

No. 760,049.

PATENTED MAY 17, 1904.

W. N. WINFIELD & J. BARKER.
BINDER.

APPLICATION FILED JUNE 17, 1902.

NO MODEL.

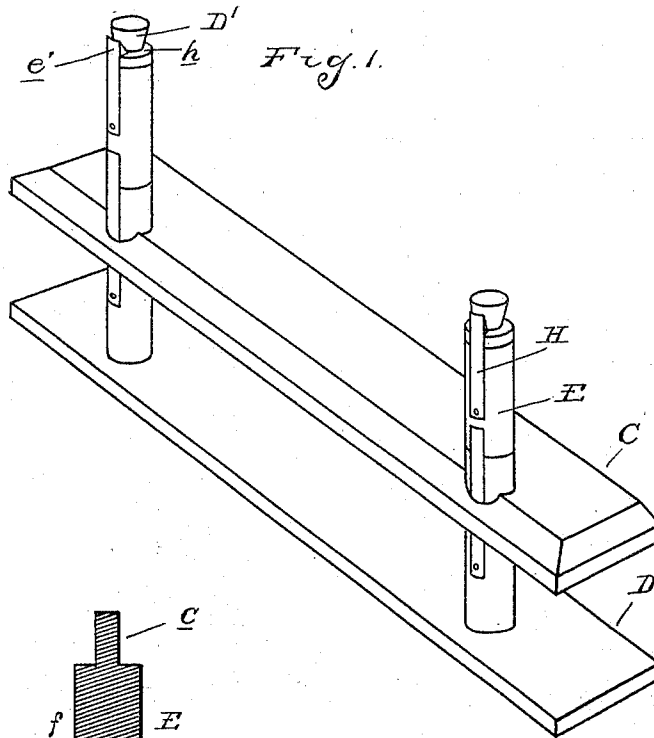
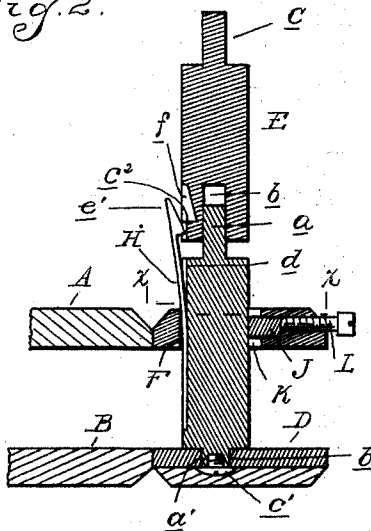
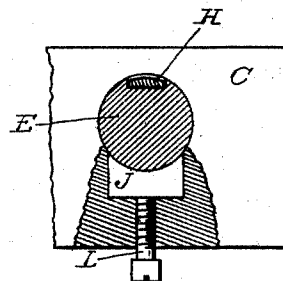


Fig. 2.



Figs.



Witnesses
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UNITED STATES PATENT OFFICE.

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BINDER.

SPECIFICATION forming part of Letters Patent No. 760,049, dated May 17, 1904.

Application filed June 17, 1902. Serial No. 112,048. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM N. WINFIELD and JAMES BARKER, citizens of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Binders, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates generally to temporary binders of the class wherein sectional posts connect the binder-covers, the post-sections being detachable one from another so that the length of the post or posts may be varied for the purpose of increasing or diminishing the size of the binder to accommodate the number of leaves or papers to be filed.

The invention has particular reference to a sectional post for binders of the type referred to; and it consists, essentially, in a novel type of lock for the post-sections, as will be more fully hereinafter described and illustrated.

In the drawings, Figure 1 is a perspective view of a portion of the ledger or binder covers and the sectional connecting-posts therefor. Fig. 2 is a section through the covers and one of the connecting-posts, and Fig. 3 is a section taken on line *xx* of Fig. 2.

In the drawings thus briefly described the reference-letters A and B designate the upper and lower covers of the binder, carrying hinged thereto and as a part thereof, respectively, the clamping members C and D.

E designates the sectional posts connecting the covers and carried by one of the latter, the complementary cover having openings F formed therein, through which the posts extend, whereby it may be moved upon the posts as guides to or away from the lower cover.

The lower section of each post is provided with a tubular extension *a'*, threaded upon its interior and adapted to be inserted within an opening *b'*, formed in the clamping member D. These sections are rigidly connected to the cover by means of threaded bolts *c'*, extending through the clamping member, as shown, and engaging the threaded tubular extension.

The remaining sections of each post are formed each with a socket *b* in one end and a reduced portion or pintle *c* at the opposite end. The sockets *b* are adapted to engage over pintles *a* upon the lower sections, and the pintles *c* engage within the sockets of the next adjoining post-section. The means for locking these sections to form a rigid post are arranged upon the exterior of the post and comprise, preferably, though not necessarily, an individual exterior lock for each adjoining pair of sections. In construction the lock consists, preferably, of a spring-latch H, fixedly secured to one section at its lower end and adapted to engage within a recess *f*, formed within the next adjoining section. A groove *d* of greater depth than the thickness of the latch is formed longitudinally in each post-section. Within this groove the latch is arranged and on account of the depth of the groove lies wholly within the external diameter of the post. In forming the recess *f* in the adjoining section a shoulder *e'* is produced, over which the head *e'* of the latch engages. This shoulder is reduced, so as to allow the upper portion of the latch to lie wholly within the external surface of the adjoining post-section in the manner indicated in Fig. 1.

It will be obvious from the construction of the lock that in addition to holding the sections against independent longitudinal movement it also serves to prevent independent rotary movement. Furthermore, the latch or lock is automatic in its operation, which enables the size of the binder to be varied in a minimum space of time.

The top section of each post is provided, preferably, with a cap D', having a socket formed centrally therein in which the section-pintle extends. The cap is also provided with a shoulder *h*, which is engaged by the latch upon said top section.

The upper cover A is provided with locking means whereby it may be secured to the binder-posts in different positions of adjustment. The locking means referred to consist, preferably, of blocks J, arranged within

recesses K in the clamping member, one opposite each post, and a set-screw L, extending through the edge of the clamping member and bearing against the block, as shown, the blocks being adapted to be jammed against the posts, and thereby lock the cover in the desired position.

The binder, as shown in Fig. 1, is constructed with posts composed of two sections. If it is desired to increase the size of the binder, the caps may be removed by prying outwardly the spring-latches, so as to disengage the latter from the shoulders $\frac{1}{2}$, and additional sections added to the posts in the manner shown in Fig. 2. The caps are then replaced upon the top sections, and the binder is in readiness for use.

What we claim as our invention is—

1. In a binder, the combination with the covers, of a sectional connecting-post, the sections of the post having recesses in the outer surface thereof, and means fitting the recesses for locking the sections against independent endwise movement, the parts when assembled forming a smooth, unbroken surface.

2. In a binder, the combination with the covers, of a sectional connecting-post, the sections of the post having recesses in the outer surface thereof, and means fitting the recesses for locking the sections against independent endwise and rotary movement, the parts when assembled forming a smooth, unbroken surface.

3. In a binder, the combination with the covers, of a sectional post therefor, the sections of the post having recesses upon the outer surface thereof, and automatically-operating means fitting the recesses for locking the sections against independent endwise movement, the parts when assembled forming a smooth, unbroken surface.

4. In a binder, the combination with the covers, of a connecting-post therefor, comprising a plurality of detachable sections having recesses in the outer surface thereof, and an exterior lock fitting the recesses for connecting each pair of adjoining sections, the parts when assembled forming a smooth, unbroken surface.

5. In a binder, the combination with the covers, of one or more connecting-posts therefor, each composed of a plurality of sections of like diameter, having a recess in their outer surface, and an automatically-operating lock fitting the recesses for connecting each pair of adjoining sections, the parts when assembled forming a smooth, unbroken surface.

6. In a binder, the combination with the covers, of one or more connecting-posts therefor, each composed of a plurality of superimposed sections of like diameter having a sliding engagement one with another, and each of said sections having a recess in its outer surface, and a spring-lock carried by each sec-

tion engaging the adjoining section, said locks being fitted in the recesses in the outer surface of the sections, and the parts when assembled forming a smooth, unbroken surface.

7. In a binder the combination with the covers, of one or more connecting-posts therefor, each composed of a plurality of detachable sections having a recess in their outer surface and a lock connecting the adjoining sections and holding the latter against independent rotary and longitudinal movement, said lock being fitted in the recesses in the outer surface of the sections, and the parts when assembled forming a smooth unbroken surface.

8. In a binder, the combination with the covers, of one or more connecting-posts therefor, each composed of a plurality of detachable sections, having recesses in their outer surface, and an automatically-operating lock connecting each pair of adjoining sections, and holding the latter against independent rotary and longitudinal movement, said locks being fitted in the recesses in the outer surface of the sections, and the parts when assembled forming a smooth unbroken surface.

9. In a binder, the combination with the covers, of a connecting-post therefor, comprising a plurality of detachable sections, having a recess in their outer surface, and a lock fitting within the recesses in the outer surface of the sections for connecting each pair of adjoining sections, the parts when assembled forming a smooth unbroken surface.

10. In a binder, the combination of a lower section having an upwardly-extending post said post comprising a plurality of sections having recesses in their outer surface, and a lock fitting in the recesses, the parts when assembled forming a smooth unbroken surface, a complementary upper section slidably mounted upon the post, a sliding block fitting in a recess in the upper section adjoining the post, and means on the upper section for forcing the block into engagement with the post to lock said upper section in its adjusted position.

11. In a binder, the combination with the covers, of a connecting-post therefor, comprising a plurality of sections, having elongated recesses in the outer surface thereof, and locks fitting in the recesses for connecting each pair of adjoining sections, the said locks lying within the outer surface of the post-sections.

12. In a binder, the combination with the covers, of a connecting-post therefor, comprising a plurality of sections having elongated uninterrupted recesses in their outer surface, and an elongated spring-lock arranged within the recesses, for connecting each pair of adjoining sections, the said locks lying within the outer surface of the post-sections.

13. In a binder, the combination with the covers, of a connecting-post therefor, comprising a plurality of telescopic sections having

recesses in their outer surface, and elongated spring-locks arranged within the recesses for connecting the adjoining sections.

14. In a binder, the combination with the
5 covers, of a connecting-post therefor, comprising a plurality of sections, having recesses therein, and automatically-operatable means fitting the recesses for locking the sections against independent endwise and rotary move-

ment, said means being within the outer surface of the sections when assembled.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM N. WINFIELD.

JAMES BARKER.

Witnesses:

L. J. WHITEMORE,

H. C. SMITH.