

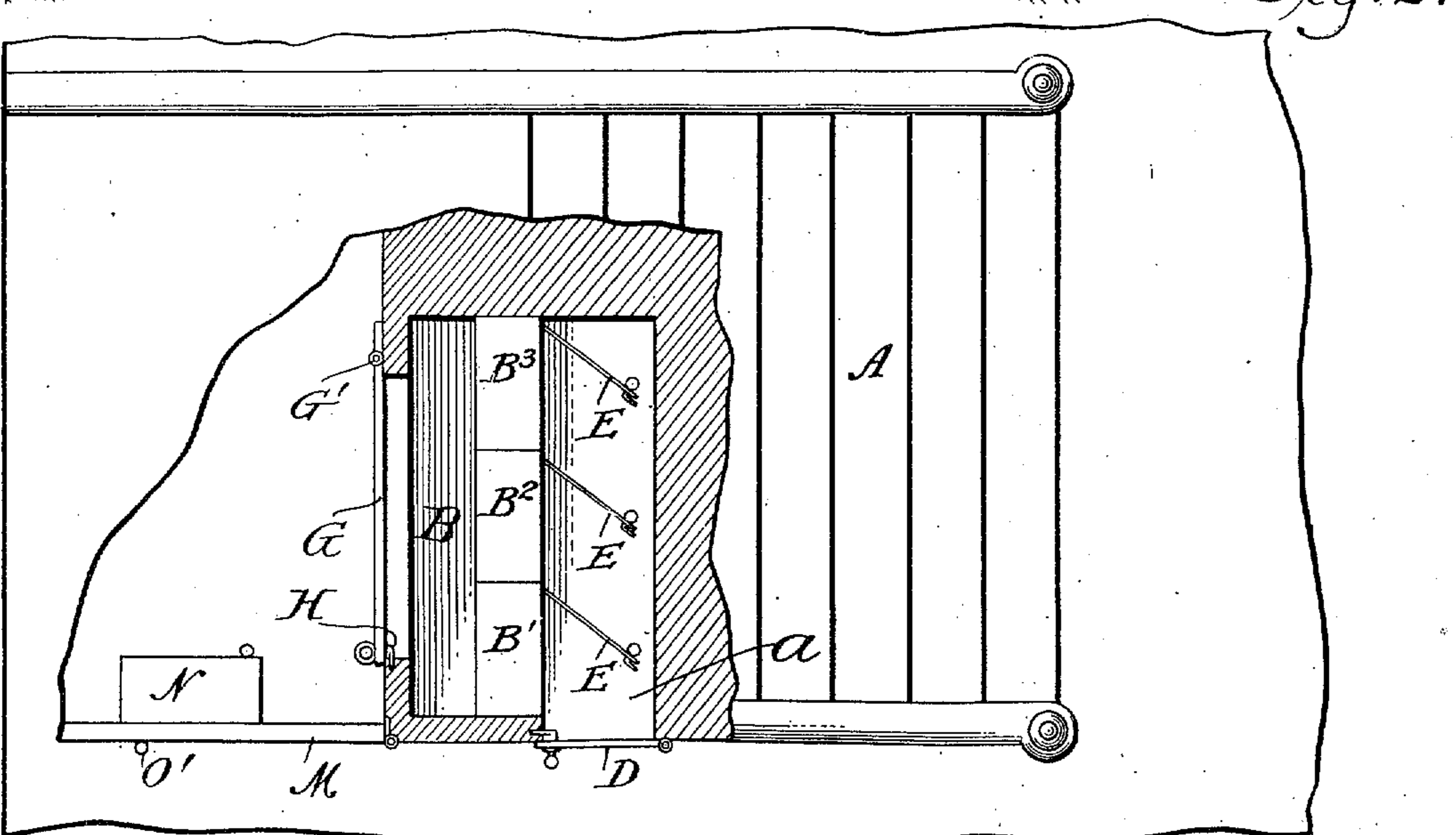
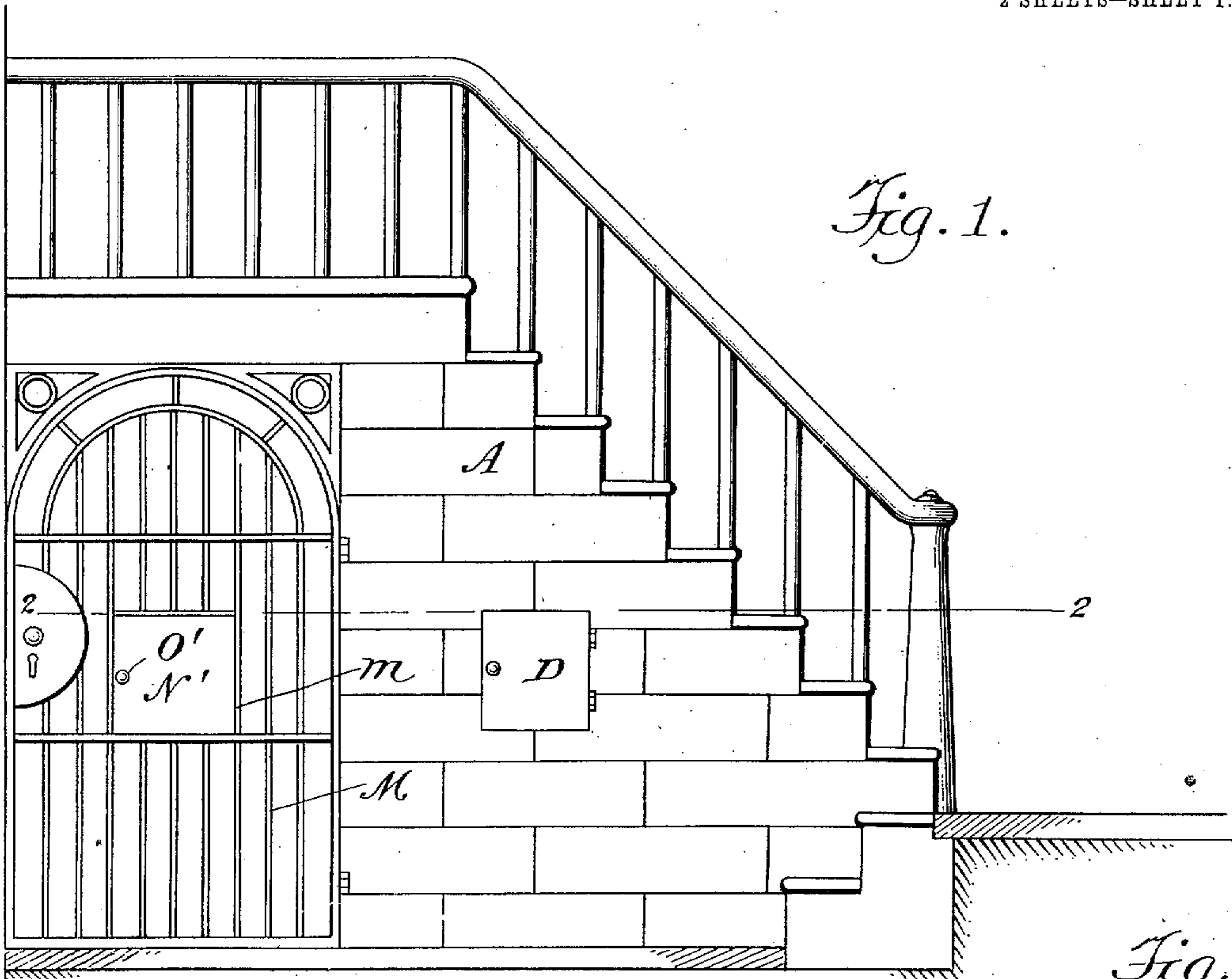
No. 814,107.

PATENTED MAR. 6, 1906.

L. J. & P. ZIMMERMANN.
DELIVERY BOX.

APPLICATION FILED JUNE 5, 1905.

2 SHEETS—SHEET 1.



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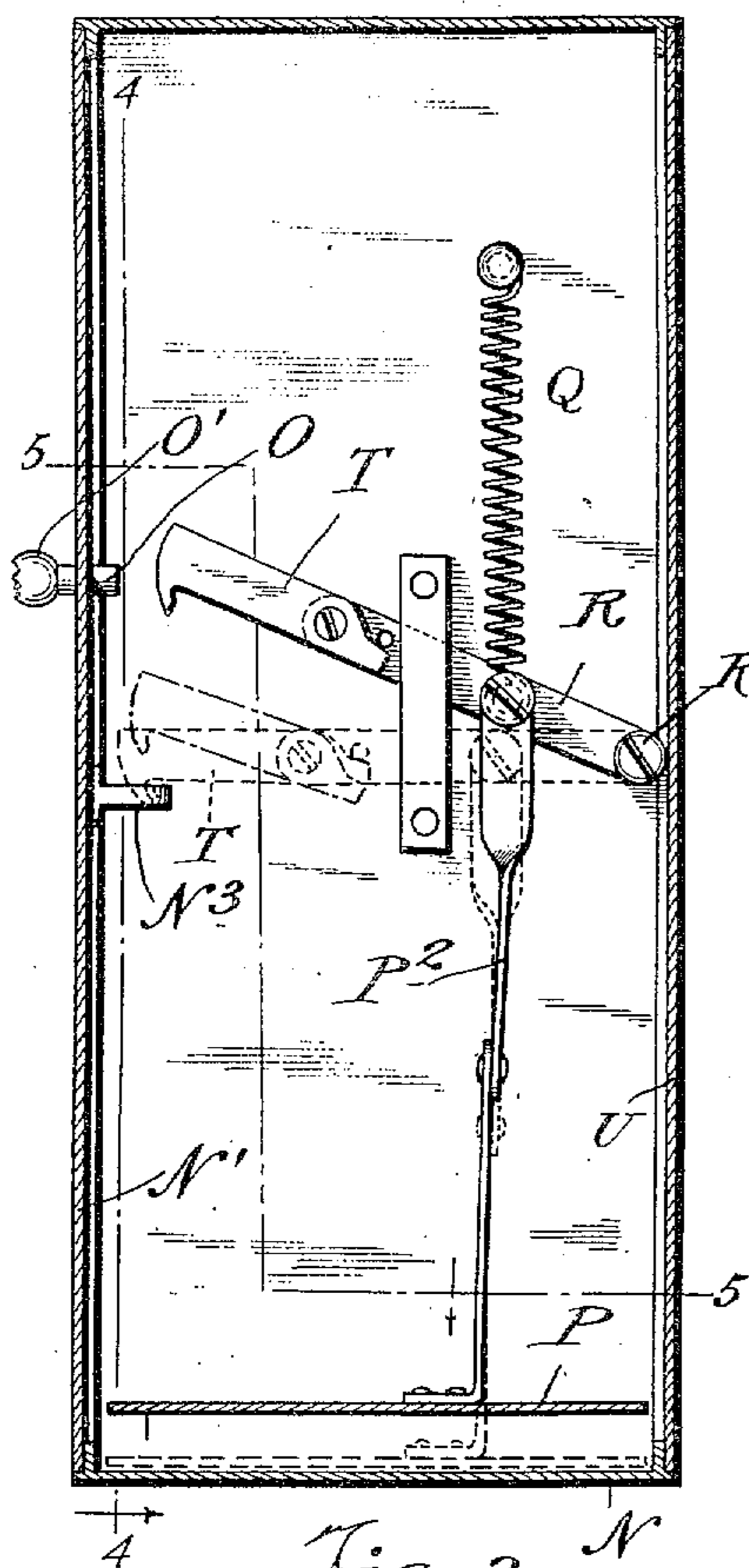


Fig. 3.

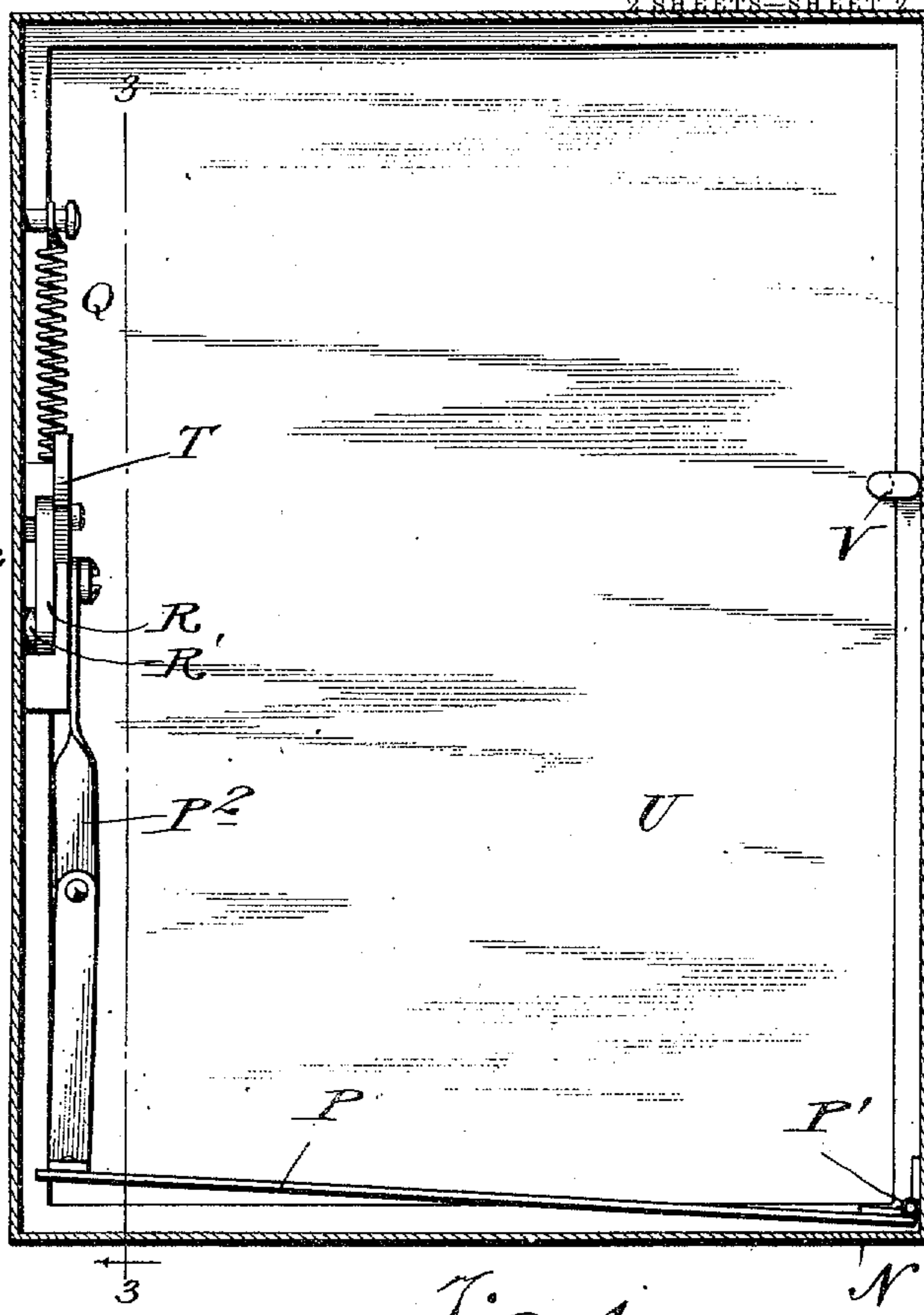
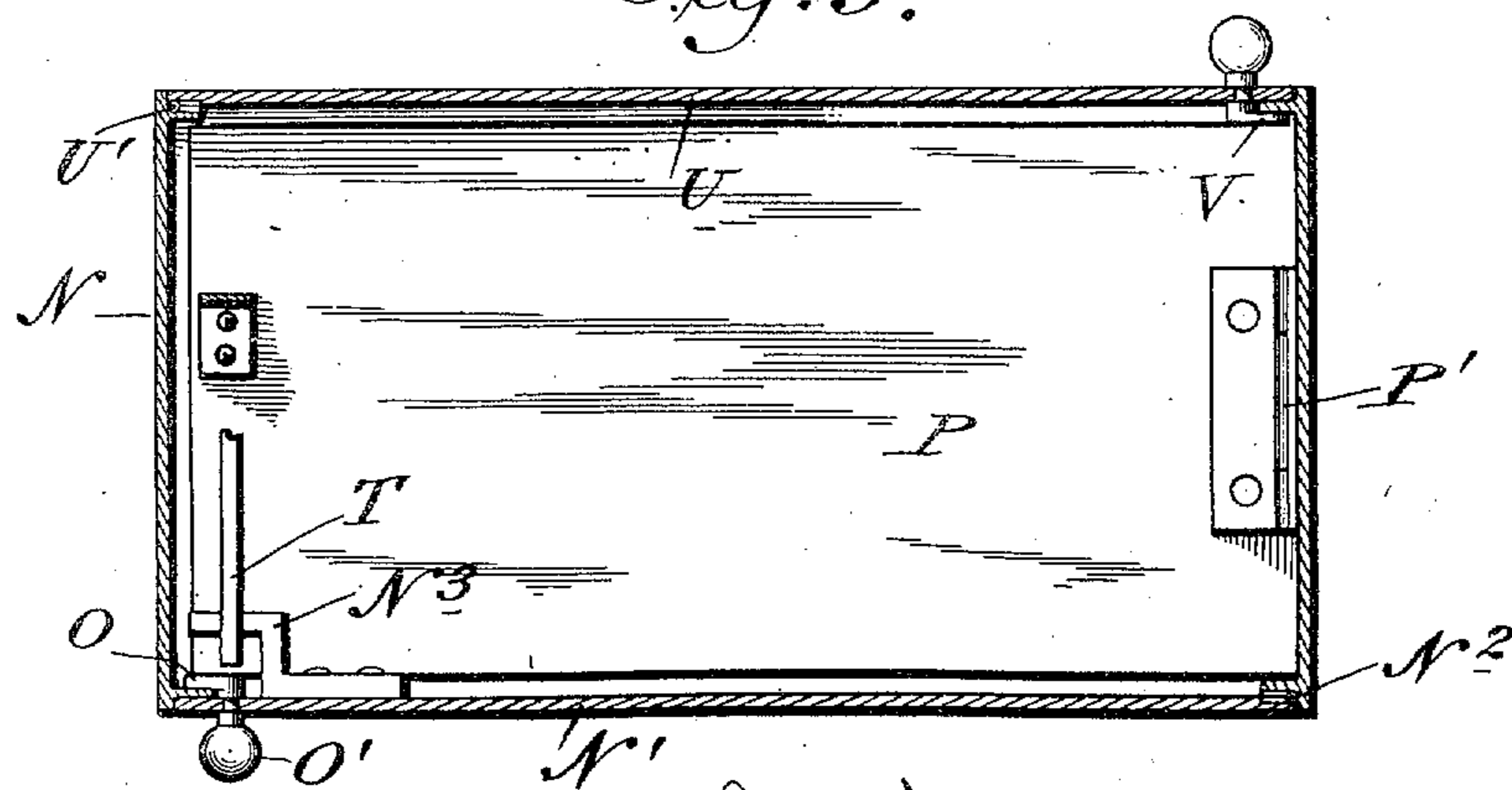


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

LOUIS J. ZIMMERMANN AND PETER ZIMMERMANN, OF NEW YORK, N. Y.

DELIVERY-BOX.

No. 814,107.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed June 5, 1905. Serial No. 263,749.

To all whom it may concern:

Be it known that we, LOUIS J. ZIMMERMANN and PETER ZIMMERMANN, citizens of the United States, residing in the borough of the Bronx, in the city and State of New York, have invented a certain new and Improved Delivery-Box, of which the following is a specification.

Our experiments have been made with milk. We will describe the invention as used to deliver that familiar farm product; but it may be used for any other material having weight. It is specially serviceable for articles, as bottles of milk and loaves of bread, which are required to be delivered at times when for any reason it is necessary to effect the same without the immediate coöperation of any one within the house.

We provide for delivering different kinds of material, as bread or meat, or to serve several families without any question as to which is for each.

The following is a description of what we consider the best means of carrying out the invention.

The accompanying drawings form a part of this specification.

Figure 1 is a side elevation of a high stoop of a city house, showing our invention applied in two places, one in the gate or door which communicates with the basement and another in the side of a stoop. Fig. 2 is a plan view of the stoop device in horizontal section on the line 2 2 in Fig. 1. The remaining figures are on a larger scale. They are sections of the simplest form—that shown in the basement-door, the left in Fig. 1. Fig. 3 is a vertical sectional view on the line 3 3 in Fig. 4 seen from the right. Fig. 4 is a transverse vertical section on the line 4 4 in Fig. 3 seen from the left. Fig. 5 is a horizontal sectional view on the line 5 5 in Fig. 3 looking downward.

Similar letters of reference indicate like parts in all the figures where they appear.

We will first describe the simplest form.

M is a door, in all respects corresponding to the ordinary outside door of a city basement except that it has a large hole *m* at a convenient point, against which is secured on the inside a box having a body N and a horizontally-swinging flap, which we will also term a "door," N', opening outward, hinged at N² and held in the closed position by an ordinary button O, controlled by a knob O'. Even this slight fastening may be omitted if the

door is adjusted to be gently held by friction or other force. It is easy for the milkman to open the door N' and introduce the milk. The inner face of the door N' is provided with a hook or a corresponding strong offset N³.

When a milk-bottle is introduced and allowed to rest in the box N, it depresses a false bottom P, hinged at P', and pulling down by the medium of a link P² depresses a lever R, hinged at R', against the force of a spring Q. This brings a catch T on the free end of the lever R into position to engage with the hook N³ on the door N', and when the latter is closed such catch does so engage and holds it fast. The milkman himself cannot open the door N' again after he has closed it with the milk-bottle within. When the maid coming to the box from the interior of the house removes the milk-bottle, and thus relieves the false bottom P from the weight, such act allows the spring to contract and lift the lever R, with its catch T, and hold it up, so that the door N' may be opened and closed, secured only by ordinary buttons or not at all, until the milkman again deposits a load on the false bottom. To make it still easier to shut the door and more certain to engage it, the catch T is pivoted on the lever R. The pivoting is attached by what is known as a "rule-joint," leaving the catch free to rise easily, but forbidding it to sink below a straight line. When the door N' is being shut and the inclined surfaces are brought into effect to raise the catch T, they are not required to overcome the weight and inertia of the whole lever R and the link P² and the false bottom P, but only the slight weight and inertia of the hinged portion carrying the catch T.

It may be expedient in many situations to provide against mischief from any one reaching in or throwing in something through the box during the long periods while it is thus easy to open the door N'. We effect this by an inner door U, turning on hinge U' and held closed by a simple button V, which prevents the mischievous or playful intruder from operating beyond such inner door U of the box.

We will now describe the most complete form of the invention—that shown in Figs. 1 and 2. The box B, much deeper than the box N described above, is set in an aperture in the side of the ordinary high stoop of a city building, the stoop being marked A and the door of such box being marked D. This is also equipped with our invention. Such

duplicate use, in addition to the one described in the door M, may be of much service in some cases; but either may be used alone. We will proceed with the description of the box B and its connections, with but slight reference, if any, to the other. Fig. 2 shows a series of compartments B' B² B³, all within the reach of a man's arm from the door D, in which articles may be placed for the same or a different family, each correspondingly provided with an independent door E, opening into what we shall term a "vestibule" *a*. Each of these compartments may be equipped with our invention independently controlling its door E; but we do not esteem such usually necessary. It is sufficient for each to have an ordinary button. The false bottom extends along the series of the compartments and will be depressed by any sufficient weight introduced in either compartment. The milkman opens the outer door D, as in the simpler example first described, and reaches into the vestibule *a* and opens the several compartment-doors E and introduces the milk or meat or other load and closes those doors. This may be most conveniently done by attending to the farthest first. When all or so many as require it are thus loaded and their doors E closed, the outer door D is closed, and the lever corresponding to the lever R, above described, being certainly down, the catch T engages and all is secure. The next morning he again finds all the compartments are unloaded and repeats the operation. The inner faces of these compartments B' B², &c., the faces which are approached by the housemaid, are controlled by one large door G, turning on the hinges G' and secured by a button H.

We attach importance to the fact that the platform is actuated by a spring in the upper portion of the box, because it allows the action of a long and uniform spring, with the yielding platform in the extreme bottom. The spring at one side occupies little space and is easily kept in order and adjusted, if required. We attach importance to the rule-joint in the catch-lever R T, because it allows the door N to be closed and automatically secured without lifting the loaded bottom or shelf P, and yet holds the locking means out of action whenever the box is empty.

Modifications may be made within the scope of the claims without departing from the principle or sacrificing the advantages of the invention.

The number and form of the compartments

may be varied; but care must be taken to have one controlling-weight resting on the false bottom or on a correspondingly-yielding shelf to induce the operation of the catch when the door D is closed after the delivery and to allow liberty for the opening of that door when the weight is removed. Parts of the invention may be used without others. The catch may be made rigid on the lever R. When these parts are made separately and pivoted together, as shown, the fact that the center of the pivot is above the bottom of the lever and usually a little above the point of engagement of the catch T with the hook N³ develops a tendency of the catch to rise when pulled. This must be allowed for by making the catch sufficiently undercut to insure its retaining its hold under the most severe strains.

We claim as our invention—

1. As a provision for serving supplies, a box with a horizontally - opening door, a yielding bottom, a lever R rising and sinking with such bottom and an automatic catch T pivoted thereto controlling such door, adapted to serve therewith substantially as herein specified.

2. As a provision for serving supplies a box with a horizontally - swinging door, a yielding bottom, an automatic catch actuated by changes of position of the bottom, arranged to control such outside door and a series of compartments in the box accessible from the front, in combination with a building and with an inside door and a fastening therefor controlled from the interior of the building all arranged to serve substantially as herein specified.

3. As a provision for serving milk and like material in combination with a building, a box having a horizontally-swinging door accessible from the exterior of the building, a catch controlling such door, a yielding bottom within the box controlling such catch, and provisions by a spring in the upper portion of the box for yieldingly raising such bottom, all arranged to serve substantially as herein specified.

Signed at New York city, in the county of New York and State of New York, this 26th day of April, A. D. 1905.

LOUIS J. ZIMMERMANN.
PETER ZIMMERMANN.

Witnesses:

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