

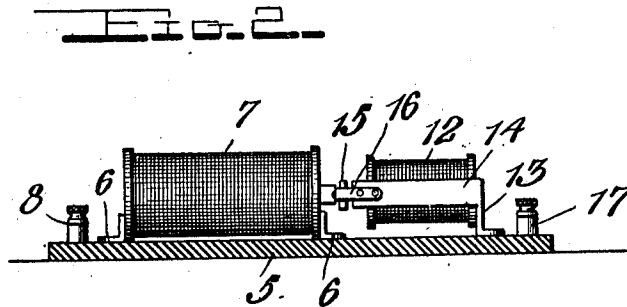
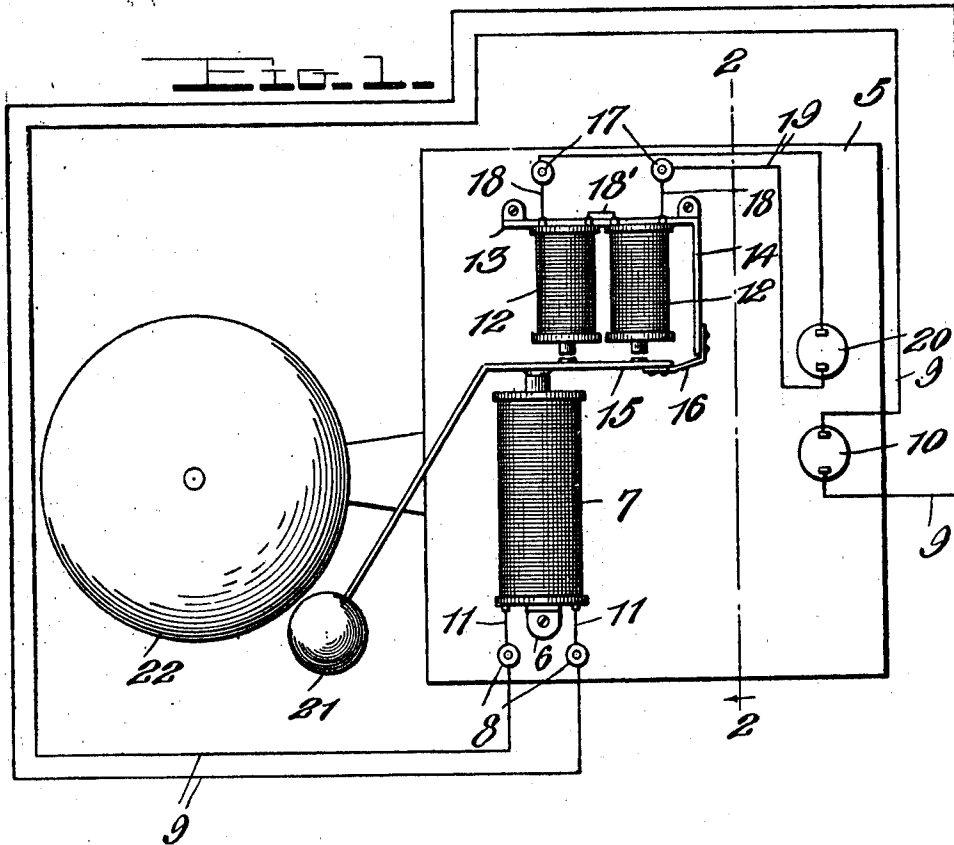
J. E. BARRETT.

FIRE ALARM.

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989,107.

Patented Apr. 11, 1911.



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Witnesses

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UNITED STATES PATENT OFFICE.

JULIOUS EUGENE BARRETT, OF POLLOCK, LOUISIANA, ASSIGNOR OF NINE ONE-HUNDREDTHS TO JOHN R. HUNTER, OF ALEXANDRIA, LOUISIANA, AND TEN ONE-HUNDREDTHS TO J. W. WILSON, FIFTEEN ONE-HUNDREDTHS TO C. U. ROBINSON, FIFTEEN ONE-HUNDREDTHS TO GEORGE A. FOSTER, AND TWENTY-SIX ONE-HUNDREDTHS TO F. O. MAXWELL, ALL OF POLLOCK, LOUISIANA, AND FIFTEEN ONE-HUNDREDTHS TO EUGENE NOLAN, OF ALEXANDRIA, LOUISIANA.

FIRE-ALARM.

989,107.

Specification of Letters Patent.

Patented Apr. 11, 1911.

Application filed April 30, 1910. Serial No. 558,595.

To all whom it may concern:

Be it known that I, JULIOUS E. BARRETT, a citizen of the United States, residing at Pollock, in the parish of Grant and State of Louisiana, have invented certain new and useful Improvements in Fire-Alarms, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in automatic electric fire alarms and has for its object to provide a simple, cheap, and efficient electric fire alarm system for use in apartment houses, dwellings, stores, warehouses, barns, etc., and the invention consists of an electro-magnet connected by fusible wires or other electric conductors to a battery, and other magnets of less strength than the first named magnet also connected to a battery and adapted to operate a bell or other alarm, an armature being disposed between said wires and normally attracted by the first named magnet, the fusing of the wires of said magnet deenergizing the same and allowing the bell magnets to attract the armature thus ringing the bell and sounding the alarm.

With these and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a diagrammatic view illustrating the arrangement of the magnets, armature and alarm device and showing the circuit connections; and Fig. 2 is a section taken on the line 2—2 of Fig. 1.

Referring more particularly to the drawings 5 indicates a base formed of porcelain or other suitable insulating material. This base is adapted to be arranged upon the wall of a room in any suitable manner and has supported thereon by means of the brackets 6, an electromagnet 7. Binding posts 8 are fixed in the base 5 adjacent to the magnet 7 and have secured thereto one end of the electric wires 9. These wires are formed of metal or a metal compound that will fuse at any desired temperature and have their other ends connected to the poles

of the battery 10. Short copper wires 11 connect the binding posts to the electro-magnet 7. Two smaller magnets 12 are also arranged upon the base 5 and supported by means of a suitable bracket plate 13 which at one end is extended to provide an arm 14. An armature 15 has a short spring blade 16 secured to one end, said spring blade being fixed upon the end of the arm 14 in any preferred manner. The armature 15 extends between the opposed ends of the electro-magnet 7 and the magnets 12. A second pair of binding posts 17 are also arranged upon the base 5 and are connected by the short wires 18 to coils 12. A wire 18' provides an electrical connection between the two magnets. To the binding posts 17 one end of the conducting wires 19 is connected, the other ends of said wires being connected to the poles of a battery 20. The electro-magnet 7 is of greater strength than the magnets 12 and normally attracts the armature 15. To the front end of this armature a vibratory bell hammer 21 is connected, said hammer being adapted to engage the bell 22 to sound the alarm.

In the installation of the device in apartments or other buildings, the fusible wires 9 are extended around the walls of the building or into closets or other places. It will be obvious that when the fire contacts with either of these wires and fuses them or burns through the same, the electric circuit between the battery 10 and the electro-magnet 7 is broken, said magnet thus being deenergized to release the armature 15. As the electro-magnets 12 are at all times energized by the battery 20, they will immediately attract the armature 15 and cause the bell hammer 21 to sound the alarm and awaken the inhabitants of the building and indicate the presence of fire. The batteries 10 and 20 are the ordinary dry batteries and will permit the use of the device in farming districts so that the fusible wires 9 may be extended from the residence to the barn or other out buildings while the alarm device is conveniently arranged at any place in the house.

From the foregoing it is believed that my improved automatic fire alarm will be read-

ily understood without necessitating any further description.

The device is simple, may be easily installed and will positively sound the alarm and thus eliminate the loss from fire.

While I have shown and described the preferred arrangement of the various parts and the manner in which they are to be mounted, it will be understood that this arrangement is susceptible of numerous minor modifications without departing from the essential features or sacrificing any of the advantages of the invention.

Having thus described the invention what is claimed is:—

1. In an electric fire alarm, the combination of an insulating base having an electro-magnet arranged thereon, fusible conducting wires connected to said magnet and to a source of electric supply, an alarm device, magnets for operating said alarm device of less strength than the first named magnet, an armature positioned between said magnets normally attracted by the first named magnet, and electrical connections between the last named magnets and a source of electric supply whereby upon the fusing of said fusible wires the first named magnet is deenergized and the armature attracted by the last named magnets to operate the alarm device.

2. In an electric fire alarm, the combination of an electro-magnet, fusible wires connected to said magnet and to a source of electric supply, a second magnet of less strength than the first named magnet, an armature disposed between said magnets and normally attracted by the first named

magnet, electrical connections between the last named magnet and a source of electric supply, an alarm bell, and a bell hammer carried by the armature, the fusing of the conducting wires of the first named magnet deenergizing said magnet and causing the attraction of the armature by the last named magnet to engage the bell hammer with said bell.

3. In an electric fire alarm, the combination of a base, an electro-magnet arranged thereon, conducting wires fusible at a low temperature connected to said magnet and to a source of electric supply, a pair of magnets arranged adjacent to the first named magnet and of less strength than the same, a supporting bracket secured to the base for supporting said magnets, an arm extending from said bracket, an armature having a spring plate secured to one end, said plate being fixed to the arm, said armature extending between the last named magnets and the first named magnet, a bell hammer secured to the free end of said armature, a bell mounted upon the base adapted to be engaged by said bell hammer, and electrical connections between said last named magnets and a source of electric supply, the fusing of said fusible wires deenergizing the first named magnet to permit the attraction of the armature by the last named magnets to operate the alarm.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JULIOUS EUGENE BARRETT.

Witnesses:

L. WILLETT,

J. W. WILSON.