

(Model.)

2 Sheets—Sheet 1.

L. P. DISS.

MAGAZINE FOR FIRE ARMS.

No. 304,712.

Patented Sept. 9, 1884.

Fig. 1.

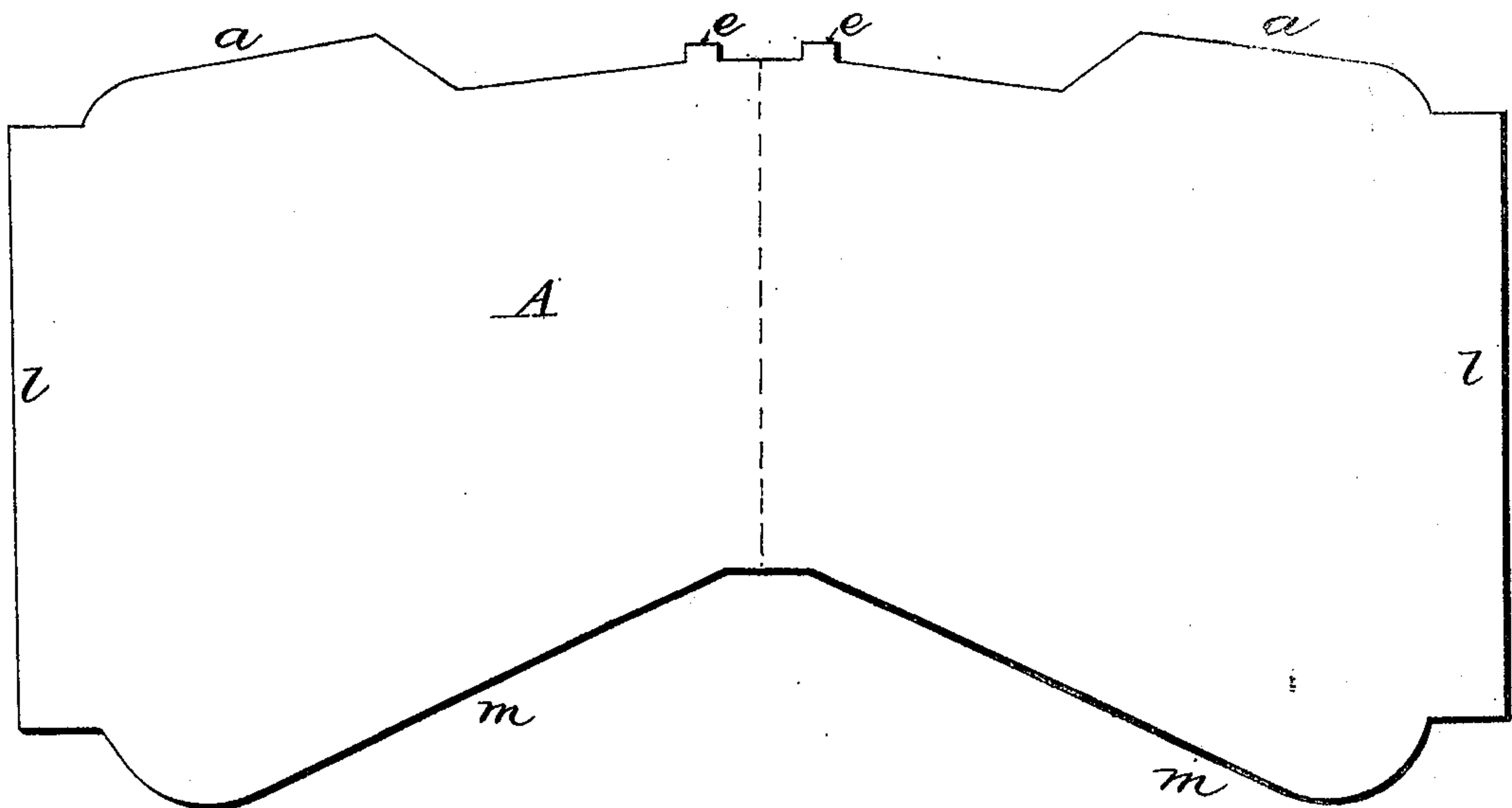


Fig. 2.

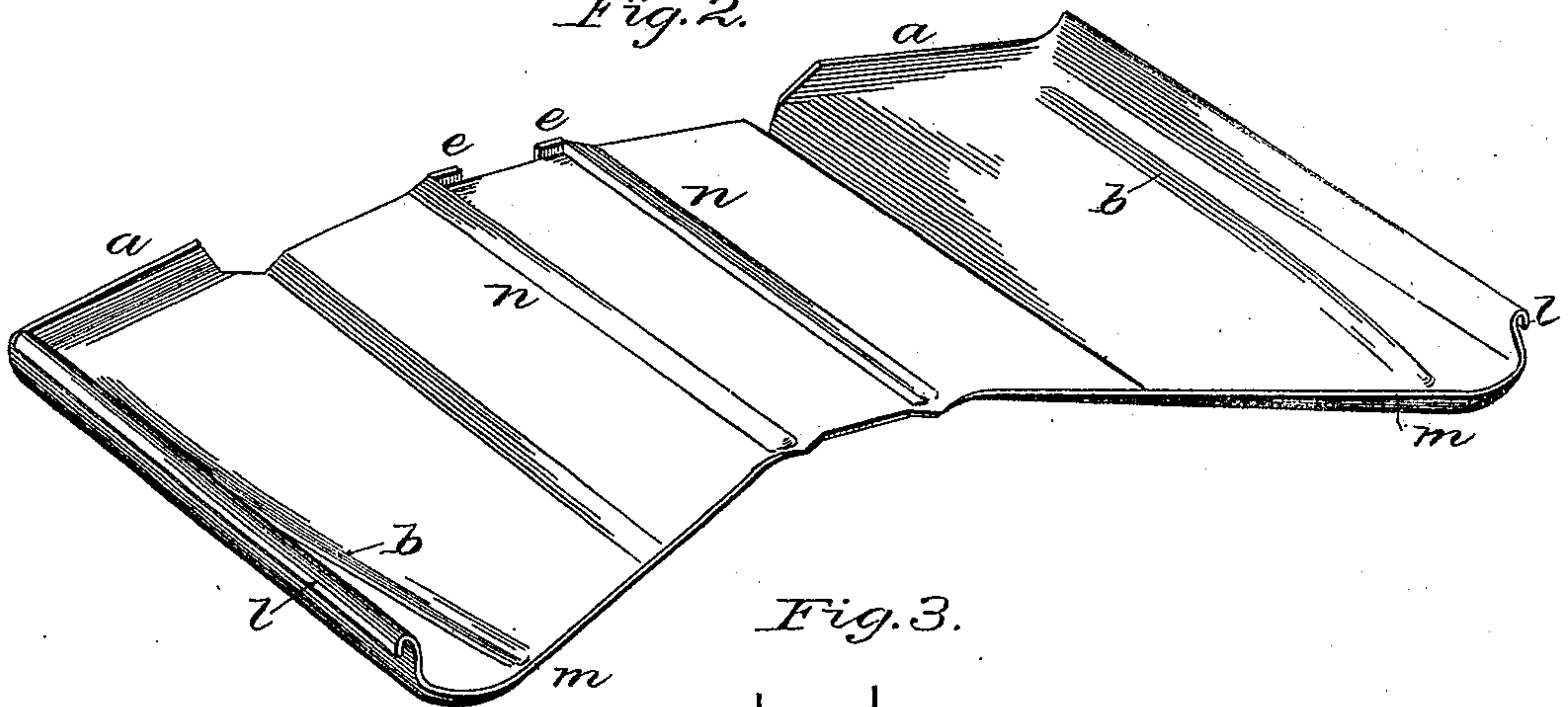


Fig. 3.



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Fig. 4.

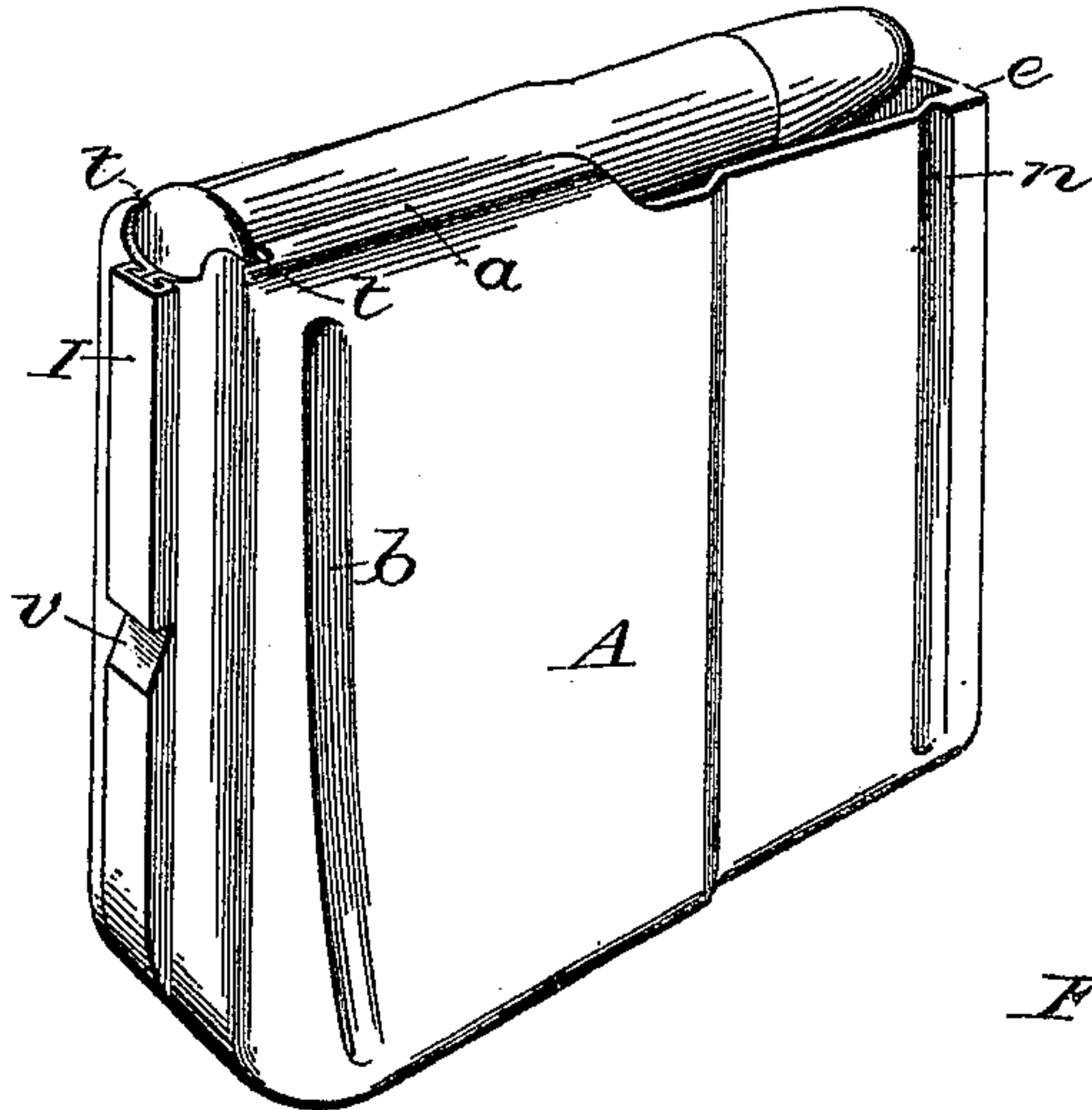


Fig. 7.

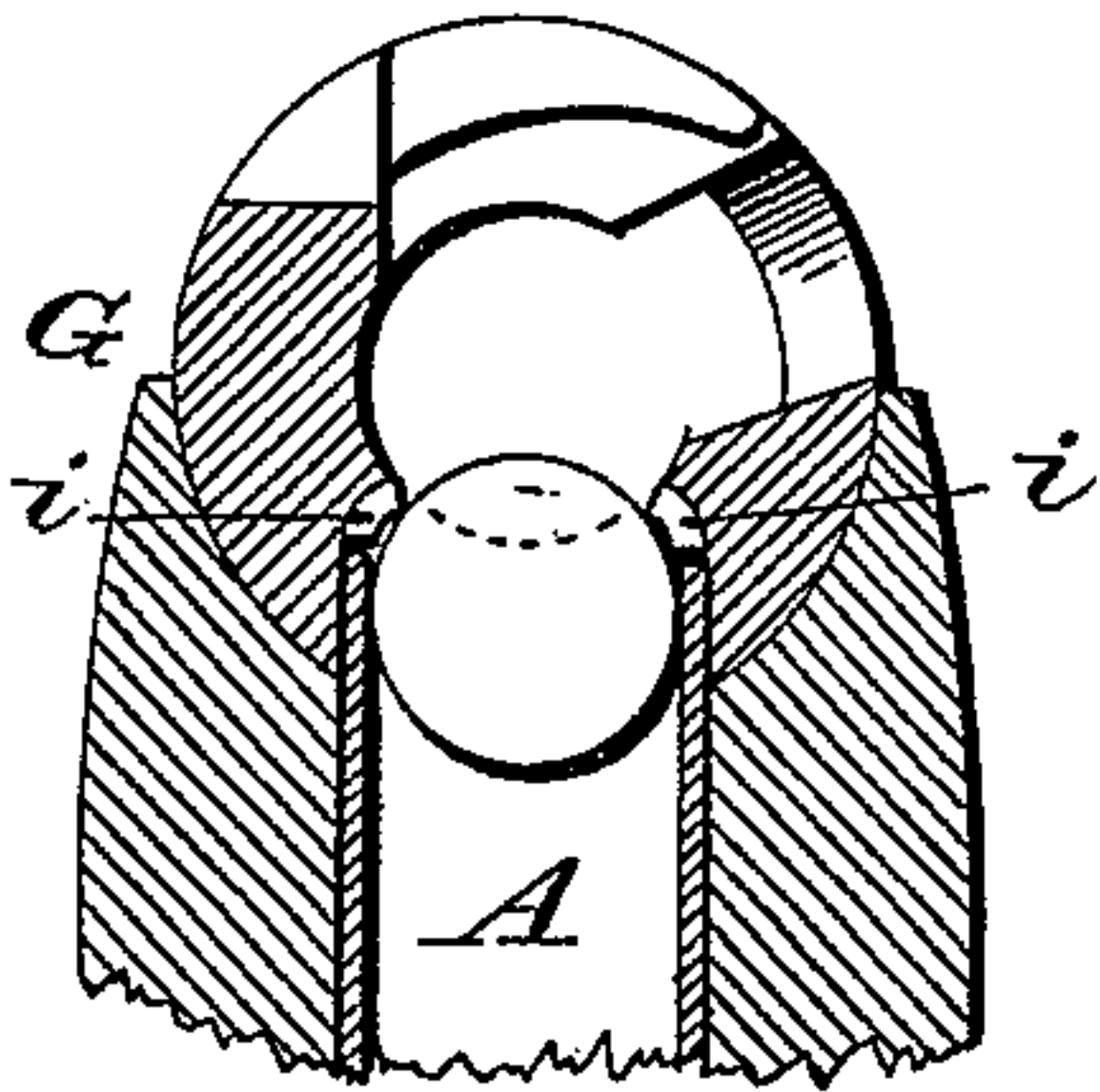


Fig. 6.

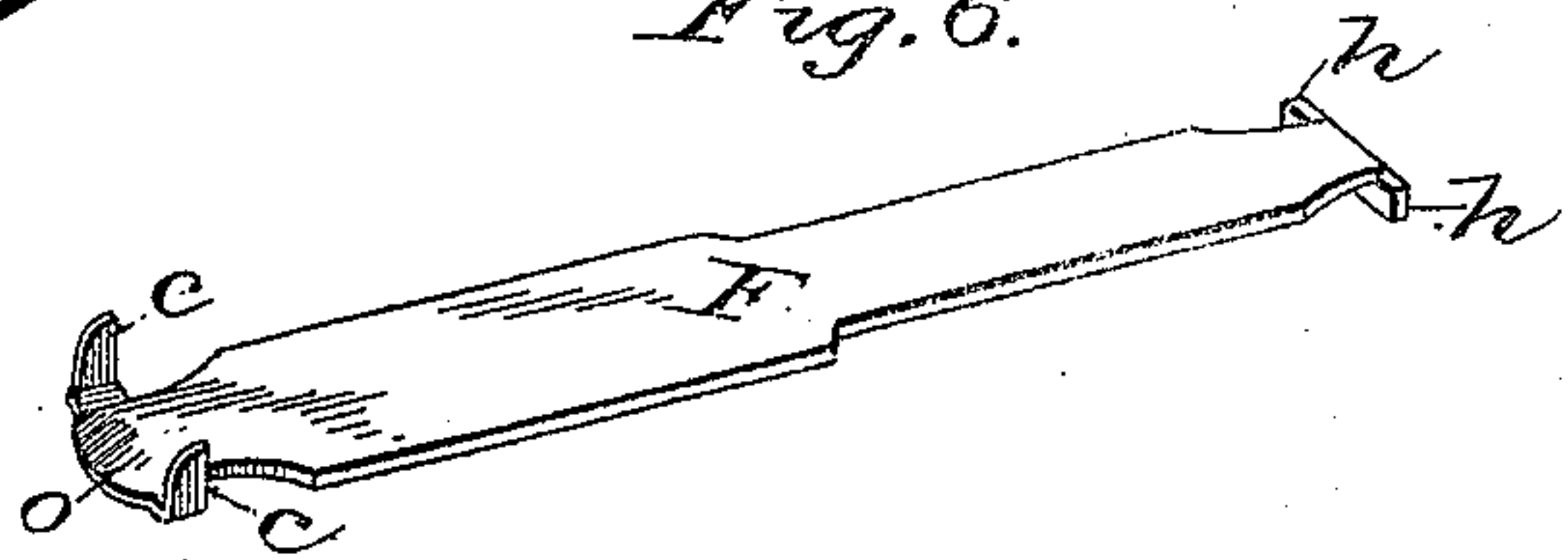
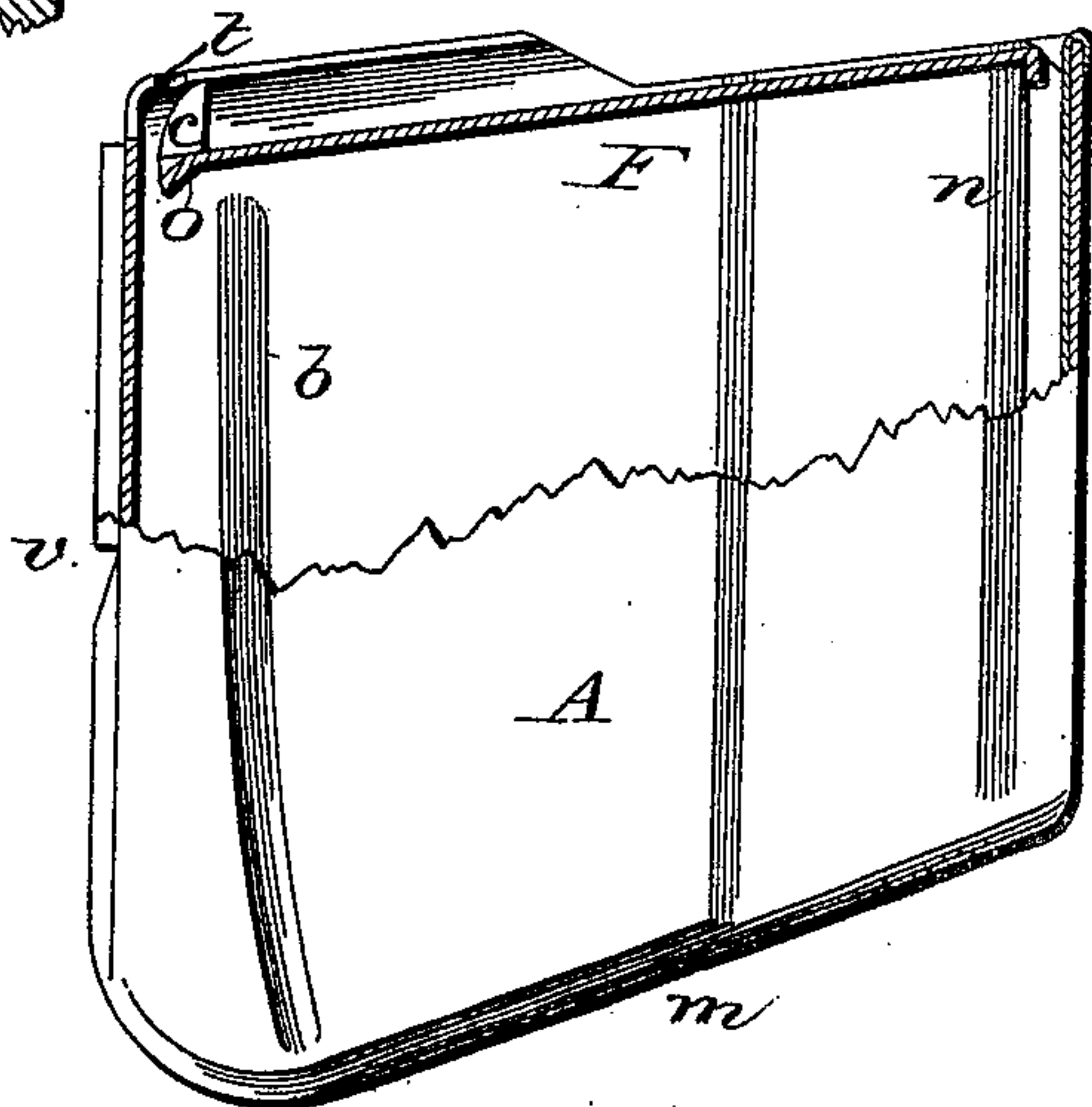


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

LOUIS P. DISS, OF ILION, NEW YORK, ASSIGNOR TO E. REMINGTON & SONS,
OF SAME PLACE.

MAGAZINE FOR FIRE-ARMS.

SPECIFICATION forming part of Letters Patent No. 304,712, dated September 9, 1884.

Application filed June 4, 1884. (Model.)

To all whom it may concern:

Be it known that I, LOUIS P. DISS, of Ilion, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Magazines for Fire-Arms, of which the following is a specification.

This invention relates to detachable magazines for fire-arms of that class shown in the patent of James P. Lee, November 4, 1879, No. 221,328; and the invention consists in certain features hereinafter set forth.

Figure 1 is a plan view of the blank which forms the box, and Fig. 2 is a perspective view of the same after it has been subjected to the action of stamps or tools to give it the required form preparatory to bending it and uniting the ends to complete the box. Fig. 3 is a transverse section showing the locking-joint. Fig. 4 is a perspective of the magazine complete. Fig. 5 is a side view of the same, partly in section; Fig. 6, a perspective view of the follower detached; and Fig. 7 is a transverse section of a gun and magazine, showing the manner of automatically releasing the cartridges by the act of attaching the box to the gun.

Heretofore these magazines have been constructed with various forms of sliding or movable detents for retaining the cartridges in the box when detached from the gun, and they were made to deliver the cartridges in such a manner that it was necessary to construct the shoe of the gun with what is technically termed an "overhang," in order to prevent the cartridges from being thrown out of the shoe as they emerge from the magazine, their front ends being elevated so much that when released they were liable to be thrown entirely out of the shoe unless prevented by the overhang or wall above.

The object of my present invention is to dispense with all forms of movable detents, and to so construct the box and the follower as to deliver the cartridges in such manner and position that the overhang of the gun can be dispensed with and the cartridges be shoved direct into the chamber of the gun, and also to improve the construction of the box itself. To accomplish these objects I first cut a blank

from sheet metal of the form shown in Fig. 1, it being provided on its upper edge with an elongated projection, *a*, near each end, and near the center with two small projections, *e*, these projections being subsequently turned down to form lips, as shown in Fig. 2. I then press the blank into the shape or form shown in Fig. 2 by forming two vertical creases, *n*, near the center, to form internal ribs, and two inclined and slightly-curved creases, *b*, to form similar ribs at the rear of the box when completed. The projections *a* and *e* along the top are also bent over to form lips, as shown, and the lower edge, *m*, is turned up to form an inwardly-projecting flange on each side along the bottom, for the purpose of stiffening the sides, in case it be made with the bottom open, as described in my application filed May 9, 1884. If, however, it be desired to make the box with the bottom closed, it is only necessary to extend the metal of the blank along its lower edge enough to make the flange *m* wide enough to meet when the blank is bent to complete the box. The two ends *l* of the blank are first bent upward, and then have their edges bent back, as shown in Fig. 2. The blank thus formed is then bent into the proper form, so as to bring its extreme ends together to form the rear wall when they are locked together by a narrow strip of metal, *I*, bent as shown in Figs. 3 and 4, this strip being shoved endwise over the curved lips or flanges on the adjoining edges of the ends *l* of the blank after they have been brought together, when the joint or seam thus formed is subjected to pressure in a suitably-shaped die, whereby the same is closed and the parts firmly united without the use of solder. The joint thus formed produces a vertical rib along the center of the rear wall, in which is subsequently cut the notch *v* for the spring-catch that secures the magazine in place when attached to the gun.

It is obvious that, if desired, the blank may be made in two pieces instead of one, as indicated by the dotted line in Fig. 1, there being sufficient metal added at that point to form the lips for a joint at the front like that already described at the rear. When the box has been

thus formed, it will be seen that the curved lips *a* extend from the rear forward for about one-half the length of the box, and will therefore have such a hold upon the cartridge as to prevent its front end from tipping up, as in the old style of boxes, the cartridge, as shown clearly in Fig. 4, being held parallel with the lips *a*, they being so inclined as to hold the cartridge in such a position that its front end will just ride over the front wall of the box when the cartridge is pushed forward, and it will thus go forward direct into the chamber of the gun.

In order to control the movement of the follower *F*, and keep it at all times in the proper position, and prevent its front end from rising so much in advance of the rear end as to tend to throw the front of the cartridges upward too much to enter the chamber without the aid of the overhang, as has hitherto been the case, I make the follower with notches and ears at both ends, as shown in Figs. 5 and 6. The notches are located to come opposite the internal ribs, *n* and *b*, on the inside of the box, while the ears or projections *h* at the front end engage against the front walls of the ribs *n*, and the rear ears or projections, *c*, engage against the rear walls or faces of the ribs *b* near the rear of the box. It will be readily seen that these ribs on the box, acting in connection with the ears on the follower, act as guides, and thus direct or control the movement of the follower within the box. The follower is preferably made a little longer than the box, and being placed in position with its front end the highest, it is thereby prevented from having its front end depressed accidentally below the level of the rear end. This feature of itself is shown in my previous application in connection with the front ribs and ears, and also the lips *e* at the front upper corners, to prevent the follower from being pushed out of the box by the spring when the box is emptied of its cartridges; but that had no means of controlling the movement of the rear end of the follower. Now, by adding the rear ribs, *b*, and the rear ears, *c*, the movements of the follower are controlled, so that as it moves up and down in the box it is compelled to move bodily, and thus retain at all times nearly the same position relatively to the top of the box. The object of curving the rear ribs, *b*, is to permit the rear end of the follower to change its inclination to correspond with the greater diameter of the rear portion of the cartridges as the box is filled, it of course rising proportionably faster than the front end as the cartridges are fed out of the box. It is immaterial what the form or shape of these ears on the follower may be so long as they engage with the ribs, as described; but by making the rear ears, *c*, to project vertically, as shown in Figs. 5 and 6, they prevent the follower from accidentally getting turned edgewise in the box; and for that reason I prefer to make them as shown. They might be turned downward instead of upward, as those

at the front are, and be made to operate the same; but by turning one set up and the other set down the two sets thus secure a broader bearing against the walls of the box.

As shown in Fig. 6, the rear end of the follower *F* is beveled by bending the metal downward, as shown at *o*, to form a recess for the flange of the cartridge, thus permitting the body of the cartridge to rest fairly upon the follower, and at the same time forming an incline, up which the flange of the cartridge can be readily shoved when it is removed from the box into the chamber of the gun. The flange resting in this recess also assists to hold the cartridge from any forward movement until struck by the bolt, when a single cartridge only is left in the box.

In order to retain the cartridges securely in the box when the latter is detached from the arm, and dispense with the movable detents of various kinds heretofore used, I cut a small notch, *t*, in each lip, *a*, near their rear ends, as shown in Figs. 4 and 5, so that the flange of the uppermost cartridge will engage in these notches, as shown in Fig. 4, thereby preventing it from being moved forward until it has been depressed enough to release its flange from said notches, the spring in the magazine of course keeping the cartridges pressed up, so as to hold the uppermost cartridge with its flange resting in the notches *t*, as shown.

In order to automatically release the flange from the notches *t*, so the cartridge can be shoved forward from the box into the gun, the latter is simply provided with a couple of small projections, *i*, as shown in Fig. 7, they being located one on each side in the proper position to enter and fill the notches *t* in the lips *a* of the box as the latter is shoved into position in the gun, these projections *i* of course coming in contact with the flange on each side, and thereby depressing the cartridge in the box sufficiently to release its flange from the notches. The bolt of the gun, moving in line with the bore, will, as it is shoved forward, strike against the upper portion of the head of the cartridge, as indicated by the dotted line in Fig. 7, and shove it directly forward into the chamber of the gun.

Any form of spring may be used with this follower in the magazine, as may be preferred.

By this construction of the magazine I am enabled to dispense with all forms of movable detents for retaining the cartridges in the box to control the movement of the follower, so as to always present the cartridge in the proper position to enable it to be shoved direct into the chamber without the aid of the overhang on the gun, thereby rendering the latter that much lighter, and to some extent simplifying and cheapening the construction of the arm.

By my method of cutting out and forming up the blank I simplify and cheapen the construction of the box, and by the manner of

forming the joint I render it secure without the use of soldering or brazing, thereby also forming a suitable rib for cutting the retaining-notch for the spring-catch of the gun to engage in.

Having thus described my invention, what I claim is—

1. A cartridge magazine or box, A, substantially such as described, provided with the elongated lips *a*, arranged along its rear upper portion, and extending forward far enough to hold the cartridge in proper position to enable it to be shoved direct into the chamber of the gun, substantially as shown and described.

2. A cartridge magazine or box provided with the elongated lips *a*, having notches *t* at or near their rear ends for the flange of the cartridge to engage in, whereby the cartridges are held secure in the box, and the movable detents heretofore used are dispensed with.

3. A magazine for cartridges, substantially such as described, provided with the internal ribs, *b* and *n*, near its front and rear ends, re-

spectively, in combination with ears *c* and *h*, said ears being arranged to bear against the front side of the front ribs and the rear side of the rear ribs, whereby the movement of the follower within the box is controlled, and it is prevented from having one end depressed to any considerable extent independently of the other, as set forth.

4. The follower F, composed of a strip of sheet metal cut of the proper form to fit the box, and having the ears *h* and *c*, formed at its opposite ends, one or both of said pairs of ears being bent into a vertical position, substantially as shown and described.

5. A cartridge magazine or box composed of one or more sheets of metal cut and bent to the proper form, and having their ends united by means of the lips *l*, and flanged strip *I*, arranged as shown and described.

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Witnesses:

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