April 16, 1957 W. H. ARLITT, JR 2,788,871

REINFORCING MEANS FOR ARTICLES OF LUGGAGE

Filed Aug. 26, 1955

Fig. 1.

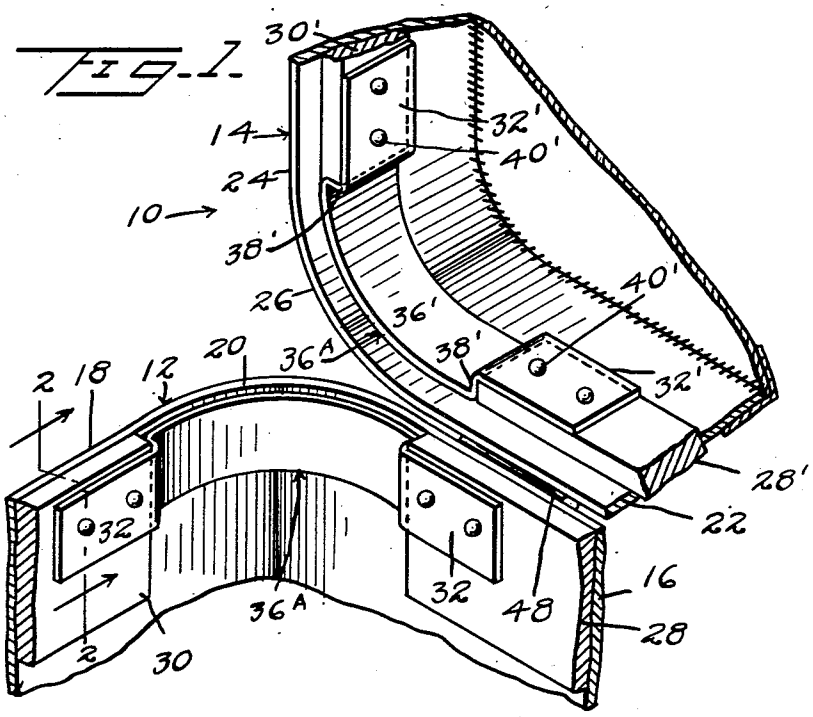


Fig. 2.

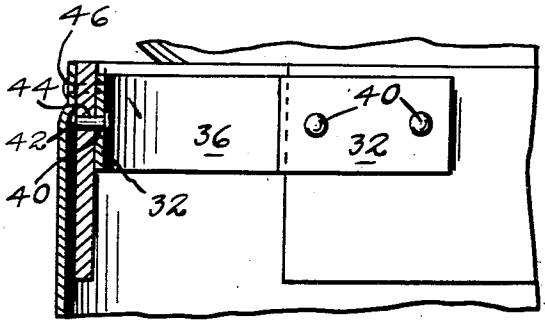


Fig. 3.

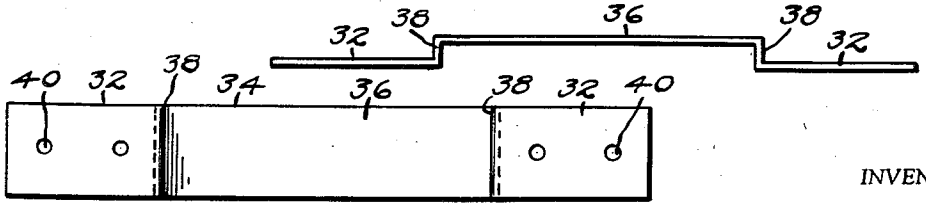


Fig. 4.

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REINFORCING MEANS FOR ARTICLES OF LUGGAGE

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Application August 26, 1955, Serial No. 530,773

3 Claims. (Cl. 190—49)

This invention relates to reinforcing means for articles of luggage, and more specifically, the invention pertains to a reinforcing frame for the side and end walls of a suitcase. More especially, this invention is directed to a reinforcing structure adapted for incorporation with the article of luggage disclosed in my copending application, filed August 26, 1955, Serial No. 530,772, and entitled "Luggage Construction."

One of the primary objects of this invention is to provide an endless reinforcing frame adapted for connection with the side and end walls of an article of luggage as, for example, a suitcase, the frame being interfitted within the luggage or main body of the suitcase as well as within the lid or closure member therefor, the frame including corner reinforcing elements.

Another object of this invention is to provide a multi-piece endless light weight reinforcing frame or unit adapted for connection with the side and end walls of the luggage compartment and the lid or closure member of a suitcase, the unit including reinforcing means for the corners of the luggage compartment and the lid.

A further object of this invention is to provide an inexpensive reinforcing frame of the type described above, the frame being non-complex in construction and assembly, and durable in use.

It is a still further object of this invention to provide a suitcase reinforcing frame comprising a plurality of identical interchangeable members which may be standardized to facilitate the assembly thereof and whereby any part thereof receiving damage and requiring repair may be quickly and easily replaced.

Other and further objects and advantages of the present invention will become more apparent from the following specification when read in conjunction with the annexed drawing, in which:

Figure 1 is a fragmentary perspective view of a suitcase together with the reinforcing means therefor constructed in accordance with this invention.

Figure 2 is an enlarged detail cross-sectional view taken on the vertical plane of line 2—2 of Figure 1, looking in the direction of the arrows.

Figure 3 is a top plan view of the spring bracket corner reinforcing means.

Figure 4 is a front elevational view of the spring bracket means shown in Figure 3.

Referring now more specifically to the drawing, reference numeral 10 designates, in general, a suitcase or other article of luggage constructed in accordance with the teachings of the present invention. As illustrated in Figure 1, the suitcase is seen to comprise of a luggage compartment 12 and a lid or closure member 14. The compartment 12 and the closure member 14 are formed of relatively stiff fibrous or other suitable material of the type referred to in my above mentioned copending patent application.

It is to be understood that the article of luggage 10 comprises a pair of oppositely disposed spaced and substantially parallel side walls 16 and a pair of spaced substantially parallel end walls 18 connected at their respective adjacent ends by arcuately-shaped corner walls 20.

The lid or closure member 14 of the luggage article 10 is seen to comprise similar spaced and substantially parallel side walls 22 and a pair of spaced substantially parallel end walls 24. The adjacent ends of the side and end walls are connected by arcuate corner walls 26.

The reinforcing frame to which the present invention pertains comprises a pair of oppositely disposed spaced and substantially parallel side frame members 28 which are positioned adjacent the side walls 16 proximate the open end of the luggage compartment 12. The side frame members 28 have a substantially rectangular configuration and are identical to the end frame members 30 which are positioned on the end walls 18 adjacent the open end of the luggage compartment 12. All of the reinforcing frame members for the luggage compartment are disposed on the inner sides of their respective adjacent walls.

Referring to Figures 1 and 3 of the drawing, it is seen that the adjacent ends of the side and end frame members are secured to the laterally offset ends 32 of the leaf spring member 34. The leaf spring member 34 is provided with a bight portion 36 having integrally formed laterally extending flanges 38 which are joined integrally with one of the ends of the offset ends 32 of the leaf spring 34. The offset ends 32 are apertured at 40 to serve a function to be described.

Referring now to Figure 1 of the drawing, it is seen that the offset ends 32 of the leaf spring 34 are engaged against the exposed sides of the reinforcing side and end frame members 28 and 30, respectively, with the ends of the side and end frame members abutting against the flanges 38 of the leaf spring 34. The leaf spring 34 is then flexed to assume the arcuate configuration illustrated at reference numeral 36A and is disposed within the arcuately-shaped corners 20. Obviously the leaf spring 34 will tend to normally urge the side and end frame members 28 and 30 out of perpendicular relation. The end portions 32 are connected with the side and end frame members 28, 30 as by rivets 42 which extend through the apertures 40 and suitable openings 44 formed in the side and end frame members. The assembled frame is retained in position by means of a plurality of rivets 46. The construction of the reinforcing frame for the lid or closure member 14 is identical to the reinforcing frame described above. Consequently, to avoid needless iteration of this construction, component elements of the reinforcing frame for the lid or closure member 14 have been ascribed the same reference numerals to the elements which have a counterpart in the reinforcing frame for the luggage compartment 12, the reference numerals for the lid or closure member being distinguished therefrom through the addition of a prime mark.

The lid or closure member 14 in hingedly connected to the luggage compartment 12 by the conventional hinges 48.

Having described and illustrated one embodiment of this invention in detail, it will be understood that the same is offered merely by way of example, and that the invention is to be limited only by the scope of the appended claims.

What is claimed is:

1. A reinforcing frame for the luggage compartment of a suitcase or other similar article having side and end walls disposed in a substantially rectangular configuration, a substantially rigid light weight side frame member fixedly secured to each of said side walls, said side frame members being disposed in spaced confronting relation relative to each other and each of said side frame members terminating at a point proximate to but spaced

from the corners of said compartment adjacent each of their respective ends, a substantially rigid light weight end frame member fixedly secured to each of said end walls, said end frame members being disposed in spaced confronting relation relative to each other and said end frame members terminating at a point proximate to but spaced from the corners of said compartment adjacent each of their respective ends, and resilient metallic plate means disposed within each of said corners, said resilient means being connected with the adjacent ends of said side and end frame members and normally urging said side and end walls out of perpendicular relation.

2. A reinforcing frame for the luggage compartment of a suitcase or other similar article having side and end walls disposed in a substantially rectangular configuration, a substantially rigid light weight side frame member fixedly secured to each of said side walls, said side frame members being disposed in spaced confronting relation relative to each other and each of said side frame members terminating at a point proximate to but spaced from the corners of said compartment adjacent each of their respective ends, a substantially rigid light weight end frame member fixedly secured to each of said end walls, said end frame members being disposed in spaced confronting relation relative to each other and said end frame members terminating at a point proximate to but spaced from the corners of said compartment adjacent each of their respective ends, and an arcuately-shaped leaf spring disposed within each of said corners, said leaf springs each having their respective ends connected with the adjacent ends of said side and end frame members, each of said leaf springs constantly tending to urge the

adjacent portions of said side and end walls out of perpendicular relation.

3. A reinforcing frame for the luggage compartment of a suitcase or other similar article having side and end walls disposed in a substantially rectangular configuration, a substantially rigid light weight side frame member fixedly secured to each of said side walls, said side frame members being disposed in spaced confronting relation relative to each other and each of said side frame members terminating at a point proximate to but spaced from the corners of said compartment adjacent each of their respective ends, a substantially rigid light weight end frame member fixedly secured to each of said end walls, said end frame members being disposed in spaced confronting relation relative to each other and said end frame members terminating at a point proximate to but spaced from the corners of said compartment adjacent each of their respective ends, and an arcuately-shaped leaf spring disposed within each of said corners and having an offset bracket at each end thereof, said arcuately-shaped leaf spring constantly tending to urge the adjacent portions of said side and end walls out of perpendicular relation and having the offset bracket ends fixedly secured to the adjacent ends of said side and end frame members.

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