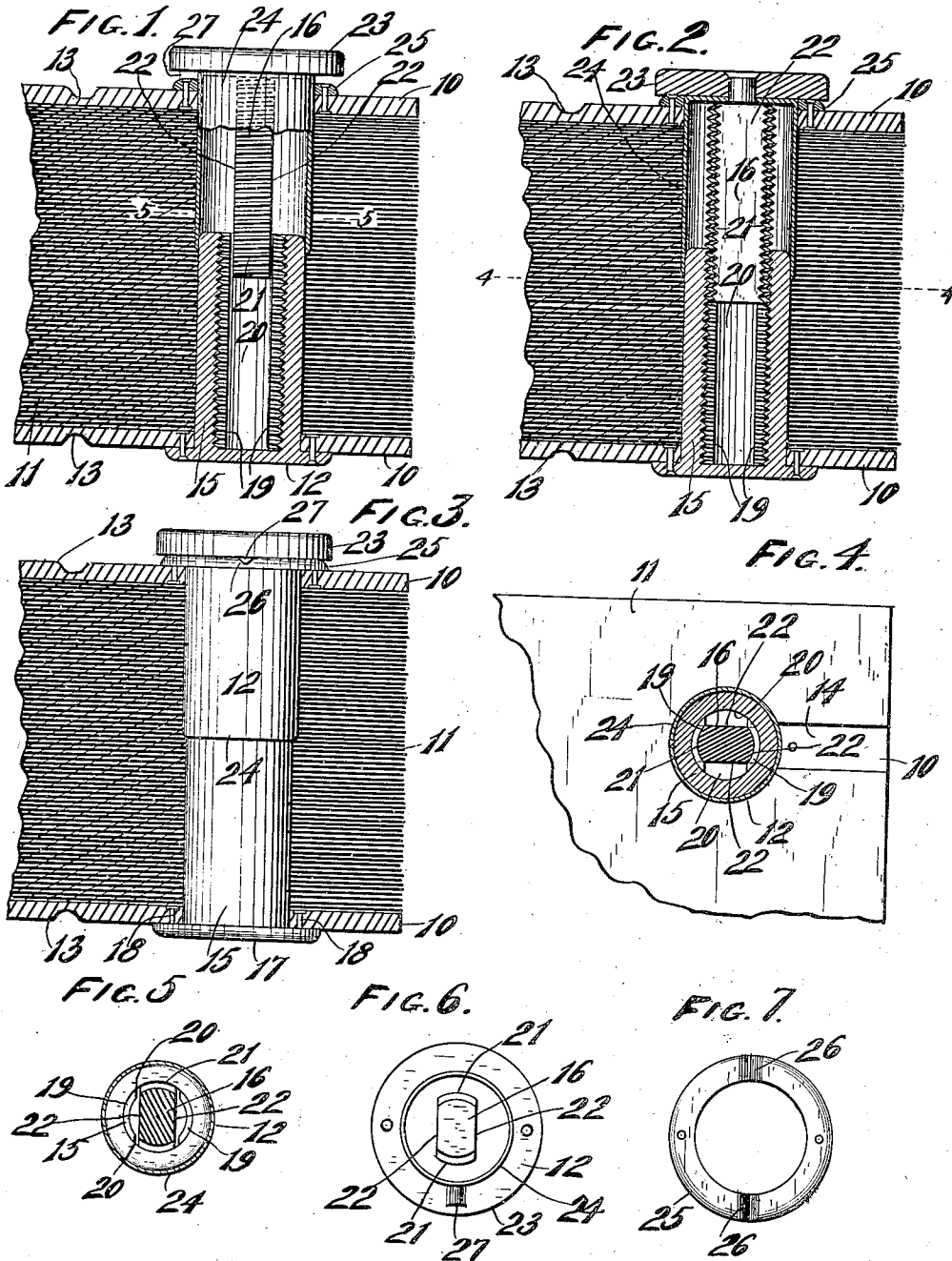


C. J. ROBLEY.
 LOOSE LEAF BINDER.
 APPLICATION FILED DEC. 31, 1910.

1,052,179.

Patented Feb. 4, 1913.



WITNESSES

W. H. Thayer
Laura A. Kelly

INVENTOR.

Charles J. Robley

J. Benedict, Morsell & Caldwell
 ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES J. ROBLEY, OF MILWAUKEE, WISCONSIN.

LOOSE-LEAF BINDER.

1,052,179.

Specification of Letters Patent.

Patented Feb. 4, 1913.

Application filed December 31, 1910. Serial No. 600,259.

To all whom it may concern:

Be it known that I, CHARLES J. ROBLEY, a citizen of the United States, residing in Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Loose-Leaf Binders, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to improvements in loose leaf binders and more particularly to that class in which the covers are provided with telescoping tubular clamping posts which are adapted to engage the leaves and to clamp the leaves between the cover sections.

It is one of the objects of the invention to provide a simple inexpensive binder which is efficient in operation and may be easily and quickly adjusted to insert or remove leaves from the binder.

A further object of the invention is to provide a binder in which the covers may be clamped or released from clamping engagement with the leaves by a slight turn of the telescoping clamping posts.

A further object of the invention is to provide telescoping tubular clamping posts which may be used in connection with ordinary separable covers by providing said covers with openings for the insertion of said posts.

A further object of the invention is to provide the posts with means for automatically locking the post members together in adjusted positions and to prevent the accidental unlocking thereof.

With the above, and other objects in view, the invention consists of the improved binder, its parts and combinations as set forth in the claims, and all equivalents thereof.

In the accompanying drawing in which the same reference characters indicate the same parts in all of the views, Figure 1 is an enlarged sectional view of a portion of a binder provided with the improved clamping posts, the posts being shown partly in section and in an unlocked position; Fig. 2 is a similar view thereof with the posts in locked position; Fig. 3 is a similar view thereof with the posts shown in full line; Fig. 4 is a horizontal sectional view of the binder taken on line 4—4 of Fig. 2; Fig. 5 is a horizontal sectional view of the posts

taken on line 5—5 of Fig. 1; Fig. 6 is an inverted plan view of the upper post; and Fig. 7 is a top view of the collar which surrounds the upper posts.

Referring to the drawing the numeral 10 indicates the extensible covers between which the removable leaves 11 are positioned and clamped and through which the telescoping members 12 extend. Each cover is formed of two parts connected together by a flexible hinge 13 to permit the opening of the book and the leaves are provided with openings and slots 14 leading therefrom to the rear edges of the leaves to permit the removal or the insertion of the leaves when the covers are released from clamping engagement therewith.

The clamping members consist of a lower tubular member 15 which extends upwardly through an opening provided in the lower cover and an upper bolt member 16 which depends downwardly through an opening provided in the upper cover and into engagement with the lower tubular member.

The lower tubular member has a head 17 on its lower end which is fastened to the lower cover by rivets 18 and the tubular portion of the member is provided with inwardly extending threaded portions 19 positioned diametrically opposite with relation to each other and each portion being of a width approximately one quarter of the diameter of the bore of the member. The unthreaded portions of the tubular member between the threaded portions form vertical longitudinal slots 20 also diametrically oppositely positioned and of about the same circumferential width as the threaded portions 19. The upper bolt member 16 which extends downwardly through an opening provided in the upper cover is threaded throughout its length to fit the threaded portions 19 of the lower tubular member and is slatted or flattened on opposite sides as indicated by the numeral 22 so that the circumferential width of the threaded edge portions 19 of the bolt will be slightly less than the width of the longitudinal slots 20 of the lower tubular member. The upper end of the bolt member above the upper cover carries a head or enlargement 23 rigidly riveted thereto by means of which the bolt is turned into locked or unlocked engagement with the lower member.

A sleeve 24 depending from the enlargement surrounds and is spaced a distance

from the threaded bolt 16, is adapted to telescope closely over the tubular portion of the lower member and serves to hold the leaves of the book properly positioned between the covers and prevents the leaves from coming in contact with the threaded portions of the bolt.

A collar 25 surrounding the sleeve and rigidly fastened to the upper surface of the upper cover is provided with one or more notches or recesses 26 into which a tooth 27 formed on the lower surface of the enlargement 23 enters when the bolt is moved into locked engagement with the threaded portion of the lower member.

While only one clamping member is shown it is to be understood that two or more are used to clamp the covers together.

The clamping members are adapted to be used in connection with covers of different kinds as it is obvious that it is only necessary to perforate the covers to accommodate the clamping members.

When in open position the leaves are positioned between the covers with the openings of the leaves in register with the clamping posts. The bolt members which are in unlocked positions with their threaded portions extending into the longitudinal slots are pressed downwardly to tightly clamp the leaves between the covers and the bolts are then turned a one quarter turn into engagement with the threaded portions of the lower tubular members. This movement will cause a further clamping of the covers and the teeth of the enlargements to snap into the recesses of the collars and the parts will be in locked positions.

When it is desired to release the covers the operation is reversed.

From the foregoing description it will be seen that the binder is very simple in construction and operation and consists of a minimum number of parts.

What I claim as my invention is:

1. A clamping means for a loose leaf binder, comprising a tubular member having internal inwardly extending threaded portions positioned on opposite sides of the member and forming longitudinal slotted portions therebetween, and a threaded bolt having opposite side portions free of threads to permit the bolt to be inserted into the tubular member without turning either member, said threaded portions of the bolt entering the longitudinal slots and engaging the threaded portions of the tubular member when the bolt is turned a partial revolution, and means for locking the two members together when the threads

of the bolt engage the threads of the tubular member.

2. A clamping means for a loose leaf binder, comprising a tubular member having internal inwardly extending threaded portions positioned on opposite sides of the member and forming longitudinal slotted portions therebetween, a threaded bolt having opposite side portions free of threads to permit the bolt to be inserted into the tubular member without turning either member, said threaded portions of the bolt entering the longitudinal slots and engaging the threaded portions of the tubular member when the bolt is turned a partial revolution, an enlargement provided on the outer end of the threaded bolt, a sleeve depending from the enlargement and telescoping over the tubular member, and a stationary collar surrounding the sleeve, and having a tooth and recess means formed between the collar and the enlargement for locking said parts together when the threaded portions of the bolt engage the threaded portions of the tubular member.

3. A loose leaf binder, comprising an upper and a lower cover having openings provided therein, a tubular member extending through the opening of the lower cover and having a head formed thereon which is rigidly fastened to the cover, said tubular member having internal inwardly extending threaded portions positioned on opposite sides of the member and forming longitudinal slotted portions therebetween, a collar rigidly connected to the upper cover, a threaded bolt extending through the collar and the opening of the upper cover and provided with an enlargement on its upper end which extends over the collar, said collar and enlargement provided with a tooth and recess means for locking the two parts together, and a sleeve carried by the bolt and extending through the collar and telescoping over the tubular member, said bolt having opposite side portions free of threads to permit the bolt to be inserted into the tubular member without being turned, said threaded portions of the bolt entering the longitudinal slots and engaging the threaded portions of the tubular member when the bolt is turned a partial revolution.

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

CHARLES J. ROBLEY.

Witnesses:

C. H. KEENEY,
LAURA A. KEELEY.