

(No Model.)

2 Sheets—Sheet 1.

C. C. CHAMBERLAIN.
BILL FILE.

No. 550,406.

Patented Nov. 26, 1895.

Fig. 3

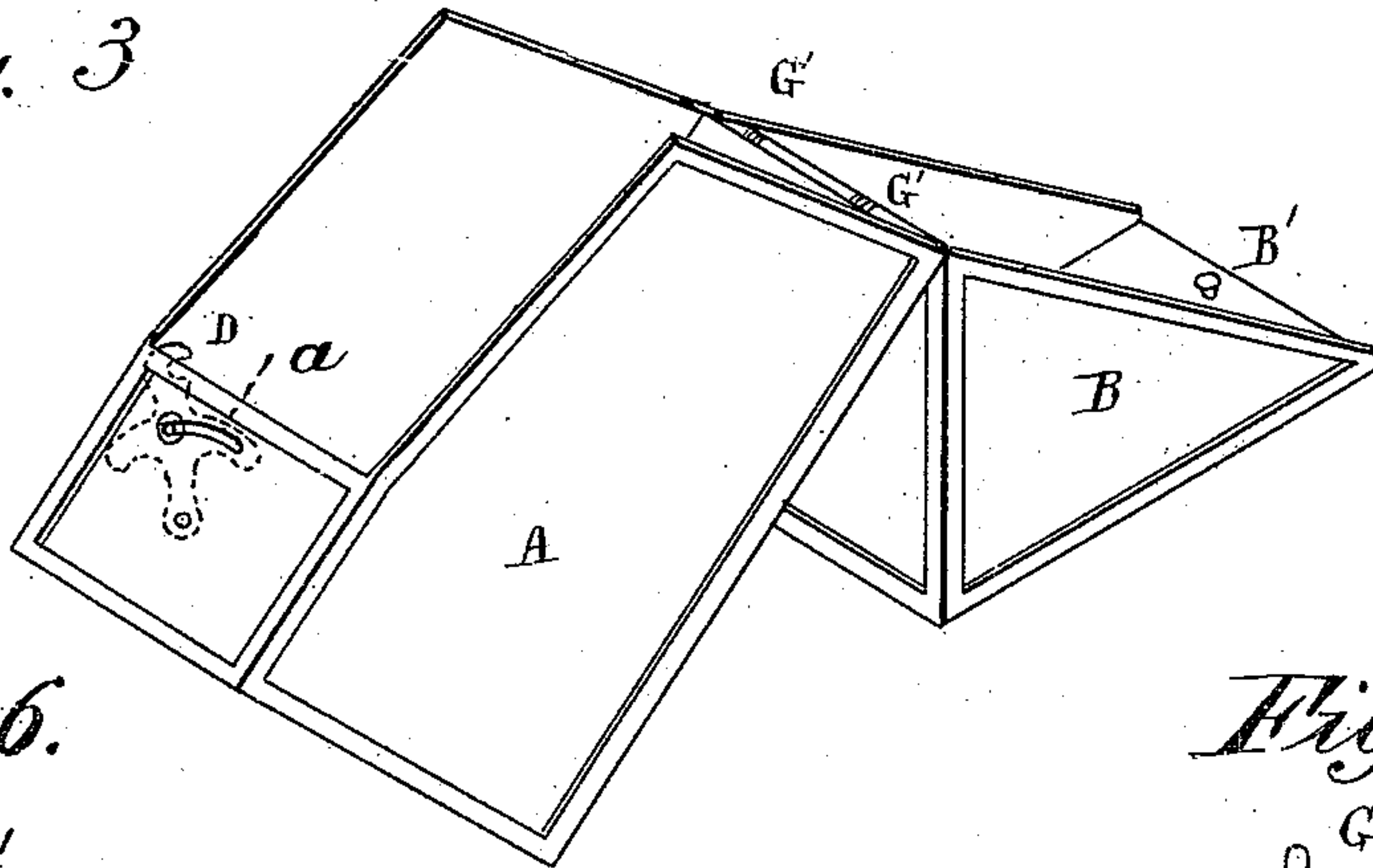


Fig. 6.



Fig. 7

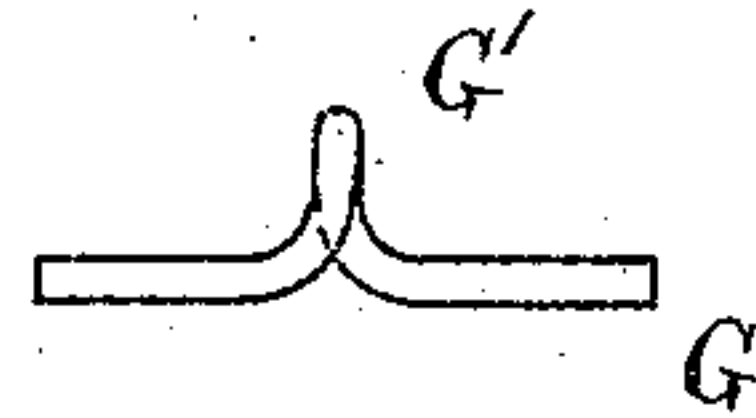


Fig. 8

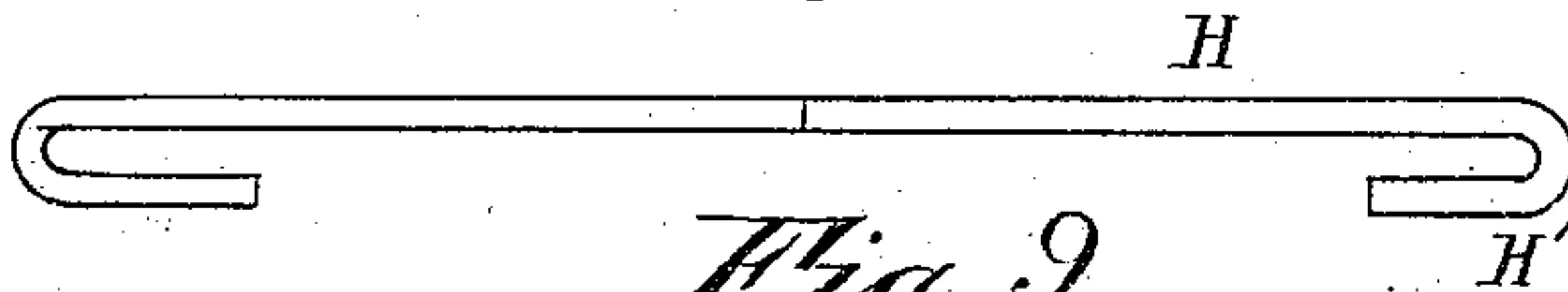


Fig. 9

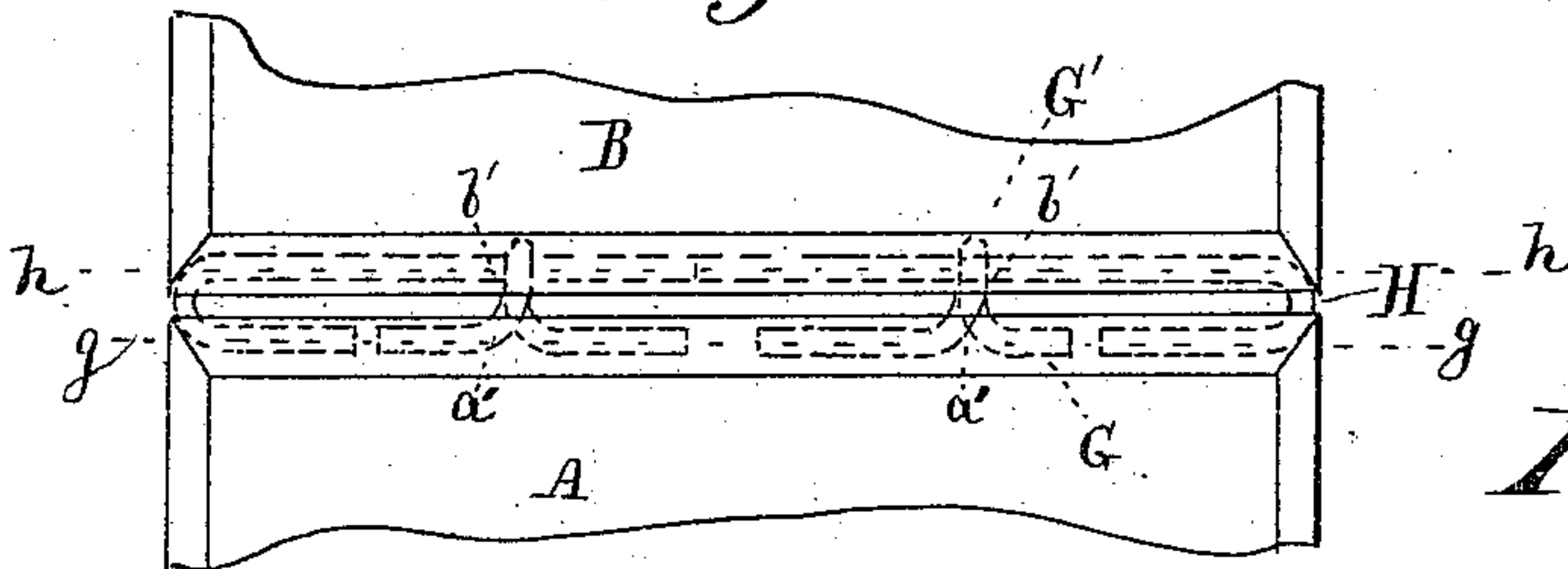


Fig. 1

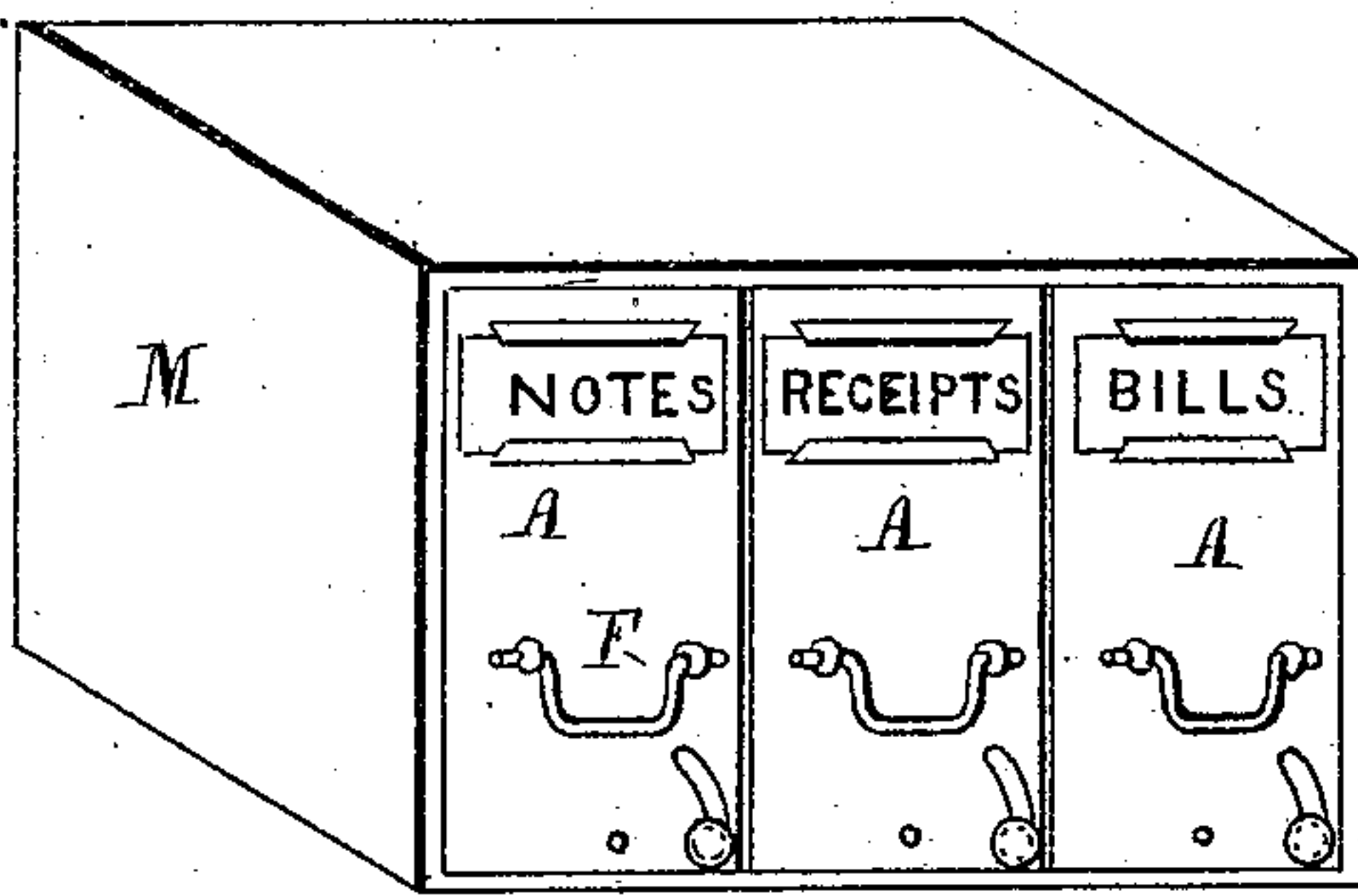
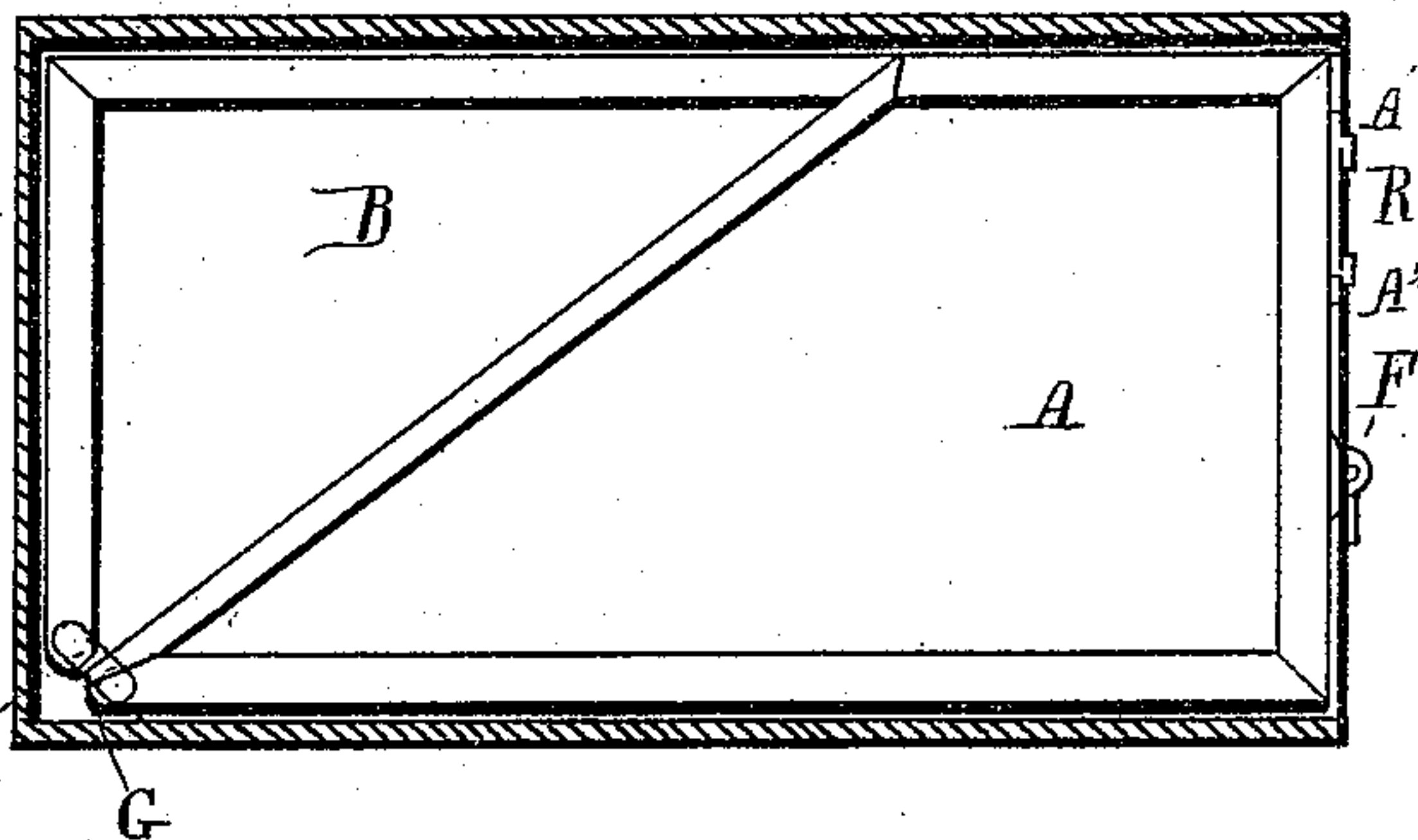


Fig. 2



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(No Model.)

2 Sheets—Sheet 2.

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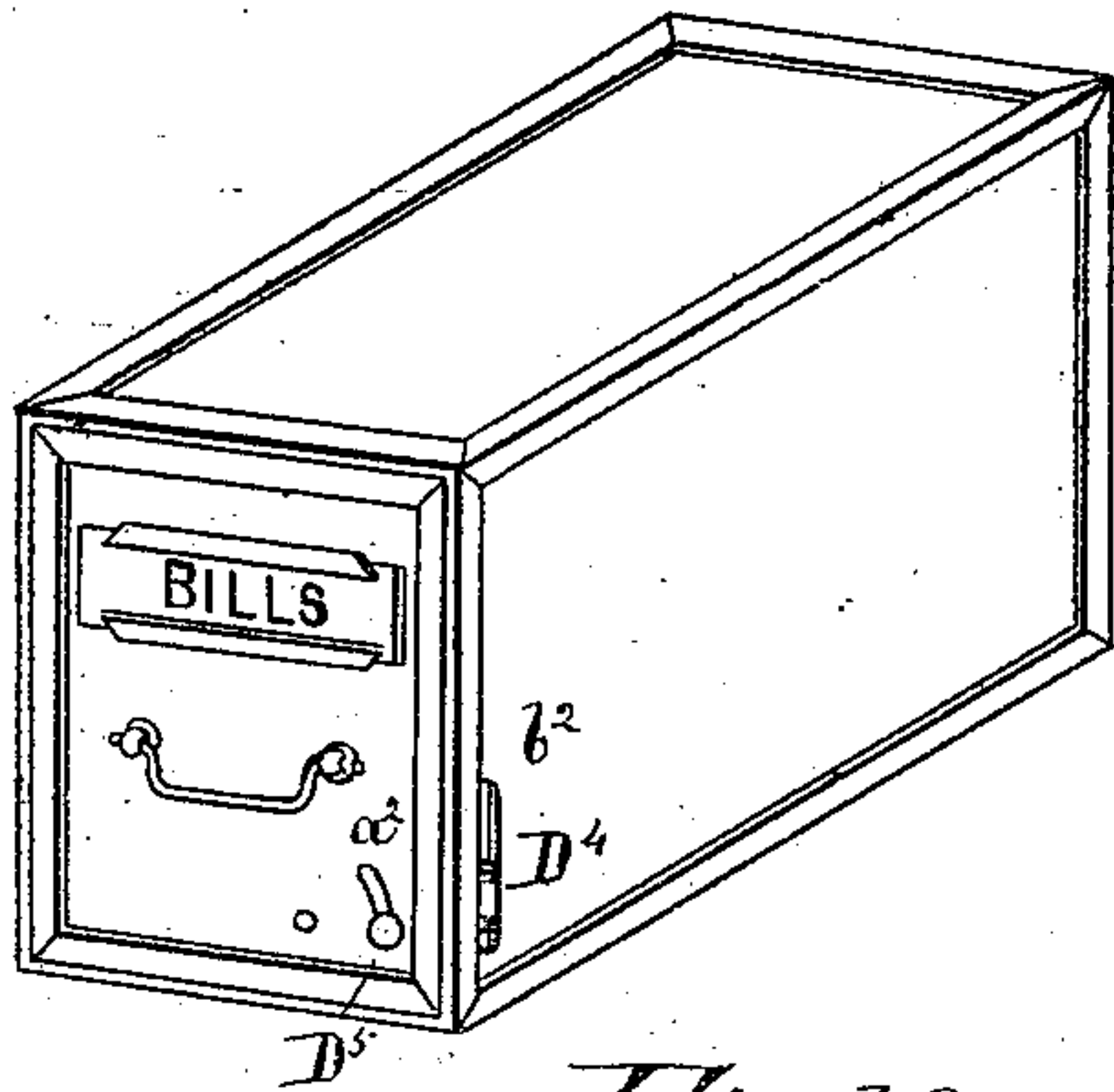


Fig. 14

Fig. 15

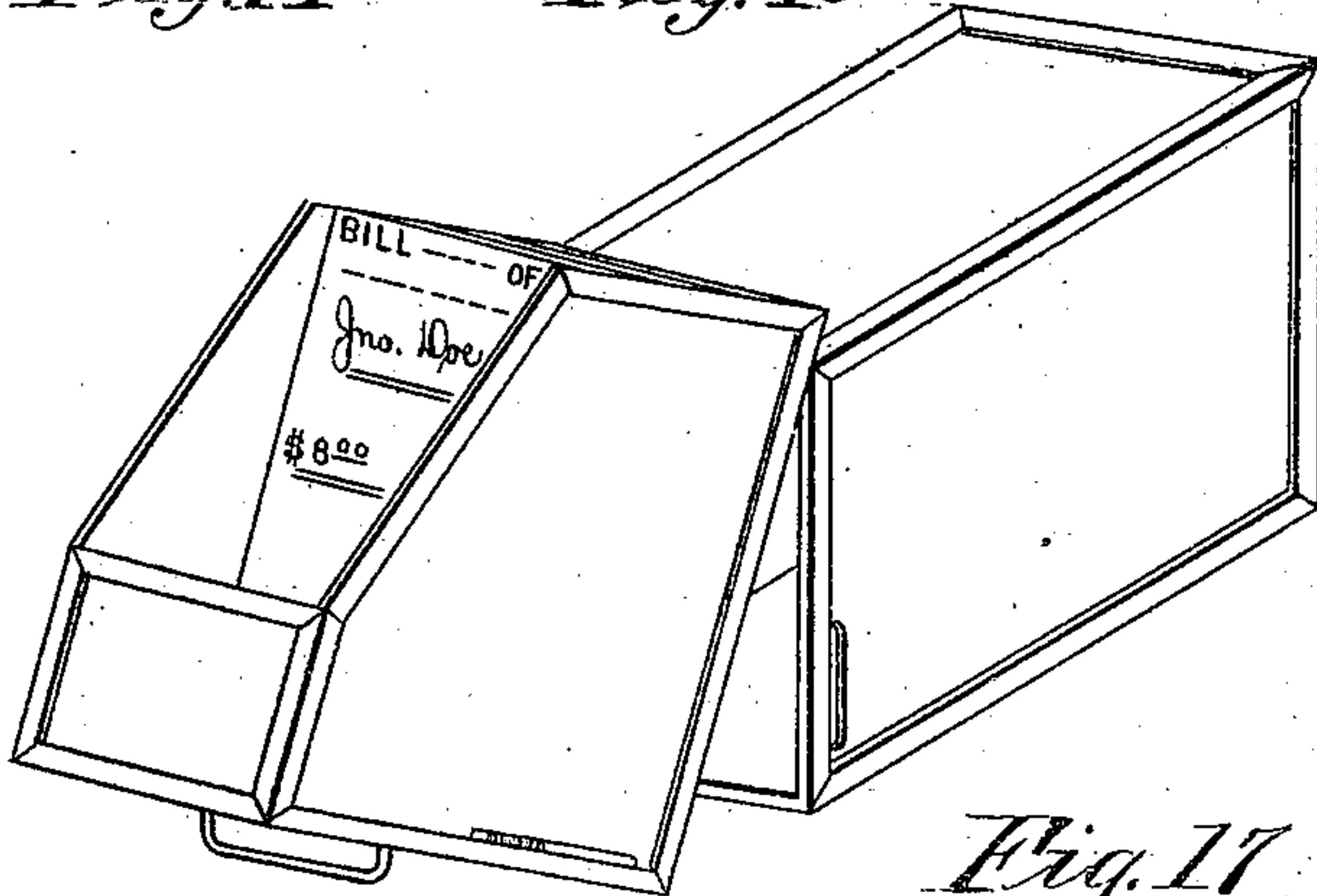


Fig. 17

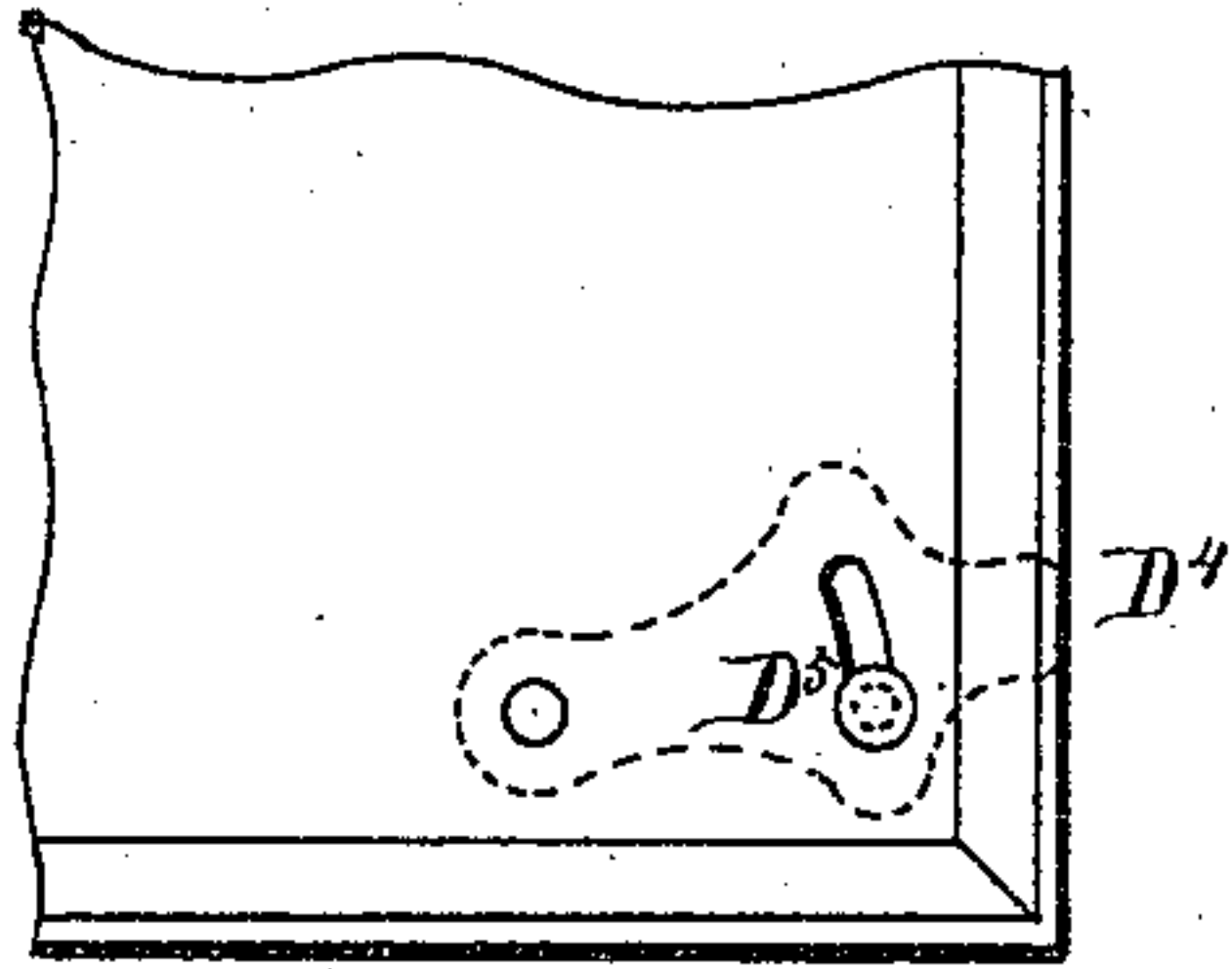


Fig. 16

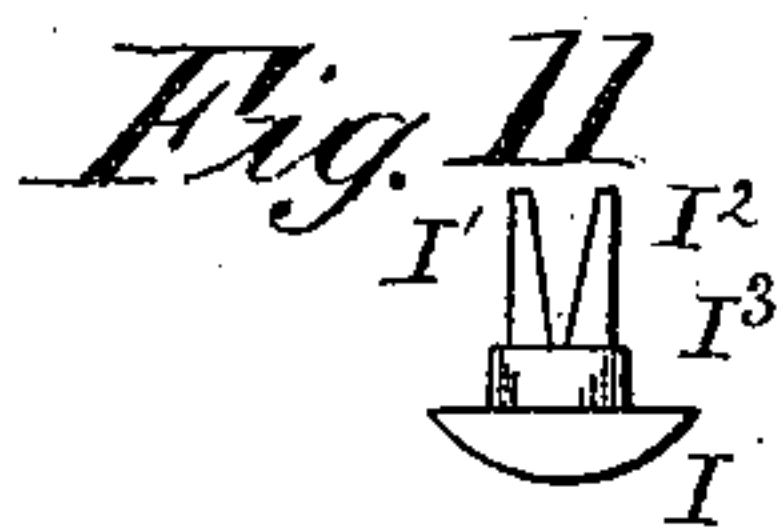


Fig. 11

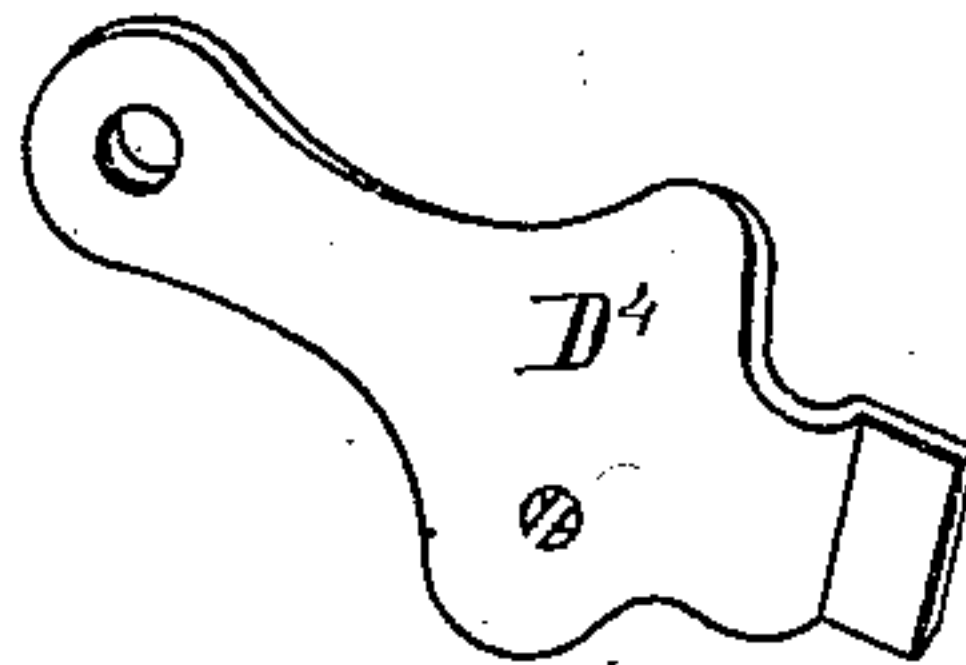
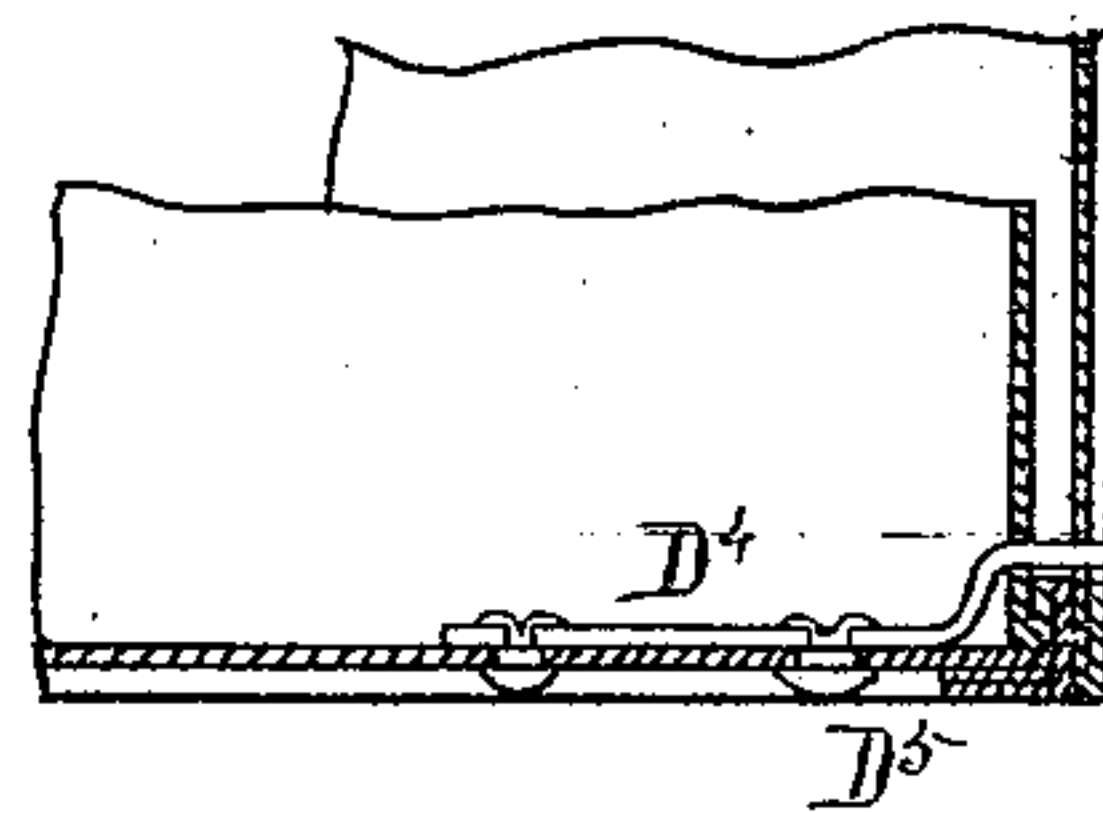


Fig. 18

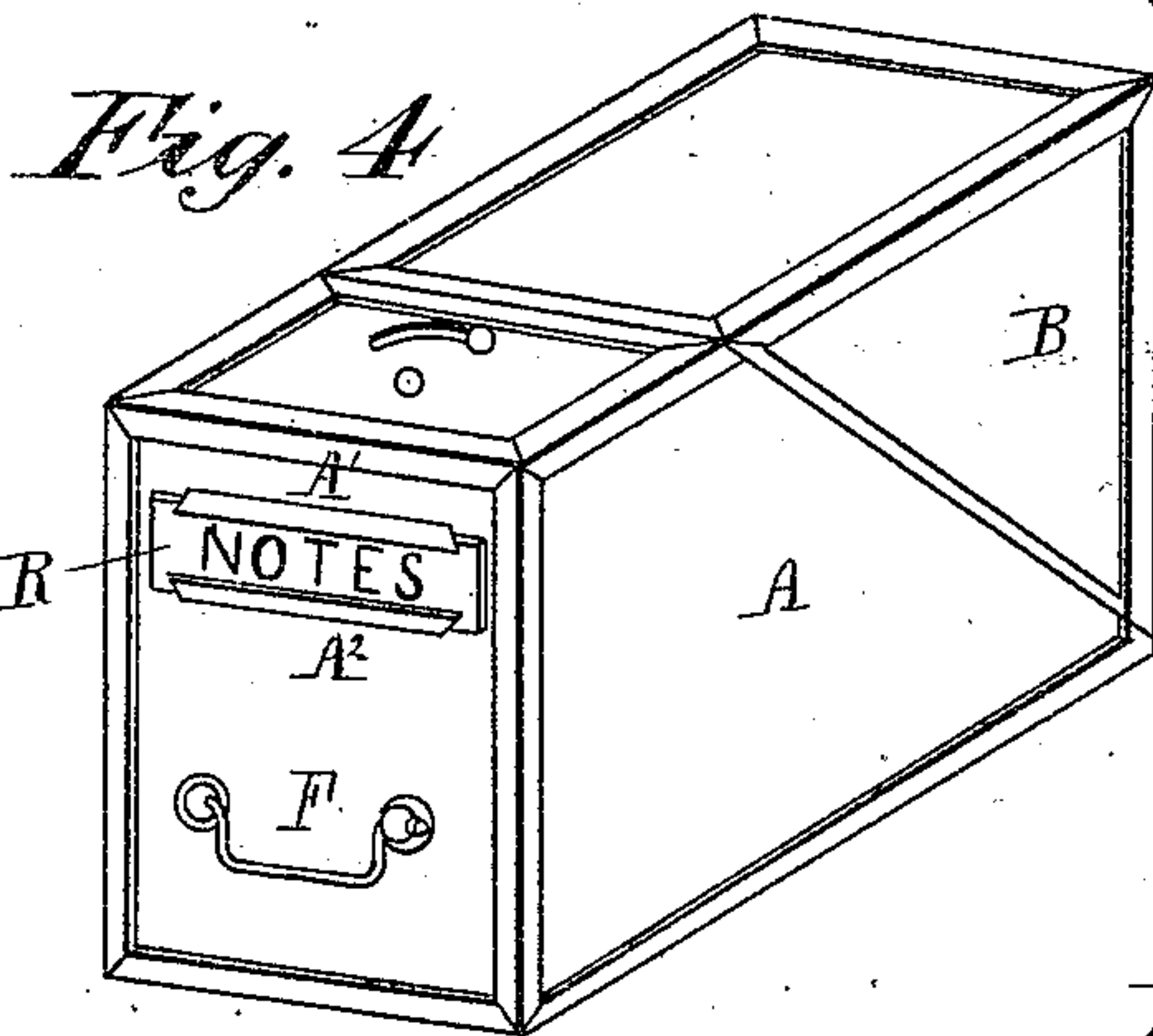


Fig. 4

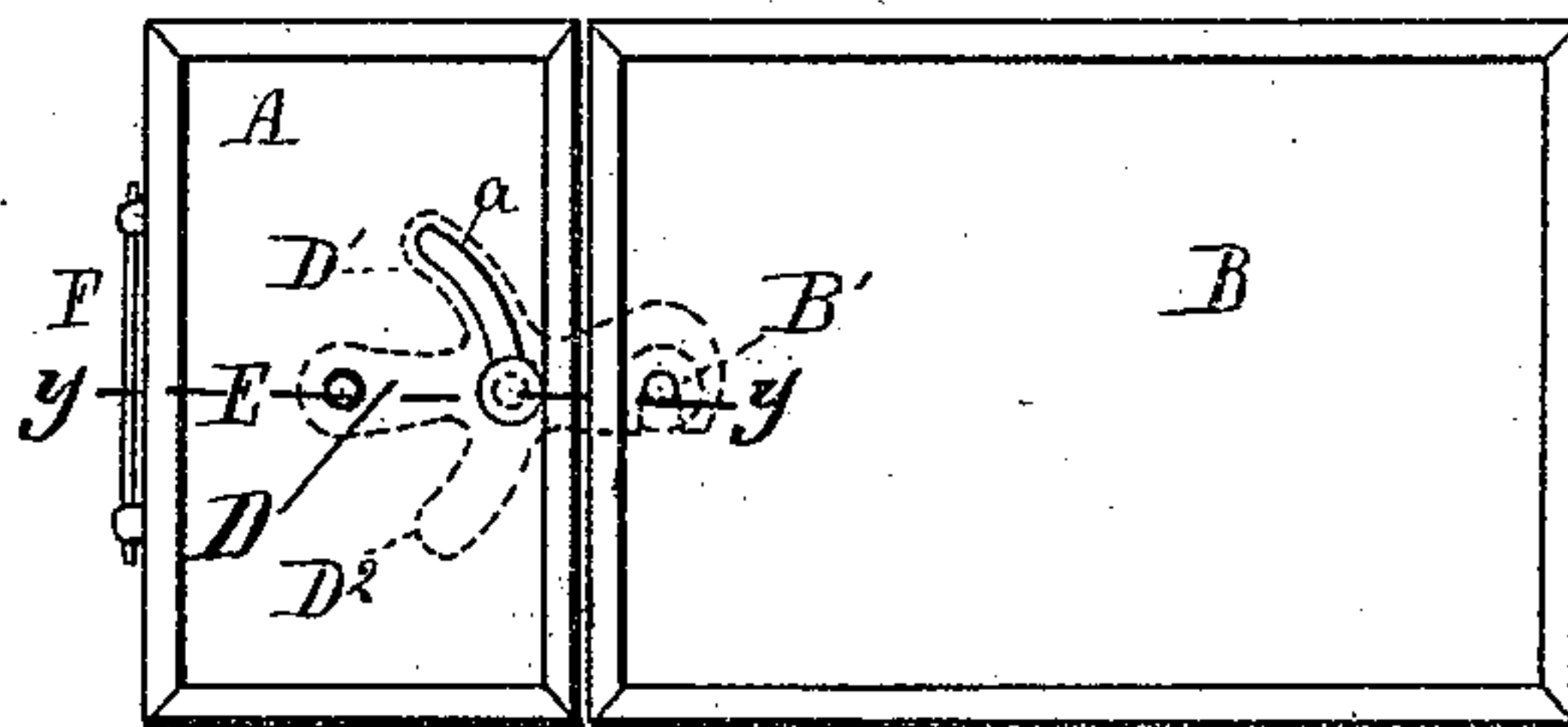


Fig. 5

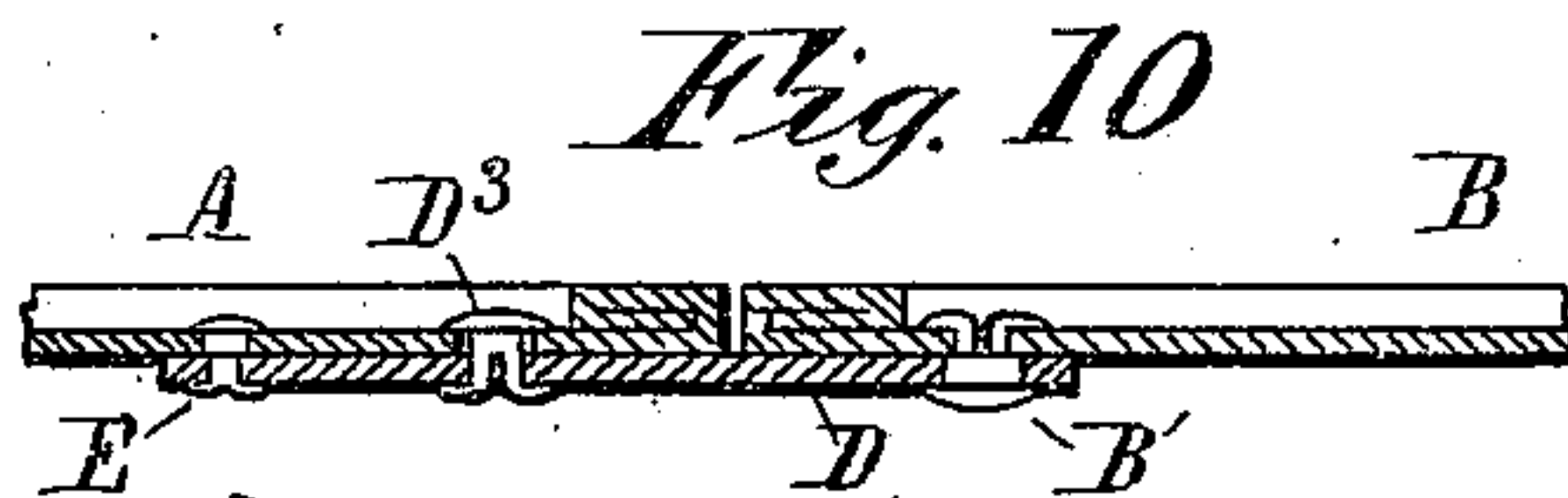


Fig. 10

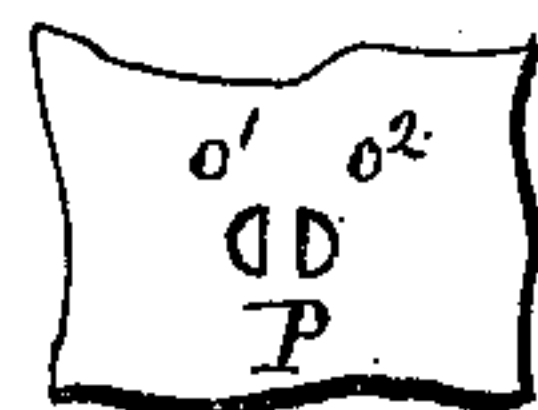


Fig. 12



Fig. 13

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UNITED STATES PATENT OFFICE.

CHARLES C. CHAMBERLAIN, OF PASSAIC, NEW JERSEY.

BILL-FILE.

SPECIFICATION forming part of Letters Patent No. 550,406, dated November 26, 1895.

Application filed May 25, 1893. Serial No. 475,402. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. CHAMBERLAIN, a citizen of the United States; residing at Passaic, in the county of Passaic, in the State of New Jersey, have invented a certain new and useful Improvement in the Construction of Bill-Files, of which the following is a specification.

I provide what I term a "cabinet" or "portable" case, of thin metal, of the proper size and form to receive three or such other number as may be required of the smaller cases which belong together. These inner boxes, which I will designate simply as "cases," are made of sheet-steel, japanned or otherwise prepared to afford a pleasant surface. Except as otherwise herein shown they may be in all respects as set forth in the patent to me dated June 5, 1888, No. 383,859. Each case is made in two parts. The main body and the cover are peculiarly hinged together. The main part contains the papers, and when the case is closed the other part serves as a cover to complete the inclosure and protection. The form of the parts and the construction and arrangement of the single hinge are such that when the case is open the cover may serve as a support to hold the main body of the case in a conveniently-inclined position to allow the removal and examination and return of any of the papers. I provide for conveniently and reliably fastening the case in the closed condition, so that it may be safely carried by a hinged handle attached at the front end, yet allowing the fastening to be operated from the outside by means of a simple slide knob without exposing the interior to dust in either the engaged or the released condition of the fastening.

The accompanying drawings form a part of this specification and represent what I consider the best means of carrying out the invention.

Figure 1 is a perspective view showing three cases properly inclosed in a cabinet. The fastening in this figure is a modification. Fig. 2 is a corresponding central longitudinal section. Both these figures show the closed condition of the case. The succeeding figures show a case or part of a case alone or without the cabinet. Fig. 3 is a perspective view of an empty case in the open condition, arranged

to allow the cover to serve as a support to hold the body in an inclined position. Fig. 4 is a perspective view showing a case closed. Fig. 5 is a corresponding plan view. Figs. 6 to 13, inclusive, are on a larger scale. Fig. 6 is an end view, and Fig. 7 a side view, of a wire prepared to serve as a part of the hinge. Fig. 8 is a side view showing two other wires which serve as other parts of the hinge. Fig. 9 is a plan view of the hinge, showing both wires in dotted lines. Fig. 10 is a section through the fastening-hook and the adjacent parts on the line *y y* in Fig. 5. Fig. 11 is a detached view of one of the rivets employed in connection with the fastening. Fig. 12 is a face view of the metal as punched to receive my rivet. Fig. 13 is a corresponding cross-section. The remaining figures show a modification. Fig. 14 is a perspective view of the modified case closed. Fig. 15 is a corresponding view showing it open, the body, partly filled with papers, being held in an inclined position and presenting the papers in a condition approximating that in which they are more reliably held by the other form. Figs. 16, 17, and 18 represent portions on a larger scale. Fig. 16 is a face view, Fig. 17 a horizontal section, and Fig. 18 a perspective view.

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

Referring to Figs. 1 to 13, inclusive, A is the main body of the case and B the cover thereof, joined by a hinge G G' H H'. I will use super-numerals, as A', when necessary to indicate portions of these parts.

D is a swinging hook turning on a center E and operated by a knob D³ playing in a curved slot *a* in the body A. By turning this hook to the right and left it can engage and release an internal stud B' set in the cover. I form each hook D with wings D' D², which apply on the inside of the slot *a* and keep it closed. The wing D' performs an important function when the hook is in the closed position in preventing the entrance of dust through the slot. The wing D² performs the same duty of excluding dust when the fastening is in the released condition.

I attach importance to the construction of the hinge. In forming the hems along those edges of the parts A and B which are to be

hinged together I take care to have in the innermost fold of each hem less breadth, so that there is a space left, which space receives a wire. The hem in the edge of the main body A incloses the parts G of two wires, each bent to form an eye G' at the mid-length, and the hem in the cover B incloses the parts H of two wires H H'. All these wires are preferably of high steel, and I obtain sufficient strength and stiffness, using so slender wires that they do not much increase the thickness or appreciably distort the form of the hems. The hem in the body A has two apertures a' through which the eyes G' are allowed to protrude. In applying the parts together these eyes are received each in the corresponding apertures b' in the hem in the cover B, and the part H of one of the wires H H' is extended through it. These eyes G' in the wires G and the extension of the wire H through them constitute these eyes reliable portions of the hinge. The wires H H' are doubled or formed around and the parts H' extended inward parallel to but at a little distance from the longer parts H. These parts H' H' are also inclosed within the hem of the part A. It follows that the parts A and B are strongly united, not only at the eyes G' but also at the edges. The hinge thus formed allows the parts A B to turn on two centers or axes $g g$ and $h h$, separated a sufficient distance to allow for the thickness of the hems—that is to say, the hinge itself turns bodily on a center or axial line $g g$, extended along the centers of the straight portions G of the wires G G' and also along the centers of the return portions H' of the wires H H'. That line constitutes one axis of the motion. The cover B also turns on an axial line $h h$, which extends through the centers of the wires H. Thus the hinge instead of compelling the parts to turn upon a single center allows them to turn on the two centers $g g$ and $h h$, the hinge forming a link having sufficient motion to allow the conditions. The hems prevent the link-hinge from swinging too far.

The cover as formed and connected performs important functions when the case is open by resting on the table or other support and holding the main body A in an inclined position, as clearly shown in Fig. 3. This figure shows the body empty. The modification, Fig. 15, shows how a body appears when partially filled with papers. The papers lie in the same manner in the body in the main form of my cases.

P is a handle attached to the front by eyes, so that it can fold down in an obvious manner when not in use.

My case closes so securely that it may be carried with safety by the handle, however heavily it may be loaded with papers.

M is a large rectangular case or portable cabinet of sheet-steel, open on one side and having the proper dimensions to inclose three or other required number of my cases A B, which are adapted to serve together. This cabinet being of such thin material does not

add appreciably to the space occupied and serves usefully in keeping them together and indicating significantly to the eye if one is missing. It keeps them together in case of moving and contributes much to the preservation of the contents when the cases are exposed to water from an open window or a leaky roof or to the conditions which obtain during and after a fire.

I use a forked rivet, as shown by I I' I² I³ in Fig. 11. Instead of a single hole to receive each rivet, I arrange two, as indicated by o' o^2 in Figs. 12 and 13. The cross-bar left in the sheet metal between these holes is of a width about equal to the space between the forks in the rivet. In securing the rivet I employ a "set" of proper form to spread the forks. I make the forked rivet for the stud B' with an offset or shoulder I³, as shown in Fig. 11, which rests against the sheet metal on the interior of the cover B, and when the rivet is firmly set it aids to hold the head sufficiently off to allow space between such head and the sheet metal to permit the hook D to be engaged and disengaged with the proper freedom. The other rivets need not have such an offset. The fork I' I² of the rivet-body may extend in such other rivets quite to the head, but where the head is required to be held off from the body such effect may be obtained in part by the cross-bar, the metal being allowed to remain unremoved between the holes punched for each rivet. When in the application of my rivet the forks I' I² are inserted in the two holes o' o^2 until the solid part of the rivet above the bifurcated part rests on the cross-bar P of the sheet metal, it serves as a stop to prevent the head of the rivet from being set down too close. The rivet will therefore be held with some force in the correct position to allow a hook or other object to play between the head and the metal to which the rivet is secured without requiring any shoulder.

I employ both the rivet of bifurcated form I' I², set in the two holes o' o^2 with the cross-bar P between, and also have the offset I³ in the body of the rivet resting in an obvious manner on the face of the sheet metal. The rivet is thereby held with increased security. The cross-bar P strengthens the sheet metal adjacent to the hole and enables the rivet to be secured efficiently in very thin material.

I distinguish the several fronts A one from another by giving them different colors and also by labels R of cardboard or the like inserted in holders A' A², soldered or otherwise attached.

In the modification shown in Figs. 14 and 15, and portions also in Figs. 16, 17, and 18, the body is not hinged to the cover, but slides within a covering-case like a drawer. It is secured by a turning catch D⁴, which is operated by a knob D⁵, playing in a curved slot a^2 in the body. The projecting end of this catch D⁴ engages in a slot b^2 in the side of the cover. It is engaged like the hook in the other

and principal form and similarly closes the slot on the inside.

Further modifications may be made without departing from the principle or sacrificing the advantages of the invention. I can dispense with the enameling or other surfacing of the parts A or B, or both. Parts of the invention can be used without the whole. I can connect the parts A and B by a hinge at the angle shown, so that the device may serve successfully without the peculiar construction of the hinge turning on two centers. I can have a greater number of the eyes G' and of the corresponding apertures a' and b'. I prefer the whole as shown.

I claim as my invention—

1. In a two-part case for papers, having sheet metal formed in hems at the adjoining edges, the hinge described composed of the hems having apertures a' and b' the wires G inclosed in the hem of the part A, and having eyes G', in combination with the wires H inclosed in the hem of the other part B, the latter wires having return parts H' inclosed in the part A, all arranged for joint operation substantially as herein specified.

2. In combination with a case A adapted for storing and exposing papers, a cover B and flexible connection G, G', H, H', the swinging

hook D mounted in the interior of the body, and having an operating knob D⁵, traversing in the curved slot in the body, adapted to be operated from the outside, and wings D', D², all arranged to serve substantially as herein specified.

3. In a case adapted for storing and exposing papers, composed of two parts A, B, the part A carrying a hook D having an operating knob D⁵ traversing in a slot in such part arranged to be operated from the outside of the case and wings D', D², arranged to slide on the inner face of the case and cover such slot, so as to defend the contents against dust, and the other part B carrying a stud B' in its interior which is forked and engaged in two holes o', o², in the sheet metal with a cross bar remaining between them, the two parts constituting a case adapted to hold papers exposed when in the open condition and protected when in the closed condition, all substantially as herein specified.

In testimony that I claim the invention above set forth I affix my signature in presence of two witnesses.

CHAS. C. CHAMBERLAIN.

Witnesses:

M. F. BOYLE,

H. A. JOHNSTONE.