Dec. 22, 1959 H. A. CARLSON 2,918,066

BOOKBINDING STRIPS

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Fig. 1.

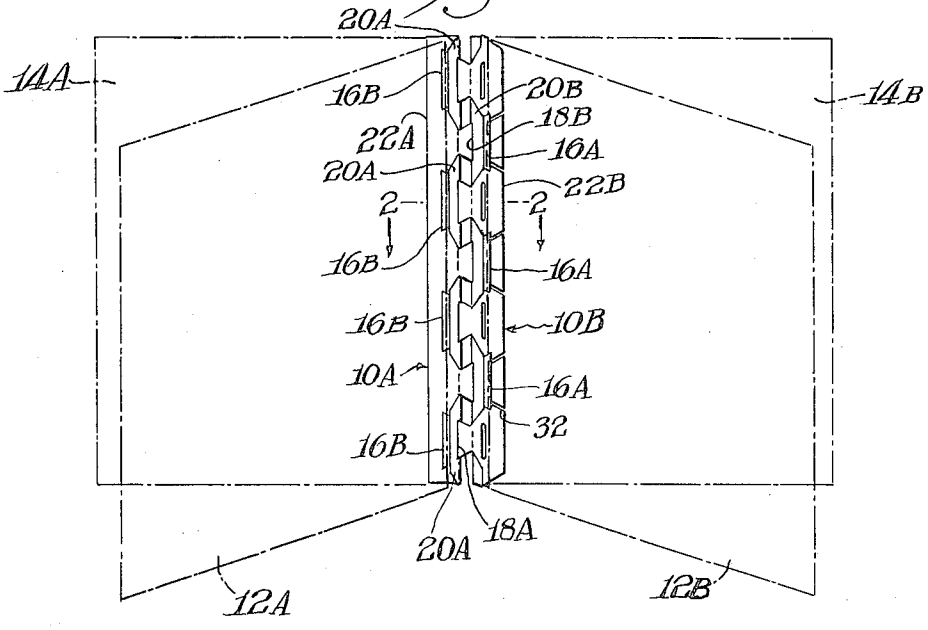


Fig. 2.

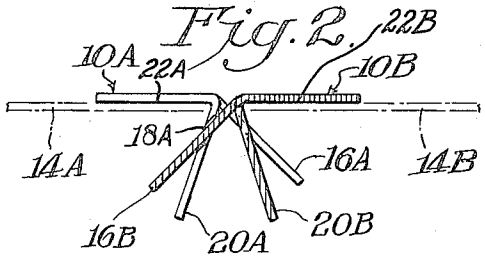


Fig. 4.

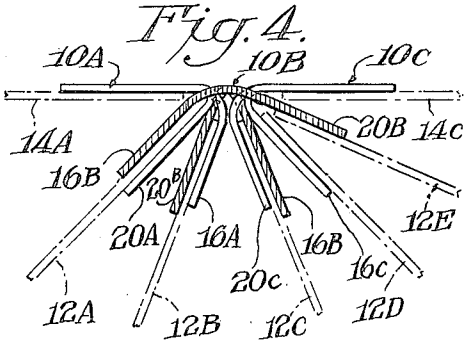
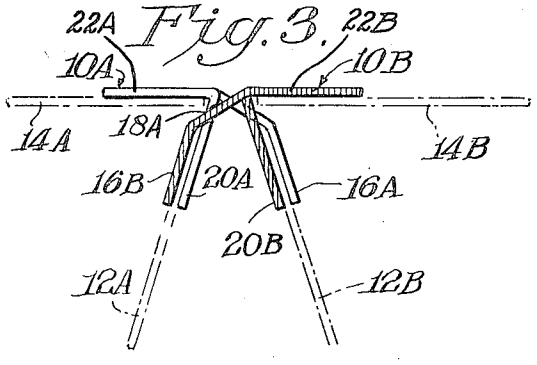


Fig. 3.



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Fig. 5.

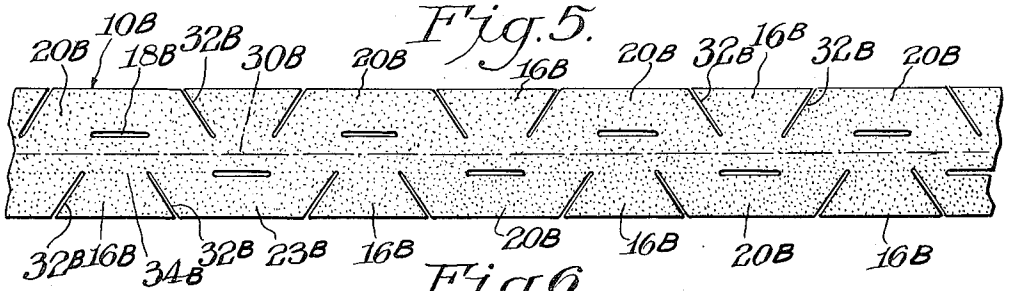


Fig. 6.

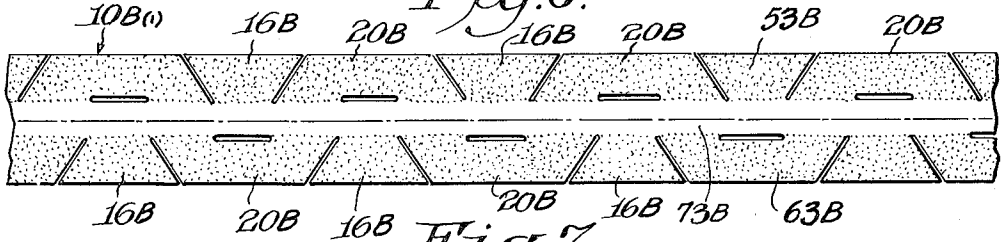


Fig. 7.

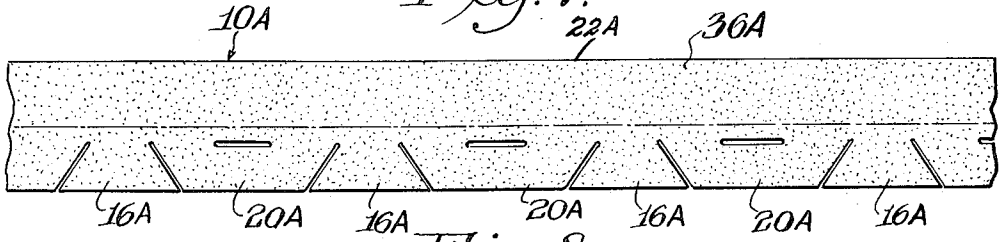
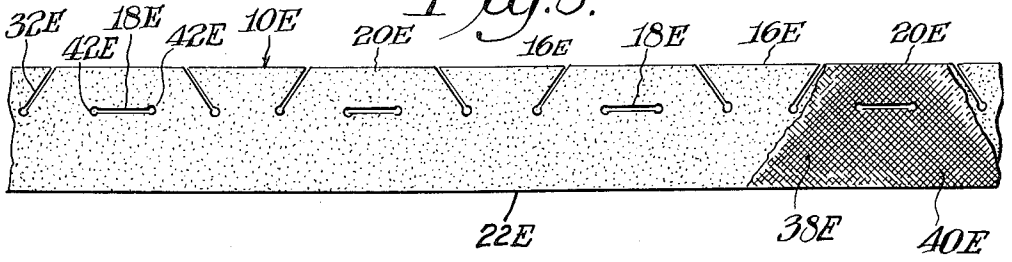


Fig. 8.



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BOOKBINDING STRIPS

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Application October 27, 1958, Serial No. 769,716

5 Claims. (Cl. 129—19)

This invention relates to a novel strip for permanently binding leaves or pamphlets in a book form, and more particularly relates to such a strip which may be assembled in selected multiples to bind any given number of leaves or pamphlets in the form of a book.

There have been various schemes proposed for binding separate sheets or inserts in permanent book form by the use of anchoring strips. One of these schemes is described in U.S. Letters Patent No. 50,521 reissued May 21, 1867, as Re. No. 2,617. However, none of the arrangements heretofore proposed have been widely accepted and used because of various deficiencies which make them inconvenient to assemble and secure.

An object of this invention is to provide a strip for permanently binding leaves in a book form which is convenient to assemble regardless of the number of strips to be bound together, simple to permanently fasten, and simple and economical to manufacture.

Another object is to provide such a strip whose active surfaces can be easily coated with a readily-activated adhering agent.

In accordance with this invention a rectangular strip of flexible sheet material is formed with aligned tabs and slotted intermediate portions disposed on opposite sides of a substantially centrally disposed longitudinal fold line. A series of these strips relating in number to the number of pages to be bound thereby are assembled by inserting the tabs of each through the slots of the other. The interlocked tabs and slotted intermediate portions provide means for fastening inserts, such as, leaves or pamphlets to the binding strips. The noninterlocked outer edges of the binding strips provide means for attaching cover sheets to the binding strip. A readily activatable adhesive coating may be provided on these strips for example on their inner surfaces, to facilitate their permanent fastenings to inserts and cover sheets. Furthermore, these strips may be provided either in standard uniform lengths of identical configuration, or in long continuous strips which may be cut to any predetermined length corresponding to the size of the largest insert to be fastened thereto. Also, if desired, special duty strips may be provided. For example, strips having one plain edge may be used to provide a smooth outer binding for the cover.

Novel features and advantages of the present invention will become apparent to one skilled in the art the reading of the following description in conjunction with the accompanying drawings wherein similar reference characters refer to similar parts and in which:

Fig. 1 is a perspective view of one embodiment of this invention;

Fig. 2 is a cross-sectional view taken through Fig. 1 along the line 2—2 before inserts are secured thereto;

Fig. 3 is a cross-sectional view similar to Fig. 2 after inserts are secured thereto;

Fig. 4 is a schematic plan view of an assembled embodiment of this invention associated with inserts to be bound thereby;

Fig. 5 is a layout pattern of one of the strips shown in Figs. 1–4;

Fig. 6 is a layout pattern of a modification of the strip shown in Fig. 5;

Fig. 7 is a layout pattern of another of the strips shown in Figs. 1–4; and

Fig. 8 is a modification of the strip shown in Fig. 7.

In Fig. 1 are shown two interlocked strips 10A and 10B in the positions in which they are assembled to secure leaves 12A and 12B and cover sheets 14A and 14B in book form. As shown in Fig. 1, tabs 16A of strip 10A are inserted through slots 18B in intermediate portions 20B of strip 10B to partially interlock the strips. At the same time tabs 16B are inserted through slots 18A on intermediate portions 20A of strip 10A to complete the interlocking of binding strips 10A and 10B. As also shown in Fig. 1, aligned sets of interlocked tabs and intermediate portions 16B—20A and 16A—20B respectively provide convenient means for securing leaves 12A and 12B to the binding. Leaves 12B and 12A are merely representative of inserts in general and may be for example pages or pamphlets or multileaved pamphlets. The outer noninterlocked edges 22A and 22B of strip 10A and 10B provide convenient means for attached cover sheets 14A and 14B.

Inserts and cover sheets are for example permanently secured to the binding by an adhesive coating which, for example, is either applied to active surfaces of the tabs and intermediate portions, or is, for example, conveniently preapplied to one surface of the strips in a readily-activatable form during manufacture. A water-activating coating is for example applied to one surface of strips 10A and 10B to permit securing of adjacent surfaces of sets of interlocked tabs and intermediate portions 16B—20A and 16A—20B to inserts and securing of noninterlocked outer edges 22 to cover sheets. As indicated in Figs. 1–3, single inserts 12A and 12B are respectively inserted between the aforementioned sets of interlocked tabs and intermediate portions 16B—20A and 16A—20B, and these interlocked tabs and intermediate portions are subsequently secured to opposite sides of inserts 12A and 12B. However, two inserts may be inserted between interlocked tabs and intermediate portions instead of one with one insert secured to the tabs and the other insert secured to the intermediate portions as shown in Fig. 4.

Figs. 2 and 3 show relative positions of strips 10A and 10B before and after the securing of respective tabs and intermediate portions to opposite sides of single inserts 12A and 12B. As shown in Fig. 3, not only are inserts 12A and 12B secured to binding strips 10A and 10B when corresponding tabs and intermediate portions are secured to these inserts; but, at the same time, the binding strips 10A and 10B are permanently bound together to form a unitary book.

In Fig. 4 is shown an arrangement in which a third strip 10C is interlocked with strip 10B, to provide two more sets of interlocked tabs and intermediate portions 16B—20C and 16C—20B. This indicates how the interlocking of each additional binding strip provides two more sets of interlocked tabs and intermediate portions. As further shown in Fig. 4, one pair of interlocked tabs and intermediate portions 16C—20B have two inserts instead of one connected between them.

In Figs. 5 and 6 are shown plan views of strips 10B and 10B(1) which can be cut to any desired length to provide the binding arrangement illustrated in Figs. 1–4. In Fig. 5, for example the longitudinal center line 30B represents the line upon which it is folded prior to interlocking. This line need not be the actual center line of the strip, but a convenient form of this invention is provided by disposing it equidistantly between the sides

of the strip. Slits 32B are cut at angles down both sides of the strip to form uniformally spaced dovetail-shaped tabs 16B upon opposite sides of the strip. Slots 18B are formed on portions 20B intermediate tabs 16B in line with each dovetail-shaped tab 16B on the opposite side of the fold line 30B from its aligned tab 16B. Slot 18B is at least as long as the root 34B of tab 16B and disposed at a distance from fold line equal to the distance that root 34B is spaced from fold line 30B. Tabs 16B are inserted through slots 18B by curling the outer edges of tabs 16B and inserting them through slots 18B. This temporarily secures the interlocked tab and slotted intermediate portions together as shown in Fig. 1 before they are fastened to inserts disposed between them.

As shown in Fig. 5, an adhesive material is deposited completely over one surface 23B of strip 10B to permit it to be permanently secured to interlocked sheets. This adhesive is, for example, of the water activated type. Fig. 6 is identical to Fig. 5 with the exception that the adhesive material is applied only to sections 53B and 63B of 10B(1) extending from slots 18B outwardly whereas the inner or center section 73B is left free of adhesive which is not required to secure the strips to interleaved inserts.

In Fig. 7 is shown a strip 10A which has one edge 36A left completely of slits and slots to provide an unmarked edge for binding a cover sheet. This is used to provide an unmarked outer binding for the book. However, this strip 10A is not absolutely necessary unless a slit and slotted binding for the outer cover sheet is considered objectionable.

In Fig. 8 is shown a strip 10E which is made, for example, of woven cloth having its warp 38E and woof 40E disposed diagonally across each other to strengthen the strip. An additional feature shown in Fig. 8 is the termination of the slits 32E and slots 18E in small holes 42E which prevent the slits and slots from tearing and enlarging which might weaken the binder.

What is claimed is:

1. A strip for binding inserts in a book form comprising a rectangular sheet of flexible sheet material having a substantially centrally disposed longitudinal fold line, a series of uniformly spaced tabs formed on both sides of said fold line and extending to the sides of said strip, said tabs on one side of said strips being centrally staggered between the tabs on the other side of said strip, slots for receiving said tabs formed upon portions of said strips intermediate said tabs, said slots being disposed in line with said tabs to permit the tabs of one strip to be inserted through the slots in another, and said tabs and intermediate portions providing means for permanently securing inserts thereto and said binding strips together.

2. A binding strip as set forth in claim 1 wherein said tabs and intermediate portions are simultaneously formed by inclined slits down the edges of said strips which form dovetail-shaped tabs and trapezoidal-shaped intermediate portions.

3. A binding strip as set forth in claim 2 wherein said slots are disposed substantially parallel to said fold line and are spaced a short distance therefrom.

4. A binding strip as set form in claim 3 wherein the length of said slots is shorter than the length of the outer edge of said dovetail-shaped tabs and longer than the length of the roots of said dovetail-shaped tabs to temporarily hold said tabs within said slots before they are permanently secured together.

5. A binding strip as set forth in claim 1 wherein one surface of each of said binding strips is coated with a readily activatable adhesive material to facilitate the securing of said strips to said inserts.

References Cited in the file of this patent

UNITED STATES PATENTS

50,521	Velthoven et al.	Oct. 17, 1865
589,504	Jack	Sept. 7, 1897
1,250,016	Richards	Dec. 11, 1917