(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 228 304**
A2

(12) # EUROPEAN PATENT APPLICATION

(21) Application number: **86310207.5**

(22) Date of filing: **30.12.86**

(51) Int. Cl.[4]: **A 45 C 5/02**

(30) Priority: **03.01.86 GB 8600077**

(43) Date of publication of application:
08.07.87 Bulletin 87/28

(84) Designated Contracting States: **DE FR**

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(54) **Improvements relating to luggage cases.**

(57) The body (1), and in the illustrated embodiment the lid (2) also, of a luggage case is formed from a tubular ring (3) of self-supporting sheet material, for example an adhesively-bonded paper composition material, having a decorative covering applied to it, to which a closing panel (7) of sheet material having one or more peripheral flanges (25) is fitted in and secured to its one end at the flange or flanges so that a continuous circumferential wall and one side wall are provided. A trim strip (15) applied to the edge of that end of the tubular ring (3) has an internal step (20) which locates the panel (7). Fittings (27, 28) of the luggage case are secured to the tubular ring (3) and to the periphereral flange or flanges (25). A lining is attached inside the tubular ring and panel.

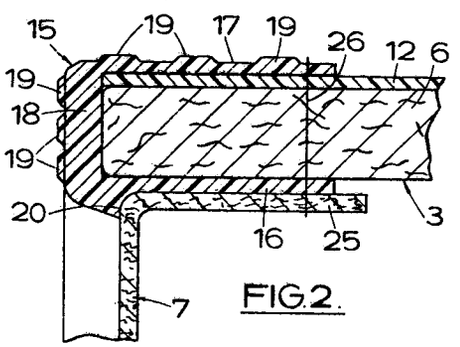

FIG.2.

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Description

IMPROVEMENTS RELATING TO LUGGAGE CASES

This invention relates to luggage cases, including attache cases, which are of substantially, but not necessarily entirely, firm construction.

It is known to fabricate the bodies and lids of such luggage cases from panels of stiff sheet-materials, for example fibre-board, which are secured, usually stitched, together. It is also known to form the bodies and lids respectively as unitary shells of stiff materials, for example as mouldings of plastics materials.

The present invention provides an alternative manner of construction which aims to facilitate manufacture.

According to one aspect of the present invention there is provided a method of manufacturing a body or lid of a luggage case which is characterised in that it includes the steps of forming a tubular ring of a self-supporting sheet material, forming a panel of sheet material of a size to close one end of the tubular ring and having one or more peripheral flanges, fitting the panel to said one end of the tubular ring and securing the panel to the ring at the peripheral flange or flanges, the arrangement being such that the tubular ring provides a continuous circumferential wall of the assembled body or lid and the panel provides a side wall thereof.

According to a second aspect of the present invention a luggage case is provided comprising a body and a lid, characterised in that at least the body comprises a tubular ring of self-supporting sheet material which provides a continuous circumferential wall of the body, and a panel of sheet material having a peripheral flange or flanges at which it is secured to, so that it closes, one end of the tubular ring to provide a side wall of the body.

When the luggage case is to be of the usual rectangular shape the tubular ring forms the front, rear and two end walls of the body.

The tubular ring may be formed of various self-supporting materials. It may, for example, be formed of an adhesively bonded paper composition material, such as that available under the trade mark LAFFRAMAT, or a plastics material, such as polyvinyl chloride, being formed as a moulding or extrusion, or it may be of metal. A decorative covering may be applied to the external surface of the ring if the material of the ring does not itself have an attractive surface finish. Such a covering is preferably applied to the ring before the panel is secured to the ring. Textile fabric, plastics sheet or leather, for example, may be used as the covering.

A trim strip may be applied to the edge of that end of the ring to which the panel is secured. This trim strip may be solely for decoration but it may also serve to reinforce the edge of the ring. The panel may be secured to the ring at the trim strip. Conveniently the trim strip is a plastics extrusion of generally U-section which fits closely around the edge of the ring. The trim strip may be of other material, if desired.

A further trim strip may be applied to the edge of the opposite end of the ring of the body, and/or a strip of stiff material, for example plastics or metal, may be applied to that edge to provide a lip or flange for co-operation with a lid of the luggage case.

The panel may be of a stiff material although it is possible for it to be of a soft material, textile fabric or plastics for example, because the tubular ring itself may afford substantial firmness to the body. Stiff materials which may be used are fibre-board, suitable plastics and metal. As with the tubular ring, a decorative covering may be applied to the external surface of the panel, or, if appropriate, the surface of the material of the panel itself may provide the finished surface of the side wall which the panel forms. When the panel is of a stiff material the flange or flanges may serve also as reinforcement for portions of the tubular ring to which a handle, fastenings and other fittings of the luggage case are attached.

Securing of the panel to the tubular ring may be by means of stitching and/or adhesive or riveting.

A lining will usually be attached inside the tubular ring and panel.

Straps or other retaining means may be anchored to the tubular ring inside the body for holding in position in the body clothing or other contents of the luggage case when it is in use.

The lid of the luggage case may be constructed similarly to the body. It may be of a capacity similar to or less than that of the body.

An embodiment of the invention will now be described by way of example only with reference to the accompanying drawings in which,

Figure 1 is a perspective view of a luggage case in accordance with the invention, and

Figures 2 and 3 are enlarged fragmentary sections through the luggage case on lines 2-2 and 3-3 respectively of Figure 1.

In this embodiment the luggage case, which is of rectangular box shape, has a body 1 and a lid 2 which are similarly constructed.

The body 1 comprises a tubular ring 3 which provides a front-wall 4, a rear wall, not shown, and two end walls 5, 6 of the body, and a panel 7 which provides a side wall 8 of the body. Similarly the lid 2 comprises a tubular ring 9 which provides corresponding walls of the lid, and a panel which provides a side wall opposite the side wall 8 of the body. In each case the tubular ring 3, 9 is a stiff continuous, jointless, band of the paper composition material LAFFRAMAT. For production purposes it is convenient for the LAFFRAMAT material to be formed as a tube of the required cross-section of the tubular rings from which sections are cut off of the required lengths for the tubular rings. A decorative covering 12, 12′ of sheet polyvinyl chloride is applied to and bonded to the external surface of each tubular ring 3, 9. At one end 13, 13′ of the tubular ring the covering 12, 12′ is folded around the edge of the ring and against the inside surface of the ring adjacent that end edge, as indicated at 14, 14′ in Figure 3.

Fitted around the opposite end of each tubular ring is a trim strip 15, 15′ of extruded polyvinyl chloride. The trim strip 15, 15′ is of a generally U-shaped cross-section, Figure 2, having opposed inner and outer parallel limbs 16, 17 which respectively lie closely against the inside surface of the tubular ring and against the covering 12, 12′ on the external surface of the tubular ring, and an integral web 18 extending across the end edge of the tubular ring. There are decorative rib formations 19 on the external surfaces of the outer limb 17 and the web 18. Adjacent to the root of the inner limb 15 each trim strip 15, 15′ has an external step 20 facing towards the free end of the limb.

Around all four sides of the inside of the tubular ring 3 of the body 1 at the end 13 is secured by stitching 21 a flat strip 22, Figure 3, which projects from the tubular ring parallel to its inside surface. A cranked strip 23 is secured by stitching 24 around three sides of the inside of the tubular ring 9 of the lid 2 adjacent to the end 13′ of the ring, the three sides being those which provide the front and two end walls of the lid. The cranked strip 23 is contained within the tubular ring and an outer portion 24 extending towards the edge of the end 13′ is spaced from the covering 14′ inside the tubular ring by a distance slightly greater than the thickness of the flat strip 22 on the body. Both strips may be extrusions of polyvinyl chloride.

The panels of the body and lid are each made from a sheet of fibre-board of complementary rectangular shape to the interior of the respective tubular ring 3, 9 and having integral, upturned, peripheral flanges 25, Figure 2, along its four sides. Each panel proper is smaller than the internal cross-sectional dimensions of the respective tubular ring by the extent of the thickness of the inner limb 16 of the trim strip 15, 15′.

In the manufacture of the luggage case, each tubular ring 3, 9 has the covering 12, 12′, trim strip 15, 15′ and the flat strip 22 or the cranked strip 23, as the case may be, applied to it before the panel is fitted to the tubular ring. The panel is offered to the tubular ring from the end remote from the trim strip and is pushed into the tubular ring, the flanges 25 trailing, until it abuts against the step 20 of the trim strip, which locates the panel correctly with respect to the tubular ring. Stitching 26 is then applied through the flanges 25, inner and outer limbs 16, 17 of the trim strip 15, 15′ and tubular ring, including its covering 12, 12′, to secure the panel to the tubular ring and simultaneously to secure the trim strip to these two components. The ends 13, 13′ of the tubular rings respectively define the mouths of the assembled body and lid.

Linings, not shown, of suitable soft material, for example nylon fabric, are subsequently attached inside the body and the lid.The body and lid are hinged together at their rear walls in a known manner. A handle 27 is mounted in known manner on the front-wall 4 of the body, and the co-operating parts of catches 28 are anchored to the front walls of the body and the lid for loading the case. The fixings of the handle 27 and catches 28 may be engaged with those flanges 25 of the panels which lie against the inside surfaces of the front walls. Other fittings may be applied to the body and/or lid as required.

When the luggage case is closed the ends 13, 13′ of the tubular rings of the body and lid abut against one another and the flat strip 22 and cranked strip 23 interengage, the flat strip entering into the space between the outer portion 24 of the cranked strip and the covering 14′ of the tubular ring 9 of the lid, thereby to interlock and reinforce the body and lid at their mouths.

It will be appreciated from the foregoing that assembly of the luggage case involves a series of operations which are relatively easy to carry out. From trial assemblies carried out it seems likely that a luggage case in accordance with the embodiment described may be assembled with a significant saving in time and cost over the known luggage constructions in which walls of the bodies and lids are made up of fibre-board panels stitched together.

Claims

1. A method of manufacturing a body or lid of a luggage case, characterised in that it includes the steps of forming a tubular ring (3, 9) of a self-supporting sheet-material, forming a panel (7) of sheet-material of a size to close one end of the tubular ring (3, 9) and having one or more peripheral flanges (25), fitting the panel (7) to said one end of the tubular ring (3, 9) and securing the panel (7) to the tubular ring (3, 9) at the peripheral flange or flanges (25), the arrangement being such that the tubular ring (3, 9) provides a continuous circumferential wall of the assembled body or lid and the panel provides a side wall (8) thereof.

2. A method according to claim 1 characterised in that a trim strip (15, 15′) is applied to the edge of said one end of the tubular ring (3, 9) before the panel (7) is fitted to the tubular ring (3, 9) and the panel is secured to the tubular ring at the trim strip (15, 15′).

3. A method according to claim 2 characterised in that the trim strip (15, 15′) has a step (20) internally of the tubular ring (3, 9) which is directed towards the opposite end of the tubular ring, and in the fitting of the panel (7) the panel is inserted into the tubular ring (3, 9) from said opposite end and pushed into the tubular ring, with the peripheral flange or flanges (25) trailing, until the panel (7) abuts against the step (20) which then locates the panel relative to the tubular ring.

4. A method according to any preceding claim characterised in that a jointless tube is formed of the required material and cross-sectional shape of the tubular ring (3, 9), and the tubular ring is a section cut from that tube of the length required of the tubular ring.

5. A method according to any preceding claim characterised in that the tubular ring (3, 9) is made of an adhesively bonded paper composition material.

6. A method according to any preceding claim characterised in that fittings (27, 28) of the luggage case are secured to the tubular ring (3, 9) and to the peripheral flange or flanges (25).

7. A luggage case comprising a body and a lid characterised in that at least the body (1) comprises a tubular ring (3) of self-supporting sheet-material which provides a continuous circumferential wall of the body, and a panel 7 of sheet material having a peripheral flange or flanges (25) at which it is secured to, so that it closes, one end of the tubular ring to provide a side wall (8) of the body.

8. A luggage case according to claim 7 characterised in that the tubular ring (3) is formed of an adhesively bonded paper composition material.

9. A luggage case according to claim 7 or claim 8 characterised in that a trim strip (15) is applied to said one end of the tubular ring (3).

10. A luggage case according to claim 9 characterised in that the trim strip (15) is a plastics extrusion of generally U-section which fits around the edge of said one end of the tubular ring (3).

11. A luggage case according to claim 9 or claim 10 characterised in that the trim strip (15) has a step (20) internally of the tubular ring against which the panel 7 abuts.

12. A luggage case according to any of claims 7 to 11 characterised in that a strip (22) of stiff material is secured to the edge of the end of the tubular ring (3) opposite to said one end to provide a flange for co-operation with the lid (2) of the luggage case.

13. A luggage case according to any of claims 7 to 12 characterised in that a lining is attached inside the tubular ring (3) and panel (7).

14. A luggage case according to any of claims 7 to 13 characterised in that the lid (2) is constructed similarly to the body (1).

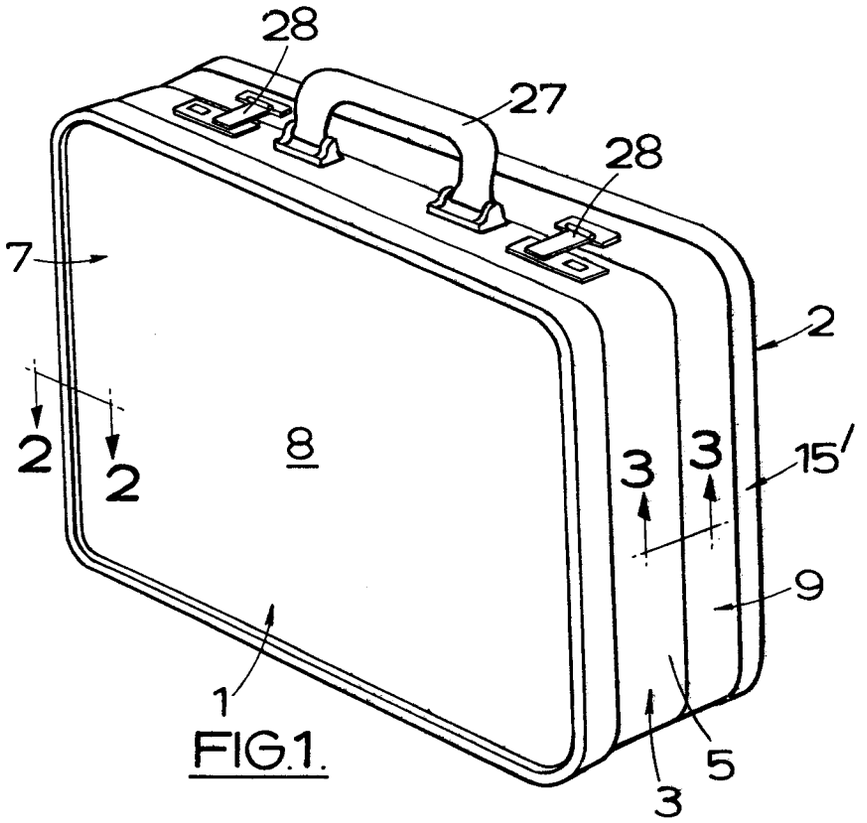

FIG.1.

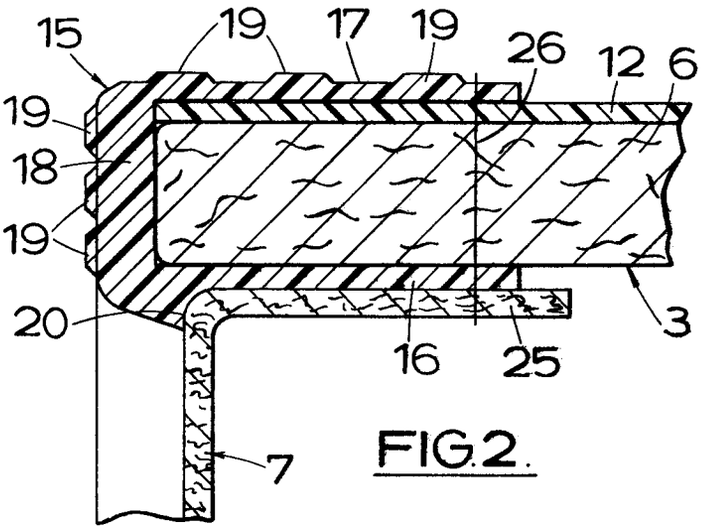

FIG.2.

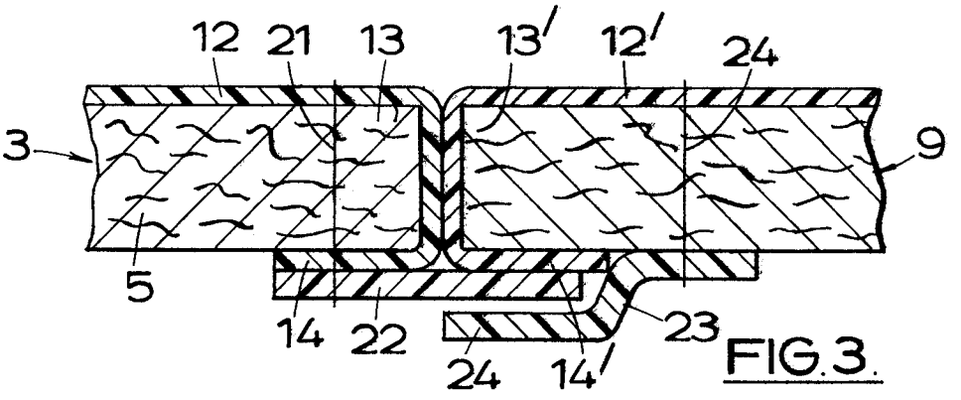

FIG.3.