

No. 629,889.

G. J. CLINE.  
BINDER.

Patented Aug. 1, 1899.

(Application filed Jan. 7, 1899.)

(No Model.)

Fig. 1.

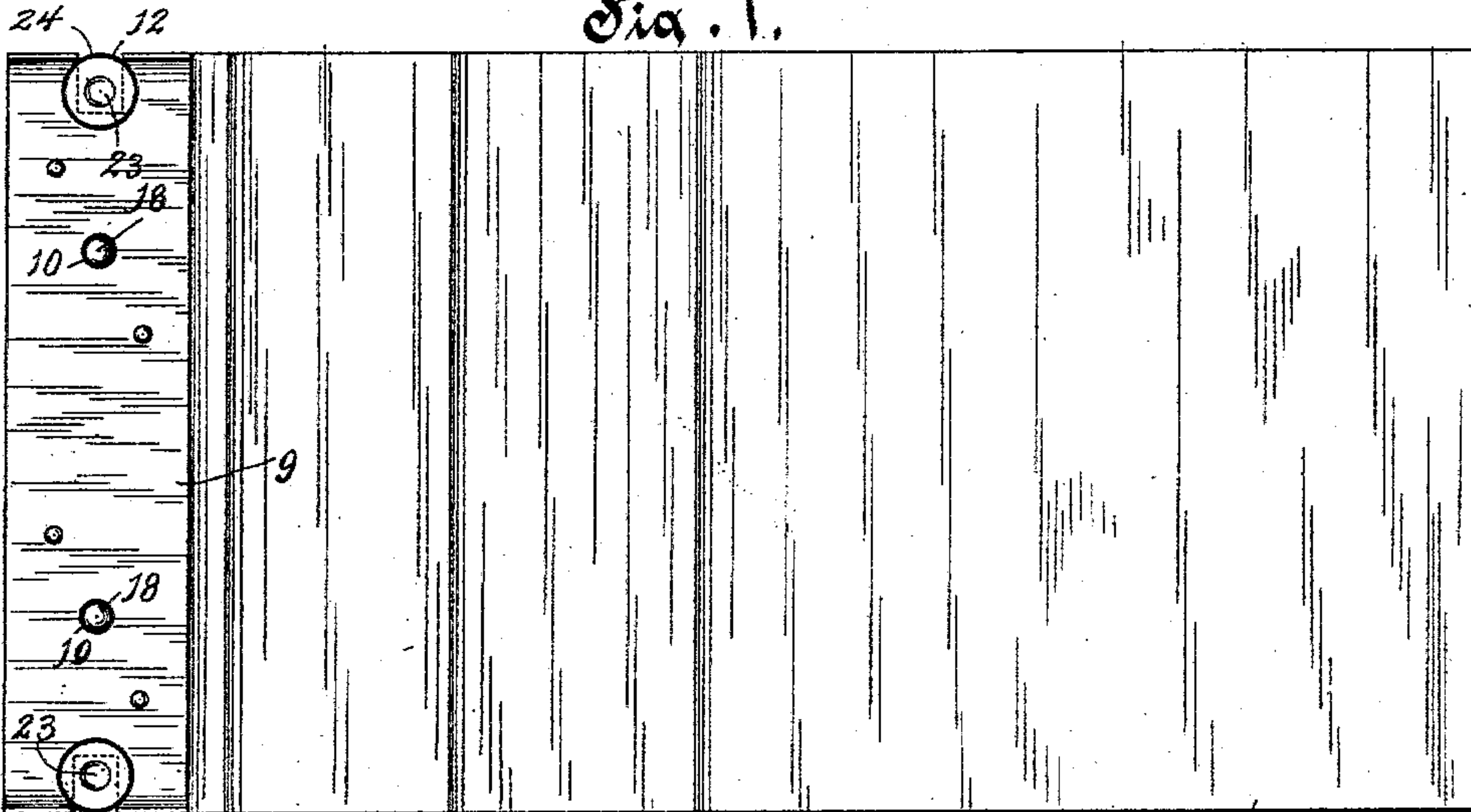


Fig. 2.

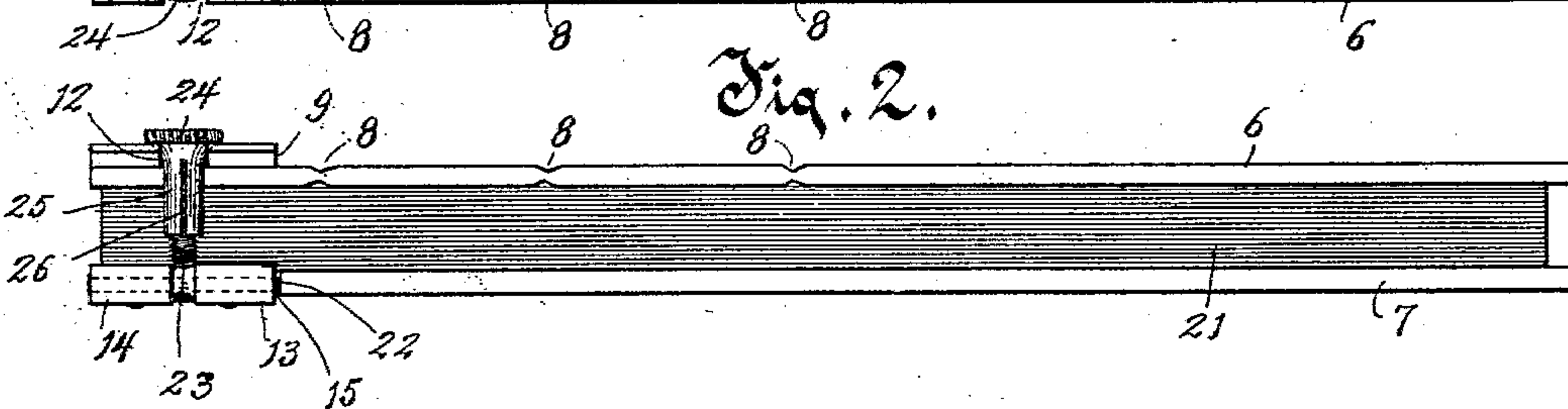


Fig. 3.

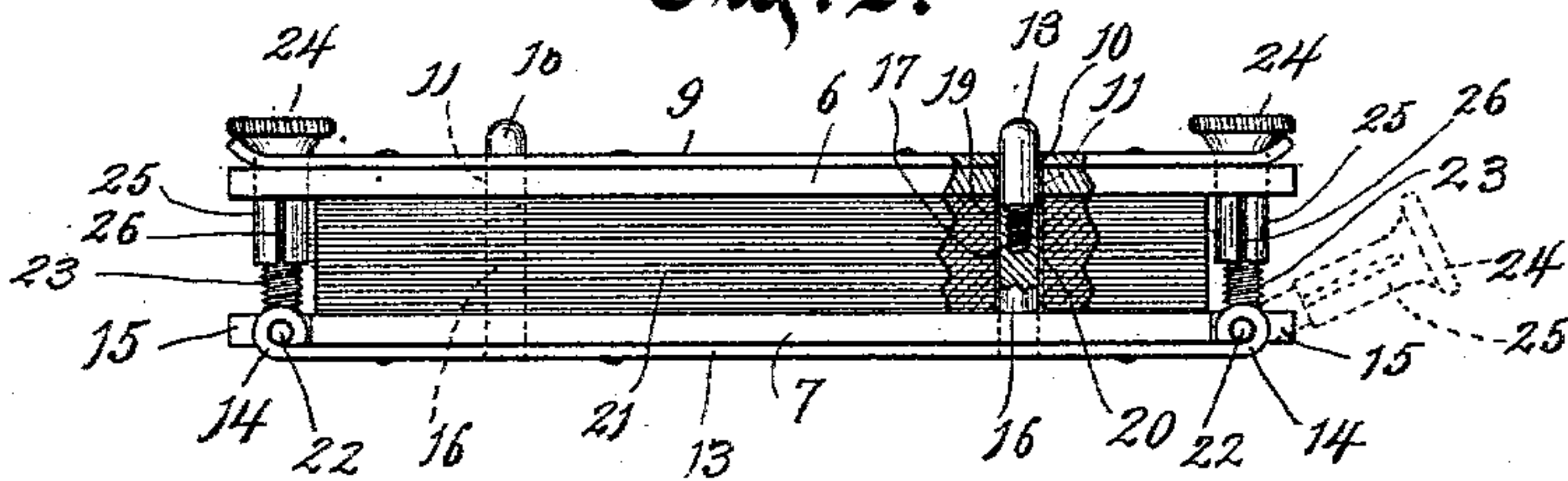


Fig. 4.

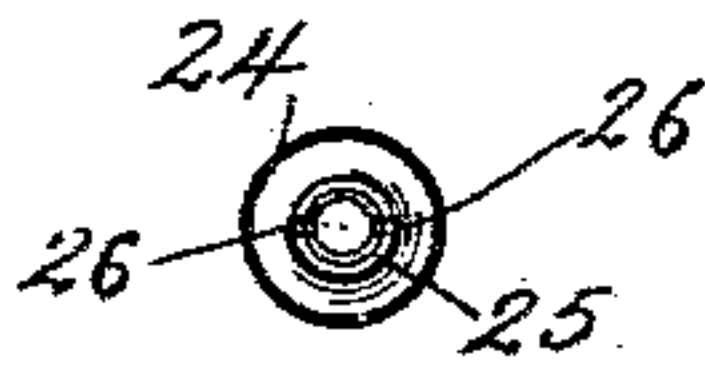
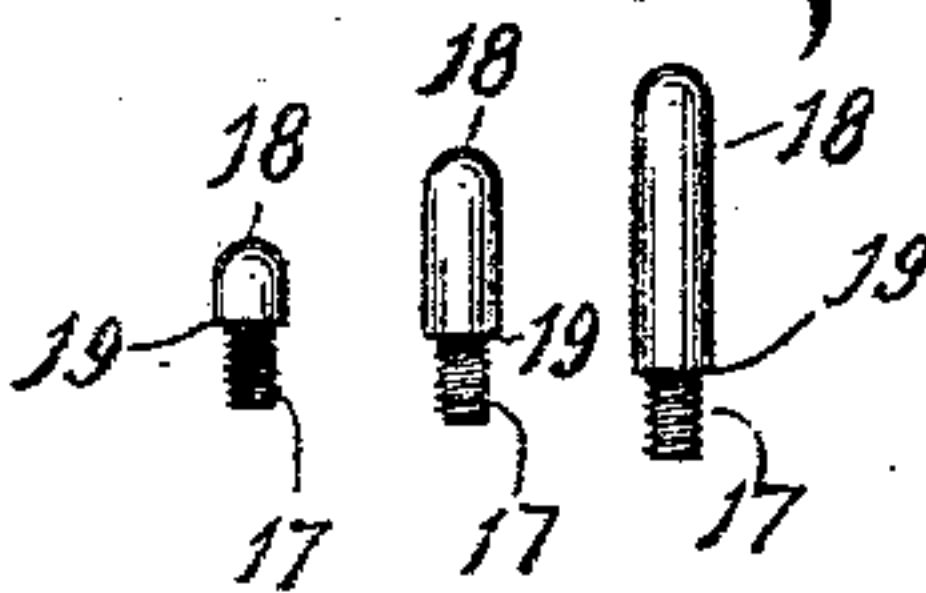


Fig. 5.



Witnesses:

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# UNITED STATES PATENT OFFICE.

GEORGE J. CLINE, OF MILWAUKEE, WISCONSIN.

## BINDER.

SPECIFICATION forming part of Letters Patent No. 629,889, dated August 1, 1899.

Application filed January 7, 1899. Serial No. 701,462. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE J. CLINE, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and  
5 useful Improvement in Binders, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements  
10 in binders.

The invention relates more particularly to the class of binders known as "temporary" binders; and the object of my device is to  
15 provide an improved construction designed to receive and bind leaves, more especially loose leaves, in such a manner as to permit of said leaves being readily inserted and as readily removed.

A further object contemplated is to pro-  
20 vide for the covers of the binder being adjusted from and toward each other to adapt the binder to accommodate a greater or less number of leaves and in connection there-  
with an improved form of locking mechanism  
25 for holding the covers releasably locked in adjusted position.

With the above primary and other inci-  
dental objects in view the invention consists  
30 of the devices and parts or their equivalents, as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a plan view of a binder constructed in ac-  
cordance with my invention. Fig. 2 is an  
edge view of Fig. 1. Fig. 3 is a view of the  
35 rear end of the binder with parts broken away. Fig. 4 is an end view of the tubular portion of the nut of the locking mechanism, and Fig. 5 illustrates in detail the upper por-  
tions of the posts; said several portions be-  
40 ing shown as of varying lengths.

Referring to the drawings, the numeral 6 indicates the upper cover-section, and 7 the lower cover-section, of the binder. The up-  
per cover-section is shown as provided with  
45 a series of hinge-joints 8. It is obvious that only one of said hinged joints could be provided—viz., the joint nearest the rear edge of the cover-section; but by preference I provide a series of said hinge-joints, so that the  
50 cover may be folded over the back of the book and made to lie smoothly against the

outer surface of the other side cover. If de-  
sired, said other side cover may also be pro-  
vided with either a single hinge-joint or with  
a series of said hinge-joints, and in case both  
55 of said covers are provided each with a series of hinge-joints a reversible book is thereby provided.

Referring now particularly to my improve-  
ments, the numeral 9 indicates a plate which  
60 is secured to and across the rear portion of the upper cover-section 6. This plate is provided with openings 10 10, which openings register with other openings 11 through the  
cover-section 6. The opposite ends of the  
65 plate 9 are provided with inwardly-extending slots 12 12, and these slots register with similar slots beneath the same and formed in the cover-section 6. These slotted ends of the plate 9 are also upturned slightly, as  
70 clearly shown. The numeral 13 indicates another plate which is secured across the rear portion of the lower cover-section 7. The ends of this plate are bent around to form hinge  
eyes or knuckles 14 14, and the opposite edges  
75 of the side cover 7 are cut out, as indicated at 15 15, Fig. 3, for the accommodation of these eyes or knuckles. The plate 13 has extending upwardly therefrom posts 16 16. The upper  
80 portions of these posts are tubular and interiorly threaded, as clearly shown in Fig. 3. These interiorly-threaded tubular portions are adapted to receive the threaded stem 17,  
extending from an upper post-section 18. The  
85 threaded stem of said upper post-section is of less diameter than the main portion of said post-section, so as to form a shoulder 19. When the stem 17 is fully turned into the threaded bore or socket of a lower post-section 16, the shoulder 19 will bear against the  
90 upper end of said lower post-section 16. In practice it is desirable to provide a number of upper post-sections 18 of varying lengths, as shown in Fig. 5, so that as additional leaves are inserted between the cover-sections of the  
95 binder, and consequently the distance between said cover-sections increased, the posts are thereby lengthened to correspond with the augmented space between the covers, or,  
100 on the other hand, where a number of leaves are extracted and the distance between the cover-sections thereby diminished upper post-



sections 18 of less length may be secured into the threaded sockets of the lower post-sections. In the accompanying drawings I have shown two of these two-part posts. It is obvious, however, that only one of such posts may be used, or more than two, as preferred. These two-part posts are adapted to pass through openings 20 in the leaves 21 and their upper ends to pass through the registering openings 11 and 10 of the upper cover-section 6 and the upper plate 9, respectively.

Journalled in the hinge eyes or knuckles 14 are pins 22 22. The hinge eyes or knuckles are arranged in pairs, and between the inner ends of each pair is left a space, in which is fitted the lower end of a threaded stem 23. The lower ends of these threaded stems are provided with eyes, through which the pins 22 pass. Nuts are adapted to engage these screw-stems, and said nuts consist of upper head portions 24 24 and lower depending interiorly-threaded tubular portions 25 25, the threads of said tubular portions engaging the stems, and each tubular portion being preferably slitted at diametrically opposite points, as indicated by the numerals 26 26, said slits being provided so as to more readily permit of the engagement of the tubular portions of the nuts firmly with the threaded stems, particularly when said stems become worn. The upper head portions of the nuts are advisably milled for convenience in turning, and the under sides of these head portions are advisably beveled, as clearly shown.

Figs. 1, 2, and 3 of the drawings show the hinges as turned up to locking position, so as to prevent the removal of either of the cover-sections. In this locking position the beveled under sides of the heads 24 of the nuts engage the slots 12 12 of the plate 9, said slots extending inwardly a sufficient distance to guard against the accidental disengagement of the head portions of the nuts, and the slotted ends of the plate 9 being also upturned to assist in holding the hinges in their locking positions. When it is desired to either remove a leaf or insert an additional one, the fingers are placed upon the head portions of the nuts and the hinges turned outwardly to the dotted-line position shown in Fig. 3. The top cover-section is then free to be removed for either the insertion or removal of leaves.

From the above description it will be seen that I provide a most simple device of the character described. The invention is adapted to be used as a refillable binding for blank-books, ledgers, records, &c., where it is desirable that leaves should be bound temporarily. One special use had in view is the employment of the device as a binder for the slips used by newspaper-route carriers. This is a very desirable application of the invention and subserves convenience to the maximum when so applied.

It will be obvious by the employment of nuts having the tubular interiorly-threaded

portions adapted to engage the screws 23 that when the hinged members are thrown upwardly into locking position the nuts may be turned down tightly onto the plate 9, and thus hold the top cover most firmly in engagement with the hinged members, and that when it is desired to unlock the cover, if the heads 24 of the nuts bear so tightly on the plate 9 as to prevent ready disengagement, the nuts may be turned upwardly, and thereby permit the hinged members to be swung downwardly out of engagement.

It will also be obvious that it is not absolutely necessary that the threaded stems 23 should be hinged and the upper ends of the tubular portions 25 provided with the heads 24, inasmuch as the tubes 25 could be hinged and the threaded stems provided with the head portions adapted to engage the slots 12 without departing from the spirit and scope of my invention. In this case, of course, the heads of the threaded stems would be turned downwardly into the threaded tubes in order to make said heads bind firmly against the cover-section.

What I claim as my invention is—

1. In a binder, the combination, of cover-sections, one of said sections provided near its rear edge, and at opposite side edges, with slots, hinge members hinged to one of said cover-sections, and each of said hinge members consisting of two engaging parts, one of said parts being a threaded stem and the other part a threaded nut, and one of said parts provided with a head portion adapted to engage the slot of the cover-section, when the hinge member is turned upwardly to locking position, and to be disengaged from said slot, when the hinge member is turned downwardly to unlocking position.

2. In a binder, the combination, of cover-sections, one of said sections provided near its rear edge, and at opposite side edges, with slots, a plate extending across the rear portion of the other cover-section, said plate provided at its ends with eyes or knuckles, pins mounted in said eyes or knuckles, hinge members, each member consisting of two engaging parts, one of said parts being a threaded stem, and the other part a threaded nut, and one of said parts connected to the pin which is journalled in the eye or knuckle, and the other part provided with a head portion, adapted to engage the slot of the cover-section, when the hinge member is turned upwardly to locking position, and to be disengaged from said slot when the hinge member is turned downwardly to unlocking position.

3. In a binder, the combination, of cover-sections, one of said sections provided near its rear edge, and at opposite side edges, with slots, a plate extending across the rear portion of the slotted cover-section, and provided with slots registering with the slots of said slotted cover-section, hinge members hinged to the other cover-section, and each of said hinge



members consisting of two engaging parts, one of said parts being a threaded stem, and the other part a threaded nut, and one of said parts provided with a headed portion adapted to engage the registering slots of the covering section and plate, when the hinge member is turned upwardly to locking position, and to be disengaged from said registering slots, when the hinge member is turned downwardly to unlocking position.

4. In a binder, the combination, of cover-sections, one of said cover-sections provided near its rear portion, and at opposite side edges, with slots, a plate extending across the rear portion of the slotted cover-section, the ends of said plate being bent upwardly and slotted, the slots registering with the slots of said slotted cover-section, hinge members hinged to the other cover-section, and each of said hinge members consisting of two engaging parts, one of said parts being a threaded stem, and the other part a threaded nut, and one of said parts provided with a headed portion adapted to engage the registering slots of the cover-section and plate, when the hinge member is turned upwardly to locking position, and to be disengaged from said registering slots, when the hinge member is turned downwardly to unlocking position.

5. In a binder, the combination, of cover-sections, one of said sections provided near its rear portion, and at opposite side edges, with slots, hinge members hinged to one of said cover-sections, and each member consisting of two engaging parts, one of said parts being a threaded stem, and the other part a slitted threaded nut, and one of said parts provided with a head portion adapted to engage the slot of the cover-section, when the hinge member is turned upwardly to locking position, and

to be disengaged from said slot when turned downwardly to unlocking position.

6. In a binder, the combination, of cover-sections, one of said sections provided at its rear portion, and at opposite side edges, with slots, a plate extending across the rear portion of the other cover-section, hinge members hinged to the projecting ends of the plate, and each of said hinge members consisting of two engaging parts, one of said parts being a threaded stem, and the other of said parts a threaded nut, and one of said parts provided with a headed portion adapted to engage the slot of the cover-section, when the hinge member is turned upwardly to locking position, and to be disengaged from said slot, when the hinge member is turned downwardly to unlocking position.

7. In a binder, the combination, of a cover-section provided at its rear portion, and at opposite side edges thereof, with slots, another cover-section, hinge members, each of said hinge members consisting of two engaging parts, one of said parts being a threaded stem hinged to the latter cover-section, and the other part a threaded nut engaging the threaded stem, the upper end of said nut provided with a head portion adapted to engage the slot of the slotted cover-section, when the hinge member is turned upwardly to locking position, and to be disengaged from said slot when turned downwardly to unlocking position.

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

GEORGE J. CLINE.

Witnesses:

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ANNA V. FAUST.