

(No Model.)

H. N. FENNER.

AUTOMATIC FIRE ALARM.

No. 299,970.

Patented June 10, 1884.

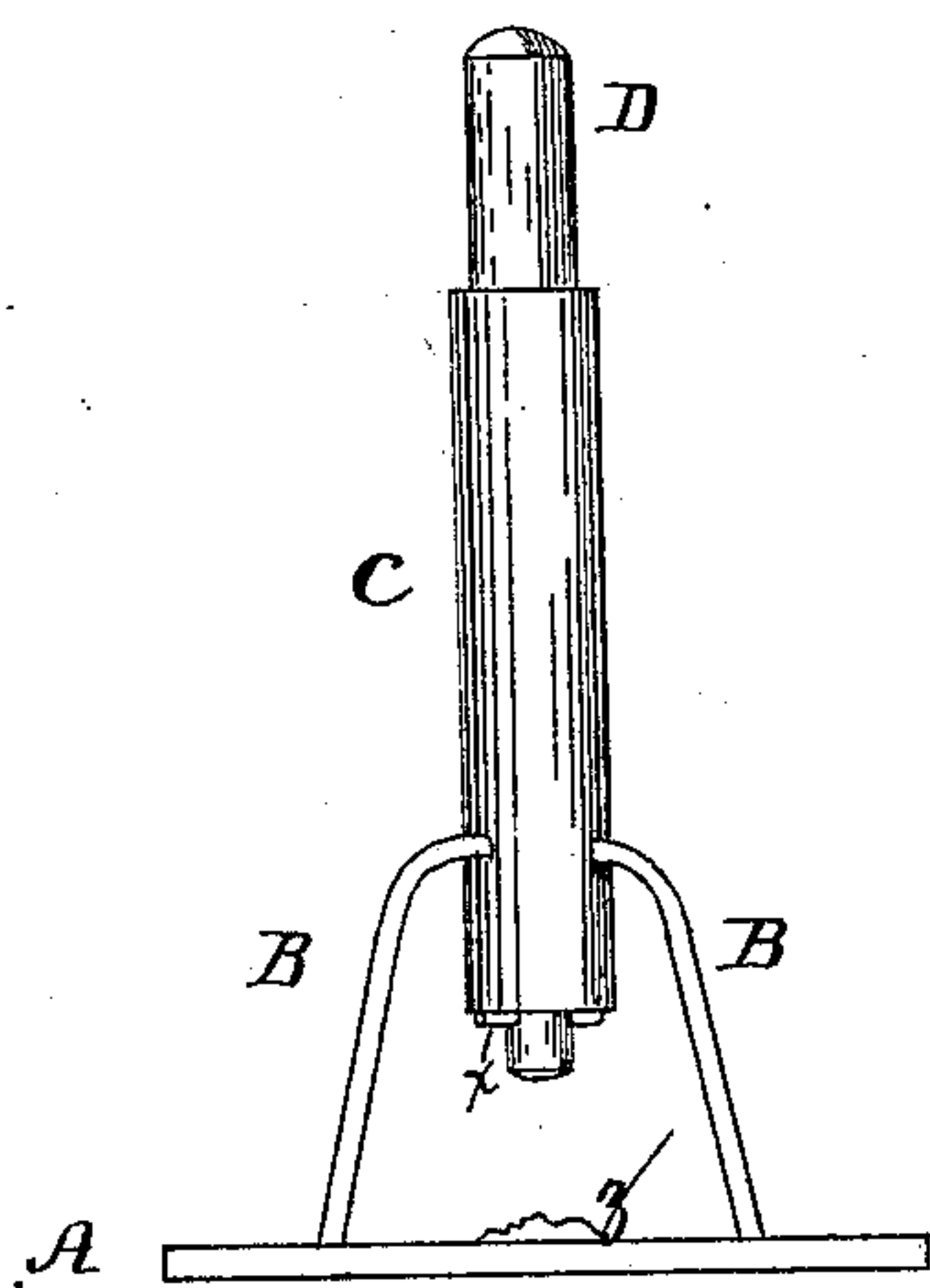


Fig 1

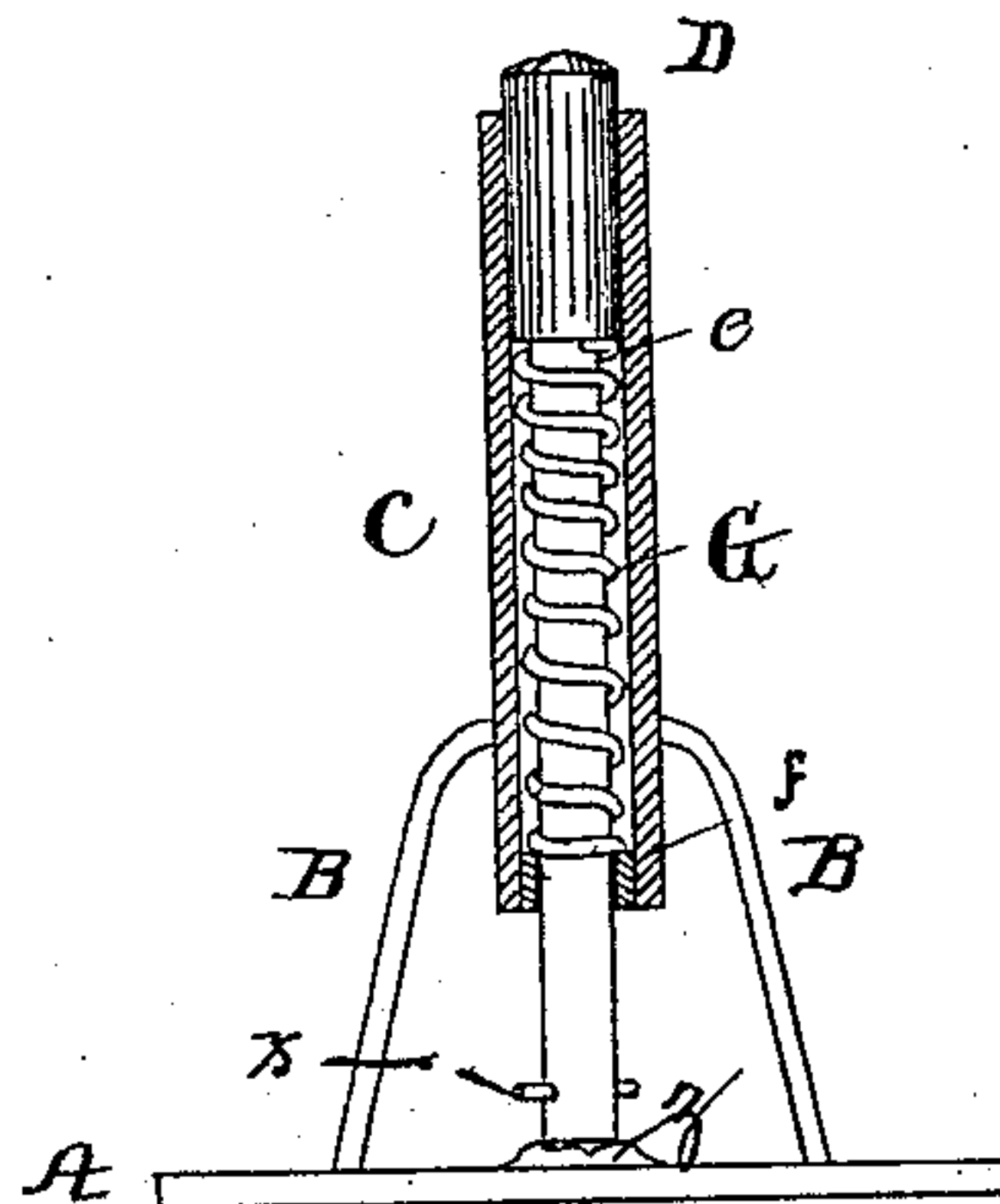


Fig 2

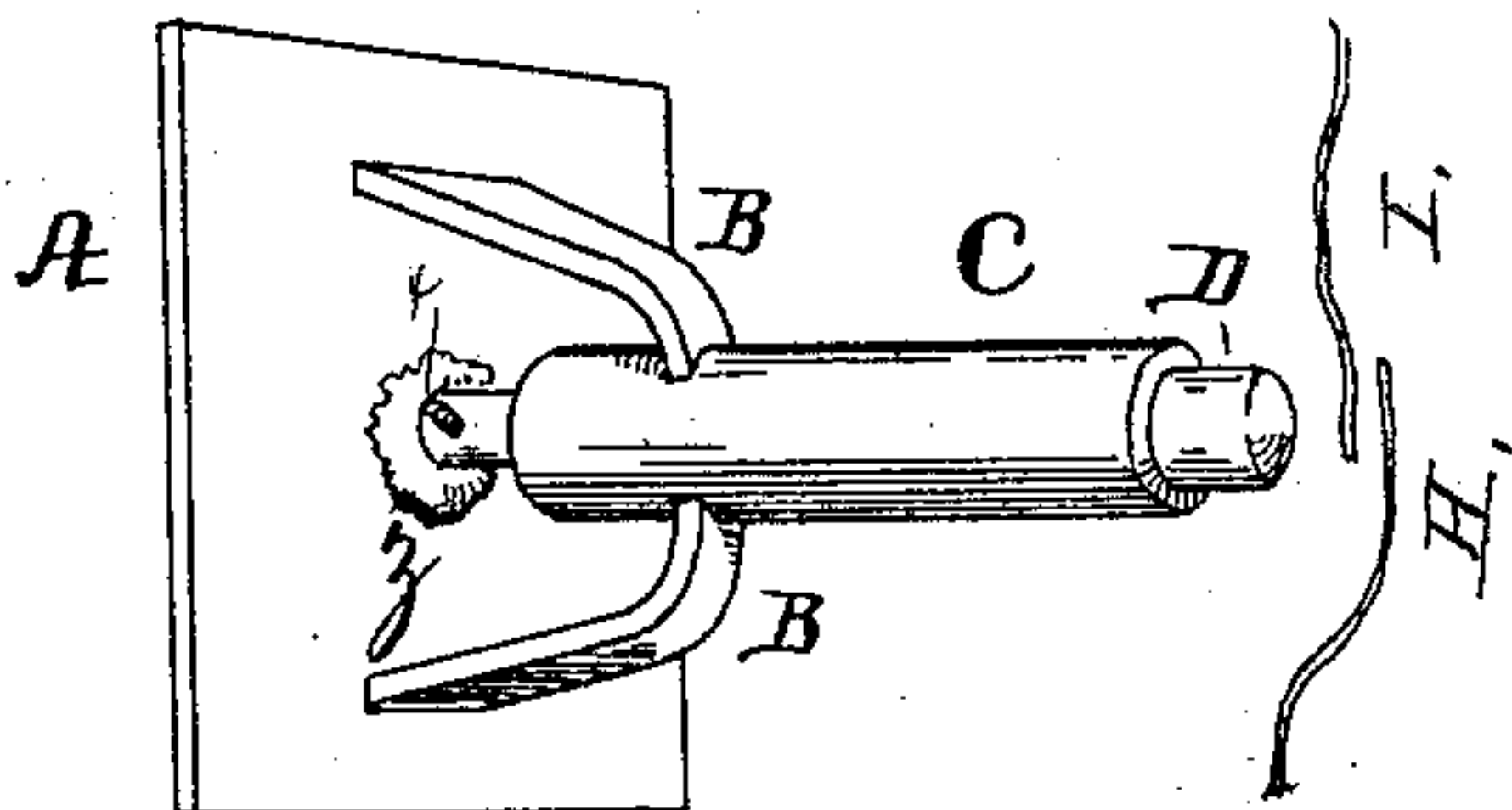


Fig 3

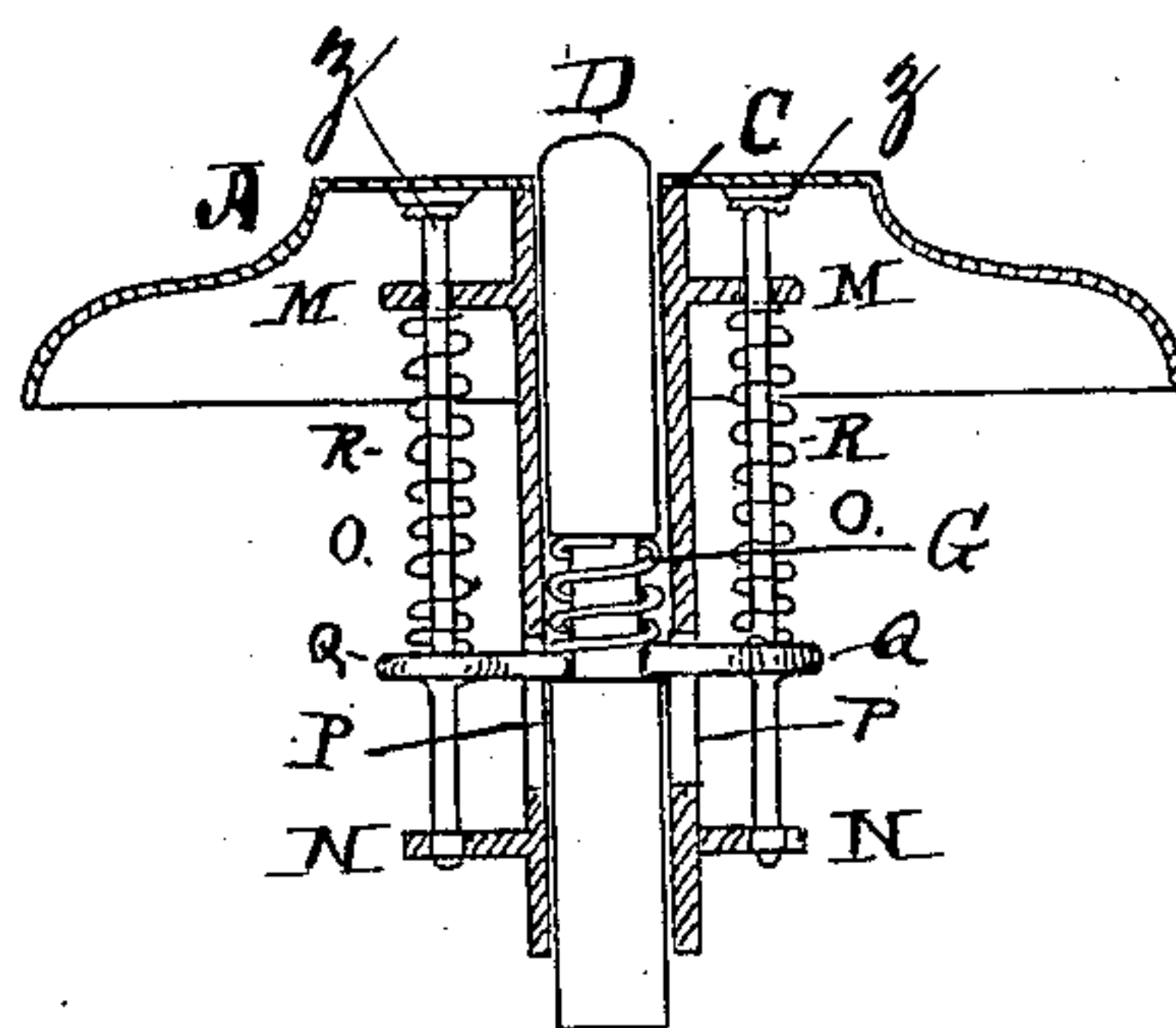


Fig 4

WITNESSES
Charles H. Titus.
James D. O'Brien.

INVENTOR
Herbert N. Fenner.
By Walter A. Vincent Atty.

UNITED STATES PATENT OFFICE

HERBERT N. FENNER, OF PROVIDENCE, RHODE ISLAND.

AUTOMATIC FIRE-ALARM.

SPECIFICATION forming part of Letters Patent No. 299,970, dated June 10, 1884.

Application filed January 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, HERBERT N. FENNER, of Providence, in the State of Rhode Island, have invented a new and useful Automatic

5 Fire-Alarm; and I do hereby declare that the following specification, taken in connection with the drawings making a part of the same, is a full, clear, and exact description thereof.

Figure 1 is a view of my device. Fig. 2 is a vertical section of same. Fig. 3 is a perspective view of same, showing relative position of wires. Fig. 4 is a vertical section of my invention as applied to ordinary call-bells.

The object of my invention is to produce a comparatively inexpensive, self-operating, and reliable fire-alarm, which shall be adapted to dwellings, hotels, and buildings used for business purposes, and which shall serve both to reveal the presence of and locate the fire; and it consists in the device for that purpose hereinafter described and claimed.

In the drawings, A, Figs. 1, 2, and 3, is a metallic plate, to which are attached arms B B, which support a sleeve, C. Working in the sleeve C is a rod, D, around which, within said sleeve and held between a shoulder, e, thereon, and a bushing, f, is a spiral spring, G. x is a cross-bar or pin, which prevents the spring from throwing the rod out of the sleeve.

A device constructed as described is placed and attached within each room of the building. Before attachment the rod D is pressed down against the resistance of the spring, and the end secured to the plate A by a soft solder, z, fusible at a low degree of heat, as shown in Figs. 2 and 3. In the event of a fire in the room a sufficient degree of heat will soon be acquired to soften the solder, when the rod D will be released and will be thrown outward by the spring G, as seen in Fig. 1. Within the stroke of the rod D are the overlapping ends of two wires, H I, which are brought into and held in contact thereby, thus completing an electric circuit and causing an alarm located in any desired place to be continually sounded. My invention, by a suitable change in construction, may be adapted to the ordinary call-bell in such a manner that while it will not interfere with its legitimate use, it will, in addition, operate to connect the overlapping ends of electric wires, as before described in case of fire.

In the drawings, A, Fig. 4, is a button or

plate of the form usually secured to the wall, having a rod, D, and sleeve C corresponding to the same parts in Figs. 1, 2, and 3, before described.

When it is desired to use the device as a call-bell, the rod D is pressed in with the thumb or finger, the resistance of the surrounding spring being overcome, and the overlapping ends H I of the wires temporarily united. When the pressure is released the rod D will be carried back by the spring G, as will be readily seen, to its former position. The sleeve C is constructed with arms M M and N N upon two sides, having parallel rods O O working therein. Attached to the rods O O, and passing through slots P P in the sleeve C and surrounding the rod D, is a bar, Q. Between the outer ends of the bar Q and the rods M M are spiral springs R R. The ends of the rods O O are soldered with the soft solder z, before described, to the front plate of the device, as shown in Fig. 4. When a sufficient degree of heat is attained to fuse the solder, the rods O O are released, the springs R R carry them forward, and also the rod D, through the action or assistance of the bar Q, until the rod D is brought in contact with and unites the overlapping wires, as before described, with the same result.

In adapting the device to call-bells, one set of wires is sufficient in the building. It has also the additional advantage of communicating with the annunciator at the office, and by a continuous sound indicating the particular room in which the fire has been ignited.

I am aware that many variations in the construction of the device described may be made while the same principle is retained.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, with the spring-actuated arm D, free to be moved to make electrical contact when desired, of the cross-head Q, operating upon the arm D, the rods o, springs R, and soft solder z, substantially as set forth, whereby the melting of the solder will cause the contact to be made, substantially as described, and for the purpose specified.

HERBERT N. FENNER.

Witnesses:

WALTER B. VINCENT,
JAMES D. O'HERN.