

No. 744,369.

PATENTED NOV. 17, 1903.

A. LAWSON.
TEMPORARY BINDER.
APPLICATION FILED DEC. 8, 1902.

NO MODEL.

Fig. I.

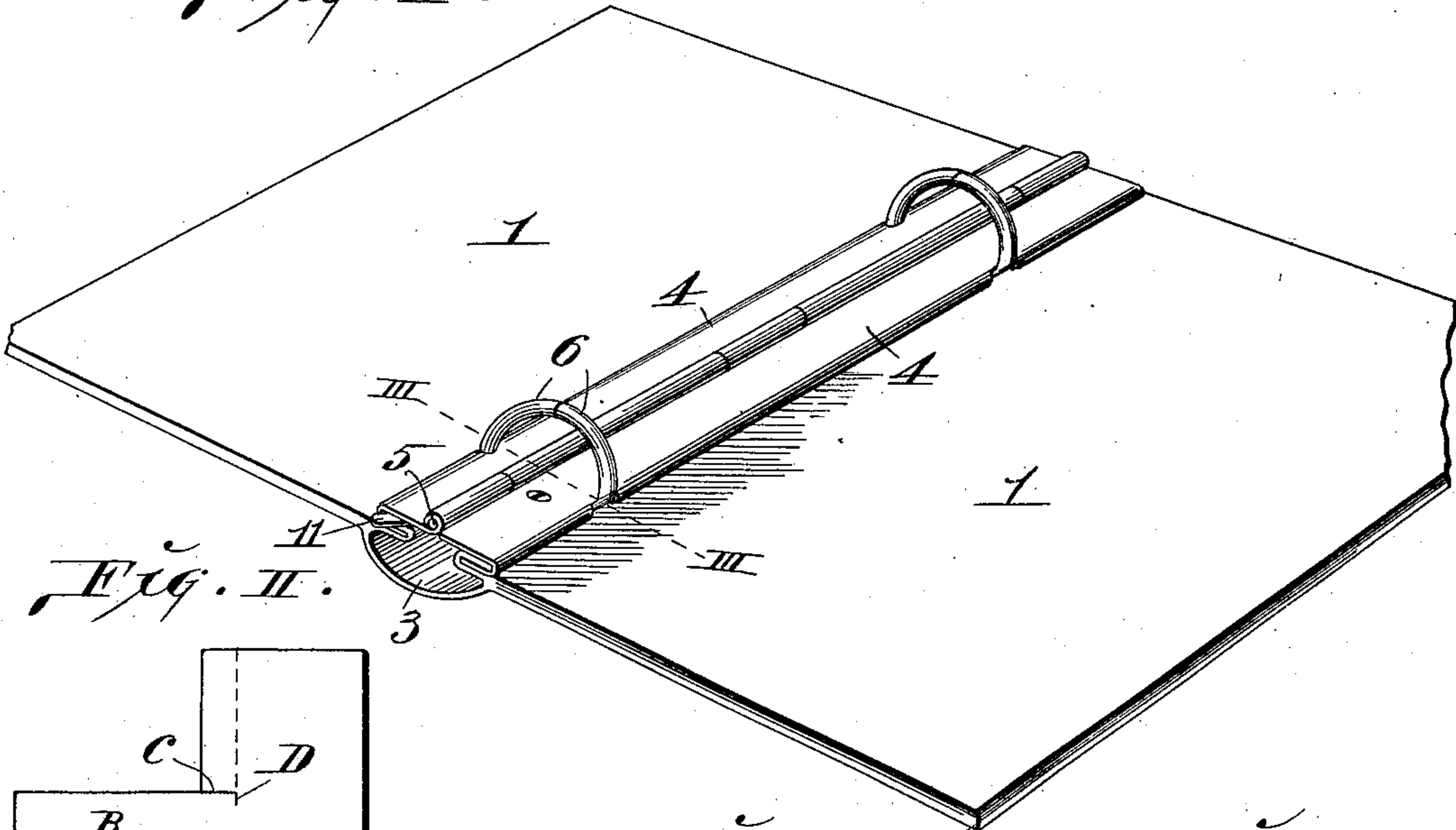


Fig. II.

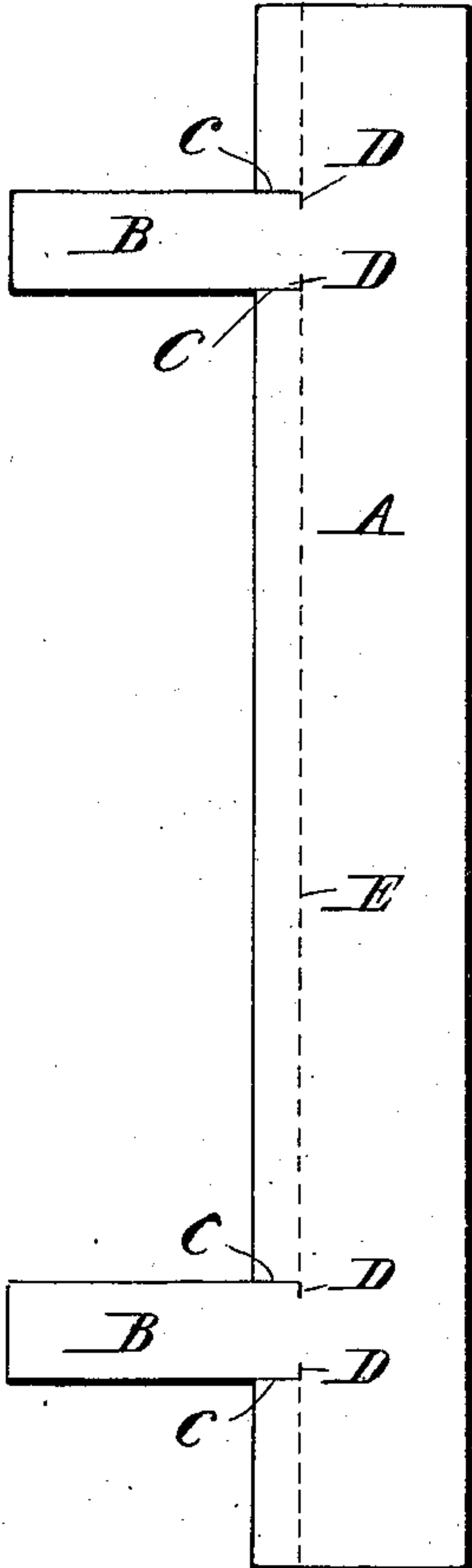


Fig. III.

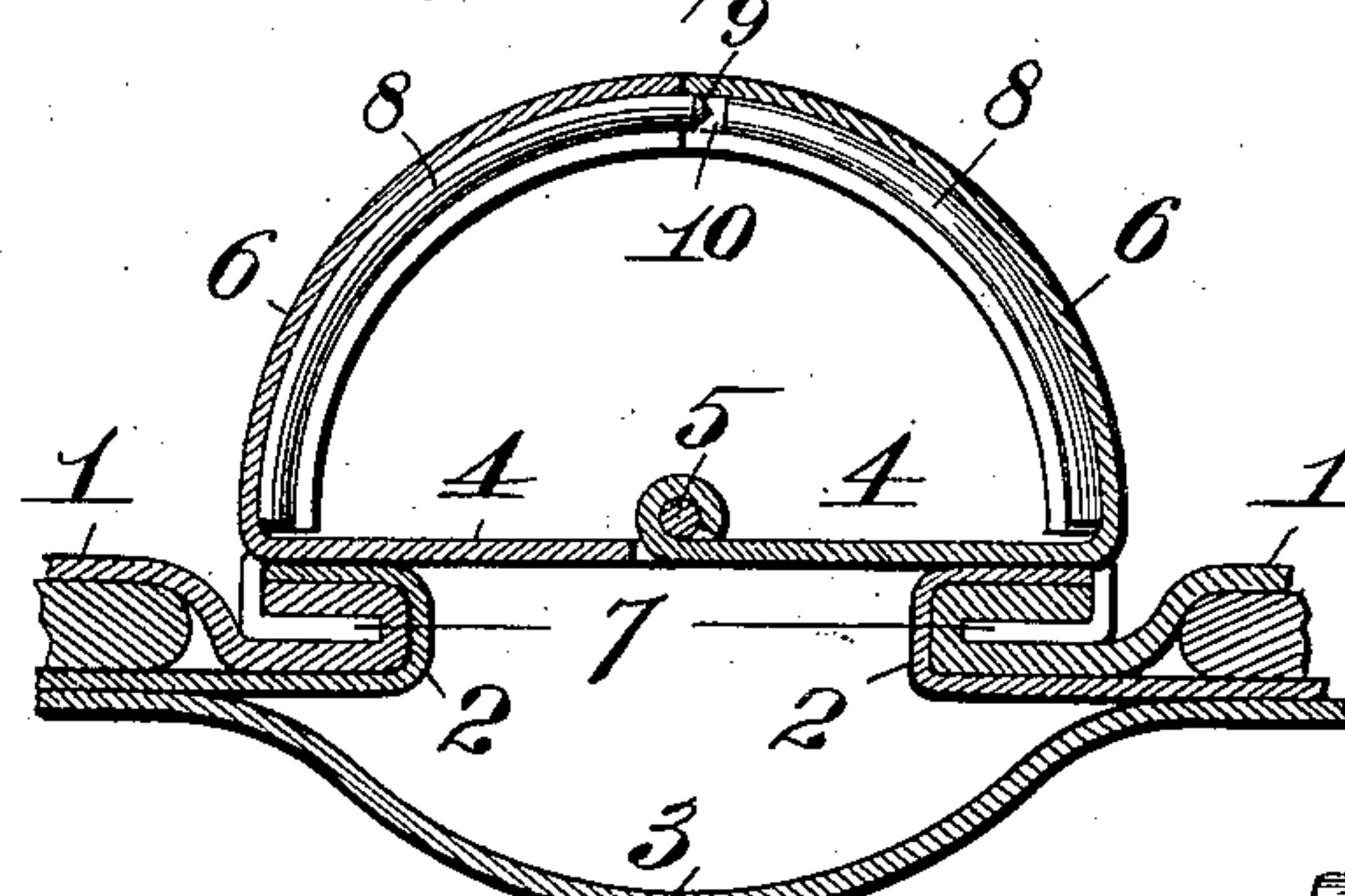


Fig. V.

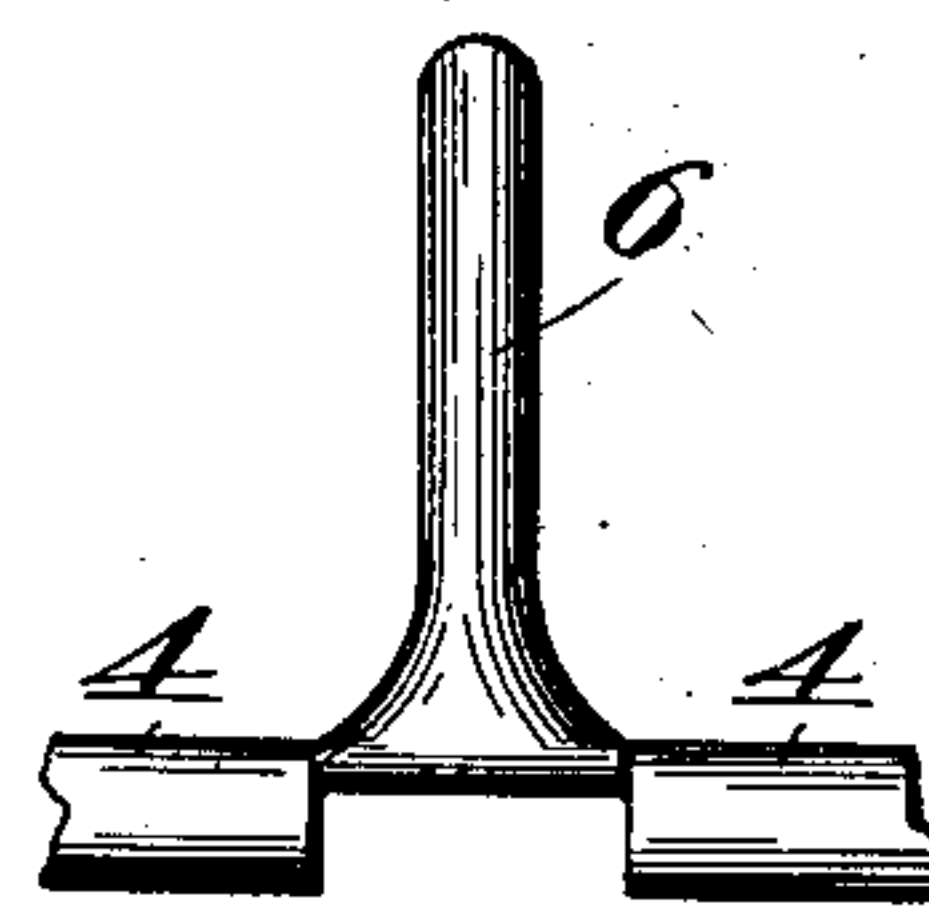


Fig. IV.

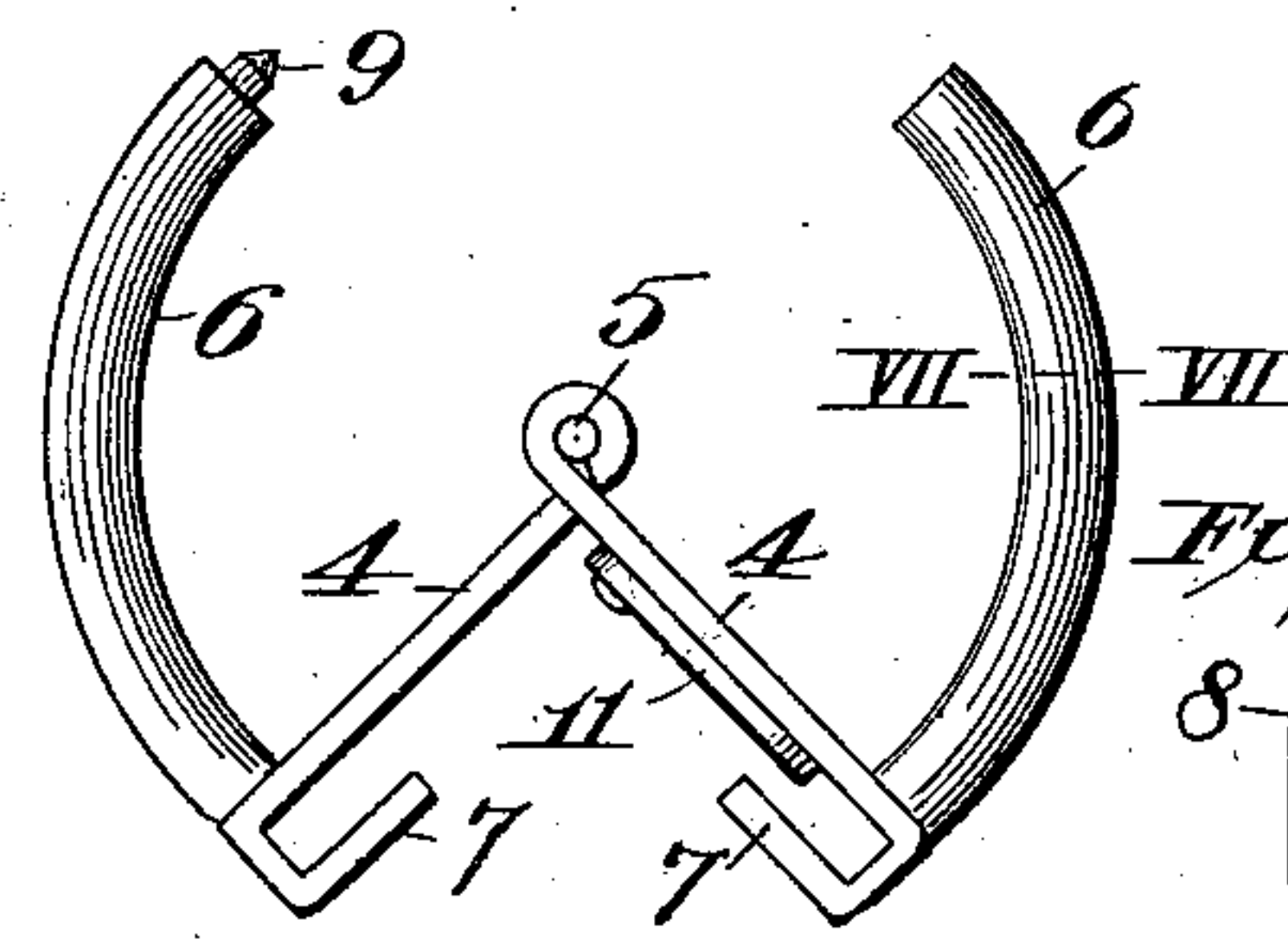


Fig. VI.

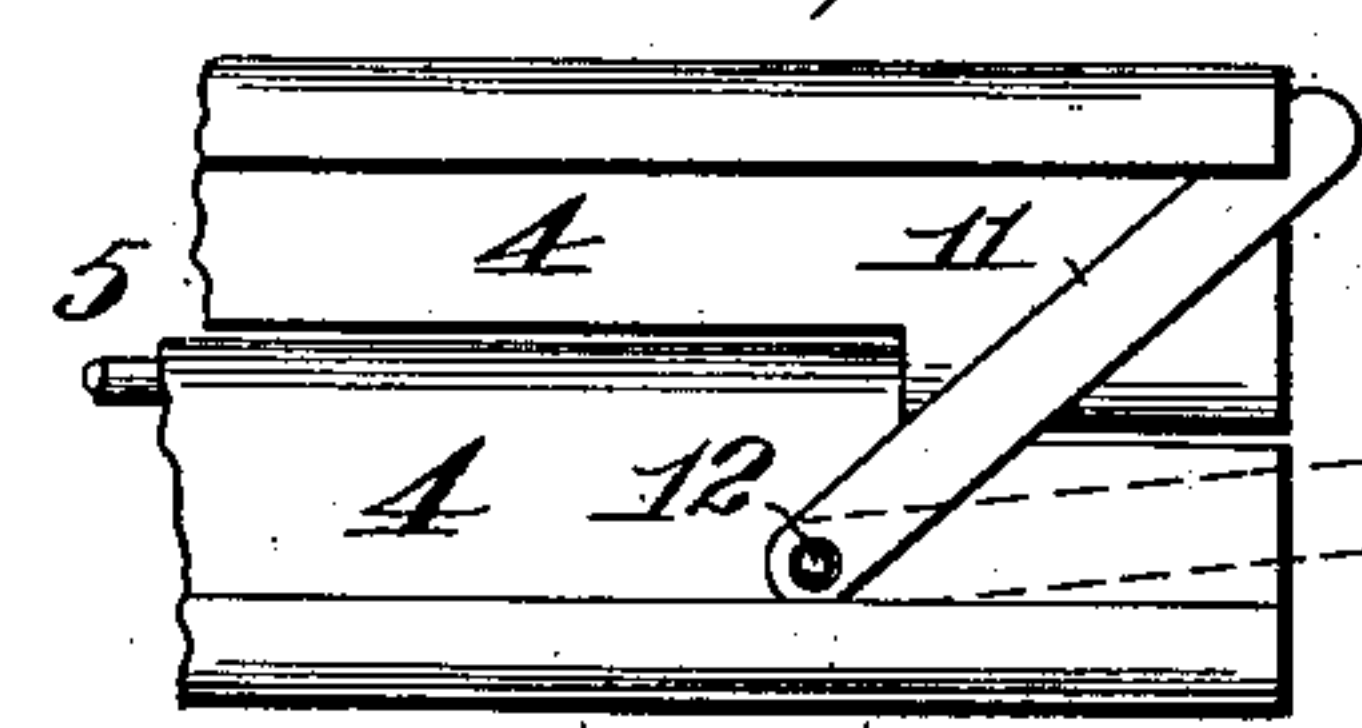


Fig. VII Fig. VIII Fig. IX



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UNITED STATES PATENT OFFICE.

ALBERT LAWSON, OF ST. LOUIS, MISSOURI.

TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 744,369, dated November 17, 1903.

Application filed December 8, 1902. Serial No. 134,454. (No model.)

To all whom it may concern:

Be it known that I, ALBERT LAWSON, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Temporary Binders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a temporary binder adapted to hold loose sheets of paper; and, broadly considered, the invention consists of a sheet-holding frame comprising leaves and prongs formed integral therewith as distinguished from such frames as heretofore made in which the prongs are in the manufacture of the sheet-holding frames made separate from the leaves and afterward connected thereto. In the frames heretofore constructed in the manner stated the sheet-receiving prongs are commonly riveted or soldered to the leaves of the frames that carry them, and as a consequence it is a very frequent occurrence for the prongs to work loose or be broken off of their leaves; and it is the object of my improvement to overcome such loosening or breakage, which I accomplish by the forming of the prongs directly from blanks from which the leaves are made.

My invention consists of the construction hereinafter fully described and claimed.

Figure I is a perspective view of a binder made in accordance with my invention. Fig. II is a view of a blank of the form from which the leaves and prongs of the sheet-holding frame of my binder are made. Fig. III is a cross-section taken on line III III, Fig. I. Fig. IV is an end view of the sheet-holding frame in open condition. Fig. V is a side view of a fragment of one of the leaves of the sheet-holding frame and one of the prongs carried thereby. Fig. VI is a rear view of one end of the sheet-holding frame, showing means for retaining the leaves of the frame in alignment. Fig. VII is a cross-section taken on line VII VII, Fig. IV. Figs. VIII and IX are cross-sections of modifications of the sheet-receiving prongs.

1 designates the cover-boards of the binder, which are provided at their inner edges with suitable tongues 2, that are adapted to be applied to the sheet-holding frame of the binder.

3 is the flexible back of the binder, which is united to the covers 1.

The parts thus far described may be of any construction usual to temporary binders, as no invention is herein claimed for them.

4 designates leaves, preferably of sheet metal, that are united at their inner facing edges by a hinge-rod 5, that extends longitudinally of the sheet-holding frame, of which the leaves 4 constitute the main members.

6 designates arch prongs that are formed integral with the leaves 4 and extend from the outer edges of said leaves at approximately right angles to the planes of the leaves. The leaves 4 and arch prongs 6 are produced from a blank of the form shown in Fig. II, of which A designates the body, which corresponds to the leaves 4, and B the tongues projecting from one edge of said body A and from which the arch prongs 6 are formed. At the location of the tongues B the body A is slit inwardly at C transversely of the body and slightly longitudinally of the body at D. By so slitting the blank-body I provide for longitudinal bending of the tongues B and their formation into rounded or curved condition to produce the rounded members, which when produced and bent into arcs of a circle constitute the prongs of the sheet-holding frame of the binder. The blank is bent on a line E corresponding to the inner terminations of the tongues B and is turned downwardly and rearwardly from said line to form legs 7, between which and the under sides of the leaves 4 the tongues 2 of the covers 1 may be introduced and held to secure the sheet-holding frame to said covers.

The arch prongs 6 are preferably formed into tubes when bent into shape from the blank A and in such shape are of sufficient strength to resist any strain to which they may be subjected in some binders; but I prefer in many instances to reinforce them by the introduction of rods 8, which are placed within the prongs, as most clearly seen in Fig. III, and which add greatly to the rigidity of the prongs where the prongs are placed on the leaves 4 on a line transversely of the leaves, so as to meet and abut against each other at their free ends. One of the rods 8 extends beyond the end of the prong by which it is contained, as seen in Fig. III, to

furnish a projecting point 9, and the rod in the opposing prong terminates within the prong by which it is contained at a sufficient distance from the end of the prong to furnish
 5 a recess 10, into which the projecting point 9 may enter, so that the prongs will be engaged for the purpose of preventing either of them being sprung aside and maintaining the existence of a continuous arch on which
 10 the loose leaves placed in the binder may be moved in the usual manner.

While I have described the arch prongs as of tubular form and preferably containing the reinforcing-rods 8, I do not limit myself to any particular shape of the prongs or
 15 to the use of the reinforcing-rods.

In Fig. VIII, I have illustrated a prong 6^a of tubular form and in which the reinforcing-rod is omitted.

20 In Fig. IX, I have illustrated a construction 6^b, in which the edges are both curled inwardly and by lying face to face within the main body of the prong longitudinally thereof furnish pronounced rigidity of the prong.

25 For the purpose of holding the leaves 4 of the sheet-holding frame in parallel alinement with each other when the frame is in closed condition to maintain the arch prongs in juxtaposition to constitute arches I utilize a suitable retaining means, such as the swing-bar 11, pivoted to one of the leaves 4 at 12 (see Figs. I, IV, and VI) and adapted to be moved across the leaf opposing that to which it is connected, and thereby prevent the leaves from swing-
 30 ing on their connecting-hinge.

I claim as my invention—

1. A sheet-holding member for temporary

binders, comprising a leaf, and a prong of tubular form integral with said leaf, substantially as set forth. 40

2. A sheet-holding member for temporary binders comprising a leaf, a tubular prong integral with said leaf, and a reinforcing-wire within said prong, substantially as set forth. 45

3. In a temporary binder, the combination of a sheet-holding frame comprising a pair of leaves, tubular prongs integral with said leaves, and reinforcing-wires located in said prongs, substantially as set forth. 50

4. In a temporary binder, the combination of a sheet-holding frame comprising a pair of leaves, tubular prongs integral with said leaves, reinforcing-wires located in said prongs, one of said wires being arranged to project beyond the end of its prong and the wire in the prong of the opposing leaf terminating within its prong to provide a recess adapted to receive the projecting end of the reinforcing-wire in the opposite prong, substantially as set forth. 55 60

5. In a temporary binder, the combination of a pair of leaves constituting the bases of a sheet-holding frame, and curved sheet-receiving prongs integral with said leaves, said prongs extending at their bases approximately at right angles to the planes of said leaves, substantially as and for the purpose set forth. 65

ALBERT LAWSON.

In presence of—

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