Nov. 21, 1950 F. SCHWENNICKE 2,531,302

INTERCHANGEABLE FRAME STRUCTURE FOR SUITCASES

Filed July 26, 1946

Fig. 1

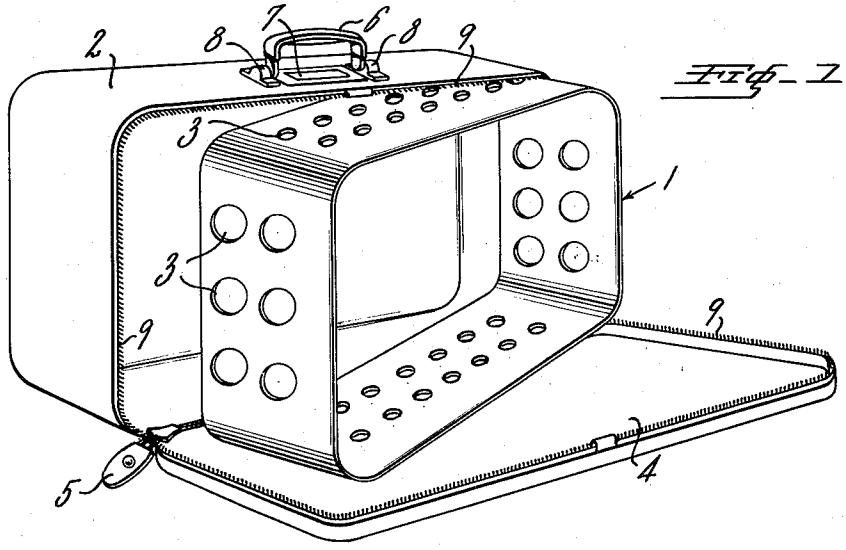


Fig. 2

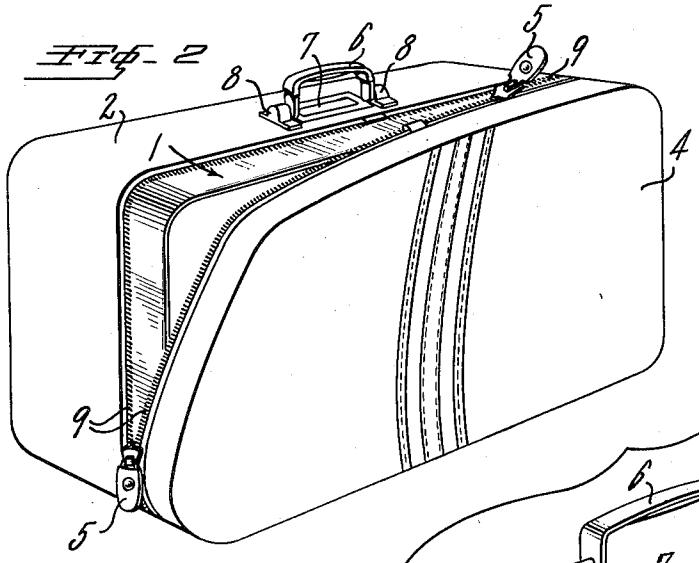
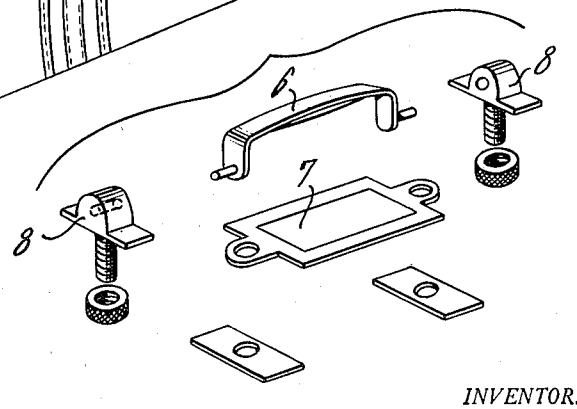


Fig. 3



INVENTOR.
FRANZ SCHWENNICKE
BY Leon M. Strauss
AGT.

Patented Nov. 21, 1950

2,531,302

UNITED STATES PATENT OFFICE

2,531,302

INTERCHANGEABLE FRAME STRUCTURE FOR SUITCASES

Franz Schwennicke, Brussels, Belgium

Application July 26, 1946, Serial No. 686,417

1 Claim. (Cl. 190—50)

1

The present invention relates to a frame structure for a suit-case, characterized particularly by the fact that its elements are interchangeable.

The manufacture of the ordinary type suit-case necessitates generally a complicated shaping operation of the inner plates, boards, rods, struts, etc. and the provision of an outside cover made of leather, of canvas or of any other material, which cover is pasted, sewed or riveted to obtain a rigid suit-case.

In the new suit-case, according to the invention, the construction is simplified by eliminating unnecessary parts and material and by making all its constituent parts to fit one another.

The elements of the suit-case consist of the inside frame or skeleton forming a box, as well as the outside covering or sheath and as an accessory, the handle. According to the invention, the frame employed is preferably made of thin sheets of a light metal, such as duralumin, which will provide for a rigid box frame capable of being contained in the luggage. The skeleton frame can also be executed of plastic material such as Bakelite or the like. The outer sheath is constituted by any suitable material such as leather, canvas, etc. There are known suit-cases which have a sheath and an inside collapsible frame constituted by flexible wire rods. This frame per se can not receive or hold any articles as it has no closed side walls, nor does it provide for the necessary rigidity of the covering sheath. In contradistinction to this known structure, the suit-case of the present invention includes an inner removable frame which forms a case or box in which the luggage articles can be directly placed. Due to its rigid side walls, this frame gives to the walls of the outside covering the necessary rigidity, not only to protect the articles which it holds, but contributes further to the suit-case a nice, esthetic appearance which by the collapsible frame with rods can never be attained.

The interchangeability of the outside sheath and of the inside box-frame constituting one of the characteristics of the invention allows the owner of a single frame-box to change the outer appearance of the suit-case at will. A suit-case provided, for instance, with an outer fancy leather sheath for vacation trips, can readily be changed into a suit-case for commuting and like purposes, which only necessitate a sheath made of strong canvas. The fashionable woman will be able to match the colour of her suit-case to that of her clothes by using an outside sheath

2

of corresponding shade. A suit-case for use by gentlemen will easily be transformed into a suit-case for ladies, using a cover made of leather, of canvas or of any similar material. This cover slides over the inside skeleton-frame and is kept in position by means of nuts or other easily detachable elements. If, after a shock or a fall, the skeleton-frame is damaged or distorted, it is also possible to immediately replace this frame by another frame of the same size. The handle of the suit-case, also made of light metal is mounted on and connected with an address-bearing plate, which is fastened to the inside frame by means of removable nuts. This new conception of complete interchangeability of all the constituent elements of the suit-case which are neither sewed, nor pasted, nor riveted together, but only put together by means of removable nuts or through similar fastening means, simplifies the manufacture and construction of the suit-case since the employed elements are independent from one another. In case that one or the other part or element is damaged, it is possible, without incurring any dismounting and assembling expenses, to replace the damaged part. It is evident that, in case of changing the sheath, the other constituent elements such as fastening means, address plate and handle remain the same and are again used even if the skeleton-frame is changed several times.

Another characteristic of the interchangeable frame for suit-cases according to the invention resides in the fact, that its inside frame or skeleton as well as other elements, such as the handle and the aforesaid plate, are made of extra light metal or plastic materials, such, for instance, as Bakelite, so that said suit-case is particularly suitable, due to its extraordinary lightness, for air travelling. The light weight of the suit-case on the other hand does not at all diminish the strength or the rigidity of the piece of luggage. The dead weight of the suitcase is considerably decreased, while the useful weight of the suit-case is enhanced. In order to further reduce the weight of the skeleton-frame constituted by light metal or plastic sheets, it is also possible to use openworked sheet-metal obtained for instance by perforating the side walls of the frame, thus providing circular or any other appropriate profiled openings therein.

As an example, the attached drawing illustrates the invention in one of many possible embodiments.

Fig. 1 shows a perspective view of the sheath

and removable frame, the latter being shown in partially withdrawn position.

Fig. 2 shows a perspective view of a partially open suitcase.

Fig. 3 shows, in perspective, an exploded view of the handle and address-plate securing means.

In Fig. 1, a suitcase with an interchangeable frame structure partially removed from the outer cover 2, is shown in perspective. The inner frame 1 is formed by a suitable sheet of light metal or plastic material, the same being provided with circular openings or perforations 3 which reduce the weight of the case to a minimum.

Case or frame 1 slidably engages the inner walls of the cover or sheath 2, which can be made of leather, of canvas or any appropriate material. Front wall 4 of the sheath forms a flanged flap and is folded down, as shown, for facilitating the introduction of said frame 1; the wall 4 being then closed, for instance, by means of interengageable slide fastener elements 9, operated by sliding elements 5, which assume a position in the middle of the top part of the suitcase when the same is entirely closed. The suitcase is carried by means of removable handle 6 of light metal placed on and connected to an address-bearing plate 7, also removable and made of light metal or plastic material. Handle 6 may be fixed to the frame 1, for instance, by attaching means 8 having bolts extending to the interior of the frame 1. Fig. 2 shows the suitcase partially closed, the frame-case 1 having an extension projecting beyond covering 2 and engaging flanged wall 4 to permit closing of the suit-case through the actuation of two slide elements 5, each of which acting on one side of the two rows of fastener elements 9.

The projecting frame 1 facilitates the support of and the aligned positioning of the rows of slide fasteners 9, as demonstrated in Fig. 2. Finally Fig. 3 illustrates in perspective removable handle 6, as well as its attaching means 8 with bolts for engagement with the perforations 3 of frame-case 1.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent, is:

A suitcase and like piece of luggage comprising a flexible outer covering, the interior of said covering being defined by inner walls, a flanged closure wall hinged to said covering for closing the latter, and a box-shaped frame made of substantially rigid sheet material, said frame being slidably and removably engageable with said inner walls of said covering and including a projection extending beyond said inner walls of said covering, said flanged closure wall embracing said frame projection in closed position of said suitcase, whereby said frame, when inserted in the interior of said flexible covering props the latter, said box-shaped frame being provided with spaced perforations for reducing the weight of said frame, and removable means passing through the covering and engaging the frame at predetermined perforations thereof for holding in place on and securing to the outside of said covering a handle for carrying said suitcase.

SCHWENNICKE, FRANZ.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
711,831	Rubens	Oct. 21, 1902
1,028,168	Williams	June 4, 1912
1,684,839	Lowe	Sept. 18, 1928
1,958,587	Mitchell et al.	May 15, 1934
2,016,520	Short	Oct. 8, 1935
2,422,511	Wolsey	June 17, 1947

FOREIGN PATENTS

Number	Country	Date
258,799	Great Britain	Sept. 30, 1926
441,860	Great Britain	Jan. 27, 1936
488,939	Great Britain	July 18, 1938