W. H. RODGERS.

Electric Letter-Box.

No. 214,007. Patented April 8, 1879.

Fig 1.

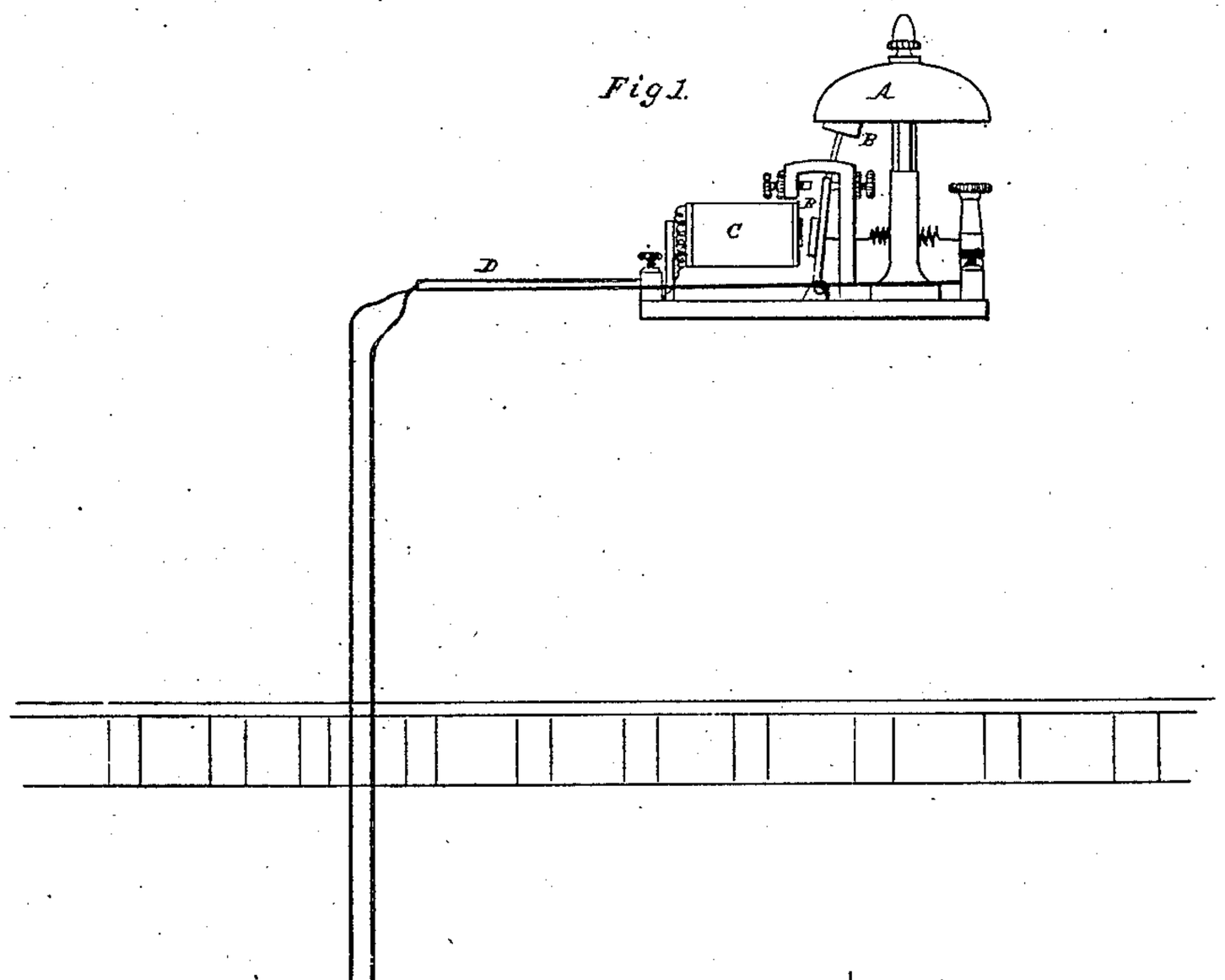


Fig. 2.

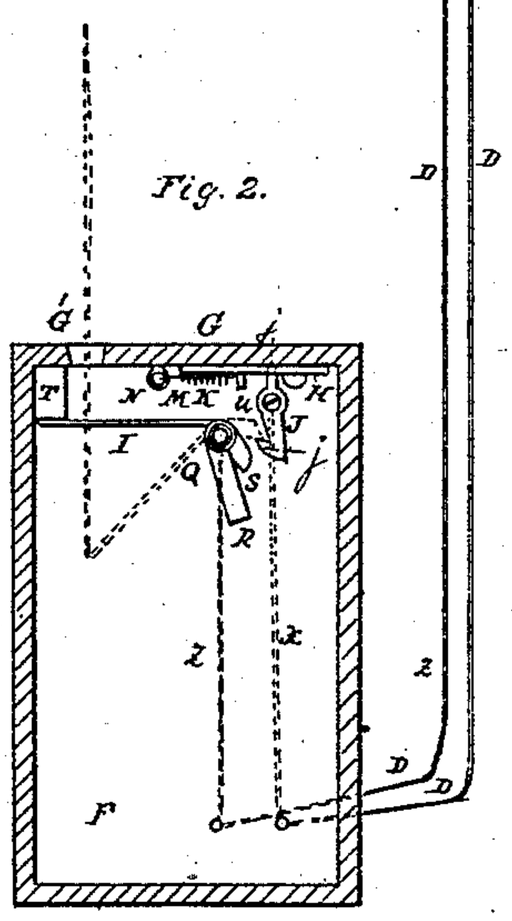


Fig. 3.

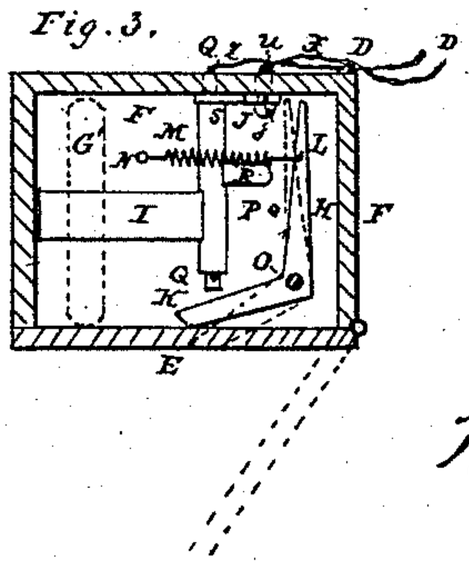
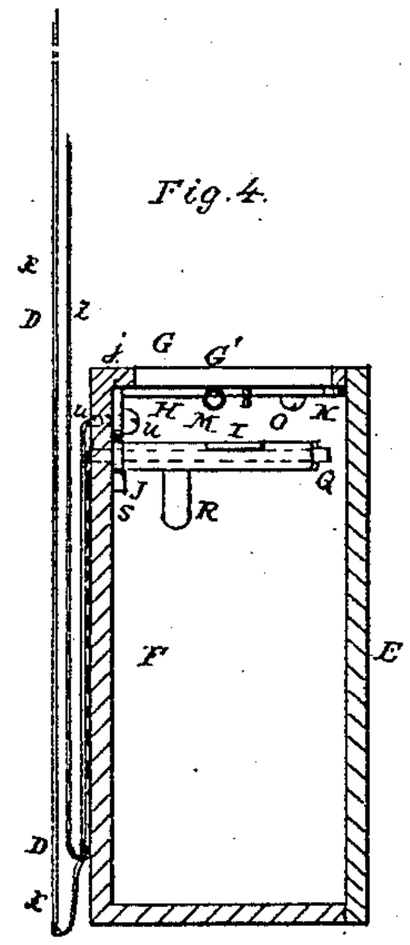


Fig. 4.



Witnesses.

W. H. Brown

Kurt Rodgers Jr.

Inventor.

William H. Rodgers

UNITED STATES PATENT OFFICE.

WILLIAM H. RODGERS, OF BROOKLYN, ASSIGNOR TO McLAUGHLIN BROTHERS, OF NEW YORK, N. Y.

IMPROVEMENT IN ELECTRIC LETTER-BOXES.

Specification forming part of Letters Patent No. **214,007**, dated April 8, 1879; application filed July 31, 1878.

To all whom it may concern:

Be it known that I, WILLIAM H. RODGERS, of the city of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Letter-Boxes, of which the following is a specification:

The invention herein relates to the combination of the letter-box with an electric bell or annunciator, for the purpose of announcing to the letter owner or receiver the deposit of the letter in the box at the time of deposition in an automatic manner.

To enable others skilled in the art to make and use my invention, I will proceed to describe one of the methods in which I carry out my invention.

In the annexed drawings, in which similar letters of reference indicate like parts, Figure 1 represents an electric annunciator, which is connected with a battery in any suitable way, and is located at the place or room or office at which the annunciation is desired. Fig. 2 represents a vertical cross-section of the letter-box, which is connected by proper conducting-wires with the aforesaid annunciator, and is situated at the door of the building or the desired suitable place convenient for the letter-carrier to deposit or drop the letters relatively. Fig. 3 is a top view of the same, the top shown removed to exhibit the working parts under it. Fig. 4 is a vertical section of the same, the section taken in line with and through the letter-slot of it.

In the annunciator, A represents the bell; B, the hammer and armature; C, the helices, and D the conducting-wires. Said annunciator may be of any known and suitable construction adaptable for the purpose.

In the letter-box, E represents the door, and F the body, of the box, and in its top G is the letter-slot G′, through which the letters are inserted into the box, and the several operating parts which cause the annunciator to work or ring are located under the top of the box in its top part, and consist in a horizontally-located spring-lever, H, and a balance-flap, I, and a vertical pawl or hook, J, acting between said lever and flap. Said lever H is bent, and has two arms, K and L, of which the arm K is pressed against the door E by the employment of the spring M, which is attached on the arm L with one end, and attached to the top of the box by means of a screw or eye, N, on its opposite end. The pivot O of said lever is secured in the top of the box, which has also a stop-pin, P, projecting from it to stop the lever from turning unduly. The flap I turns upon the stud Q, which is secured in the back of the box, and said flap extends across the letter-slot G′. To the hub of the same is attached a balance arm or weight, R, and also a short arm or stop-finger, S, opposite the hook J, so as to counterbalance the flap I, so that said flap is lightly pressed up toward the letter-slot, but may be readily depressed by the insertion of a letter or card, in consequence of which said flap is turned out of the way to pass the letter into the box. A small stop-block, T, is employed to come in contact with the extreme end of the flap and prevent it from rising above level position. The hook J is suspended on the fulcrum-stud U, which latter is also secured in the back of the box; and the top end of said hook J is made with a small upward-projecting tail, *j*, which is operated by contact with the extreme end of the arm L of the lever H, and the bottom end of said hook engages the stop or finger S of the flap as soon as the same is caused to turn from under by the insertion of a letter. The stud U of said hook is connected with the positive or one of the poles of the battery and with the annunciator aforesaid by the wire *x*, and the stud Q of the flap with the negative or opposite pole by the wire Z, so that by contact of said hook with said finger the electric current is closed, and by their separation said current is broken, so that as soon as a letter is deposited and inserted through the slot G′ in the box the flap I is turned down, as shown in dotted line in Fig. 2. Its finger S is thereby raised, and in consequence the hook J is, by its weight, allowed to pass with its hook end under the finger S, and the electric current thereby closed, and the annunciator is caused to ring; but as soon as the box is opened the arm K is allowed to turn outward, as shown in dotted line in Fig. 3, and the arm L of the lever H presses the tail *j* and causes the hook to turn off from engagement of its

bottom end with the finger of the flap, thereby allowing the flap to turn up for a succeeding operation, and breaking the current and stopping the annunciator to ring.

From the above it is seen that the annunciation of the deposition of the letter is entirely automatic.

Instead of a single box several boxes or a series of compartments in one may be employed with one single or with several annunciators, as it may be most convenient for the specific use of the invention.

The contrivance for breaking and closing the electric current between the annunciator and box by the insertion of the letter and by the opening of the door of the box automatically may be varied and substituted and modified.

What I claim as my invention, and desire to secure by Letters Patent, is—

The letter-box provided with the flap I, with its finger S, the hook J, and spring-lever H, the slot G′, and door E, in combination with the annunciator arranged to operate automatically in manner and for the purpose substantially as herein described and shown.

In witness whereof I hereunto set my hand this 26th day of July, 1878.

WILLIAM H. RODGERS.

In presence of—

WM. BROWN,

WM. H. RODGERS, Jr.