

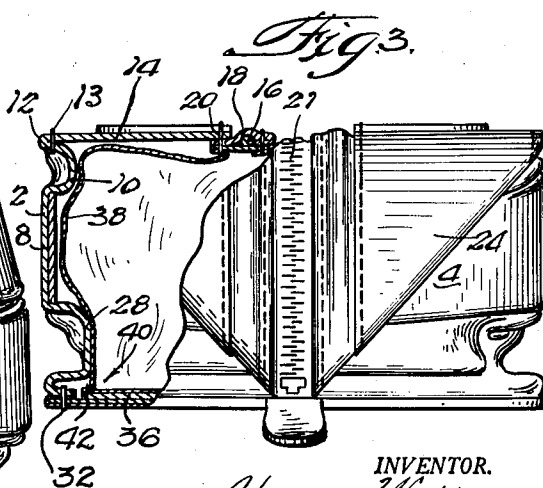
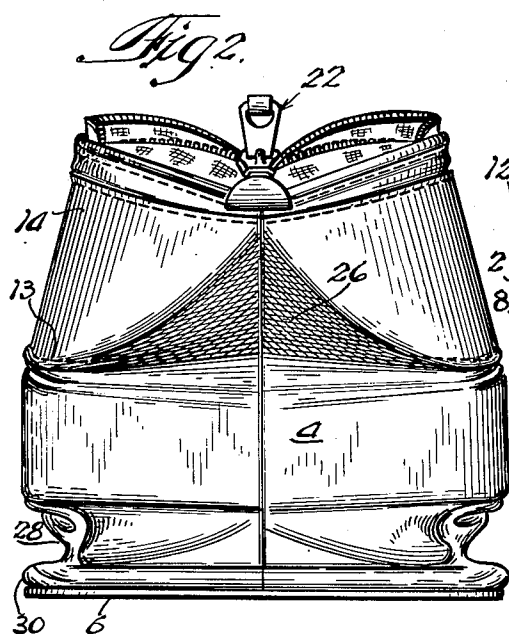
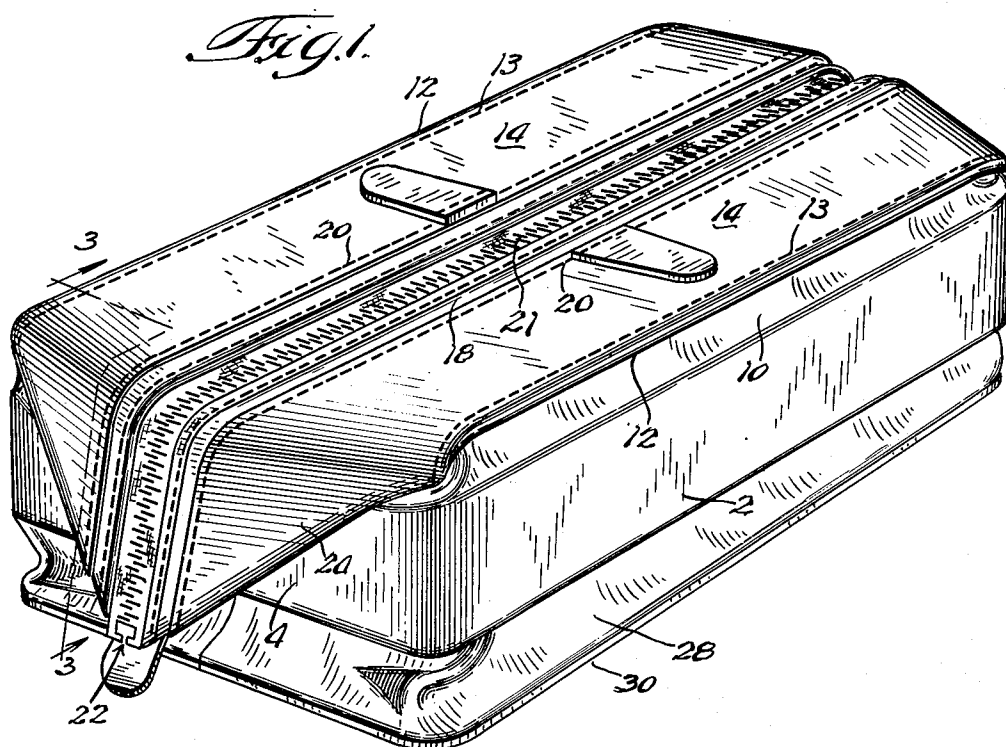
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UTILITY CASE

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UNITED STATES PATENT OFFICE

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UTILITY CASE

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2 Claims. (Cl. 190—48)

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This invention relates to containers, and more particularly to a novel utility bag or case.

Prior art cases of this type have not been generally satisfactory, inasmuch as they are not durable in service and do not maintain an attractive appearance due to development of unsightly wrinkles and cracks, particularly adjacent the upper and lower ends of such cases which are frequently squeezed into narrow spaces or are tightly packed in larger bags.

Efforts have been made to develop utility cases which would avoid these disadvantages; however, such efforts have resulted in utilizing either a plurality of vertically spaced reinforcing strips such as cardboard around the sides and ends of the case, or in utilizing a single strip in combination with a bellows construction, as disclosed by Doppelt Patent No. 2,123,454 issued on July 12, 1938.

However, the use of a plurality of strips has resulted in undesirable pinching of the casing between the strips, and the bellows construction has not only proved to lack durability due to cracking of the casing, but has been found to impart excessive vertical flexibility to the bag.

A further undesirable characteristic of prior art cases has been excessive wear at the juncture of the top flaps with the side walls, due to the fact that those skilled in the art have felt that provision of hinges for such flaps was either impractical or unduly expensive.

Still another disadvantage of such prior art cases has been wrinkling of the bottom surface of the waterproof envelope which is fastened therein, said wrinkling permitting the collection of fine particles, such as dust and powder in the bottom of the case and said wrinkling also complicating packing of the same.

Accordingly, a primary object of the present invention is to devise a utility case having sufficient rigidity to maintain its normal shape and having an economical construction capable of long life in service.

Another object of the invention is to prevent rapid deterioration of the casing due to cracking or pinching thereof between reinforcing strips.

Still another object of the invention is to prevent wrinkling of the waterproof envelope along the bottom surface thereof, and to accommodate shifting of the bottom surface of the envelope, to facilitate packing and opening and closing of the case with articles of various shapes therein.

A further object of the invention is to provide novel and economical hinge means between the top flaps and the side walls of the case.

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The foregoing and other advantages of the invention will become apparent from a consideration of the following specification and accompanying drawings, wherein:

Fig. 1 is a perspective view of the novel case in closed position;

Fig. 2 is an end view of the case in open position; and

Fig. 3 is an end view of the case in closed position, partly in section on line 3—3 of Fig. 1.

Describing the invention in detail, the novel bag or case comprises a flexible casing of leather, plastic or other suitable material, said casing having side walls 2, end walls 4, and a bottom wall 6.

Extending entirely around the side and end walls is a preferably continuous strip 8 (Fig. 3) of flexible stiffener material, such as cardboard or plastic, which is preferably secured as by adhesive to the inner surface of said side and end walls 2 and 4, respectively, and is disposed between the upper and lower ends thereof for a purpose hereinafter described.

Each side wall 2 and end wall 4, as best seen in Figure 3, is folded inwardly at 10 along the upper edge of the strip 8, to define a single inward fold, the upper edge of which is formed with a re-entrant fold 12 stitched at 13 from end to end of the side wall 2 and extending around the end walls 4. The inner edges of the folds 12 are formed with integral top flaps 14 which provide a closure for the container and are preferably reinforced by stiffener bars 16 within coverings 18 stitched as at 20 to the adjacent edges of the flaps 14. The coverings 18 also afford convenient mounting for fastener elements 21 of a conventional slide fastener device 22 adapted to seal the case when the flaps are in closed position as shown in Figures 1 and 3.

The flaps 14 are provided with end extensions 24 merging with corresponding upper extensions 26 (Fig. 2) of the end walls 4, to prevent bulging of the end walls, as the flaps 14 are opened and closed.

It has been discovered, in this connection, that the stitched, re-entrant folds 12 cause the folds 10 to function as hinges, as the flaps are moved to the open position of Figure 2 and to the closed position of Figures 1 and 3, whereby said hinges prevent creasing and cracking of the side walls 2 due to opening and closing of the flaps in service.

The side walls 2 and end walls 4 are also folded inwardly at 28 along the bottom edge of the strip 8, the lower edge of the fold 28 being provided with a re-entrant fold 30, the inner edge of which is stitched as at 32 to the bottom wall 6 of the case.

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The bottom wall 6 affords a slidable seat for a stiff backing plate 36 of cardboard or other suitable material, and an inner waterproof envelope 38 is folded outwardly at 40 around the perimeter of the closed bottom end of said envelope and is stitched at 42 to the plate 36 around its perimeter. The upper, open end of the envelope 38 is secured by the stitching 20 to the coverings 18 of the bars 16, whereby the envelope conforms closely to the inner contour of the side and end walls 2 and 4; and the bottom of the envelope is stretched tightly across the plate 36 to maintain a smooth unwrinkled surface preventing the collection of fine particles such as dust and powder in the bottom of the envelope.

Furthermore, the backing plate 36 being slidably seated along the complementary flat upper surface of the bottom wall 6 permits the envelope to shift within the case during opening and closing thereof when packed with articles of various sizes and shapes contacting the sides and ends of the envelope.

It has also been found that this novel arrangement prevents tearing and puncturing of the envelope 38 when the case is squeezed or subjected to impacts in service.

Furthermore, the plate 36 underlies the fold 28 to prevent accidental lifting of the envelope 38 from the bottom of the case.

Changes may be made in form and substance without departing from the spirit of the invention or sacrificing any of the advantages and the right is hereby reserved to make all changes which fairly fall within the scope of the following claims.

What is claimed as new and desired to be secured by Letters Patent of the United States is as follows:

1. A utility case having flexible side and end walls and having a bottom wall, a reinforcing strip secured to the inner surfaces of said side and end

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walls, each side wall having a single inward fold along the upper edge of said strip terminating in a re-entrant fold with a flap integrally formed along the inner edge thereof, said flaps having end extensions projecting beyond said side walls and joining upward extensions of said end walls, each re-entrant fold being continuously stitched from end to end of the related side wall and along both end walls to points spaced from the centers thereof, whereby said inward folds function as hinges accommodating upward movement of the flaps to open position and accommodating downward movement of the flaps to closed position, slide fastener means for joining adjacent edges of the flaps in closed position thereof, a waterproof envelope having an open end and secured to said flaps along downwardly facing surfaces thereof and along their adjacent edges, said envelope following the inner contour of said side and end walls and having a closed bottom, and a backing plate slidably seated against said bottom wall along its upwardly facing surface, said closed bottom being tightly stretched across said plate along its upper surface and having an outturned fold stitched to said plate entirely around the perimeter of said closed bottom.

2. A utility case according to claim 1, wherein the side and end walls are folded inwardly above the backing plate to limit upward movement of the bottom of said envelope.

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