

(No Model.)

W. H. REIFF.
Burglar Alarm.

No. 240,926.

Patented May 3, 1881.

Fig. 1.

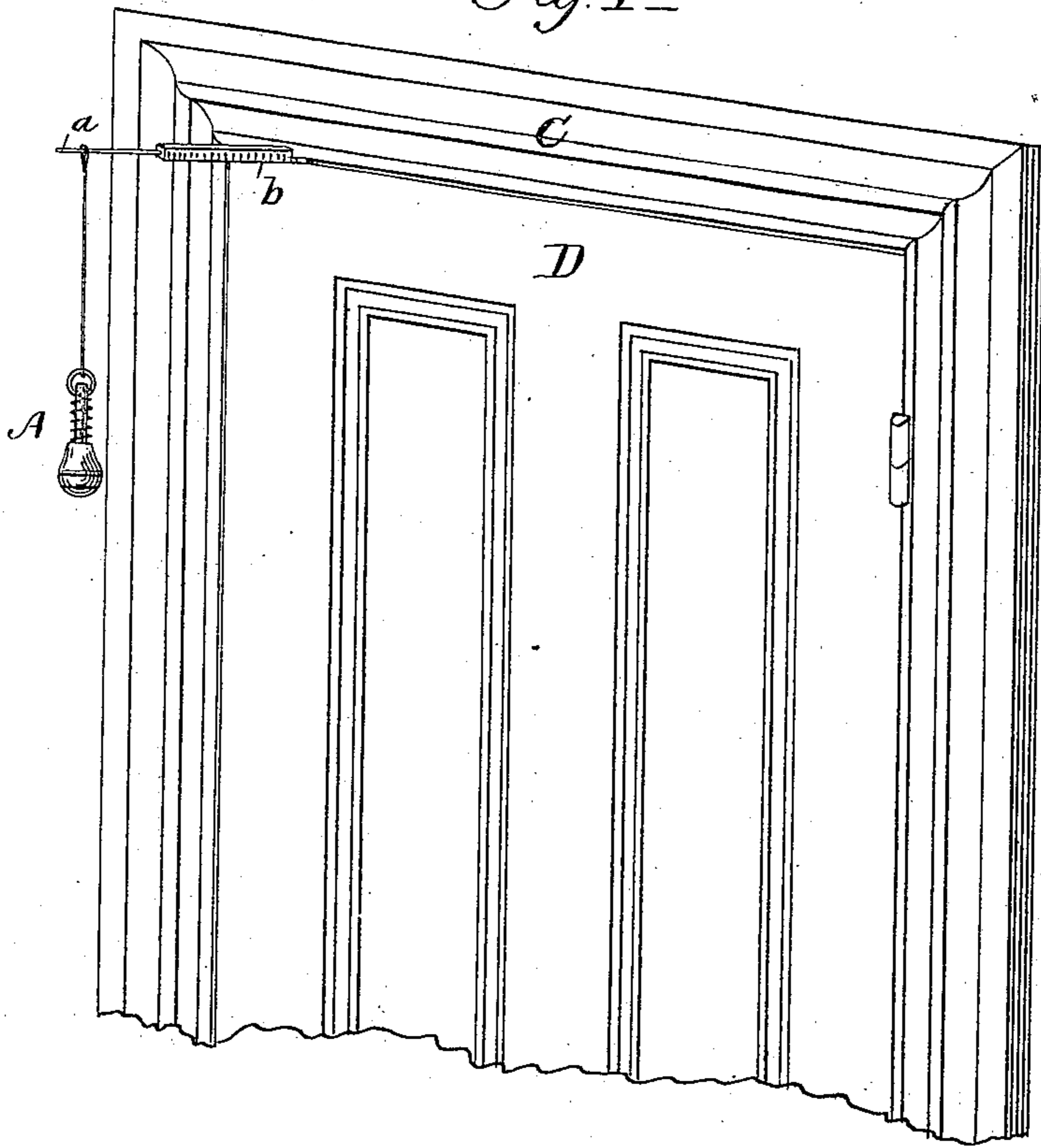


Fig. 2.

Fig. 3.

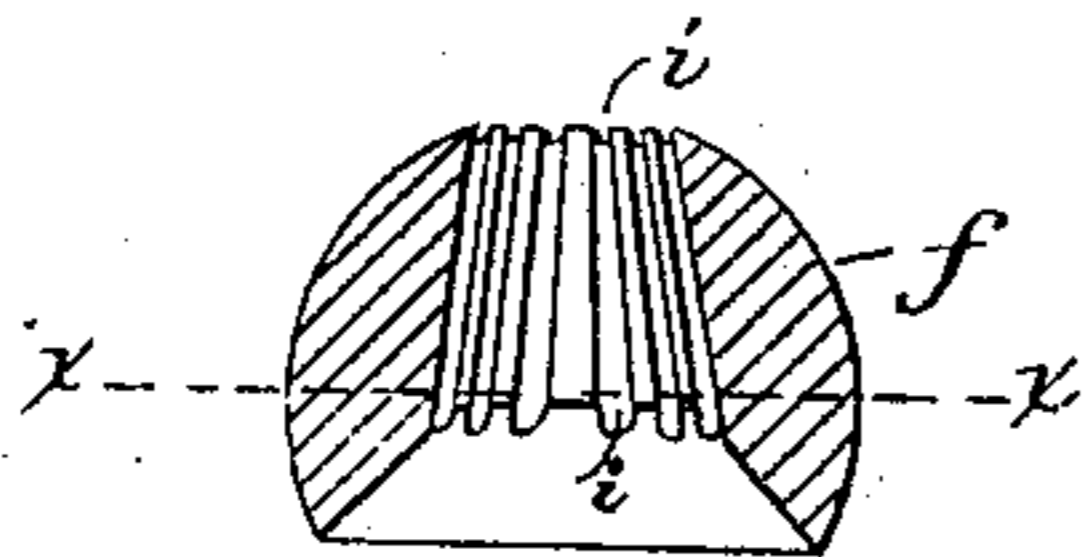
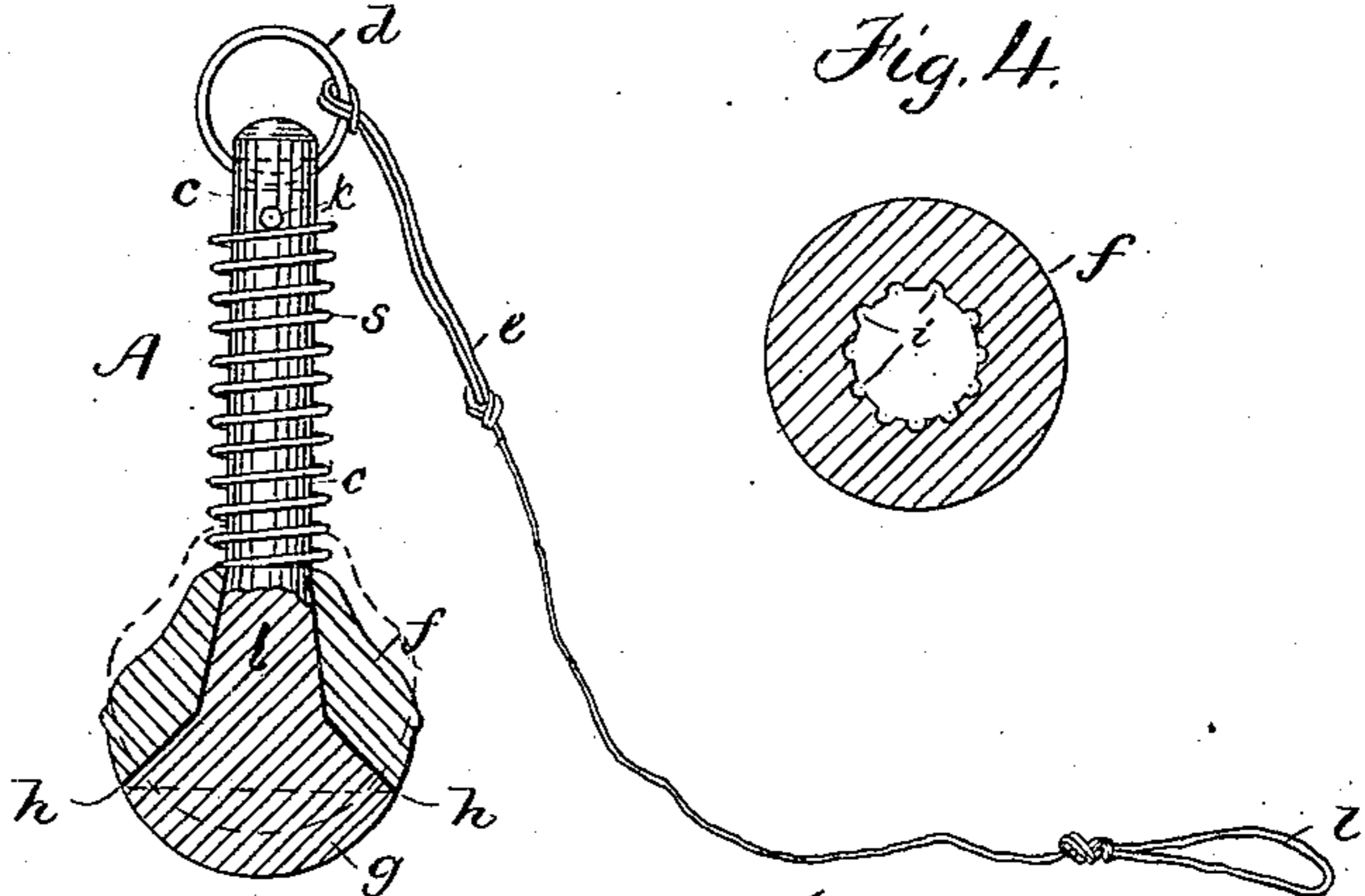


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM H. REIFF, OF LOWELL, MASSACHUSETTS.

BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 240,926, dated May 3, 1881.

Application filed January 15, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. REIFF, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Burglar-Alarms, of which the following is a specification.

My invention relates to that class of burglar-alarms in which an explosion is caused by percussion upon the falling of the device upon the floor or ground.

My invention is designed to remedy certain defects found to exist in such burglar-alarms, and which interfered with their satisfactory operation.

My invention consists in constructing the tapered portion of the stem between the conical part of the hammer and the cylindrical stem with a series of longitudinal grooves or corrugations, for the purpose of allowing the gas proceeding from the explosion of the caps to escape, and also to free the small fragments of paper left after the explosion.

The device is to be suspended from a pin or peg inserted in the crevice at the top of a door, so that upon the slightest opening of the door the device will fall and explode the caps; or it may be attached to a window.

Referring to the drawings, Figure 1 represents my device applied to a door, ready for operation. Fig. 2 is a view of the device, the lower part being in section. Fig. 3 is a section of the shell, showing the position of the grooves; and Fig. 4 is a transverse section of the same on the line *x x* of Fig. 3.

A represents the device. *g* is the hammer or butt, which is made of hemispherical form on its lower end and of a conical shape on its upper portion. It extends upward in a tapering form, as shown at *l*, and is connected to or forms a part of a stem or spindle, *c*, extending upward.

Upon the hammer or butt *g* is fitted a shell, *f*, as shown, between which and the hammer *g*, at *h h*, are placed the paper caps to be exploded.

Surrounding the stem *c* is a coiled spring, *s*, bearing against a pin, *k*, on the upper part of the stem, and against the top of the shell *f*, by means of which the shell is pressed downward, so as to firmly hold the paper caps in place between the shell *f* and hammer *g*.

On the inner side of the tapered portion of

the shell *f* is a series of grooves or corrugations, *i*, extending upward, as shown in Fig. 3; or the grooves may be made upon the corresponding tapered portion of the stem *l*. When the parts are made with smooth contiguous surfaces and an explosion takes place, fragments of the exploded paper caps are blown up into the neck of the alarm and clog and wedge around the plug, and thus prevent the two parts from fitting closely together, so that when the alarm is again charged it may fail of being again readily discharged. By introducing the grooves, as described, the gas will escape upward and blow out the small fragments of paper, so that the device will be kept clear and in condition for operation. Further, when the device is charged with powerful caps it is apt to recoil when discharged and become disabled. By causing the gas to pass out through the grooves it will avoid making any black marks upon the floor or carpet.

The device is suspended by means of a cord, *e*, attached to the ring *d*, to a wire, *a*, inserted in the end of a piece of wood, *b*, which latter is notched at the ends, the notched end being fitted in the crevice at the top of a door.

The device may be attached to a window by suspending it on a pin or a match placed between the two sashes where they meet. Upon the slightest opening of the door or window the pin or wire will become disengaged and cause the device to fall and explode the caps.

The caps are put in place between the shell *f* and hammer *g* by holding on to the shell and pressing down the rod *c*.

I do not claim a burglar-alarm in which an explosion is caused by the device falling upon the floor or ground; but

What I claim as my invention is—

In a burglar-alarm substantially as described, the combination, with the tapered portion of the shell *f*, of the grooves *i*, in connection with the tapered portion *l* of the hammer *g*, as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM H. REIFF.

Witnesses:

SAMUEL B. WYMAN,
E. W. TRUEWORTHY,