May 17, 1960 E. H. COPEN 2,936,680

CARD CARRIERS AND METHOD OF MAKING SAME

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Fig. 1

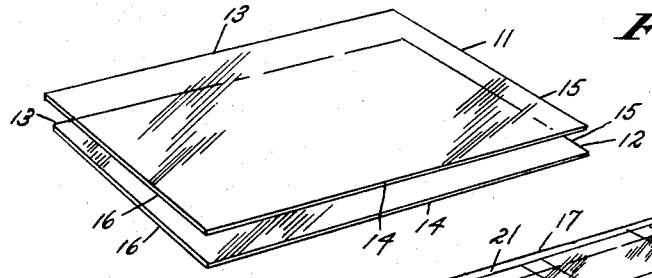


Fig. 2

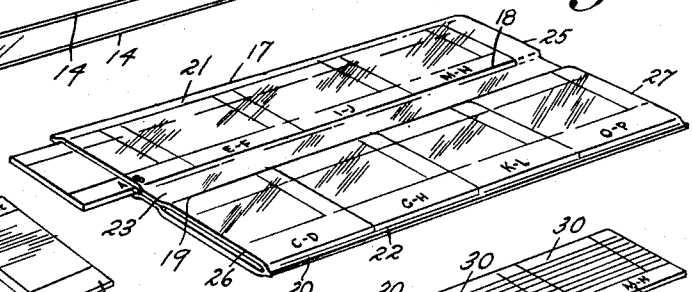
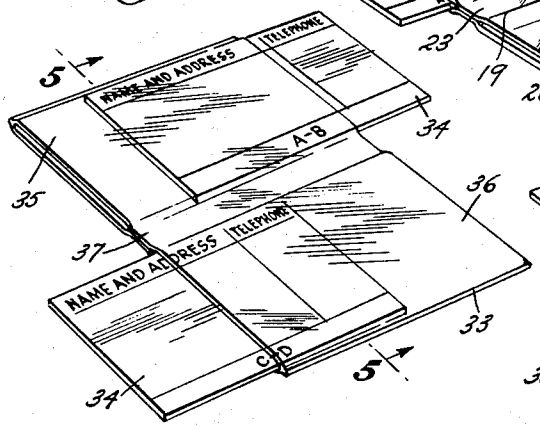


Fig. 4



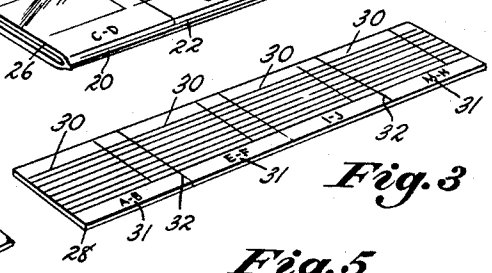


Fig. 3

Fig. 5

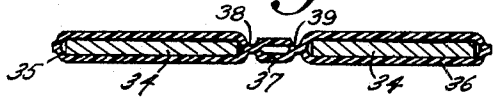


Fig. 6

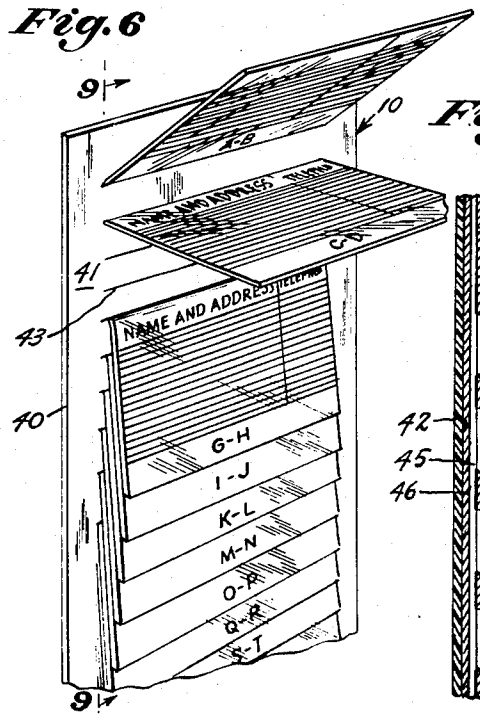


Fig. 9

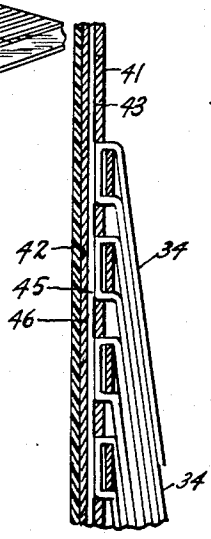
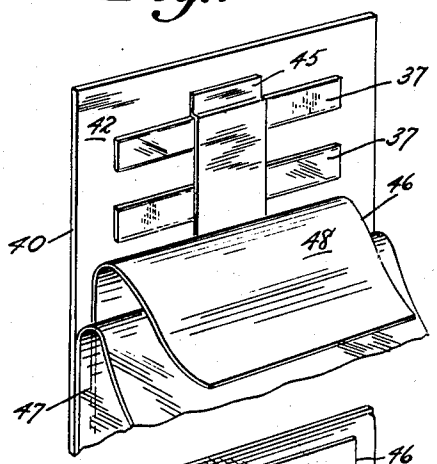


Fig. 7



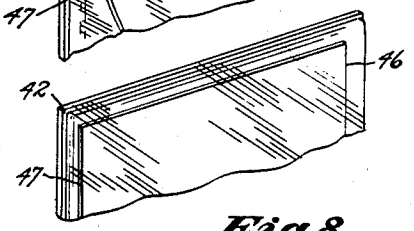


Fig. 8

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Fig. 10

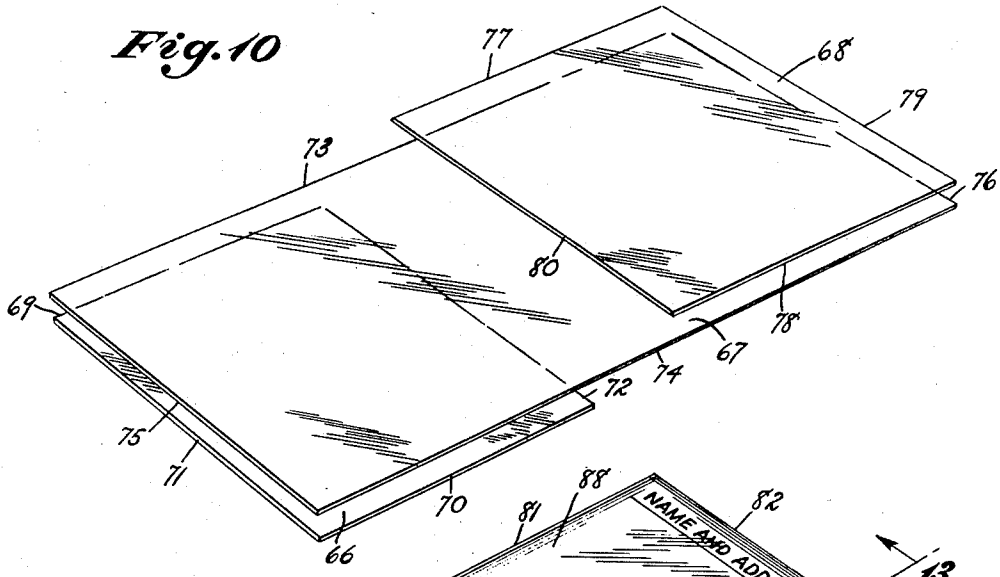


Fig. 11

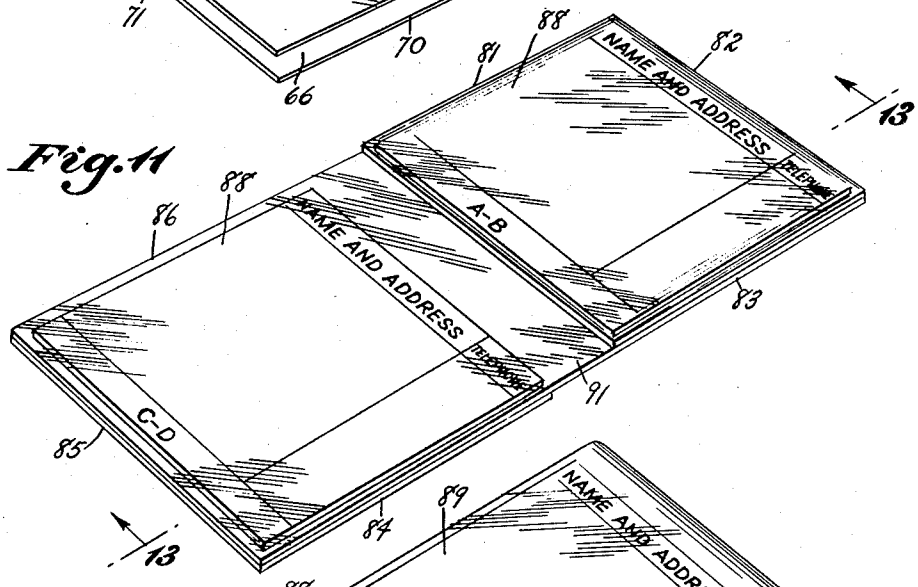


Fig. 12

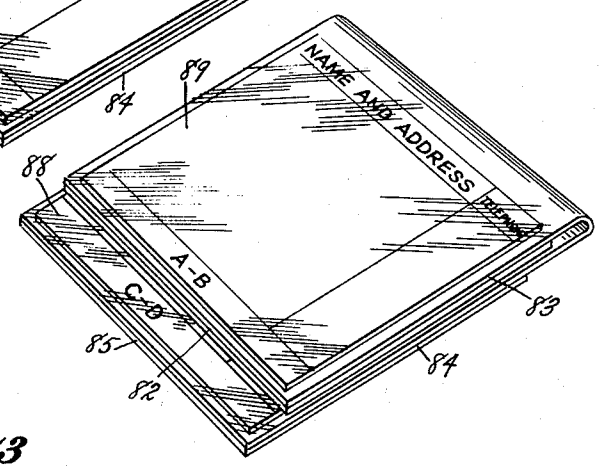
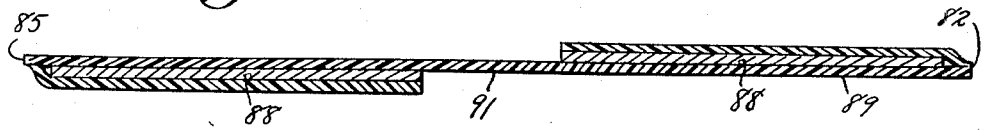


Fig. 13



United States Patent Office 2,936,680 Patented May 17, 1960

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CARD CARRIERS AND METHOD OF MAKING SAME

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Application March 28, 1958, Serial No. 724,666

3 Claims. (Cl. 93—1)

This invention relates generally to the field of card indexes and the like of a type in which alphabetically listed information may be carried on small cards.

In the prior art, the manufacture of such devices has been relatively costly owing to the large degree of hand labor necessary to assemble the component parts of the devices. Not only must a large number of cards be mounted on a supporting member, but care must be taken to assure that the cards are mounted in proper alphabetical order or sequence. To protect the cards against soil, it is preferable that the same be mounted within a transparent envelope in such manner as to be readily removable for the insertion of additional information from time to time. The assembly of the cards within the envelope constitutes a further hand operation tending to still further increase the cost of manufacturing the device.

One of the most expensive parts of the construction has been the formation of a hinge means whereby the cards may be mounted in staggered relation and turned through substantially 180° to reveal cards disposed beneath the uppermost card. Not only must the hinge means be sufficiently flexible to permit the cards to lie flat upon a supporting wall, but the same must possess sufficient mechanical strength to withstand many bending operations without fatigue.

It is therefore among the principal objects of the present invention to provide an improved card carrier and method of making the same in which a large number of the operations heretofore necessary in the assembly of the device have been eliminated.

Another object of the invention lies in the provision of a card carrier of the class described in which the individual cards are formed in an enclosed condition, whereby subsequent insertion of a card into a transparent carrier member is dispensed with.

Another object of the invention lies in the provision of a device of the class described in which the total cost of fabrication may be of a low order, with consequent wide sale, distribution and use.

Still another object of the invention lies in the provision of a method for making a card carrier possessed of the above advantages which will require only ordinary skill in the art, and with an absence of any special tooling of any kind.

A feature of the invention lies in the fact that the device may be constructed with a total absence of any sewing operations.

Another feature of the invention lies in the fact that a minimum of thermo-plastic materials are required to mount individual cards as contrasted with similar prior art devices.

These objects and features, as well as other incidental ends and advantages, will become more clearly apparent during the course of the following disclosure, and be pointed out in the appended claims.

On the drawing, to which reference will be made in the specification, similar reference characters have been employed to designate corresponding parts throughout the several views.

Figure 1 is a view in perspective showing a first step in the making of a first embodiment of the invention.

Figure 2 is a view in perspective showing a second step in the method.

Figure 3 is a view in perspective showing an inserted strip forming a card index element comprising a part of the embodiment.

Figure 4 is a view in perspective showing a completed card carrying unit formed by severing the structure shown on Figure 2.

Figure 5 is a transverse sectional view as seen from the plane 5—5 on Figure 4.

Figure 6 is a fragmentary view in perspective of a completed card carrier.

Figure 7 is a fragmentary view in perspective showing the holding of individual card carrier units in position on the finished card carrier shown on Figure 6.

Figure 8 is a fragmentary view in perspective corresponding to that seen on Figure 7 but showing the final integration of the completed card carrier.

Figure 9 is a fragmentary vertical sectional view as seen from the plane 9—9 on Figure 6.

Figure 10 is a view in perspective corresponding to that seen on Figure 1 but showing a first step in the method of forming a second embodiment of the invention.

Figure 11 is a view in perspective showing a completed card carrying unit comprising the second embodiment.

Figure 12 is a view in perspective corresponding to that seen on Figure 11, but showing certain of the component parts in altered relative position.

Figure 13 is a transverse sectional view as seen on the plane 13—13 of Figure 11.

In accordance with the first embodiment of the invention, the device, generally indicated by reference character 10 (see Figure 6) is formed as described hereinbelow of suitable flexible thermoplastic synthetic resin. Vinyl polymers and copolymers are generally suitable, as is polyethylene.

Referring to Figure 1 in the drawing, there is shown a first step in the making of the device which consists of providing first and second planar members 11 and 12 of polyvinyl chloride material. The first and second planar members 11 and 12 are substantially identical in configuration, each including elongated side edges 13 and 14, and end edges 15 and 16.

In the second step shown on Figure 2 on the drawing, the first and second planar members 11 and 12 have been heat-healed along four lines generally parallel to the longer axis of the sheets. A first seal line 17 and second seal line 18 are disposed on one side of the longitudinal axis of the sheets, while a third seal line 19 and fourth seal line 20 are disposed on the opposite side thereof. If desired, a trimming operation (not shown) may be combined with the forming of the seal lines 17 and 20 as is well known in the thermoplastic sealing art. With the above operation, there are formed first and second pockets 21 and 22 separated by an elongated interconnecting portions 23. The first pocket 21 includes first and second openings 24 and 25, while the second pocket 22 includes similar openings 26 and 27, respectively. Referring to Figure 3 in the drawing, there is shown an elongated card index element 28 printed to form a plurality of page portions 30, and each bearing a suitable indicium 31. A pair of index elements 28 are inserted into the first and second pockets 21 and 22, following which the engaged index card elements and pockets 21 and 22 are severed along substantially uniformally spaced severing lines 32.

With the completion of the severing operation, there are formed a plurality of individual page portion retain-

ing members 33, each containing two page portions 34, from which the same may be disengaged for the insertion of memoranda from time to time as required. The severing of the pockets 21 and 22 results in the formation of individual envelopes 35 and 36 interconnected by a part 37 of the original interconnecting portion 23. The fold lines 38 and 39 are formed from the original seal lines 18 and 19, and form the natural axis for bending.

Referring to Figure 6, there is shown a planar mounting member 40 which may be formed of any suitable flexible material, as for example, sheet vinyl. The mounting member 40 may be a portion of a wallet or portfolio (not shown) and includes an outer surface 41 and an inner surface 42 (see Figure 7). Extending from the inner surface to the outer surface 41 and 42, respectively, are a plurality of slits 43 disposed in substantially equally spaced parallel arrangement as best seen on Figure 9. The individual page portion retaining members 33 are inserted through the slits 43 in such manner that the interconnecting part 37 lies flat against the inner surface 42 between adjacent pairs of slits 43. While maintaining the same in this position, a strip of pressure-sensitive adhesive tape 45 is applied in the manner shown on Figure 7, following which a cover sheet 46, preferably of opaque material is applied to conceal the interconnection disposed therebeneath. If desired, the surface 48 of the sheet 46 may be also coated with pressure-sensitive adhesive, thereby enabling the same to adhere to the surface 42 of the mounting member 40. In the preferred embodiment shown, the sheet 46 is maintained in position by a second outer sheet 47 of heat sealable material, the bounding rectilinear edges of which are heat sealed directly to the surface 42 in the manner shown on Figure 8.

Once engaged, as shown on Figures 6, 7 and 9, the individual page portion retaining members 33 may be folded to lie flat against the surface 41 of the mounting member 40, and folded through substantially 180° as required to instantly present a desired surface of an individual page portion 30. As shown in Figure 4 on the drawing, the individual page portions 34 may be readily removed as desired from either side of the envelope portions 35 and 36.

Turning now to the method for forming the second embodiment of the invention, as shown on Figures 10 to 13, inclusive, this method is particularly suited where relatively large individual page portion retaining members are required, as for example, where the same is used in conjunction with a foldable desk blotter retaining device (not shown).

The method is commenced as is indicated on Figure 10 by the placing of a first planar member 66, a second planar member 67, and a third planar member 68 in juxtaposition as shown. The planar members 66—68 are of similar material, and it will be observed that the method of interconnection is generally similar to that employed in the making of the first embodiment of the invention.

Referring to Figure 10, the first planar member 66 is generally rectangular and includes a pair of side edges 69 and 70 as well as end edges 71 and 72. The second planar member 67 includes side edges 73 and 74 as well as end edges 75 and 76. The third planar member 68 includes side edges 77 and 78 as well as end edges 79 and 80. In the initial disposition shown, the second planar member 67 is of a size and configuration sufficient to completely overlie the first planar member 66 and completely underlie the third planar member 68.

With the sealing operation, there is formed a first seal line 81, a second seal line 82, a third seal line 83, a fourth seal line 84, a fifth seal line 85 and a sixth seal line 86. Free of interconnection are the edges 80 and 72 which form entrances to pockets 88 and 89 into which individual index cards 90 may be placed. The portion 91 formed between the free edges 80 and 72 corresponds to the interconnecting part 37 of the first embodiment, and the completed second embodiment is installed upon a mounting member (not shown) exactly as in the first embodiment.

Although the method employed in the making of the second embodiment does not include the severing step which comprises a part of the first embodiment, it will be understood by those skilled in the art to which the invention relates that this step may be included where the individual page portion retaining members are sufficiently small to permit such operation. Where this step is performed, the individual page portions will nevertheless be singly introduced into the respective pockets, owing to the fact that the same are closed on three sides.

It may thus be seen that I have invented novel and highly useful improvements in card carriers and methods for making the same, in which it is possible to eliminate a large part of the heretofore necessary hand fitting of component parts during assembly. By fabricating the individual page portion retaining members and page portions in integral form prior to severing operation, the individual fitting of each card within its corresponding pocket is eliminated. By resort to heat sealing, no sewing operations are necessary. The assembled device may have an attractive appearance and more than adequate durability for its contemplated use, and is easily manipulated by the user.

I wish it to be understood that I do not consider the invention limited to the precise details of structure shown and set forth in this specification, for obvious modifications will occur to those skilled in the art to which the invention pertains.

I claim:

1. The method of making a card carrier for a plurality of index page portions comprising the steps of: (1) providing first and second planar members of synthetic resinous material of generally rectangular shape; (2) interconnecting said first and second members along the peripheral edges and along a line joining two parallel edges thereof to form a pair of envelopes open at at least one edge portion thereof, said envelopes being separated by a generally elongated strip of material; (3) providing a planar mounting member having a plurality of substantially equally spaced slits disposed in substantially parallel relation; (4) inserting one of said pockets through an adjacent pair of slits in said mounting member to a point where said elongated connecting portion is disposed parallel to and contacting a portion of the surface of said mounting member between said adjacent pair of slits.

2. The method of making a card carrier for a plurality of index page portions comprising the steps of: (1) providing first and second planar members of synthetic resinous material of generally rectangular shape; (2) interconnecting said first and second members along the longer edges and along a line parallel to said longer edges thereof to form a pair of envelopes each open at each of two shorter ends thereof and separated by a generally elongated connecting portion; (3) severing said envelopes to form a plurality of similar smaller envelopes; (4) providing a planar mounting member having a plurality of substantially equally spaced slits disposed in substantially parallel relation; (5) inserting one of said pockets through an adjacent pair of slits in said mounting member to a point where said elongated connecting portion is disposed parallel to and contacting a portion of the surface of said mounting member between said adjacent pair of slits.

3. The method of making a card carrier for a plurality of index page portions comprising the steps of: (1) providing first, second and third planar members of synthetic resinous material of generally rectangular shape, one of said planar members being substantially larger in one dimension than the remaining planar members; (2)

interconnecting said first, second and third members along the edges thereof to form a pair of envelopes, each open at at least one edge thereof; and separated by a generally elongated connecting portion; (3) providing a planar mounting member having a plurality of substantially equally spaced slits disposed in substantially parallel relation; (4) inserting one of said pockets through an adjacent pair of slits in said mounting member to a point where said elongated connecting portion is disposed parallel to and contacting a portion of the surface of said mounting member between said adjacent pair of slits.

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