Jan. 22, 1952 G. B. WISER 2,583,403

BOOKBINDING

Filed Jan. 4, 1947

Fig. 1

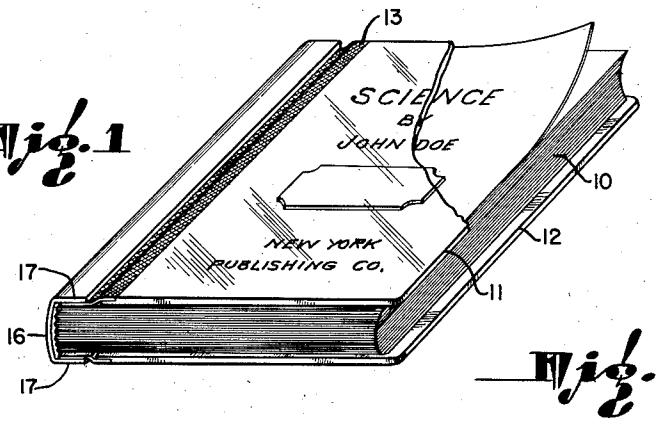


Fig. 6

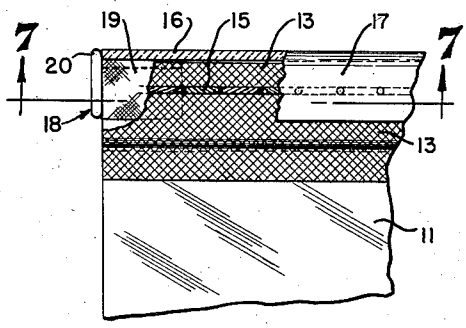


Fig. 2

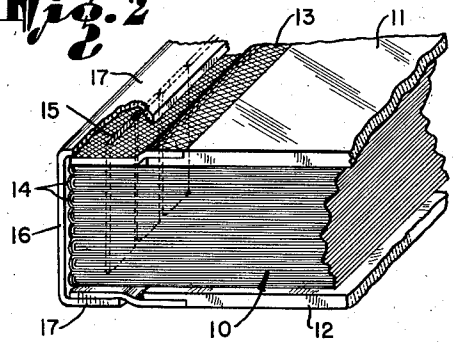
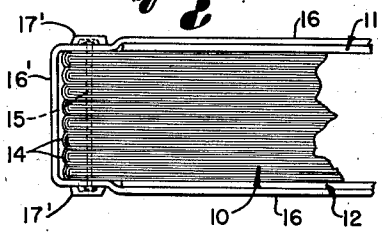


Fig. 3



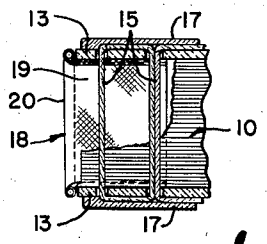


Fig. 7

Fig. 4

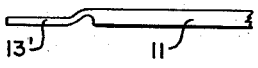
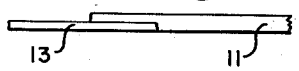


Fig. 5



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BOOKBINDING

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8 Claims. (Cl. 281—27)

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The present invention relates generally to the binding of books, and is particularly concerned with improvements in the casing or cover and the manner in which it is assembled and secured.

It is a primary object of the herein described invention to provide a simplified and more durable binding in which cover members of a plastic or similar material have prefabricated flexible portions, and in which the covers may be assembled with the gathered signatures of the filler and secured along the flexible portion directly thereto as by stitching, and when so secured, these flexible portions will serve as hinge strips for the cover members.

A further object of the invention is to provide a more durable and sanitary cover for books of such construction that the inherent disadvantages of ordinary bindings will be eliminated, particularly in books such as school books which are subjected to such extremely hard and rigorous usage that ordinary bindings become quickly worn, cracked, damaged, and unsanitary.

Another object is to provide in book bindings an improved casing or cover construction which will permit the use of transparent cover members, and the elimination of the usually associated end sheet and fly leaf, whereby matter contained on the first or title page of the book may be made visible through the cover, and this page may be utilized for fine line and color printing such as cannot be successfully applied to the exterior surface of the usual cover material.

Still another object of my invention is to provide an article of manufacture in the form of a prefabricated book cover member of plastic or similar material having an integrally formed or separate strip of flexible material bonded thereto along one edge, which is adapted to be stitched to the gathered signatures of a book filler, and form a hinge for the cover member.

It is also an object to provide improved end protectors or shields at the ends of a book back bone.

Further objects of the invention will be brought out in the following part of the specification, wherein detailed description is for the purpose of fully disclosing preferred embodiments of the invention without placing limitations on the scope of the invention defined in the appended claims.

Referring to the drawings which are for illustrative purposes only:

Fig. 1 is a perspective view of a book embodying the features of my herein described invention;

Fig. 2 is an enlarged fragmentary isometric end view of the same, showing constructional details of one form of the invention;

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Fig. 3 is an enlarged fragmentary bottom end view of a modified construction;

Figs. 4 and 5 are fragmentary detailed views illustrating several ways in which the flexible hinge strip for the cover members may be formed;

Fig. 6 is a fragmentary view looking at a hinged corner of a cover, portions being cut away to show the details of a protecting shield means; and

Fig. 7 is a sectional view, taken substantially on line 7—7 of Fig. 6.

Referring now to the drawings, I have illustrated in Fig. 1 a book binding in accordance with my invention. In general, the book comprises a plurality of sheets or pages forming a filler 10 with my permanently affixed casing including a pair of cover members 11 and 12.

Various materials may be utilized for the construction of my improved casing, and its parts may be of colored opaque or transparent material, depending upon the results desired. For such purpose, I may utilize a construction consisting entirely or in part of plastic material; and, as shown in Fig. 1, a transparent plastic has been used for the cover members in order that certain hereinafter noted features and advantages may be attained. The term "plastic material" is utilized herein in its broadest sense and includes any appropriate plastic substance capable of being easily formed, and which may or may not require the use of pressure, heat, or both, such as acetates, caseins, and synthetic resins, including phenol-aldehyde condensation products.

As will be hereinafter explained more fully, my casing is affixed in such a manner that the usual end sheet inside the cover and the fly leaf as usually required in book binding is entirely unnecessary in my improved binding. As a consequence, any indicia, printing, engraving or the like, which may be placed on the first page of the filler becomes visible through the cover member. It is thus possible to utilize fine lines and color printing of such character as cannot now be applied to the exterior surface of the usual cover materials.

In case it should be deemed advisable to forego the advantages of visibility through the cover members and use an opaque plastic material in their construction, suitable cover design may then be reproduced directly upon the plastic constituting the cover members.

The utilization of plastic covers which are a permanent part of the book binding provides a construction which is particularly advantageous for use in school books which are subjected to

such extremely hard and rigorous usage that ordinary bindings soon become worn, cracked, damaged and unsanitary. The plastic covers are easily cleaned and, since they are relatively non-absorbent, they tend to promote healthful conditions.

Referring to Fig. 2, I have shown one manner in which the casing embodying the features of my invention may be constructed. Each cover member is provided with a flexible extension 13 along one edge which may be of the same or different material than that which is utilized for the cover members.

As shown in Fig. 4, the extension may be integrally formed with the material of the cover, in which case it would be made thinner and of such thickness as to make this marginal edge, as indicated at 13', of relatively greater flexibility than that of the associated cover member which would be relatively stiff.

The construction shown in Fig. 5 is the same as utilized in Fig. 2, except that the strip is secured along the inside of the cover member rather than the outside. The strip 13 may be of any suitable material, such as a plastic, a fabric or an impregnation, for example. The cover member and strip 13 are prefabricated prior to assembly with the filler and have overlapping marginal edge portions, as shown in Fig. 2, or the material of the strip 13 may be further extended to form a layer or lamination over the entire area of the cover member, as shown in Fig. 3. The strip or lamination and cover members are secured together by any suitable means, such as by bonding of the materials. This may be accomplished in manners well known in the plastic art, so that the strip or lamination, in effect, becomes an integral part of the cover.

The prefabrication of the cover and the strip 13 or an integral flexible extension of the cover form one of the primary features of my invention, in that such construction enables the cover and strip to be secured to a plurality of gathered signatures 14 by the same means as is utilized for securing the gathered signatures together. More specifically, as shown in Fig. 2, the gathered signatures are secured by means of stitching 15 which is positioned adjacent the backs of the signatures and extend from top to bottom thereof, this stitching, moreover, extending through and securing the strip 13 with the signatures.

It will be apparent that this is a departure from the ordinary manner of affixing the casing to the filler wherein the strip 13 is secured to the filler and thereafter glued to the cover members in such a way as to necessitate the use of end sheets inside the cover and fly leaves in order to make a finished binding. In my invention, the plastic cover and its flexible extensions are furnished as a prefabricated unit with the result that it is possible to affix the cover portions of the casing without substantial departure or interruption of the usual binding procedure.

In the construction shown in Fig. 2, the application of the casing is completed by means of a back covering strip 16 which is placed over the backs of the assembled signatures and strips 13—13 and has its edge marginal portions 17—17 bent over the associated edges of the strips 13—13 for the purpose of concealing and protecting the back edges of the signatures and the stitching along the back edges of the strips 13, as shown. The back covering strip may be secured by bonding the edge margins of the strip to the fabric or material of the strip 13 in the area of the

stitching therein, in a manner similar to that in which the strip 13 is secured to the associated cover members.

In the construction illustrated in detail in Fig. 3, the back covering strip as indicated in this case at 16' is formed continuous with and as a part of the extensions of the cover members 11 and 12. The cover is secured to the gathered signatures in the same manner as previously described in connection with the construction shown in Fig. 2. In this arrangement, however, I merely utilize narrow strips or members 17' to conceal and protect the stitching, these strips being bonded in the same manner as the edge margins 17—17.

As in the case of the cover members, the back covering strip may likewise be of opaque or transparent material. When utilizing a transparent material, an appropriate backbone design for the book may be reproduced directly on the inside face of the back covering strip.

Shield inserts 18, for optional use, are provided and, as shown in Figs. 6 and 7, have a body portion 19 adapted to be placed between the back of the binding and the associated portions of the back covering strip and strips 13 during the assembly of the filler with the casing. The body portion 19 has a beaded edge 20 which overlies the adjacent edges of the associated plastic members as described, so as to act as a shield or buffer. These shield inserts may be made of any appropriate material, but should be of a resilient durable material such as plastic, fabric or an impregnation, or other of the materials available which would be suitable for this purpose.

I claim as my invention:

1. In a device of the character described, a filler having pages secured together by stitching, a casing comprising cover members consisting of sheet plastic plates, transparent sheet plastic hinge members attached to the cover members and having an extension positioned around the back of said filler, means on the inner side of said extension visible therethrough adapted to form a back design for the casing, said casing being attached to the filler by inclusion in the filler stitching, and plastic means covering and embedded in the exposed parts of said stitching.

2. In a device of the character described, a filler having a plurality of pages secured together by stitching, a casing comprising sheet plastic cover members joined by a flexible sheet plastic hinge connection extending around the back of said filler and penetrated and held by the stitching thereof, said filler including an indicia bearing page visible through a cover member, and plastic protective means bonded over and embedded in the exposed parts of said stitching.

3. In a device of the character described, a filler, transparent cover members with integrally attached flexible hinge extensions, stitching which penetrates the filler and includes the hinge extensions, an indicia bearing sheet visible through a cover member, and a back member covering and embedded in exposed portions of said stitching.

4. A book having a filler and a unitary plastic cover, the plastic being harder and more rigid over the pages, more flexible near the back edge of the book to form hinges for the more rigid parts, and covering the back of the book between the hinges, said cover being attached to the filler by stitching that penetrates the filler and is embedded in and covered by the plastic.

5. A book having a filler and a unitary plastic

cover, the plastic being harder and more rigid over the pages, more flexible near the back edge of the book to form hinges for the more rigid parts, and covering the back of the book between the hinges, said cover being attached to the filler by binding means embedded in and covered by the plastic.

6. A book comprising a filler, flexible hinge members, a sheet plastic back, and sheet plastic covers carried by the hinges, thread stitching through and through the hinges and filler, the stitching being embedded in and covered by plastic material integral with the hinge, the hinge, back, and covers being united by fusion, whereby the said parts constitute an integral unit.

7. In a device of the character described, a plurality of pages secured together by stitching to form a filler, transparent plastic covers overlapping and integrally bonded to flexible hinge members included in the stitching of the filler pages, said filler including an indicia bearing page visible through a cover, and protective sheet plastic means secured over the back of the filler and embedded in the outer parts of the stitching.

8. A book comprising a filler, flexible hinge members, a sheet plastic back, and sheet plastic covers carried by the hinges, fastening means extending through the hinges and the filler, the fastening means being embedded in and covered

by plastic material integral with the hinge, the hinge, back, and covers being united by fusion, whereby the said parts constitute an integral unit.

GUY BROWN WISER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
286,111	Bowman	Oct. 2, 1893
889,719	Rhodes	June 2, 1908
1,365,335	Miles	Jan. 11, 1921
1,466,618	Fry	Aug. 28, 1923
1,503,828	Harris	Aug. 5, 1924
1,665,049	Baker	Apr. 3, 1928
2,004,482	Wolfson	June 11, 1935
2,248,582	Phillips	July 8, 1941
2,355,737	Krehbiel	Aug. 15, 1944
2,363,848	Emmer	Nov. 28, 1944
2,367,725	Lindh	Jan. 23, 1945
2,390,125	Schade	Dec. 4, 1945

FOREIGN PATENTS

Number	Country	Date
339,124	Great Britain	Dec. 4, 1930