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EXTENSIBLE SUITCASE AND FRAME

Filed March 21, 1968

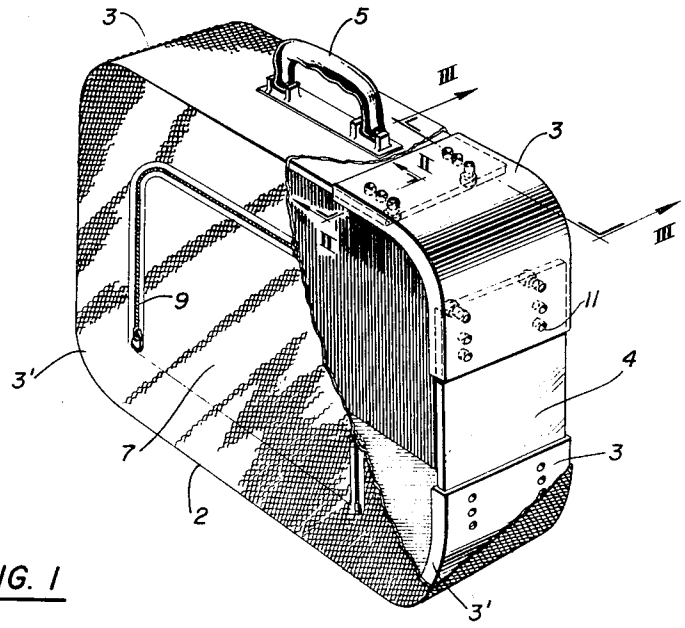


FIG. 1

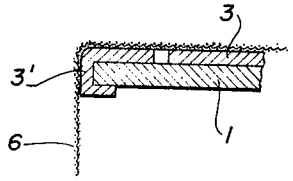


FIG. 2

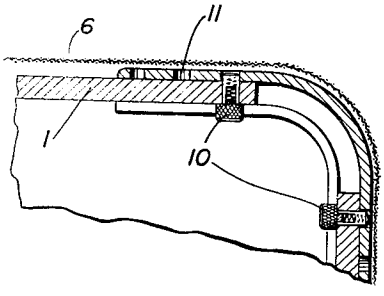


FIG. 3

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EXTENSIBLE SUITCASE AND FRAME

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ABSTRACT OF THE DISCLOSURE

An extensible suitcase comprising:
(a) four flat rigid panels defining top, bottom and end walls of a suitcase;
(b) four rounded corner pieces overlapping the ends of said panels;
(c) means for adjustably securing said corner pieces to said panels whereby a substantially rigid and box-like rectangular suitcase frame is defined which facilitates the variation of the height and length of the frame;
(d) a two-way stretchable elastic fabric covering over the outer surface of the frame and defining front and back walls of a suitcase;
(e) means for securing said covering to the frame; and
(f) means for access to the interior of the suitcase through the front wall of said covering.

BACKGROUND OF THE INVENTION

The field of the invention is extensible traveling bags and frames therefor.

The problem faced by the prior art was an expandable traveling bag for use with variations in the volume of materials to be contained therein. One approach to the problem is to have a matched set of suitcases of different sizes such as an overnight bag, a weekend bag and a standard size suitcases. A single suitcase adjustable to three or more sizes has obvious advantages and different approaches have been followed to achieve such an adjustable suitcase.

An adjustable suitcase has been provided in the prior art by having extensible hinges thereon such as disclosed in U.S. Patent 1,759,930. A number of adjustable suitcases have been constructed a disclosed in U.S. Patent 2,079,476 by providing two telescoping members which are movable relative to one another until fixed to one another by removable pins.

Another approach to the expandable suitcase problem was to provide a plurality of replaceable or rotatable sections of different dimensions for use in a basic frame such as disclosed in U.S. Patent 3,305,052.

Stretchable suitcase covering material is known in the prior art, such as disclosed in U.S. Patents 2,520,250 and 2,711,234, but the stretchable material has not been used in combination with an adjustable frame.

All of the prior art attempts to produce an extensible suitcase resulted in a suitcase of poor appearance that is obviously a non-uniform combination of elements having poor structure strength.

SUMMARY OF THE INVENTION

Having in mind the limitations of the prior art, it is an object of the present invention to provide an extensible suitcase having the means for extending contained within an outside covering.

Another object of the present invention is an adjustable suitcase frame having a united, laminated structure.

A particular object of the present invention is the combination of an extensible frame with a stretchable elastic fabric covering thereon.

Upon further study of the specification, drawing and claims other objects and advantages of the present invention will become apparent.

According to the present invention, an extensible frame for a suitcase is provided and the frame is covered with an elastic covering which is stretchable in two directions to accommodate the extended and retracted sizes of the suitcase frame.

The extensible frame comprises four panels with a plurality of rows of perforations at varying distances from the ends thereof, four rounded corner pieces over-lapping the ends of the panels with a single row of perforations therein for selective registration with the rows of perforations in the panels and fasteners or plugs for insertion into the registered perforations for laminating the panels and corner pieces into a unitary structure.

In a particular embodiment, the panels may be grooved at the sides thereof for the insertion of tabs or fastening means for securing to or holding the elastic covering material.

The elastic covering material covers the frame and has sufficient elasticity to accommodate the frame in its retracted and extended positions. A handle is provided on the top panel of the frame and a hole is provided in the covering to accommodate the handle. Access to the inside of the suitcase may be accomplished by placing a zippered flap in the side covering of the suitcase.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will now be described more in detail with reference to the drawing wherein:

FIG. 1 is a perspective view of the entire suitcase with the elastic fabric cover removed from the outside of the frame;

FIG. 2 is a cross-section on the line II—II; and

FIG. 3 is a longitudinal section on the line III—III of FIG. 1, with a portion of the elastic fabric cover in place.

The suitcase frame is formed of rigid top and bottom panels **1** and **2**, adjustably connected by corner pieces **3** to rigid end panels **4**. A handle **5** is secured to the middle of the top panel. A stretchable rubberized fabric **6** covers everything except the handle.

According to a particular embodiment of the present invention, as shown in FIG. 2, the walls of the suitcase are formed of two-way stretchable outer covering **7** formed of rubberized fabric. It can be seen that the panel **1** slides in the channels **3'** formed in the corner piece **3** and this is true of all the connections between the panels and corner pieces.

In order to provide access to the interior of the suitcase, the middle portion of the front wall is provided with a zipper **9** in the form of an inverted U.

When the suitcase is expanded in length or in height, the fastenings **10** (shown in FIGURE 3), which can be of any desired construction, are disengaged from the inside of the suitcase and fitted into other holes **11** closer to the ends of the rigid pieces.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

With the expandable construction particularly illustrated in FIGURE 3, the suitcase frame is adjustable to six different positions of height and six different positions of length. The embodiment of FIGURE 3 shows the frame in its most retracted or compact form if it is assumed that the fastenings **10** and holes **11** in the vertical plane correspond to those in the horizontal plane.

In order to expand the suitcase, the fastenings **10** which may be simple screw fasteners or plastic plugs, are removed and the holes in the corner pieces are advanced to an extended position into register with other holes **11**. The fastenings **10** are then inserted into the extended holes

11 in register with the holes in the corner pieces and the suitcase is adequate to accommodate a larger load.

The panels and corner pieces may be formed from wood, composition board or polymeric materials such as polypropylene or filled phenolic resin. The elastic fabric may be two-way stretch cotton, cellulose or nylon fabric.

The expanded suitcase has the general appearance of a cloth suitcase with a rigid invisible frame and has all the structural advantages thereof.

It will be understood that this invention is susceptible to modification in order to adapt it to different usages and conditions and, accordingly, it is desired to comprehend such modifications within this invention.

I claim:

1. An extensible suitcase comprising:

(a) four flat rigid panels defining top, bottom and end walls of a suitcase;

(b) four rounded corner pieces overlapping the ends of said panels;

(c) means for adjustably securing said corner pieces to said panels whereby a substantially rigid and box-like rectangular suitcase frame is defined which facilitates the variation of the height and length of the frame; and

(d) a two-way stretchable elastic fabric covering over the outer surfaces of the frame and defining front and back walls of the suitcase.

2. The suitcase of claim 1, further comprising means for access to the interior of the suitcase.

3. The suitcase of claim 2, wherein said means for access comprise a zipper in the front wall of the suitcase.

4. The suitcase of claim 1, wherein said means for adjustably securing comprise a plurality of rows of perforations at the ends of said corner pieces, a row of perforations at the ends of said rigid panels indexable with said corner piece perforations, and fastenings for insertion in the indexed perforations.

5. The suitcase of claim 1, wherein the lateral edges of said rounded corner pieces have channels to extend over the lateral edges of said rigid panels.

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U.S. Cl. X.R.

190—49