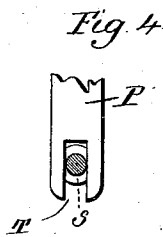
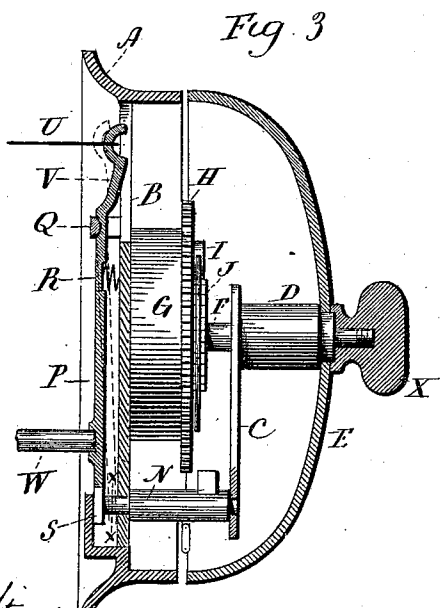
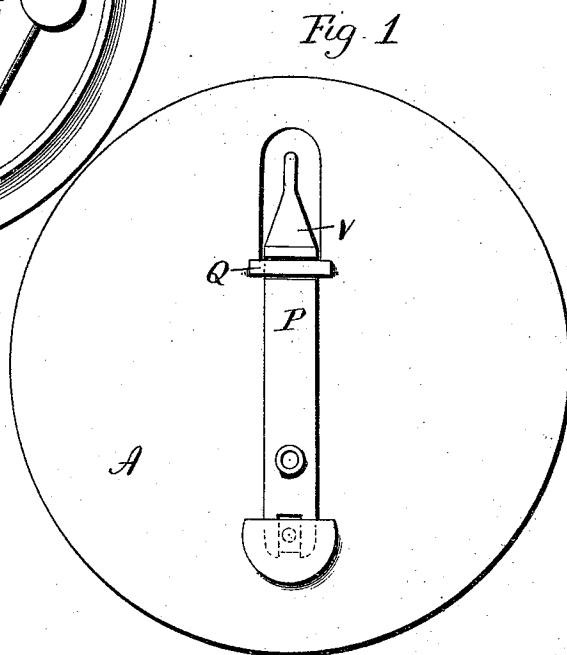
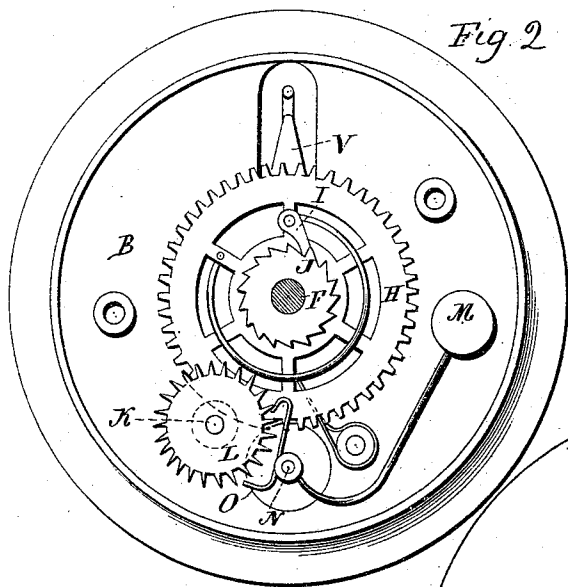


(No Model.)

A. A. PAGE & W. E. SPARKS.  
BELL.

No. 493,042.

Patented Mar. 7, 1893.



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# UNITED STATES PATENT OFFICE.

ALBERT A. PAGE AND WILLIAM E. SPARKS, OF NEW HAVEN, CONNECTICUT,  
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## BELL.

SPECIFICATION forming part of Letters Patent No. 493,042, dated March 7, 1893.

Application filed June 20, 1892. Serial No. 437,343. (No model.)

*To all whom it may concern:*

Be it known that we, ALBERT A. PAGE and WILLIAM E. SPARKS, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Bells; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view of the bell from the rear showing the operating lever. Fig. 2, a top or front view with the bell and upper plate C, removed showing the operative mechanism. Fig. 3, a vertical central section showing parts in side view. Fig. 4, a transverse section cutting on line  $x-x$  of Fig. 3 looking down upon the lever.

This invention relates to an improvement in that class of bells adapted for door and similar purposes, and in which a clock work with a main spring is employed as a means for operating the hammer, the mechanism being normally locked so as to prevent its operation upon the hammer, but released by a push or pull applied to the locking device, so that upon such push or pull the mechanism will operate to strike the bell until such push or pull ceases, then the stopping of the operation of the mechanism will be automatic, the object of the invention being a simple locking device, certain in its action, and not liable to disarrangement, and the invention consists in the construction as hereinafter described and particularly recited in the claim.

A, represents the base by which the bell is held or secured in any desired position. Within the base is one plate B, of the clock-work.

C, represents the second plate of the clock-work, which is supported upon the plate B, by the usual pillars. On the plate C, the center-post D, is arranged or formed, and upon the outer end of the post the bell E, is secured, in the usual manner, the bell being preferably of a size corresponding to the base, so that the bell with the base forms an inclosure for the clock-work. The operating mechanism is arranged between the plates B and C, in the usual manner, and consists of a center-

arbor F, which is supported in the plates, but extends outward through the post D, and terminates outside the bell in any convenient handle by which the arbor may be rotated. The spring G, is arranged in the usual manner around the center-arbor F, the outer end of the spring being attached to a stationary point, while the inner end is attached to the arbor, and so that by the rotation of the arbor in one direction the spring will be wound, and then when free, the reaction of the spring will cause the rotation of the arbor in the opposite direction. On the arbor the main gear-wheel H, is arranged, in the usual manner, with a spring-pawl connection I, which engages a ratchet-wheel J, on the center-arbor F, all in the usual manner. The main-wheel H, works directly or indirectly into an arbor K, which carries an escapement-wheel L. The hammer M, is attached to an arbor N, and the shaft N, carries a verge O, adapted to work into the escapement-wheel L, and so that under the revolution of the escapement-wheel L, a vibratory movement will be imparted to the hammer, in the usual manner, and so that when free, the reaction of the spring will cause the escapement wheel to revolve, and the hammer to vibrate, the hammer being adapted to strike the bell, all in the usual manner.

As a means for locking and releasing the mechanism, a lever P, is hung upon a fulcrum Q, upon the rear or under side of the plate B, and so as to swing in a plane parallel with the axis of the arbors of the clock-work, and a suitable spring R, is arranged, the tendency of which is to force the lever P, outward, or away from the plate B, and yieldingly hold it in such position. The pallet-arbor N, extends through the plate B, and near its outer end is constructed or provided with a collar S, which is flattened upon its two sides, as seen in Fig. 4. The lever P, extends toward the projecting end of the arbor N, and is constructed with a slot T, which in width corresponds to the narrower width or diameter of the collar S, and so that under the action of the spring R, the lever P, will normally stand engaged with the collar S, as seen in Figs. 1, 3 and 4, and because of the fitting of the narrow or angular collar S, into the correspond-

ing slot T, of the lever P, the hammer-arbor is held against rotation, and thereby the mechanism locked to prevent its operation, but when the lever P, is turned upon its fulcrum, 5 as indicated in broken lines Fig. 3, so as to throw the lever out of engagement with the arbor N, then the mechanism is released, and free for operation under the reaction of the spring. The operation of the lever may be 10 made by means of a pull from a distant point, through a wire U, attached to a tail V of the lever P, the pull upon which will impart the disengaging movement to the lever, and so soon as the pull is released, the reaction of the 15 lever spring will throw the lever again into engagement with the collar S, and lock the mechanism, and so hold it stationary or in suspense until again released.

The releasing device may be by means of a 20 push spindle W, applied to the lever, as seen in Fig. 3, and so that a pull will force the lever to its disengaging position.

The spring is wound by means of a handle X, applied to the outer end of the center-arbor, 25 but the winding mechanism may be any of the known devices whereby the required rotary movement may be given to the spring-arbor to produce the winding. The lever while outside the plate B, is brought within the base A, 30 so that when the base is secured, the lever will be free for operation, as clearly seen in Fig. 3. While it is preferred to attach the collar to or form it upon the hammer arbor, it will be evident that it may be applied to any other arbor 35 of the mechanism between the center and hammer arbors, and it will be also evident that the shape of the collar is immaterial ex-

cept that it be angular, and so as to be embraced by a corresponding slot or recess in the lever. 40

From the foregoing it will be understood that we do not claim broadly a bell provided with a clock mechanism to produce the operation of the hammer through an escapement-wheel and a pallet on the hammer-shaft, nor 45 do we claim broadly the combination of such mechanism with a locking device whereby the the said mechanism may be held in suspense and released by a push or pull applied to the locking mechanism, but 50

What we do claim as our invention is—

The combination of a base carrying a bell, a clock-work composed of a main-spring and mechanism for imparting vibration to the hammer-arbor, an arbor of the said mechanism 55 constructed with an angular shaped collar, a lever arranged to swing in a plane parallel with the axis of said arbor, and constructed with a slot corresponding to said angular collar, a spring the tendency of which is to throw 60 the said slotted lever into engagement with the said collar of the shaft and yieldingly hold it in such connection, the lever being adapted to be turned upon its fulcrum out of engagement with said arbor, substantially as 65 and for the purpose described.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

ALBERT A. PAGE.  
WILLIAM E. SPARKS.

Witnesses:

WILLIAM S. COOKE,  
CHAS. L. BALDWIN.