(No Model.)

P. C. OHL.

TELEPHONE CALL.

No. 280,948. Patented July 10, 1883.

Fig. 1.

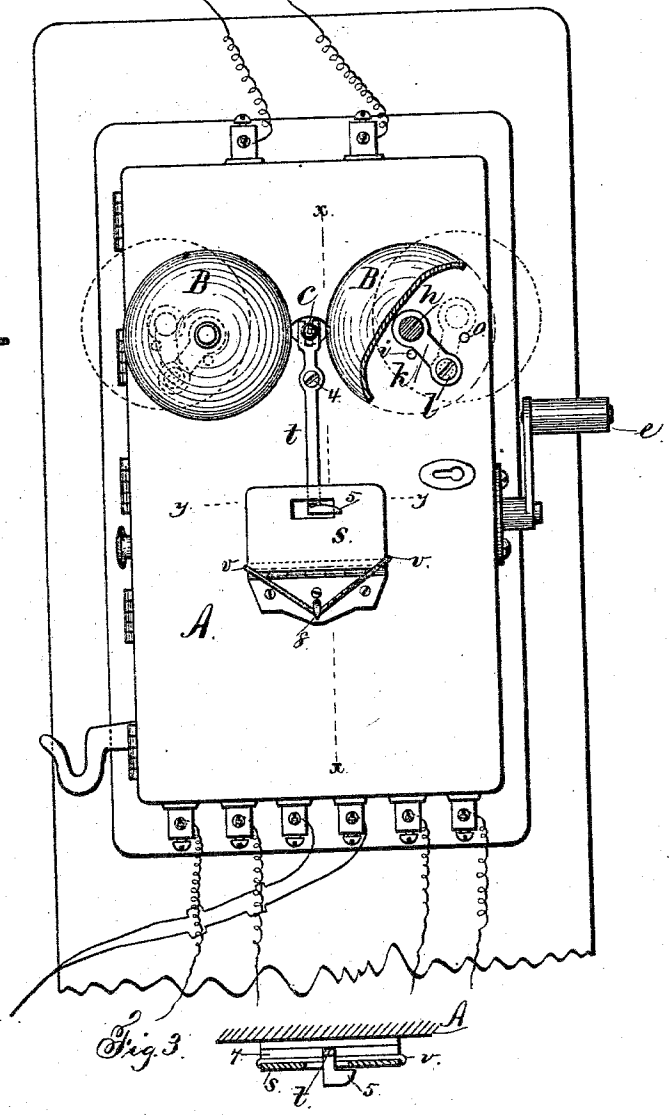


Fig. 2.

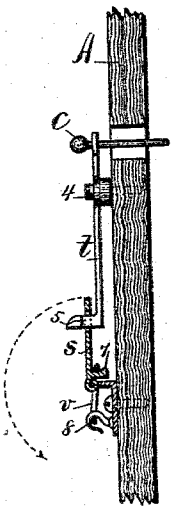
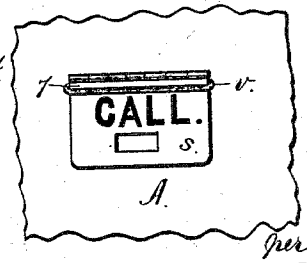


Fig. 3.

Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

PERCY C. OHL, OF PLAINFIELD, NEW JERSEY.

TELEPHONE-CALL.

SPECIFICATION forming part of Letters Patent No. 280,948, dated July 10, 1883.

Application filed October 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, PERCY C. OHL, of Plainfield, in the county of Union and State of New Jersey, have invented an Improvement in Telephone Call-Signals, of which the following is a specification.

Telephones are often placed in private houses and in offices where the party is frequently absent or out of hearing of the telephone-call, and when he returns he has no means of knowing that the call has been rung during his absence.

The first part of my invention relates to an indicator that is so combined with the bell call and hammer that the movement of the bell-hammer armature drops the indicator and denotes that there has been a call on the telephone. In private houses especially, the ringing of the call-bell is an annoyance to nervous or sick persons, and the noise is augmented and unnecessary in sending out a call.

The second feature of the present invention relates to the combination, with the call-bells, of swinging supports that allow the bells to be separated from the hammer, so that the hammer may vibrate freely without striking the bells. This allows the instrument to remain unaltered in its operative parts, and the bells to be silenced whenever considered advisable.

In the drawings, Figure 1 is an elevation of a telephone call-box with my improvements added thereto, one of the bells being in section. Fig. 2 is a vertical section at the line *x x*. Fig. 3 is a sectional plan at the line *y y*, and Fig. 4 represents the call-drop as hanging down.

The telephone call-box A, bells B B, and hammer C are of ordinary character, except as hereinafter described, and hence the same do not require further explanation.

When a call is sent out by turning the crank *e*, or when a call is received, the hammer C is vibrated between the bells B B and strikes them rapidly. The sound made is unnecessary where an attendant is at the instrument, because the vibrations of the hammer can be observed by the eye, and indicate the sending out or the answering of a call. To prevent the bells ringing, I mount each bell upon a stud, *h*, that is movable, so that the bells can be pushed apart to move them out of reach of the hammer. I prefer to place each stud *h* on a link, *k*, that is attached by a screw, *l*, and it swings between two limited stops, *i* and *o*, so that when swung into the position shown by full lines the bells are within reach of the hammer C, but when swung over to the position of the dotted lines the bells are out of reach of the hammer. These movements can be given to the bells by hand and instantly, as required.

Upon the face of the call-box there is an indicator operated by the armature that moves the hammer C, so that whenever the hammer is vibrated this indicator will fall and show that there has been a call on the telephone, and this indicator will remain visible until it is restored to its normal place by hand. The hammer C is upon a handle or stem extending to the armature of an electro-magnet, so that the hammer is operated by said armature. I provide an indicator, preferably in the form of a small flap, *s*, that is hinged at the bottom, and there is a lever, *t*, pivoted at 4, and provided at one end with a notch to receive the stem of the hammer or other connection to the armature, so that when the armature is vibrated the lever will be moved. There is a latch, 5, at the end of this lever, and it holds up the flap *s* by passing through a slot, as shown, or by catching over a projection; hence when the lever is vibrated the flap *s* will be liberated, and will fall and indicate that there has been a call on the telephone. I prefer to place on the back of the flap *s*, or on the surface of the box A, the word "Call," or some equivalent word, which is out of sight when the flap is turned up, but which is exhibited when the flap falls.

I employ a spring to throw down the flap. A rubber band, *v*, is preferable, as it can be passed over the flap and rest upon a ledge, 7, and be passed below the stud or pin 8, so as to draw the flap down the instant the same is liberated by the movement of the latch.

I claim as my invention—

1. In a telephone call-box, the combination, with the two bells and the vibrating hammer between them, of movable studs for supporting such bells and allowing them to be separated, substantially as set forth.

2. The combination, with the bells in a tele-

phone call-box, of movable studs supporting the bells, links for such studs, and stops to limit the movements, so that the bells can be removed from the hammer or the reverse, substantially as set forth.

3. The combination, with the magnets, hammer, and bells in a telephone call-box, of an indicator hinged to the box, and a lever pivoted at 4, and having a latch at one end, and connected at the other end with the hammer for moving the latch, substantially as set forth.

4. The combination, with the hammer in a telephone call-box, of a latch-lever moved by the hammer, an indicator held up by the latch, and an india-rubber spring passing over the ledge 7 and below the stud 8, to move the indicator when unlatched, substantially as set forth.

Signed by me this 14th day of October, A. D. 1882.

PERCY C. OHL.

Witnesses:
CHARLES W. RUNYON,
MARY M. LANE.