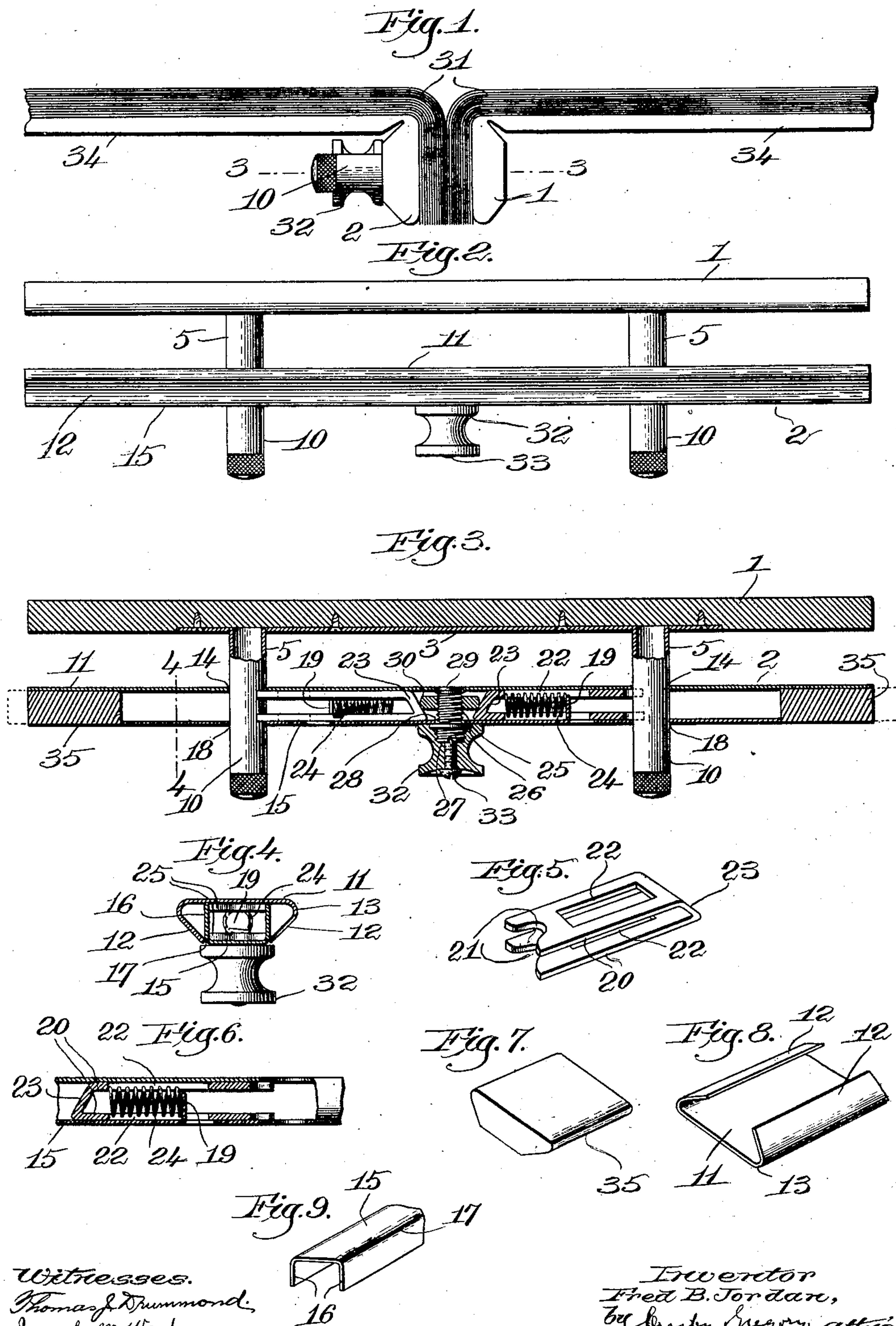


No. 860,919.

PATENTED JULY 23, 1907.

F. B. JORDAN.  
TEMPORARY BINDER.  
APPLICATION FILED APR. 4, 1907.



Witnesses.  
Thomas J. Drummond,  
Joseph M. Ward.

Inventor  
Fred B. Jordan,  
by Harry Gregory, atty.



# UNITED STATES PATENT OFFICE.

FRED B. JORDAN, OF WINCHESTER, MASSACHUSETTS, ASSIGNOR TO A. E. MARTELL COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

## TEMPORARY BINDER.

No. 860,919.

Specification of Letters Patent.

Patented July 23, 1907.

Application filed April 4, 1907. Serial No. 366,316.

*To all whom it may concern:*

Be it known that I, FRED B. JORDAN, a citizen of the United States, and a resident of Winchester, county of Middlesex, State of Massachusetts, have invented an  
5 Improvement in Temporary Binders, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawing representing like parts.

This invention relates to temporary binders of the  
10 type wherein the sheets to be bound are securely held between a pair of cooperating clamping members, and my invention has for its object the production of novel features of construction in such a temporary binder, the invention being an improvement on certain fea-  
15 tures of construction embodied in United States Patent No. 810338 granted to me January 16, 1906.

The various novel features of my invention will be fully described in the subjoined specification and particularly pointed out in the following claims.

20 Figure 1 is an end elevation of a binder embodying my present invention, the clamping members being shown in their operative condition; Fig. 2 is a top plan view of the binder showing the clamping members separated; Fig. 3 is a longitudinal sectional view of the  
25 binder, on the line 3—3, Fig. 1, a portion only of the binder posts being shown in section; Fig. 4 is an enlarged transverse section on line 4—4, Fig. 3, looking toward the right; Fig. 5 is a perspective view, of one of the locking members; Fig. 6 is an enlarged detail of a  
30 portion of the apparatus illustrated in Fig. 3, to more clearly illustrate the construction; Fig. 7 is a perspective view of one of the filling blocks, to be referred to; Figs. 8 and 9 are perspective views of portions of the  
35 two channel-bars comprising the hollow clamping member in which the locking mechanism is mounted.

In its general structure the binder comprises the cooperating and relatively movable clamping members 1 and 2, the former having an attached metallic plate 3, Fig. 3, provided with the tubular portions 5 of a pair  
40 of binder posts, which are adapted to pass through openings in the clamping member 2, the complementary post-sections 10 being attached to the tubular portions 5, and with the exception of the clamping member 2 the structure so far referred to is all substantially as in  
45 my patent referred to. The clamping member 2 herein is of novel construction, it comprising two opposed and interlocked channel-bars of different cross-sections, made of sheet-metal of sufficient thickness to provide the requisite stiffness and strength while being of light  
50 weight. The outer channel-bar has a flat base 11 and inclined, converging sides 12, the longitudinal edges

of which leave a clearance extending the length of the bar, the junction of the base and sides being rounded, as at 13, Figs. 4 and 8.

In practice the base 11 is provided with properly  
55 spaced post-receiving openings 14, Figs. 3 and 6. The cooperating, or inner channel-bar is substantially rectangular in cross-section, having a flat base 15, and parallel sides 16, Figs. 4 and 9, with the corners slightly  
60 rounded or convexed, as at 17 and post-receiving openings 18 are made in the base, opposite the openings 14 when the two channel-bars are assembled. At equidistant points from its center the base 15 is preferably  
65 struck up to present two inturned lugs 19, Fig. 3, and also shown in Fig. 6, for a purpose to be described. In assembling the two channel-bars they are brought into  
opposition, with their bases parallel, and the inner channel-bar is slid into place from one end of the outer  
70 bar, the converging sides 12 thereof springing or yielding slightly and overlapping the corners 17 of the inner bar, see Fig. 4, to thereby interlock the bars and firmly hold them in connected position. Preferably the inner  
bar is made somewhat shorter than the outer bar, see Figs. 2 and 3, for a purpose to be referred to. When  
75 the channel-bars are assembled a hollow clamping member is provided, light, strong and stiff, and of simple and cheap construction. Within said clamping member I mount the longitudinally-movable locking  
80 members, one to cooperate with each binder-post, and said locking members are substantially of the construction shown in my patent, each comprising a pair of spaced and preferably parallel arms 20, notched at  
85 their outer ends, as at 21, Fig. 5, to receive and frictionally engage the adjacent binder post. The arms 20 are of such width as to slide easily between the sides 16 of the inner channel-bar, and said arms are longitudinally slotted at 22 and connected at their inner ends by an inclined or cam portion 23, Figs. 3, 5 and 6.

As shown in Fig. 3 the locking members are disposed  
90 on opposite sides of the center of the clamping member 2, with their notched ends outward, and the lugs 19 project through the slots 22, as shown in Figs. 3 and 6, to form abutments for the outer ends of coiled retracting or releasing springs 24, the inner ends of the springs  
95 bearing against the inner ends of the slots 22. Normally such springs tend to retract the locking members and move them automatically into releasing position, that is, with their notched outer ends away from the  
binder posts. The locking members are inserted in the inner channel-bar before it is interlocked with the outer  
100 bar, and the springs 24 are slipped into place through the slots 22.



An actuating device, shown as a stud having a coarse thread 25, a flange 26, and a threaded and nicked head 27, Fig. 3, is inserted loosely in a hole 28 at the center of the base 15 of the inner channel-bar, as herein shown, the smooth end of the stud being extended loosely through an opposite hole in the base 11 and upset or riveted over, as at 29. The upset end 29 and the flange 26 retain the actuating device in place while permitting rotative movement thereof, as will be obvious.

10 A separating device or spreader for the locking members is herein shown as a plate 30, Fig. 3, having a threaded hole to receive and engage the coarse thread 25 of the actuating device, the spreader being interposed between and cooperating with the inclined ends 15 or cam portions 23 of the two locking members. When said actuating device is turned to draw the spreader forward it acts to separate and positively move the two locking members outward, to bring their notched ends into a firm locking engagement with the binder posts 20 passing through the hollow clamping member 2, thereby locking said member and the posts together, with the clamping members 1 and 2 at the required distance apart. When the actuating device is oppositely turned to move the spreader back, viewing Fig. 3, 25 toward the base 11 the springs 24 act to retract the locking members and release the binder posts.

The mode of use of the apparatus is obvious, and is precisely the same as shown and described in my patent referred to, the loose leaves 31, Fig. 1, being clamped 30 in position between the members 1 and 2 and having suitable perforations to receive the binder posts. The actuating device may be operated by means of a suitable key inserted in the nick of the head 27, but for ordinary purposes I screw onto the head a thumb-nut 35 32, securing it in place by a small set-screw 33, the thumb-nut providing a convenient and readily operated means for turning the actuating device.

In practice the clamping members are covered with a suitable binding connecting them with the covers 34, 40 Fig. 1, and in order to prevent the corners of the outer channel-bar from cutting the binding I insert filling-blocks 35, of wood or other suitable and preferably non-metallic material in the ends of the outer channel-bar, see Fig. 3, said blocks also more or less filling the spaces 45 left at the ends of the inner channel-bar. By moving the blocks in or out, or by using blocks of different length, I am enabled to make a given length of the outer channel-bar serve for a number of different sizes, to provide binders for sheets of various lengths. That 50 is, if the length of the outer channel-bar is, say 12 inches, I can by means of the filling-blocks 35 use it for leaves varying from slightly less than twelve inches in length to fourteen inches or more, as required.

The binding is shown only in Fig. 1, as covering the 55 clamping members 1 and 2, and is of any suitable character forming no part of my invention. When the interlocking channel-bars composing the clamping member 2 are assembled as described any relative longitudinal movement of said bars is prevented by the 60 actuating device as will be manifest from an inspection of Fig. 3.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. In a device of the class described, a clamping member, a pair of binder-posts carried thereby, a second clamping member comprising two opposed and interlocked metallic channel-bars having openings to receive the posts, a pair of locking members each having parallel arms slidably mounted within the channel-bars and movable upon their opposite bases and adapted to engage the posts passed through said channel-bars, an actuating member mounted on the latter and extended through their bases and having a spreader interposed between the adjacent, inner ends of the locking members, to positively move the same to locking position, and springs cooperating with the locking members to move them to releasing position, the actuating member preventing relative longitudinal movement of the interlocked channel-bars. 65 70 75

2. In a device of the class described, a clamping member and a pair of binder-posts carried thereby, a hollow, metallic clamping member having openings to receive the posts, a pair of longitudinally-slotted locking members slidably mounted in the hollow clamping member, to effect locking engagement with the posts passed therethrough, an actuating member mounted on the said clamping member and having a spreader interposed between the adjacent inner ends of the locking members, to positively move the same to locking position, intumed lugs on the hollow clamping member extended into the slots of the locking members, and retracting springs interposed between the lugs and the inner ends of said members to move the latter to releasing position. 80 85 90

3. In a device of the class described, a clamping member comprising two opposed and interlocked channel-bars having post-receiving openings, a pair of locking members slidably mounted within the channel-bars, releasing springs cooperating with the locking members, intumed lugs on one of the channel-bars, to cooperate with and form abutments for one end of each releasing spring, an actuating device to engage the adjacent inner ends of said members and move them positively to locking position, and a second clamping member having an attached pair of binder-posts adapted to pass through the openings in the channel-bars. 95 100

4. In a device of the class described, a clamping member comprising inner and outer channel-bars, the inner bar having parallel sides and a flat base, the side edges of the outer bar converging and overlapping the edges of the sides of said inner bar, to hold the two together, with their bases in parallelism, said bases having opposite post-receiving openings, a pair of locking members longitudinally slidable within the inner channel-bar, releasing springs cooperating with said members, fixed abutments on one of the channel-bars, to cooperate with and fixedly position one end of each spring, an actuating device rotatably mounted in the opposed bases of the channel-bars and having a spreader to engage the adjacent inner ends of the locking members and move them positively to locking position. 105 110 115

5. In a device of the class described, a tubular, two-part metallic clamping member having openings to receive binding-posts, a pair of locking members longitudinally slidable within the clamping member, springs to retract them, means to engage and positively separate the adjacent inner ends of the locking members, to move them to locking position, and non-metallic filling-blocks adjustably mounted in and closing the open ends of the clamping member. 120 125

6. In a device of the class described, a two-part clamping member comprising a rectangular channel-bar, an opposed channel-bar having intumed sides to embrace and hold the rectangular channel-bar, the opposed flat bases of said bars being in parallelism and provided with opposite post-receiving openings, a pair of locking members slidably mounted in the rectangular channel-bar, intumed lugs on the latter, springs interposed between said lugs and the locking members, to retract the latter, a spreader engaging 130 135



the adjacent inner ends of said members to move them positively to locking position, an actuating member for the spreader, rotatably mounted in the bases of the channel-bars, and an external head operatively connected with and  
5 to rotate said actuating member.

7. In a device of the class described, a clamping member comprising two opposed channel-bars provided with post-receiving openings, means to lock said bars together, a pair of locking members slidably mounted within the  
10 channel-bars, retracting springs for said members, a spreader to engage the inner ends of and positively move

the locking members outward, an actuating member for the spreader, having a nicked end extended outside the base of one of the channel-bars, and an external operating head detachably connected with and concealing the nicked  
15 end of the actuating member.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

FRED B. JORDAN.

Witnesses:

JOHN C. EDWARDS,

EVANGELINE C. BROWN.