

J. C. HEDGES.
 LOOSE LEAF BOOK.
 APPLICATION FILED SEPT. 14, 1907.

899,594.

Patented Sept. 29, 1908.

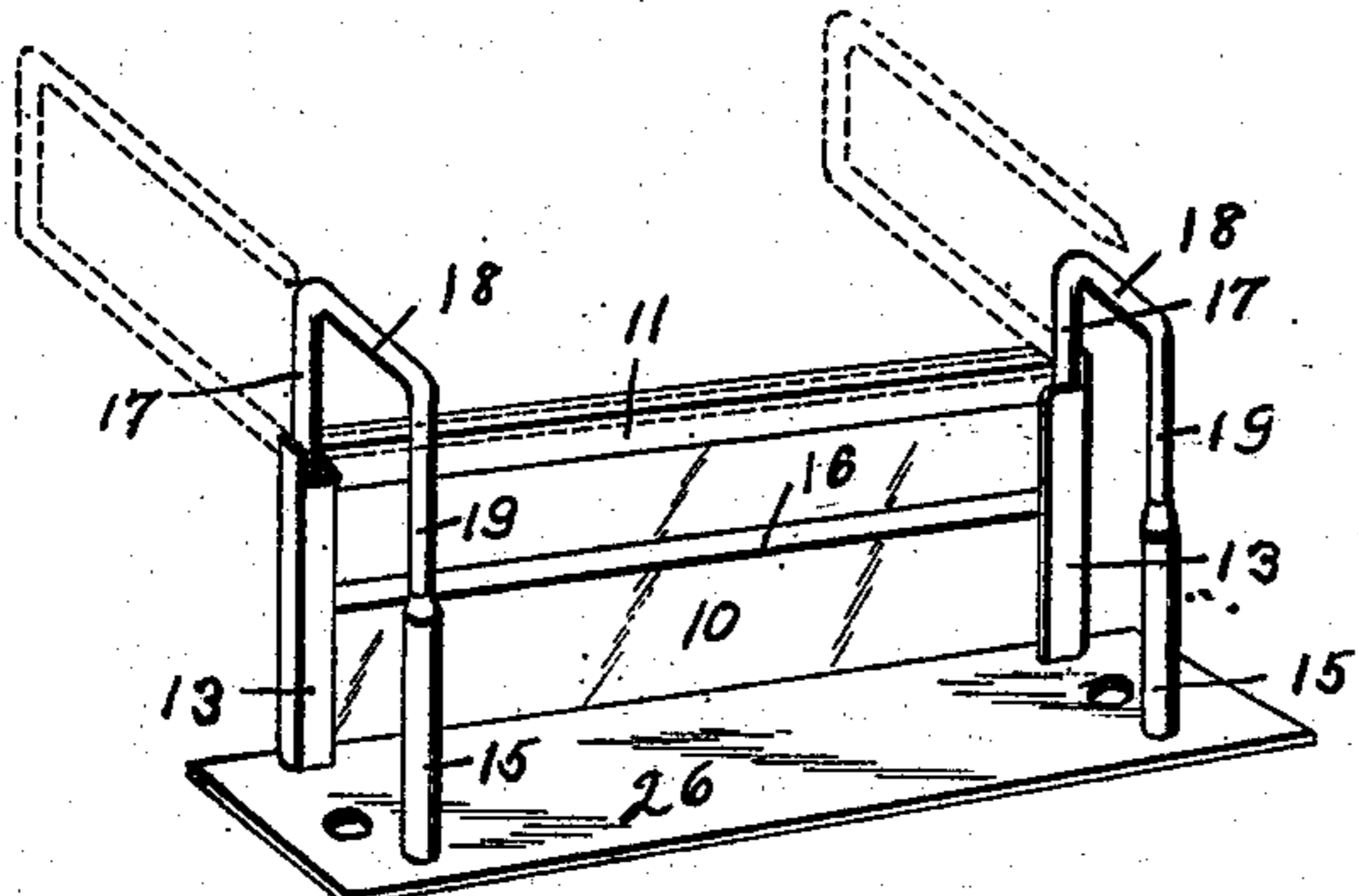


Fig. 2.

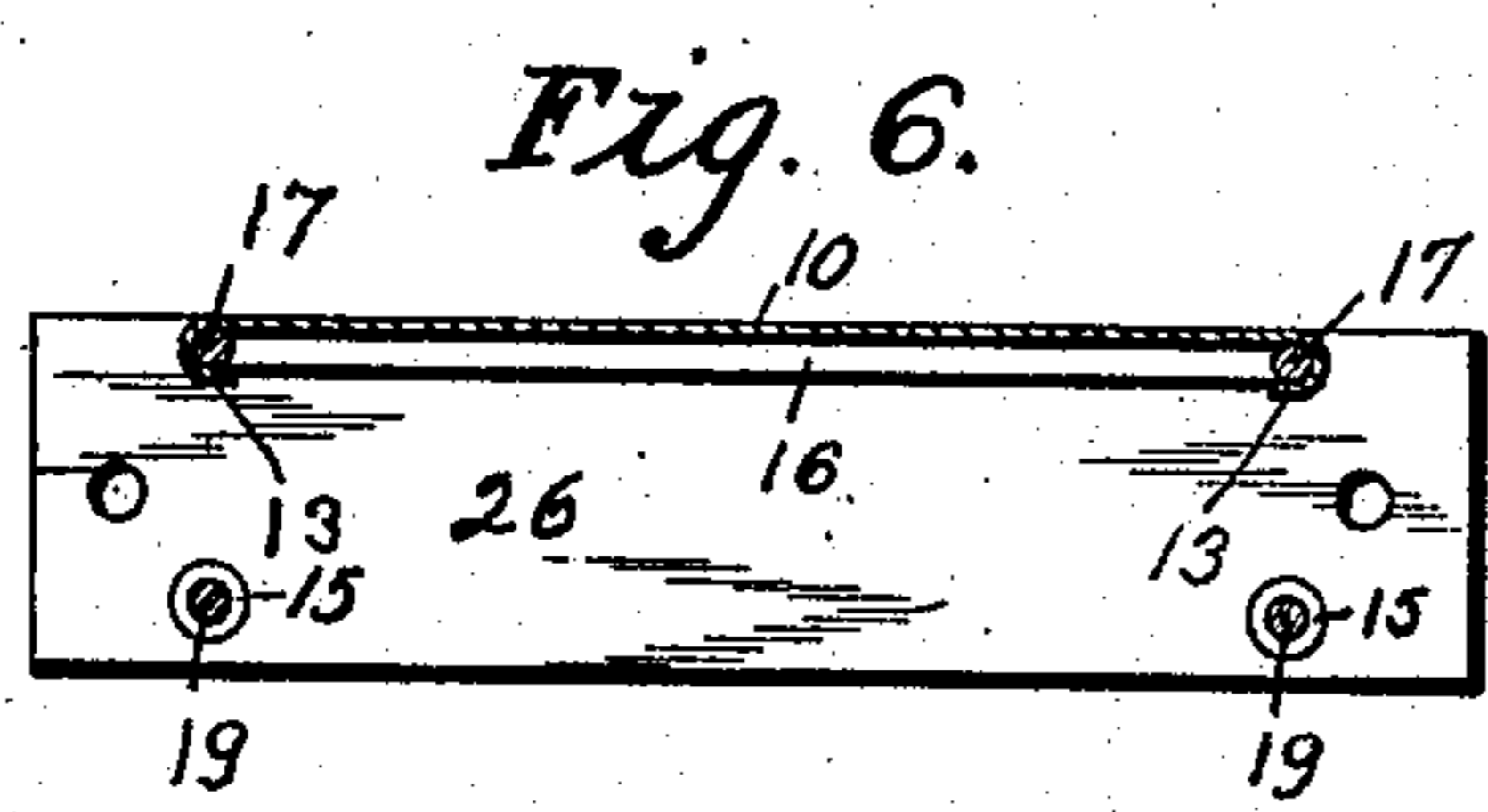


Fig. 6.

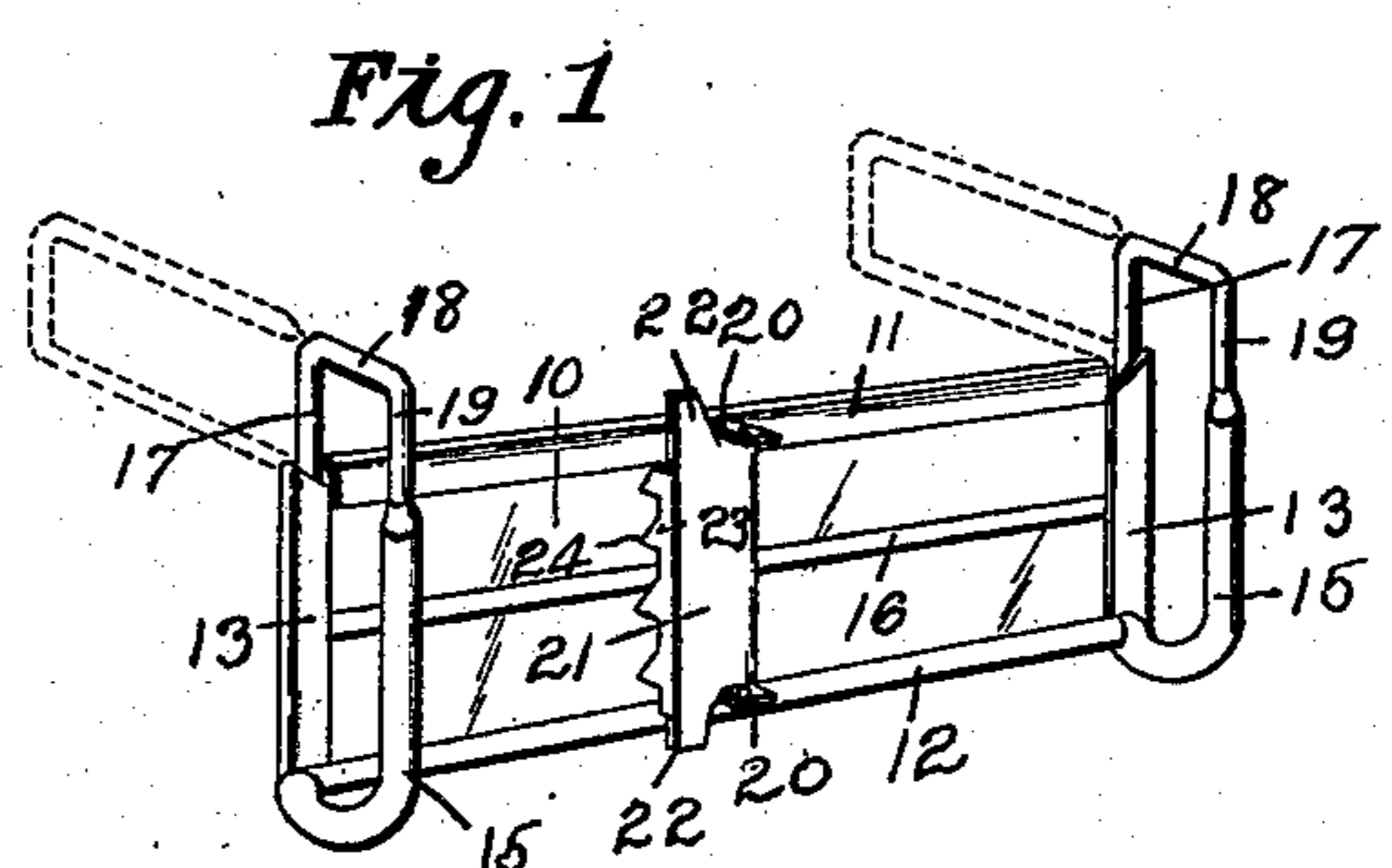


Fig. 1.

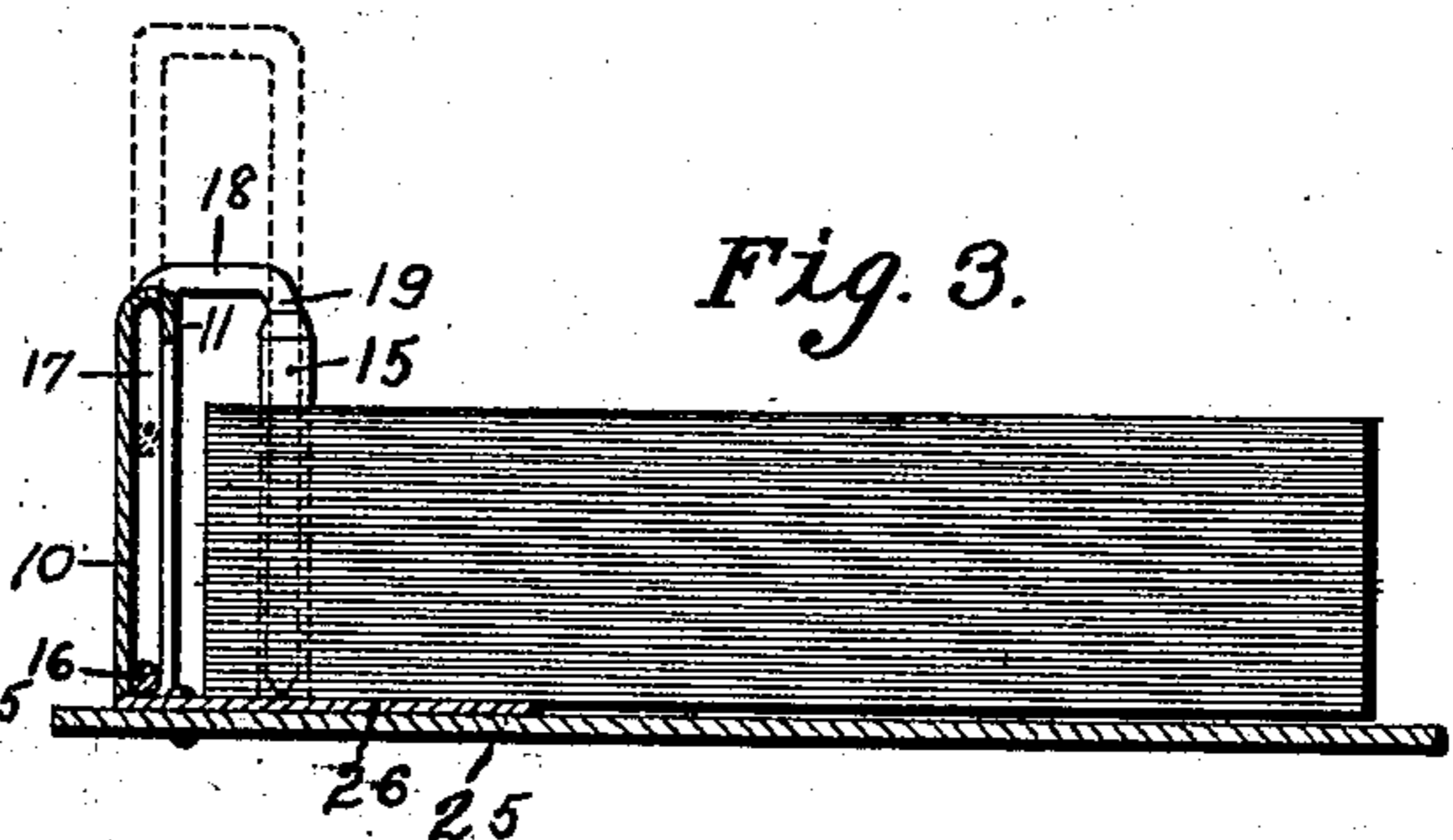


Fig. 3.

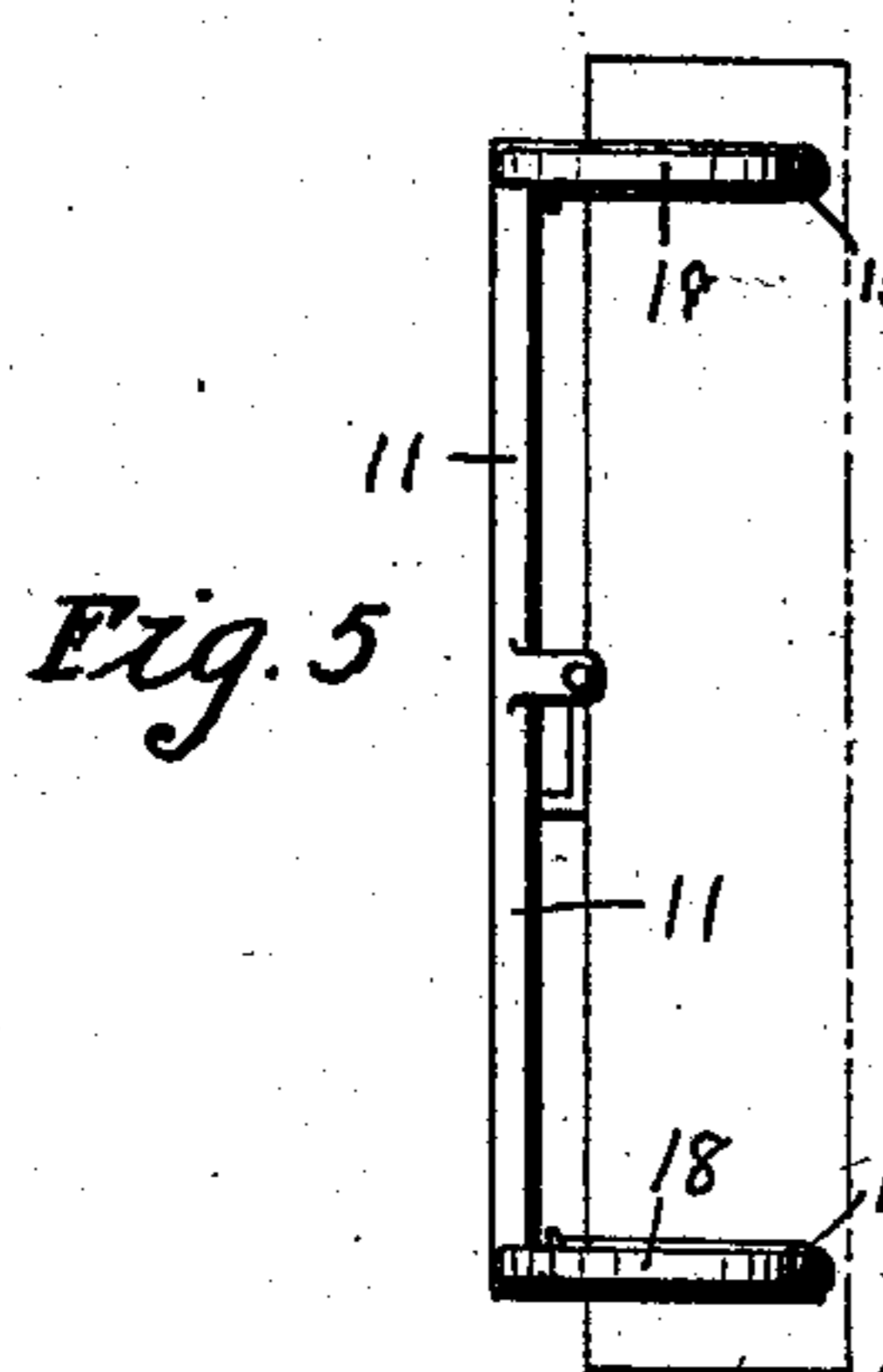


Fig. 5.

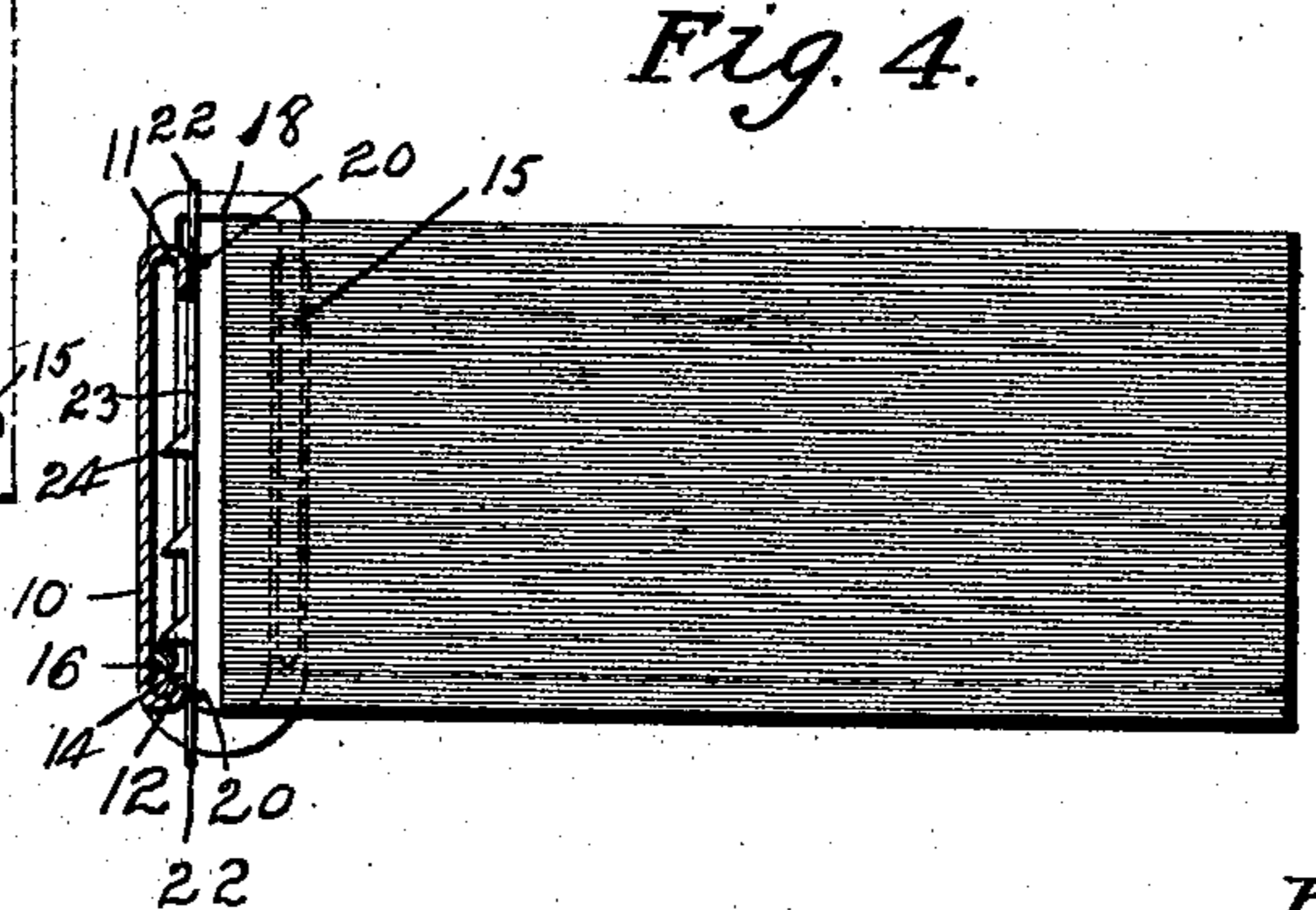


Fig. 4.

Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN C. HEDGES, OF DES MOINES, IOWA.

LOOSE-LEAF BOOK.

No. 899,594.

Specification of Letters Patent.

Patented Sept. 29, 1908.

Application filed September 14, 1907. Serial No. 392,901.

To all whom it may concern:

Be it known that I, JOHN C. HEDGES, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a certain new and useful Loose-Leaf Book, of which the following is a specification.

The object of my invention is to produce a binder for loose leaf books of simple, durable and inexpensive construction, so arranged that the binder projects only a slight distance beyond the back of the book, so that the book may be easily laid down flat on its back and also so arranged that the leaves of the book may be opened out almost flat and may be readily and easily detached.

A further object is to provide an improved automatic locking device for preventing accidental opening of the binding, which locking device may be quickly and easily released when it is desired to open the binder.

My invention consists in certain details in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims and illustrated in the accompanying drawings, in which—

Figure 1 shows a perspective view of a binder embodying my invention, the dotted lines showing the hinged member in its open position. Fig. 2 shows a similar view of a modified form. Fig. 3 shows a longitudinal, sectional view of a file having my improved binder attached thereto. Fig. 4 shows a similar view of the form of invention shown in Fig. 1. Fig. 5 shows a top or plan view of the binder with a part of a book in position therein, and Fig. 6 shows a horizontal, sectional view through the form of binder shown in Fig. 3.

Referring to the accompanying drawings, and particularly to the form of the invention shown in Figs. 1 and 4, the reference numeral 10 is used to indicate the back of the device. It is preferably made of a single piece of sheet metal with its margins bent at right angles to the back, and then again in a plane parallel with the back to form spaced guide-ways 13 at each end of such back, and the top and bottom guide ways 11 and 12. Secured in the guide-way 12 is a rod 14 with its ends extended downwardly and rearwardly and then curved upwardly. Mounted on the ends of the rod 14 are the tubes 15 open at their upper ends and extended straight

downwardly and then connected to the ends of the rod 14.

The sliding member of the binder is formed complete of a single piece of wire rod, comprising a straight portion 16 extended across the rear face of the back 10 and two upright portions 17 mounted in the guide-way 13, each of the upright portions having at its upper end a rearwardly inclined portion 18 and a downwardly extended sharpened portion 19 to enter the tubes 15.

In practical operation with this part of the device, the leaves of the book are first placed upon the tubes 15, and then the ends 19 are inserted in the tubes and pushed down into them as far as possible. If it is desired to remove any of the leaves, the operator grasps with his thumb and finger the parts 18, and by pulling upwardly upon them, removes the ends 19 from the tubes 15 until the parts 16 rest in the guide-way 11. Then the upright portions 17 will be free to swing rearwardly on a pivot comprising the part 16 in the guide-way 11. The movable member is shown in its open position in dotted lines in Fig. 1. By having the tubes 15 connected to the back 10, as shown, it is obvious that the binder may be conveniently used in connection with a book and with the upper or lower leaves of the book may be opened out by moving them along the curved portion of the tubes 15 on the parts 18 and 19.

In some instances it is desirable to provide means for holding the movable member of the binder in a locked position. I have provided a simple and inexpensive device for this purpose as follows: On each of the guide-ways 11 and 12 I have formed lugs 20, which lugs project rearwardly. A latch device is pivoted in said lugs at one edge, which latch device comprises a flat body portion 21 with lugs 22 projecting above and below it, and with a forwardly extended edge 23 provided with teeth 24 on the side of the body opposite from the pivotal point. These teeth are so arranged that they will engage the part 16 of the movable member and prevent it from moving upwardly. The body portion 21 of the locking device normally stands close to the leaves to thereby prevent it from accidentally swinging rearwardly and releasing the parts 16. However, the operator may, by grasping either of the lugs 22, swing the body portion 21 rearwardly far enough to permit the parts 16 to be elevated without coming in contact with the teeth 24.

In the modified form shown in Figs. 2, 3 and 6, I have shown the device especially adapted for use as a file. This device comprises a flat back 25 and a base 26 fixed to it. 5 The back 10 is connected with this base 26 and the tubes 15 are also connected with the base 26, as clearly shown in Fig. 2, thus dispensing with the guide-way 12 at the bottom of the back and also with the curved portions of the tubes 15. In other respects 10 this form of the device is constructed similar to the one just described.

Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States, therefor is—

1. In a device of the class described, a back having its top and end margins bent at right angles to the back, and then toward the center of the back to form spaced guide-ways, 20 two open ended tubes supported in the rear of and adjacent to the back and spaced apart from the back, and a movable member formed of a single piece of wire rod and comprising a straight central portion arranged 25 adjacent to the rear surface of the back with its end portions arranged within the said spaced guide-ways, upright members at said end portions slidingly mounted in said guide-ways, each end being extended first rear- 30 wardly and then downwardly to enter the open ended tubes, said parts being so arranged that when the central portion of said wire rod is elevated to position where it enters the top guide-way, it may freely rotate 35 therein to permit the tubes to swing forwardly and outwardly.

2. In a device of the class described, the combination of a sheet metal back having its upper, lower and end guide-ways bent at 40 right angles and then toward the center of the back to form guide-ways, a wire rod mounted in the lower guideway with its ends extended rearwardly, two open ended tubes mounted on said ends of the rod and extend-

ed rearwardly and then upwardly parallel 45 with the back, and a movable member formed of a single piece of wire rod with its central portion adjacent to the rear of the back and with upright end portions mounted in the end guide-ways, each end of said rod 50 being extended rearwardly and then downwardly to enter the open ended tubes, said parts being so arranged that when the straight portion of said rod enters the upper guide-way of the back, it may swing for- 55 wardly and outwardly.

3. In a device of the class described, the combination of a sheet metal back having its upper, lower and end margins bent at right angles and then toward the center of the back 60 to form guideways, a wire rod mounted in the lower guide way with its ends extended rearwardly, two open ended tubes mounted on said ends of the rod and extended rearwardly and then upwardly parallel with the 65 back, and a movable member formed of a single piece of wire rod with its central portion adjacent to the rear of the back, and with upright end portions mounted in the end guide ways, each end of said rod being 70 extended rearwardly and then downwardly to enter the open ended tubes, said parts being so arranged that when the straight portion of said rod enters the upper guide-way of the back, it may swing forwardly and out- 75 wardly, and a locking device comprising a flat plate pivoted to the central portions of said upper and lower guide-ways and having forwardly projecting teeth on its free edge to engage the straight rod of the movable mem- 80 ber, and also having lugs at its upper and lower ends to project beyond the said back.

Des Moines, Iowa, Sept. 6, 1907.

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Witnesses:

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