

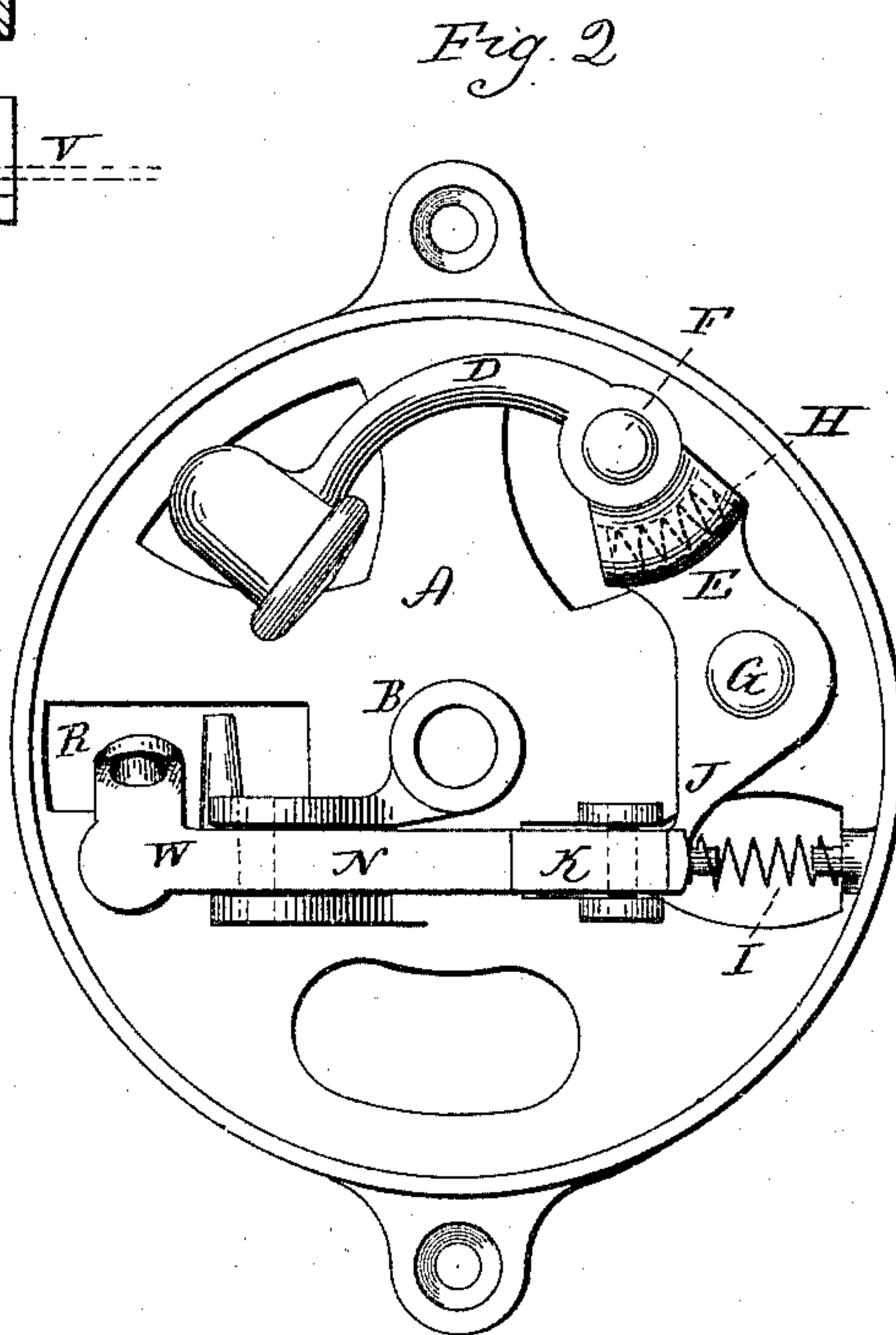
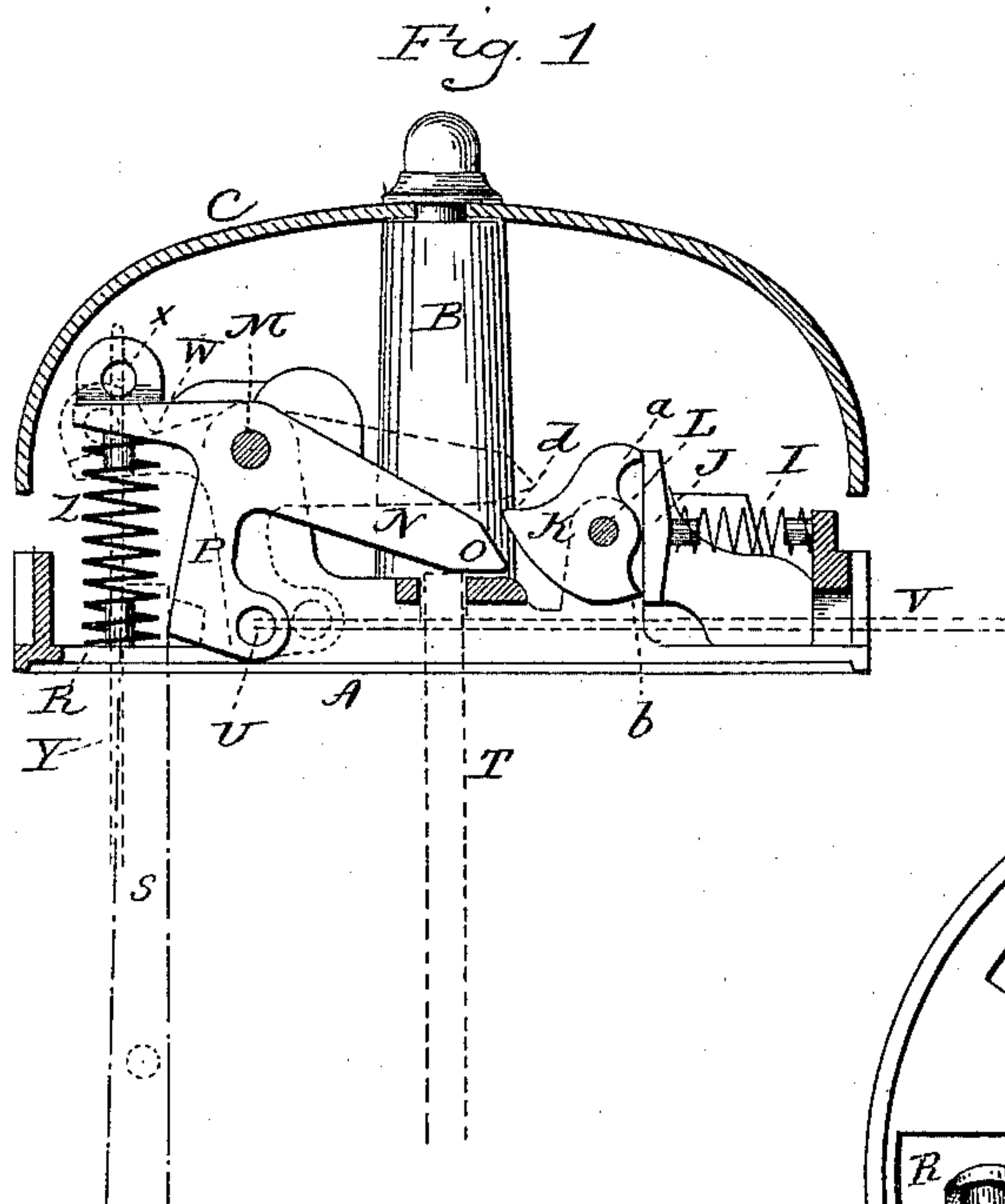
(No Model.)

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GONG BELL.

No. 398,285.

Patented Feb. 19, 1889.



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# UNITED STATES PATENT OFFICE.

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## GONG-BELL.

SPECIFICATION forming part of Letters Patent No. 398,285, dated February 19, 1889.

Application filed December 24, 1888. Serial No. 294,525. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM E. SPARKS and HENRY J. LANDOLT, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Gong-Bells; and we 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 central section; Fig. 2, a face view with the bell removed.

This invention relates to an improvement in that class of bells which are adapted for use as door-bell or calls from distant points. These bells usually consist of a base carrying the operative mechanism and with a central post on which the bell is arranged, so that the bell serves also as a cover for the mechanism. In some cases these bells are applied directly to the door and operate by a lever upon the outside. In other cases, the bell being applied in the same way, the operative device is a push. In other cases the bell is arranged at a distance from the point from which the signal is given, and communication with the mechanism of the bell made by wires. Each mechanism therefore requires a specific construction, according to the means by which the mechanism is to be operated. In the case of the pull from wire-connections, sometimes the connection must be made in the plane of the bell, and at other times at right angles thereto. These two arrangements also necessitate different constructions of mechanism, so that under the same general construction one mechanism is required for a lever action, a second for a push action, a third when the wire runs from the bell in a plane parallel therewith, and a fourth when the wire runs at right angles to the plane of the bell.

The object of our invention is to construct a bell in which the mechanism shall be adapted for either of the four mentioned operations; and the invention consists in the construction as hereinafter described, and particularly recited in the claim.

A represents the base, which is of usual form and adapted to be secured in a permanent or fixed position.

B represents the post arranged centrally on the plate and projecting at right angles therefrom; C, the bell secured to the outer end of the post, and so that the bell with the plate forms a chamber within which the mechanism may be arranged—that is to say, the mechanism being arranged upon the base-plate the bell serves as a cover therefor.

D represents the hammer-lever, which is pivoted to an arm, E, as at F, the said arm E being in its turn pivoted to the base-plate, as at G, and so as to swing in a plane parallel with the plate. The hammer-lever is hung to the arm E, and so that as the arm E is turned to take the hammer from the bell the hammer will move with it. The hammer, however, is free to turn in the opposite direction, but is held in its normal position by a spring, H, arranged between the arm E and a projection from the hub of the hammer-lever.

I represents a spring, which bears against an arm, J, projecting from the hub of the arm E, the tendency of which is to hold the arm E and the hammer it carries in the normal position, but so as to yield under a force applied to the arm J to permit the hammer to turn upon the pivot G preparatory to striking. Then, as the power which operates the arm J escapes, the hammer returns under the action of the spring I, and the momentum thus imparted to the hammer will cause it to fly against the bell, the spring H yielding for this purpose, but immediately retracting the hammer after the blow is imparted. This mechanism is well known and does not constitute an essential feature of the present invention.

K represents the dog through which the hammer is operated. It is hung upon a pivot, L, so as to swing in a vertical plane and work against the end of the arm J. It is constructed with a nose, *a*, above its pivot, and a like nose, *b*, below, so that as the dog is turned in one direction one nose will operate against the arm J, or, turned in the other direction, the other nose will operate in like manner. This



dog has a projection, *d*, from its hub opposite the arm J, and through which a rocking movement may be imparted to the dog K.

The operating-lever is hung upon a pivot, 5 M, on the base, but so as to swing in a vertical plane. One of its arms, N, extends toward the dog K and terminates in a cam-shaped end O, and so that in swinging up and down, as indicated in broken lines, Fig. 1, it will 10 strike the projection *d* of the dog K in both the up and down movements, and will therefore rock the dog K according to such up or down movement, and then as the lever N escapes from the dog the spring I will return 15 the dog to its normal position.

The operating-lever is constructed with an arm, P, projecting from its hub at substantially right angles to the arm N. Through the base is an opening, R, through which the 20 arm P may be reached. This arm P is adapted to be operated upon by a swinging lever, S, as indicated in broken lines, Fig. 1. This lever is for the purpose of operating the bell when the bell is fixed upon one side of the door, the 25 lever extending through the door in the usual manner, and hung therein so as to receive a vibratory movement from the outside of the door, which vibratory movement will, through the arm P, impart a swinging movement to 30 the arm N, which will cause the operation of the hammer.

In some cases a push from the outside of the door is preferred to a swinging lever. In such case the push-spindle T is introduced 35 through the door and passes through an opening in the base, so as to reach the lever *m*, as indicated in broken lines, Fig. 1, and so that the spindle, being pushed inward, will impart corresponding movement to the arm N.

40 To adapt the bell for a pull from a wire in a plane parallel with the base, the arm P is constructed with an eye, U, and so that the wire V may be connected therewith and led to a distant point, and so that a pull upon 45 this wire will impart the operative movement to the arm N.

In case of a required wire-connection at

right angles to the plane of the base the operating-lever is constructed with a third arm, W, provided with an eye, X, and so that a 50 wire, Y, runs through the opening R in the base, and is connected to the arm W, and so that a pull thereon will impart the requisite movement to the operating-lever.

The operating-lever is provided with a 55 spring, Z, the tendency of which is to hold the lever in its normal position, as seen in Fig. 1, but which will yield under the application of power to the lever. The mechanism between the operating-lever and the ham- 60 mer, and whereby the movement of the operating-lever imparts its movement to the hammer, may be of any of the numerous mechanisms for this purpose, too well known in the art to require illustration, and such 65 mechanism between the lever and the hammer constitutes no part of my invention, further than that the presence of some mechanism is essential. By this construction of the operating-lever the bell becomes practically 70 four distinct constructions in one—that is, the bell is adapted for either of the four operations, which otherwise would require four independent bells.

We claim—

75 The combination of a base, a bell supported thereon, open side toward the base, an operating-lever hung upon the base and so as to swing in a plane at right angles thereto, the said operating-lever consisting of three arms, 80 N P W, each of said arms being adapted to be engaged with mechanism for imparting the swinging movement to said lever, and a hammer mechanism between the hammer and said operating-lever, substantially as described, 85 and whereby the swinging movement of the lever will impart a corresponding swinging movement to the hammer.

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