

W. ALLPORT.

Door Bell.

No. 85,352.

Patented Dec. 29, 1868.

Fig. 1.

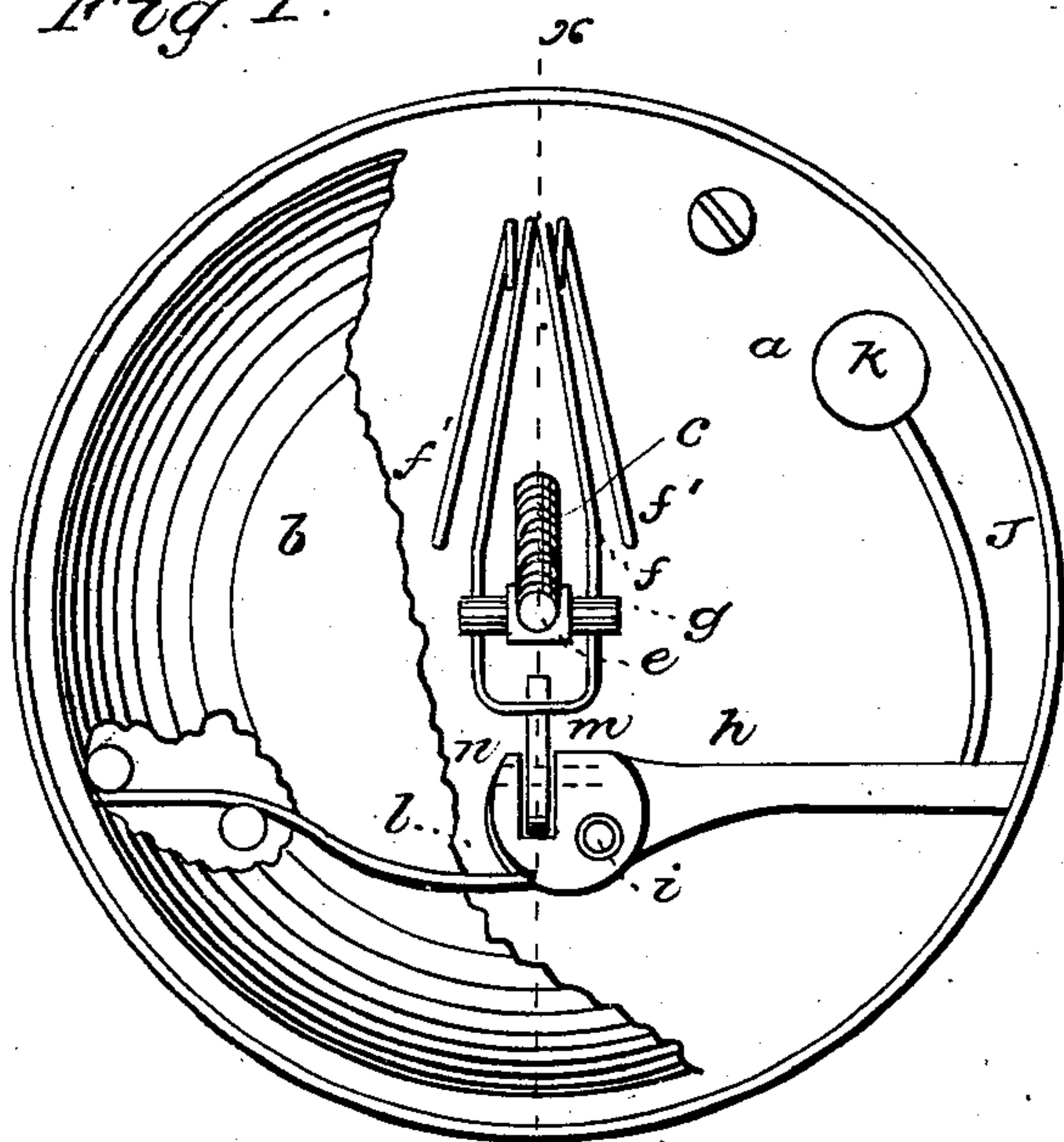
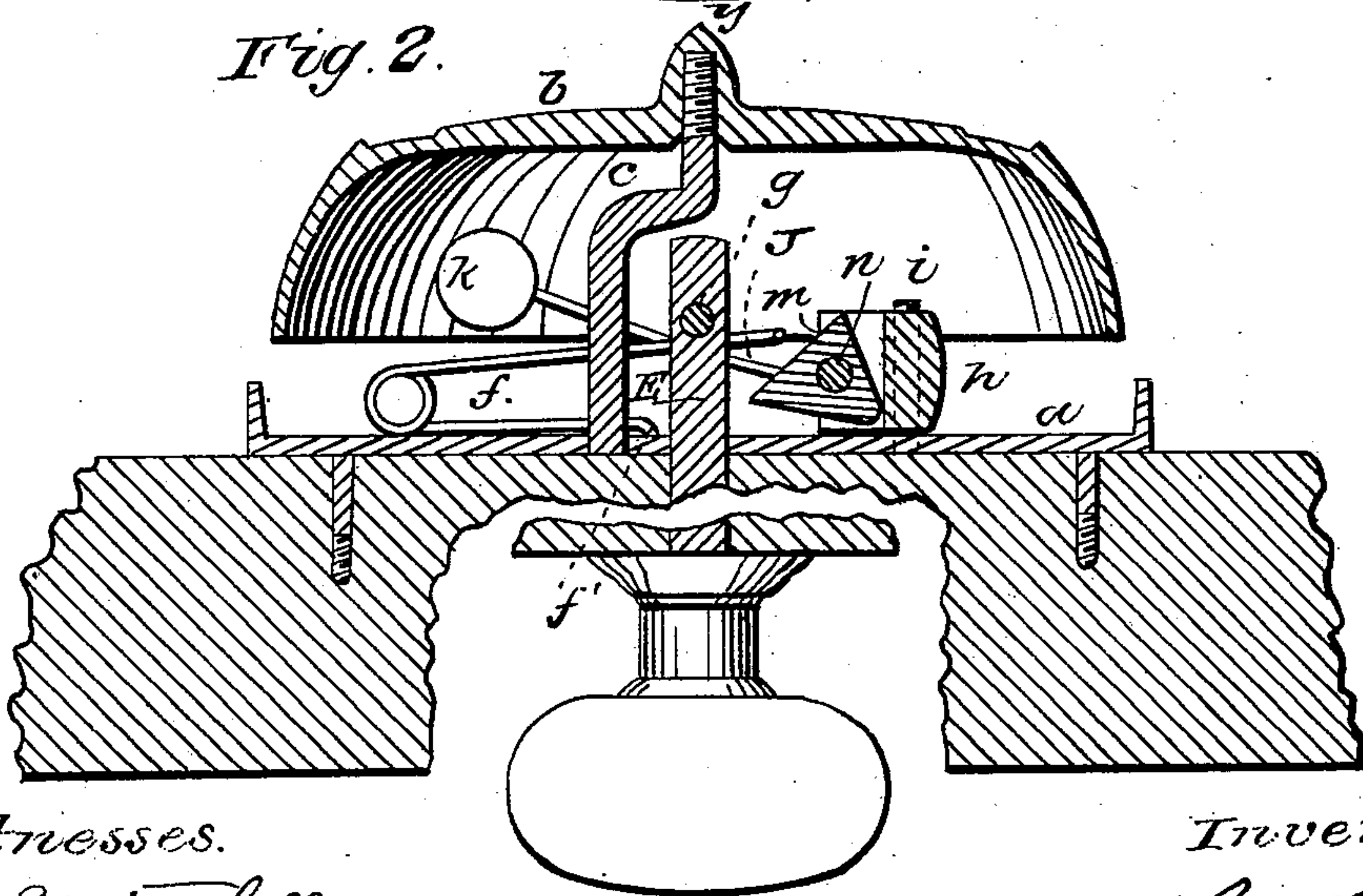


Fig. 2.



Witnesses.

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WILLIAM ALLPORT, OF NEW BRITAIN, CONNECTICUT.

Letters Patent No. 85,352, dated December 29, 1868.

IMPROVEMENT IN DOOR-BELL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM ALLPORT, of the town of New Britain, county of Hartford, and State of Connecticut, have invented an Improvement in Door-Bells; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in an improved device, whereby the pull-spindle of a door-bell is made to actuate the bell-hammer or clapper twice by a single pull at the knob, that is to say, once at each inward and once at each outward movement of the spindle; also, in so locating the spindle aforesaid that the line of its direction will pass through the centre of the bell.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

a is the base plate of a stationary door-bell.

b is the bell proper.

c is the standard upon which the bell is supported, and by which it is firmly affixed to the base-plate aforesaid.

e is the pull-spindle, passing through the base-plate, terminated at one end with a knob, at the other end connecting with the spring *f* by means of the pin *g*.

f is a spring, of any suitable metal or form, the one shown in the drawing being a combined spiral and lever-spring, firmly affixed to the base-plate at *f'*, and the flexible end passing under the pin *g* and around the spindle *e*, in such manner as to constantly press the pull-spindle *e* in the direction of the bell.

g is a pin, having the office aforesaid.

h is a lever, swinging upon a pin or rivet, *i*, its short end connected, by means of the trip *m*, with the extreme end of the spring *f*.

i is the pin or rivet last mentioned.

j is a rod, extending from the long end of the lever *h* to the hammer proper *k*, which strikes the bell.

l is a spring, so located and operating as to con-

stantly press the small end of the lever *h* toward the pull-spindle *e* and underneath the spring *f*, thus throwing the longer arm of the lever *h* outward, and the hammer, adjusted thereto, against the inner surface of the bell.

m is a trip, triangular in shape, freely moving upon the pin *n* in the short end of the lever *h* a sufficient distance in either direction to make a ratchet-connection with the spring *f*, whether the spring is being depressed or being relaxed.

The various parts having been thus described, it will at once be obvious that if the pull-spindle *e* be drawn outward by power applied to the knob, the flexible end aforesaid of the spring *f* will be depressed in the direction of the base-plate *a*. The spring *f*, in its turn operating upon the trip *m*, will first throw the end of the trip *m*, upon which it acts, as far in the line of its (the spring's) direction as said end can go, and then will force the short arm of the lever *h* outwardly, thus withdrawing the hammer from the bell, preparatory to a blow. It will now be seen that, as soon as the spring *f* is depressed so as to pass by the end of the trip *m*, the lever *h*, actuated by the spring *l*, will throw the hammer *k* against the bell *b*. Now, let the hold upon the knob be relaxed, and it will be seen that the spring *f*, in returning to its place, will reverse the trip *m*, throw back the lever *h*, elevate the hammer for its blow, which will take place as soon as the end of the spring *f* passes by the end of the trip *m*, and allows the spring *l* to act again.

Having thus described my invention, I proceed to claim—

The combination of the pull-spindle *e*, the spring *f*, the trip *m*, the lever *h*, and the spring *l* with the bell *b*, when adjusted and operating substantially as and for the purpose described.

WM. ALLPORT.

Witnesses:

JAMES SHEPARD,
C. E. MITCHELL.