G. P. WIGGINTON.

TEMPORARY BINDER.

APPLICATION FILED FEB. 10, 1916.

1,247,047.

Patented Nov. 20, 1917.

2 SHEETS—SHEET 1.

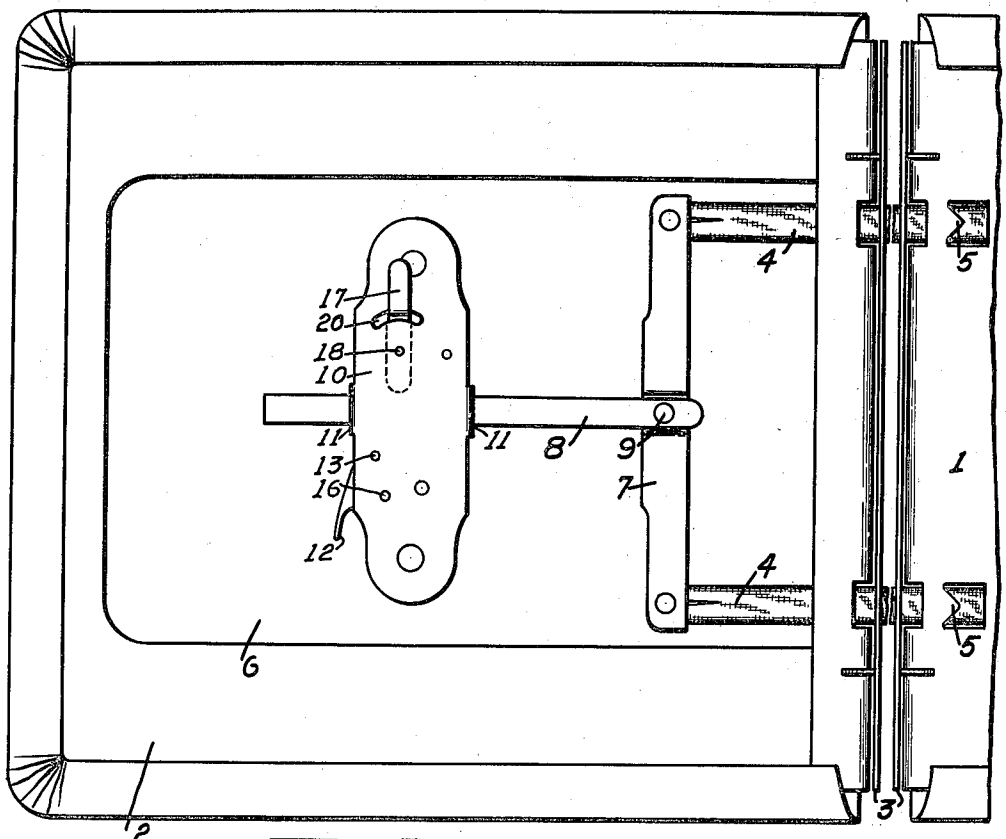


FIG. I.

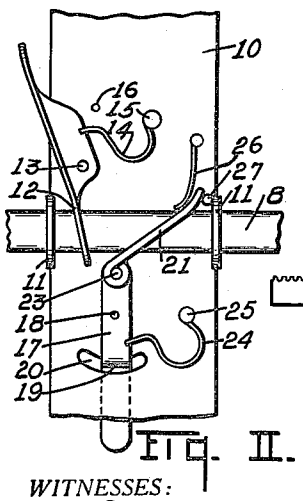


FIG. II.

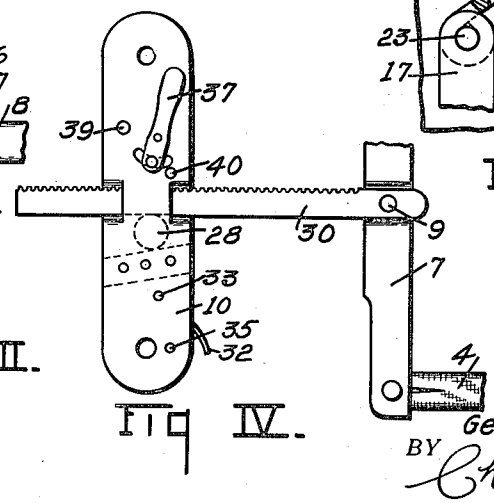


FIG. IV.

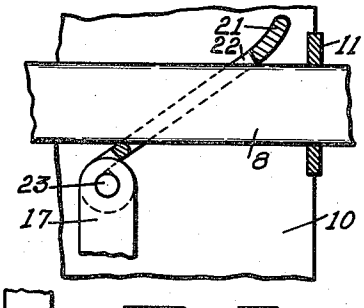


FIG. III.

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APPLICATION FILED FEB. 10, 1916.

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2 SHEETS—SHEET 2.

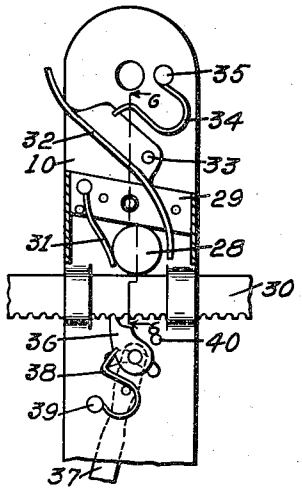


FIG. V.

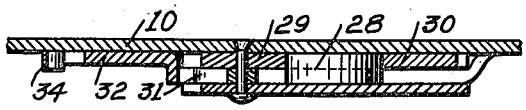


FIG. VI.

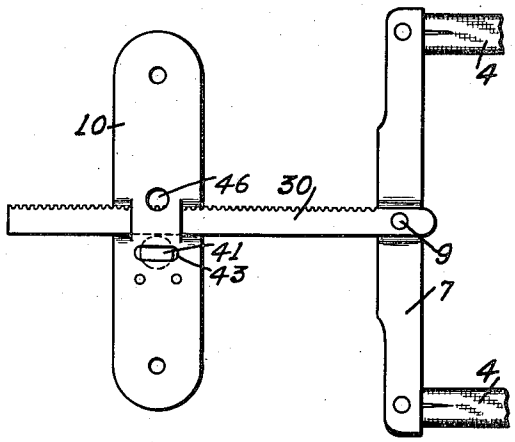


FIG. VII.

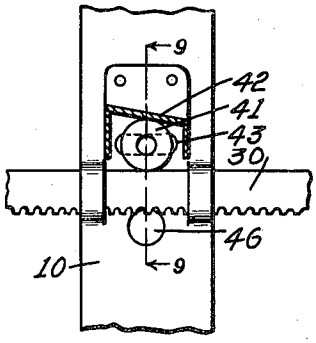


FIG. VIII.

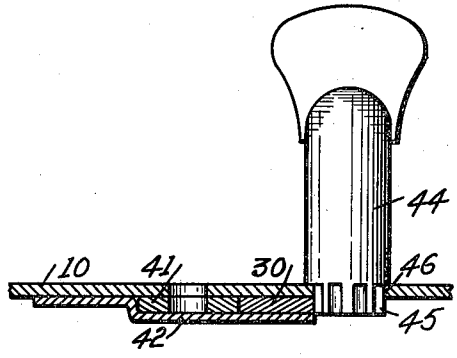


FIG. IX.

WITNESSES:

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

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TEMPORARY BINDER.

1,247,047. Specification of Letters Patent. Patented Nov. 20, 1917.

Application filed February 10, 1916. Serial No. 77,496.

To all whom it may concern:

Be it known that I, GEORGE P. WIGGINTON, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented certain new and useful Improvements in Temporary Binders, of which the following is a specification.

This invention relates to improvements in temporary binders.

The main objects of this invention are:

First, to provide in a temporary binder or loose sheet holder an improved adjusting mechanism.

Second, to provide an improved temporary binder or loose sheet holder which is capable of rapid manipulation to permit the insertion or removal of the sheets and one which is, when adjusted, very secure.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure I is a detail inside plan view of a binder embodying the features of my invention with the covers extended.

Fig. II is an enlarged inverted detail of the adjusting mechanism of the embodiment shown in Fig. I.

Fig. III is an enlarged detail section showing further details of the adjusting mechanism.

Fig. IV is a detail plan view of another embodiment of my invention.

Fig. V is an enlarged detail inverted view of the adjusting mechanism of the embodiment shown in Fig. IV.

Fig. VI is an enlarged detail section on a line corresponding to the broken line 6—6 of Fig. V.

Fig. VII is a detail plan view of another embodiment of my invention.

Fig. VIII is an inverted detail view of the embodiment shown in Fig. VII.

Fig. IX is an enlarged detail section on a line corresponding to line 9—9 of Fig. VIII.

In the drawing, similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, the covers 1 and 2 are preferably provided with clamping bars 3 substantially as shown in my Patent No. 1,022,452, April 9, 1912. Binding members 4, preferably in the form of flexible strips, extend between the covers, being connected to one cover at 5 and to the other cover through my improved adjusting mechanism. The cover 2 is provided with a recess 6 in which the adjusting mechanism is disposed. The binding strips are connected to a cross bar to which the bar-like adjusting member 8 is connected at 9.

The bar 8 is slidably mounted on the support 10 mounted within the recess 6 of the cover, the support being provided with downwardly projecting ears 11 for the bar. The bar is retained in its adjusted positions by means of the clutch 12 which is pivoted at 13 on the support and provided with an opening through which the bar is disposed so that the clutch has frictional or gripping engagement with the bar when in one position and permits it to slide freely therethrough when in another position. The clutch is held yieldingly in engaging position by the spring 14 mounted on the pin 15 on the support.

A stop pin is provided for the clutch when in its disengaged position. The engaging movement of the clutch is toward the inner end of the cover so that the stress on the binding strips merely serves to increase the clutching action. At the same time free outward movement of the bar is permitted without first disengaging the clutch.

Ordinarily the binding strips can be adjusted to the required tension by pulling up on the bar 7 with the fingers. However, to further tighten the same, if desired, I provide an adjusting lever 17 pivotally mounted at 18 and offset at 19 so that its end projects through the slot 20 in the support member. On the inner end of the lever 18 is a link-like friction pawl 21 having a slot 22 therein for the bar. This friction pawl is pivotally mounted on the lever at 23. When the lever is swung to its ini-

tial position the pawl slides freely thereon. When, however, it is swung in the opposite direction the pawl engages the bar so that it is adjusted with a step by step action by the oscillation of the lever. The pawl is urged yieldingly in engagement with the bar by the spring 26. The lever is returned to its initial position by the spring 24 mounted on the pivot 25. A pin 27 is positioned on the support so that when the pawl is engaged therewith it is freed from the bar, permitting its free adjustment.

In the modification shown in Figs. IV, V and VI, a clutch roller 28 is provided for supporting the bar in its adjusted positions. This clutch roller is arranged in a support comprising an inclined way 29 disposed at an angle to the bar 30 so that when the roller travels toward the inner end of the cover it is brought into clutching engagement with the bar. A spring 31 urges the roller toward its clutching position. The roller is disengaged from its clutching position by the lever 32 which is pivoted at 33 and projects into the housing or roller support so that when the lever is actuated it releases the clutch. The lever projects at the edge of the support 10 so as to be conveniently grasped. A spring 34 is mounted on the pin 35 to return the lever to its inoperative position. The bar 30 is toothed on one side to coact with the pawl 36 of the adjusting lever 37. The pawl is urged to its engaging position and the lever returned to its initial position by the spring 38 mounted on the pin 39.

A stop 40 is positioned so as to engage the pawl when the lever is in its initial position, lifting the pawl from engagement with the bar.

In the modified structure shown in Figs. VII, VIII and IX the clutch roller 41 is supported in a housing 42 to coact with the bar, the support 10 being provided with a slot 43 through which the roller may be engaged to shift it to and from engaging position.

The bar 30 may be adjusted by means of a key 44 which has pinion teeth 45 adapted to coact with the teeth of the bar when the key is inserted in the opening 46, which is positioned so that the key is supported in rotative engagement with the bar.

The clutch roller in both the embodiments shown in Figs. V and VIII is mounted so that its engaging movement is toward the inner end of the cover, so that it tends to travel to engaging position when the outer end of the cover is raised.

With the parts thus arranged I secure a structure which is simple and secure in its adjustment and capable of convenient and rapid manipulation.

I have not attempted to illustrate or describe all of the modifications and adaptations which I contemplate as I believe the disclosure made will enable those skilled in the art to which my invention relates to embody or adapt the same as may be desired.

My present improvements are in some respects adaptations and modifications of the inventions shown and described in my applications for Letters Patent, Ser. No. 77492; Ser. No. 77,493; Ser. No. 77,494, Ser. No. 77,495; filed Feb. 10, 1916; Ser. No. 78,250, filed Feb. 14, 1916.

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

1. In a temporary binder, the combination with the covers, of binding strips extending between the covers, a bar to which said binding strips are connected disposed longitudinally of one of the covers, a support member on which said bar is slidably mounted carried by said cover, means for automatically retaining said bar in its adjusted positions on said support, an adjusting means comprising a lever pivotally mounted on said support, a friction pawl pivotally mounted on said lever to coact with said bar, a spring for returning said lever to its initial position, a spring for said pawl, and a pin for disengaging said pawl when said lever is in its initial position.

2. In a temporary binder, the combination with the covers, of binding strips extending between the covers, a bar to which said binding strips are connected, disposed longitudinally of one of the covers, a support member on which said bar is slidably mounted carried by said cover, means for automatically retaining said bar in its adjusted positions on said support, an adjusting means comprising a lever pivotally mounted on said support, a friction pawl pivotally mounted on said lever to coact with said bar.

3. In a temporary binder, the combination with the covers, of binding strips extending between the covers, a bar to which said binding strips are connected disposed longitudinally of one of the covers, a support member on which said bar is slidably mounted carried by said cover, a clutch member mounted on said support member to coact with said bar and so that its bar engaging movement is toward the inner end of the cover, and means for adjusting said bar step by step comprising a lever pivotally mounted on said support.

4. In a temporary binder, the combination with the covers, of binding strips extending between the covers, a bar to which said binding strips are connected disposed longitudinally of one of the covers, a support member on which said bar is slidably mounted carried by said cover and means for automatically retaining said bar in its adjusted positions on said support, and means for ad-

justing said bar step by step comprising a lever pivotally mounted on said support.

5. In a temporary binder, the combination with the covers, of binding strips extending between the covers, a bar to which said binding strips are connected disposed for adjustment longitudinally of one of the covers, a clutch member mounted to coact with said bar, and means for adjusting said bar step by step.

6. In a temporary binder, the combination with the covers of binding strips extending between the covers, a bar to which said binding strips are connected disposed for adjustment longitudinally of one of the covers, a clutch member mounted to coact with said bar and so that its engaging movement is toward the inner end of the cover, a spring for urging said clutch member to its bar clutching position, and means for adjusting said bar.

7. In a temporary binder, the combination with the covers of binding strips extending between the covers, a bar to which said binding strips are connected disposed for adjustment longitudinally of one of the covers, a clutch member mounted to coact with said bar and so that its engaging movement is toward the inner end of the cover, and means for adjusting said bar.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

GEORGE P. WIGGINTON. [L. S.]

Witnesses:
ELIZABETH K. OWENS,
EMMA L. HARRIS.