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B. A. OTTEN

1,866,483

BAG FRAME

Filed Nov. 11, 1929

FIG. 1.

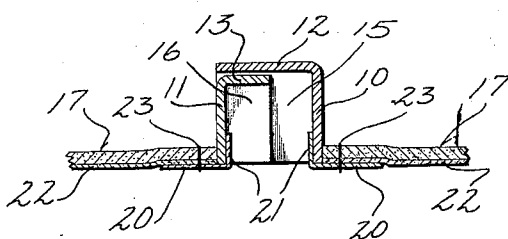


FIG. 2.

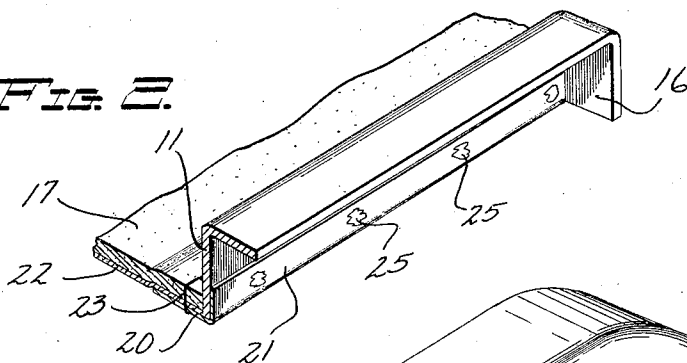
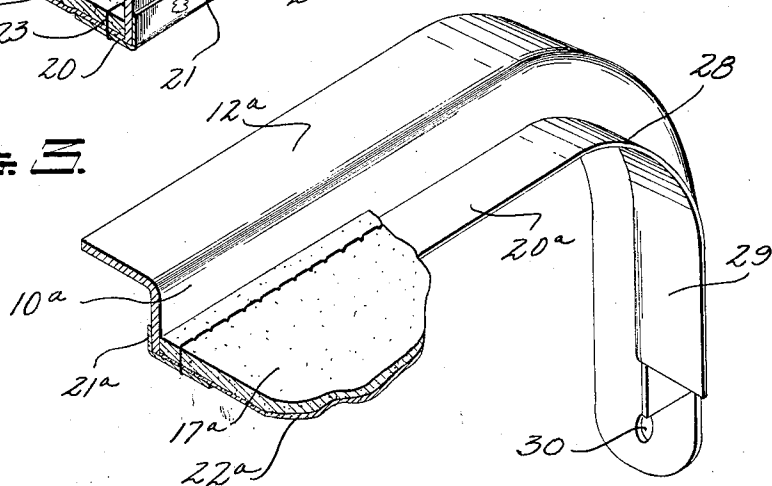


FIG. 3.



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BAG FRAME

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My invention relates to improvements in bag frames.

Heretofore four methods have been employed to facilitate the connection of traveling bags of various types with their frames. By the oldest method, the frame members are encased in leather or other wrappings, portions of which are projected laterally of the frame to allow the bag to be stitched thereto. These connections stretch and become displaced. A later method is to provide the frame members with apertures through which stitches can be taken. These apertures weaken the frame, and during machine stitching it is difficult to get the needle to invariably register with the openings, and many needles are broken. A third method is to make the frame members thin enough so that the needles may pass through them, but such frame members are necessarily too weak to provide durable bags, and more recently thin metal connector strips have been welded or otherwise secured to the exterior surfaces of the frame members, and the bag stitched thereto. These are quite satisfactory for certain types of bag, but it is recognized as desirable, at least in some cases, to provide for increased security and rigidity in the connection of the strip with the frame.

The object of the invention herein disclosed is to re-organize bag frames of the last mentioned type in such a manner that the connector strip may be welded to the inner surface of the associated frame member, or the supporting flanges thereof, and disposed with one flange of the connector projecting across the inner margin of the supporting flange of the jaw, whereby the bag may be applied and stitched in a manner similar to that followed in said former method, but with less strain upon the points of connection with the jaw.

A further object of my invention is to provide means whereby the operation of securing the above mentioned connector strips to bag frame jaws may be expedited, and whereby the connector strip may be made to more effectively reinforce the jaw and make possible the use of jaws of less thickness, width of supporting flange and weight than has heretofore been thought necessary.

In the drawing:

Figure 1 is a cross sectional view of two bag frame jaws to which my invention has been applied, fragments of the bag being also illustrated in associated relation to the jaws and connected thereto.

Figure 2 is an isometric view of a portion of a brief bag, or so-called kit bag, to which my invention has been applied, said view illustrating the manner in which the connector strip is spot welded to the supporting jaw flange.

Figure 3 is a fragmentary view of a hinged bag frame jaw to which my invention has been applied.

In Figure 1 the supporting flanges 10 and 11 and their respective closure flanges 12 and 13 may be assumed to represent the jaws of any ordinary type of bag, although the specific illustration indicates the jaws of a kit bag with end flanges 15 and 16, respectively. The bag 17 has its margins butted against the flanges 10 and 11, respectively, and secured thereto by thin metal connector strips 20, each having an upwardly turned or elbowed portion 21 which fits against the inner surfaces of the associated supporting flanges 10 and 11, respectively. If a lining 22 is employed, its marginal portions will be preferably interposed between the bag and the connector strip 20, and both the bag and its lining will be secured to the connector strip by a line of stitching 23.

For convenience in description the flanges which occupy vertical planes when the bag is in a normal upright position are called the supporting flanges, and the faces of these flanges which are opposed when the jaws are closed are termed the inner faces, as opposed to the exposed faces against which the bag cover margins are butted.

The supporting flanges 10 and 11 with their associated closure flanges 12 and 13, respectively, and the thin metal connector strips with their outwardly turned portions 20a form what may be conveniently termed Z-shaped frame members, in which the lower arm is relatively thin and the intermediate portion perpendicular to the other two. The term "Z-shaped" is used notwithstanding the

fact that one of the jaws will have the form of a reversed Z-shape with reference to the other when viewed from the same point. The structure above described may be stamped or pressed from sheet metal as an article of manufacture constituting the product of a metal working plant, operated independently of the bag factories to which these articles may be delivered to facilitate manufacture of bags.

The upturned flanges 21 of the connector will be secured to the jaw flanges 10 and 11 by any suitable means. Spot welding, as indicated at 25, will be found less expensive than riveting and the points of connection need not be very close together, for the reason that the flanges or connector strips 20 are placed directly against the inner margins of the jaw flanges 10 and 11 against the inner surface of which the flanges 21 are applied. Therefore the relatively thick metal of the jaw flanges 10 and 11 will resist pulling strains exerted by the bag independently of the connections 25 and will also resist outward pressure exerted by the contents of the bag against the connector strips 20. The connector strips also form covers for the inner margins of the jaws 10 and 11 to protect the contents of the bag from contact with such jaws and provide rounded surfaces 26 at said elbows.

The jaw 11 is shown in Figure 2 and it will be observed that the connector strips 20, for jaws of the kit type of bag, comprise straight angle bars which may be interchangeably applied to the respective jaws 10 and 11 by merely reversing them end for end. But when applied to the hinged bag frame jaws 10a of the type shown in Figure 2, the connector strips 20a will have their end portions bent, or elbowed, as indicated at 28, whereby the portions 29 of the strip may be extended downwardly into proximity with the extremity 10a near the hinge pin aperture 30. Otherwise the structure is substantially the same as that shown in Figures 1 and 2 and the bag 17a, with its lining 22a, is stitched to the connector in the same manner. The upturned flange 21a of the connector will also follow the contour of the jaw throughout the entire length of the connector strip 20a.

It will be observed that my invention makes possible a connection of the bag to the inner marginal portions of the supporting jaw flanges so that the major portions of the jaws occupy positions exterior to the space inclosed by the bag proper, and the closure flanges are sufficiently distant from the space occupied by the contents of the bag to largely avoid the danger of catching and tearing clothing, or otherwise damaging the contents when the jaws are being closed. Also, the margins of the bag 17 are inset and butted against the supporting flanges at such

a distance from the closure flanges as to protect the margins of the leather from being caught, damaged, or torn away by other particles of baggage during transportation or storage.

By folding the connector strip about the inner margin of the supporting jaw flange and welding the strip to the inner surface of such flange, the connector strip is not only reinforced by the jaw flange, but the jaw flange, itself, is reinforced and strengthened in two directions by the connector strip. It, therefore, becomes possible to use thinner material or material of less width in the manufacture of the jaws since ordinarily the thickness of the material in a bag frame jaw is determined by the required strength of the supporting flange as distinguished from that of the closure flange. Ordinarily, however, the reinforcement will be utilized to make possible a supporting flange of less width than those heretofore employed for bags of equal capacity. The inner edge of the supporting flange furnishes a line of substantially rigid support along the connector strip elbow, and in close proximity to the stitching thus providing great resistance against internal pressures.

I claim:

The combination with a travelling bag, of a set of bag frame jaws, each composed of three members including a central member substantially perpendicular to the other two members, said other two members extending in opposite directions from the upper and lower margins of the central member to form upper and lower flanges, the lower member being secured to the inner face of the intermediate member and folded across the lower margin thereof and extending outwardly to form a bag supporting flange, said lower member acting to protect the contents of the bag from contacting with the lower margin of the intermediate member, said bag having its marginal portions secured to the upper surfaces of the flanges provided by the lower members of the jaws.

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