Jan. 1, 1963 H. L. O'NEIL 3,071,220

LUGGAGE CASE END WALL CONSTRUCTION

Filed Sept. 12, 1961

Fig. 1.

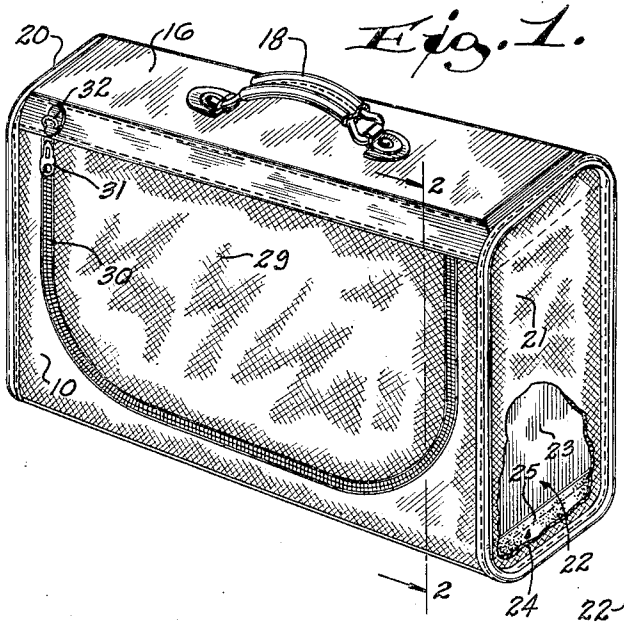


Fig. 4.

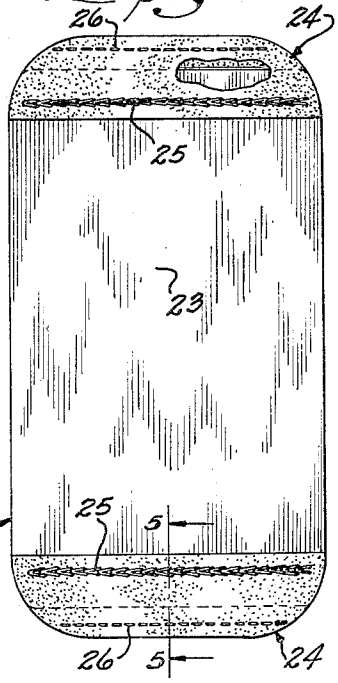


Fig. 2.

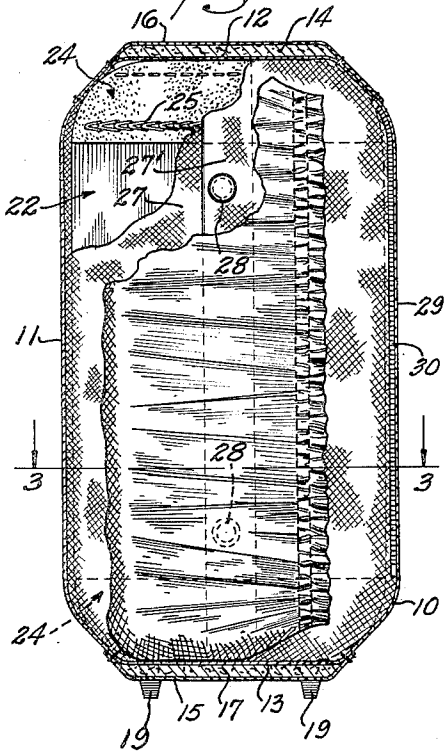


Fig. 3.

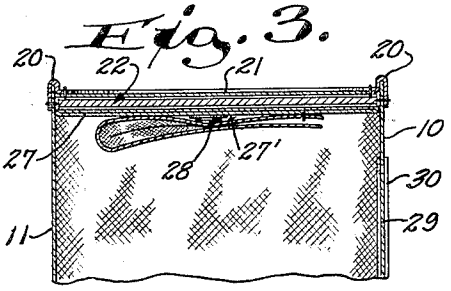
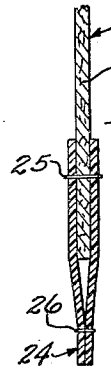


Fig. 5.



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LUGGAGE CASE END WALL CONSTRUCTION

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This invention relates to improvements in luggage case end wall construction, and more particularly to the end wall construction for a soft-sided luggage case.

Soft-sided luggage cases and traveling bags are popular, but heretofore it has been difficult to provide a satisfactory type of soft-sided luggage case which would retain its form when in an unpacked or semi-packed condition and which would not be undesirably squashed, deformed and distorted when subjected to rough handling and during transportation.

The J. P. Ritter, Jr., Patent No. 2,746,581 is a typical example of the general type of soft-sided luggage cases to which the present invention pertains, but in said structure the reinforcing, rigid end walls cannot flex or distort during rough handling, which is a particularly acute problem in respect to luggage used in air travel, wherein the piece of luggage may be dropped or banged at any angle, which, in the case of a luggage piece having rigid end walls, may often subject said end walls to such forces as will cause breakage thereof.

With the above in mind, it is a primary object of the present invention to provide a soft-sided, rigid end wall type of luggage case wherein said rigid end walls have their top and bottom margins, which adjoin other wall portions of the case, tipped with resilient sheet material which will permit resilient deflection of said end walls in any direction, should the luggage case be subjected to blows and pressure, whereby the rigid end walls are relieved of such deflecting forces or blows as would cause damage thereto.

A further object of the invention is to provide, in a luggage case of the character described, an improved deflectable end wall construction, which, while reinforcing the ends of the case to preserve form and stability, will prevent collapse of the case and damage to the end walls when the same are subjected to undue pressures, such construction in no wise adding to the weight or detracting from the appearance of the case.

A further object of the invention is to provide an end wall construction for a soft-sided luggage case wherein said end walls may be removed from the case if desired.

A further object of the invention is to provide, in a luggage case, a wall construction wherein the front and rear walls of the case are soft but the end walls are reinforced or stiffened by wood panels tipped with resilient sheet material to relieve the case and rigid end walls from damage resulting from undue bumps, strains and stresses.

A further object of the invention is to provide a reinforced, soft-sided luggage case construction wherein the case has an attractive and unique appearance with the interior being accessible through a flap-controlled access opening, the case being simple and light in construction, strong and durable and able to withstand rough handling, and, furthermore, well adapted for the purposes described.

With the above and other objects in view, the invention consists of the improved end wall construction for a soft-sided luggage case, and its parts and combinations as set forth in the claims and all equivalents thereof.

In the accompanying drawing, in which the same reference characters designate the same parts in all of the views:

FIG. 1 is a front and end perspective view of a soft-sided luggage case embodying the improved end wall construction, part being broken away to show structural features;

FIG. 2 is an enlarged vertical sectional view taken approximately along line 2—2 of FIG. 1, with portions broken away and in section;

FIG. 3 is a fragmentary horizontal sectional view taken on line 3—3 of FIG. 2;

FIG. 4 is an enlarged face view of a removable end wall, with a portion of one of the resilient marginal tips broken away; and

FIG. 5 is an enlarged fragmentary sectional view taken on line 5—5 of FIG. 4.

The improved soft-sided luggage case is shown in its closed condition in FIG. 1 of the drawing, and it is to be observed from FIG. 2 that a continuous sheet of any desired flexible fabric covering material, such as canvas, plastic, cloth, leather, or the like, is arranged in four-sided form to provide the front and rear sides **10** and **11** of the case, as well as inner layers **12** and **13** of the top and bottom, respectively. The latter include rigid veneer panels **14** and **15**, which are suitably covered by exterior layers of leather, plastic, or the like, designated **16** and **17**. The reinforced top member **12—14—16** carries a handle **18** and the reinforced bottom **13—15—17** carries bottom cleats **19**.

The flexible covering material forming all of the walls previously mentioned at its end edges has stitched thereto resilient end welts **20**, which are U-shaped in cross-section and which follow the peripheries of the ends and which also have stitched thereinto the flanged extremities of flexible end covering sheets **21**.

To reinforce and give rigidity and form to these otherwise flexible ends, there is provided, pursuant to the present invention, for each end, an interiorly disposed end wall panel, designated generally by the numeral **22**, and one of which is shown in detail in FIG. 4. The major portion **23** of each panel is preferably formed of some rigid material as wood veneer and the rigid panel portion **33** is of slightly less length than the vertical distance between the top and bottom portions of the welt **20** surrounding a case end. The particular feature of the present invention resides in the inclusion of resilient tips or caps **24** to the top and bottom margins of the panel portion **23**. As is best shown in FIG. 5, each tip or cap **24** is in fact bi-layered and portions of the layers receive therebetween end marginal portions of the panel **23**, the layers of the tips being secured to the panel portions **23** by lines of stitching **25** or other suitable securing means. The bi-layers of the tips **24** extend beyond the respective margins of the panel portions **23** and are secured together, as at **26**. The layers forming each tip **24** are formed of a rubberized synthetic fibrous sheet material having resiliency and a suitable material for this purpose is that known under the trademark "Pellon." Side edge portions of the tips **24** are rounded so as to conform to the peripheries of the case ends as outlined by the continuous end welts **20**. As the sheet material forming said tips or caps projects beyond the margins of the panel portions **23** to which the tips are applied, it will be evident that said projecting tip portions may flex, bend or deform in any direction and possess resiliency.

The interior of the improved luggage case may be finished or lined in any desired manner and at the ends of the case there are interior fabric pockets designated by the numerals **27** and **27'** in FIGS. 2 and 3. The flap **27'** overlaps the margin of the pocket portion **27** and is normally secured thereto by snap fasteners **28** which, when released, permit the closure flap **27'** to be folded back to expose the pocket inwardly of the portion **27**. Within these pockets, at each end of the case, the end walls **22** are normally removably disposed with their resilient tips in wedging or relatively tight contact with

the adjacent portions of the top and bottom walls of the case and with their side margins engaging the front and rear walls of the case. Obviously the end walls **22** may be removed from their retaining pockets **27—27'** for repairs or replacement and the removal of the end walls will also permit the case to be flattened or compacted for storage, when not in use.

From FIG. 1 it will be observed that the front wall **10** of the case, extending from the forward margin of the top **16** downwardly, is provided with a U-shaped opening adapted to be closed by a lined flexible cover flap **29** which is releasably held in closed position by a U-shaped line of hookless fasteners **30** having a tab element **31** which, in the closed condition of the hookless fasteners, may be secured by a padlock to a stirrup **32** on an end portion of the top **16**.

The improved luggage case to which the present improvements are applied possesses all of the desirable attributes of a soft-sided case, as it is not only attractive in appearance but extremely light and easy to handle. Additionally, it has reinforced rigid ends which permit the case to retain its normal rigidity and form. Due to the construction described and as shown more clearly in FIGS. 1 and 3, all of the edge portions of the flexible fabrics of the various walls are joined together and secured within the resilient welts **20** which externally surround the rigid but yieldable ends of the luggage case. The projecting welts **20** serve as bumpers or cushions to absorb blows or strains which might be imposed directly on the ends of the luggage case and, in addition, the end wall construction which includes the rigid panel portions **23** and the resilient or deflectable end tips or caps **24** especially adapts the case to the hard usage and abuse to which air travel luggage may be subjected. If the luggage case is subjected to a shock, bump or pressure from any direction, the resilient tips or caps **24** on the ends of the end wall panel portions **23** may bend, flex or distort in any direction and thus absorb the pressure or bump without strain on the rigid panel portions **23**. As an example, if pressure is applied to the top of the luggage case, the tips **24** of the ends will depress, whereas if undue pressure is directed against the ends of the case, the tips or caps **24** will bow inwardly. Should undue force be applied to the soft front or rear walls of the luggage case, this will in effect tauten the covering material and again the tips on the ends will flex to keep the flexible covering material from ripping or tearing.

The improved luggage case end wall construction is simple but strong and durable and is well adapted for the purposes set forth.

What is claimed as the invention is:

1. In a six-sided luggage case including side walls, top and bottom walls and end walls, a reinforcing panel for one of said walls comprising: a rigid panel of less length than the wall to which it is applied, and a yieldable cap carried by an end margin of the panel and extending axially therebeyond into free marginal contact with portions of adjacent walls of the case to flex under pressure imposed on any adjacent wall portions of the case to relieve the rigid panel of transmitted stresses.

2. In a six-sided luggage case including side walls, top and bottom walls and end walls, reinforcing panels for said end walls, each comprising a rigid panel of substantially less height than its end wall, and a cap carried by and projecting axially beyond and outwardly of an end margin of each end panel and extending into engagement with portions of adjacent walls of the case, said caps being formed of yieldable synthetic material susceptible of flexing under pressure imposed on any adjacent wall portions of the case to relieve the rigid panels of transmitted stresses.

3. In a soft-sided luggage case including soft side walls, reinforced top and bottom walls and end walls with the covering for all of said walls being flexible sheet material, a reinforcement for each of said end walls, each comprising a rigid panel of substantially less height than its end wall, and a yieldable, sheet material cap carried by each end of a panel, each cap having an inner portion overlapping and secured to an end portion of a panel and an extension substantially coaxial with and normally projecting flexibly beyond and outwardly of said panel end portion into marginal juxtaposition with portions of adjacent walls of the case to bow under pressure imposed on any adjacent wall portions of the case to relieve the rigid panels of transmitted stresses.

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