This invention relates to hand luggage and the like, and to a method of constructing the same.

More particularly the invention is directed to that type of bags in which the closure is secured or opened by means of the usual well-known hookless fastener mechanisms.

In such bags, the hookless fastener elements, which are carried by flexible fabric tapes, are positioned along or adjacent to the edges of the body portion of the bag and of the cover portion of the bag. Consequently, in the normal use of the bag, in putting things in and taking them out, these tapes become displaced and folded over the edges of the cover or of the body portion. When the cover is then shut down on the body portion, which is done before the tapes and fastening elements are brought into engagement, the latter are caught between the cover and the edge of the body portion and not only may be crushed and deformed but are prevented from being carried into engagement with each other in the usual way. In such cases, the tapes have to be straightened out before the bag can be closed or may have to be repaired, which, of course, is extremely inconvenient.

It is accordingly an object of the present invention to provide for the construction of bags and the like whereby these difficulties may be overcome and whereby the opening and closing and fastening and unfastening of such bags may be facilitated and assured. Other objects will appear from the following disclosure.

In accordance with the present invention, a bag is made having a body portion and a cover portion, cooperating to form a mouth and a closure therefor, in which the free edge of the body portion, defining the mouth, is preferably made wide enough to engage and retain thereon the corresponding edge of a rim mounted on the margin of the cover portion. The contacting edge of the rim on the cover portion is preferably thin or narrow, or recessed from the outer margins of the cover portion and body portion.

Attached along and extending above the outer edge of the body portion is attached one side of a longitudinal tape carrying on its free edge a row of the usual hookless fastener elements, adapted to engage with the row of similar elements mounted on the outer edge of the body portion. Upon closing the cover and effecting engagement between the two rows of hookless fastening elements, thus opposed, the rows of fastening elements are held out and away from the meeting edges of the cover and body portion, and hence are prevented from becoming pinched between them. Since the tape and fastening elements on the cover are above the edge of the rim, they are positively prevented from such intervention. And since the meeting edge of the cover lies appreciably within the outer periphery of the top edge of the body portion, the tape attached on the outer side of the latter, even if folded over, can not reach the point where the edge of the cover portion comes into engagement therewith.

Typical embodiments of the invention as thus generally outlined will be described with reference to the accompanying drawings in which:

Fig. 1 is a perspective view of a suitcase made in accordance with the invention, in closed position and as usually set down, resting upon the back wall;

Fig. 2 is an end view of the same, resting upon its bottom wall and with the top wall or cover in raised position;

Fig. 3 is a view of the inside of the cover and of a part of the body portion, along the line 3—3 of Fig. 2, the rest of the body portion being broken away;

Fig. 4 is an enlarged detail cross-section along the lines 4—4 of Fig. 1, in the direction of the arrows;

Fig. 5 is similar to Fig. 4, showing a modified form of rim and arrangement thereon of the cover portion;

Fig. 6 is likewise similar to Fig. 4, showing a further modification of the rim and arrangement thereof on the cover portion;

Fig. 7 is a view of a piece of impregnated fabric tape carrying hookless fastener elements;

Fig. 8 is a view of a piece of impregnated fabric tape carrying hookless fastener elements, impregnated along the edge not carrying the fastener elements;

Fig. 9 is a plan view of the inside of the cover portion and a part of the body portion of a suitcase, showing a modified form of the invention;

Fig. 10 is an enlarged detail cross-section of the cover portion shown in Fig. 9, along the line 10—10 in the direction of the arrows, with
the fastener elements and covering material omitted;

Fig. 11 is a similar enlarged detail cross-section of the cover, shown in Fig. 9, along the line 11—11 in the direction of the arrows;

Fig. 13 is an enlarged detail cross-section of a part of the cover portion and body portion (when closed), along the line 10—10 of Fig. 9, in the direction of the arrows;

Fig. 13 is an enlarged detail cross-section of a corner of the cover portion and body portion (when closed), along the line 13—13 of Fig. 9;

Fig. 14 is a cross-section, similar to that of Fig. 12 or 13, showing a modified form of the invention;

Fig. 15 is an enlarged detail cross-section of the top of the body portion of a piece of hand luggage, or the like, showing a special mode of attaching the tape of hookless fastener elements thereto;

Fig. 16 is a similar enlarged detail cross-section of the top of the body portion of a bag or the like, showing a special mode of attaching the tape of hookless fastener elements thereto, and assembly with the covering material for the body portion.

In the illustration in Fig. 1, the finished suitcase is shown, closed and fastened and resting upon the back wall which is the bottom when carried. The body portion of the suitcase is made up (see Fig. 2) of a substantially rectangular bottom wall 1, to which is attached around its periphery the surrounding wall 2—which is continuous but may be considered as made up of a back wall 3, a front wall 4 and two end walls 5, 6—and a top or cover portion 7, substantially the same size and shape positioned opposite and parallel to the bottom wall 1, and hinged to the back wall 3 in any convenient way, as indicated at 8.

The bottom wall 1 may be made of any suitable stiff sheet material such as paper, wood, etc., and covered in the usual way. The surrounding or side walls are likewise preferably made of suitable material of substantial thickness, such as specially manufactured paper or wood 9, as shown in Fig. 4. The inside of the wall may be covered with a suitable lining 11, while the top edge of the wall 12 is covered with a suitable finishing such as a band of cloth 13, fitting snugly over it and secured thereto as will be described below.

The covering of the side walls may be composed of various kinds of sheet material 14 along the upper edge 15 of which is laid a tape 16 having hookless fastener elements 17 extending beyond its outer edge and being joined to a strip 18, by a layer of cement 19. The upper edge 15 of the covering material 14, the tape 16, and the strip 18 are sewn together by a row of stitching 21. The whole, as thus joined, is sewn to the surrounding wall of the body portion of the case with the upper edge parallel and adjacent to and preferably slightly overlapping the top edge 12 of the wall, as shown in Fig. 4. It is then sewn to the body portion of the box by the row of stitching 22 which passes therethrough and through the band of cloth 13 covering the top edge of the wall, as above mentioned.

The portion 7 is made of stiff sheet or board 20, provided with a sheet covering material 23, over its outer surface, the margins of which lie even with the margins of the cover and are attached to one edge of a strip of tape 24, carrying on its outer edge a row of hookless fasteners 25, by a row of stitching 26, as shown in Fig. 4.

On the inside of the cover, and adjacent to and parallel with its outer edge, is attached a downwardly projecting rim 27 having means along its upper edge for attachment to the cover, and its lower edge corresponding and conforming to the surrounding wall 2, so as to rest thereon and rest upon the top edge 12 thereof, and preferably in the middle or near the inner periphery 12 of the same.

The downwardly projecting rim on the cover portion may be provided in several ways. As shown in Fig. 4, it may be made of metal having perforated tabs 28 along its upper edge, bent inwardly at right angles to receive rivets or eyelets 29 passing therethrough and through the margin of the cover board 20, and headed down, to hold the rim firmly and rigidly in position.

The lower edge may be rolled inwardly as at 31 to provide a smooth, round edge adapted to bear upon the edge 12 of the wall 2, as shown. The covering material 23 may then be sewed to the board 20 by the row of stitching 32. Upon now closing the cover 7, the rolled rim 31 bears upon the top wall 12 of the body portion, and the hookless fastener elements 17 and 25 may be interengaged in the usual way by the slider key 33, to close and fasten the suitcase, as it is shown in Fig. 4.

A form of rim is shown in Fig. 5 in which the depending portion 34 is provided with tabs 35, bent outwardly at right angles and adapted to receive rivets or eyelets 30 therethrough and through the margin of the cover board 20, while the lower edge 36 is rolled outwardly, and in position to bear upon the top edge 12 of the surrounding wall 2 of the body portion, near its inner periphery or edge 12. In this arrangement the fastening elements 17 and 25 may be interengaged as before, but are free and spaced apart from the body portion and the rim of the cover.

While they may receive tensile stresses, therefore, the fastener tabs are not subjected to compression or buckling or folding. Moreover, the tapes carrying the hookless fasteners cannot be caught between engaging edges of the cover portion and the surrounding wall because the upper tape can not reach to the edge of the rim, and the lower tape is retained stifferly in position by the strip 18 and margin of covering material 14, between which it is secured—and also by stiffening the same, as will be described below.

The distance which the tape on the body portion projects above the top edge of the wall 2 (as shown in Figs. 4 and 5) may be considerably reduced, if desired, without necessitating that the upper tape come even with or below the edge of the rim on the cover (in order for the fasteners to engage with each other)—and hence without possibility of being caught between the rim on the cover and the top wall of the body portion.

The arrangement shown in Fig. 5 still further precludes this possibility.

Still further to protect the tapes carrying the hookless fastening elements, it is found that they may be impregnated with stiffening or sizing materials, such as gums, resins, and glues and the like, as indicated at 31 in Fig. 7, thus making the tape stiff and resilient or form retaining and also more firmly retentive of the fastening elements in relation to the cover and
wall and also of their relative positions to each other. Or the free side or margin only of such tapes may be sized, as indicated in Fig. 8, leaving the margin carrying the fastening elements freely flexible. Conversely, the edge of the tape carrying the fastening elements may be stiffened by sizing, either before or after the hookless fastening elements have been attached thereto, and the other side left soft, for some purposes, such as sewing to irregular or flexible materials. Various sizing agents for fabrics may be used, such as water-resisting glues, synthetic resin solutions, various cellulose solutions and the like, which develop stiffness and leave the impregnated portion of the tape firm and strong but preferably resilient rather than hard or brittle.

A modified form of suitcase made in accordance with the invention is shown in Figs. 6 and 9 to 13. In this form the cover and body wall are likewise substantially rectangular in shape, and similarly constructed, and accordingly like numerals are employed to indicate like parts. However, the cover 41 is provided on the inside margin 38 of the cover with a rim, which is made up of straight wooden strips 42, 43 parallel to the straight edges of the cover and thin metal or wooden strips 43, 43 set into and joined thereto, at the ends, as by eyelets or rivets 44, at the corners. The thin strips 43 are thus let into the inner sides of the ends of the straight strips 42 so that, at the corners especially, the rim is recessed appreciably inwardly from the margins of the cover, as shown in Fig. 9. The straight strips 42, as shown, are attached to the cover 20 by brads or the like 45 which may be turned up at their points 46, as indicated in Fig. 10.

Upon closing the cover 41 upon the body portion, the lower edge 41 of the rim corresponds to and rests upon the top wall 12 of the body portion and may be of equal width therewith, as shown in Fig. 12. But at the corners, where the tapes carrying the hookless fastener elements 17 and 51, especially tend to be drawn inwardly, the lower edges 48 of the thinner corner pieces 43 will not bear upon the full width of the top edge 12 of the body wall but on or near its inner peripheral edge 12 as shown in Fig. 13, and thus prevent the fastening elements or tapes from coming between the engaging edges of the cover and wall of the body portion.

If it is desired to make the rim of the same cross-section throughout, which is usually preferred, this may be accomplished by making it somewhat V-shaped, like the rim 49 shown in Fig. 14—the inner side 51 being vertical and the outer side 52 slanting inwardly from the margin of the cover board 20, thus standing away from the row of hookless fasteners at all points and affording a firm bearing between the rim on the cover portion and the top edge of the wall of the body portion, when closed.

Another form of this construction is shown in Fig. 6, in which the rim 53 is vertical on its inner side 55 set inward from the margin of the cover board 20, while the edge 56 bears on the inner portion of the top edge 12 of the body portion. In all forms the rim on the cover portion may be left bare or it may have a sheet of appropriate covering material 57 applied over it, as in Fig. 14, and held by customary adhesives or cement, or may be retained between the edge of the board 28 and covering material 23 of the cover 1, and by stitching 58, as shown in Fig. 14.

A modified form of attachment for tapes carrying hookless fastener elements, especially on the body portion of a suitcase, for example, is shown in Figs. 15 and 16. In such arrangement, the tape 61 is laid along and near the top edge (e.g., of the surrounding wall 2 of the body portion of the suitcase), with the free edge 62 of the tape adjacent the edge of the wall and the fastening elements pointing downwardly and away from the edge of the wall. The tape is then sewed to the wall along its middle or near its free edge, with a row of stitching 63. The tape 61 is then folded up, as shown in Fig. 16. The sheet covering material 64 may then be provided with a filler strip 65 along its margin and an edging or binding strip 66 laid thereover and sewn to the covering material by a row of stitching 67. The free edges of the sheet material 64 and of the filler strip 65 are then brought firmly upward against the folded edge 68 of the tape 61, and the sheet material, filler strip, and binding strip are firmly attached to the side wall in this position by a row of stitching 69. By this arrangement, and especially if the tape is stiffened by sizing as above described, the tape and the hookless fastening elements thereon are made to stand away from the edge to which they are fastened. This arrangement of hookless fastener tapes is applicable generally to those instances of use where it is important that the fastener tape and fastener elements on it shall not intervene between the remaining portions and especially between the adjacent edges of the objects which are being joined together by the fasteners.

I claim:

1. A bag, having a body portion and a cover portion, a tape, carrying hookless fastening elements on one edge and attached along the other edge to the margin of the cover portion, another tape carrying hookless fastening elements on one edge and attached along its other edge to the corresponding margin of the body portion, said fastening elements being adapted to interengage when the bag is closed, and a stiff rim on the inside of the cover portion substantially parallel to, but recessed from the margin of the cover portion and adapted to engage the inner periphery of the edge of the body portion when the bag is closed, the line of engagement between the cover portion and body portion being beyond possible contact with said hookless fastener elements.

2. A bag, having a body portion and a cover portion, a tape, carrying hookless fastening elements on one edge and attached along the other edge to the margin of the cover portion, another tape carrying hookless fastening elements on one edge and attached along its other edge to the corresponding margin of the body portion, said fastening elements being adapted to interengage when the bag is closed, the free edge of the body portion presenting a wide surface therefore, and a stiff rim on the inside of the cover portion substantially parallel to, but recessed from the margin of the cover portion and adapted to engage the inner periphery of the edge of the body portion when the bag is closed, the line of engagement between the cover portion and body portion being beyond possible contact with said hookless fastener elements.

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