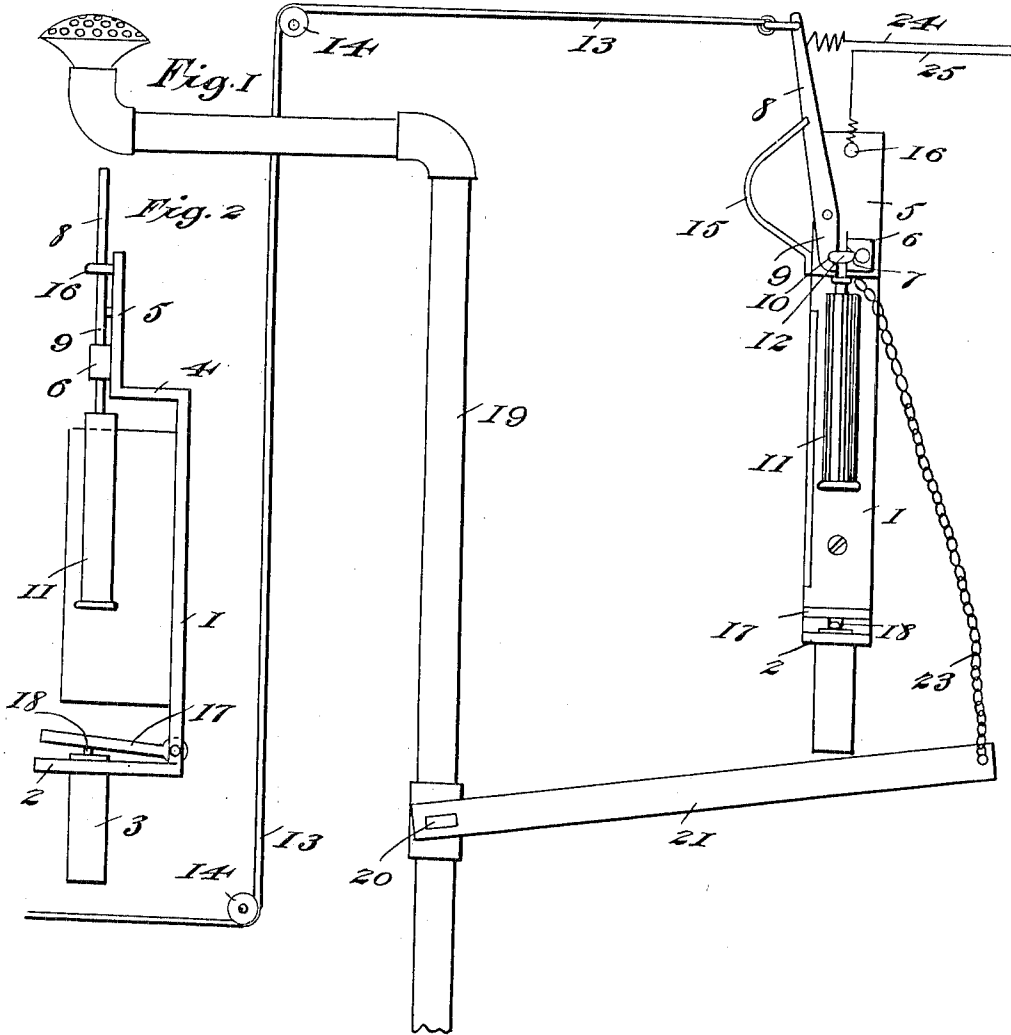


J. J. C. SINGLETON.
 AUTOMATIC FIRE ALARM.
 APPLICATION FILED DEC. 21, 1912.

1,090,242.

Patented Mar. 17, 1914.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH J. C. SINGLETON, OF FORT WORTH, TEXAS.

AUTOMATIC FIRE-ALARM.

1,090,242.

Specification of Letters Patent. Patented Mar. 17, 1914.

Application filed December 21, 1912. Serial No. 738,036.

To all whom it may concern:

Be it known that I, JOSEPH J. C. SINGLETON, a citizen of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented certain new and useful Improvements in Automatic Fire-Alarms, of which the following is a specification.

My invention relates to fire alarms, and the object is to provide simple and inexpensive devices which will be easily operated and which will sound an alarm, open a valve which will let water out of a properly located or a number of pipes which will throw water all about the room, and at the same time close an electric circuit which may be used to give an alarm at the fire station. Any one or all of these functions may be accomplished by the device hereinafter described.

Other objects and advantages will be fully explained in the following description and the invention will be more particularly pointed out in the claims.

Reference is had to the accompanying drawings which form a part of this application.

Figure 1 is a diagrammatic view, showing the complete apparatus. Fig. 2 is a side elevation of the sounding device.

Similar characters of reference are used to indicate the same parts throughout the several views.

A frame consisting of a piece of metal 1 to be attached to a wall or other portion of a house or building has a forwardly projecting portion 2 for supporting an ordinary cartridge shell 3. The frame 1 has a forwardly projecting portion 4 and a vertical portion 5 for supporting a weight and operating device. The support 5 is spaced from the wall so that it will support a weight 11 in position for causing an explosion in the cartridge 3 when the weight falls. A keeper 6 is attached to the support 5 and a notch is formed in one side at 7. A spring-actuated lever 8 is fulcrumed on the support 5 and the lower end or short arm 9 has a notch formed at 10. The lever and the keeper 6 engage and hold a weight 11 by means of a head 12 which is rigid with the weight 11. A cord 13 is attached to the lever 8 to hold the lever in the position shown in Fig. 1. This cord is to be extended to various parts of a room and about windows

and doors, being run over pulley wheels or idlers 14 at all turns or angles and secured at the end to hold the lever in the position shown in Fig. 1. The cord 13 is made of woven material which will be burned through more speedily than a twisted cord. When the cord is burned through, it will release the lever 8. A spring 15 will instantly force the lever 8 against the stop 16 and the lever will release the head 12 and let the weight 11 fall. In order to hold the cartridge 3 securely in place and to cause the explosion to be certain, a cover 17 is hinged to the frame 1 and this cover carries a pointed lug 18 which rests normally on the head of the cartridge 3 and when the weight 11 falls on the cover 17, the lug 18 will cause the explosion of the cartridge.

Simultaneously with the above described operation, water will be turned into the building. A water pipe 19 may be arranged about the walls and ceiling of the room and provided with a valve 20. A lever 21 is connected to the valve 20 and also connected to the weight 11 by a chain 23. When the weight 11 falls, it does not stop on the cover 17 but falls on downwardly and, in falling, pulls on the lever 21 and thus opens the valve 20.

Simultaneously with the above operations an electric circuit may be closed to give an alarm at a fire station. One arm 24 of the circuit is connected to the lever 8 and the other arm 25 is connected to the stop 16. When the lever 8 is released by the burning of the cord 13 asunder, the lever 8 will rest against the stop 16 and thus close a circuit, which circuit can be arranged to give any suitable alarm at a fire station.

What I claim is,—

1. An alarm comprising an upright frame, a cartridge holding support projecting horizontally therefrom and a cartridge supported in the support, a suspending support projecting from the upper end of said frame, a lug attached to said suspending support and having a recess in the side thereof, a lever fulcrumed on said suspending support and having a recess in one arm thereof opposite the recess in said lug, a combustible cord attached to the other arm of said lever to be extended about a room, idlers for said cord, and a weight above said cartridge provided with a stem to be held in said recesses while said cord is holding said lever

at tension and said weight being adapted to fall on said cartridge when said cord is released.

2. An alarm comprising an upright frame
 5 having a cartridge holding support extending horizontally therefrom and a weight suspending support vertically above said cartridge holding support, a cartridge in the
 10 first mentioned support, a lug attached to the weight suspending support and having a recess in the side thereof, a lever fulcrumed on said weight suspending support and having a recess in one arm thereof opposite the
 15 recess in said lug, a cord to be extended about a room and suitable idlers for said cord, said cord being attached to said lever and to be secured at the other end for holding
 20 said lever at tension, a weight above said cartridge provided with a stem having a head held in said recesses and adapted to fall when said cord is released, and a hinged
 plate standing in the path of said weight and carrying a pointed lug for striking said
 25 cartridge.

3. An alarm comprising a frame provided with upper and lower arms projecting hori-

zontally therefrom and the upper arm having a vertical extension, a lug attached to said extension and having a recess in the side thereof, a lever fulcrumed on said extension and having a recess in one arm thereof opposite the recess in said lug, a weight having a stem provided with an enlargement to be held in said recesses, a cord attached to said lever and to be extended about
 35 a room and secured at the other end for causing said lever to hold said weight suspended, a spring attached to said extension and bearing against said lever to cause a prompt
 40 release of said weight when said cord is burned, and a hinged plate carrying a pointed lug standing in the path of said weight for exploding a cartridge held in said
 lower arm.

In testimony whereof, I set my hand in
 the presence of two witnesses, this 18th day
 of December, 1912.

JOSEPH J. C. SINGLETON.

Witnesses:

A. L. JACKSON,
 J. W. STITT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."