No. 644,391. Patented Feb. 27, 1900.

J. E. WOODWORTH, Dec'd.

H. B. WOODWORTH, Administratrix.

TEMPORARY BINDER.

(Application filed Mar. 28, 1896.)

(No Model.) 2 Sheets—Sheet 1.

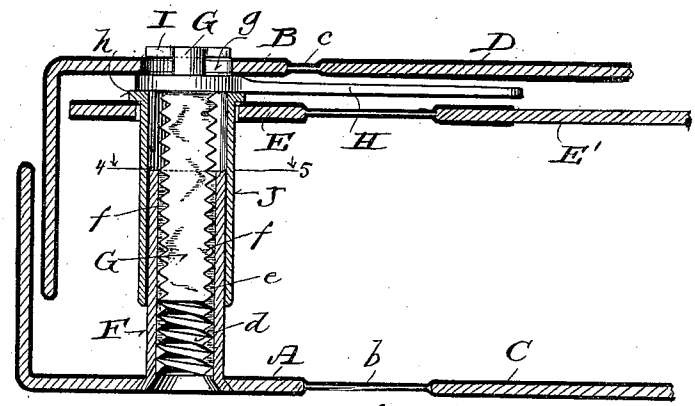


Fig. 1.

Fig. 2.

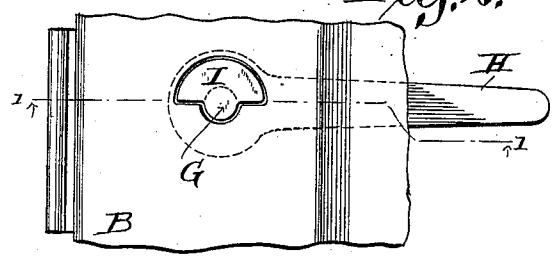


Fig. 3.

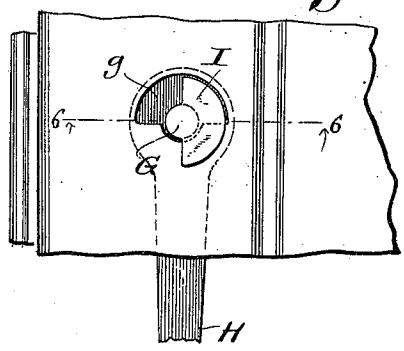


Fig. 4.

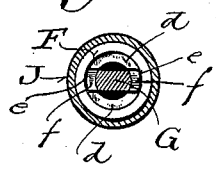
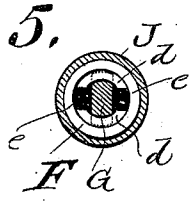


Fig. 5.



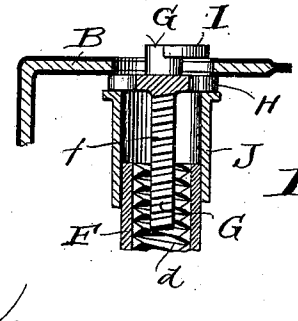


Fig. 6.

Witnesses:
Geo. W. Young.
N. E. Oliphant.

Inventor:
James E. Woodworth.
By H. G. Underwood
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 644,391. Patented Feb. 27, 1900.

J. E. WOODWORTH, Dec'd.

H. B. WOODWORTH, Administratrix.

TEMPORARY BINDER.

(No Model.) (Application filed Mar. 28, 1896.)

2 Sheets—Sheet 2.

Fig. 7.

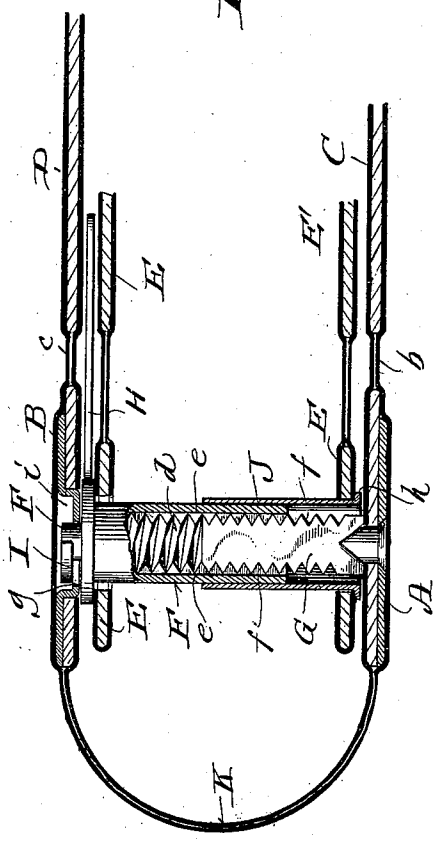
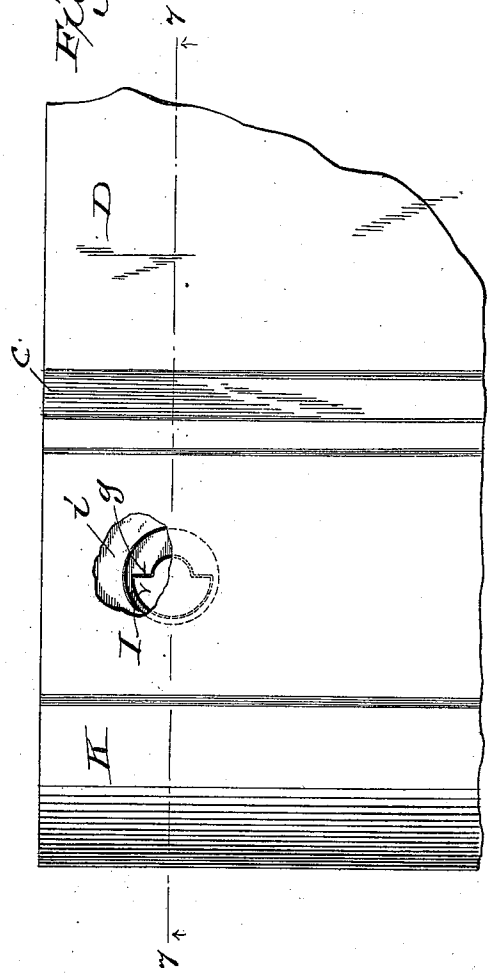


Fig. 8.



Witnesses:
Geo W Young
N. E. Oliphant

Inventor
James E. Woodworth
By H. G. Underwood
Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES E. WOODWORTH, OF MILWAUKEE, WISCONSIN; HATTIE B. WOODWORTH, ADMINISTRATRIX OF SAID JAMES E. WOODWORTH, DECEASED, ASSIGNOR TO META C. BAKER, OF CHICAGO, ILLINOIS.

TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 644,391, dated February 27, 1900.

Application filed March 28, 1896. Serial No. 585,176. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. WOODWORTH, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Temporary Binders; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to simplify and cheapen that class of temporary binders in which suitable strips or cover-sections are adjustably united.

A further object of the invention is to facilitate the adjustment of the strips or cover-sections; and said invention consists in certain peculiarities of construction and combinations of parts hereinafter set forth, with reference to the accompanying drawings, and subsequently claimed.

In the drawings, Figure 1 represents a sectional view of a portion of a temporary binder embodying my improvements, the section being indicated by the line 1 1 in the succeeding figure; Figs. 2 and 3, plan views illustrating two positions of a lever-controlled stem embodied in my improvements; Figs. 4 and 5, horizontal sections viewed on line 4 5 in the first figure and which also illustrate two positions of the lever-controlled stem; Fig. 6, a section on the plane indicated by line 6 6 in the third figure; Fig. 7, a sectional view on the plane indicated by line 7 7 in the suceeding figure, showing my improvements in connection with another form of binder from what is shown in preceding figures; and Fig. 8, a plan view of a portion of this latter form of binder, partly broken away.

Referring by letter to the drawings, A B represent strips made from metal or other suitable material, and each of them may be of approximately right-angle contour, the rear of one overlapping the rear of the other to obtain a stiff back for the binder. As herein shown, the cover-sections C D may have flexible joints *b c* with the aforesaid strips.

That form of binder embodying the approximately right-angle strips is best illustrated in Fig. 1; but, as shown in Figs. 7 and 8, said strips may be unbent plates joined to a flexible back, said strips in the latter showing being faced with wood, strawboard, or other suitable material.

Both forms of the binder herein shown are organized with especial reference to apertured stubs E in flexible-joint connection with leaves E′ on which to mount photographs or samples of various kinds.

In that form of binder best illustrated by Fig. 1 the strip A is generally provided with a plurality of cylindrical posts F, and in accordance with the present invention each of the posts is provided upon its interior with alternate ridges and depressions to form at least one corrugated surface *d* longitudinally of said post, but non-continuous around the interior of the same. The alternate ridges and depressions of each corrugated surface may be straight or inclined, as found most convenient in practice, those herein shown being inclined as a result of screw-threading the interior of a post and then cutting away the thread at one or more intervals of the circle longitudinally of the post. As a matter of fact in the present showing there are two diametrically-opposite corrugated surfaces *d* and two diametrically-opposite channels *e* in the post, the channels being intermediate of said surfaces. Each post is for the engagement of a stem G, having as many corrugated surfaces *f* longitudinally thereof as there may be like surface or surfaces *d* within said post. The general contour of the stem is such that registration of its corrugated surface or surfaces *f* with the channel or channels *e* in the post will permit telescopic engagement of this post and said stem, the two being held in adjusted position one upon the other as a result of partial rotation of the aforesaid stem to cause interlocking of their corrugated surfaces.

The partial rotation of the stem G may be effected by a lever-arm H, made fast thereto, and while said stem may be in permanent pivotal connection with the strip B to extend inward therefrom it is preferable to have said strip independent of the aforesaid stem. To this end strip B is shown provided with an

aperture *g* to permit the passage of a corresponding head I on the stem G, and upon partial rotation of this stem to lock the same in the post F said head will come in position to overlap the solid portion of said strip, the latter being herein shown at rest against the inner end of the lever H, fast on the aforesaid stem. When the stem G is flat, as herein shown, it is preferable to shield and conceal the same with a sleeve J, that has telescopic play on the corresponding post, this sleeve being provided at its outer end with a flange *h*, that laps one of the apertured leaf-stubs E above specified. The sleeve is also employed to fill up space in the apertured leaf-stubs.

Figs. 7 and 8 illustrate that the round hollow part F may constitute the stem and the previously-described part G the post, the former being engaged by the sleeve J in a position reverse to that shown in preceding figures. Figs. 7 and 8 also illustrate strip B, provided with a depression *i* for the head I of the part having the lever-arm H in connection therewith, the depression and head being concealed by an overlapping portion of the flexible back K, that is also shown joined to both strips A B.

The strip B being suitably apertured, it can be readily detached from the stem-head I and as readily restored to working position when the lever-arm H is turned to bring said head and corresponding strip-aperture in register.

As herein shown, the lever-arm H extends transversely of the adjacent strip when it is desirable to remove or position the latter, as plainly shown in Figs. 1, 2, and 7. The lever-arm being thus positioned, there may be telescopic adjustment or detachment of the post and stem; but these latter parts being engaged a partial rotation of said lever-arm to bring the same parallel to the strips A B, as shown in Fig. 3, will lock said post and stem in their engagement, the head I being also brought in position to lock the upper strip B in place.

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

1. A temporary binder embodying two parallel strips of suitable material, combined with a telescopic joint consisting of a hollow section having a corrugated surface within its bore longitudinally thereof but non-continuous around the same, and another section having an exterior corrugated surface that comes in or out of mesh with the one aforesaid when said joint-sections are engaged and one of them partially rotated.

2. A temporary binder embodying two parallel strips of suitable material, combined with a telescopic joint consisting of a hollow section the bore of which presents alternate channels and corrugated surfaces lengthwise thereof, and another section having corrugated surfaces that come within the channels of the former section to permit engagement or disengagement of both sections, but which mesh with the aforesaid corrugated surfaces to maintain the joint; this meshing being attained by partial rotation of one of said sections.

3. A temporary binder embodying two parallel strips of suitable material, combined with a telescopic joint consisting of a hollow section having a corrugated surface within its bore longitudinally thereof but non-continuous around the same, and another section having an exterior corrugated surface that comes in and out of mesh with the one aforesaid when both joint-sections are engaged; together with a lever-arm connected to one of said joint-sections, the latter being rotative upon the other.

4. A temporary binder embodying two parallel strips of suitable material, combined with a telescopic joint consisting of a hollow section having a corrugated surface within its bore longitudinally thereof but non-continuous around the same, and another section having an exterior corrugated surface that comes in or out of mesh with the one aforesaid when both joint-sections are engaged and one of them partially rotated; together with a sleeve that loosely engaging the outer joint-section serves as a shield for the inner one.

5. A temporary binder embodying two parallel strips of suitable material one of which is apertured, combined with a telescopic joint consisting of a hollow section having a corrugated surface within its bore longitudinally thereof but non-continuous around the same, another section having an exterior corrugated surface that comes in and out of mesh with the one aforesaid when both sections are engaged and one of them partially rotated, and a head on the rotative joint-section for passage through the apertured strip and opposition to its outer face.

6. A temporary binder embodying two parallel strips of suitable material one of which is apertured, combined with a telescopic joint consisting of a hollow section having a corrugated surface within its bore longitudinally thereof but non-continuous around the same, another section having an exterior corrugated surface that comes in and out of mesh with the one aforesaid when both sections are engaged and one of them partially rotated, a head on the rotative joint-section for passage through the apertured strip to be brought in opposition thereto, and a sleeve that loosely engaging the outer joint-section serves as a shield for the inner one.

7. A temporary binder embracing two parallel strips of suitable material one of which is apertured, in combination with a telescopic joint one section of which has rotative interlocking connection with the other, a head on the rotative joint-section for passage through the apertured strip to be brought into opposition thereto, a lever-arm connected to the rotative joint-section, and a sleeve that loosely engaging the outer joint-section serves as a shield for the inner one.

8. A temporary binder embodying two parallel strips of suitable material, combined with a telescopic joint consisting of sections that have sliding engagement and rotative interlocking connection.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

JAMES E. WOODWORTH.

Witnesses:
N. E. OLIPHANT,
B. C. ROLOFF.