

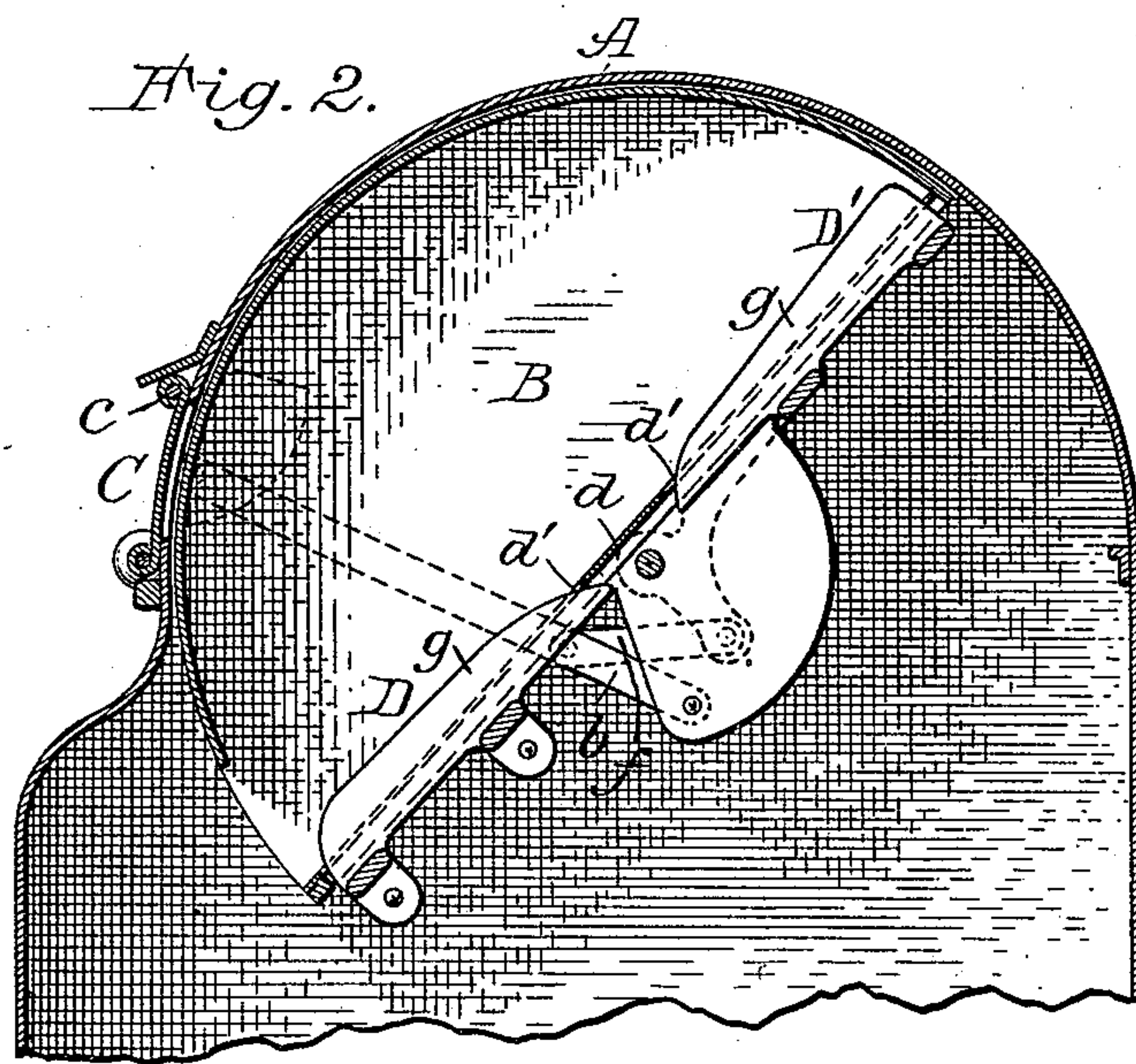
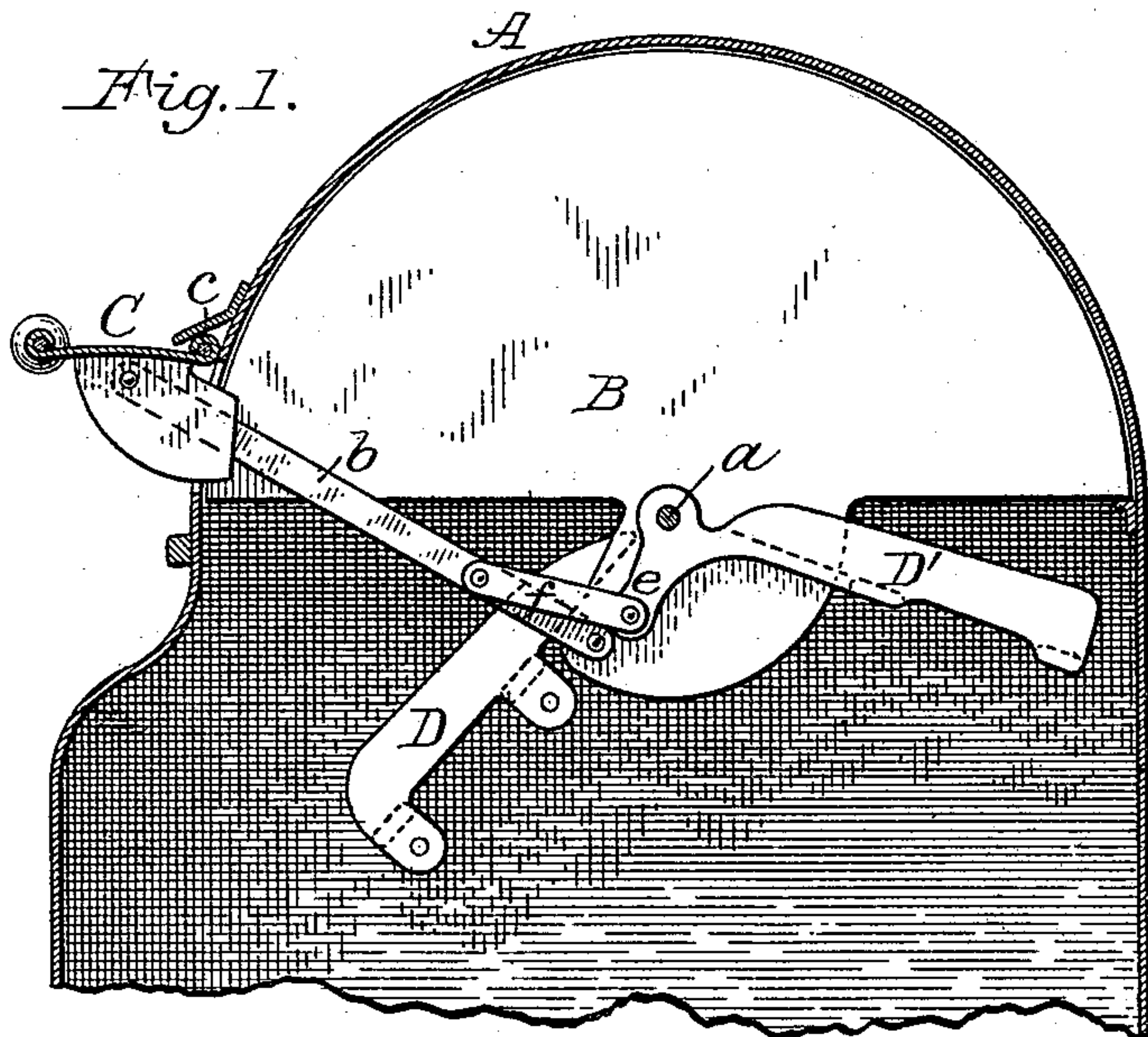
(No Model.)

2 Sheets—Sheet 1.

J. T. LENMAN.  
STREET LETTER BOX.

No. 459,550.

Patented Sept. 15, 1891.



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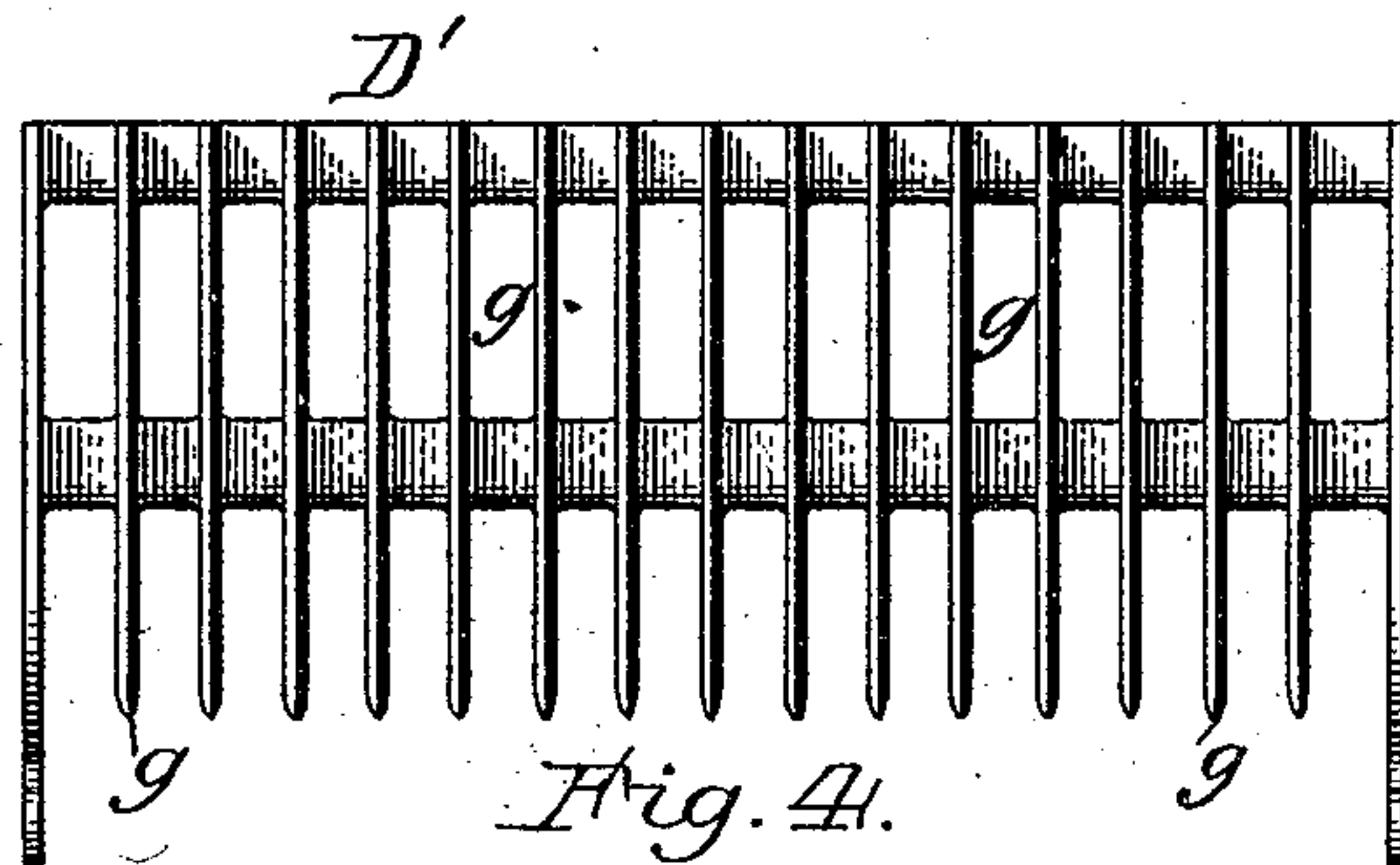
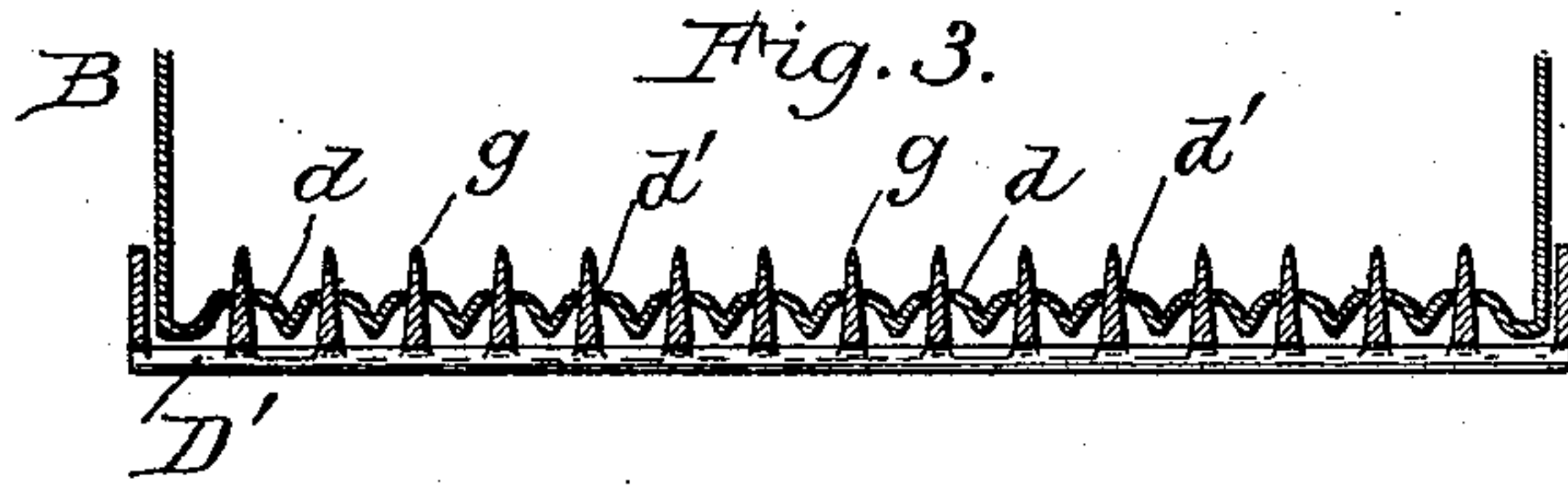


Fig. 6.

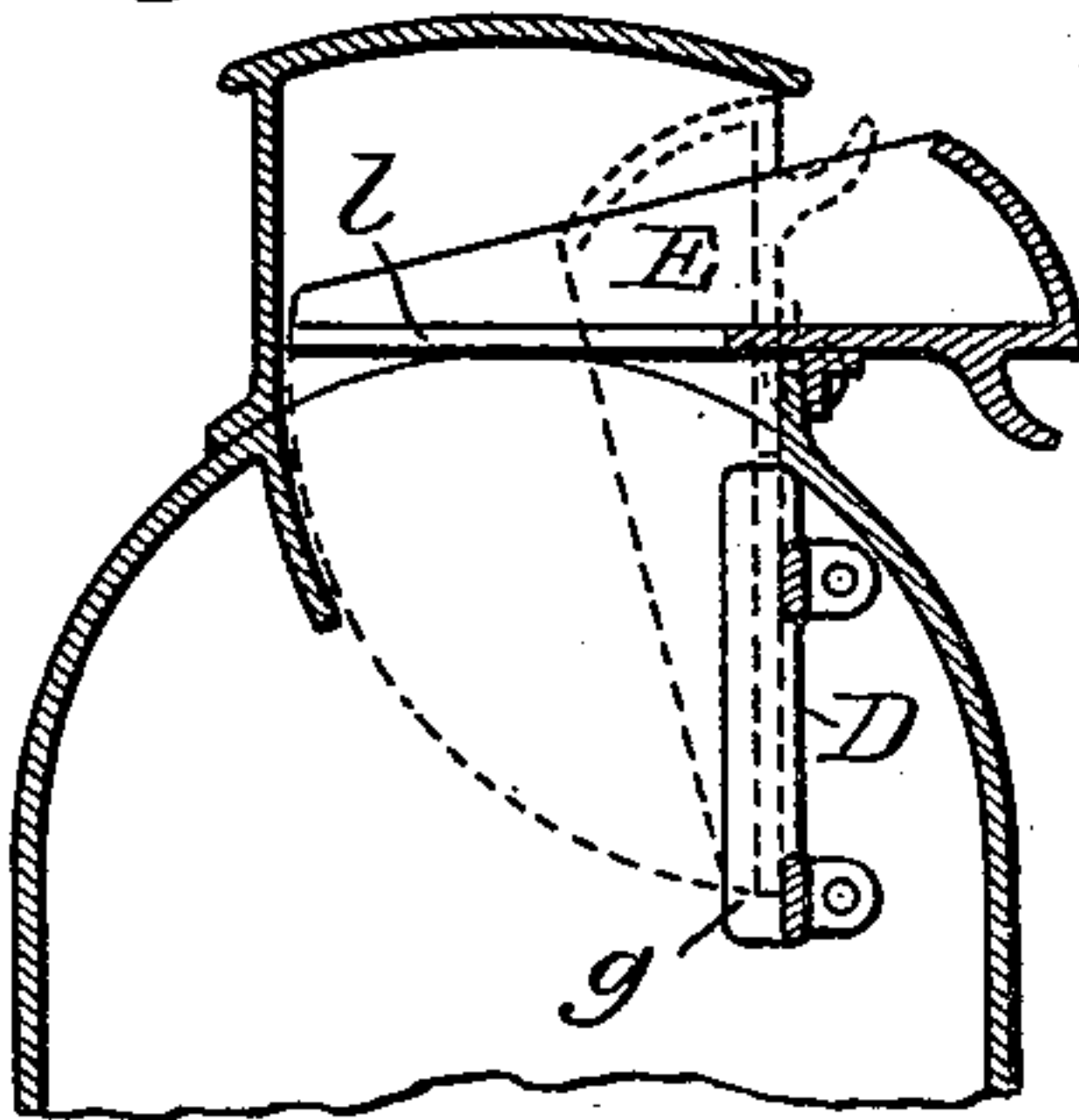


Fig. 7.

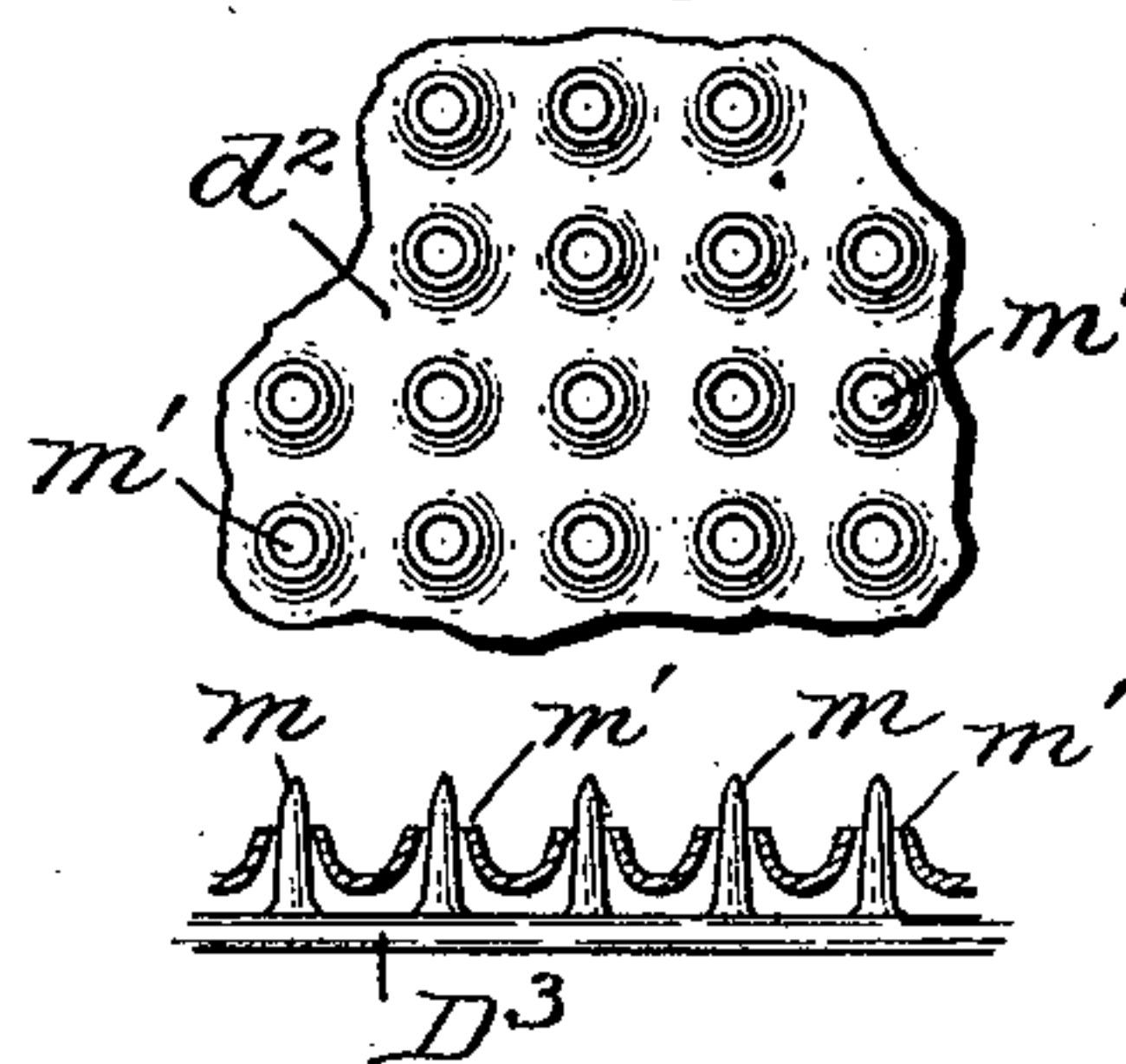
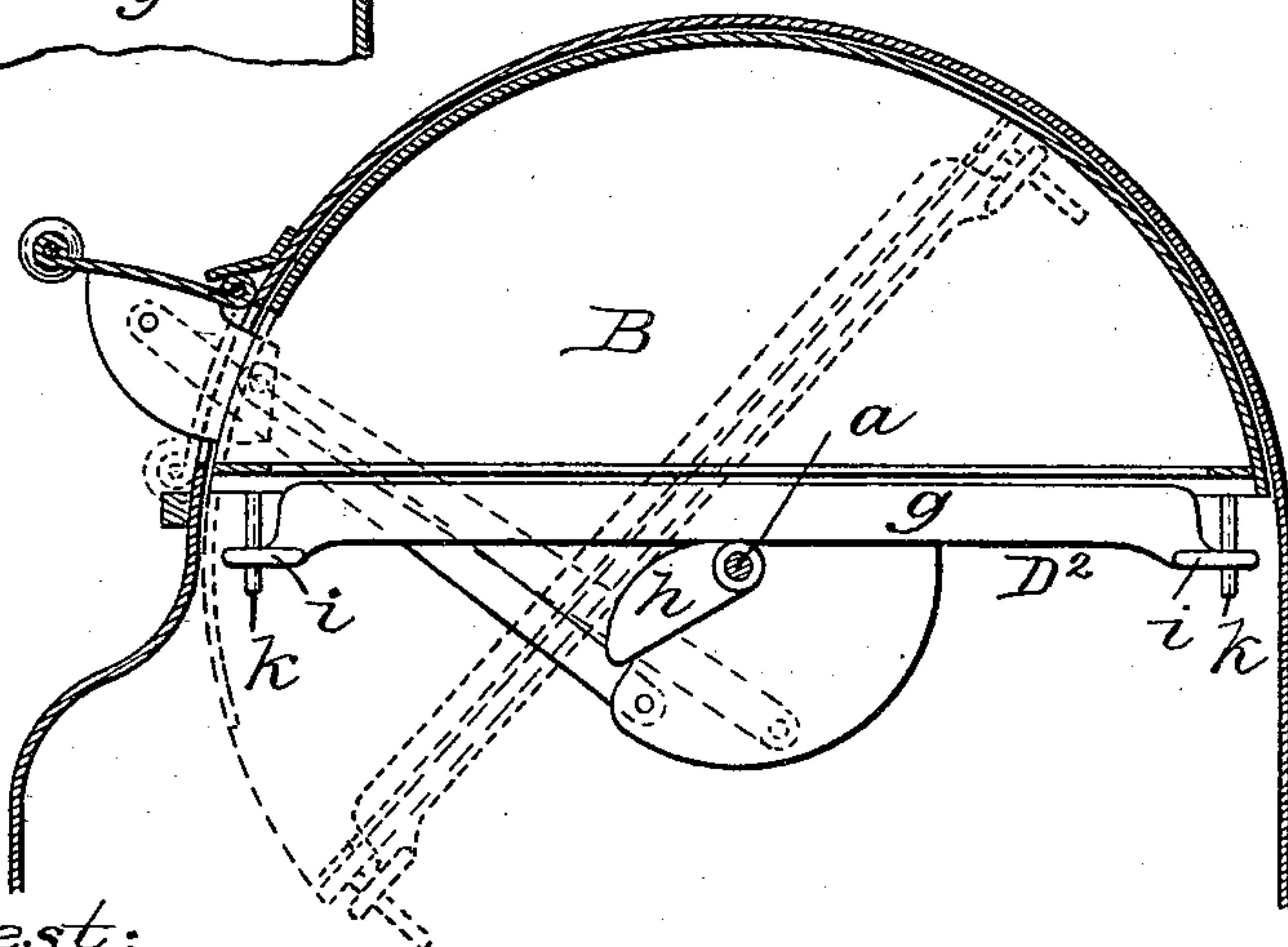


Fig. 5.



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# UNITED STATES PATENT OFFICE.

JOHN T. LENMAN, OF WASHINGTON, DISTRICT OF COLUMBIA.

## STREET LETTER-BOX.

SPECIFICATION forming part of Letters Patent No. 459,550, dated September 15, 1891.

Application filed March 17, 1891. Serial No. 385,376. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN T. LENMAN, of the city of Washington, in the District of Columbia, have invented certain new and useful Improvements in Letter-Boxes; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a clear, true, and complete description of my invention.

My said improvements are widely applicable to that class of letter-boxes which embody movable trays or shelves so organized that on receiving a letter they are or may be operated for downwardly discharging the letter into the box. I have heretofore devised improvements in this type of letter-box with special reference to the security of deposited mail-matter, as disclosed in my Letters Patent Nos. 404,293 and 444,638. My aforesaid patented boxes, as well as all others in the same general class as heretofore constructed and organized, are, however, incapable of resisting pilfering operations in connection with the felonious use of soft pitch or other adhesive matter applied to the trays or shelves for causing ordinary light mail-matter to adhere thereto instead of dropping therefrom into the box, and thus enabling such adhered letters to be thereafter withdrawn by way of the delivery-aperture.

The object of my present invention is to render it practically impossible for a letter or other mail-matter to be adhesively retained or held in a receiving-tray after its tilting or discharging movement has been concluded, and to that end I have organized with a tilting shelf or tray a clearer which, while the tray or shelf is dropping to its discharging position, is substantially interposed between the supporting-surface of the tray or shelf and whatever may then be resting thereon or even adhering thereto, and this assures the downward discharge of the mail-matter into the box. I have also provided the shelf or tray with a supporting-surface of comparatively limited area, as by small apertures or longitudinal corrugations in the line of delivery or by numerous slight elevations, so that even if the tray be "pitched" a letter can rest in contact with only such limited adhesive surfaces as would generally be insufficient to

cause the retention of the mail-matter, and specially of large heavy letters, even if no clearer was employed.

Referring to the drawings, Figure 1 in side view illustrates the upper interior portion of a letter-box of the kind disclosed in my aforesaid Letters Patent, with the tray in its receiving position and with clearers combined therewith in accordance with my present invention. Fig. 2 illustrates the same with the tray in its discharging position. Fig. 3 is a section of the floor or bottom of the tray on a line parallel with its supporting-rod and with its clearer in operation as when the tray is in its discharging position. Fig. 4 is plan view of a clearer. Fig. 5 is a side view of a box having a tray, as in Fig. 1, but with its clearer attached to and moving with it, the tray and clearer in their discharging positions being indicated in dotted lines. Fig. 6 illustrates a letter-box embodying a tray of another well-known type and having a clearer organized therewith in accordance with my invention. Fig. 7 illustrates in section and in top view a portion of the bottom or supporting surface of a receiving-tray and its clearer in a modified form in accordance with my invention.

Referring to Figs. 1, 2, and 3, it will be understood that the arched top box A, tray B, and receiving-aperture lid C are organized substantially as was disclosed in my aforesaid Letters Patent No. 444,638, the tray being pivotally mounted upon the rod *a* and coupled by one or more links *b* to the pendent lid, the latter being pivoted at *c* to the box. The swinging of the lid for uncovering the receiving-aperture swings the tray into its receiving position, the latter dropping promptly into its discharging position when the lid C drops. The floor *d* of this tray is corrugated, as shown in Fig. 3, and the corrugations are at right angles to the supporting-rod *a*; or, in other words, they are in the line of delivery, as when a letter is dropped from the tray when in its discharging position, as shown in Fig. 2. It will be obvious that these corrugations will afford but little area of adhesion, and if they be alone relied upon for obviating the results of feloniously pitching the tray they will serve a valuable purpose. The contact-surface of the bottom of this tray is still fur-



ther reduced by numerous small apertures, in this case in the form of slots  $d'$  in the centers of the corrugations and parallel therewith, said slots being narrow and affording no objectionable access to the interior of the box when the tray is in its receiving position.

As clearly shown in Figs. 1 and 2, there are below the tray two clearers  $D$  and  $D'$ . The main clearer  $D$  is stationary, being secured to the sides of the box, and it occupies an inclined position corresponding to the front portion of the tray when the latter occupies its discharging position, as shown in Fig. 2. The auxiliary clearer  $D'$  is located below the rear portion of the tray and is movable, being pivoted upon the rod  $a$  and provided with an arm  $e$ , which is coupled to a tray-link  $b$  by a short link  $f$ . These clearers are each light frame structures, and are provided with or embody a series of projections, in this case in the form of thin blades or webs  $g$ , which are parallel with the slots in the corrugations in the bottom  $d$  of the tray and register therewith. When the tray is in its receiving position, the clearer  $D'$  is below the bottom of the tray, and the same is of course true of the clearer  $D$ , and therefore the application of adhesive matter to the upper surface of the bottom of the tray cannot defile the webs of the clearers. During the discharging movement of the tray the clearer  $D'$  is moved in the same direction as the rear portion of the tray, but more rapidly, and therefore its webs are projected through the slots in the tray, so that if a letter should be adhesively held upon that portion of the tray-bottom the webs of the clearer would lift the letter and discharge it forwardly and downwardly. If, however, as would more generally be the case, a letter should be adhered to the front portion of the bottom of the tray, it would in like manner be detached and discharged by the webs of the clearer  $D$  as soon as or before the front portion of the tray reached its lowest tilted position. It will be understood that the clearer  $D'$ , as shown in Fig. 4, differs from the clearer  $D$  only in the matter of those portions of its frame which enable it to be mounted, as shown and described.

It is obvious that the tray and a clearer may be variously organized without departure from my invention, the gist of which is the combination, with the tilting tray or shelf, of a clearer which during the discharging action of the tray will afford in substance an interposed supporting-surface for the contents of the tray and forcibly discharge them. Instead of having the two clearers or one clearer in two parts, one stationary and one movable, it can be made in one part and be moved with the tray when organized as illustrated in Fig. 5. In this box the tray  $B$  is as before described; but its supporting-rod  $a$  is located a little below the floor of the tray, and it is provided with one or more stationary cam-shaped blocks  $h$ . The clearer  $D^2$  has webs or blades  $g$ , and it is always supported on or in contact

with said cam-blocks, and at its front and rear it has corner ears  $i$ , with holes which are freely occupied by pendent guide studs  $K$ . When the tray is in its receiving position, as shown in solid lines, Fig. 5, the clearer is wholly below the surface of the bottom of the tray; but when the tray begins to assume its discharging position the blocks  $h$  force the clearer outwardly and away from the pivotal center of the tray, and consequently its webs  $g$  are well projected through the slots in the bottom of the tray when the tray has been fully tilted into its normal position.

The application of my clearer to other forms of receiving trays or shelves can be readily accomplished—as, for instance, as shown in Fig. 6, wherein the tray  $E$  is as heretofore, except that its bottom is slotted longitudinally, as at  $l$ , so that it may co-operate in the manner described with a clearer  $D$ , having webs  $g$  for projecting through the slots in the tray when the inner end of the latter has been dropped to its normal or discharging position.

It will be seen that although this tray  $E$  is not corrugated the slotted bottom thereof affords a limited area for adhesive contact, as if the slots were depressions between corrugations, or as if the bottom of the slots were closed and the surfaces between the slots were elevations, affording restricted contact-surfaces.

While I prefer the slotted tray and the clearers having blades or webs, it is not to be understood that I restrict myself thereto, because the working faces of the clearers may be on the ends of pins or studs, as illustrated in Fig. 7. In this case the tray-bottom  $d^2$  is perforated, and each small aperture or perforation is in a slightly-raised portion of the sheet metal, thus affording the desired limited area for adhesion. The clearer  $D^3$  is substantially the same as either of those already described, and it will operate in like manner; but it differs therefrom in the matter of its projections, which are in the form of studs or pins  $m$ , which register with the perforations  $m'$  in the bottom of the tray.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a letter-box, the combination, substantially as hereinbefore described, of a tilting receiving-tray provided with numerous apertures in the bottom thereof, and a clearer provided with suitable projections conforming to and registering with said apertures and so arranged that when the tray or shelf has been tilted to its discharging position the clearer projections will extend through said apertures and thereby secure the discharge of mail-matter from the tray into the box.

2. In a letter-box, the combination, substantially as hereinbefore described, of a tilting receiving-tray having a bottom which is provided with numerous apertures, and a movable clearer below the bottom of the tray provided with suitable projections which con-



form to or register with said apertures and so arranged that during the movement of the tray into its discharging position the said clearer projections will be moved through said  
5 apertures from the rear of the tray-bottom and forcibly clean the tray from adhering mail-matter.

3. The combination, with a letter-box, of a pivoted mail-receiving tray adapted to be  
10 tilted toward and from the mail-receiving aperture and provided with a bottom having a

series of elevations or supporting-surfaces, substantially as described, the said elevations affording bearing-surfaces of limited area for obviating the retention of letters in the tray 15 as a result of the felonious application of adhesive matter to said surfaces.

JNO. T. LENMAN.

Witnesses:

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HOWELL BARTLE.