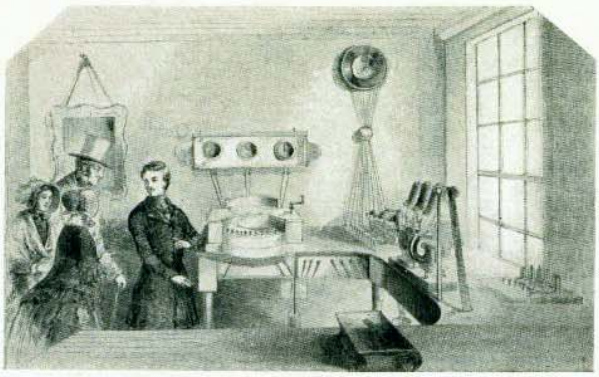
THE NEW BOSTON FIRE ALARM HEADQUARTERS

This booklet was distributed in 1925 on the opening day of the new Fire Alarm Office at 59 Fenway.

The Finest Fire Alarm Headquarters in the World

THE first fire alarm telegraph system in the world was invented, constructed, and placed in operation in Boston, Massachusetts, on April 28, 1852. It was indeed fitting, therefore, that in 1925 Boston should again take the leadership upon the completion of the finest fire alarm central office in the world.

The original system was invented by Dr. William F. Channing, who was assisted in its development and construction by Moses G. Farmer, one of the foremost electrical engineers of the day and who later became the first superintendent of fire alarm telegraph. The system then consisted of three box circuits, three bell circuits, forty boxes, sixteen alarm bells, and crude central office apparatus housed in a building which was exposed to serious fire hazards.



Boston Fire Alarm Headquarters 1852

An actual view of the original installation published in a Boston paper shortly after the system was placed in operation

The new office, equipped with the last word in apparatus, is housed in a beautiful building and presents a decided contrast. It is located in the Fenway, a part of Boston's Park System, 250 feet away from the nearest building, and nothing will ever be built nearer. The building is of fire-resistant construction and of sufficient size to take care of the city's natural growth and the possible annexation of surrounding cities and towns. It is located as near the central point of the present cable system as possible. A special Act of the Legislature was passed giving the city the right to use a section of the Park System for this purpose.

There are at present in service in Boston some thirteen hundred and sixty fire alarm boxes connected to seventy-three box circuits; eighteen tapper circuits and sixteen gong circuits. Three signal circuits are connected with the high pressure pumping system, two of which connect all the boxes in the high pressure districts. The central office boards which are installed have a capacity of two thousand boxes, and space has been provided so that additional boards may be erected, giving an ultimate capacity of five thousand boxes. Each alarm that is received is recorded on one of the twenty-five four-circuit shearing

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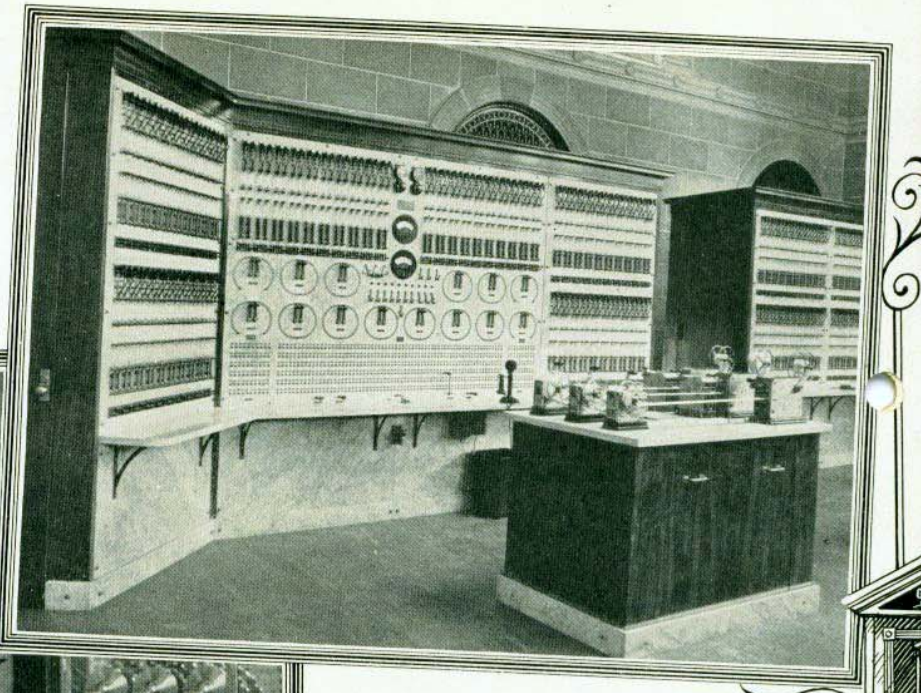
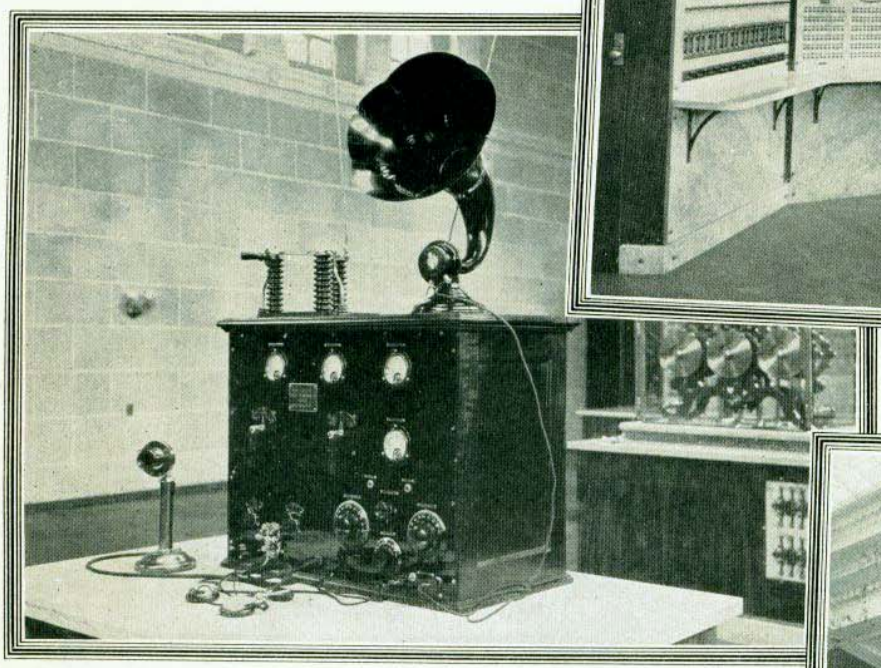
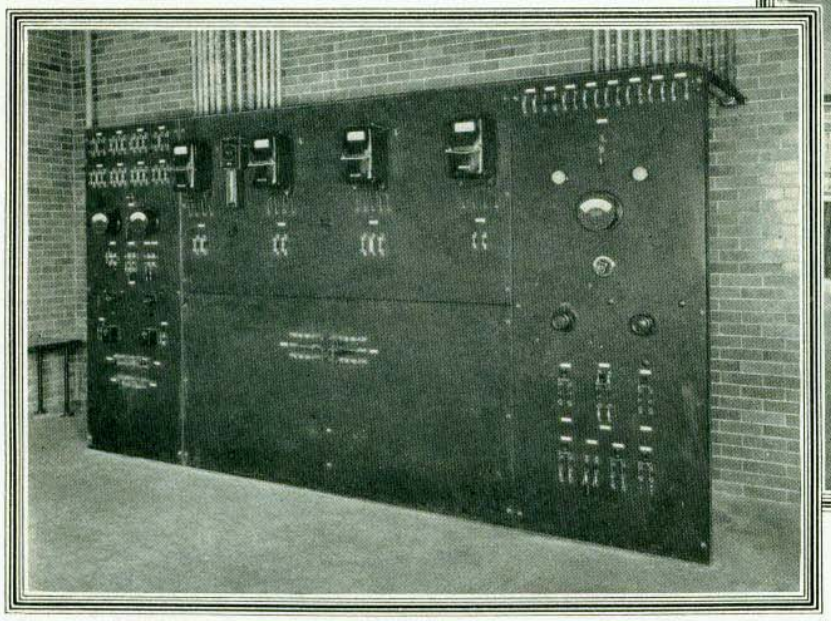
The central panel of the protector board provides for circuit testing. It has a capacity of 260 circuits, which will take care of the ultimate requirements of the office.





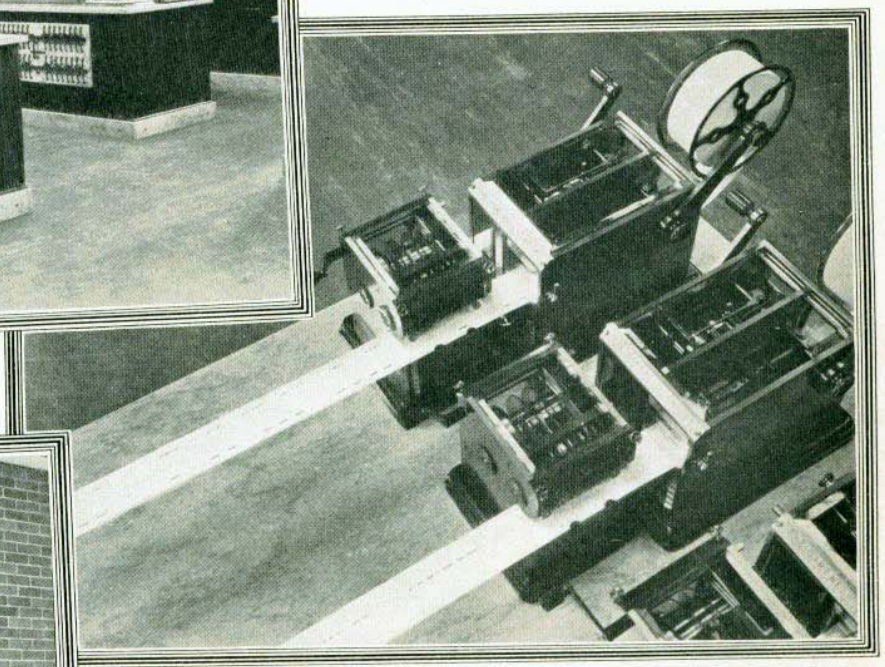
This radio set enables the central office to keep in touch with each of the fire boats while they are away from their stations. It is also used for checking the master clock each noon with the Arlington time signals.



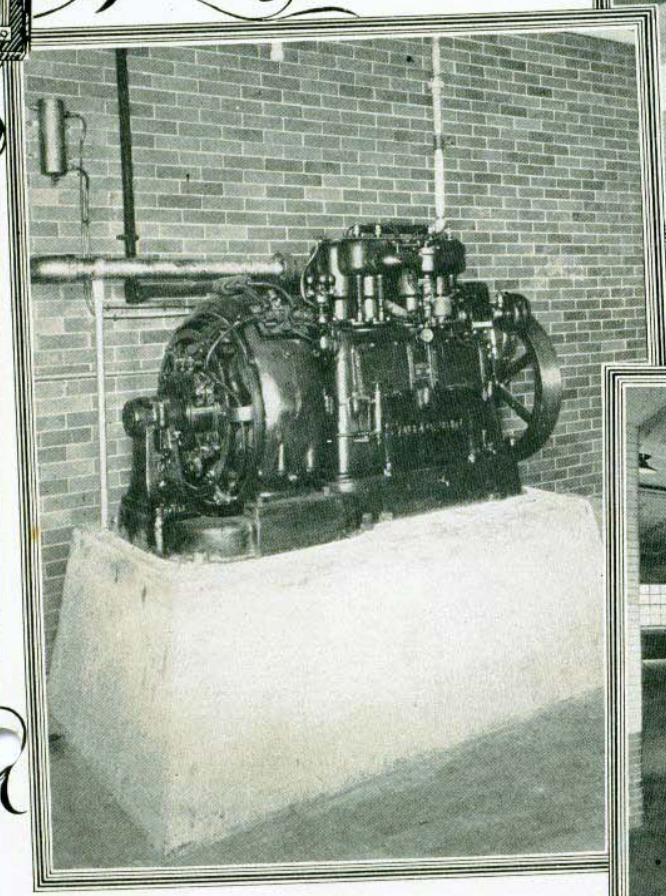
Two sources of outside current are connected to this power board, on which are mounted switches for controlling the power, lighting and battery charging mains, controlling devices for the gasoline generator set and a panel for charging small batteries.

The storage battery switchboards are installed back to back with the box line relay and the protector boards. A covered passageway running between them is accessible through a door at the end of each group. Each passageway is wired for lighting.

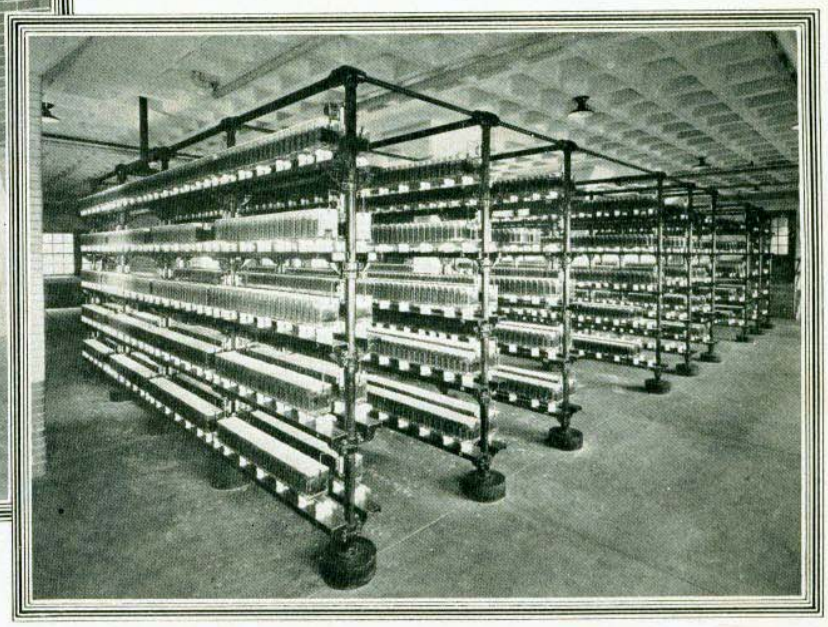
Two of these four-dial, four-number transmitters are used for sending out the alarms over the engine house primary and secondary circuits. The third is held ready for emergencies.



Boston has the distinction of having the first registers at headquarters which will make a permanent record of telegraphic signals by shearing the signals in paper tape.

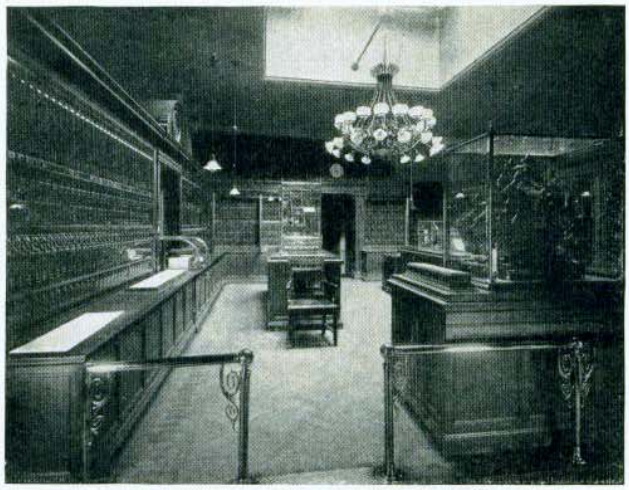


This 10 KW, 220 Volt gasoline generator set provides an emergency source of current in addition to the two outside sources of supply. It has sufficient capacity for taking care of the regular battery charging requirements, the radio batteries, the emergency lighting system, and the operation of the motors connected with the heating unit



More than 6,500 cells of F. I. P. Battery are shown in this view. The floor of this room is of waterproof construction to prevent dampness from seeping through from the park waterway which passes near by. The racks were mounted upon raised blocks so that it would not be necessary to penetrate the flooring.

registers and the exact time of its receipt is automatically stamped on the register paper. Three four-dial four-number transmitters are provided for sending the alarm to the engine houses. Two separate circuits run from headquarters to each apparatus house in the city. One of these circuits operates the light quick-acting bells on the desk in each apparatus house and the second circuit operates the loud sounding gongs in the houses. Registers are provided that record the number and the time that each alarm is sent, thus checking the receipt and transmission of alarms.



Fire Alarm Headquarters vacated in 1925
The Gamewell apparatus shown in this view gave Boston thirty years of service

Telegraphic communication can be held over the lines running to the boxes on the street for testing purposes and over the gong lines running to the apparatus houses for the transmission of routine or special orders. Boston has the distinction of having the only registers at headquarters which will make a permanent record of telegraphic signals by shearing the signals in paper tape.

Electrical energy for the system is provided by some sixty-five hundred cells of storage battery. Each circuit has duplicate sets of battery, and while one is on the working line the second set is being charged.

Boston for a number of years operated the fire alarm system from dynamotors, but when the new office was engineered the standard practice of using duplicate sets of storage batteries was adopted to assure less chance of interruption of service. In addition to two outside sources of supply, a gasoline-driven generator is provided so that an unfailing source of current is assured.

Plans are being made for the reception of signals from the adjacent cities and towns so that provisions can be made for mutual aid. A map is maintained which shows the location of each fire station and tags are provided for each company. When the companies are shifted the tags are moved, so that it is possible to tell at a glance the location of any company.

The signal apparatus was built in the Gamewell Factory at Newton Upper Falls, Mass., by men who have devoted their lives to building apparatus that is as nearly failure proof as knowledge, skill and care can make it. The apparatus was also installed by expert constructors employed by this Company. The building is the finest in the world both from an architectural and engineering standpoint. It offers an excellent example of the manner in which a fire alarm headquarters can be properly isolated in a park and yet blend with its surroundings.

THE GAMEWELL COMPANY

Newton Upper Falls, Mass.

The efficiency of the Fire Department, the safety of the citizens and the protection of property rests to a large degree on the unfailing service of the fire alarm headquarters.