J. FOSTER.

Alarm Bell.

No. 11,859. Patented Oct. 31, 1854.

Fig. 3

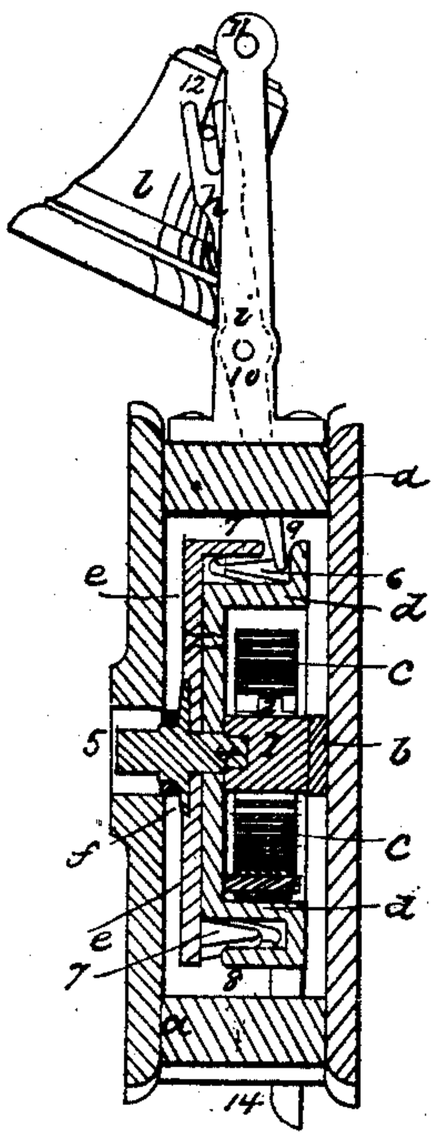


Fig. 1

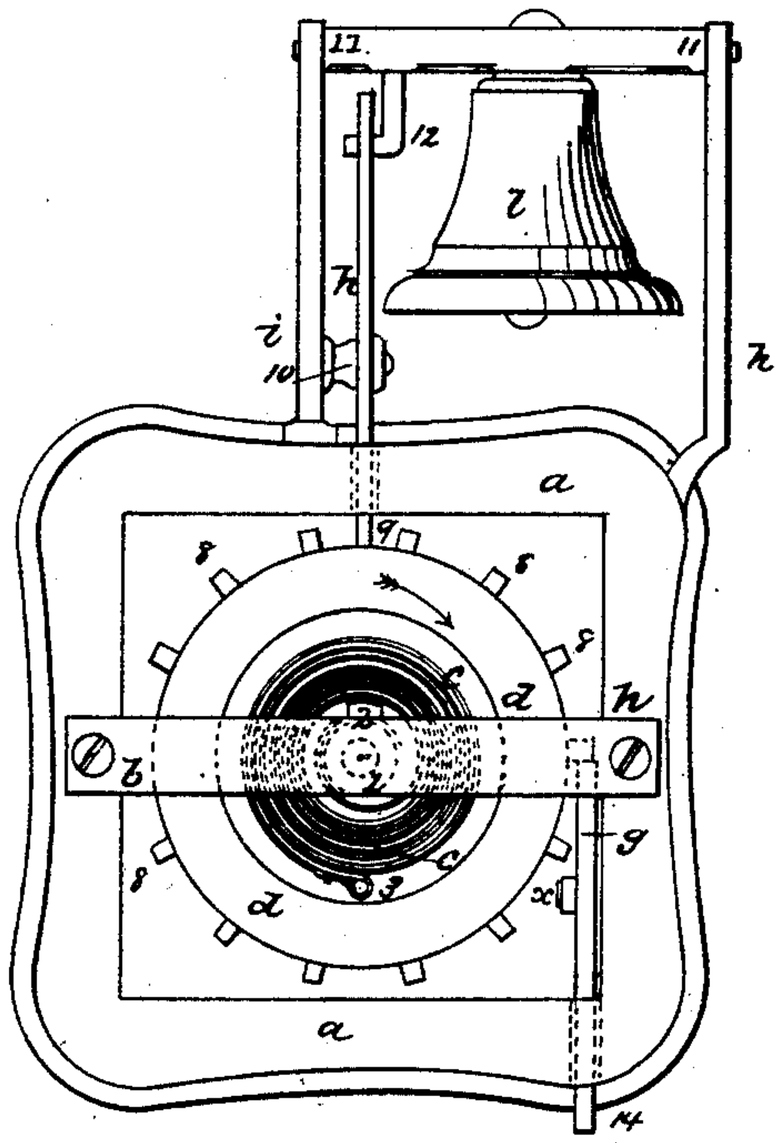
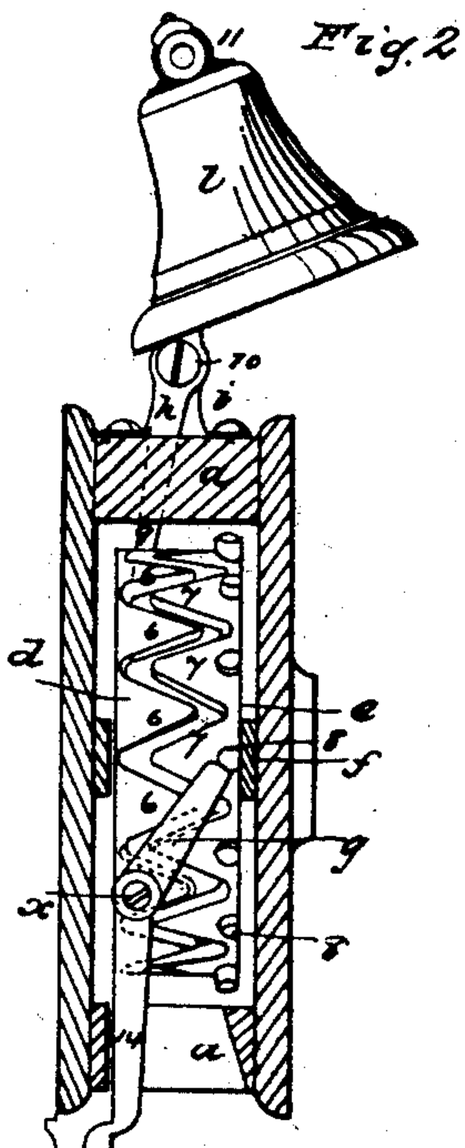


Fig. 2



Witnesses
Lemuel W. Serrell
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UNITED STATES PATENT OFFICE.

JUNIUS FOSTER, OF GREENPOINT, NEW YORK.

BURGLAR-ALARM.

Specification of Letters Patent No. 11,859, dated October 31, 1854.

To all whom it may concern:

Be it known that I, JUNIUS FOSTER, of Greenpoint, in the county of Kings and State of New York, have invented made and applied to use a new and useful Improvement in Apparatus for Ringing Alarm-Bells; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, wherein—Figure 1, is an elevation with the back plate removed; Fig. 2, is a side elevation with a portion of the case removed, and Fig. 3, is a vertical section through the center of the spring barrel.

The like marks of reference denote the same parts.

The nature of my said invention consists in the use of a circular spring barrel, with a zigzag groove formed around the curved sides, which groove taking a lever gives to the same a vibrating motion as the spring barrel runs down, thereby ringing a bell; the spring barrel being allowed to rotate by the withdrawal of a blocking piece, caused by opening any door or window with which the apparatus is connected or attached.

a, is a case of any suitable construction carrying a cross bar *b*, at the back, on the side of which is a projection 1, and hook 2, receiving the inner end of a coiled spring *c*. The outer end of this spring is attached to a stud 3, fitted inside a hollow spring barrel *d*. *e*, is a circular plate screwed onto the side of said spring barrel *d*, and carrying the shaft or pin on which the spring barrel rotates; one end of this shaft passes into a hole in the end of the stud 1, as at 4, and the other end passes through a cross bar *f*, and terminates as a square 5, to receive any ordinary key or crank by which the spring barrel can be wound up. The back edge of the spring barrel is extended beyond the barrel inclosing the spring, and is provided with V shaped projections 6, the points of which lie toward the plate *e*, which plate has also similar V shaped projections or cams 7 occupying the intermediate space between the projections 6, thereby a groove is formed of a zigzag shape running all around the circumference of said spring barrel.

8, 8, are pins projecting from the edge of the plate *e*, and *g*, is a stop set on a fulcrum *x*, which when turned so as to take the pins 8, prevents the spring barrel from rotating.

h is a lever, the lower end (9,) of which, lies in the groove between the projections 6 and 7, and said lever is set on a fulcrum 10, on one side of a standard *i*, and *k* is another standard, between which a bell *l*, is hung, the shaft or yoke 11, of which, passes into holes in the upper ends of the said standards, and 12, is an arm depending from the yoke or shaft, entering a notch in the lever *h*.

In order to wind up the spring barrel, the bell *l*, should be turned until its arm 12, rises out of the slot in the upper end of the lever *h*, so that the said lever can vibrate as the barrel is wound up, and when this is done, the stop *g*, is moved to take one of the pins 8, and the arm 12, again turned down into the slot in the lever *h*, and the apparatus is ready for use.

It will be evident that all or any of the doors or windows in a building might be so connected to the apparatus, by any suitable means, that the opening of any door or window by a burglar would detach the stop *g*, and permit the spring barrel to run down and ring the alarm bell.

In Fig. 2, this apparatus is shown as connected over the top of a door; *y*, being the top of the door itself on which a case *m*, is attached containing a slide bolt *n*, around which is a spring tending to throw up the bolt, and 13, is a pin sliding in a vertical groove, which when the alarm is not required for use can be drawn down and turned on one side into a notch 15, but when in use the incline on the top of the latch *n*, coming in contact with the end 14 of the blocking piece *g*, forces said bolt or lath down, and then the spring throws the same up ready to remove the stop or blocking piece *g*, as the door is opened.

What I desire to secure by Letters Patent is—

I claim the spring barrel *d*, with the zigzag groove around its circumference, in combination with the lever *h*, bell *l*, and stop *g* or its equivalent for the purposes and as specified.

In witness whereof I have hereunto set my signature this fifteenth day of September one thousand eight hundred and fifty four.

JUNIUS FOSTER.

Witnesses:

LEMUEL W. TERRELL,

THOMAS G. HAROLD.