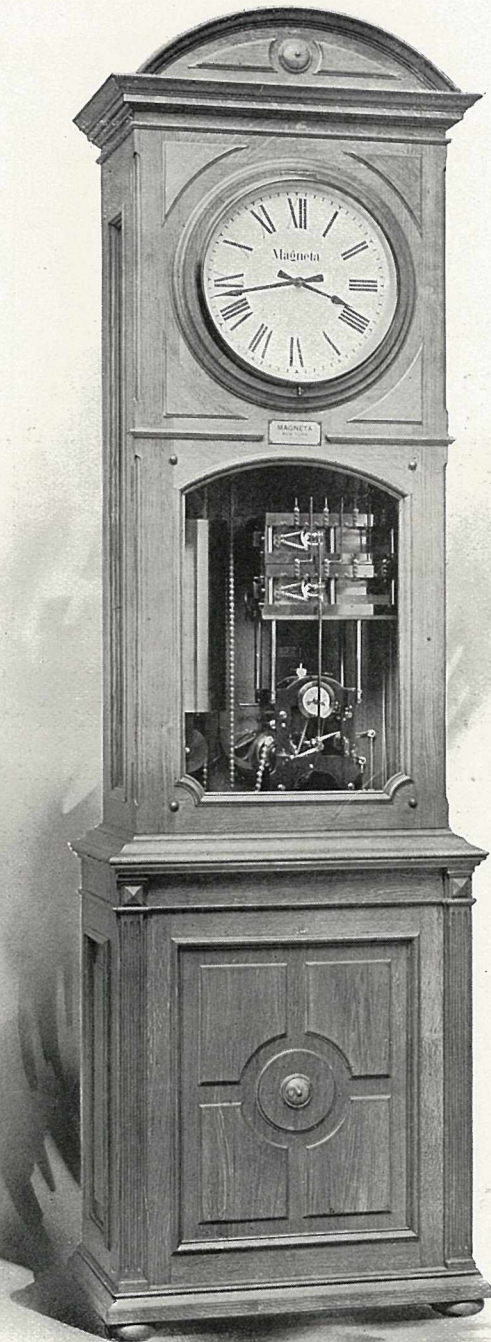
Height 7' 8"  
Width 20"  
Depth 12"



Type c  
" d

Height 7' 5"  
Width 20"  
Depth 12"

## MASTER CLOCKS



Type f	} SIZES	{ Height 8' 6"	
" g			{ Width 31"
" h			
	over all		

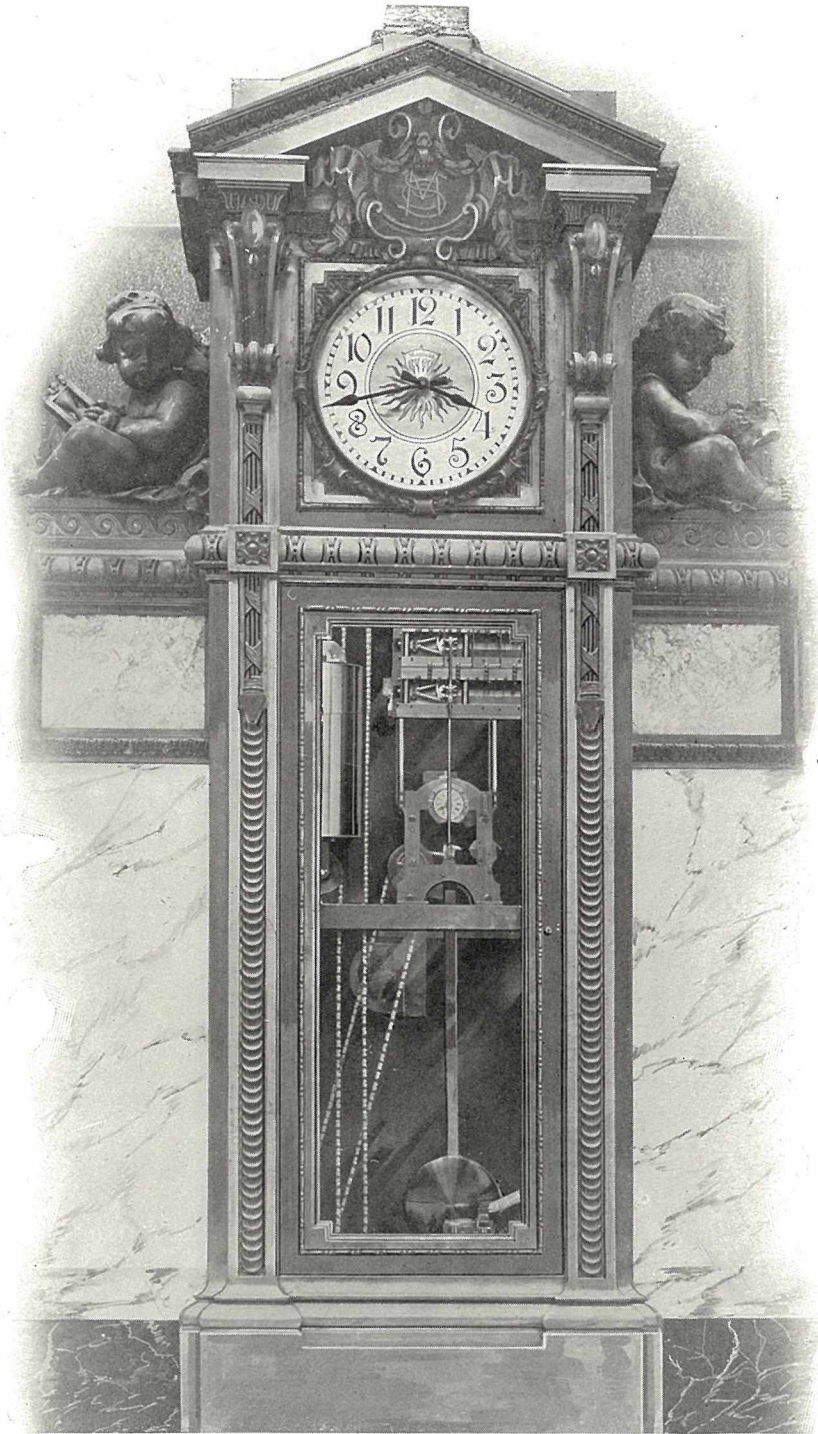


## MASTER CLOCKS



Type i & EA 500	} SIZES over all	{	Height, 8' 6"
			Width, 46"
			Depth, 22"

## MASTER CLOCKS



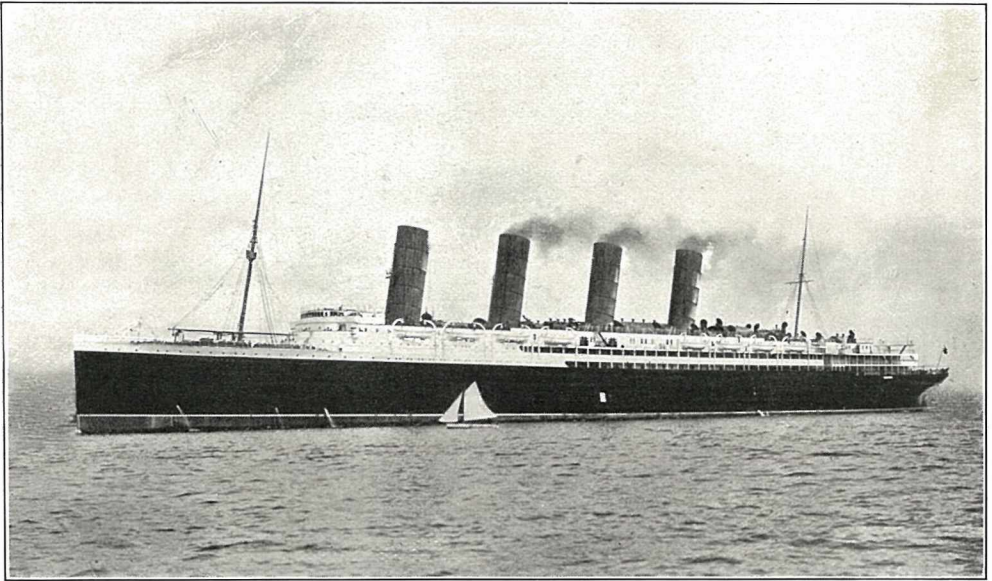
CAST BY JNO. WILLIAMS, N. Y.

ERNEST FLAGG, ARCHITECT, N. Y.

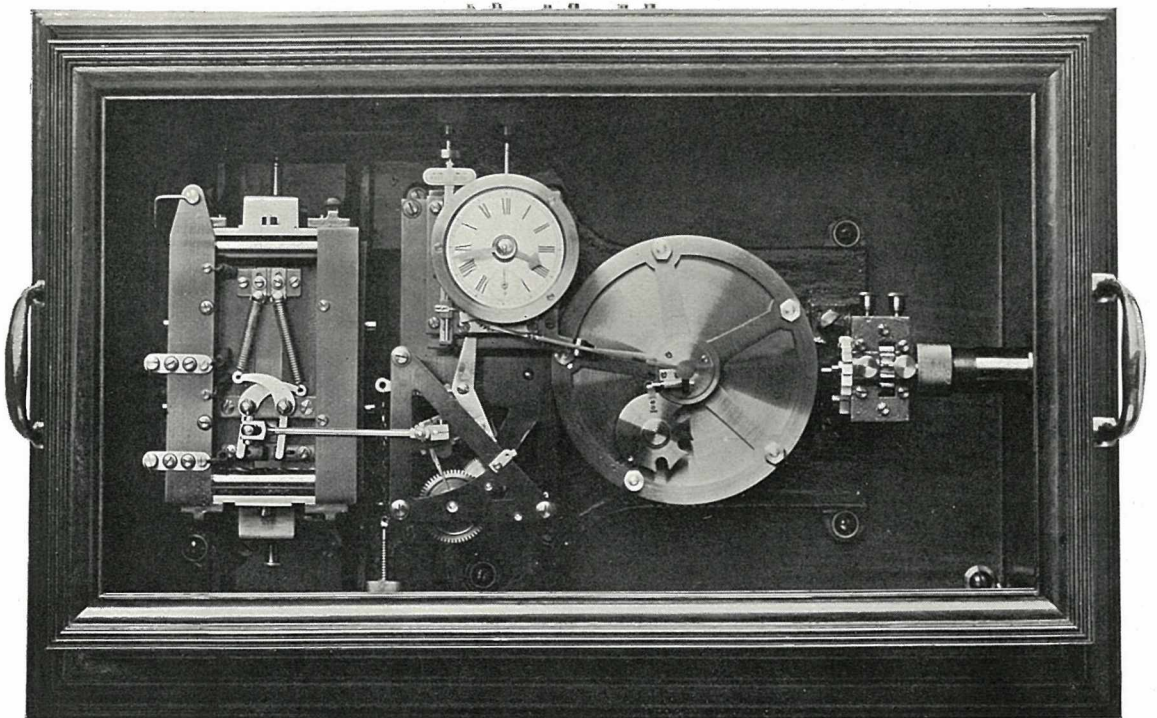
Bronze Master Clock installed in the Singer Building, N. Y.



## MARINE MASTER CLOCK



CUNARD LINER "LUSITANIA"  
Equipped throughout with "Magneta" Clocks



## MARINE MASTER CLOCK

Capable of driving 60 Units

Size: 26" x 17" x 11"

SECONDARY CLOCKS  
STANDARD CIRCULAR WALL CLOCKS



These cases come in oak, alderwood, or birch (mahogany finish). This clock is plain in appearance, and is a splendid timepiece for offices, schools, public buildings, etc. It is also furnished in genuine mahogany with silver-plated dial; giving the plain design richness in effect and appearance, and makes it popular for private offices, libraries, etc.

Sizes: 6" diameter of dial to 48" diameter of dial.

The same case design is furnished in *spun metal*.

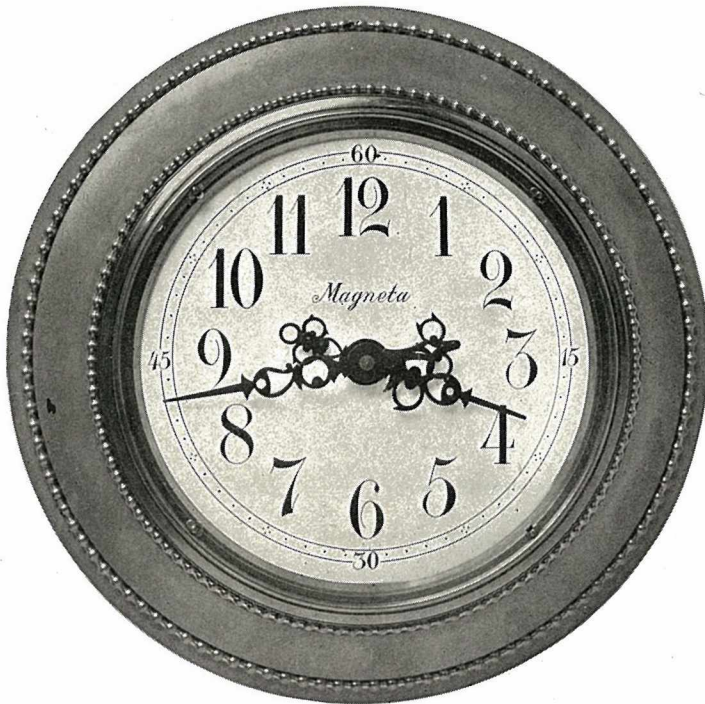
Sizes: 6" diameter of dial to 10' 0" diameter of dial.

Entirely *waterproof*, for use out of doors, also for garages, typesetting rooms, in fact, all places where an ordinary time-piece cannot be placed on account of dampness, etc.



## SECONDARY CLOCKS

### BRONZE CASES



Very popular for hotels, banks, private residences, etc. These clocks are furnished in plain or ornamental cases, with either of the following finishes:

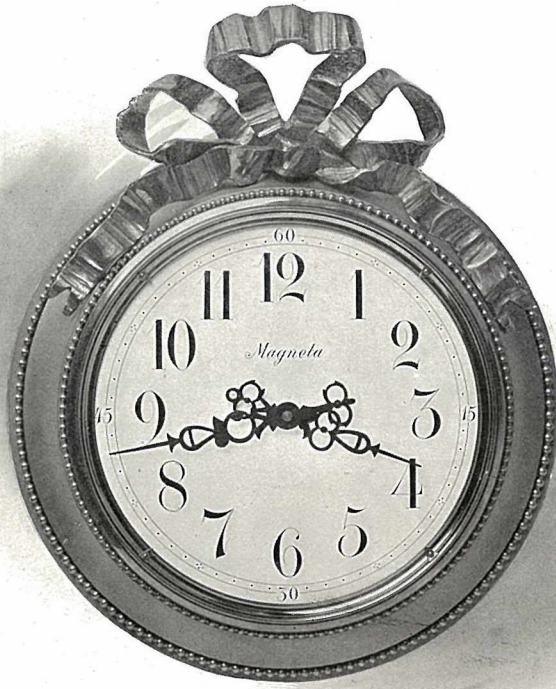
- a. Natural bronze, polished only
- b. Statuary finish
- c. Gold lacquered
- d. Gold plated (electro plated)
- e. French gold plated (doré nitraté)

All our bronze cases are heavy in weight and very substantially made, and are furnished perfectly plain or with ornamentation varying from the simplest kind to the finest French chased and re-chased ornamentation for the most luxurious home.

We are prepared to furnish bronze cases in strict accordance with Architect's designs.

## SECONDARY CLOCKS

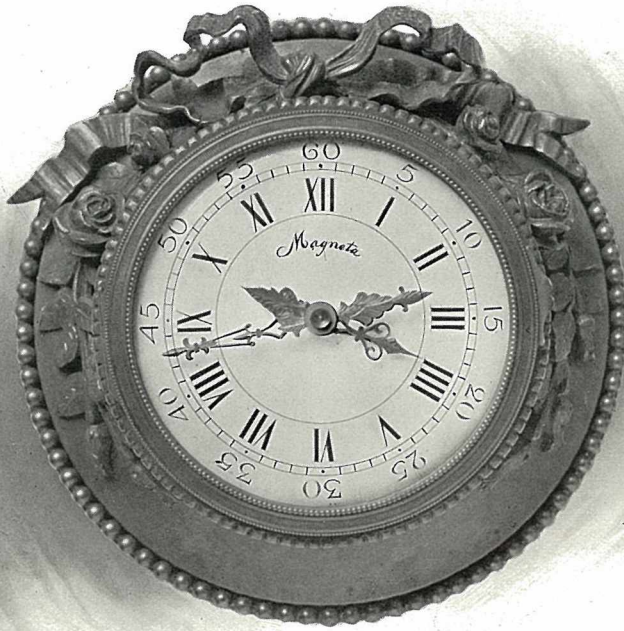
### BRONZE CASES



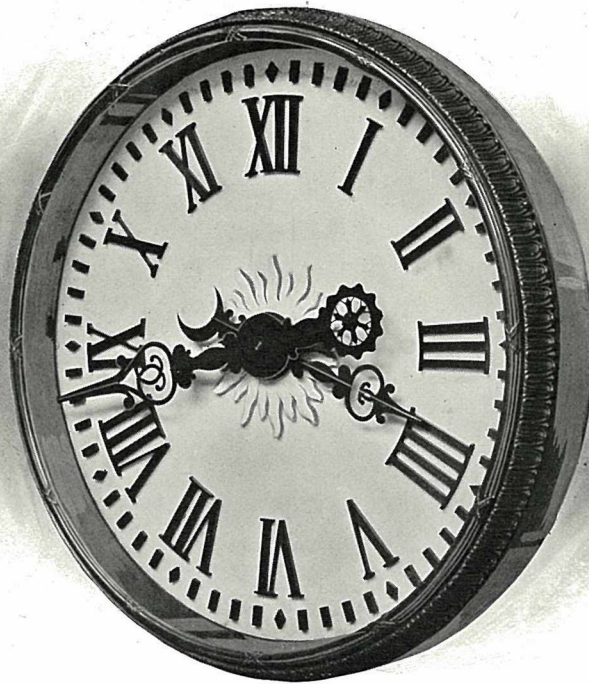
MAGNETA STANDARDS  
6" 8" 10" 12" diameter of dial



SECONDARY CLOCKS  
BRONZE CASES



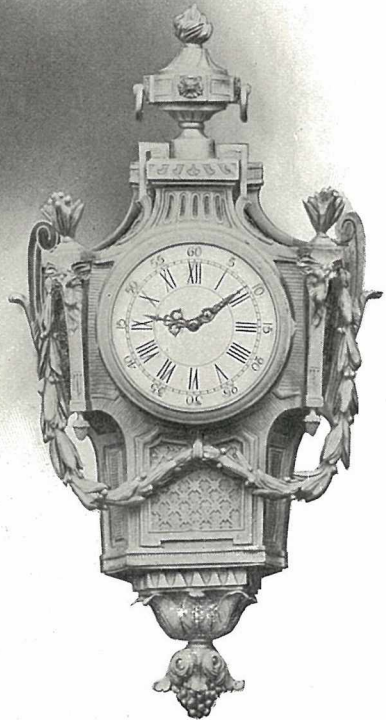
5" diameter of dial for private residences, etc.



Large marble dial with raised bronze numerals in bronze sash (holding glass)  
to be installed in ornamental plaster or marble frame

## SECONDARY CLOCKS

### BRONZE CASES



EXAMPLES  
OF  
SOME  
OF  
OUR  
EXCLUSIVE  
DESIGNS

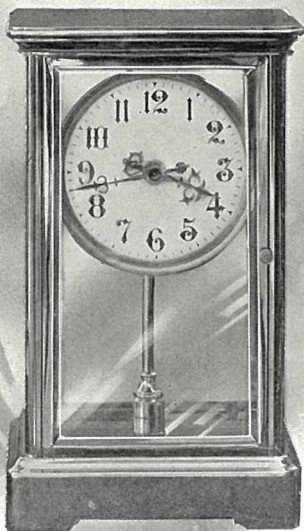
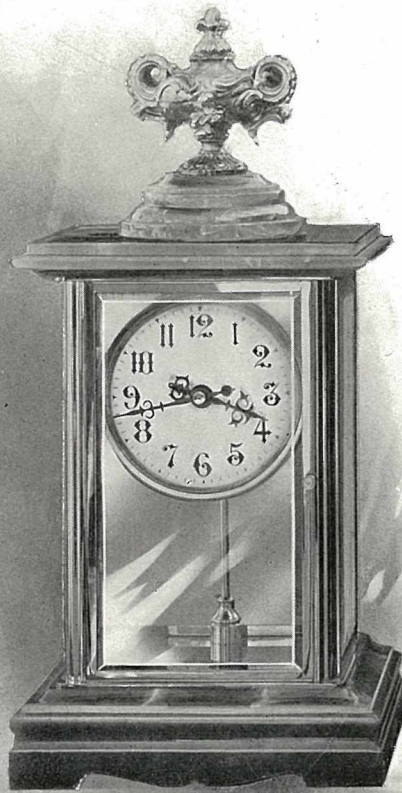


## SECONDARY CLOCKS

### MANTEL CLOCKS

For private residences, large hotels, etc., this is the preferred clock; not only a splendid time-piece, but an ornament for the mantel.

We can furnish these clocks in the plainest crystal or wooden cases or in the most elaborate imported French mantel clock housing of any style period with candelabras to match.



## SECONDARY CLOCKS

### MANTEL CLOCKS



Specimen Louis XV. Mantel Set. Specially designed and made for the Plaza Hotel, N. Y.



Specimen Louis XVI. Mantel Set. Specially designed and made for the Plaza Hotel, N. Y.



## SECONDARY CLOCKS

### CARVED FRAMES



HAND-  
CARVED  
WOODEN  
CLOCKS

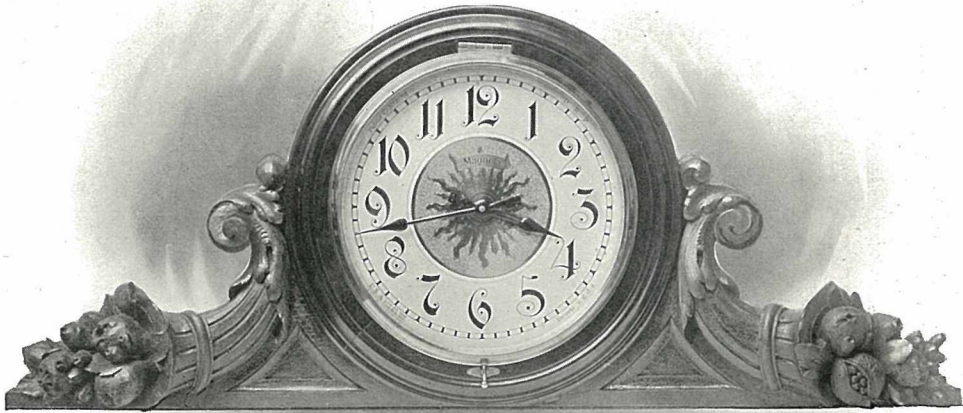
installed in  
**American  
Bank Note Co.**  
N. Y.

Kirby, Petit  
& Green  
Architects  
N. Y.

Womrath Bros.  
Decorators  
N. Y.



SECONDARY CLOCKS  
CARVED FRAMES



Carved Ornamental Toppiece



Carved Circular Frame

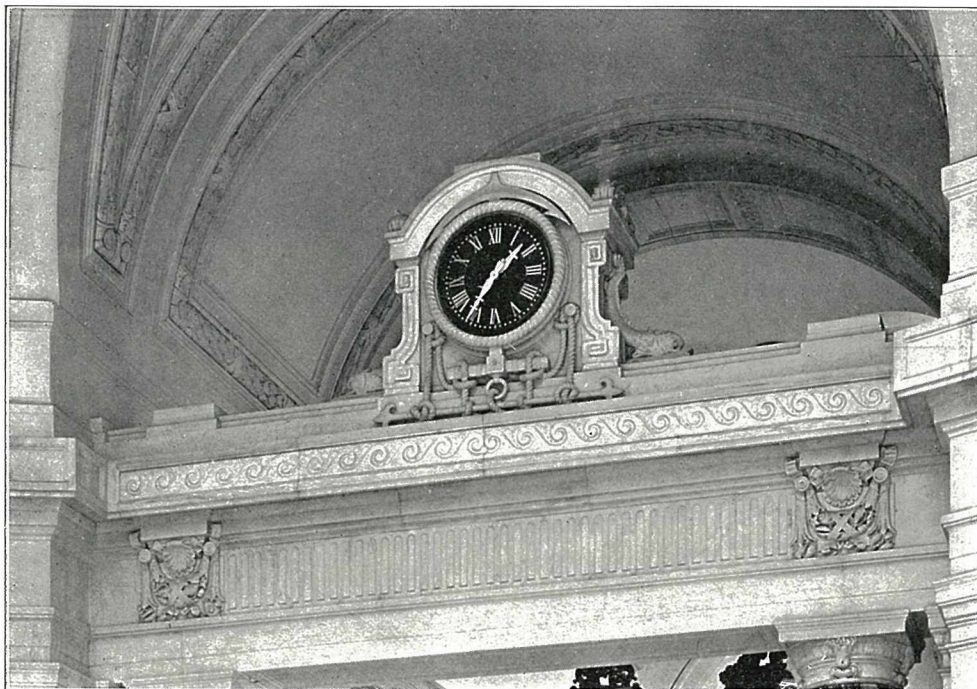




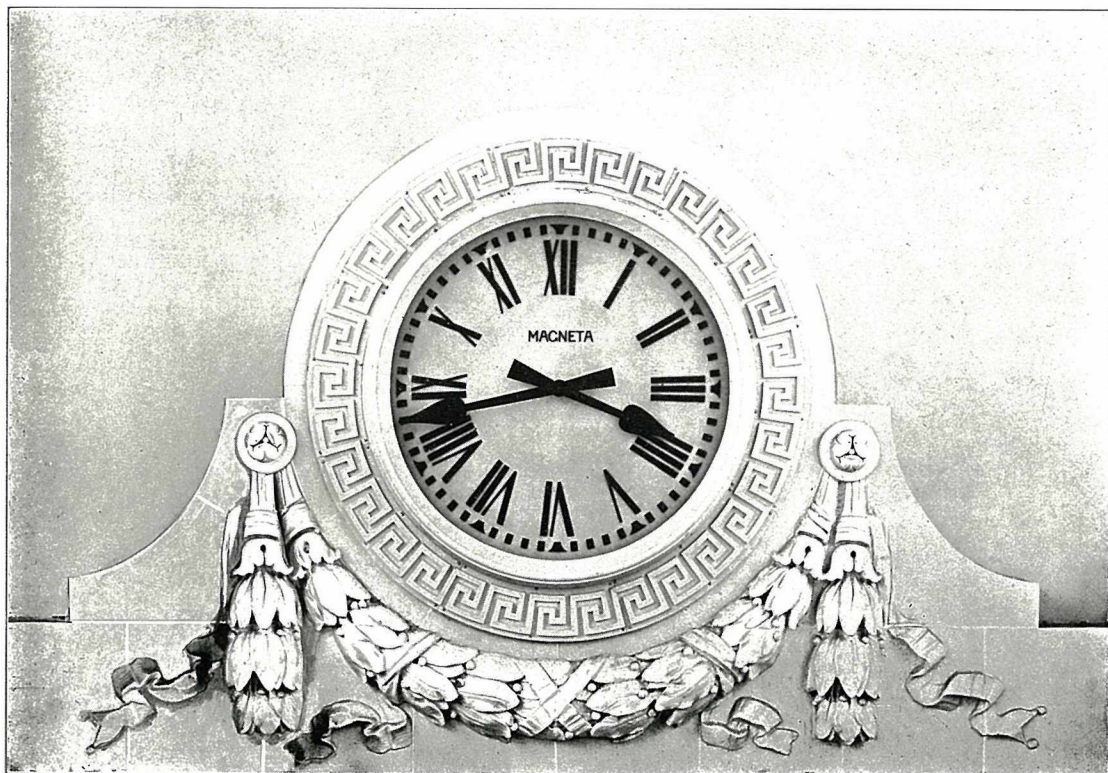
8-foot diameter dial clock with hands for long distances—metal frame

## LARGE CLOCKS

The larger clocks made by this company are, in every respect, duplicates of the smaller sizes in general appearance. While they are substantially constructed, yet they are not bulky in appearance; having little depth, thus eliminating the clumsy appearance usually presented by the larger size clocks.

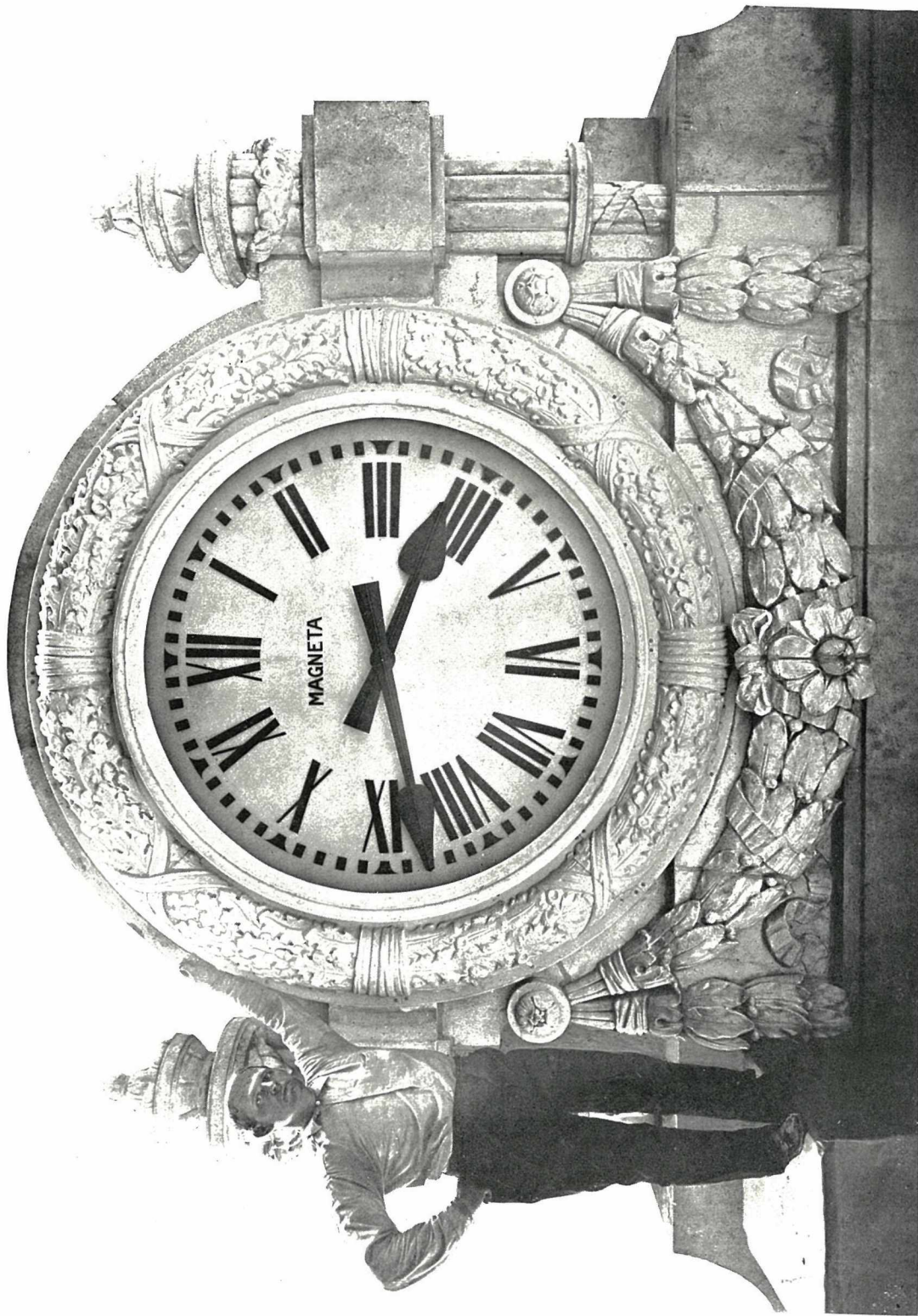


Bronze dial with raised silver numerals and silver hands  
Installed in U. S. Custom House, N. Y.



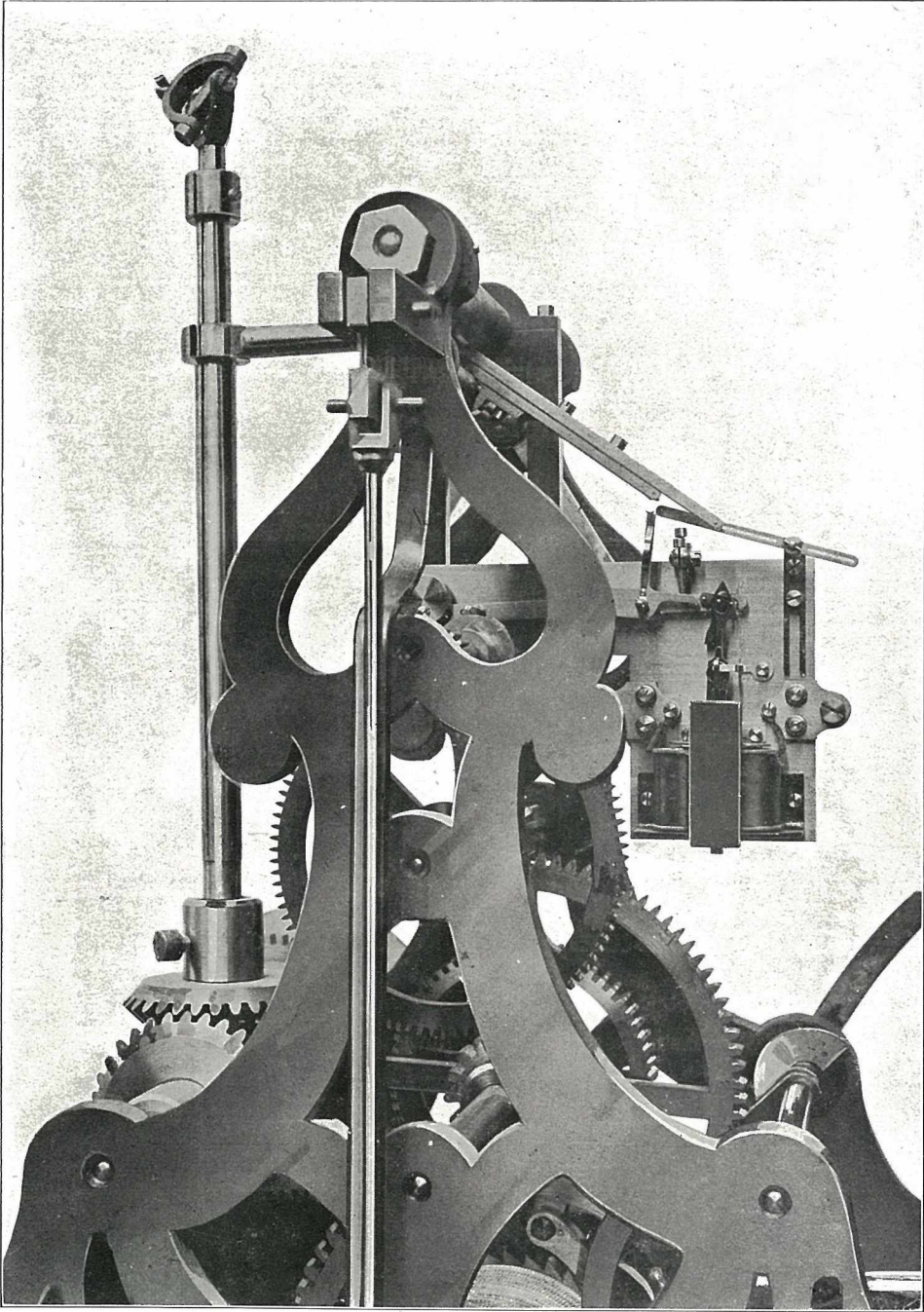
6-foot diameter dial, illuminated clock; metal and terra cotta frame





Clock in General Waiting Room, Pennsylvania Terminal, Washington, D. C.

## MAGNETA REGULATING APPARATUS



For Controlling and Regulating Tower and Turret Clocks



Upon request, we shall be pleased to forward:

SUPPLEMENT "A"

**A complete description  
of the Apparatus and Working of the  
" Magneta " Clock System**

This is a complete description of the system, with illustrations, for the use of  
Architects, Engineers, etc.

**" Wire Specifications for Clocks "**

Containing full instructions with regard to installing a perfect wire-system  
for electric clocks

SUPPLEMENT "B"

**Time Stamps and Time Recorders**

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Estimates cheerfully furnished on request