Dec. 5, 1939. E. W. ERICSON ET AL 2,181,968

TEMPORARY BINDER

Filed Dec. 7, 1938 2 Sheets-Sheet 1

Fig. 1.

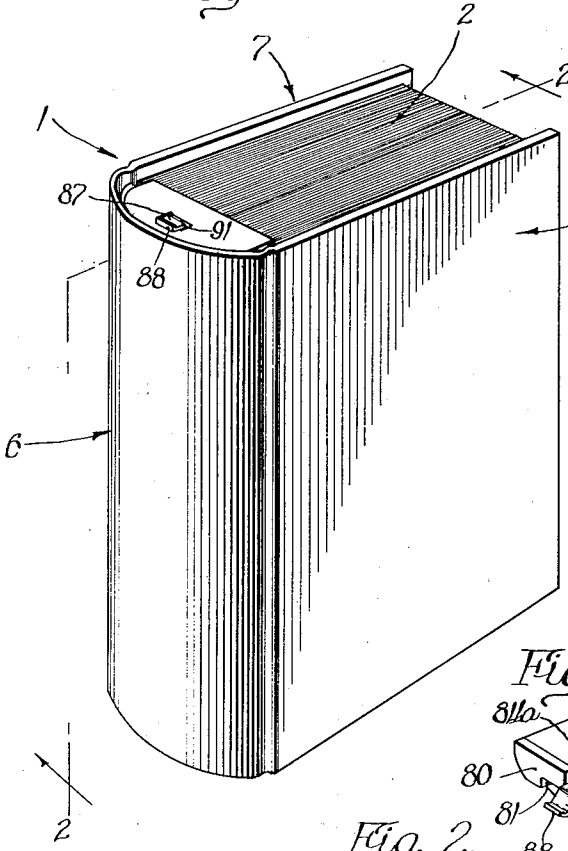


Fig. 4.

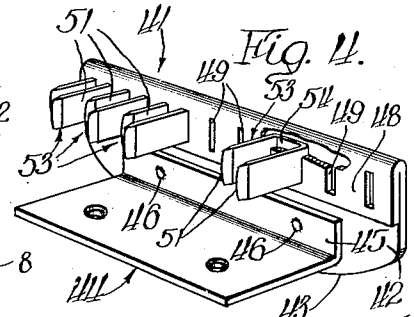


Fig. 5.

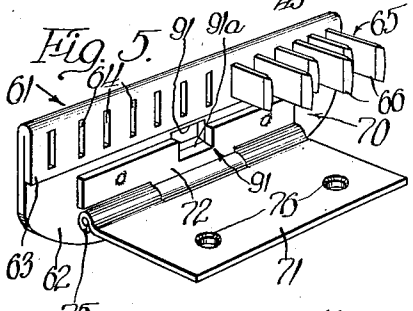


Fig. 3.

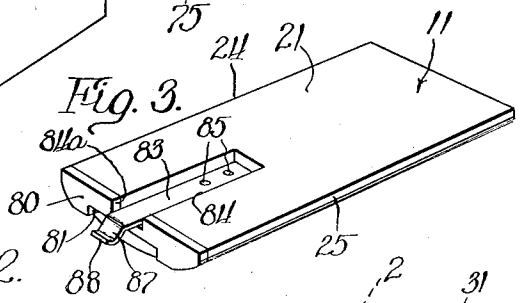
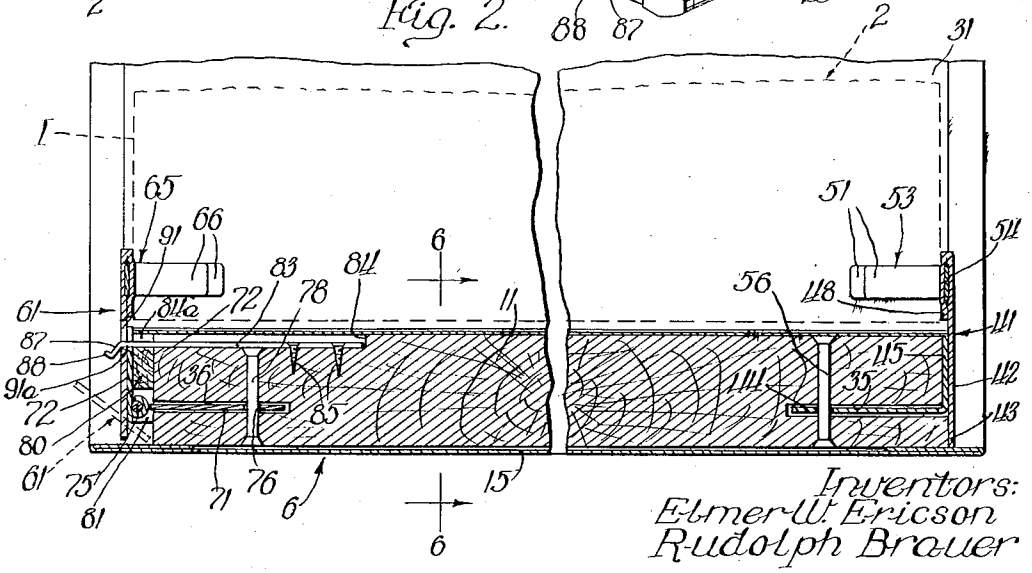


Fig. 2.



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TEMPORARY BINDER

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Fig. 7.

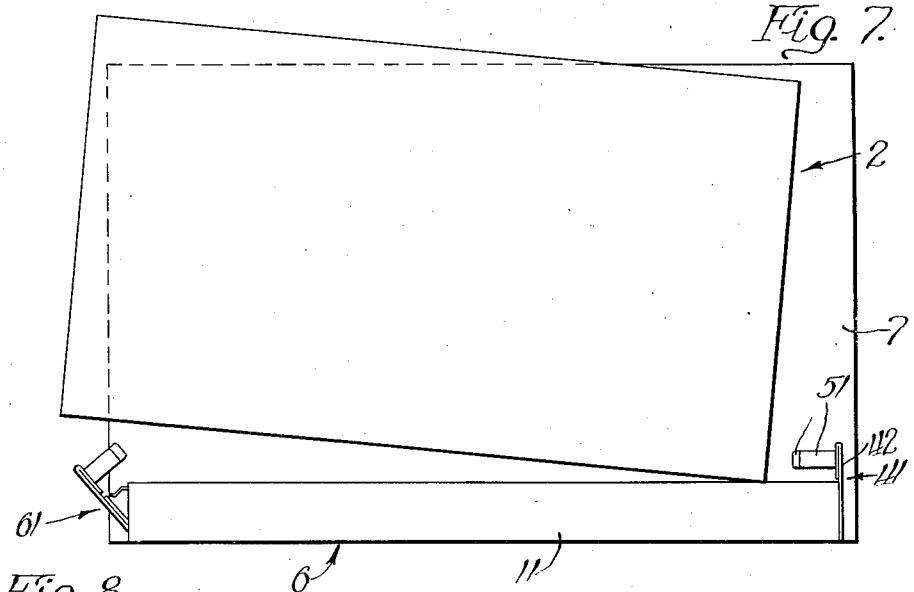
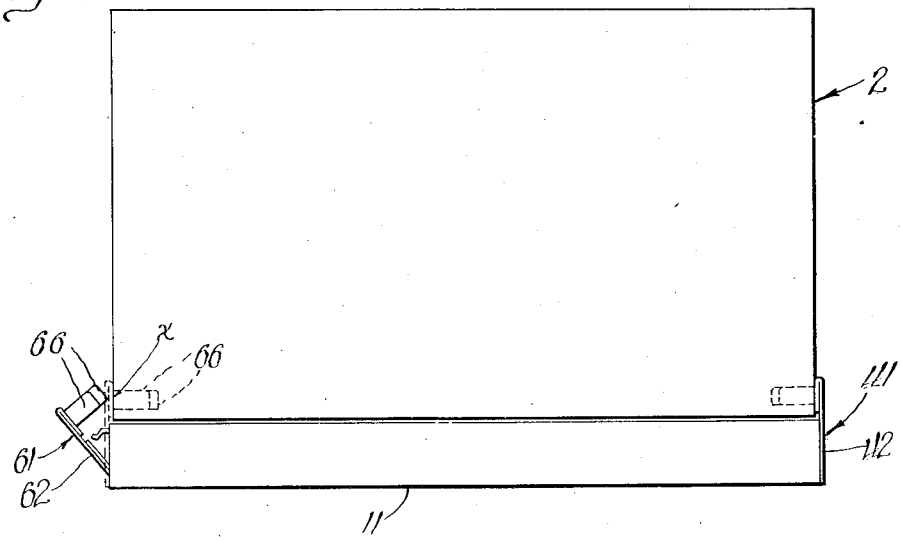


Fig. 8.



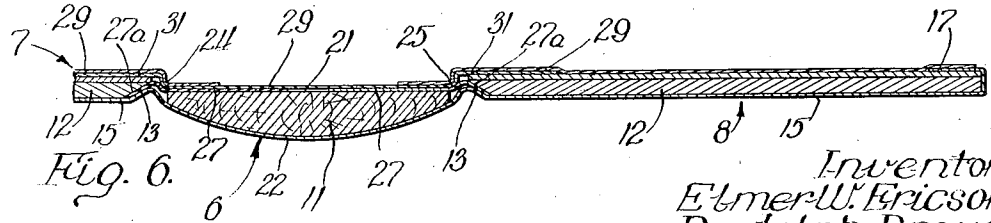


Fig. 6.

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UNITED STATES PATENT OFFICE

2,181,968

TEMPORARY BINDER

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Application December 7, 1938, Serial No. 244,336

6 Claims. (Cl. 129—40)

This invention relates generally to binders for pamphlets, magazines, books, booklets or other bound forms and the like and more particularly to binders of the type known as temporary binders used to hold inserts and other bound forms of different kinds, any of which may be removed or replaced from time to time, as desired, or as may be necessary to keep the contents of the binder up to date.

The object and general nature of this invention is the provision of a temporary binder arranged to have the appearance of a regular sewed and bound book but which is provided with suitable insert-engaging means whereby the pamphlets, booklets, and the like can be inserted and held securely in place so that it is impossible for them to fall out, without the moving, adjusting or installation of wires or rods or the like, other than the closing of a hinged plate, and without requiring that the books, pamphlets or the like be punched, cut or otherwise mutilated in any way.

Another important feature of this invention is the provision of a temporary binder having capacity to hold a considerable number of inserts or books or a relatively large volume, such as state statutes and the like but so constructed and arranged that the insertion of the books or pamphlets can be easily accomplished and the insert or inserts will be securely held in place. A further feature of this invention is the provision of a binder which is easy to open for changing the inserts and easy to close after the change has been made.

A further feature of this invention is the provision of pronged means carried by the back or backbone of the book which is so constructed and arranged that while a plurality of prongs is provided, the prongs are staggered, that is, alternate ones are shorter than the others or some similar arrangement, so that the insertion of the pamphlet, book or booklets is appreciably facilitated since all of the prongs do not enter the insert at the same time. Another feature of this invention is the provision of improved supporting plates, one of which is fixed to the back of the binder and the other of which is hinged thereto, carrying the prongs and so formed that the prongs are held rigidly and firmly in position with no tendency to twist out of position at any time.

It is a further feature of this invention, which is of particular importance in a binder of considerable size, is the provision of means securing a tight, firm hinge between the sides of the binder and the back thereof whereby an extremely strong and durable hinge is provided for the binder and which adequately resists the stresses imposed on the hinges by the relatively heavy weight of the inserts carried by the binder.

These and other objects and advantages of this invention will be apparent to those skilled in the art after a consideration of the following detailed description taken in conjunction with the accompanying drawings illustrating the preferred embodiment of the invention.

In the drawings:

Figure 1 is a perspective view of the complete binder with the insert or inserts in position;

Figure 2 is a section taken at an enlarged scale along the lines 2—2 of Figure 1;

Figure 3 is a fragmentary view showing the rigid back with the spring latch secured thereto but before the other parts of the binder have been attached;

Figures 4 and 5 are perspective views of the rigid and hinged prong plates, respectively;

Figure 6 is a section taken along the line 6—6 of Figure 2;

Figure 7 is a somewhat diagrammatic view showing the manner of placing an insert in position on the prongs of the fixed plate;

Figure 8 is a view similar to Figure 7 but illustrating the action of the hinged plate in swinging the same into position to hold the insert in the binder.

Referring now to the drawings, more particularly to Figures 1 and 2, the binder or cover in which the principles of the present invention have been embodied is indicated in its entirety by the reference numeral 1 and the insert or inserts which the cover 1 is adapted to receive is indicated in its entirety by the reference numeral 2. As shown, the insert 2 is in the form of a relatively voluminous book that might, for example be of a volume of state statutes, a legal directory or the like. Heretofore, statute books, legal directories and the like have been published periodically, usually every year or two, and provided with the ordinary fixed binding. This construction is, however, relatively expensive, considering the fact that every year or two the entire volume has to be replaced. According to the present invention, we provide a temporary binder of strong and sturdy construction which can be used with a separable and more or less inexpensively bound insert having, for example, only paper covers and may, for example, be bound in a manner similar to the relatively thick mail order catalogs, telephone directories and the like well known at the present time.

It is to be understood, however, that the pres-

ent invention is not to be limited to the provision of a temporary binder for a relatively thick book or insert. In fact, the present invention particularly contemplates a binder construction that is especially adapted to receive a plurality of inserts of relatively small thickness which may or may not be bound as described above. One particular construction which the present invention contemplates is the provision of a temporary binder for a number of inserts with insert receiving means especially adapted to accommodate thin supplementary inserts which may be removed and replaced from time to time intermediate the periods for removal and replacement of one or more of the inserts. Thus, the statute book, legal directory or whatever subject matter is included in the inserts may be kept up to date by removing and replacing the supplements or one or more of the inserts without requiring the removal and replacement of an entire volume. Under certain conditions, of course, as first mentioned above, it may be desirable to provide only a single but relatively thick insert depending, of course, on the subject matter.

The temporary binder 1 consists of a rigid back 6 and relatively heavy covers 7 and 8 hingedly connected to the sides of the back or backbone 6. As best shown in Figure 2, the back 6 consists of a relatively thick block 11, usually of wood but not necessarily so, and each of the covers 7 and 8 includes a relatively heavy board 12 having a beveled edge 13. The back 11 and the boards 12 are covered with any suitable material, such as binding fabric, leather or the like, which is indicated by the reference numeral 15. Preferably, moreover, the material 15 is relatively strong artificial leather. The binding material 15 has ends 17 extending over the outer edge portion of the covers and is preferably one continuous piece from one cover to the other across the back 6. As best shown in Figure 6, the rigid back 11 has its inner surface 21 formed generally flat while the outer surface 22 is rounded or curved, the relatively narrow sides 24 and 25 being disposed adjacent the beveled edges 13 of the cover boards 12.

To provide a reenforced hinge between each of the covers and the rigid back we provide a strip of canvas or other suitable material indicated at 27, and glue the same, as at 27*a*, to the bevel 13 of the adjacent cover and extend the same across the edge of the backbone and glue it to the flat inner side thereof. The hinge at the other side of the rigid back 11 is made in the same way. Then across both hinges and the inner face 21 of the back 11 we provide a relatively heavy reenforcing cloth 29 and glue the same to the inside margin of each of the cover boards 12, to the adjacent portions of the hinge strip 27 and to the inner flat side 21 of the rigid backbone 11. The binding is then completed by inside pieces 31 which are glued to the inside of each of the cover boards 12, and each extending from the flap 17 and over the reenforcing cloth 29 to a point inside of the hinge between the cover and the back.

When the binder is constructed in this manner, there is a tight, firm hinge between the sides or cover of the binder and the back or backbone, and the hinge is extremely strong and durable and is more than adequate to accommodate the relatively heavy weight which the sheets of the inserts impose on the hinges.

Referring now to Figure 2, the block or backbone 11 is formed with notches 35 and 36 at the ends of the rigid back, the notches or slots 35 and 36 extending generally longitudinally inwardly and in a plane parallel to the plane of the inner surface 21. An insert receiving prong plate, indicated in its entirety by the reference numeral 41 and best shown in Figures 2 and 4, includes a plate member 42 having an edge 43 that is curved to correspond to the curvature of the rigid back 6 (Figure 6). A tongue 44 has a flange 45 that is secured in any suitable manner to the plate 42, as by spot welding 46.

The plate 42 at its upper or inner edge is provided with a bent-over margin 48 which is slotted at 49. This section of the plate 42 carries a plurality of prongs 51, and as best shown in Figure 4, the prongs 51 are arranged in pairs, being formed as a part of a U-shaped strip indicated in its entirety by the reference numeral 53. The intermediate portion 54 of each U-shaped strip is of the same dimension as the distance between adjacent slots 49, whereby the tongues 51 can be inserted through the slots 49 in the plate 42. For purposes of clarity, the nearest prong member 53 is omitted in Figure 4 and portions of the turned-over part 48 of the strip 42 adjacent the next member 53 are broken away. Certain of the other prongs have also been omitted in order to show the member 43. It will be seen that after the members 53 have been inserted through the slots 49 and the flange or margin bent over into the position shown in Figure 4, all of the prongs 51 are held rigidly and firmly in position against displacement in any direction, and particularly against being twisted out of position, as might occur if the prongs 51 were individually mounted as separate pins. As best indicated in Figure 2, after the tongue 43 of the prong carrying plate member 41 is inserted in place in the slot 35, a rivet 56 is driven through the tongue 43 and the back 11 to hold the parts rigidly and permanently together. Preferably, the back 11 and the plate 43 are provided with openings to receive the rivet 56.

The member 41 described above carries the prongs 51 in fixed and rigid relation with respect to the rigid back 6 of the binder. At the other end of the back 6 a second similar set of prongs are carried, but these prongs are hingedly mounted and provided with suitable latch mechanism for releasably holding the prongs in insert holding relation but permitting the prongs and the plate upon which they are carried to be swung away from the insert to permit the removal of the latter.

Referring now more particularly to Figures 2, 3 and 5, the reference numeral 61 indicates the hinged prong plate member which includes a plate 62 substantially identical with the plate 42 described above. The plate 62 also has a bent-over setcion 63 which is slotted at 64 to receive prong members 65. The latter are similar to or identical with the prong members 53, described above, and are likewise provided with prongs 66 which are rounded and pointed at their inner ends, this being to facilitate the entrance of the prongs in between the leaves of the insert to be secured in the binder.

It will be noted from both Figures 4 and 5, that certain of the prongs are shorter. In the preferred form one prong of each pair is shorter than the other prongs, as shown in Figure 4, but obviously one member, 52 or 65, could have prongs shorter or longer than the prongs of the adjacent member. This construction embodying prongs of different length, whether alternately short and long, or any other arrangement, has the advan-

tage that it is easier to insert the prongs into an insert where some of the prongs are started in between the leaves before the others are started. This is especially true where there are a considerable number of prongs, as illustrated, and where a relatively large amount of metal is to be inserted into the insert adjacent its back, the staggered effect of the prongs permits one half of the prongs to enter first and the shorter prongs to enter later. This construction is of especial importance in connection with the hinged prong plate 61, as will be explained below. The mounting of the prongs 66 in the plate 62 is substantially the same as that described above in connection with Figure 4, and hence a further description is not believed to be necessary.

The hinge, best shown in Figure 5, by which the plate 62 is fastened to the backbone 11 is indicated in its entirety by the reference numeral 70 and consists of a long leaf or tongue 71 and a short leaf 72 fixed to the plate 62 in any suitable manner, as by spot welding. The pintle connecting the leaves 71 and 72 is indicated at 75. The leaf 71 is apertured, as at 76, to receive rivets 78 (Figure 2) by which the hinge 70 is firmly secured to the binder back 6. In order to provide space to accommodate the swinging of the hinged plate 61, this end of the block 11 carries a plate or sheet 80 of binders' board or other suitable material, die cut as shown in Figure 3, so as to provide a recess 81 to receive the curved edge of the plate 62. When the hinged prong plate member is swung outwardly the plate 80 is sufficiently thick so that the plate 61 can swing open to the position shown in dotted lines in Figures 2 and 8.

The member 61 is releasably latched in closed position (Figure 2) by means of a flat spring 83 which is disposed in a notch or slot 84 formed in the block 11 and a registering notch 84*a* in the die cut plate 80. The inner end of the spring 83 is rigidly secured in the inner end of the slot 84 by fasteners 85, and the outer end of the spring 83 is formed with a nose 87 which has a flange 88 of reversely bent formation. The nose 87 is adapted to enter a notch 91 cut in the plate 62, and when the prong plate member 61 is closed, the nose 87 of the latch 83 is adapted to engage over the inner edge of the opening 91 and securely locks the hinged plate member 61 in closed position, as shown in Figure 2. The latch may be released merely by pressing on the flange 88 and springing the member 83 toward the center of the opening 91. The inner edge 91*a* (Figure 2) of the opening 91 is beveled and cooperates with the flange 88 to facilitate the locking of the prong plate 61 in closed position.

The operation of our improved binder is substantially as follows:

When it is desired to place an insert in the binder, the latter is supported with the back flat and with the covers 7 and 8 or at least one of them, held upright so as to serve as sides to receive the insert, somewhat as indicated in Figure 7. Then with the insert 2 held by one hand and the binder with the other the insert is slid to the right (Figure 7) along the backbone 6 so as to force all of the rigid prongs 51 in position between the leaves of the insert and adjacent the back or bound side thereof. It will be noted from Figure 7 that the long prongs enter first and then the shorter prongs enter, materially reducing the resistance encountered when forcing the insert over the prongs 51. This is desirable where the insert 2 is of relatively large size, as a single bound volume, but is of course not necessary, and where the insert 2 is in the form of a number of booklets and the like, insertible singly, the prongs 51 may be of the same length. After the insert 2 is forced over the prongs 51 and substantially up against the plate 42, as shown in Figure 8, the hinged prong plate member 61 is then swung about its hinge axis 75 to cause the prongs 66 to enter between the leaves of the insert 2 at the top of the latter. It will be noted that whether the insert 2 be a single volume or a plurality of pamphlets or the like, all the prongs are inserted when the hinged plate 61 is closed. Hence, in this case the staggered prong arrangement mentioned above is quite desirable. Further, from Figure 8 it will be noted, not only that the longer prongs 66 begin to enter first, but that both sets of long and short prongs begin to enter between the leaves of the insert 2 at points, indicated in Figure 8 by the reference character x, which are farther away from the back of the insert than are the prongs when the hinged plate is finally swung into its locked position (Figure 2). During the time that the prongs 66 are being forced into the insert 2, it will be noted that the flange 88 of the latch 83 engages the inner wall of the opening 31 and as the plate is swung inwardly rides over the wall edge 91*a* so that when the plate member 61 is fully closed against the insert the spring 83 snaps the nose 87 over the inner edge of the opening 91, thereby automatically locking the hinged prong plate member 61 in closed or locked position.

The number of prongs 51 and 66 may vary as desired. If only single volumes are to be accommodated, as few as four or less prongs may be sufficient, but where the binder is to receive a number of pamphlets, supplements and the like, there should be at least as many prongs at each end as there are booklets to be accommodated.

It will be noted that reference was made to the fact that the bottom of the insert is placed against the fixed prong plate member 41. This is not essential, of course, but is desirable inasmuch as when the book is placed in upright position on a shelf or the like, the weight of the leaves is borne by the fixed prong plate member 41, as shown in Figure 1. If the insert 2 were placed in the binder in the opposite relation, the weight of the insert would be sustained principally by the spring latch 83. As shown, however, where the weight of the insert is borne by the fixed prong plate member and the hinged prong plate member is at the upper end, the hinged plate is fully adequate to resist the pull of the weight of the leaves against the same, this pull being in an outward direction. It will thus be noted that the hinged connection between the covers 7 and 8 and the back 6 of the binder is sufficiently strong to accommodate all stresses imposed thereon by virtue of the weight of the insert.

It is an easy matter to remove any or all of the inserts, as desired. All that it is necessary to do is to spring the latch 83, and swing the hinged prong carrying plate 61 outwardly. Then the desired insert or inserts may be removed and replaced by others. In this case it may be noted that it is only slightly more difficult to remove and replace the insert where the latter constitutes the entire book 2 than is the case where there are a number of inserts and they are removed and replaced one at a time. As shown in Figures 4 and 5, certain of the prongs are closer together than others. The particular advantage of this arrangement is that the binder of our invention ac-

commodates relatively thin inserts, which may be in the form of supplements to the main insert or inserts.

While we have shown and described above the preferred structural embodiment in which the principles of the present invention have been incorporated, it is to be understood that our invention is not to be limited to the specific features shown and described above, but that, in fact, widely different means may be employed in the broader aspects of our invention.

What we claim, therefore, and desire to secure by Letters Patent is:

1. A temporary binder comprising a rigid back, a pair of rigid covers hingedly connected to the edges of said back, there being slots at each end of the back disposed generally in the plane thereof, a rigid plate disposed at one end of said back and extending beyond the inner surface thereof, means on said rigid plate adapted to enter the slot at said one end of the back for holding the plate rigidly in position, inwardly directed prongs carried by said plate, a second plate disposed at the other end of said back and also overhanging the inner surface of the latter, prongs carried by said second plate, hinge means connecting said second plate to said rigid back and including one leaf secured to said second plate and the other disposed rigidly in the slot at said other end of the back, there being an opening formed in said second plate adjacent the inner surface of said back, and a spring member secured at its inner end to said back and having one end formed as a latch to enter said opening and releasably hold said second plate in closed position.

2. A temporary binder comprising a rigid back, a pair of rigid covers hingedly connected to the edges of said back, there being slots at each end of the back disposed generally in the plane thereof, a rigid plate disposed at one end of said back and extending beyond the inner surface thereof, means on said rigid plate adapted to enter the slot at said one end of the back for holding the plate rigidly in position, inwardly directed prongs carried by said plate, a second plate disposed at the other end of said back and also overhanging the inner surface of the latter, prongs carried by said second plate, hinge means connecting said second plate to said rigid back and including one leaf secured to said second plate and the other disposed rigidly in the slot at said other end of the back, there being an opening formed in said second plate adjacent the inner surface of said back, said back having a recess extending longitudinally of its inner surface and substantially in line with the opening in said second plate, and a spring member disposed in said recess and having its inner end secured to said back and its outer end formed as a latch to enter the opening in said second plate and engage the latter to hold it in closed position.

3. A temporary binder comprising a rigid back having a generally flat inner surface and a rounded outer surface, covers hingedly connected to the sides of said rigid back, a prong-carrying plate rigidly secured to one end of said back and having a part overhanging the inner surface of said back, the other edge of said plate being curved to correspond generally to the curvature of the rounded outer surface of said back, a second prong-carrying plate disposed at the other end of said rigid back and also having a part overhanging the inner surface of the back with the opposite edge curved to correspond to the curvature of the rounded outer surface of the back, hinge means carried by the other end of said rigid back and connected to said second plate at a point inwardly of the rounded edge thereof, said other end of the rigid back having a recess to receive the rounded portion of said second plate when the latter has swung outwardly.

4. A binder comprising a back, covers hinged thereto, a plate connected to each end of said back, a plurality of U-shaped members, at least one being secured to each of said plates and each of said U-shaped members having its sides formed as prongs extending inwardly along the inner side of said back, and means carried by said plates and overlying the intermediate portions of each of said members for holding the prongs thereof in position.

5. In a binder having a back, an insert-engaging part comprising a U-shaped member, the sides of which extend generally parallel and are adapted to be inserted between the leaves of an insert, and an attaching member on the back for said part having a portion bent over the intermediate portion of said U-shaped member to hold the latter in position.

6. In a binder adapted to releasably receive an insert, an attaching member for holding the insert in position comprising a plate having a plurality of slots formed therein adjacent one edge, and a plurality of U-shaped strips, the ends of which are formed to be readily inserted between the leaves of said insert, the ends of said U-shaped strips being received within said slots and the slotted portion of said plate being bent back on itself to clamp all of said U-shaped members to the plate.

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