

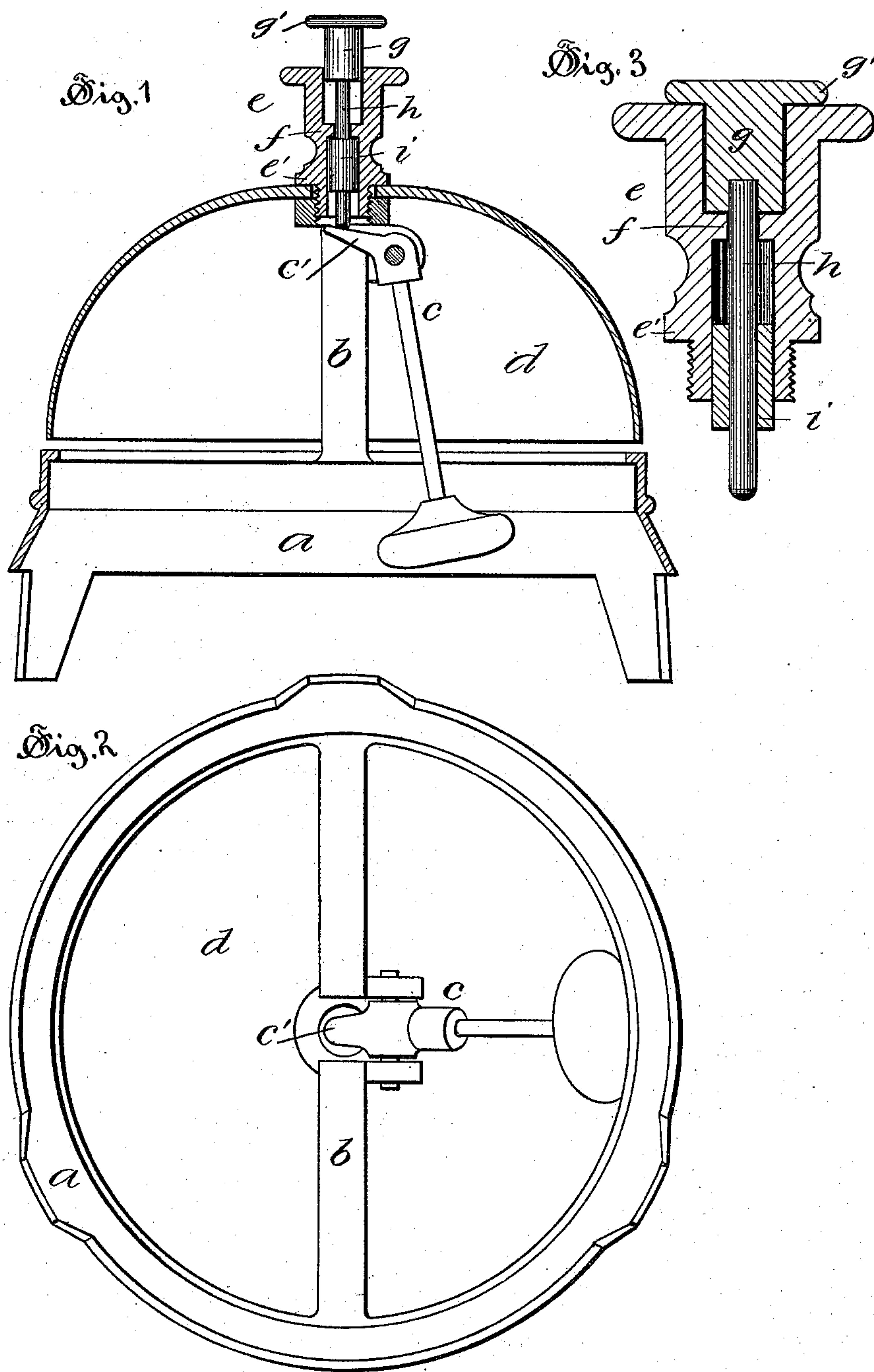
(No Model.)

J. P. CONNELL.

CALL BELL.

No. 385,166.

Patented June 26, 1888.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JOHN P. CONNELL, OF KENSINGTON, CONNECTICUT.

## CALL-BELL.

SPECIFICATION forming part of Letters Patent No. 385,166, dated June 26, 1888.

Application filed April 23, 1888. Serial No. 271,511. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN P. CONNELL, of Kensington, in the county of Hartford and State of Connecticut, have invented a certain  
5 new and useful Improvement pertaining to Call-Bells, of which the following is a description, reference being had to the accompanying drawings, wherein—

Figure 1 is a view in central vertical section  
10 of a call-bell embodying my said improvement. Fig. 2 is a bottom view of the same bell with the hammer lying against the sounding-shell. Fig. 3 is a detail view, on an enlarged scale, of the sleeve, piston, and rod specially mentioned  
15 in the claim.

The improvement consists in improved details of construction in a call-bell.

The letter *a* denotes the base of a call-bell, the same being an ornamental ring with proper  
20 feet.

The letter *b* denotes what I will term a "bridge," being a sort of arch between opposite sides of the base. The hammer *c* is pivotally hung in ears attached to the side of the  
25 bridge and has the tappet *c'*.

The letter *d* denotes the sounding-shell. It is secured upon the top of the bridge *b* by the shoulder *e'*, which is a part of the sleeve *e*, this last sleeve being furnished with a screw-thread  
30 at the lower end taking into a corresponding thread made in the top of the bridge *b*. The sleeve *e* is mortised centrally from the top down as far as the diaphragm *f*, and is centrally mortised from the bottom up as far as the other  
35 side of the diaphragm *f*.

The letter *g* denotes a piston fitting loosely in and having vertical play in the upper one of these mortises and having, as an appurtenant part, the finger-plate *g'*. The lower end  
40 of this piston *g* has a small hole bored therein, and the rod *h* is made fast to the piston *g* by being driven tightly into this hole just mentioned.

The letter *i* denotes a piston fitting loosely  
45 in and having vertical play in the mortise at the lower end of the sleeve *e*, and it is made fast upon the rod *h* by being driven tightly thereupon. Sufficient space is left between the pistons *g* and *i* to allow the rod *h* to properly  
50 co-operate with the tappet *c'*. When the parts are in the normal position of rest, the lower end of the rod *h* rests upon the top of the tappet

*c'*, and the weight of the hammer more than counterbalances the weight of this rod and the two pistons. By pushing down suddenly upon  
55 the finger-plate *g'* the hammer is thrown out against the sounding-shell, causing the bell to sound.

Heretofore call-bell push-pins or pistons have been used wherein the rod or pin is carried through the vertical sleeve on the sounding shell and lodges on the arm of the tappet. Other devices of the kind show push-pins with pistons formed of different diameters or shouldered, and one has a slotted push-pin  
65 and a pin let through the sleeve to engage the slot and limit the reciprocations of the push-pin. My improvements consist in forming the push-pin sleeve with comparatively large bores approaching from opposite ends of the  
70 sleeve, their bottoms forming a diaphragm or bridge between the bores, which diaphragm has a smaller aperture through it than the diameter of the bores, and a push-pin formed with upper and lower parts to fit the bores of  
75 the sleeve, said parts being arranged on or connected by a pin which fits the bore of the diaphragm, thereby giving to the push-pin reliable guiding means for substantially its whole  
80 length, and at the same time affording in the diaphragm a substantial double-abutting medium to resist the reciprocations of the push-pin in both directions. The rod or push-pin can thus be made stronger and heavier than  
85 heretofore, increasing its durability, stability, and balance.

I claim as my improvement—

In a call-bell, the combination, with a base to support the bell, a sounding-shell, and a hammer pivotally supported in the sounding-  
90 shell and provided with a tappet-arm, of a push-pin sleeve, *e*, formed with a diaphragm, *f*, having a central aperture, and the push-pin *h*, fitted to reciprocate through the aperture in the diaphragm, and provided with pistons  
95 *g h*, arranged with a space between their approaching ends, whereby the strokes of the push-pin are limited in both directions, substantially as described.

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Witnesses:

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