This invention relates to the conversion of short-term-use, paperback editions to long-term-use editions.

During recent years there has been a constantly increasing production of current, standard-size editions of all types of literature into what has come to be known as "paperback" or "pocket" editions. These are printed on paper less expensive than the standard editions with slightly smaller type, with the most inexpensive form of binding, and with paper covers. Such editions are in the realm of 4" x 8" and an inch thick. They sell retail for varying amounts often less than a dollar. Obviously, the purpose of producing such inexpensive editions is to encourage a wider interest of the public on the premise that it is not waste to purchase such editions and discard them after reading by one or two persons.

Public, school and college libraries have displayed an interest in these smaller-size, less-expensive editions. However, purchase of such editions has not been very extensive because of the limited circulation such editions permit before they have to be discarded.

The main objects of this invention are to provide a practical conversion of these small-size, short-term-use, paperback editions into long-term-use editions; to provide a conversion edition of this kind having hard covers and a reinforced binding which will permit stacking in libraries for repeated circulation comparable to that obtained with standard editions; and to provide an improved method for effecting a facile and economical conversion of such short-term-use paperback editions with material change in size and with such reinforced binding and hard covers as will insure a durable condition over long periods of circulation.

In the adaptation shown in the accompanying drawings:

FIG. 1 is an outline view of a conventional, short-term-use, paperback-edition book;

FIG. 2 is a similar outline view of the long-term-use edition of that same book constructed in accordance with this invention;

FIGS. 3 and 4 are more-or-less diagrammatic, cross-sectional views of these respective editions taken on axes 3-3 and 4-4, respectively, of FIGS. 1 and 2;

FIGS. 5 and 6 are, likewise, more-or-less diagrammatic, fragmentary, end views of these same editions, with the respective front and back covers thereof disposed in open cover relationship;

FIG. 7 is a miniature perspective showing a conversion edition as it would appear with the covers resting on a table or desk and indicating an upstanding relationship of the sheaf of leaves and the opposite fly leaves;

FIG. 8 is a very much-elongated cross-section of a conversion edition taken on the plane of the line 4-4 of FIG. 2 with the thickness of the laminated stiff covers and spine somewhat exaggerated to more clearly indicate the structural reformation that is effected in the conversion of a short-term-use edition into a long-term-use edition embodying this invention;

FIG. 9 is a diagrammatic view illustrating the first step of severing the sheaf of leaves from the paper covers, in this improved method of book conversion;

FIG. 10 is a diagrammatic view of the second step, of preparing the severed sheaf of leaves for the application of fresh adhesive in this improved book-conversion method;

FIGS. 11 and 12 are further-enlarged, fragmentary, diagrammatic views of the conditions resulting from the practice of the method step shown in FIG. 10.

FIG. 13 is a diagrammatic view of a subsequent step, for form-rounding the adhered edges of the sheaf of leaves, in this improved book-conversion method;

FIG. 14 is an enlarged view of FIG. 2 of a front cover of a conversion edition showing broken away the successive laminations of material that make up the conversion edition covers; and

FIG. 15 is a view similar in character to FIG. 14 but showing the inside of the front cover of a conversion edition.

The essential concept of this invention involves the severing of the sheaf of leaves from the spine and covers of a paperback edition and re-adhering the severed sheaf of leaves together along the severed area and to a fabric strip to form lateral hinge flaps, laminating the outer faces and the inner margins of a pair of cover cores and a spine core with a tough opaque material sheet and a transparent plastic sheet interposed with the severed front and back covers of the paperback edition, and adhering the hinge flaps to the respective inner marginal faces of the cover with inside facing sheets of tough opaque material sheet adhered along their narrow medial portions to the respective outer leaves of the sheaf of leaves with one-half of each facing sheet adhered over the inner face of one of the cores to dispose the other half as a fly leaf.

A long-term-use edition book 16, embodying the foregoing concept, comprises a reconditioned sheaf of leaves 17, a specially-fabricated spine section 18 and hinged hard-core covers 19 and 20.


Such a paperback edition 21, as a rule, appears some months after the publication of the initial standard hardcover edition intended for permanent possession by the purchasers thereof.

In a short-term-use edition book 21 a sheaf of leaves 22 is adhered along one edge to the medial portion of a fairly-heavy sheet of paper forming a spine section 23 and front and back covers 24 and 25. Such a short-term-use paperback edition is diagrammatically illustrated in FIGS. 3, 5 and 9.

As FIG. 9 indicates, such a paperback book has a plurality of leaves bonded to a spine section 23 by a hardened film 26 of adhesive.

The spine section 23 of such a paperback edition 21, usually bears the title of the book and an indication of the author and publisher. The front cover 24 usually bears the title of the book, the author's name and that of the publisher, often some art work, and frequently other related information such as a series index and the price.

The back cover 25 generally contains a brief synopsis of the content of the book and perhaps a few quotes from reviews.

The procedure in effecting a conversion of such a short-term-use edition 21 into a long-term-use edition 16 involves the following:

First step.—Each short-term-use book 21 is severed by a knife, indicated at 27, transversely, adjacent inward, of the bonded edges of the sheaf of leaves 22 and the spine section 23 of the incasing paper cover (see FIG. 9). It is this severed sheaf of leaves 22 that becomes the rebonded sheaf of leaves 17 for the long-term-use edition 16.

Second step.—This involves the application of a fresh adhesive to the sheaf of leaves 22 along their severed edges 28. To this end these severed edges 28 are oppositely fanned out and spread over with a fresh adhesive 29, as indicated in FIGS. 10-12. This fanning of the leaves and applying of a fresh adhesive is a well-known procedure in
book-binding. For such an operation each severed sheaf of leaves 22 is placed in a clamp (not here shown) along the original free edges, and the leaves flexed first in one direction and then the other, as indicated in FIG. 10.

Following each such fanning of the sheaf of leaves 22 and the application of the adhesive 29, a film of the adhesive is spread not only over the edges 31 of the leaves but also over the opposite marginal portions 32 thereof inwardly of the edges 31. Thus, when each sheaf of leaves 22 assumes its normal form the individual leaves become bonded to each other along these opposed marginal portions as well as by the film of adhesion 29 extending along the edges 31.

It should be noted that this application of films of adhesive along the marginal portions of the leaves of the sheaf 22 increases the over-all thickness of the sheaf of leaves 22 so that inwardly from this newly-bonded edge of the sheaf the leaves are permanently flared out as shown in FIGS. 6 and 8.

Third step.—To insure a rounded back, to the conversion edition 16, each converted sheaf of leaves 17 is rounded as diagrammatically indicated in FIG. 13. This is a practice well-known in the book-binding industry.

Fourth step.—This involves adhering a strip of fabric 33, somewhat wider than the thickness of the sheaf of leaves 17, along this newly-adhered and rounded-flared back thereof. The lateral extensions 34 of this strip of fabric become the hinge supports for the new hard covers 19 and 20, as presently will be described.

Fifth step.—This involves the fabricating of the hard covers 19 and 20 and their integration with the spine section 18.

The basic structure of the covers 19 and 20 comprises cores 36 and 37 one face and three opposite inner face perimeters of each of which are overlaid with a super-imposed sheet of paper 38 and sheet of transparent plastic 39 between portions of which sheets are interposed the respective front and back covers 24 and 25 of the paperback edition 21. The spine section 18 comprises a core 41 located between the spaced opposed edges of the cover cores 36 and 37 and adhered to the inner face of the sheet of paper 38. (See FIG. 8.)

The cover cores 36 and 37 and the spine core 41 are cardboard or pasteboard such as commonly used for the hard covers of standard edition books. These cores 36, 37 and 41 are of suitable thickness, for this size book, and slightly longer than the height of the sheaf of leaves 17 so that when each sheaf of leaves 17 is encased in the cover 19 and 20 and the spine 18, the perimeters thereof will extend slightly beyond the edges of the sheaf of leaves 17 and afford protection therefor in the subsequent frequent handling of such an edition.

The sheet of paper 38 is fairly tough, opaque and preferably white. It is of a length and width to permit the top and bottom portions 42 thereof and the opposite end portions 43 to be turned over the three exposed edges and adhered along the inner margins of the cover cores 36 and 37 and the spine core 41, with the corners mitered at 44, all as most clearly indicated in FIG. 15. The sheet of plastic 39 is a thin, tough transparent material dimensioned substantially the same as the paper sheet 38 so that the top and bottom portions 46 and the opposite end portions 47 may be turned over and adhered to the respective marginal portions 42 and 43 of the paper sheet 38, as indicated in FIG. 15.

Observe, the paper sheet 38 and the plastic sheet 39, and the interposed paperback-edition covers 24 and 25 where they overlap, are successively adhered in laminated relationship over the cover cores 36 and 37 and the spine core 41.

It should be noted that before the paper sheet 38 is thus applied to the cores 36, 37 and 41, it generally has at least the title of the book printed along that portion of the paper sheet 38 that overlies the spine core 41. Also, it should be noted that the spaces 48 between the opposed lateral edges of the cover cores 36 and 37 and the spine core 41 allow the intermediate superimposed portions 49 of the paper and plastic sheets 38-39 to be depressed into these spaces. These portions 49 of the superimposed sheets thus conform with a standard edition and supplement hinge support 34 for the covers 19 and 20.

Sixth step.—The previously-completed sheaf of leaves 17 is finally cased in the fabricated covers 19 and 20 and spine 18. This involves adhering the fabric hinge-supports 34 along the inner marginal faces of the cover cores 36 and 37, and, adhersing the inner facing sheet 50. With the fabric-covered back edge of the sheaf of leaves 17 laid on the spine core 41 the hinged supports 34 are adhered to the cover cores 36 and 37 along the adjacent lateral margins thereof, as clearly indicated in FIGS. 8 and 15.

Finally, the two facing sheets 50, of a material similar to that of the cover sheet 38, are arranged so that one half 51 of each such sheet 50 is adhered to the inner faces of the respective cover cores 36 and 37 to conceal the overlying portions of the paper and plastic sheets 36 and 37 and hinge support 34. (See FIG. 15.) Along its medial portion each facing sheet 50 is adhered to the respective outer edge thereof and involves the sheaf of leaves 17 so as to dispose the other half 52 of each facing sheet 50 as a fly leaf.

Thus, all except the spine section 23 of a short-term-use paperback edition of a book 21 is converted into a long-term-use edition 16 which in appearance and durability compares favorably with a standard-type edition book of the same subject matter. However, the conversion edition can be marketed at one-third or less than the price of the standard edition. Such a conversion edition interferes not at all with the marketing of the standard or the paperback editions. Rather the conversion edition supplements these other editions and serves to materially increase the over-all circulation of a particular subject matter.

Although but one specific embodiment of this invention is herein shown and described it will be understood that details of the construction shown may be altered or omitted without departing from the spirit of the invention as defined by the following claims.

I claim:

1. The method of converting a conventional short-term-use paperback edition into a relatively long-term-use edition which comprises, first severing the sheaf of leaves of the paperback edition closely inward along the bonded edges thereof and rebonding the sheaf of leaves together along the severed edges, adhering a strip of fabric along its medial portion to the edges of the rebonded sheaf of leaves to dispose portions of the fabric oppositely outward from the rebonded sheaf of leaves, overlaying and adhering to a pair of stiff-material cover-cores and an intermediate narrow spine core a sheet of thin tough material to hinge the cover-cores to the spine core, overlaying and adhering the front and back cover leaves of the paperback edition on the exposed faces of the sheet covering the cover-cores, overlaying and adhering a thin transparent plastic sheet on the paperback-edition front and back cover-leaves and on the sheet overlaid on the cover-cores, bonding the fabric flaps to the inner faces of the cover-cores along the lateral margins thereof, subsequently adhering a pair of facing sheets of thin tough material along their respective narrow medial portions to the comparable marginal portions of the respective outermost leaves of the rebonded sheaf of leaves and finally adhering one portion of each of the two facing sheets to the opposed inner faces of the respective core-cores and dispose the other portions of these other sheets of thin tough material as fly leaves of the converted edition.

2. The method of converting a conventional short-term-use paperback edition into a relatively long-term-use edition which comprises, first severing the sheaf of leaves of
the paperback edition closely inward along the bonded edges thereof, securing the severed sheaf of leaves in a clamp and successively fanning out in opposite directions the severed leaf edges and applying an adhesive along the fanned out areas thereof for rebonding the sheaf of leaves together along the severed edges, rounding the rebonded edges of the sheaf of leaves, adhering a strip of fabric along its medial portion to the edges of the rebonded sheaf of leaves to dispose portions of the fabric oppositely outward from the rebonded sheaf of leaves, overlaying on and adhering to a pair of stiff-material cover-cores and an intermediate narrow spine core a sheet of thin tough material to hinge the cover-cores to the spine core, the perimetrical portions of the sheet of thin tough material being folded over and adhered to the respective marginal areas of the inner faces of the cover-cores, overlaying and adhering the front and back cover leaves of the paperback edition on the exposed faces of the sheet overlaying the cover-cores, overlaying and adhering a thin transparent plastic sheet on the paperback edition front and back cover leaves and on the sheet overlaid on the cover-cores, the perimetrical portions of the plastic sheet being folded over and adhered to the folded over portions of the thin tough material sheet, bonding the fabric flaps to the inner faces of the cover-cores along the lateral margins thereof, subsequently adhering a pair of facing sheets of thin tough material along their respective narrow medial portions to the comparable marginal portions of the respective outermost leaves of the rebonded sheaf of leaves and finally adhering one portion of each of the two facing sheets to the opposed inner faces of the respective core-cores to conceal the folded-over portions of the thin tough material and the plastic sheets and dispose the other portions of these other sheets of thin tough material as fly leaves of the converted edition.

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