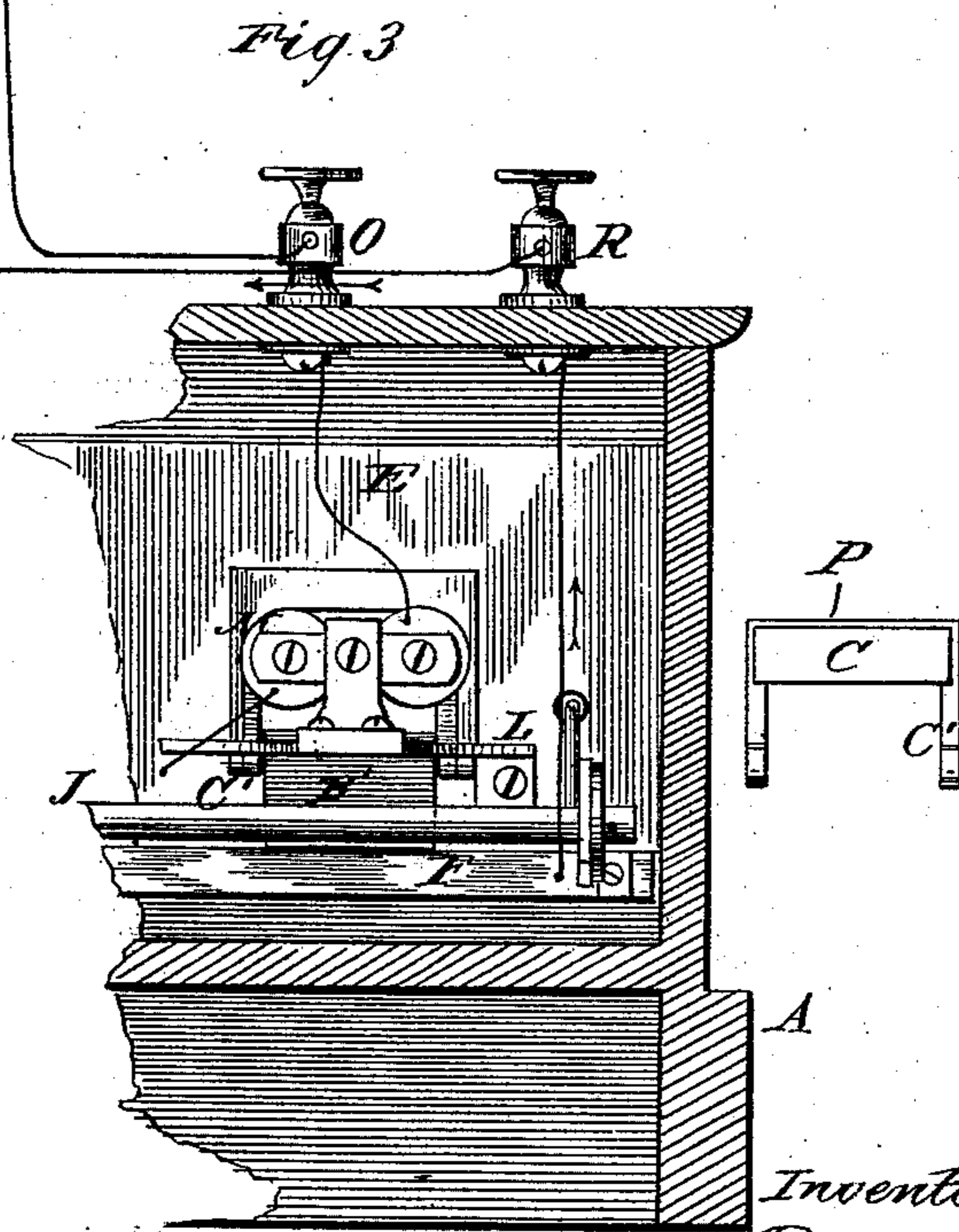
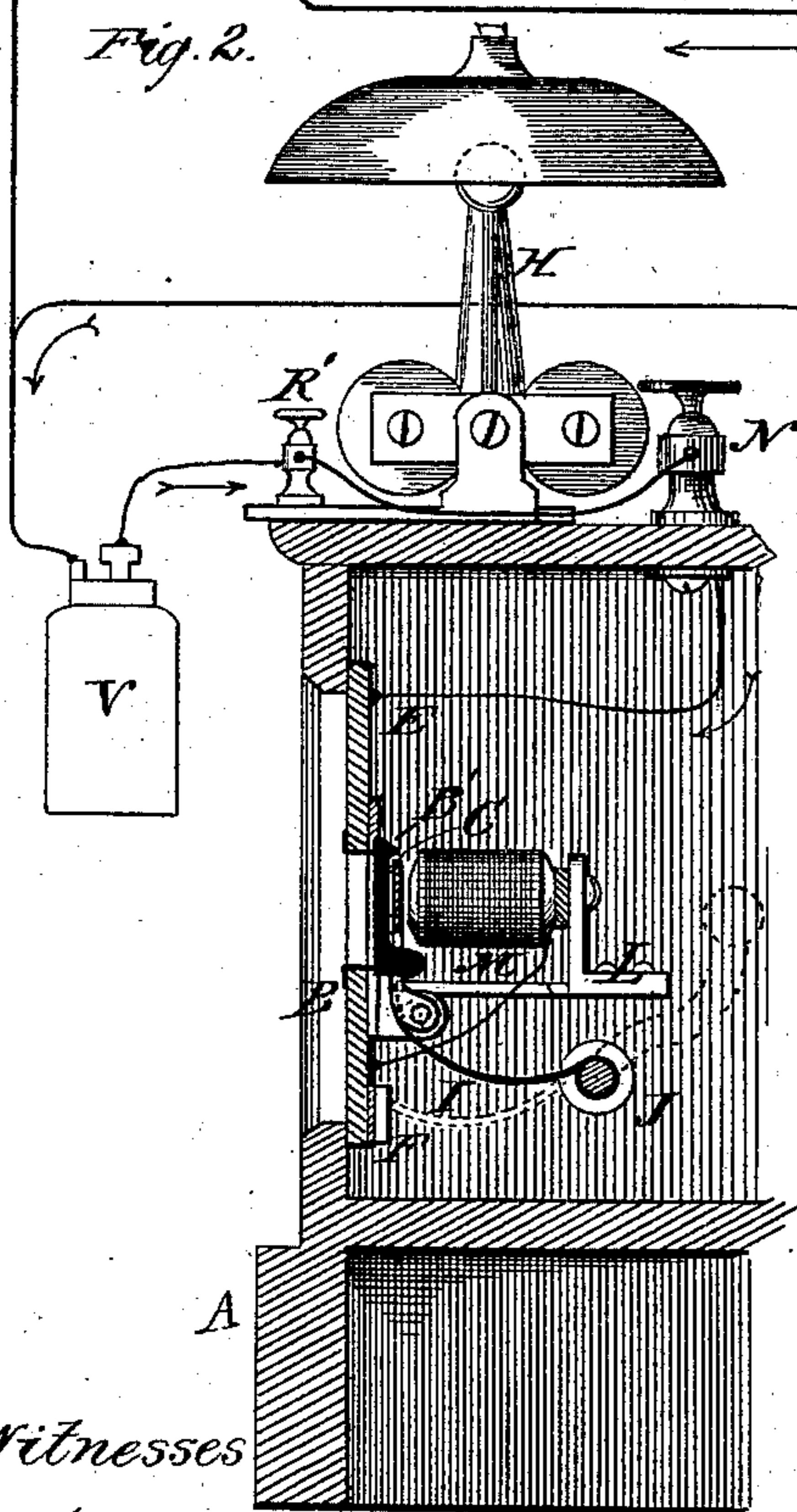
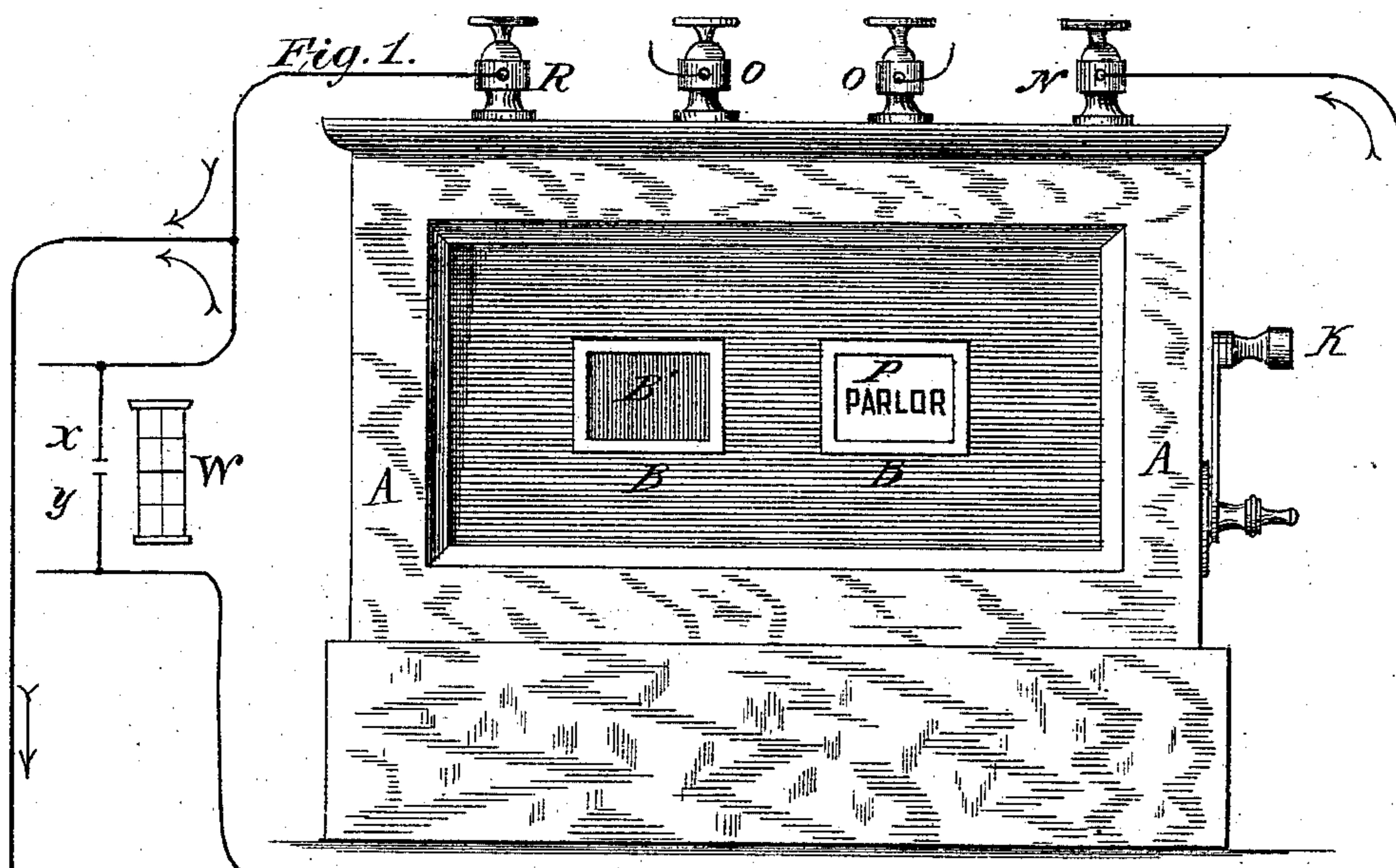


A. BOSCH.  
Electro-Magnetic Annunciator.

No. 225,099.

Patented Mar. 2, 1880.



Witnesses

Henry E. Raeder  
William Short

Inventor

Adam Bosch  
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att'y

# UNITED STATES PATENT OFFICE.

ADAM BOSCH, OF NEWARK, NEW JERSEY.

## ELECTRO-MAGNETIC ANNUNCIATOR.

SPECIFICATION forming part of Letters Patent No. 225,099, dated March 2, 1880.

Application filed January 23, 1878.

*To all whom it may concern:*

Be it known that I, ADAM BOSCH, of the city of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Electric Burglar-Alarm Indicators, whereof the following is a specification.

My invention comprises a suitable case, the front of which is the main or face plate, to which the various parts of the apparatus are attached. Such plate has apertures, closed by sliding shields, adapted to be engaged and disengaged from an armature placed between the shields and a magnet, and on which armature is a name-plate, seen through the aperture when the latter is not covered by the shields. Such shields, on being disengaged by attraction of the magnet, fall on a bar connected with another circuit communicating independently with the battery and with an alarm-bell. The slides or shields are restored to their place behind the apertures by a rocking shaft having arms reaching to and taking under the slides, and provided with a handle on the outside of the case.

Referring to the drawings hereto annexed, Figure 1 is a front elevation of the case. Fig. 2 is a vertical section. Fig. 3 is a reverse view of part of Fig. 1.

A represents a case or cabinet, in the front of which are apertures B, formed in a plate of metal, E, constituting the front of said case, and to which plate the interior works are made fast. It is removably attached to the cabinet A, so as to admit of being taken out, and with it the works, for repairs, &c.

Immediately behind each aperture is a sliding drop or shield, B', adapted for closing the aperture B, and such shield has small hooks or projections, that engage with the armature C of a magnet or magnets, M.

Each armature is made fast to a frame, C', part of which is a plate, P, containing the name of some place or some room in the house, the doors, windows, or other openings of which are connected by wires with the electric burglar-alarm in the usual manner, and which name can be seen and read through its aperture when the latter is not closed by a shield.

The upright portions of the frame C' are pivoted at their extremities to lugs project-

ing from the plate E, and have a tendency to fall toward the latter, and so hold the shield B' in contact with said plate, which is in electrical connection with the usual battery, and with the magnets M, Figs. 2 and 3. These magnets have conducting-wires leading to binding-posts O O, from which start the branch wires, or those that connect with such openings in the house as are to be indicated by a particular drop or shield.

H is an ordinary magnetic alarm-bell placed somewhere in circuit—in this instance between the battery V and the binding-post N, to which post the wires lead from the battery.

F is a metallic bar arranged beneath the drop-slides B', parallel therewith, and is attached to, but insulated from, the main plate E, and said bar F has a connecting-wire to the binding-post R, from which starts the main wire, that leads to all windows, doors, and other places in the house desired to be protected, and also to the battery.

When a window, W, is opened and the circuit is closed by bringing *x* and *y* together, the current starts from the battery V, through the alarm-bell H, by its binding-posts R', to post N, to plate E, Fig. 2; from thence through magnets M, Fig. 3, to post O, through *x y*, and back to battery. At the same time the charging of the magnets M attracts the armature C, tilting the frame C', releasing the drop-slide B', which falls and reveals the name on the plate behind it. If, now, the circuit be broken, as by closing the window W, the bell will cease to ring. To prevent this the drop B', by falling on the insulated bar F, opens a shorter and independent circuit, that omits *x y*, flowing instead from E, through B', Fig. 3, and bar F, to R, to battery, and the bell will not cease to ring until the short circuit is broken, as by lifting the sliding drops or shields from the bar F and restoring them to their place behind the openings B. For so restoring the shields B' there is a rod, J, that may be rocked on its axis, to which are affixed arms I, that reach to and take under the shields, and by which they may be lifted and engaged with the armatures C, as indicated in Fig. 2. The rod is turned by a handle, K, on the outside of the case A.

The magnets M are sustained on brackets

L, affixed to the main plate E. The arrangement and combination of the several parts with and upon the plate E simplifies the instrument, reduces the liability to derangement, and facilitates both manufacturing and repairing.

In the above invention I do not confine myself to the precise circuit shown, as others may be arranged to accomplish the same result, by the same devices, in substantially the same way.

I claim as my invention—

1. The arrangement and combination of magnet or magnets, armature, and frame containing the name-plate with and upon brack-

ets affixed to the main plate E, substantially as and for the purposes set forth.

2. The combination of one or more sliding drop-shields with the main plate E, and with a bar arranged beneath the slides or shields and insulated from the main plate, such bar communicating with an alarm, as set forth.

3. The combination, with the sliding shield or drop, of an armature provided with a sign that is discovered and revealed on the drop-ping or movement of the shield or drop.

ADAM BOSCH.

Witnesses:

EARLE H. SMITH,  
H. W. FULLER.