

*The  
Little Red Box  
on the Corner*









# The Little Red Box on the Corner

fire alarm systems







## *The Little Red Box on the Corner*

**T**HE red fire alarm box on the corner is familiar to all, but few fully realize why it is there and what happens when the hook is pulled. Back of the box is a system that rivals the telephone or electric light system in completeness, and exceeds them both in the responsibility that rests upon it. The efficiency of the entire fire department depends on the efficiency of the fire alarm system. Unless the department can get a prompt alarm the firemen cannot do the work which they are capable of doing. If there is delay, the fire gets a serious start, and in many cases all that the department can then do is to save the adjoining buildings. If you will give your fire department the benefit of a prompt alarm, they will give you at least twice the protection which you get when there is a delay.

If everyone understood just what happened when the fire alarm box was operated, more attention would be paid to the request of the fire department officials that the alarm be sent in promptly. Let us see what happens when the box is operated.

With most of the boxes in service in the country you break the glass, open the door, and pull down the hook which you see inside the box. In some of the more recent installations it is not necessary to open the outside door. You simply pull a handle and then pull the hook which is exposed. If it is a smaller city, the signal is automatically re-transmitted by the Central Office, and the box number is sounded in the various engine houses and on any outside bells or whistles. By the time the signal has been received and checked the apparatus is rolling out of the house — perhaps thirty seconds after you have pulled the hook.



Peerless Porcelain  
Steel Box

Now being installed in the majority of the cities of the country.

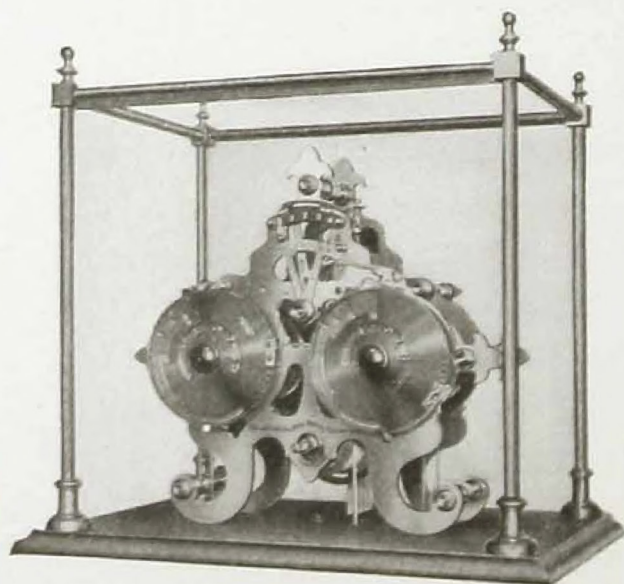
A short journey over the fire alarm system.



The conditions in larger cities are necessarily a bit different. It is obvious that in such cities alarms are frequently received from a number of fires from different sections of the city at or about the same time. In Chicago, during the past winter, some 314 alarms were received in one 24-hour period, followed by 200 in the following 24 hours. A similar condition is met to a greater or less degree in all of the large cities. Operators are always on duty in the Central Offices of these cities. Registers are provided which automatically make a record of the alarms received, regardless of how fast they come in. The operators know which pieces of apparatus respond to the various alarms and acquire a skill and speed in operating the transmitting mechanism that is amazing. Signals are sent to the apparatus houses over two separate lines, to guard against failure to receive the signal. The telephone is not used except for routine business. Every conceivable precaution is taken to guard against failure of either machinery or men. When the Chief is at a fire he keeps in touch with fire headquarters through the fire alarm system. When additional apparatus is needed it is ordered over the system. If a fire occurs elsewhere and develops seriously the chief can be kept informed.

The only dependable fire alarm.

Fire chiefs and fire department officials, after an experience of about half a century, are unanimous in agreeing



Transmitter

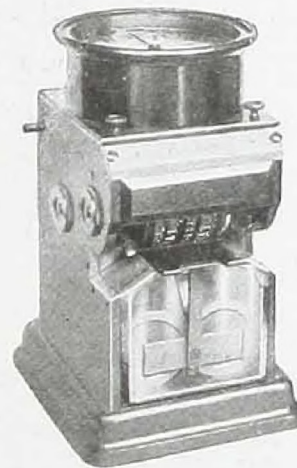
that a complete, adequate and modern fire alarm telegraph system is the only dependable method for sending in alarms of fire. For a time after the invention of the telephone there was a feeling that the large number of telephones would supply adequate means for sending the alarm to fire headquarters. Experience soon proved that

Used in the Central Office to send signals to the apparatus houses.



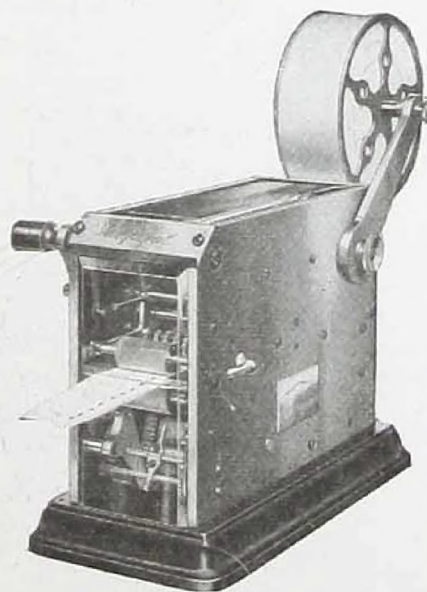
the telephone system was not designed for and would not be an effective fire alarm agency. Splendid work has been done repeatedly by the operators and the management of the telephone companies, but these same officials have repeatedly told the city officials that the telephone service was not designed for fire alarm purposes, and that while the companies were glad to make special provisions for the handling of emergency calls, primarily the responsibility for fire signaling should rest on a municipally owned fire alarm telegraph system which was designed and engineered for that purpose, and for that purpose only. The Engineers of the National Board of Fire Underwriters have said repeatedly in surveys of cities which were dependent on the telephone that:

“The system of sending alarms by telephone has certain fundamental defects, as follows: The waste of time incident to the repetition and rehandling of alarms, the lack of recording apparatus, the lack of notification to call men of definite locations, and of ready means of calling additional apparatus; during part of the night and on Sundays it becomes practically useless in the high value and factory districts, where it is most essential that a fire alarm system should be immediately accessible for sending in an alarm by anyone who may discover a fire. These defects cause serious delays, which are liable to prevent the extinguishing of fires in their incipient stage; the ever-present danger of incorrect locations being given by the person sending in the alarm and the possibility of mistake in receiving the alarm at the fire station may at any time be the immediate cause of a conflagration.



Time Stamp Recording Set

Stamps on the register paper the time of the receipt of the signal.



Register

Makes a record of the box numbers by puncturing a triangular shaped hole in the paper tape.

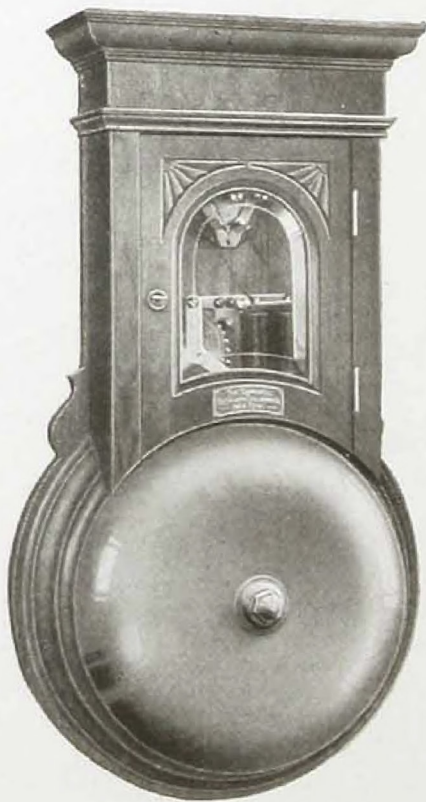


"The prime requisites of a fire alarm system are accessibility, speed of transmission and reliability, all of which are lacking in the telephone system now in use. A telephone system is an excellent auxiliary, and the recent additions have been of value; by installing a break-wheel transmitter to send out numbers of street locations, a material improvement can be obtained. This, however, would not offset the need of installing a reliable, modern fire alarm telegraph system."

Fire chiefs and fire department officials have done splendid work in educating the citizens of their city to send the alarm in immediately, and to send it in by using the nearest fire alarm box. They have had the support of the newspapers, Chambers of Commerce, and similar organizations, and of the school authorities. They are entitled to the support of everyone who is interested in protecting their city against a possible conflagration such as has visited so many of the large cities of this country. A survey of a considerable number of fires where the loss amounted to \$10,000 or more reveals the surprising fact that a delayed alarm was,

in the opinion of the fire chiefs, responsible for about 70% of the loss.

A fire alarm system has a twofold duty; i.e., protection of property and protection of life. Fire alarm boxes are installed at schools, hospitals and other similar places. It is evident that a fire alarm box and the fire alarm apparatus in the Central Office must be made as nearly error-proof as it is humanly possible. Failure on the part of the ordinary commercial apparatus, such as an adding machine, typewriter, or similar device, usually results in nothing more serious than a certain inconvenience. Failure on the part of a fire alarm box or the fire alarm



Electro-Mechanical Gong

The best is not good enough.

A loud-sounding gong installed in the apparatus houses to wake the men at night.



system when it was being operated for a fire in a school or a hospital, or similar place might easily result in the unnecessary loss of a very substantial number of lives.

Reliability and not cost must be the factor in deciding on improvements and changes in fire alarm. The best that is possible to make is none too good, and every step in the selection of the materials, the engineering and the manufacture must be based on such a policy. Thousands of Gamewell boxes have been in service for over twenty years on the street corners of the country. In many cases these boxes have been in service for more than forty years. Following are a few of these cities which have had boxes in service for forty years or more:



Troy, N. Y.

Retired two years ago after fifty-four years of service.



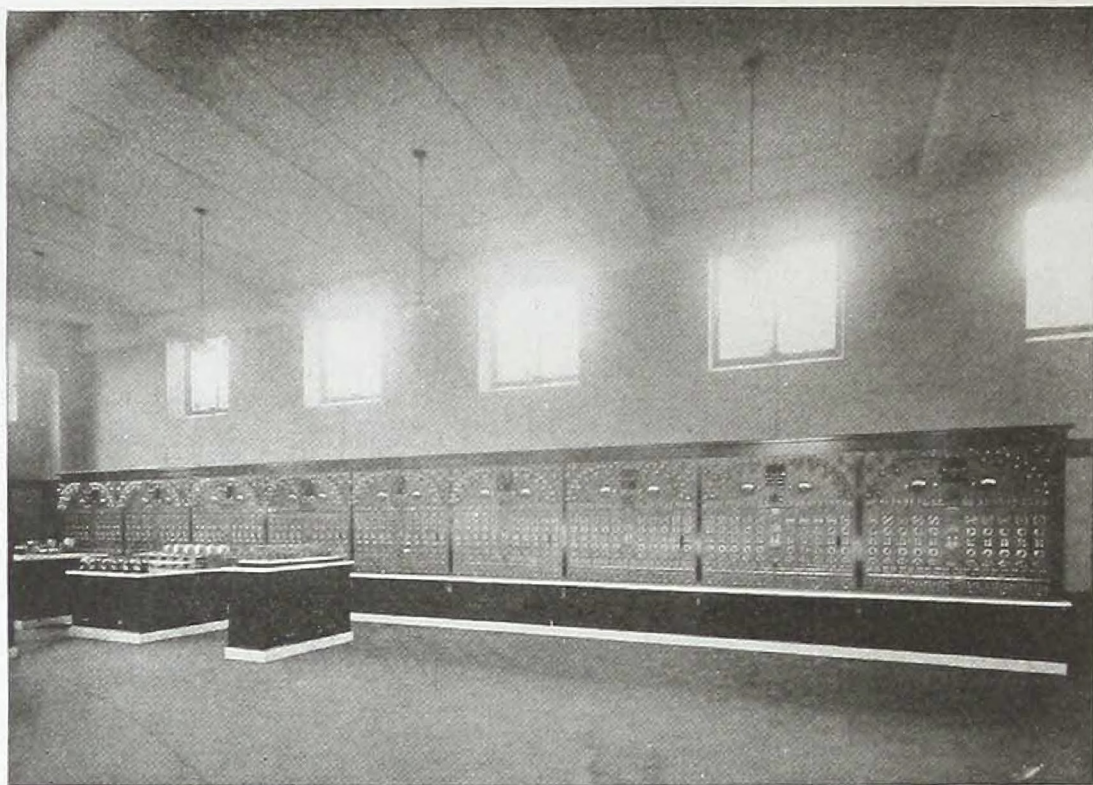
Manchester, N. H.

Fifty-four years old and still going strong.

1869	Lawrence, Mass.	1881	Woburn, Mass.
	Milwaukee, Wis.		
1870	Manchester, N. H.	1882	Danbury, Conn.
			Lewiston, Maine
1874	Pawtucket, R. I.		Topeka, Kansas
1876	Norwich, Conn.	1883	Canton, Ohio
	Rockford, Ill.		Charleston, S. C.
	Springfield, Ohio		Gloucester, Mass.
1877	Evansville, Ind.		Hartford, Conn.
			Kenton, Ohio
1879	Burlington, Vt.	1884	Dayton, Ohio
1880	Galveston, Texas		South Norwalk, Conn.
	Peru, Ind.		Yonkers, N. Y.



A section of one  
of the latest fire  
alarm Central  
Offices.



Pittsburgh, Pa.

No one reason alone has been responsible for the character of the Gamewell apparatus and the length of service which it has invariably given. Four important reasons have contributed to this:

1. A realization from the very beginning that the best that could be made was none too good.
2. The character of the workmen who have built the apparatus.
3. Thousands of suggestions which have been received from the practical men in the field.
4. The organization of the engineers and designers who have specialized in different branches of the fire alarm business.

The Gamewell Company was located in New England in the early days of the industry because there were available craftsmen who had a real pride in building apparatus that





Detroit has the best fire alarm protection in the world. Naturally this has resulted in the saving of hundreds of thousands of dollars in insurance premiums.

Detroit, Mich., New Central Office

would give faithful and enduring service. The men who are today building fire alarm apparatus still have that old pride of doing their job as well as they can. They have been trained through long experience, and many of them have been in the employ of the company for thirty years or more.

During the past fifty years the Gamewell Company has had the good fortune to install fire alarm systems in some 2,000 places in the country. The practical men who have had charge of these systems have been one of the most fruitful sources for improvements of Gamewell apparatus. Thousands of suggestions have been received from these men, based on their practical experience. These suggestions have been tried out and checked against conditions in various parts of the country, and when found practical have been incorporated in Gamewell apparatus. The Gamewell Company is the only company which is able to supply apparatus which is based on these improvements, because it is the only company that has continuously been in the fire alarm business during this long period.



The tremendous responsibility which is placed on each piece of apparatus and the fire alarm system has resulted in the development of a highly specialized group of designers and engineers. One group of men has specialized on boxes; another group on registers; still another group on repeaters, and so through the entire list of apparatus which is required. Complexity of the fire alarm industry has made it virtually impossible for any one man to obtain complete knowledge of the industry in all its branches. It is necessary for the Gamewell Company to carry 28,000 different piece parts, in order to provide service for the systems in existence. The Gamewell Company has been able to provide apparatus of the grade that it does provide because it does not depend upon any one man, but obtains the combined efforts of a group of specialists in all the fields.

Gamewell apparatus has been specified not only by 90% of the cities of the country, but it also has been selected by the leading industrial concerns. The Westinghouse Electric Company, General Electric, the Edison Company, Phila-

The choice of the leading engineers of the country.



The Ford Factory has a fire alarm system that is more complete than 85% of the cities of the country. Three hundred boxes and a complete Central Office furnish fire and watch protection.



Protection to life is the most important function of the fire alarm system in the eleven General Electric Company Plants. Frequent drills are a feature of their fire protection program. This system is so arranged that four separate types of drills may be held.

- 1st. Drill the fire brigade.
- 2d. Drill all the employees.
- 3d. Drill any one building.
- 4th. Drill any one floor.



delphia Electric, and similar leading electrical concerns, have installed Gamewell apparatus after a most searching investigation by their engineers. These electrical engineers — some of the ablest electrical experts of the country — inspected all types and kinds of fire alarm systems. These men had the responsibility for making recommendations which involved the protection of the lives of thousands of employees and millions of dollars' worth of property located in restricted areas. Gamewell apparatus has been specified in virtually every case, even though the prices for competing articles have been, in many cases, only a third to a half of the cost of Gamewell apparatus.

The past five years have seen a tremendously increased interest on the part of the city officials and the public in the question of adequate fire alarm systems. Chiefs of the Fire Department for years have been asking that more adequate equipment be provided, so that their departments might provide a more adequate protection, and now their recommendations are being followed. Following are a few of the

Fire alarm now being properly recognized.



Some two hundred fire alarm boxes protect the Victor Plant. When a box is operated it not only alarms the local brigade, but the signal is also transmitted to the City of Camden Fire Department.



The Pennsylvania was one of the first railroads of the country to recognize the value of fire alarm protection. Sixty or more separate systems are in service on this railroad. The A. T. & S. F. Railway, the Del., Lackawanna & Western, the New York Central, Union Pacific, Southern Pacific, and scores of other roads, are similarly protected.



A recent office showing the recording apparatus in the foreground. Charging boards are on the left, and the box line boards where the box signal is received are shown at right.



Baltimore Central Office

cities where new Gamewell Central Offices were either ordered or installed during the past two years:

Pittsburgh, Pa.  
Fall River, Mass.  
Richmond, Va.  
Baltimore, Md.  
Detroit, Mich.

Fresno, Cal.  
Terre Haute, Ind.  
Erie, Pa.  
Jacksonville, Fla.  
Wichita, Kansas

Fall River not only installed a complete new office but also replaced all of the old-style boxes on the streets and put a box at every school.

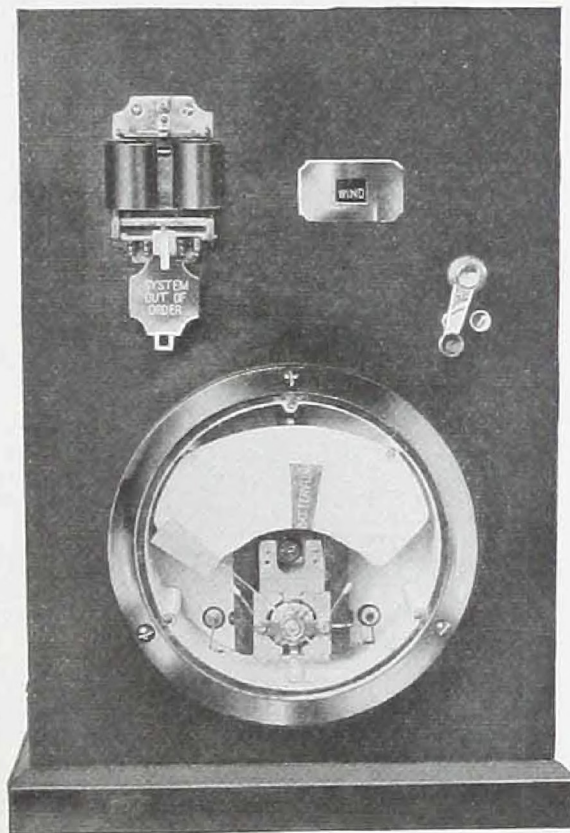


Fall River Central Office



Virtually every city of any size now has a fire alarm telegraph system, but with few exceptions the equipments are woefully incomplete. New fire alarm offices are needed in hundreds of cities, and additional boxes are needed in virtually every city of the country. Fire chiefs are agreed that ultimately there should be a fire alarm box on every corner in the business and residential section, so that the person who discovers a fire should not be obliged to go more than a block, and usually not more than half a block, in search of the nearest box. A box should also be installed on every panic spot; i.e., every school, hospital, theater, hotel, public building, and similar place where there is a danger of panic. The firemen are the only men in any city who are trained and organized to handle panic, and a box must be installed if they are to save life.

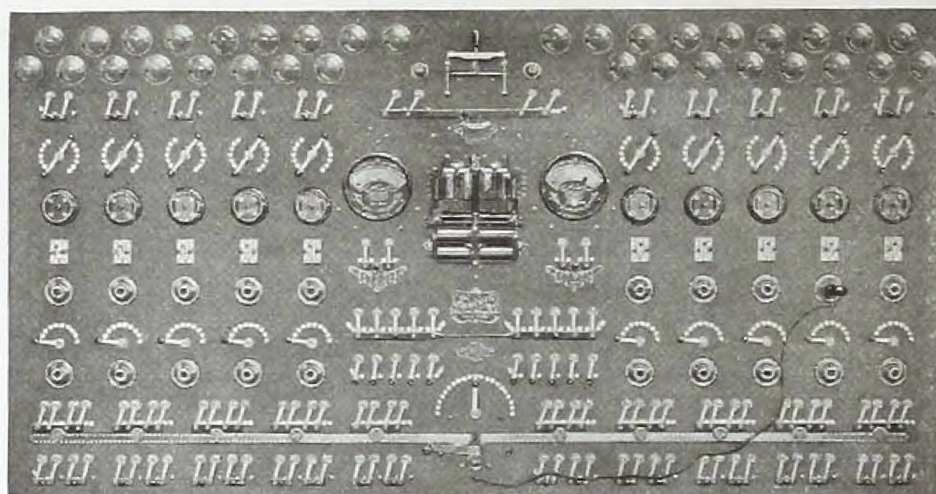
The responsibility for protecting your city from fire rests on the shoulders of the fire department and the city officials. They are both competent and willing to accept it. They are, however, entitled to the whole-hearted support of every citizen who is interested in making the homes and the factories, the schools and the hospitals, the theaters and hotels a safe place in case of fire.



School Alarm Supervisory Set

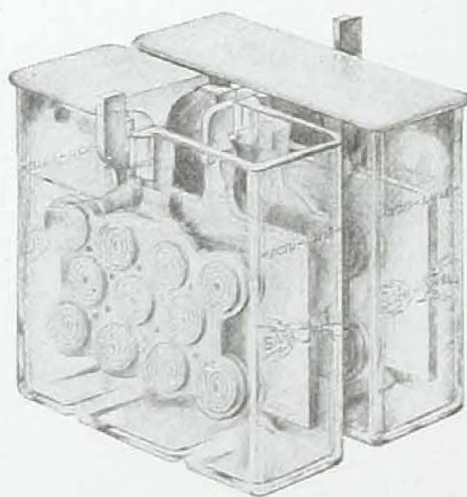
Enables the Principal of a school to know that his fire alarm system is in proper working order. Automatically shows if a circuit is out of order, if battery is low, or if gongs need winding. Every school, hospital, and institution should have a "little red box" to protect life.





Storage Battery Switchboard

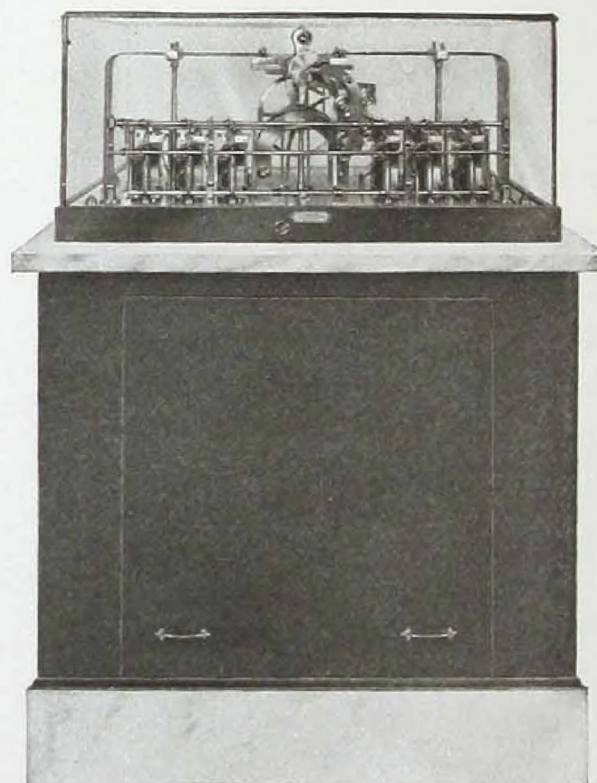
Electrical energy for the fire alarm system is provided by two sets of storage battery cells. These would provide current for the system for sixty hours in an emergency if the local current supply were shut off. The storage battery switchboards are used for regulating the charging of the batteries and for testing the various circuits.



F. I. P. Battery Cell

A special battery cell designed by Gamewell engineers and used exclusively in fire and police signaling systems.

F. For Fire.  
I. For Industrial.  
P. For Police.



Repeater

Automatically re-transmits signals from fire alarm boxes to the apparatus houses and to any public bells or whistles. Prevents interference if two or more box signals are received at the same time.



## Over 1,500 Cities Have Gamewell Installations

New York	New Orleans	FOREIGN
Chicago	Minneapolis	Montreal, Canada
Philadelphia	Dallas	Toronto, Canada
Detroit	Seattle	Quebec, Canada
Cleveland	Indianapolis	Vancouver, Canada
St. Louis	Jersey City	Halifax, Canada
Boston	Portland	Honolulu, Hawaii
Baltimore	Denver	Manila, P. I.
Pittsburgh	Providence	Singapore, Straits Settlement
Los Angeles	Louisville	Windsor Castle, England
Buffalo	St. Paul	Kingston, Jamaica
San Francisco	Atlanta	Petrograd, Russia
Milwaukee	Omaha	Buenos Aires, Argentina
Washington, D.C.	Worcester	Sao Paulo, Brazil
Newark	Birmingham	Guayaquil, Ecuador
Cincinnati	New Haven	Johannesburg, South Africa

### A FEW OF THE THOUSANDS OF INDUSTRIAL CONCERNS, RAILROADS, INSTITUTIONS AND GOVERNMENT PROPERTIES WHICH HAVE GAMEWELL SYSTEMS

American Brass Company	General Electric Co.
American Locomotive Co.	International Harvester Co.
American Smelting & Refining Co.	Interboro Rapid Transit Co.
American Thread Co.	N. Y. Edison Co.
Anaconda Copper Mining Co.	Pennsylvania Railroad
Baldwin Locomotive Works	Philadelphia Electric Co.
Bell Telephone Company	Procter & Gamble Co.
Bethlehem Ship Building Corp.	Pullman Co.
Cadillac Motor Co.	Standard Oil Co.
Canadian Pacific Railway	U. S. Rubber Co.
Curtis Publishing Co.	U. S. Steel Co.
Dodge Bros.	Westinghouse Electric & Mfg. Co.
Du Pont de Nemours Co.	Winchester Repeating Arms Co.
Ford Motor Co.	

### THE GAMEWELL COMPANY NEWTON UPPER FALLS, MASS.

#### *Branch Offices:*

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PITTSBURGH  
DENVER

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ATLANTA  
SAN FRANCISCO

CHICAGO  
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