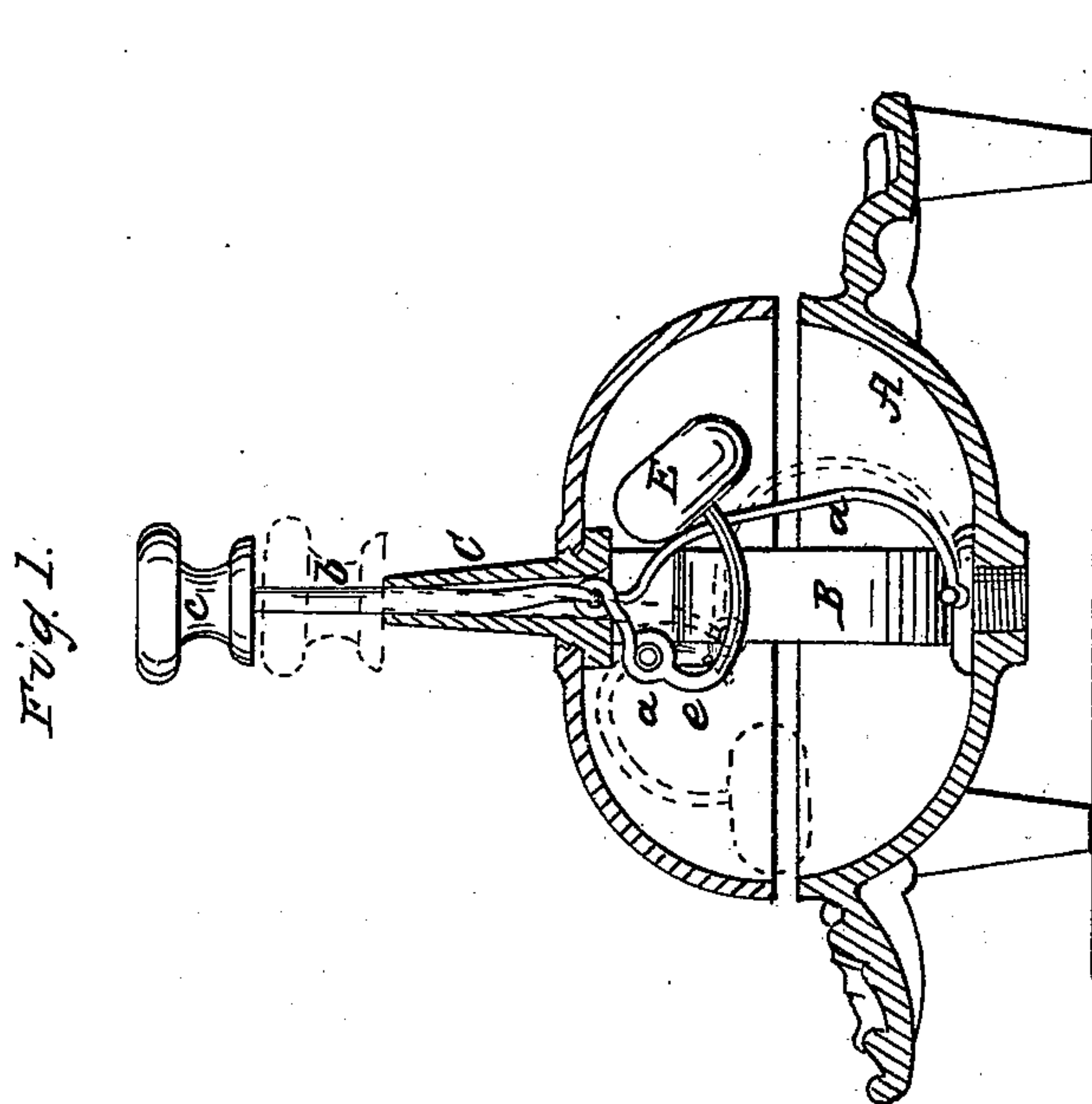
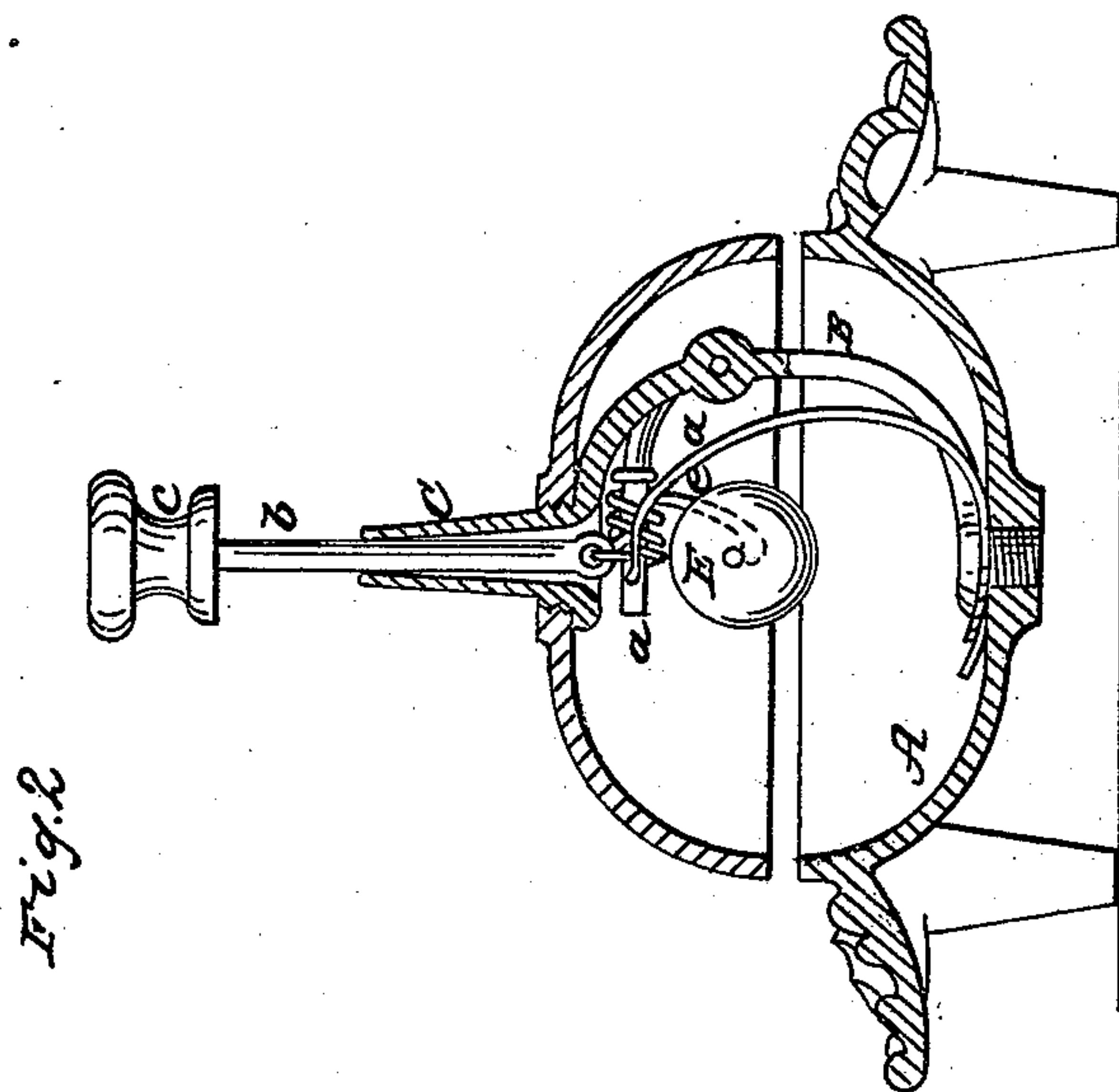


J. BARTON.

Call Bell.

No. 14,593.

Patented April 8, 1856.



UNITED STATES PATENT OFFICE.

JASON BARTON, OF MIDDLE HADDAM, CONNECTICUT.

PRESSURE-BELL.

Specification forming part of Letters Patent No. 14,593, dated April 8, 1856; Reissued October 25, 1864, No. 1,798.

To all whom it may concern:

Be it known that I, JASON BARTON, of Middle Haddam, in the county of Middlesex and State of Connecticut, have invented
5 a new and useful Improvement in Pressure-Bells; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of
10 this specification, in which—

Figures 1 and 2, are central sections, taken at right angles to each other, of a bell constructed according to my invention.

Similar letters of reference indicate corresponding parts in both figures.

This invention consists in a certain arrangement of the tongue within the bell, whereby the hammer is allowed to have the longest swinging motion that is possible
20 within the bell, to strike the bell near the edge and at right angles to its surface.

A, is a base supporting a stand B, C, to which is secured the bell D. The lower part B, of the stand is curved as shown in Fig.
25 2, to allow the tongue and hammer to swing from one side of the bell, across the center and into the upper part thereof. The upper part C, of the stand consists of an upright tube which passes through and screws
30 firmly into the center of the bell.

Near the top of the interior of the bell but at a little distance from the center thereof there is secured to the stand a fixed horizontal pivot *a*, the position of which is
35 best shown in Fig. 1. Upon this pivot the tongue of the bell swings. This tongue is in the form of a curved lever of the first order with arms of unequal length, the hammer E, being at the end of the longer
40 arm and the shorter arm being connected to the pressure rod *b*, which passes upward through the tube C, and is furnished outside with a knob *c*. A spring *d*, is secured to the lower part of the stand B, to act upon
45 the upper part of the tongue in such a manner as to raise the hammer up nearly to the top of the bell when no pressure is applied to the knob and at the same time to raise the rod *b*, and knob. This spring is curved in
50 such a manner, shown best in Fig. 2, as to allow the tongue to swing through it. The tongue and rod are so constructed that when

the rod is pushed down the hammer would remain at rest nearly touching the bell close to the edge, as shown in red outline in Fig. 55 1, but in pushing down the rod sharply the elasticity of the tongue allows the hammer to strike the bell and instantaneously recoil. In order that the hammer may strike at right angles to its surface the tongue should
60 be flattened or made thinner at a short distance from the hammer as shown in Fig. 1, so that it will be more flexible at that point and allow the hammer, toward the conclusion of its movement to swing outward instead of continuing to swing upward as it
65 would otherwise do in some degree during the latter part of its movement.

The spring *d*, is not indispensable to the proper operation of this bell, as, without
70 the spring the hammer will swing back by gravitation, when the pressure is removed from the knob *c*. But without the spring it will not swing back so far or so high and consequently not strike so hard a blow when
75 the knob is depressed unless the knob is previously pulled up by the hand, and on this account I prefer to apply the spring.

It will be understood that the position of the pivot *a*, near the top of the interior, but
80 out of the center of the bell, allows the longest swinging motion that the tongue and hammer could make within the bell to strike the bell at, or nearly at right angles to its surface.
85

A handle may be attached to the top of the tube C, so that the bell may be rung while held in the hand.

What I claim as my invention and desire to secure by Letters Patent, is—
90

So suspending the hammer by a pivot near the top of the bell, but out of the center thereof as that the said hammer shall swing from a point near the edge of the bell, into the top part of the interior of the bell, and
95 vice versa, thus allowing it a downward velocity and a very long movement, and at the same time allowing it to strike the bell near the edge and at right angles or nearly so to its surface.

JASON BARTON.

Witnesses:

LINUS PARMELEE,
CYNTHIA S. PARMELEE.