

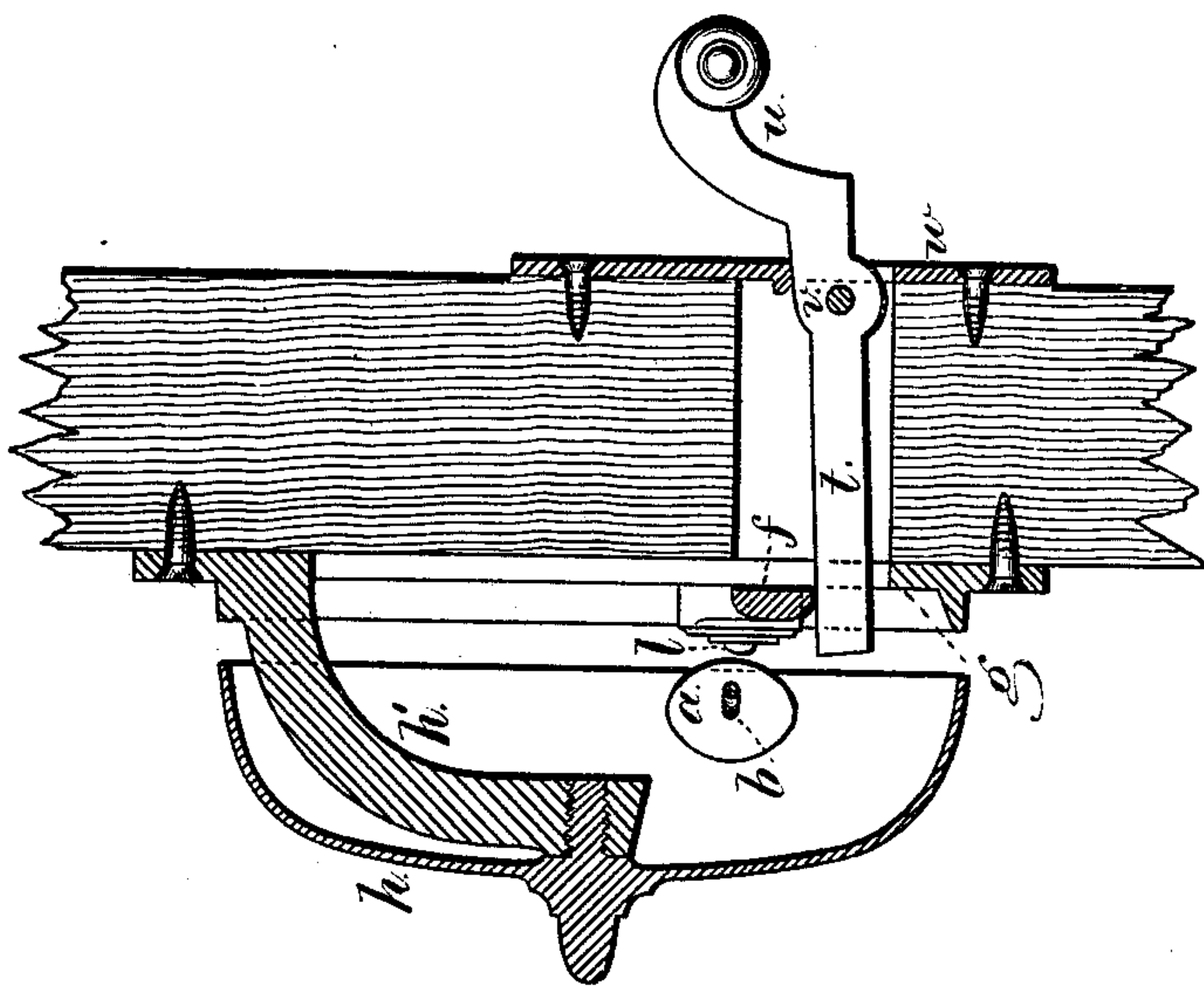
W. E. SPARKS.

DOOR-BELL.

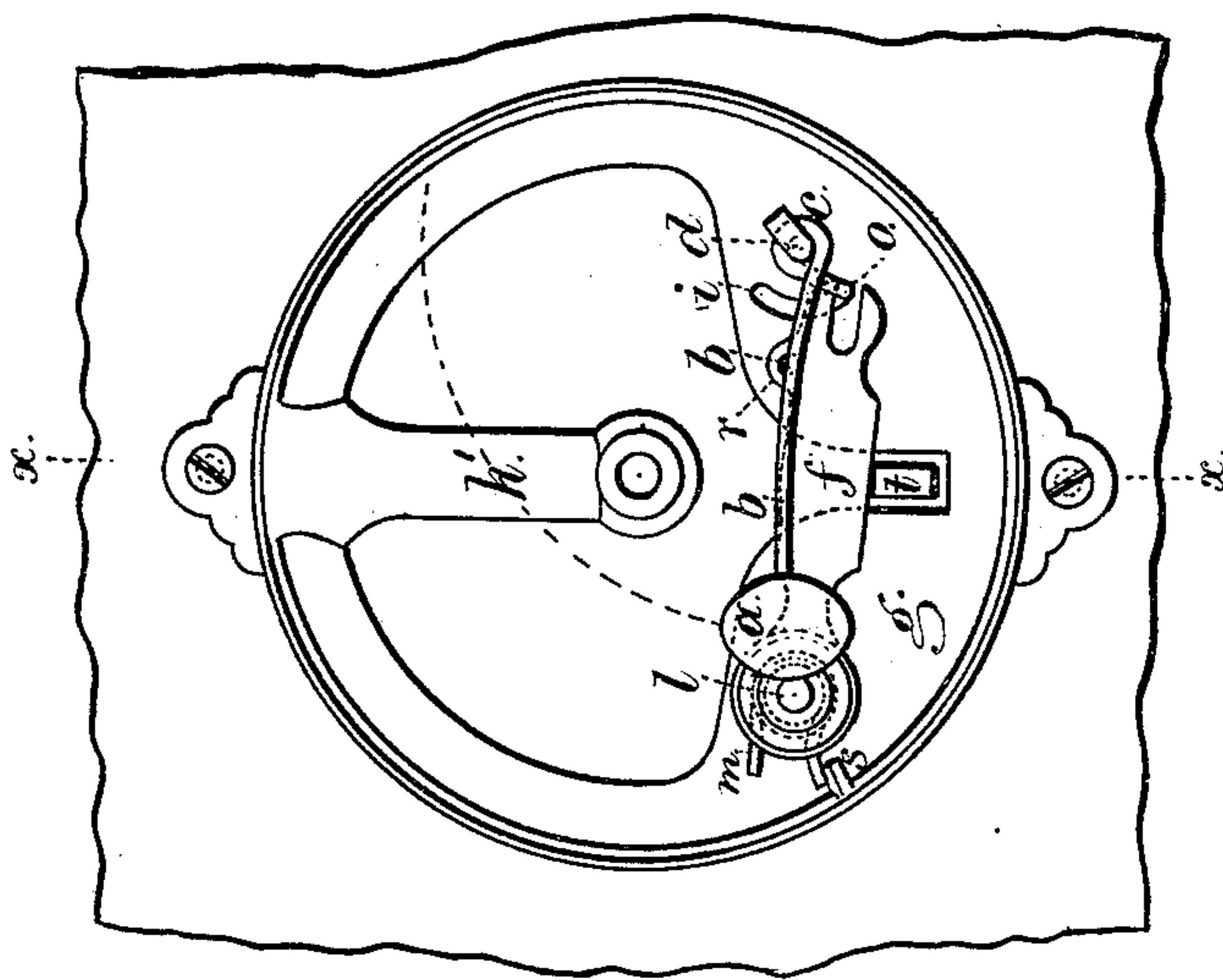
No. 189,397.

Patented April 10, 1877.

*Fig. 2.*



*Fig. 1.*



Witnesses

*Chas. H. Smith*  
*Geo. D. Pinckney*

Inventor

*William E. Sparks.*  
per *Lemuel W. Terrell*  
*Att'y*

# UNITED STATES PATENT OFFICE.

WILLIAM E. SPARKS, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO P.  
AND F. CORBIN, OF SAME PLACE.

## IMPROVEMENT IN DOOR-BELLS.

Specification forming part of Letters Patent No. **189,397**, dated April 10, 1877; application filed  
January 15, 1877.

*To all whom it may concern:*

Be it known that I, WILLIAM E. SPARKS, of New Britain, in the county of Hartford and State of Connecticut, have invented an Improvement in Door-Bells, of which the following is a specification:

This invention is made for simplifying the striking mechanism of the bell, and rendering the same cheaper and less liable to get out of order than the bells heretofore made.

The bell and its frame are to be placed upon the inner surface of the door, and the lever for the same passes through the door and operates upon a second lever upon the bell-frame in a manner similar to an ordinary gate-latch, and the end of this lever is slotted to receive and give motion to the hammer-tail for striking the bell.

The lever which operates the hammer lies against the plate which forms the base of the bell, and moves in a plane parallel, or nearly so, to the plane in which the hammer swings.

In the drawing, Figure 1 is an elevation of the mechanism with the bell removed. Fig. 2 is a vertical section through the line *xx*.

The hammer *a* is upon a spring-wire handle, *b*, which is twisted into a helix, *c*, surrounding the pivot-pin *d*, so that said hammer and helix turn upon said pin, and the wire is carried off from the helix and then bent parallel to the axis of the helix, to form a hammer-tail that is within the slotted end of the lever *f*, and the extreme end of the wire is between the two stops *i* and *o* of the base-plate *g*, to which the bell *h* is secured through the instrumentality of the arm *h'*.

The stops *i o* are shown as the ends of a slot in the plate *g*, but they may be at the edge of the plate, or projections upon the plate.

The lever *f* is upon the fulcrum-stud *l*, and there is a spring, *m*, to return the lever to the normal position. This spring is preferably a helix around the stud *l*, with one end acting against the lever and the other end against a stud, *s*.

Upon the outside of the door is the orna-

mental plate *w*, through which the lever *t* passes and swings upon the pivot *v* in a manner similar to the thumb-lever of a door-latch, and this lever *t* passes beneath the lever *f*, and moves in an opening provided for it in the plate *g*, so that the power to operate the bell is exerted directly upon this lever *f* by the pull-lever *t*, thus dispensing with chains, links, cams, or other appliances that have heretofore been generally used between the pull and bell-hammer, and allowing the bell to be placed upon the door by an ordinary workman. In consequence of placing the fulcrum-stud *l* at one side of the frame *g* for the lever *f*, and the pivot-pin *d* of the hammer at the opposite part of said frame, the lever *f* can be introduced in the central portion below the bell-stud, and hence both the pull and the bell come central to the door, panel, or mullion to which they are applied.

It will now be understood that the lever *f* acts directly upon the hammer-tail to swing the hammer and strike the bell, and according to the position of the stops *i* and *o* in relation to the hammer and its tail so the bell will be struck at one or other or both ends of its movement, and the spring-handle yields by the momentum of the hammer so that the bell is struck, but the hammer does not remain in contact with the bell.

I claim as my invention—

The lever *f* upon the fulcrum-stud *l* at one side of the plate *g*, and the hammer *a* upon the pivot-pin *d*, at the opposite part of such plate *g*, and the hammer-tail entering the notch at the end of the lever *f*, in combination with the stops *i o*, and the lever *t*, that passes through the door and acts upon the lever *f*, as and for the purposes set forth.

Signed by me this 12th day of January, A. D, 1877.

WILLIAM E. SPARKS.

Witnesses:

CHARLES PECK,  
E. L. PRIOR.