(No Model.)

J. H. McEVOY.

ELECTRIC BELL.

No. 513,593. Patented Jan. 30, 1894.

Fig 1.

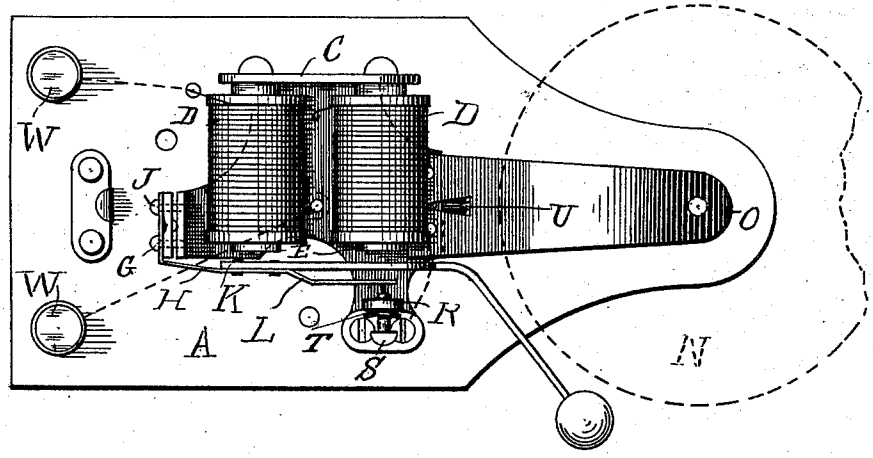


Fig 2.

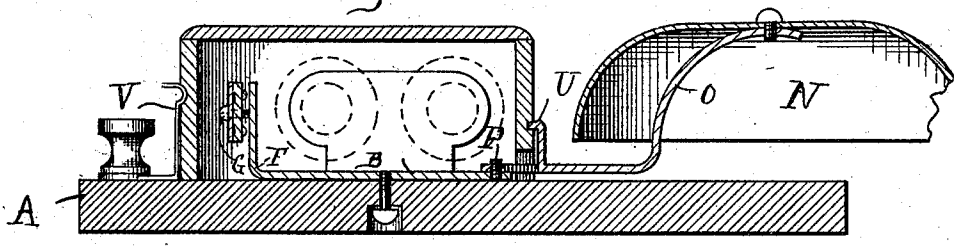


Fig 3

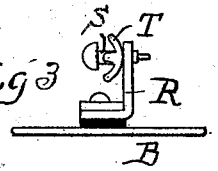
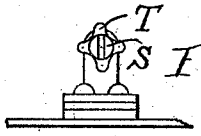


Fig. 4.



WITNESSES

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ELECTRIC BELL.

SPECIFICATION forming part of Letters Patent No. 513,593, dated January 30, 1894.

Application filed May 8, 1893. Serial No. 473,494. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. McEVOY, a citizen of the United States, residing at Waterbury, county of New Haven, State of Connecticut, have invented a new and useful Improvement in Electric Bells, of which the following is a specification.

My invention relates to electric bells, and has for its object to provide a cheap, simple and convenient bell, and one possessing a variety of subsidiary improvements and devices, as more fully hereinafter set out. It is illustrated in the accompanying drawings, wherein—

Figure 1 is a plan view of the bell with the cover and other parts removed. Fig. 2 is a cross section through the same with the cover in position. Figs. 3 and 4 are details of the adjusting screw.

Like parts are indicated by the same letters in all the figures.

A is the base of the bell, preferably wood, having thereon the frame B, preferably of iron, upturned at one end, C, to serve as a support for the magnet spools, D, D, which are secured thereon and project therefrom and expose their poles E, E at the opposite end.

F is an upturned portion of the frame B at the end.

G, G are screws which pass through the spring angle bar H and the rocker plate J, and through the upwardly turned end F of the base B. The angle bar H, carries the armature K, and is extended in the shape of a flat spring L. The armature is extended and carries the hammer M, opposed to the bell N. This bell is secured to the upwardly turned part, O, which is itself secured by the screws P, P, to the base plate B.

R is an upwardly turned part insulated from, but secured on the base B. Through it passes the set screw S, which carries the star shaped locking nut T.

U is a rigid pointed piece to engage the notch in cover. It preferably rises, being stamped from the bell supporting piece, O.

V is a spring locking bar, adapted to engage a notch in the other end of the top or cover.

W, W, are the binding posts by which the current is led into the magnet in the usual manner.

These parts are capable of considerable variation as to the size, proportion and relation, and some of them may be omitted without materially affecting the operation of the remaining parts, and I do not, therefore, wish to limit myself to the specific parts here shown and described, but reserve the right to use some of my improvements in connection with other devices.

The use and operation of my invention are as follows: I will not dwell upon the ordinary operation of a bell of this class, since this is too well understood to require elaboration here. I will only treat of those portions of the bell which are of my especial invention. The cover, top or box is secured in position by the rigid notched piece in front and the spring shaped notched bar in the rear. The front end is inserted into position against the rigid notched portion and the rear part is then brought down, the spring part sliding along the same until it engages the notch on the case or cover. Thus the box is easily and continuously held in position. The bell or gong is removably held, since by loosening the screws P, P, the whole may be removed and a buzzer, or other such construction, preferably having an upturned, rigid, notched portion like the part U, may be secured in position. The position of the armature or end of the bell hammer for varying currents, may be easily adjusted by varying the positions of the screws G, G, or one of them, whereby the rocker plate J, is rocked upon its central portion, which alone bears against the part F, and by this being rocked, clearly the armature and bell hammer will vary in their positions. The adjusting screw may be brought to any desired position against the spring L, and may then be easily locked in such position by bringing the star wheel lock nut which is upon the set screw up against the support, and then giving the screw a slight turn, thus setting it rigidly in position, and the screw so locked in position does not loosen by the vibrations of the bell. The star

wheel, since these parts are small and somewhat delicate and not easily gotten at, makes the adjustment of the screw much easier, and its fixing in position much more certain.

The device which in this specification is designated as a "rocker plate" may be described as a plate having a central rib with a surface against which such rib rests, the plate and opposed surface being so shaped as that the rocker plate may move upon its rib, or rocker, or the equivalent thereof.

I claim as my invention the following:

1. In an electric bell, the combination of a frame and hammer operating mechanism, with an arm removably secured by screws to the base, and a bell adapted to be secured to such arm, said arm carrying a rigid, notched piece to engage and secure one end of the box or cover.

2. In an electric bell, the combination of a base plate with magnets mounted thereon, and a hammer and armature and a ribbed rocker plate secured to the armature, and provided with securing screws whereby the armature and bell hammer are adjustably supported.

3. In an electric bell, the combination of a base plate with magnets mounted thereon, and a hammer and armature and a rocker plate secured to the armature and provided with securing screws whereby the armature and bell hammer are adjustably supported, said securing screws on opposite sides of that portion of the rocker plate which engages the support, so that by operating them, the rocker plate may be tilted, and thus the position of the bell hammer be changed.

4. In an electric bell, a hammer and armature in combination with a ridged rocker plate secured thereto; a support and means for securing such rocker plate on the support, so that the rocker plate may be rocked on its ridge, and secured in position to adjust the position of the armature and bell hammer.

JOSEPH H. McEVOY.

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