

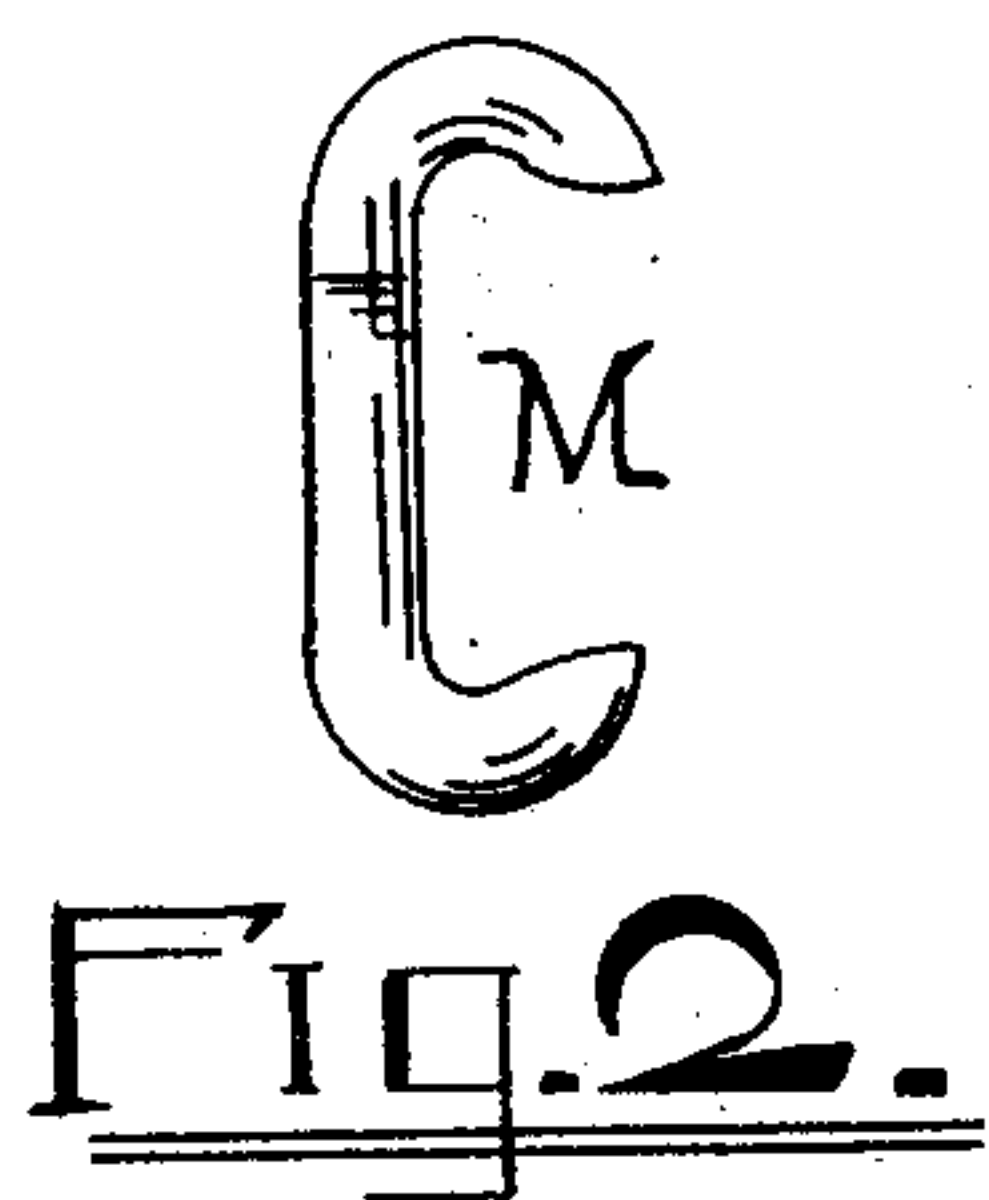
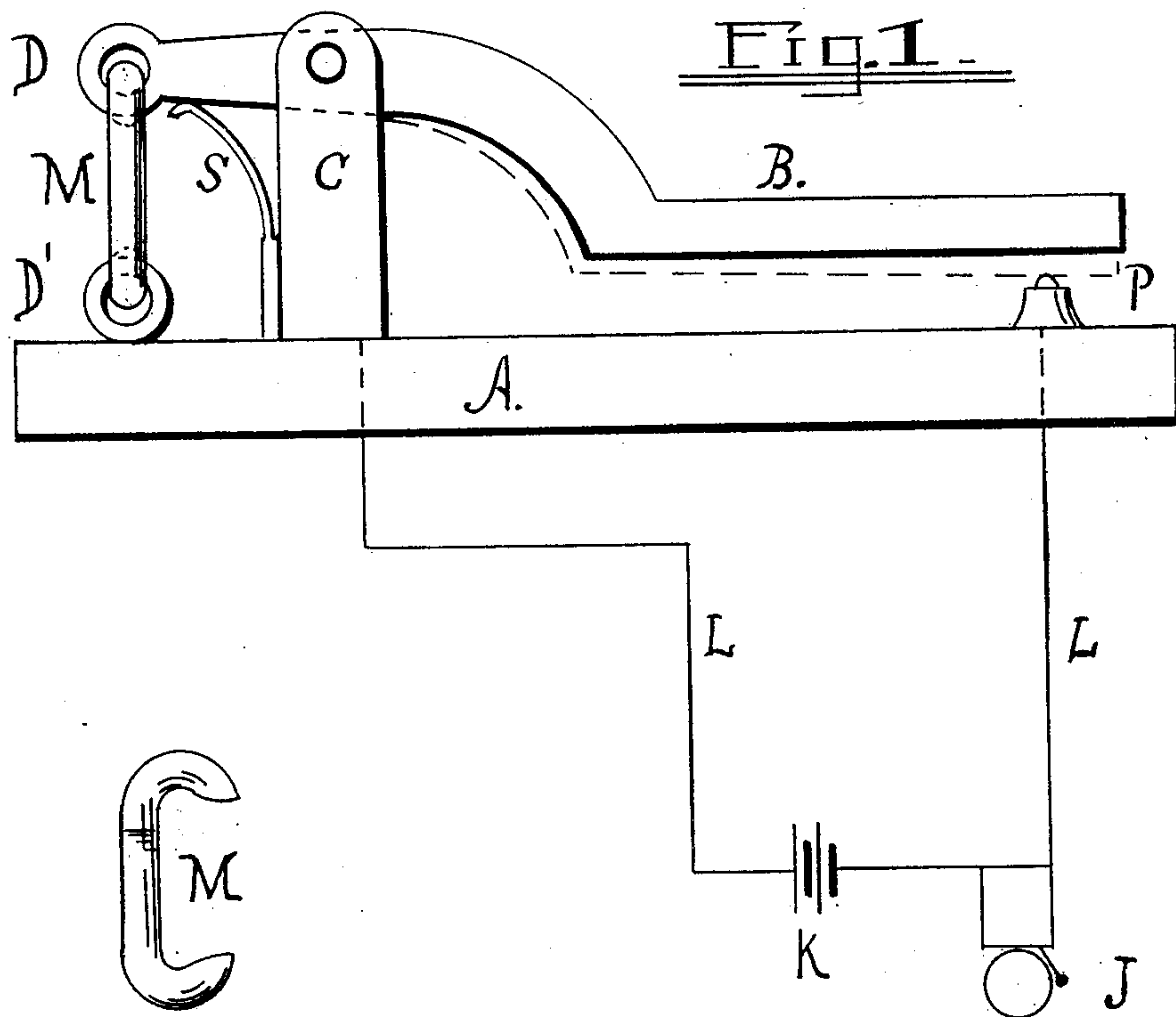
No. 661,555.

Patented Nov. 13, 1900.

A. A. ROSS.
FIRE ALARM.

(Application filed Mar. 15, 1900.)

(No Model.)



Witnesses:

Frank Lee

Eugene M. Barrett

Inventor:

Alfred A. Ross.

per

D. W. Gray atty

UNITED STATES PATENT OFFICE.

ALFRED A. ROSS, OF MONTGOMERY, ALABAMA.

FIRE-ALARM.

SPECIFICATION forming part of Letters Patent No. 661,555, dated November 13, 1900.

Application filed March 15, 1900. Serial No. 8,739. (No model.)

To all whom it may concern:

Be it known that I, ALFRED A. ROSS, a citizen of the United States, residing at Montgomery, in the county of Montgomery and State of Alabama, have invented certain new and useful Improvements in Fire-Alarms, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to that class of devices in which the rise of temperature from fire causes an alarm to be actuated—*e. g.*, by closing or opening an electric circuit connected with suitable alarm-gongs or other apparatus.

The object of my invention is to provide an efficient and simple device which will operate with certainty to give an alarm on dangerous increase of temperature and which can be used to advantage in hotels and the like buildings in connection with ordinary call-bell systems. I attain this object by the means shown in the accompanying drawings.

Figure 1 is a view of the complete alarm device, here shown as adapted to give an alarm by closing an electric circuit having an alarm-bell. Fig. 2 is a view of the glass cartridge.

On an insulating base-board A, of wood or other suitable material, is a contact-lever B, journaled in lugs C and normally drawn down to contact by a spring S. At P is a contact-point adapted to be touched by B when down. At the short end of B is a ring D, in which and in a similar ring D' on the base-board is hooked a small glass vessel of the shape shown in Fig. 2 and which contains a volatile liquid, such as aqua-ammonia. The glass vessel, which for convenience I will call a "cartridge," is hermetically sealed. In the normal position of the device it prevents the lever B from touching the contact P. The lever B is connected with one branch of the circuit and the contact-point P with the other. On such an increase of temperature as will volatilize or boil the contained liquid the cartridge M will burst. The lever B will then form the circuit through the contact P and an alarm be given by an electric gong. The dotted lines show the po-

sition of lever B after such bursting of the cartridge.

L L in Fig. 1 are the wires of the circuit, K the source of electric current, and J a gong or other alarm device.

It is obvious that this apparatus can be most readily applied in hotels and the like by connecting it across the wires leading from the ordinary call-bell push-button, when in case of fire the call-bell will continuously ring and indicate the room in which the fire occurs.

It is not material that the cartridge be held in tension, as it will accomplish the same result if held in compression; but it should be so designed as to fracture from the volatilization of its contents at its central part.

In practice there would be a protective covering for the apparatus, which for the sake of clearness is not indicated in the drawings, as it forms no part of the invention.

Having described my invention, what I claim is—

1. In a thermal alarm mechanism a sealed vessel of glass or material which will break on the volatilization of its contents, containing a volatile liquid, having an approximately cylindrical body and having its ends bent upon itself to form open hooks by which it can be held in tension, and by its fracture release such alarm, substantially as described.

2. In a fire-alarm mechanism a sealed capsule of glass having an approximately cylindrical body with its ends bent upon itself to form open hooks by which it can hold such mechanism inoperative; said capsule filled with an easily-volatilized liquid and adapted to break on the volatilization of its contents, substantially as described.

3. In a fire-alarm mechanism a releasing device consisting of a sealed capsule of glass containing a volatile liquid and which will break from the volatilization of its contents and having its ends bent upon itself whereby it can engage said mechanism and normally prevent its operation, substantially as described.

ALFRED A. ROSS.

Witnesses:

DANL. W. TROY,
DAVID W. W. FULLER.