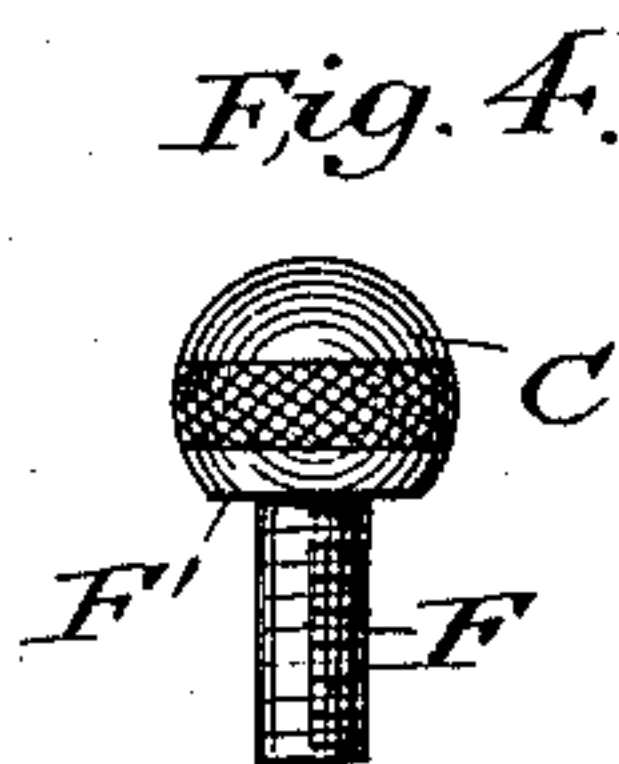
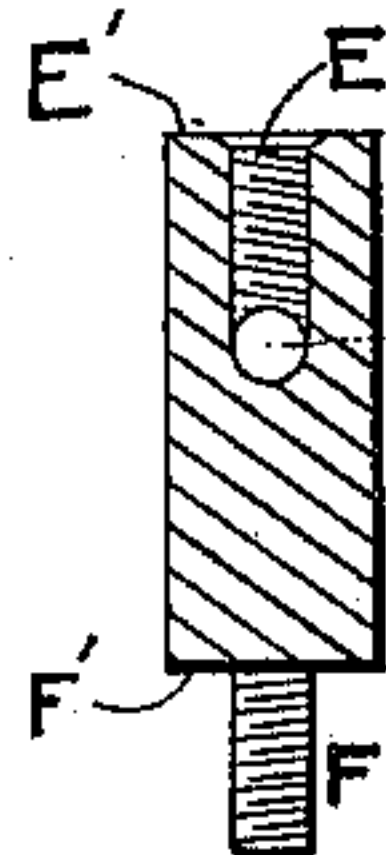
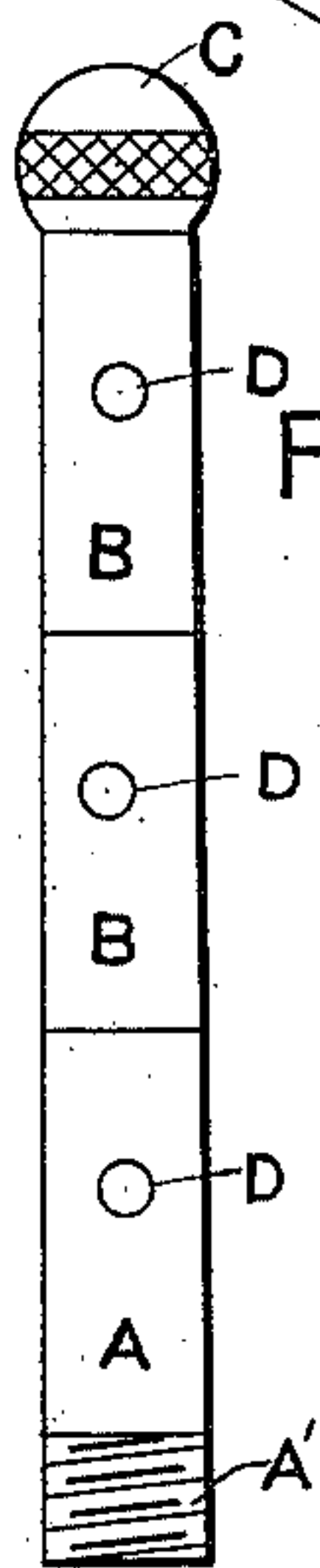
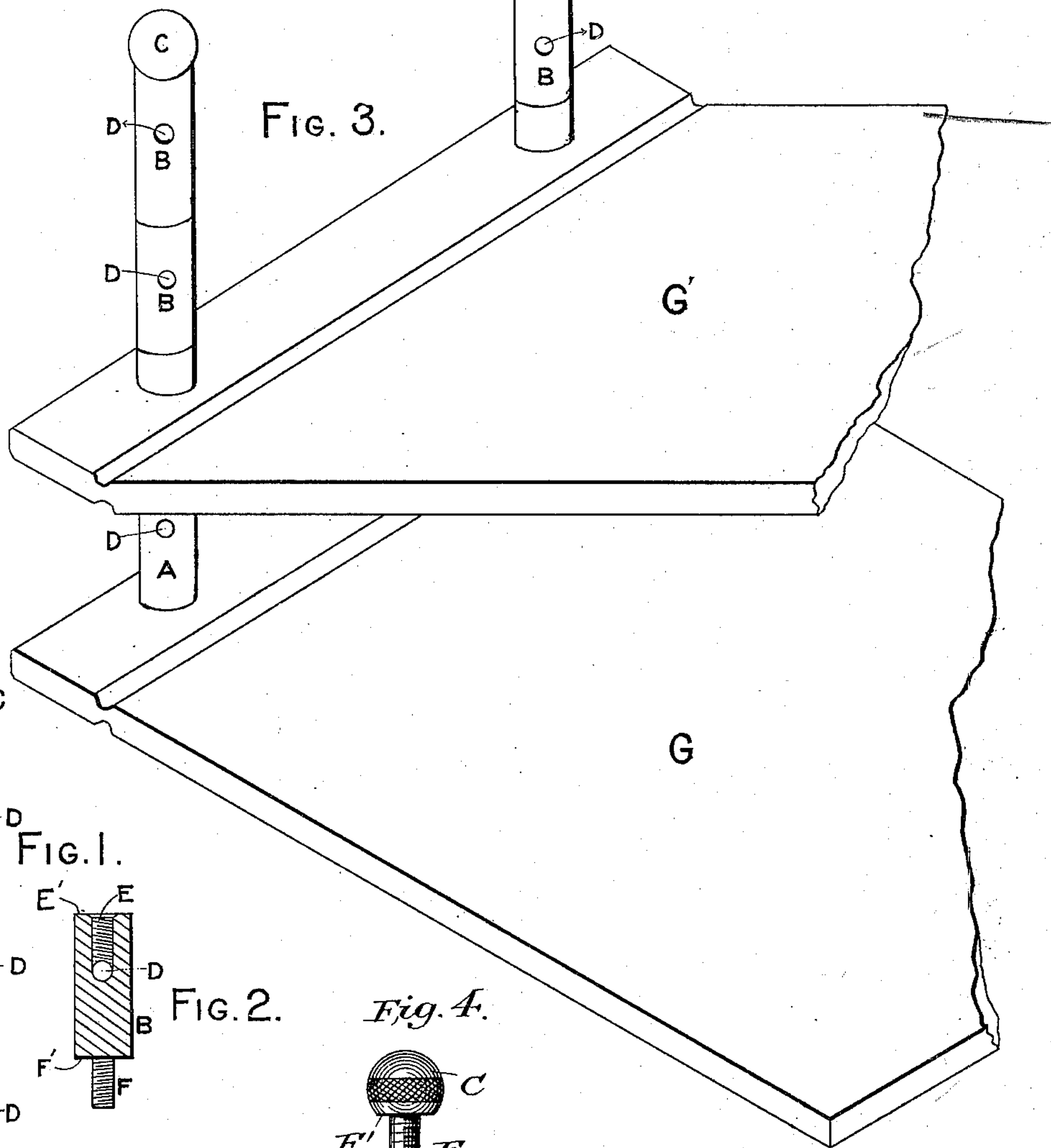
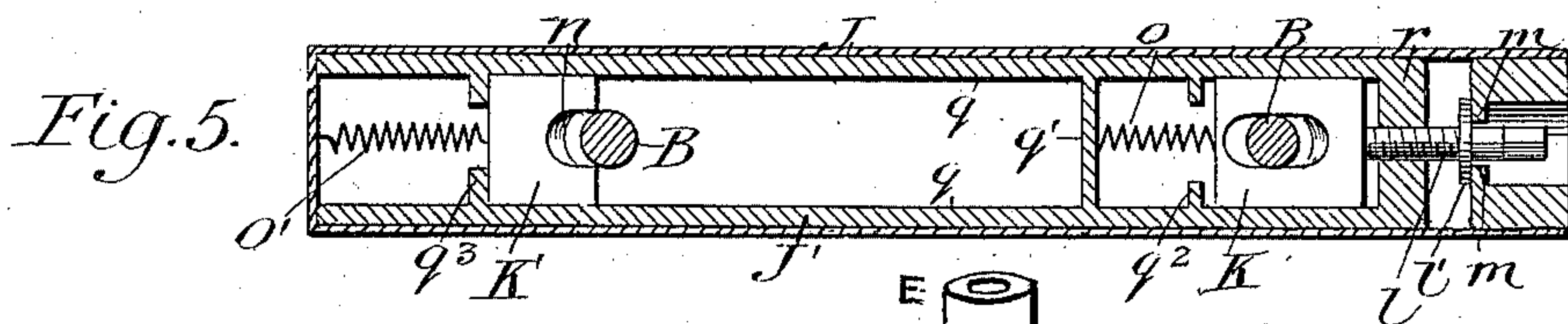


No. 639,297.

Patented Dec. 19, 1899.

W. M. RUSSELL.
TEMPORARY BINDER.
(Application filed Jan. 27, 1898.)

(No Model.)



WITNESSES:

Charles N. Roberts
Frank Watt

Wm M. Russell
INVENTOR

BY
Hugh H. Hadley
ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM M. RUSSELL, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE BAKER-
VAWTER COMPANY, OF SAME PLACE.

TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 639,297, dated December 19, 1899.

Application filed January 27, 1898. Serial No. 668,157. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. RUSSELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Temporary Binders, of which the following is a specification.

This invention relates to improvements in temporary binders of that class wherein the sheets or leaves to be bound or held in place are secured between two main lids or covers by being perforated or notched and placed over rods or posts that extend from one cover to the other and which are usually permanently secured to the bottom or back cover and project through holes in the front or upper cover. The common objection to binders of this class is that the rods (or "posts," as they are called in the trade) connecting the two covers being made several inches long in order to accommodate a large number of leaves project considerably above the upper cover and make the whole binder unsightly and inconvenient when it is but partially filled. The object of this invention is to provide a means for avoiding these long protruding posts in a but partly filled binder; and the invention resides in the novel feature of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 shows a general view of the post embodying my invention. Fig. 2 shows a vertical section through the center of one interchangeable section of the post. Fig. 3 shows a binder having posts of my improved construction. Fig. 4 shows a general view of the ornamental ball-cap as separate from the rest of the post, and Fig. 5 shows a means employed to lock the top cover to the post.

My post consists of a short lower section A, which is fastened rigidly to the lower cover of the binder by means of a threaded end A' or by any other suitable means and provided at its upper end with means, preferably female threads, for connection with other short sections, and of a series of short interchangeable sections B B, &c., joined together and to such lower section by the interlocking of male and female threads with which said sec-

tions are fitted, and of a ball-cap C, provided with male threads to connect with the top-most section of the post. All of the sections excepting the ball-cap are of the same diameter and form and when fitted tightly together form in effect and appearance a long and solid post. The ball-cap I prefer to make larger in diameter than the other sections, which adds to its ornamentation.

Fig. 2 is a vertical section through the center of one interchangeable section of the post, showing the construction of the male threads F and the female threads E. The milling of the male and female threads leaves bearing-faces E' and F' at the point of closest contact on each section, which bearing-faces aid to give the post great rigidity when the sections are screwed tightly together.

Fig. 3 shows the application of the post to the binder itself. The first or lower section A is fitted at its lower end with any means for fastening it rigidly to the lower cover G of the binder, preferably threads A', as shown in Fig. 1. The upper end of such lower section is fitted with female threads to fit the male threads of the next section above. The upper cover G' is provided with apertures corresponding to said post or posts fitted to the lower cover G, upon which posts, by means of such apertures, the top cover G' is arranged to slide. The said lower section A may of course be so arranged as to be interchangeable with the other sections of the post by fitting it with male threads below to correspond with the female threads above and fitting said male threads into corresponding female threads in the lower cover G, the bearing-face on said section formed by the cutting of such male threads giving the connection added rigidity.

The sections of the post other than the lower one just described consist of short sections of the same shape and diameter as the lower section A and fitted each with female threads E at one end and with male threads F at the other, such threads being of the same size as the female threads E of the lower or first section A, and such sections are all threaded the same, making them interchangeable.

In order to provide a means for loosening and tightening the connections of the sections,

each section is provided with a small hole D, drilled diametrically through the section, whereby by the insertion of some stiff pin or bar into said hole the sections may be screwed 5 tightly together or easily loosened when so tightly screwed. In order to gain a further advantage from this hole D, I prefer to have it pass through the section immediately at the end of the female threads E and be connected therewith, thereby providing a means 10 for the escape of dust or other such accumulations in such female threads through such hole out at the sides of the section.

The bearing-faces E' and F' on the ends of 15 each section are formed by the threading and aid to make rigid the post formed by the sections screwed tightly together.

The ball-cap C, Fig. 4, provided with male threads to screw into the uppermost section of 20 the post, serves as an ornament and prevents the ends of the post from scratching the furniture, and also serves to keep dust from the female threads of the top section. This cap may be made of any desirable size, shape, or 25 material.

The sections of my post may be made of any hard metal or other material and may be round, triangular, or of any desirable form and of any desirable size, threaded as shown 30 or reversely. While I prefer to connect said sections by means of threads, any other desirable means of forming said connections may be used, provided said means lies within the external wall of the post, and thus does 35 not interfere with its uniformity of diameter or external smoothness.

The locking mechanism shown in Fig. 5 is the same as that illustrated in Patent No. 448,411, of March 17, 1891, to Copeland and 40 Chatterson (see Fig. 2 of said patent) and is what has been used for the purpose; but any other suitable locking mechanism desired may be used, or even the friction between the parts may be found sufficient for some purposes. Said locking device consists of the 45 hollow bar or casing J, having the sliding bar J' therein. Said sliding bar J' is formed of a solid end *r* and two side pieces *q*, braced and supported by a cross-bar *q'*. Between said 50 side pieces are sliding blocks K and K'. Said block K is formed with an oblong perforation with a sharp internal edge and is placed over one post, and the block K' has a semicircular notch in its end, mounted close to and adapted 55 to engage with the other post. Just behind the block K internal lugs *q*² are formed on the side pieces, and similar lugs *q*³ just behind the block K'. A spring *o*, interposed between the cross-bar *q'* and the block K, normally tends to force it toward the end *r*, and 60 a spring *o'*, connecting the block K' to the opposite end of the casing J, normally tends to draw said block back and away from the adjacent post. A screw *l* extends through a 65 screw-threaded perforation in the solid end *r* to bear against the end of block K. A ring *l'*

is secured thereon just behind an internal flange *m* on the block or plug in the end of casing J. To lock the device to the posts, the screw is turned to force the block K in- 70 ward until it bears against the post adjacent thereto, which it engages with its sharp edge, and at the same time the bar J' will be drawn forward with the block K' until it engages its post. By reversing the operation the parts 75 are allowed to be forced away from the posts by the action of the springs *o* and *o'*, all of which will be readily understood by an inspection of said Fig. 5.

I do not wish to be understood as limiting 80 my invention to the use of any particular locking or clamping mechanism whereby the upper cover or any clamping device employed for holding the perforated sheets together is held in position on the posts, as it is obvious 85 that the particular form of sectional posts employed may be used irrespective of the construction of the upper cover or clamping device.

Having thus fully described my said inven- 90 tion, what I claim as new, and desire to secure by Letters Patent, is—

1. In a binder, the combination with the cover-sections, of a post or posts secured to one 95 of said cover-sections and projecting therefrom, each post consisting of a plurality of parts joined by interiorly-locking sockets and stems with bearing-faces formed around said interlocking parts at the joints, which bear 100 against each other, whereby said post is made rigid, said post or posts being adapted to pass through openings in leaves inserted between said cover-sections, and through openings in one of said cover-sections, substantially as 105 set forth.

2. The combination, in a temporary binder, of a lower cover, posts or rods rigidly fastened thereto, an upper cover perforated and mounted to slide on said posts or rods, each 110 of said posts consisting of interchangeable sections, which when fitted together provide a post whose exposed portion is of uniform external diameter, means for rigidly connecting and disconnecting said sections, and 115 means for locking said upper cover in the adjusted position on said posts, substantially as set forth.

3. The combination with temporary binders consisting of two covers connected by posts or rods rigidly fastened to the lower 120 cover and upon which posts the upper cover slides by means of apertures fitting upon said posts, said posts consisting of short lower sections rigidly screwed into the lower cover and fitted with female threads at their upper ends, 125 and of other and interchangeable sections fitted with male and female threads as means of readily connecting and disconnecting such sections, with bearing-faces on either end at the point of closest connection, each section 130 being provided with a small hole drilled diametrically through the section, and an orna-

mental ball-cap provided with male threads to connect with the female threads of the top-most section, substantially as shown and described and for the purposes specified.

5 4. In a binder, the combination, with cover-sections, of a post or posts secured to one of said cover-sections and projecting therefrom, each post consisting of a plurality of parts, one of said parts being secured to a cover-
10 section and having an interiorly-threaded socket or bore, and the other part provided with a projecting stem of less diameter than the main portion of said part, said stem adapted to engage the threaded socket of the other
15 part, and the shoulder formed at the upper end of the threaded stem adapted to be brought into engagement with the upper end of the other part of the post, said post or posts adapted to pass through openings in
20 leaves inserted between the cover-sections

and also through openings in one of the cover-sections.

5. A temporary binder, comprising in combination top and bottom members joined by sectional posts, each of said posts being com- 25
posed of similar sections whose exposed portions are of uniform external diameter when fitted together and each section provided interiorly with means whereby it may be rigidly interlocked with an adjacent section, 30
and the terminal sections being adapted for securement to the members, said sections being interchangeable and the post composed thereof presenting a smooth exterior surface between the top and bottom members, substantially as set forth. 35

WILLIAM M. RUSSELL.

Witnesses:

J. K. KIRKLAND,
OSCAR THOMPSON.