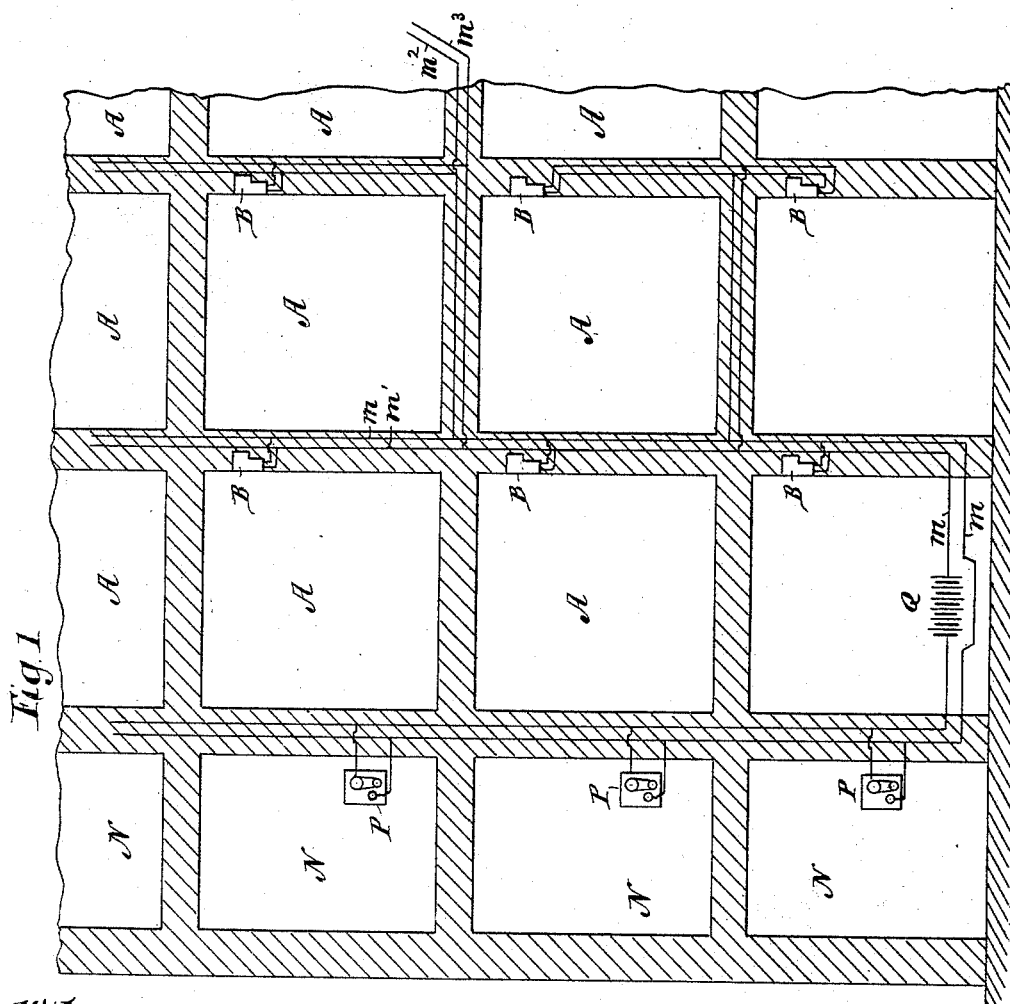
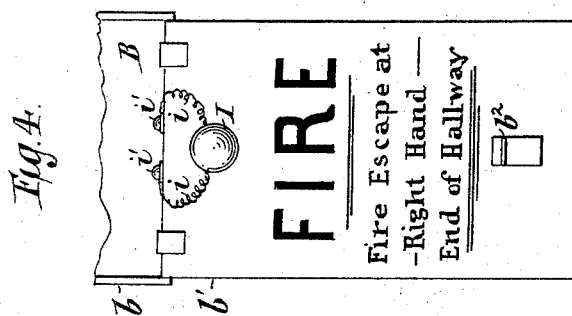


W. J. SCHWEIGER.
FIRE ALARM.

No. 489,237.

Patented Jan. 3, 1893.



Witnesses
Geo. Wadman
Herman Apfelbaum

Inventor
William J. Schweiger.

UNITED STATES PATENT OFFICE.

WILLIAM J. SCHWEIGER, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO
HERMAN APFELBAUM, OF SAME PLACE.

FIRE-ALARM.

SPECIFICATION forming part of Letters Patent No. 489,237, dated January 3, 1893.

Application filed July 11, 1892. Serial No. 439,572. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. SCHWEIGER, a citizen of the United States, and a resident of New York, in the county and State of New York, have invented a new and useful Improvement in Fire-Alarms, of which the following is a specification.

The object of my invention is to provide a concealed fire alarm within each of the several sleeping and other apartments of a hotel, steamship or dwelling, which on the outbreak of a fire will be capable of being operated from different parts of the structure to awaken all occupants and indicate thereto by printed matter, caused to be exposed, the presence of fire and means for escaping.

In the accompanying drawings, Figure 1 is a sectional view of a portion of a hotel sufficient to illustrate the application of my invention to the several rooms thereof, and means for operating the same from different parts of the structure. Fig. 2 is a side elevation of an alarm instrument, the casing therefor being shown in section and set in a wall. Fig. 3 is a front elevation of the same, certain parts being omitted. Fig. 4 is a front elevation of the lower portion of the same, and showing the door open. Fig. 5 is a detail.

A designates apartments in each of which a fire alarm instrument, B, is applied in such a manner as to be practically unobservable by a guest occupying the same.

b is a casing for the instrument and may be of any suitable material such as wood or metal. *b'* is a door therefor hinged at its lower edge so as to open downwardly. This door and the exposed edges of the casing are arranged flush with the wall of the compartment and are papered or painted to correspond therewith, and therefore forming in appearance a part of the wall.

C is a magnet arranged to act on a lever *c* mounted to rock on pivots *c'* and held normally against a stop *c²* by means of a coil spring *c³*. This lever *c* is provided with a hook portion *c⁴* adapted to engage with a resilient hook *b²* secured to the door when the latter is closed.

d is an adjustable stop to limit the motion of the door when closed to properly engage with the hook *c⁴*.

E is a make and break magnet having an armature *e'* fulcrumed at *e²* and provided with a hammer arm *e³* bent or looped at *e* around the edge of a bell, *F*, shown dotted in Fig. 3 so as to enable the hammer *e⁴* to act on the outside of the bell. By thus arranging the magnet and its parts on the inside of the bell, and the hammer on the outside thereof, a better tone is obtained and the parts are protected from dust besides economizing space.

f is a resilient stop to impart the initial return motion of the armature from the magnet poles.

g is a light coil spring to hold the armature spring *e⁶* in contact with the stop *e⁷*.

H is a spring, of which there may be two, if desired, serving to impart the initial opening motion of the door when the latter is released from the hook *c⁴*. After being forced outwardly the door will fall in a downward position by gravity and display printed matter as shown in Fig. 4.

I is an incandescent lighting lamp of ordinary construction secured to the door *b'* adjacent to the hinges thereof, and connected by expanding coils of wire *i* to the binding posts *i'* which are connected by wire to the binding posts *j j'* respectively.

k is a wire extending from the binding posts *j* to the magnets *C* and thence by wire *k'* to the post *j'*.

l is a wire connected to the wire *k* and extending through the magnet *E* to the fulcrum *e²* which is in electrical connection with a wire connected to the wire *k'*.

m m' are the main circuit wires connected respectively to the posts *j j'*.

The magnets *C* and *E* together with the lamp *I* are preferably connected in multiple arc as shown and will be simultaneously operated to respectively cause the opening of the door, the ringing of the alarm bell and the lighting of the lamp whereby the printed matter may be read, on an alarm of fire.

The position of the lamp in Fig. 3 when the door is closed is indicated by dotted lines. *N* denotes hallways on the several floors, in which switches *P* of ordinary construction are secured. These switches are connected to the main circuit wires in multiple arc, whereby any one of them, on an alarm of fire may be

used to operate all the instruments B throughout the entire structure simultaneously.

The source of the electrical current may be derived from an incandescent lighting circuit or from a storage or ordinary primary battery Q arranged in the cellar or other convenient part of the structure.

If desired an ordinary automatic fire alarm switch may be arranged in the main circuit wires at convenient parts of the structure and adapted to operate to close the circuit when the heat caused by the presence of fire reaches a certain temperature. I have shown wires m^2 , m^3 , extending from the circuit wires m m' of the structure, to a fire department station.

I claim:

1. In an electric alarm system as described an alarm bell for the several apartments inclosed in a casing concealed in a wall and having a door adapted to open on an electrical alarm and display printed instructions for escaping, the said casing having an electric light lamp arranged therein and capable of being lighted simultaneously with the opening of the door substantially as described.

2. In combination the bell F detachably secured to a post extending from the casing b , the magnets E supported by the casing b and having an armature e' provided with a hammer arranged to act on the exterior of the

bell, and circuit-breaking mechanism as described, the latter and the magnets E being wholly inclosed within the dome of the bell substantially as described.

3. In an electrical fire alarm system the instrument B comprising a casing let into a wall, a door therefor provided with printed instructions in case of fire, and arranged flush with the wall to form a part thereof in appearance, a magnet arranged to act on a catch as c to release the door, a make and break magnet as E for sounding an alarm bell, an electric light lamp secured to the door, and circuit wires connecting the lamp and magnets to the main circuit wires to operate simultaneously, substantially as described.

4. In an electric fire alarm system as described, an alarm bell for the several apartments, inclosed in a casing concealed in a wall and having a door adapted to drop on an alarm of fire and display printed instructions for escaping substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 5th day of July, 1892.

WILLIAM J. SCHWEIGER.

Witnesses:

GEO. WADMAN,

HERMAN APFELBAUM.