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2,543,866

REMOVABLE LOOSE-LEAF BINDER

Filed July 3, 1947

2 Sheets-Sheet 1

Fig. 1

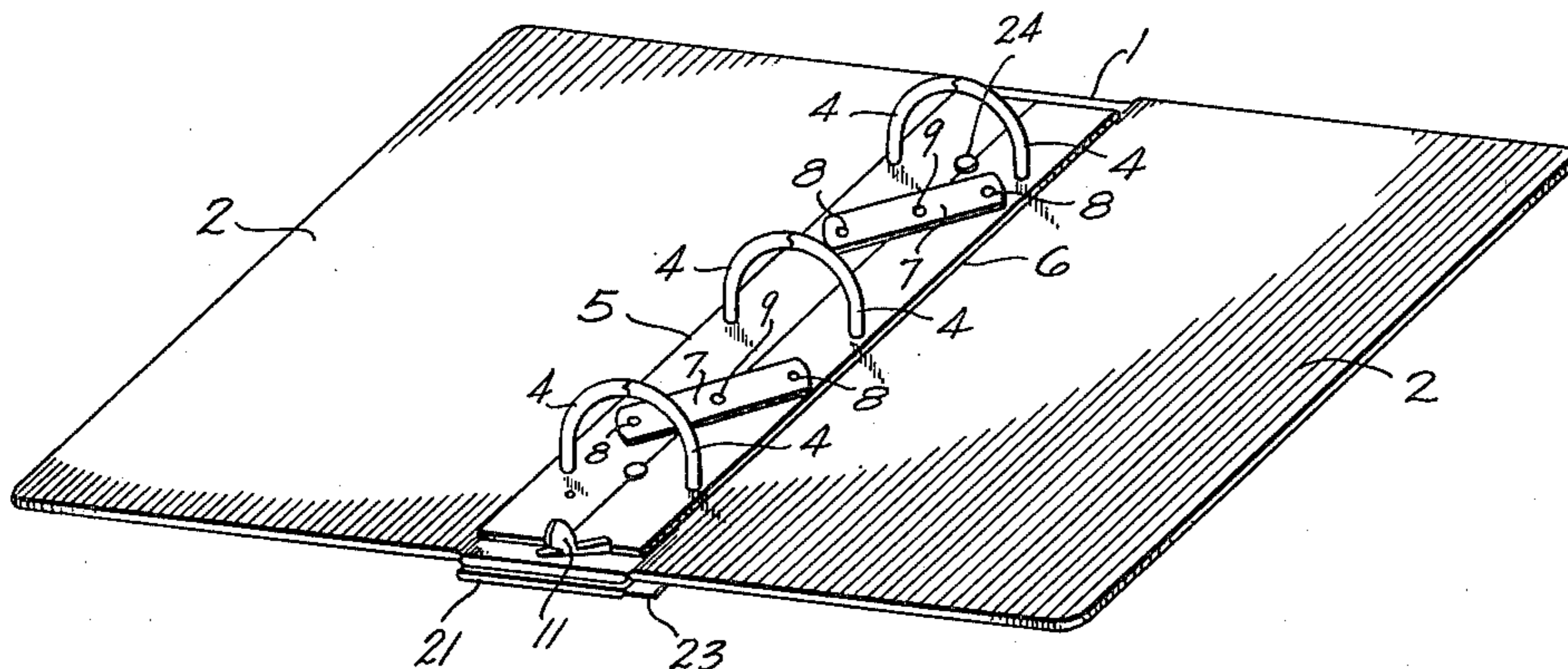
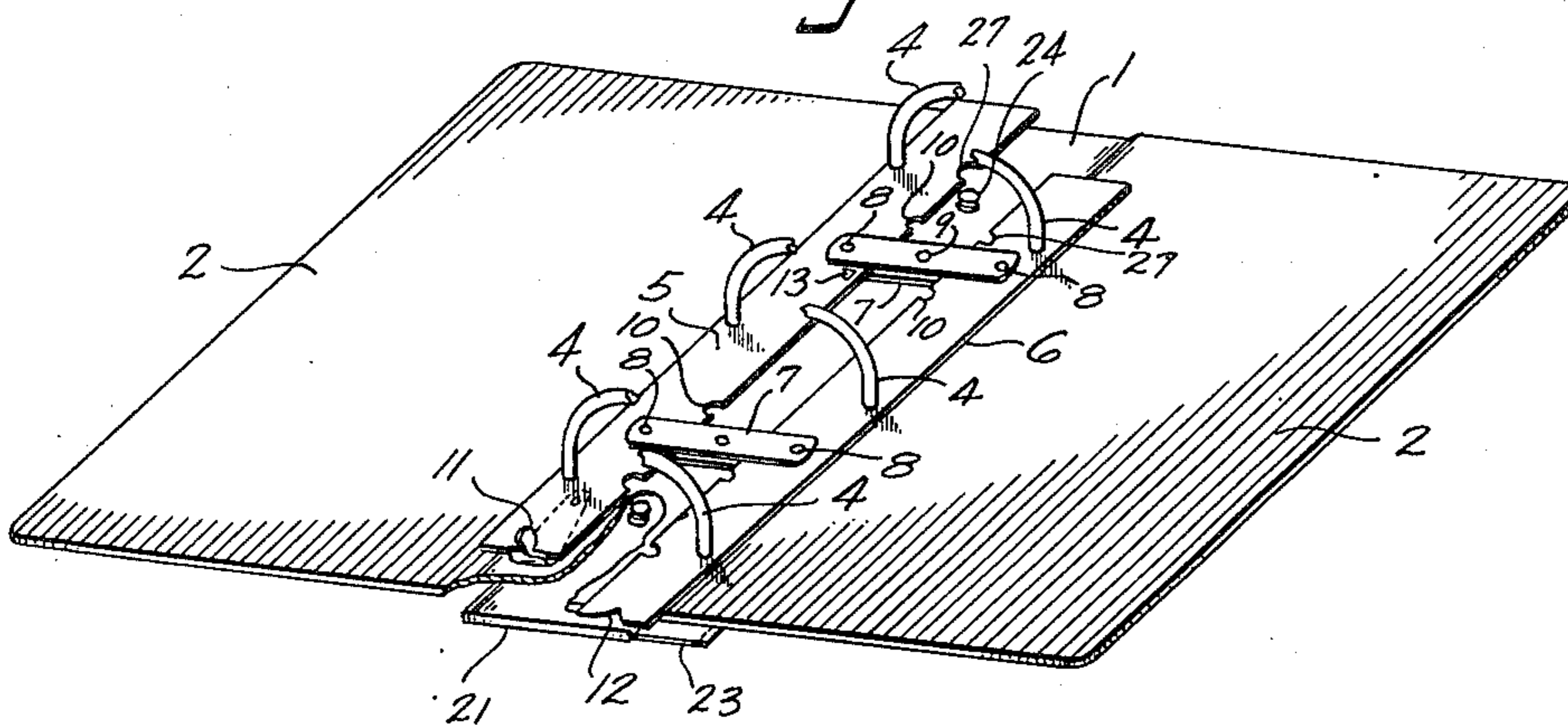


Fig. 2



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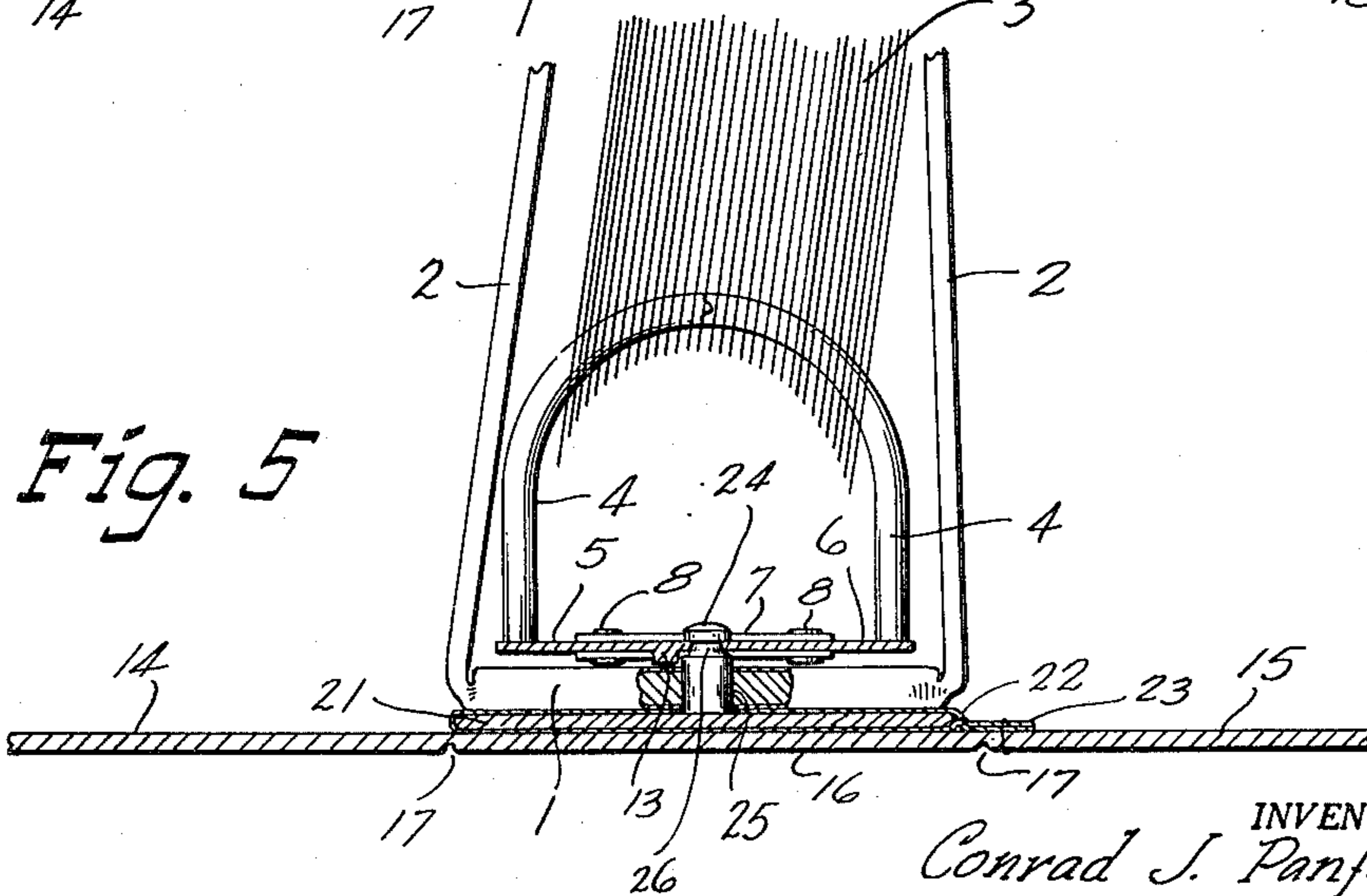
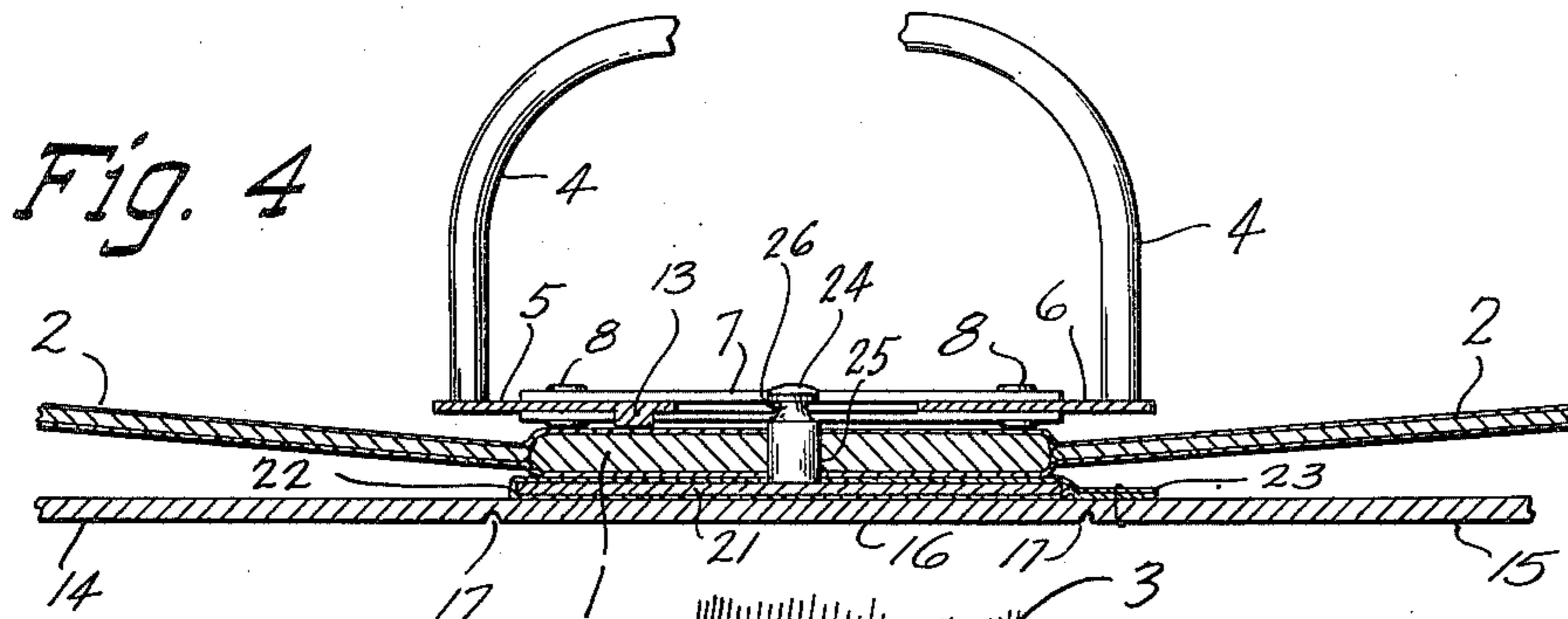
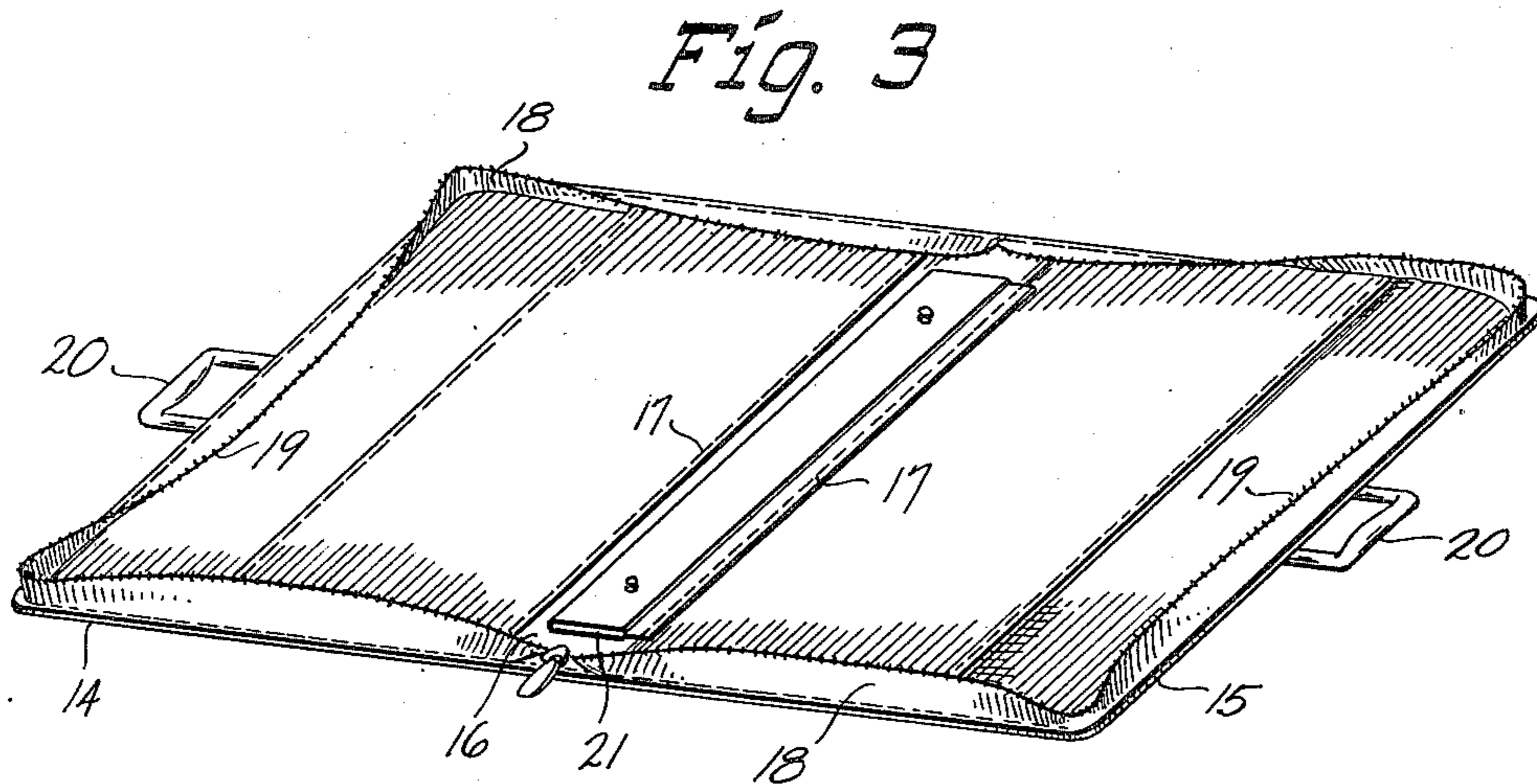
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REMOVABLE LOOSE-LEAF BINDER

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2 Sheets-Sheet 2



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REMOVABLE LOOSE-LEAF BINDER

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4 Claims. (Cl. 129—1)

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This invention relates to binders for holding a plurality of sheets of paper in a single volume and being adapted to opening and closing to permit the insertion or removal of individual or multiple sheets of paper as desired.

The object of the invention is to provide a loose-leaf binder secured to a base or within a carrying case which provides for the insertion or removal of sheets of paper from the binder at will and additionally provides for the release of the binder and removal of the entire unit as desired from its base so that various loose-leaf units may be secured interchangeably to the same base.

Another object of the invention is to provide such a binder and means for securing the same to the base which does not require the use of additional heavy structure or parts and is easy and inexpensive to manufacture.

These and other objects and advantages of the invention will become apparent in the following description of a preferred embodiment of the invention illustrated in the accompanying drawing.

In the drawing:

Figure 1 is a perspective view of the binder and the locking mechanism closed;

Fig. 2 is a view similar to Fig. 1 showing both the binder and locking mechanism open;

Fig. 3 is a perspective view of the base for the binder;

Fig. 4 is a vertical cross section taken transversely of the binder and through one of the mounting posts of the base with the binder unit in open position; and

Fig. 5 is a view similar to Fig. 4 with the binder unit closed and secured to the base.

The binder illustrated in the drawing comprises a center section 1 forming the back of the binder and a pair of covers 2 hingedly connected to the center base section 1 along opposite sides thereof and adapted to fold together to enclose the paper 3 therebetween.

Paper 3 is secured within the binder and to section 1 by rings mounted on section 1 passing through marginal holes provided in the paper. The rings are arranged in parallel order and each comprises two separable posts 4 extending upwardly and curving to meet at the top. The lower end of each post 4 is welded or secured to corresponding parallel strips 5 and 6 disposed flat against the inner side of section 1 and adapted selectively to be placed edge to edge to close the posts or rings 4 at the top or relatively separated to open the rings. Strips 5 and 6 are connected by two sets of spaced parallel links 7 which maintain the strips in parallel alignment.

Each of the pairs of links 7 is disposed above and below strips 5 and 6 and pivotally connected thereto by pins 8. Each pair of links is secured to section 1 by a pivot post 9 extending vertically

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from the section 1 and between strips 5 and 6. Recesses 10 along the adjacent edges of the strips are provided to accommodate posts 9 and allow the strips to be disposed edge to edge for closing the rings.

Posts 9 are spaced along the longitudinal center line of section 1 and join each pair of links 7 midway between pins 8 to maintain strips 6 in parallel alignment and so that their meeting edges coincide with the longitudinal center line of section 1.

A locking tab 11 pivotally connected to one end of strip 5 is provided to engage a notch 12 in the opposite strip 6 selectively to lock and unlock the strips and rings in closed position. A depressed tab 13 in one or both of the strips 5 or 6 provides an abutment for at least one of the links to limit movement thereof and provide a stop for the full open position as shown in the drawings.

The base to which the binder may be secured may comprise an outer cover or jacket for the binder or any other article or base to which the binder is to be secured.

A brief case with which the invention is particularly adapted for use is shown in the drawings and comprises in part a front and back cover 14 and 15, a center section 16 connecting covers 14 and 15 along adjacent edges 17 and a fabric border piece 18 extending around the free edges of the covers. A slide fastener 19 along the edge of border 18 joins the borders of the covers when closed to completely enclose and protect the papers carried within the case. A set of handles 20 may be provided for convenience in carrying.

The base to which the binder is to be secured is itself secured within the brief case as will be described. The base comprises a flat semi-flexible board 21 having a fabric covering 22. Two edges of the fabric covering 22 are extended along one side of the board 21 in the form of a flap 23 which is sewn to the inner side of cover 15 within the case to provide a hinged connection. The flap 23 should be sewn near and along one edge 17 of the center section for pivotal movement of the base along an axis substantially close and parallel thereto.

Two round posts 24 project upwardly from the base and are spaced to register with two corresponding holes 25 in the center section 1 of the binder along the longitudinal center line thereof. An annular recess 26 having a vertical width corresponding to the approximate thickness of strips 5 and 6 is cut near the top end of each post. Recesses 27 corresponding to the smaller diameter of posts 24 within recesses 26 are provided in the adjacent edges of strips 5 and 6 to register with holes 25.

The binder is secured to the base and within the case by placing the same on the base with

strips 5 and 6 spaced apart and with posts 24 projecting through holes 25 and between the strips. The binder is then locked to the base by closing the strips to engage the recesses 26 of posts 25.

By opening locking device 11 and separating the strips 5 and 6 the rings are opened and the binder is also released from its base so that individual sheets of paper may be replaced in the binder or the entire binder replaced on its base. Closing of the binder locks the same to the base.

The invention provides a simple effective manner of securing the binder to the base operable by the same mechanism as the binder itself. The invention is adaptable to a wide variety of uses other than that described including applications where the binder is to be fastened to a permanent fixture or holder.

Various embodiments of the invention may be carried out within the scope of the accompanying claims.

I claim:

1. A loose-leaf binder and a base therefor comprising a center ring section for said binder having a pair of laterally separable plates disposed in a horizontal plane edge to edge with corresponding upstanding ring posts disposed to cooperate in securing leaves in the binder, said plates having complementary recesses in their meeting edges constituting at least two holes upwardly therebetween, posts extending upright from said base and spaced to register with said holes, and interlocking means operable by the closing together of said laterally separable plates to secure said last named posts within said holes to secure said binder to said base.

2. In a ring post loose-leaf binder having two separable ring post mounting strips with upstanding corresponding ring posts thereon, links pivoted to and joining the strips in a common plane to limit the separation thereof, and means for securing the binder to a base comprising at least one upstanding post secured to said base and extending upwardly between said strips, fastening means to receive said last named post between said strips and provide for interlocking engagement of the same by the strips upon closure of the latter and of said ring posts together to secure said binder upon said base, and a latch disposed to lock said strips together when closed upon said upstanding posts.

3. In a loose-leaf binder having a center section, ring post mounting strips disposed edge to edge, connecting means pivoted centrally to said center section and pivoted at the opposite ends thereof to the corresponding strips to provide for lateral movement of the strips toward and away

from each other, and rings for securing the leaves within the binder comprised of two meeting parts secured to said corresponding mounting strips, said strips being adapted to open and close said rings upon corresponding separation and closing of the strips together, means for securing said binder upon a base comprising posts extending upright from the base and adapted to register with and extend through corresponding holes in the center section of said binder in alignment with the meeting line of said strips, notches in the meeting edges of said strips to register with said holes, and annular recesses at the upper end of said posts whereby the recesses of said posts are adapted to be engaged by the notches in said strips in the closed position and released when in the open position selectively to secure and release said binder upon said base.

4. In a loose-leaf binder having a center section, ring posts mounting strips disposed edge to edge, connecting means pivoted centrally to said center section and pivoted at the opposite ends thereof to the corresponding strips to provide for lateral movement of the strips toward and away from each other, and rings for securing the leaves within the binder comprised of two meeting parts secured to said corresponding mounting strips, said strips being adapted to open and close said rings upon corresponding separation and closing of the strips together, means for securing said binder upon a base comprising posts extending upright from the base and adapted to register with and extend through corresponding holes in the center section of said binder in alignment with the meeting line of said strips, notches in the meeting edges of said strips to register with said holes, annular recesses at the upper end of said posts whereby the recesses of said posts are adapted to be engaged by the notches in said strips in the closed position and released when in the open position selectively to secure and release said binder upon said base, and locking means to secure said strips in closed position and simultaneously to lock said rings together and the binder to said base.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,020,561	Krummings	Mar. 19, 1912
1,138,262	Trussell	May 4, 1915
1,894,735	Dawson	Jan. 17, 1933