June 23, 1931. H. F. WELTZ 1,810,993

METHOD OF MANUFACTURING TRAVELING BAGS

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FIG. 1.

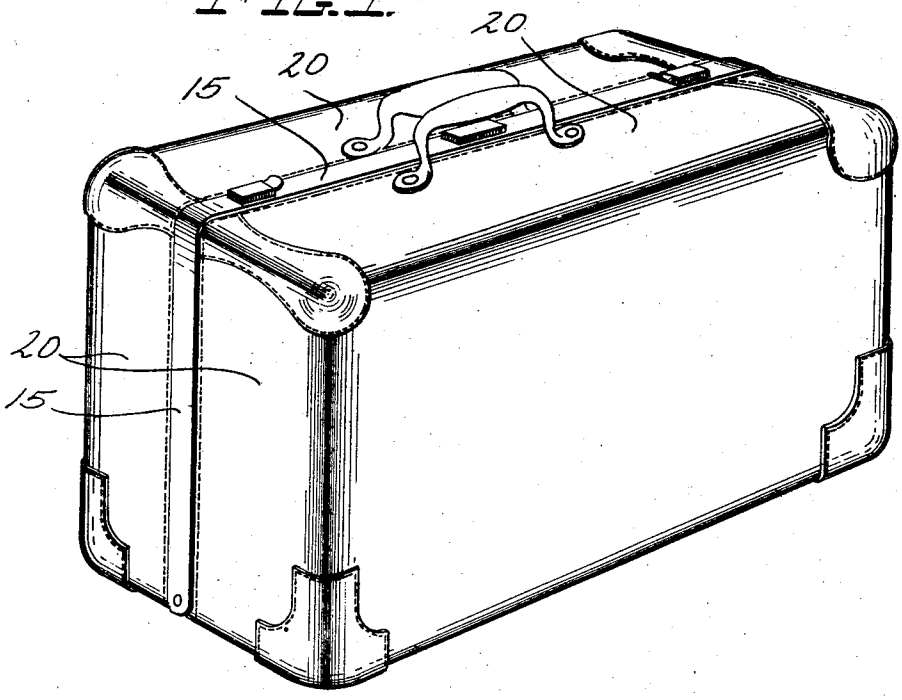
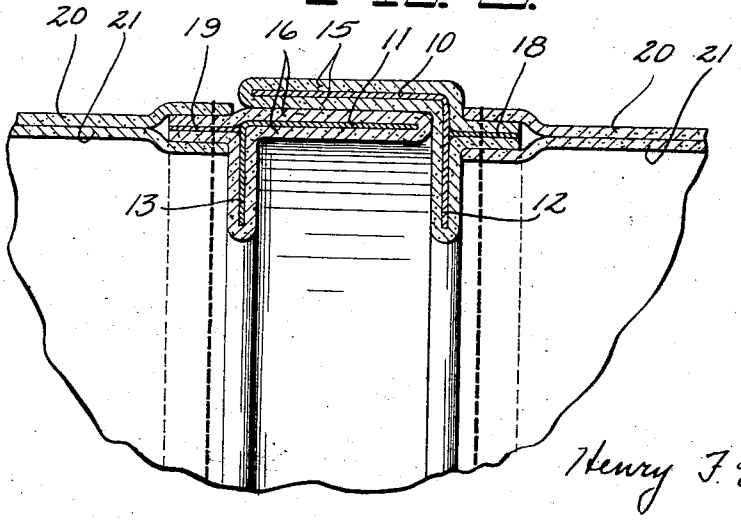


FIG. 2.



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FIG. 4.

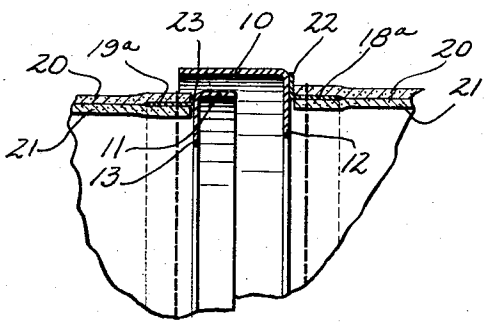
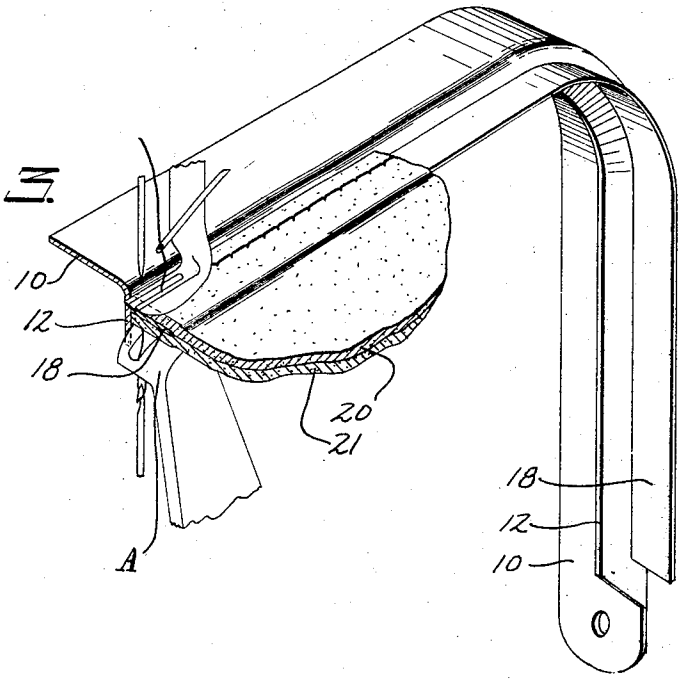


FIG. 3.



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UNITED STATES PATENT OFFICE

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METHOD OF MANUFACTURING TRAVELING BAGS

Application filed November 11, 1929. Serial No. 406,434.

My invention relates to improvements in methods of manufacturing traveling bags, this application being a continuation in part of a former application for a patent on improvements in hand luggage Serial No. 157,738 filed by me December 29, 1926.

The object of my improved method is to make possible an additional operation to be performed by the manufacturer of bag frames whereby to facilitate the attachment of the bag to the frame at greatly reduced cost and more handily, quickly, and with better job results than by any of the methods heretofore practiced, and also to produce more durable and more attractive bags than those heretofore produced by the more expensive methods.

More particularly stated, it is my object to provide means whereby a metal connecting and reinforcing piece may be applied to the jaws of a bag frame and secured thereto at nominal cost and with the connector piece in such a position with reference to the frame, that the bag may be applied and sewed thereto by an ordinary bag sewing machine, for the operation of which the connector and jaw serve as a guide and relieve the operator of the sewing machine from a considerable portion of the labor and a major portion of the skill and experience heretofore required for a successful bag sewing operation.

Another object is to provide means whereby bag frames may be constructed without any reference to, or provision for, the connection of bag bodies thereto, the connection of such bodies being accomplished by special attachments applied after the frames have been completed.

A further object is to provide a method for connecting bags with the frame jaws which will result not only in a secure connection of the bag with a perfectly straight line of stitching, but which will permanently hold the sewed margins of a bag in fixed relation to the jaw frame against strains tending either to lateral separation from the jaws, or movement transverse to a direction of lateral separation which, if permitted, would tend to break or cut stitches and expose the margins of the bag to pressure contacts or impacts tending to permanently displace them.

A further object of my invention is to eliminate the necessity of covering the jaws of traveling bags (even those of the cheap grades of Gladstone bags) thereby making it possible to manufacture Gladstone bags at a low cost heretofore thought impossible to attain with commercial success.

In the drawings:

Figure 1 is an isometric view of a Gladstone bag constructed in accordance with my improved method.

Figure 2 is a fragmentary sectional view drawn generally to line 2—2 in Fig. 1.

Figure 3 is an isometric view of a fragment of a bag frame jaw and bag, and illustrating the sewing operation.

Figure 4 is a fragmentary illustration showing a modified form of connector strip.

Like parts are identified by the same reference characters throughout the several views.

By my improved process I first form the jaws of the bag frame and subsequently secure thereto, preferably to the outer surfaces of the inturned or supporting flange of each jaw, a relatively thin metallic connector strip in a plane preferably perpendicular or nearly perpendicular to the surface of the jaw flange to which it is attached. This connector strip may be secured to the jaw flange by any suitable means such as welding, although it is not material to the invention herein claimed whether the strip be welded, riveted or otherwise secured. It should be supported with substantial rigidity along the line where its laterally projecting portion meets the surface of the jaw flange. Preferably this line is inset from the outer surface of the jaw flange a distance substantially equal to the thickness of the bag cover, such covers being ordinarily formed of leather. A metal strip is employed for the reason that it will not stretch or yield in its own plane, and for the further reason that it can be welded or otherwise attached to the jaw permanently and it forms a shelf which will not yield materially

in planes transverse to its flat surface, at least near the line of its connection.

The work of attaching the connector strips to the bag frame may be conveniently performed at the factory where the jaws are manufactured. It is customary to stamp such jaws from sheet metal and these sheet metal connectors may be also stamped or cut from sheet metal strips, shaped and attached to the jaws with but slight expense over that required for the manufacture of jaws without such connector strips. I employ strips which are not only relatively thin, but which are composed of so-called soft steel. Ordinary commercial sheet steel of .015 gauge will be found satisfactory. This steel is classed as "soft" or "medium soft" and the needle of an ordinary bag sewing machine will readily pass through it, particularly if the needle first passes through the leather covering of the bag.

After the connector pieces have been applied to the jaws, the jaws may be delivered to the bag maker who thereupon applies the bag thereto with the cover portion marginally abutting the jaws and resting upon the connector. A bag sewing machine is then adjusted in position as illustrated in Fig. 3, with the anvil of the machine bearing against and adapted to travel along the outer surface of the jaw, thereby ensuring operation of the machine along a straight line expeditiously and with uniform results, said line being offset from the jaw whereby the stitching operation is wholly independent of and unaffected by any structural feature of the jaw, and the needle is not required to pass through any portion of the jaw. The jaws of bags made by my improved process may therefore be constructed without any reference to the operations by which the bags are to be connected.

If the bag is to be provided with a lining, this lining will preferably be applied, along its margin, to the under side of the connector strip so that when the sewing operation is completed the connector strip will be interposed between the lining and the cover, and thereby entirely concealed from view, although it will effectively hold the margins of both the lining and the cover in a substantially fixed relation to the jaw flange and almost wholly relieve the stitching from strains tending to break individual stitches.

In Fig. 2 the closure flanges 10 and 11 of a set of bag frame jaws are respectively provided with inwardly projecting supporting flanges 12 and 13. These may be regarded as typical of the ordinary jaws or frame members of the so-called Gladstone bags, although they are also used for bags of other types. But in the practice of the invention herein disclosed the form of jaw employed is, in general, not material, and it is also immaterial whether it has a nonmetallic covering.

The characteristic features of my process reside in the fact that it involves the use of a rigid or semi-rigid non-stretching attachment which may be permanently secured to the bag frame jaws after the latter have been completed,—which may be secured in any manner suitable for the connection of metal to metal—which tends to facilitate instead of obstructing the operation of sewing the bag in position, and which has no tendency to weaken the jaws, but on the contrary tends to strengthen them.

The connector strips 18 and 19 are formed of thin sheet metal separately stamped or cut to the required length and width and shaped to fit the jaws to which they are applied. Thereafter they are placed in position against the outer surfaces of the supporting flanges 12 and 13 or the outer edge margins of the closure flanges as indicated at the left hand side in Fig. 2, although they are preferably inset to some extent from the outer surfaces of the closure flanges. These strips may then be secured to the respective jaws as heretofore explained. Probably the least expensive form of connection can be obtained by welding them in position, with the connector strips substantially perpendicular to the supporting flanges 12 and 13, although the exact planes in which they lie may be varied in correspondence with the type of bag to be manufactured and the position of the leather covering 20 in the top and end portions of the bag.

After attaching the connector strips to the jaw frames the bag cover 20 and its lining 21, if any, will have its margins applied to the connector strips preparatory to the sewing operation, the lining being preferably applied to the under side of the connector strip as shown in the drawings. If the jaw frames are to be covered with any nonmetallic material such as the leather covers 15 and 16, in Fig. 2, these will of course be previously applied, and their margins will preferably be extended upon the upper and lower surfaces of the connector strips 18 and 19.

Whether these connector strips are covered or not, they serve as shelves to support the bag during the sewing operation, and the closure flange of each may also serve as a guide for the sewing machine indicated in Fig. 3, the anvil A of which has relative travel along the outer surface of the supporting flange at the junction of the connector strip therewith, i. e., in the angle formed by the under side of the connector strip with the supporting flange. During these sewing operations, the needles pass through the material composing the bags and through the thin metal of the connector strips. It will be apparent in Fig. 3 that during the sewing operation the bag frame may be supported by the connector strip upon the anvil A of the sewing machine. This relieves the operator

of much of the care and skill heretofore required to hold the bag and its frame in proper position, and if the supporting flange of the jaw is kept in contact with the anvil it will be impossible to stitch otherwise than in a straight line.

By butting the bag cover and its lining directly against the surfaces of the supporting flange where this is made possible by insetting the connector from the associated closure flange, it is obvious that the margins of the bag will be protected and substantially rigidly supported.

It is not material to the invention herein claimed whether the bag frame jaws are pivotally connected with each other prior to the sewing operation, or whether the pivotal connection is subsequently made. Where the character of the bag is such that the sewing operation may be readily performed upon pivotally connected jaws, they may be first connected and subsequently sewed, but in other cases the jaws may be left unconnected until after the sewing operation.

In Fig. 4 I have illustrated connector strips 18*a* and 19*a* of a modified form in which these strips have upturned flanges 22 and 23 respectively. Such flanges on the connector strips facilitate welding or riveting operations which, if performed at points sufficiently close to the laterally extending portions of the strips 18*a* and 19*a*, will support such strips with substantial rigidity along their inner margins, and with great rigidity at the ends of the bag in the elbow portions of the strips where additional strength and rigidity are desirable.

In Fig. 4 also, the jaw frames are illustrated as uncovered, although it may be assumed that they will be enameled or otherwise provided with finished surfaces.

I claim:

1. The method of forming traveling bags consisting in first completing a set of jaw frames, and then securing to their outer surfaces along lines inset from their outer margins, a set of laterally projecting metal connector strips of sufficient thinness and softness to permit stitching operations by an ordinary bag sewing machine, then applying the marginal portions of a bag to said connector strips with its edges abutting the jaw frames, and machine stitching the same to the connector strips while supporting and guiding the jaw and connector strip upon a portion of the sewing machine in the angle at the line of their connection for straight line stitching at a uniform distance from the frame.

2. The method of manufacturing traveling bags consisting in first connecting a metallic strip to a jaw frame, then applying a bag along one margin in covering relation to one surface of the strip, supporting the bag frame upon the anvil of a bag sewing machine with the anvil in the angle formed by the strip with the frame surface to which it is connected, and stitching the bag to the strip along a line determined by such position of the work upon said anvil.

HENRY F. WELTZ.