

C. A. MAXFIELD.

COMBINED FIRE AND BURGLAR ALARM.

No. 170,485.

Patented Nov. 30, 1875.

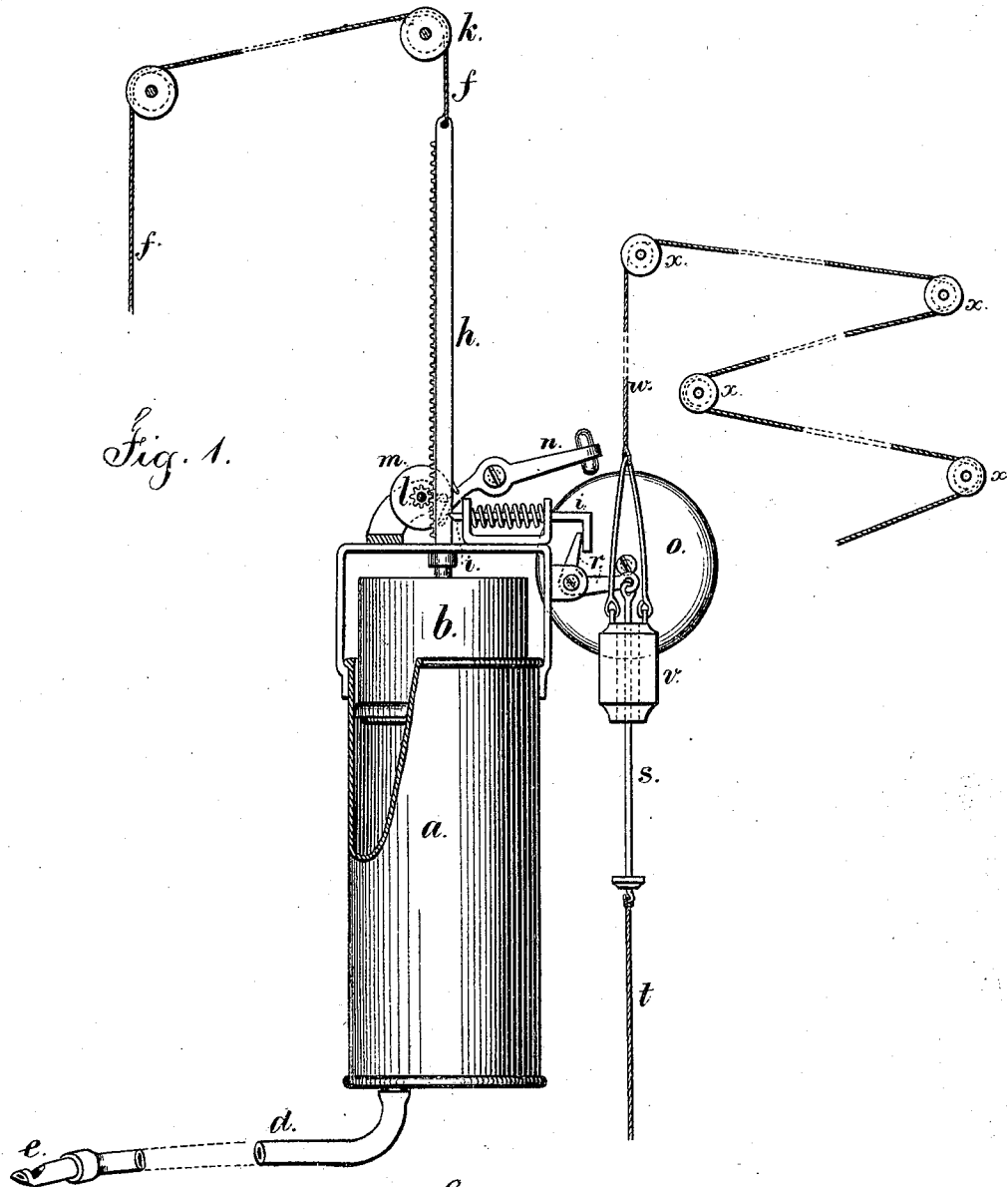
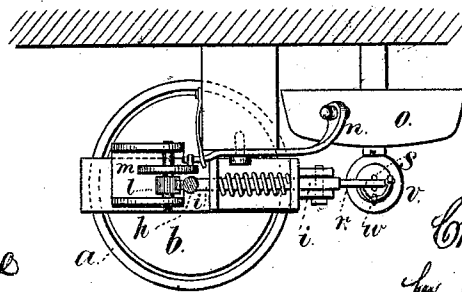


Fig. 1.

Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN COMBINED FIRE AND BURGLAR ALARMS.

Specification forming part of Letters Patent No. **170,485**, dated November 30, 1875; application filed May 10, 1875.

To all whom it may concern:

Be it known that I, CHARLES A. MAXFIELD, of the city and State of New York, have invented an Improvement in Burglar and Fire Alarms, of which the following is a specification:

Electrical alarms are objectionable to some persons who do not understand their management, and fire-alarms can seldom be used also as burglar-alarms without separate appliances.

My present invention is a mechanical device for ringing a bell and blowing a whistle, and this is set in operation by hand in cases where an alarm is to be given, or else the apparatus is set in motion by the opening of a door or window with which it is connected, or else by the burning off of a cord that is led around the room, or wherever there is a risk of fire, so that the alarm becomes automatic.

In the drawing, Figure 1 is an elevation, partially in section, of the apparatus. Fig. 2 is a plan of the same.

I make use of a cylinder, *a*, in which there is a weighted piston, *b*, with a cup leather or packing, that confines the air as the piston descends, and blows out such air through the pipe *d* and whistle *e*, such whistle being outside of the window, or wherever most convenient, to give an alarm that will be heard by the police or others, and the size of this cylinder *a* is such as to contain atmosphere sufficient to cause the whistle to blow the proper length of time. The piston *b* is drawn up by a cord, *f*, connected to the rod *h*, and passing over a pulley, *k*, to any convenient position for operating, and when this piston and rod are raised the latch *i* springs in and holds the same. Upon the piston-rod there is a rack gearing to the teeth of the pinion *l*, and upon the shaft of said pinion there is a disk, *m*, with pins, that operate the hammer *n* to ring the bell

o as the piston descends, so that the air-cylinder prevents the bell being struck too fast, and the bell and whistle unite in giving the alarm. The bent lever *r*, to which the rod *s* is connected, serves to withdraw the latch *i* whenever the signal is to be given, and for this purpose the cord *t* may be led to a door, window, or other place to be guarded against burglary, and said cord will be pulled by the act of opening or moving such door or window.

In order to use this device as a fire-alarm I make use of a weight, *v*, sliding freely on the rod *s*, and suspended by a cord, *w*, passing over one or more pulleys, *x*, and leading around in any desired directions to places where there is a risk of fire, so that when the cord or string is burned off the weight will drop and move the rod *s*, and withdraw the latch and liberate the alarm.

In cases where the cord *t* is led to a bed, or to a counter or cashier's desk, the alarm can be operated by a person by pulling the said cord.

I claim as my invention—

1. The air-cylinder *a* and weighted piston *b*, in combination with the whistle *e* and the alarm-bell *o*, operated by the movement of the piston, substantially as set forth.

2. The combination, with the air-cylinder, weighted piston, and alarm, of a cord, *w*, weight *v*, and disconnecting mechanism, as set forth, so that the alarm is given by the weight, if the string or cord is burned off, as set forth.

Signed by me this 6th day of May, A. D. 1875.

CHAS. A. MAXFIELD.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.