GARVEY & KIMBALL.

Bell Pull.

No. 83,622. Patented Nov. 3, 1868.

Fig. 2

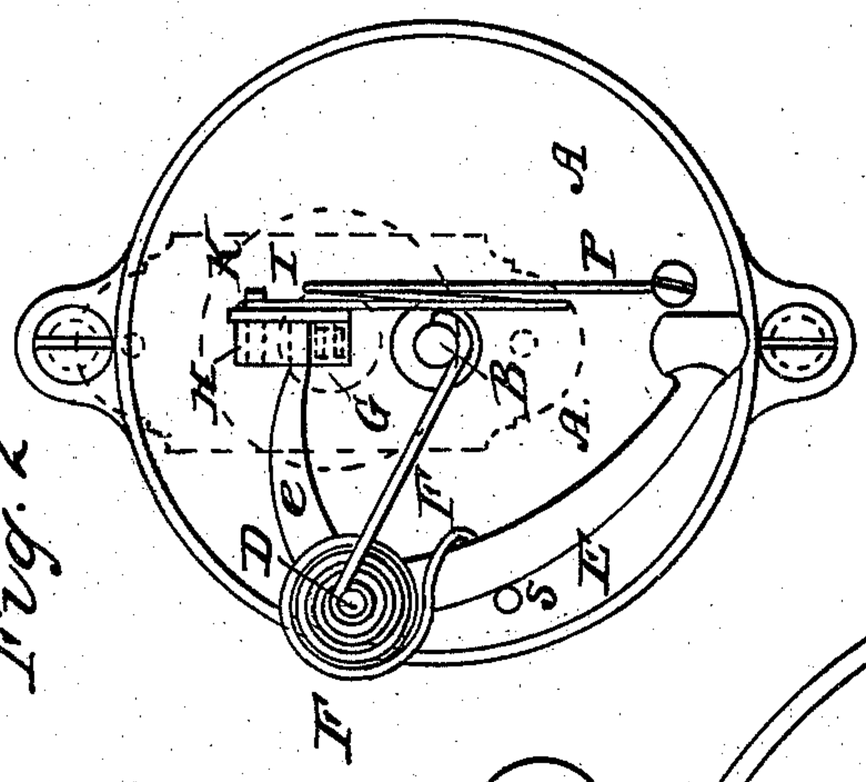


Fig. 4

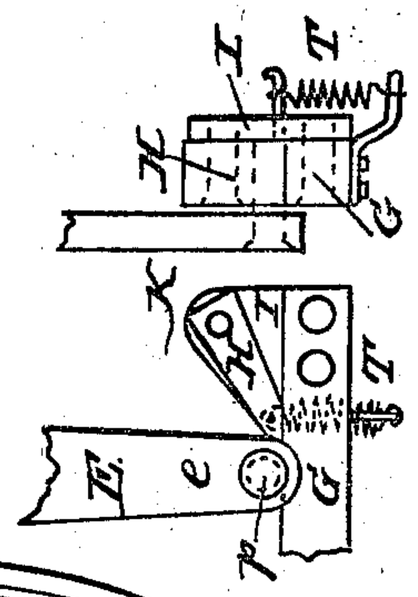
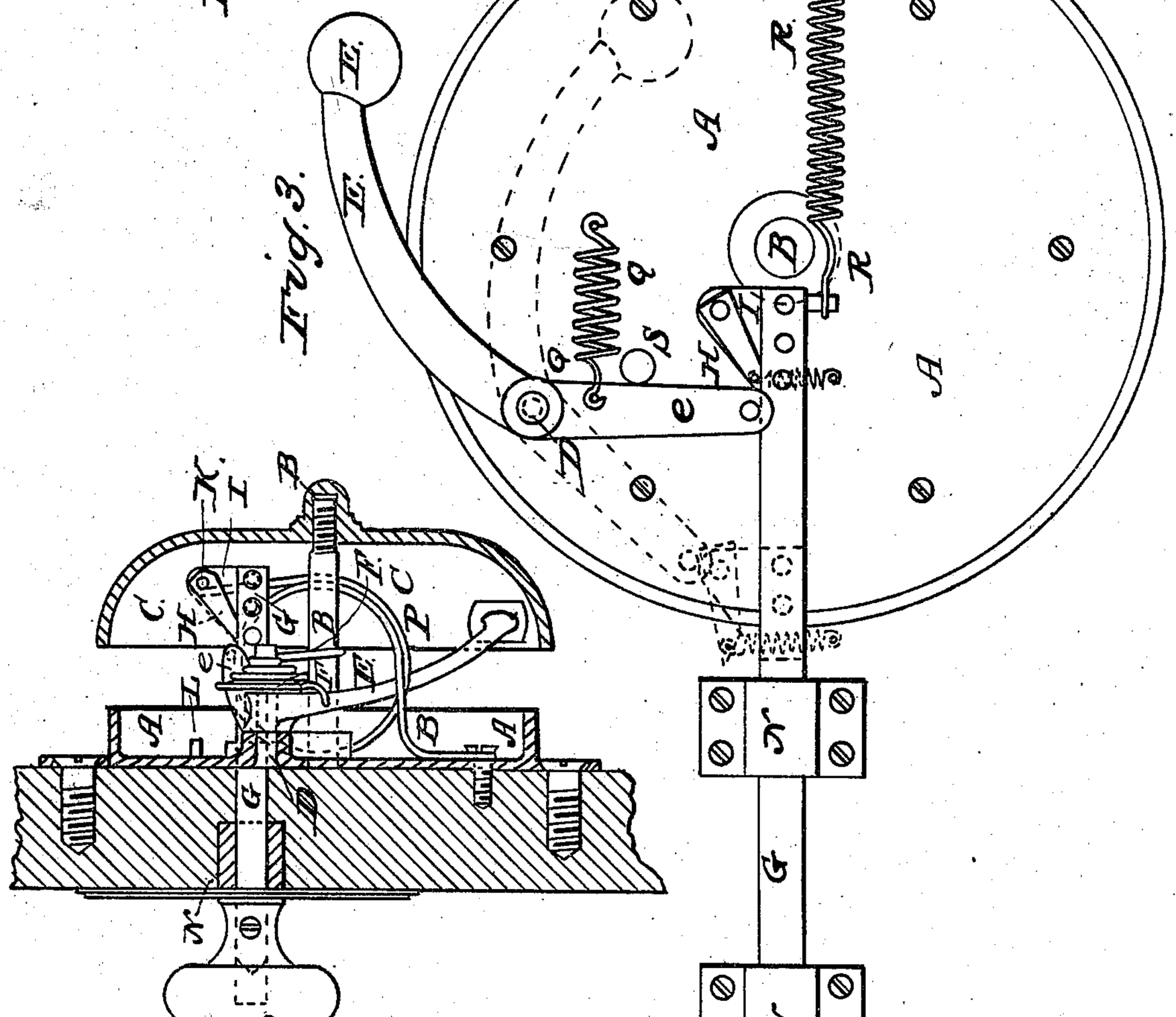


Fig. 3.



Witnesses
Geo Purdy
H. F. Sawyer

Inventers
James Garvey
Matthew H. Kimball

United States Patent Office.

JAMES GARVEY AND MATTHEW H. KIMBALL, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 83,622, *dated November* 3, 1868.

IMPROVEMENT IN BELL-PULL.

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

Be it known that we, JAMES GARVEY and MATTHEW H. KIMBALL, both of the city and county of San Francisco, and State of California, have invented a new and improved Pull-Bell or Gong; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a sectional view of our bell, showing its working parts;

Figure 2 is a plan of same, with gong removed;

Figure 3, a second arrangement of parts, of which our bell is susceptible; and

Figure 4 shows a detached detail of that part in the which our invention properly consists.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation, as follows, to wit:

We construct our bell or gong, having a circular plate, A, of cast-iron, which fastens, by screws, to the wood-work.

From the centre of this plate, the rod or bolt B projects a proper distance outward, and the sounding-gong C is attached thereto, by being screwed on to its end. (See fig. 1.)

Projecting from the plate A, at or near its rim, is a wrought-iron pin, D, upon which the striking-hammer E hangs, this hammer, which may be of brass, having its striking-power given by the usual spiral spring F, which is wound around the pin D, and, catching on the arm with one end, has its other end bearing against the centre-rod or bolt B.

The striking-hammer E has a continuating arm or lever, *e*, as shown in figs. 2 and 3, the end of which rests on the pull-bar G, immediately at the point of the lifting-wedge H, the end of this arm being rounded off, and may either be solid with the arm itself, or it may be a wrought-iron pin, *p*, riveted into the arm, as shown in figs. 3 and 4.

At the extreme end of the pull-bar G, is fastened, by rivets, at that side which is opposite the striking-hammer, a lug, I, through which passes the pin K.

Upon this pin, the lifting-wedge H is hung. This wedge, in the which our invention principally consists, may be made of either brass or steel, and is of equal width with the pull-bar G. It is made so as that the angle formed by its inclined face with the pull-bar may be about thirty-five degrees, when hanging on the pin K, and resting on the pull-bar.

The inclined plane formed by the wedge, and whereon the arm *e* slides upward when the bar G is pulled forward, is made to extend slightly above and beyond the centre of the fulcrum-pin K, so as that, when the point of the arm *e* has attained the extreme height of the inclined plane formed by the wedge, it may have passed over the centre of the pin K, and then, naturally tipping the wedge, will release itself, and drop down, causing the hammer to impinge against the gong C, and thus ring the bell.

We provide a lug or stop, L, cast on the plate A, against which the lifting-wedge H may strike, when pulled forward, and, in the act of tipping, it may have released the hammer E, the object of this stop being to prevent the lifting-wedge from being tipped entirely over.

A similar stop, S, is provided for the hammer *e*.

The pull-bar G, which may be a square bar of wrought-iron, passes through a guide-boss in the plate A, thence through the wood-work and usual guide-plate N, terminating in the usual knob or handle O.

This pull-bar G, when pulled outward and released, rebounds, by the action of the wire spring P, (see figs. 1 and 2,) which is attached to the plate A, and hooks around the pin K.

We have thus described our invention, as adapted for house, door, call-bells, &c.

We will now describe another arrangement of the parts, as more particularly adapted for hotel, steamboat, alarm-gongs, &c.

To the pull-bar G are attached, in similar manner as before described, the lug I and lifting-wedge H. But since, in this arrangement, it is required that the wedge should work on the side of the pull-bar, instead of, as before, on the top, a small spiral spring, T, is necessary to connect the point of the wedge H with the pull-bar, the object being to return the wedge to position after it has tipped and thrown the striking-hammer.

The action is more particularly exemplified in fig. 3, by the dotted lines, showing the wedge and striking-hammer in their relative positions when the hammer is in the act of being thrown.

We may also, in this arrangement, substitute for the springs F and P, in the first arrangement, other springs, as Q and R, fig. 3, attached to pins, as shown.

In other respects, the arrangement may be substantially similar to that first before mentioned.

The operation is as follows: The bar G being drawn forward, the point of the wedge H inserts itself under the point of the arm *e*, which rests on the pull-bar, when, by its forward motion, this arm *e* is made to traverse up the inclined plane formed by the wedge, until, reaching the summit, it may have passed over the centre of the pin K, when the spring attached to the arm *e*, tending to draw it back, causes the wedge to tip, and, releasing the hammer, it rebounds, and strikes the bell or gong.

The pull-bar is now released, and, being brought back by its attached spring, it meets, in its return, the projecting arm *e*, which strikes against the under side of the wedge H, but this wedge immediately rises and passes over it, and, assuming its original position, is again ready to repeat the operation; this operation being substantially similar with both the arrangements of parts, as hereinbefore described.

Claim.

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

The application of the lifting-wedge H, combined with the lug I, which, being attached to the pull-bar G, operates, with it, directly on the hammer E, in the manner herein described, and for the purposes before mentioned.

JAMES GARVEY.
MATTHEW F. KIMBALL.

Witnesses:
GEO. PARDY,
OTIS V. SAWYER.