F. RATCLIFF.
CALL-BELLS.

No. 193,996. Patented Aug. 7. 1877

Fig 1

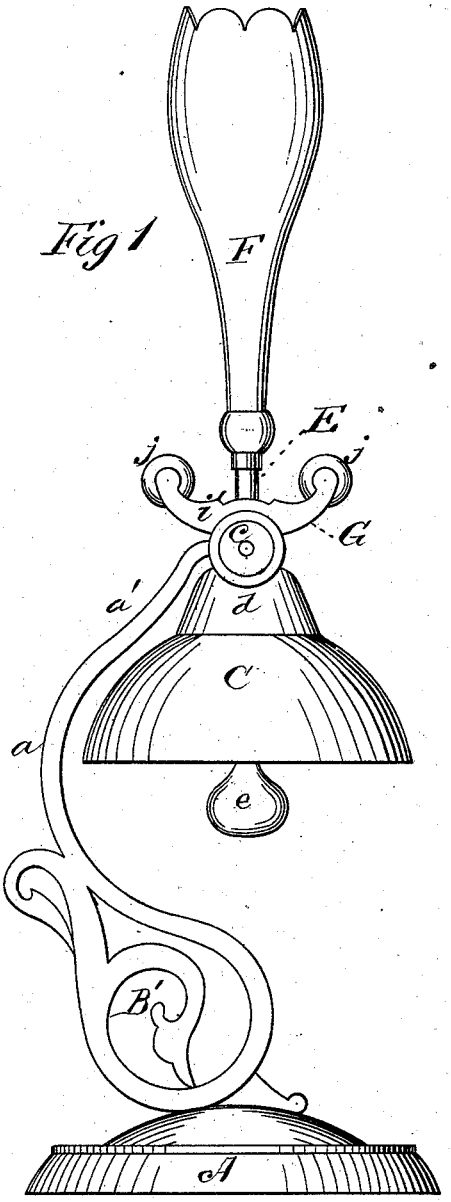
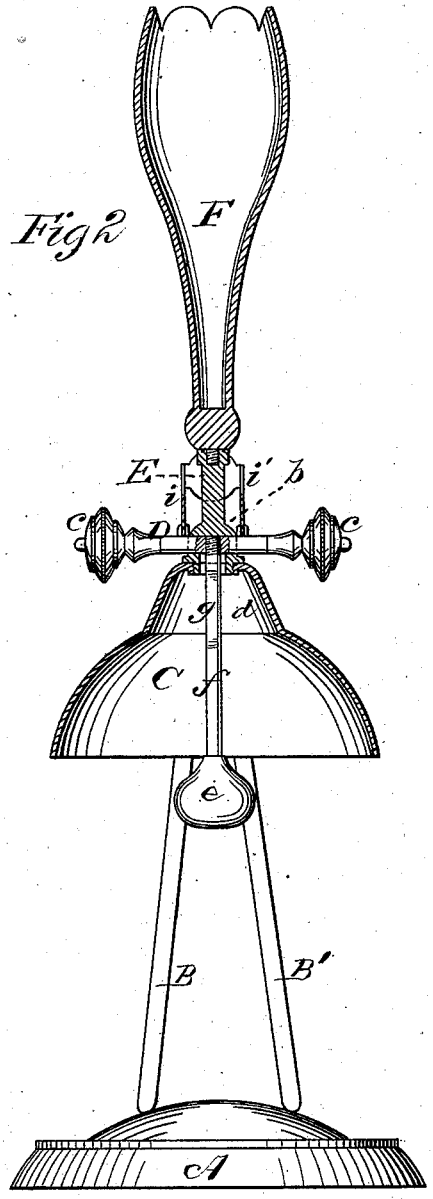


Fig 2



WITNESSES
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UNITED STATES PATENT OFFICE.

FREDERICK RATCLIFF, OF MERIDEN, CONNECTICUT.

IMPROVEMENT IN CALL-BELLS.

Specification forming part of Letters Patent No. **193,996**, dated August 7, 1877; application filed July 14, 1877.

To all whom it may concern:

Be it known that I, FREDERICK RATCLIFF, of Meriden, in the county of New Haven and State of Connecticut, have invented a new and valuable Improvement in Call-Bells; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my invention; and Fig. 2 is a longitudinal vertical section thereof.

This invention has relation to improvements in call-bells.

The object of the invention is to produce a bell from which a number of rapidly-reiterated sounds may be easily produced; to return the hammer to the striking position without the use of springs; and while improving the device generally to utilize the stand thereof as a flower-vase supporter.

The nature of my invention will be hereinafter fully set forth and claimed.

In the annexed drawings, the letter A designates the stand of my improved bell, from which rise the spaced brackets B B′, that curve outward, as shown at *a*, to admit the bell C, then inward, as seen at *a′*. They then converge and terminate in a metallic cap or head, *b*, having on its lower edge a screw-threaded rabbet, upon which the bell C is screwed. The cap *b* is directly over the center of the base, and is tubular. It affords bearings for a transverse rock-shaft, D, having at each end a knob, *c*, and is provided at its upper end with an extension, E, to which a preferably metallic flower-cup, F, is removably secured, preferably by means of a screw-joint. As aforesaid, the bell is screwed onto the lower end of this head, and the neck *d*, by means of which this is feasible, is hollow also, and opens at its lower end into the hollow of the bell. The stem of this latter is passed up through the neck *d*, and is screwed into the rock-shaft D, consequently when the latter is actuated the ball *e* of the hammer will strike the bell and summon an attendant. The stem *f* of the said hammer is flattened, as shown at *g*; the said plane surface being at right angles to the plane of its vibratory movement, so that it is sprung out toward the bell at each movement of the rock-shaft and as rapidly sprung therefrom, thereby producing a clear, accentuated sound or call. By imparting to the shaft aforesaid a rocking movement, a number of strokes will be produced, proportionate in rapidity to the speed of said movement. When the bell is not is use, the head depends vertically from the rock-shaft, and returns to this position immediately after each stroke without the use of a spring or other device for this purpose.

G represents a metallic bail, composed, preferably, of two branches, *i i′*, connected at their ends by cross-pieces *j*, which, for convenience, are of oval or spherical form. This bail is passed over the extension of the head and is rigidly secured to the rock-shaft at right angles thereto, and with its ends projecting equally at each side thereof, as shown in Fig. 1. By depressing either end of this bail the bell will be sounded. There are thus provided to the bell four handles, by any one of which it may be sounded, so that whatever be its position one of said handles is accessible without difficulty, and without touching or changing the position of the stand.

The glass or cup F aforesaid may be of glass or metal, and of any desired form; it will also be capable of holding a supply of water. Being removable, the water may be poured out when requisite without disturbing the bell-stand. The latter will be of any desired form or dimensions, and may be weighted, if desired.

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

1. The combination, with the bell C, having the tubular neck *d*, and the brackets B B′, having tubular head *b*, supporting said bell, of the rock-shaft D, journaled in the said head, and the hammer-stem *f*, extended through said neck and head and secured to said rock-shaft, substantially as specified.

2. The combination, with the bell C, the cap *b*, the rock-shaft journaled therein, and the bell secured to said rock-shaft, of the transverse bail G, having enlarged handle

ends *j*, and being at right angles to said shaft, substantially as specified.

3. The bracket for a call-bell provided with the extension E, in combination with a flower-cup, adapted to be removably secured to said extension out of the way of the operating parts of said bell, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FREDERICK RATCLIFF.

Witnesses:

E. A. MERRIMAN,

CHARLES RENTON.