BONSALL & HILLEBRAND.

Bell Pull.

No. 84,990. Patented Dec. 15, 1868.

Fig. 3

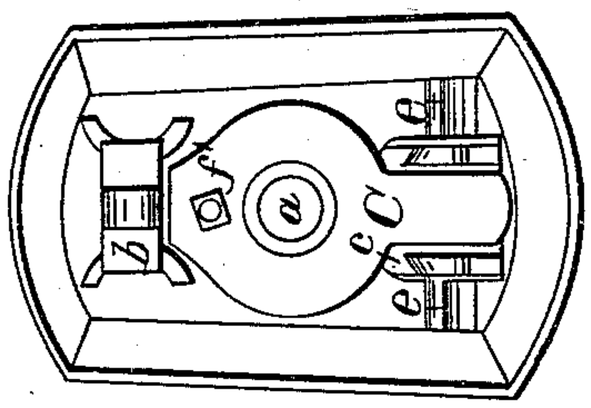


Fig. 2

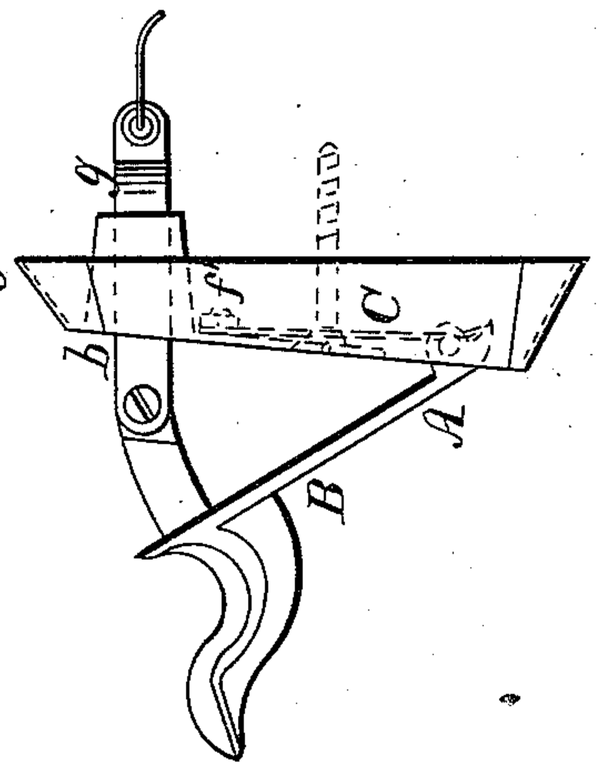


Fig. 4

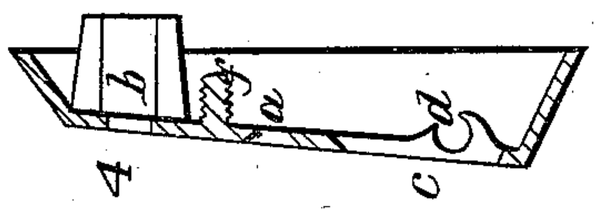
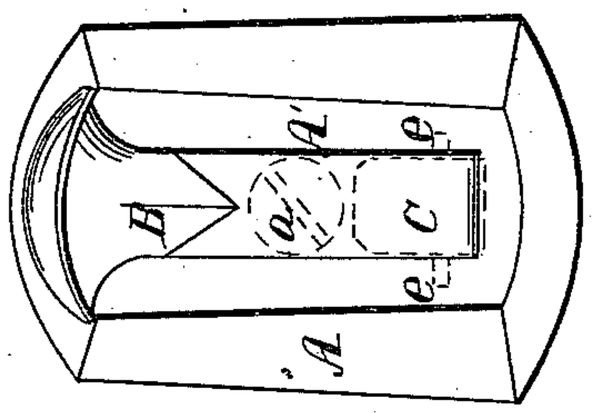


Fig. 1



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STERLING BONSALL AND LOUIS HILLEBRAND, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 84,990, *dated December* 15, 1868.

IMPROVEMENT IN BELL-PULLS.

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

To all whom it may concern:

Be it known that we, STERLING BONSALL and LOUIS HILLEBRAND, both of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Bell-Pulls; and we do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which it appertains, to fully understand and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front view of the bell-pull, illustrating our invention;

Figure 2, a side view;

Figure 3, a rear view thereof;

Figure 4, a transverse vertical section of the plate, the handle having been removed.

Similar letters of reference indicate corresponding parts in the several figures.

Our invention is an improvement on the bell-pull for which Letters Patent were granted to us, March 9, 1868, and consists in the peculiar construction of certain parts, as will be hereinafter more fully described.

In the drawings—

A represents a plate, of suitable form and material, and provided with the screw-opening *a*, and the opening *b* for the tongue of the handle B. These parts are constructed as formerly.

c is a quadrilateral opening, near the bottom of the plate.

To the rear of the sides of this opening are formed depressions, *d*, which should be sufficiently deep to form bearings for journals, *e*, which are secured to or formed on a plate, A′, to which the handle B is attached. These journals extend from the sides of the plate A′, near their lower ends, as seen in fig. 2.

The width of the opening *c* should be equal to that of the lower end of the plate A′, but the height should be somewhat larger, in order to allow the journals to enter the opening, and thereby turning the plate A′ to enter the depressions *d* of the plate A.

It will thus be seen that a perfect hinge is formed, whereby the handle B has free motion.

To the rear of the plate A we secure, by casting therewith or otherwise, a post or pin, *f*, which is cut with a screw-thread.

On this pin is hung or placed a spring, C, which consists of a flat piece of elastic metal, having an opening, through which passes the screw which holds the plate against the door-jamb or elsewhere.

The spring bears against the rear of the lower end of plate A′, on handle B, which is somewhat enlarged to form this bearing, the point of which bearing being such as to throw the handle back to its normal position against the plate A, after having been withdrawn therefrom.

The journals *e* should project from the sides of the plate A′, within the perpendicular line thereof, so that the handle will lie snugly against the plate A.

When the spring is placed on the pin *f*, a nut, *f*′, is screwed thereon, to hold the former in position.

It will now be perceived that the spring not only causes the return of the handle, but also forms a portion of the hinge for the handle, to prevent its rear displacement.

When the handle is in position, and tongue connected thereto, the stops *g*, of the latter, limit the play of the handle. It will be found that the handle cannot be removed, even if the two-part tongue be separated, since the spring C holds the journals *e* firmly within the depression *d* of the plate A.

In order to remove the handle, the tongue is separated, the plate removed, and the spring released. The latter is accomplished by unscrewing the nut *f*. Now push the lower end of the plate A′ to the rear, and then turn it so that the journals *e* extend diagonally across the slot or opening *c*, and the handle may be readily withdrawn.

The above instructions are sufficient guide to return the handle in place.

The pressure of the spring may be regulated by the nut.

Having thus described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

The plate A′, to which the handle is attached, with its journals *e* fitted into depressions in the plate A, as shown, in combination with the spring C, as arranged, and operating for the purpose set forth.

To the above, we have signed our names, this 30th day of October, 1868.

STERLING BONSALL.
LOUIS HILLEBRAND.

Witnesses:

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T. C. HUTCHINSON.