

L. D. HAMACHER.
 LOOSE LEAF BOOK.
 APPLICATION FILED DEC. 4, 1908.

936,448.

Patented Oct. 12, 1909.

Fig. 1.

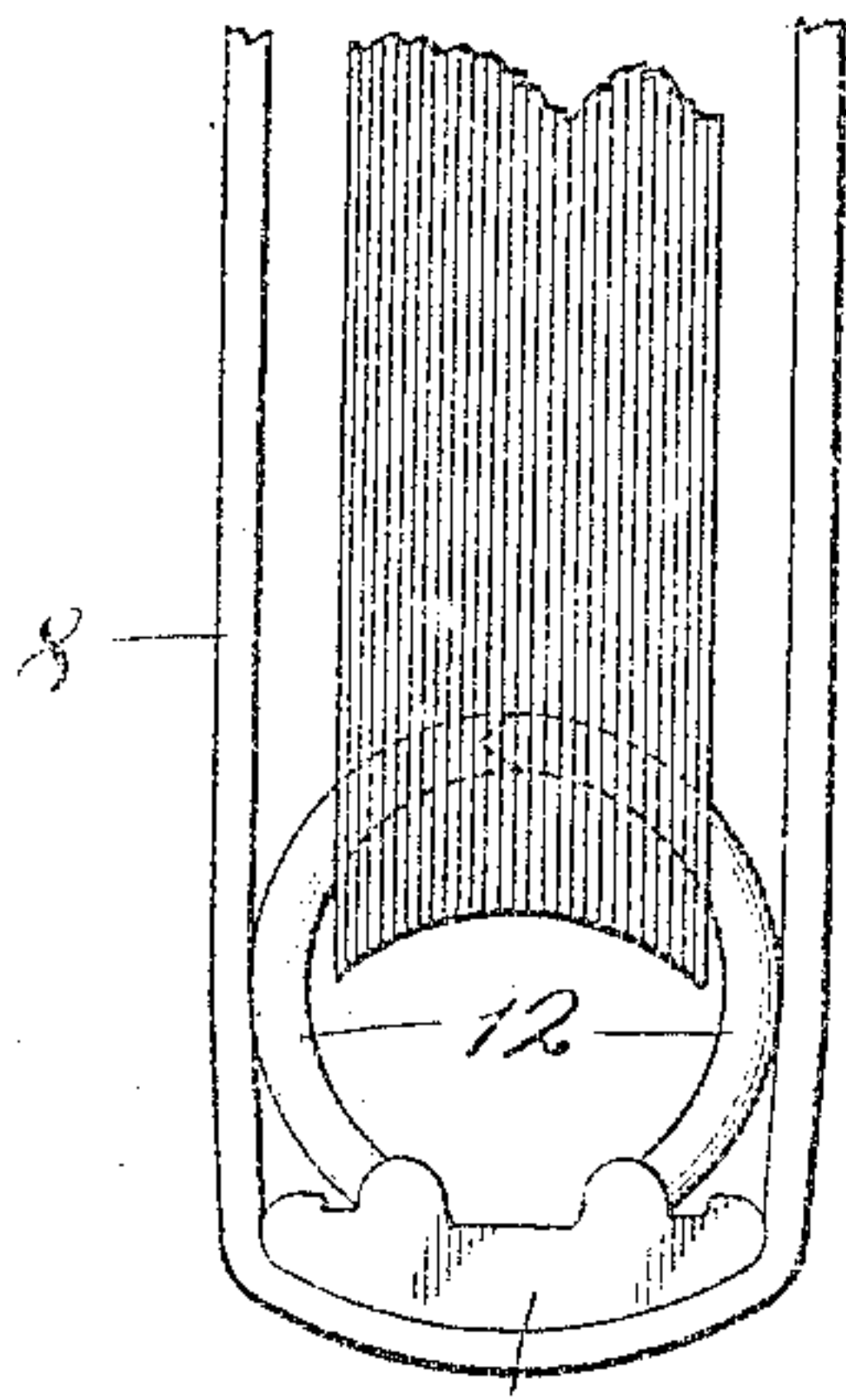


Fig. 2.

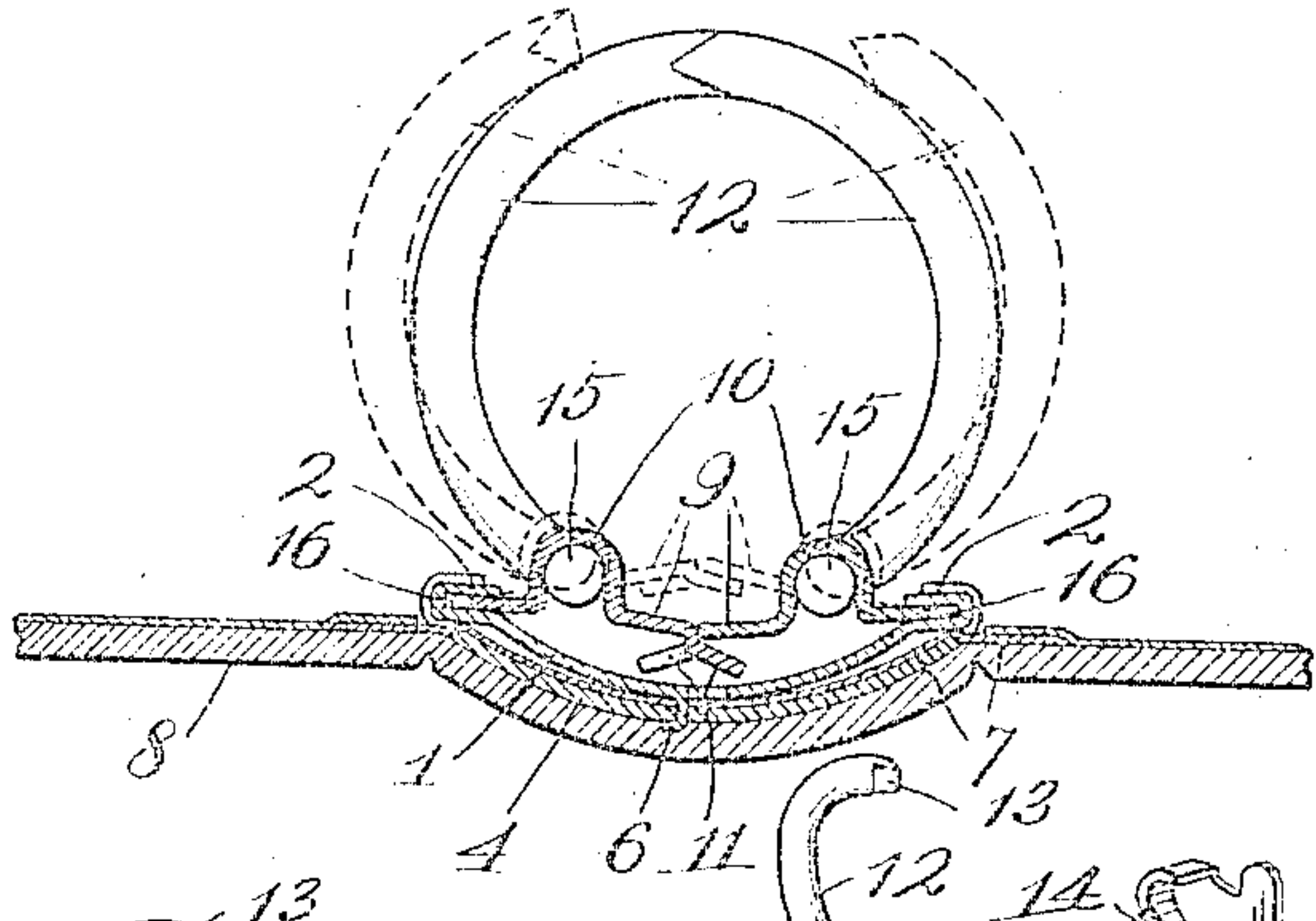


Fig. 3.

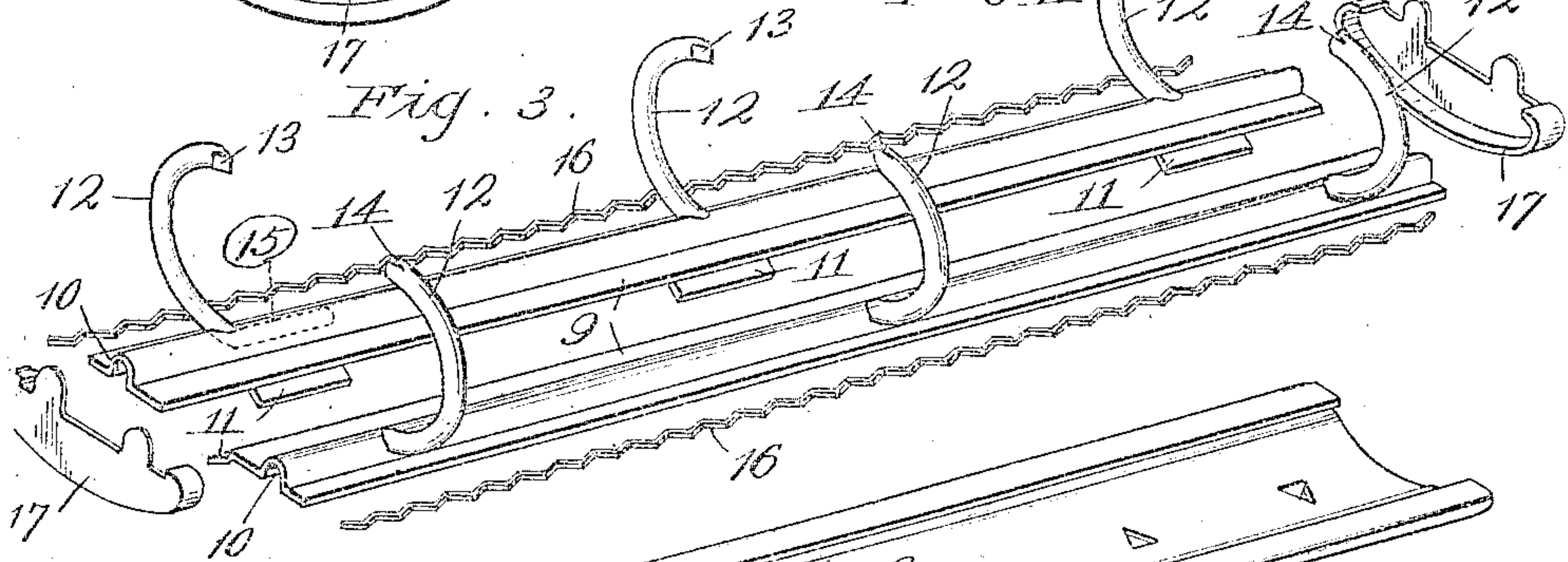
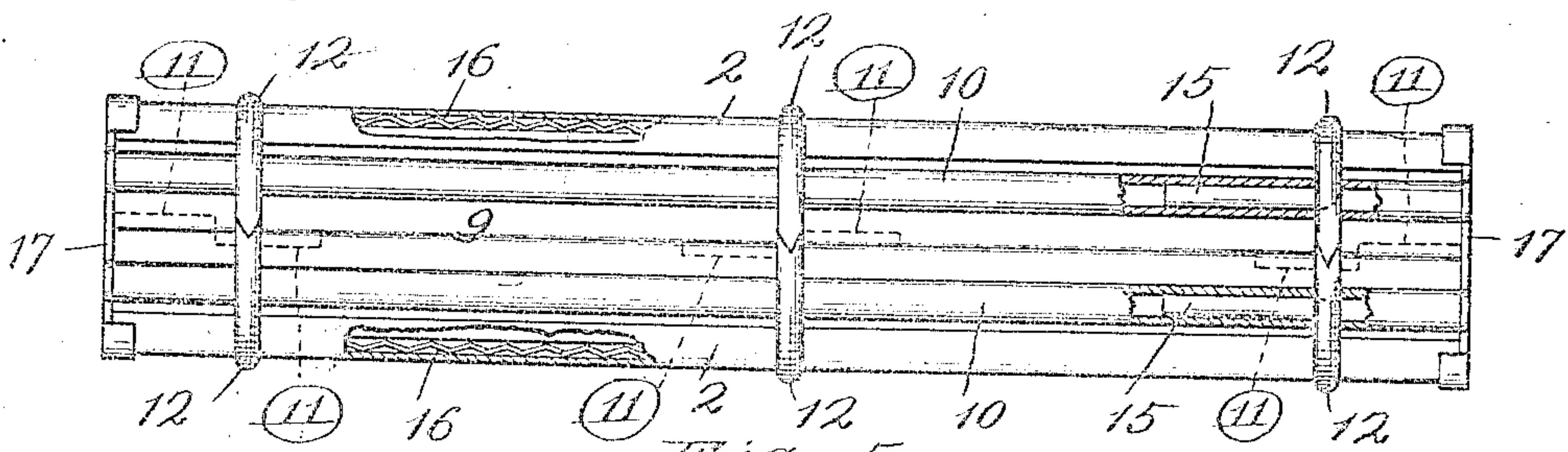
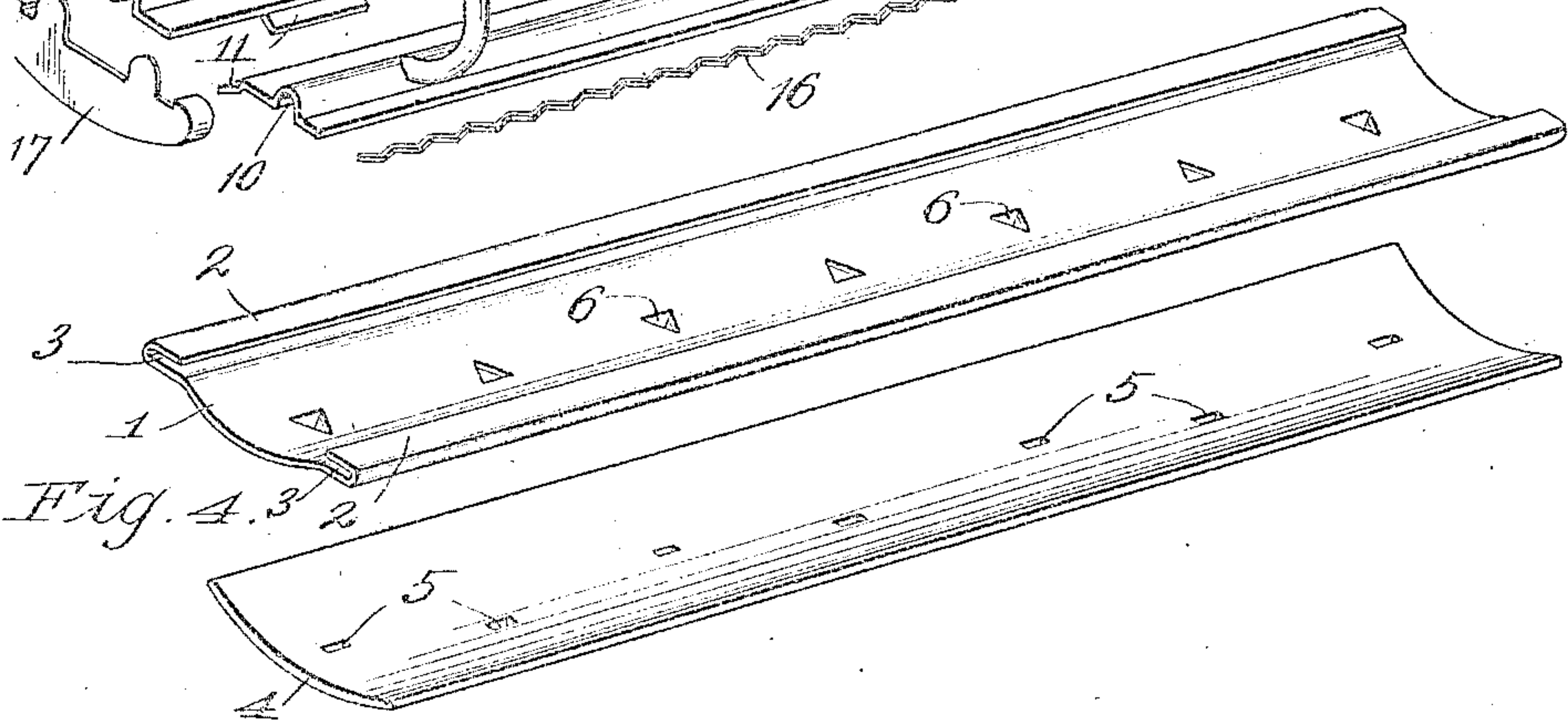


Fig. 4.



WITNESSES:

W. Hamilton.
M. Cox.

Fig. 5.

INVENTOR.

Lee D. Hamacher,
 BY *F. G. Fischer*
 ATTORNEY.

UNITED STATES PATENT OFFICE.

LEE D. HAMACHER, OF KANSAS CITY, MISSOURI, ASSIGNOR TO HAMACHER-HAWKINS MANUFACTURING CO., A CORPORATION OF MISSOURI.

LOOSE-LEAF BOOK.

936,448.

Specification of Letters Patent.

Patented Oct. 12, 1909.

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To all whom it may concern:

Be it known that I, LEE D. HAMACHER, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Loose-Leaf Books, of which the following is a specification.

My invention relates to improvements in loose-leaf books, and my object is to provide a simple and inexpensive device of this character comprising few parts which can be readily assembled for use or taken apart to repair or replace worn or broken members.

Referring now to the drawing which illustrates the invention, Figure 1 shows a broken end view of my device. Fig. 2 is an enlarged cross section of the device, showing the hooks thereof closed in full lines and open in dotted lines. Figs. 3 and 4 show the several parts of the device ready to be assembled. Fig. 5 is a broken plan view of the device with the cover removed.

In carrying out the invention I employ a frame consisting of a concaved channel-bar 1, provided with longitudinal marginal flanges 2, forming longitudinal grooves 3.

4 designates a metallic binding-strip having slots 5 to receive downturned prongs 6 struck from the channel-bar.

7 designates a strip of binding material interposed between the channel-bar 1 and the binding-strip 4, it being reliably secured between the same by the prongs 6, which extend through the slots 5 and are upset against the underside of the binding-strip, as shown in Fig. 2.

8 designates the cover to which the binding-strip is glued, or otherwise secured.

9 designates a pair of hook-carrying members, rockingly-mounted in the channel-bar and reinforced by means of ribs 10, to resist torsional strains. Members 9 are provided at their abutting adjacent sides with fingers 11, the fingers on one member underlying the companion member to compel said members to operate in unison and also to limit the opening movement of a plurality of hooks 12, carried thereby. The closing movement of the hooks is checked by their contacting with each other, and in order to hold each pair of hooks in radial alinement, one set is provided with V-shaped tongues 13, which enter V-shaped grooves 14 in the opposing hooks. Each hook is provided with a shank

15 extending substantially at right angles thereto to enter the hollow rib 10 on its respective hook-carrying member, where it is soldered or otherwise reliably secured.

16 designates a pair of resilient members in the form of corrugated springs, which are arranged in grooves 3, and abut against the adjacent edges of the hook-carrying members 9, in order to reliably hold the same in either of the positions shown in Fig. 2.

17 designates a pair of caps which may be formed integral with the channel-bar 1, or made separate therefrom as shown in Fig. 3, in which latter case it is slipped over the ends of said channel-bar and reliably secured thereto, these caps having nothing to do with the operation of the device, but are merely added to give an ornamental or finished appearance thereto.

Although I have shown the preferred form of my device, I, of course, reserve the right to make such changes as properly fall within the spirit and scope of the invention.

Having thus described my invention, what I claim is:—

1. A device of the character described consisting of a frame, hook-carrying members rockingly-mounted therein, and resilient members interposed between said frame and the hook-carrying members.

2. A device of the character described consisting of a frame, hook-carrying members rockingly-mounted therein, means carried by the hook-carrying members to limit the opening movement of the hooks, and resilient members interposed between said frame and the hook-carrying members.

3. A device of the character described consisting of a frame, hook-carrying members rockingly-mounted therein, and corrugated resilient members interposed between said frame and the hook-carrying members.

4. A device of the character described consisting of a frame provided with marginal flanges forming grooves, resilient members arranged in said grooves, and hook-carrying members rockingly-mounted in said frame and abutting against said resilient members.

5. A device of the character described consisting of a channel-bar, hook-carrying members rockingly-mounted therein, and having their inner edges abutting against each other, and resilient members interposed between the sides of the channel-bar and the outer edges of said hook-carrying members.

6. A device of the character described consisting of a frame, hook-carrying members rockingly-mounted therein, fingers on said hook-carrying members, the fingers on one
5 hook-carrying member underlying its companion member, and resilient means interposed between the frame and the hook-carrying members.

7. A device of the character described consisting of a frame, members rockingly-

mounted therein, provided with ribs, and hooks having shanks extending at an angle thereto and rigidly secured in said ribs.

In testimony whereof I affix my signature, in the presence of two witnesses.

LEE D. HAMACHER.

Witnesses:

F. G. FISCHER,
M. Cox.