No. 647,094. Patented Apr. 10, 1900.

A. J. HEINN.

TEMPORARY BINDER.

(No Model.) (Application filed Jan. 13, 1896. Renewed Feb. 7, 1898.)

Fig. 1.

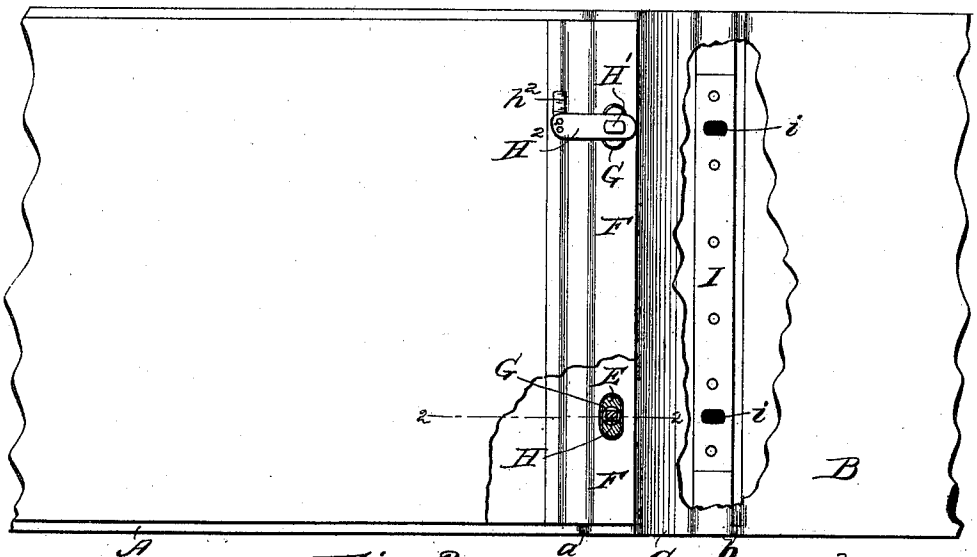


Fig. 2.

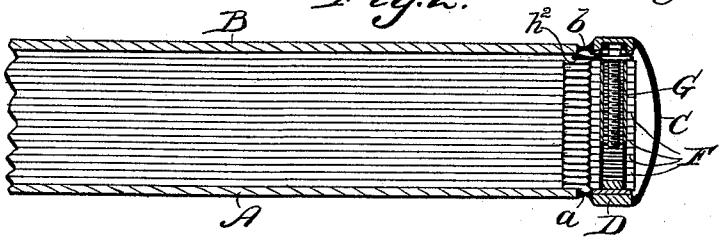


Fig. 3.

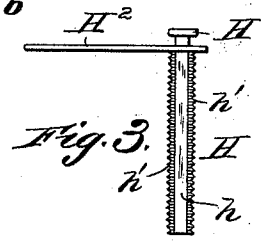


Fig. 4.

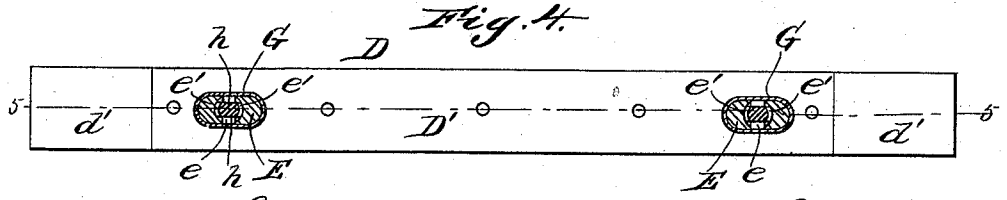
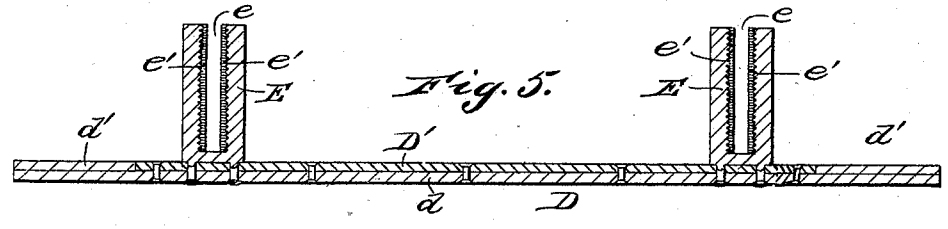


Fig. 5.



WITNESSES

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TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 647,094, dated April 10, 1900.

Application filed January 13, 1896. Renewed February 7, 1898. Serial No. 669,447. (No model.)

To all whom it may concern:

Be it known that I, ADOLPHE J. HEINN, a citizen of the United States, residing at Milwaukee, county of Milwaukee, State of Wisconsin, have invented a certain new and useful Improvement in Temporary Binders; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to new and useful improvements in albums for the reception of detachable leaves or sections, and relates more particularly to that class of albums in which one side or part of the cover is removably secured to attaching devices adapted when in position to secure said leaves or sections in place, but also adapted to be unfastened from the attaching devices, so as to permit of the removal of one or more of the leaves or sections or the placing of one or more additional leaves or sections in position upon the attaching devices.

The various features of my invention will be hereinafter fully described, and pointed out in the appended claims.

In the accompanying drawings, illustrating my invention, Figure 1 is a broken plan view illustrating an album or binder constructed in accordance with my invention. Fig. 2 is a vertical sectional view of the same, taken on line 2 2 of Fig. 1, showing the cover in its closed and locked position. Fig. 3 is a detail elevation of one of the locking devices. Fig. 4 is a sectional plan view of the attaching-strip with the posts for engagement with the detachable leaves or sections. Fig. 5 is a longitudinal sectional view of the same, taken on line 5 5 of Fig. 4.

One object of my invention is to provide an improved form of album or temporary binder of the class described of such construction that while the leaves or sections are firmly secured in position and the covers and back firmly locked thereto when in operative engagement with the attaching devices yet the attaching devices shall be entirely concealed from view and located wholly within the cover or binding.

A further object of my invention is to enable me to provide in an album or binder of this class suitable attaching devices by means of which the leaves or sections may be readily secured in position within the cover and the cover locked in its closed position by a single movement of the locking devices.

A further object of my invention is to enable me to construct the attaching-strip in such manner that while the posts which engage with the leaves or sections are firmly and securely held in place, yet the metallic portion of said strip shall terminate at a considerable distance from the end of the strip, so as to avoid abrasion or wear of the outside cover of the binding.

Referring by letter to the drawings, A designates a suitable base which forms one member of the album or binder cover, and B a similarly-constructed member which forms the top cover of the album or binder, said members being flexibly connected together by a back part C. To the base A is secured in any desired manner a suitable strip D, the central part D′ of which is conveniently formed from metal, from which one or more upwardly-extending posts or standards E E project, said posts or standards being adapted for engagement with apertures or perforations in the stub portions of the leaves or sections. As shown in Figs. 4 and 5 more particularly, I prefer to secure the metallic strip D′ to the central part of a strip *d* of heavy pasteboard or similar material, said metallic strip being constructed so as to terminate at a convenient distance from the ends of the strip *d*, and short sections *d′ d′*, of similar material to the strip *d*, being secured to the latter at the ends of the metallic strip, so as to fill out the spaces at the ends of the attaching-strip and leave the upper surface of the same flush with the top of the metallic strip D′. The posts E E are secured in any desired or convenient manner to the metallic strip D′, so as to extend vertically therefrom, as by means of rivets passed through said strip, as shown, and said posts are conveniently made oblong or approximately elliptical in cross-section, and are provided with transverse slots *e e*, the side walls of which are suitably recessed, as at *e′ e′*, and provided with segmental threads

or shoulders for engagement with the locking devices. Each of the stub portions F F of the leaves or sections are provided with apertures or perforations adapted to fit over said posts E E in an obvious manner, and extension-tubes G G are arranged upon the outside of said posts and adapted to be raised or lowered thereon, so as to lengthen or shorten the standards or supports for the leaves or sections. The apertures in the stub portions of said leaves or sections are made of such size as to fit snugly upon the outside of said extension-tubes, as shown in Fig. 2 more particularly.

Suitable locking devices are provided for detachable engagement with the shouldered slots *e e* in the standards or posts E E, said locking devices each conveniently comprising a stem H, flattened upon opposite sides, as at *h h*, and provided with segmental notches, shoulders, or threads *h' h'*, adapted to register with the segmental notches or shoulders *e' e'* at the sides of the slots *e e* in the posts or standards E E.

Upon the upper end of each of the stems H H is provided a suitable button H' of oblong form and a metallic strip I, conveniently of substantially the same construction as the metallic strip D', is secured to the upper section or cover B, adjacent to its connection with the flexible back C, said strip being provided with one or more elongated apertures or openings *i i*, adapted to register with the buttons H' H' upon the upper ends of the stems H H. Suitable angular extensions H^2 H^2 are provided upon the upper ends of said stems, said extensions being made in the form of flat plates or strips of considerably-greater width than the stems and adapted for operation to effect a partial rotation of the respective stems, as will be presently described.

In assembling the parts of the cover of my improved album or binder together the strips D and I are suitably secured within the cloth or leather binding, the top and bottom members A and B, respectively, being flexibly engaged with the portions in which said strips are located, as at *a* and *b*, respectively, and said portions flexibly connected together by the flexible back portion C.

When it is desired to assemble the leaves or sections together and to secure the same between the covers, the stub portions F F thereof are slipped over the posts or standards E E upon the outside of the extension tubes or sleeves G G. When the desired number of leaves or sections have been thus placed in engagement with the posts or standards, the locking devices are placed in engagement with said posts, as indicated in Fig. 1, in which position the stems H H may be freely slipped down within the slots in the posts without engagement of the shoulders, notches, or threads *h h* with the shouldered or threaded portions *e' e'* of said posts. The back C is then raised and the strip I pressed downward upon the fastening devices, so as to cause the buttons H' H' at the upper ends of the stems H H to enter the elongated apertures *i i*, when by turning the lateral extensions or arms H^2 H^2 into a position parallel with the length of the strip I the stems H H will be given a quarter-turn within the posts and the notched or threaded sides *h' h'* thereof will be brought into engagement with the correspondingly notched or threaded sides of the slots in the posts and the buttons H' H' will be simultaneously turned at right angles to the elongated apertures *i i* in the strip I, said stems being thereby firmly locked against vertical movement within the posts, and the buttons H' H' adjusted to such a position as to securely lock the strip I to the upper ends of the stems. It follows from this construction that so long as the locking devices remain in this position all of the leaves or sections will be firmly secured within the cover or binding, and the two members of said cover or binding will be similarly secured together while being perfectly free to open, and the leaves being similarly free for the purposes of opening and closing the album or binder. It also follows from this construction that when it is desired to remove one or more of the leaves or sections or to place within the cover one or more additional leaves or sections all that is necessary to be done is for the user to move the lateral extensions H^2 H^2 into the positions shown in Fig. 1, so as to free the strip I from engagement with the buttons H' H', when the top cover may be thrown back, as in said Fig. 1, and the stems H H may be lifted from the posts. One or more of the leaves or sections may now be removed and other leaves or sections be substituted or one or more additional leaves or sections may be placed upon the posts or standards, as may be desired, when by pressing the locking device downward upon said leaves or sections and again replacing the strip I in engagement with the buttons the whole may be securely locked together by the described movement or partial rotation of the extensions H^2 H^2 and the stems H H, in which condition the device is again ready for use as an album or binder.

For convenience in the manipulation of the arms or extensions H^2 H^2 suitable tags h^2 h^2 are secured to the free ends of said arms or extensions to enable the same to be more readily pulled outward in the operation of unlocking the album or binder.

As heretofore constructed devices of this nature, commonly known as "temporary binders," have been manufactured in which the two members of the binder or cover have been detachably secured together upon opposite sides of the leaves or sections, said engagement being effected by means of suitable binding-screws extending through the top cover and having screw-threaded engagement with interiorly-screw-threaded tubes extending upward from the base or lower member of the cover, as illustrated in Patent No.

464,731, granted to C. E. Morehouse on December 8, 1891; but in such devices it has been found that the binding-screws, which project through the top member of the cover, are more or less objectionable from the fact that when the album or binder is turned over, so as to cause said screws to rest upon the table, said screws are very liable to scratch and thereby damage the top of the table or to tear the cloth or leather cover of the same, as the case may be, while said projecting screw-heads very seriously interfere with packing of the albums or binders for shipment, preventing the same from being closely packed together, and thereby rendering the packages more or less unsafe because of the looseness with which said devices must necessarily be placed therein. A further objection to the use of said screws is that said screws materially interfere with the free opening of the top cover. Said screws are, furthermore, very liable to become corroded within the tubes so as to materially interfere with the removal of the top cover and the leaves or sections when desired. Another objection to this form of binder is that the projecting screw-heads are unsightly in appearance and the album bears unmistakable evidences of being a "temporary binder," whereas it is often desirable to use the same as a permanent volume or portfolio. It has been common also in the manufacture of such devices to construct the two members or parts of the cover or binder with metallic rear portions, each of which is of a substantially-rectangular contour—such, for instance, as is illustrated in the Patent No. 511,860, granted to C. E. Morehouse on January 2, 1894; but in such constructions it has been found that the metallic angular plates very quickly wear or cut through the covering of the binder, and thus render the album unsightly, while largely increasing the danger of damage or injury to the tops of tables or other furniture upon which the albums may be placed. With my improved construction, however, while the detachable leaves or sections are very securely held in place within the cover and the top member of the cover securely locked to the attaching devices, yet said devices being wholly within the cover are entirely concealed from view. For this reason the album presents a much neater appearance than those heretofore made, while the absence of any projecting parts prevents the liability, before mentioned, of damaging the table-tops or other furniture. By my improved construction also, the metallic strips being arranged to terminate within the length of the base and top strips, as described, there is no liability of said metallic parts cutting or wearing through the leather or cloth covering, thereby injuring or defacing the tables or other furniture with which the album may come in contact. Furthermore, by my construction the flexible back C, which connects the two members or parts of the cover, is enabled to shape itself according to the number of leaves or sections held between the two members of the cover, said flexible back being bowed or curved outward when fewer leaves or sections are held between said covers and approaching nearer to a straight line when more of said leaves or sections are placed between said covers. This construction gives a finished appearance to the album or binder at all times, and when it is desired to use the filled album as a permanent volume there is nothing in the appearance of the same to indicate that it is other than a permanently-bound volume of said leaves or sections, while at the same time the construction permits of the instant removal of one or all of said leaves or sections when desired.

My improved construction may be applied to any desired form of leaves or sections common in various forms of albums, portfolios, and temporary binders.

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

1. An album or binder for detachable leaves or sections, comprising a suitable base, one or more posts or standards projecting upward therefrom and slotted vertically, and provided upon opposite sides of said slots with interior threads, notches, or shoulders, a plurality of leaves or sections adapted to fit over said posts or standards, and suitable locking devices each comprising a stem provided with flattened sides and notched, shouldered, or threaded edges, said stems adapted to be slipped into said slots and engaged with said notched, threaded, or shouldered portions of the posts by a partial rotation of said stems, substantially as described.

2. An album or binder for detachable leaves or sections, comprising a suitable base, one or more posts or standards projecting upward therefrom and slotted vertically, and provided upon opposite sides of said slots with interior threads, notches, or shoulders, a plurality of leaves or sections adapted to fit over said posts or standards, suitable locking devices each comprising a stem provided with flattened sides and notched, shouldered, or threaded edges, said stems adapted to be slipped into said slots and engaged with said notched, shouldered, or threaded portions of the posts by a partial rotation of said stems, and suitable extension tubes or sleeves adjustably secured upon the outside of said posts or standards, substantially as described.

3. An album or binder for detachable leaves or sections comprising a suitable base, one or more posts or standards extending upward therefrom and slotted vertically, and provided upon opposite sides of said slots with interior threads, notches, or shoulders, a plurality of leaves or sections detachably fitted over said posts or standards, a cover or top member provided with a slotted or apertured metallic strip, and suitable locking devices each comprising a stem having flattened sides and

threaded, notched, or shouldered edges, and terminating at its upper end in an elongated button adapted for engagement with the apertures in said top or cover member, substantially as described.

4. In an album or binder, the combination with the base and cover members, the posts extending upward from the base, and the apertured strip upon the inner surface of said cover member, of locking devices, each comprising a stem and a button at the upper end thereof, and provided with a lateral extension or arm whereby said stem and said button are adapted for engagement with the post and said apertured strip by a partial rotation of said arm and stem, substantially as described.

5. An album or binder comprising a suitable base member, a top or cover member provided upon its inner face with a metallic strip having elongated apertures, one or more standards extending upward from the base member and adapted for engagement with apertured leaves or sections, and suitable locking devices adapted for detachable engagement with the standards and each provided upon its upper end with an elongated button for detachable engagement with the apertured metallic strip by a partial rotation of the locking device, substantially as described.

6. A binder comprising a suitable base member, a top or upper member having apertures, one or more standards extending upward from the base member and adapted for engagement with apertured leaves or sections, and suitable locking devices adapted for detachable engagement with the standards and each provided upon its upper end with a button for detachable engagement with the apertured member by a partial rotation of the locking device, substantially as described.

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 and a head on the rotative joint-section for passage through the apertured strip to be brought into opposition thereto.

In testimony whereof I sign this specification in the presence of two witnesses.

ADOLPHE J. HEINN.

Witnesses:

JOHN E. WILES,

C. E. MOREHOUSE.