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SUITCASE AND SUITCASE BODY

Abstract

A suitcase body (**12**) is disclosed as including a first body part (**14**), a second body part (**16**) fixedly engaged with the first body part via an outer frame (**20**), an inner frame (**22**) fixedly engaged with the outer frame (**20**), and a handle (**18**) fixedly engaged with and between the first body part and the second body part.

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Background/Summary

BACKGROUND OF THE INVENTION

[0001] This invention relates to a suitcase and a suitcase body, suitable (but not limited) for

travelling purposes.
[0002] There are a large number of suitcases in the market, catering for various needs of travellers and users. Such existing suitcases usually have metal (e.g., aluminium) or alloy frames connecting a front shell and a rear shell, which are pivotally connected with each other and collectively form the suitcase. Handles are mounted on one of such metal frames of each of these conventional suitcases, and thus off-centre of such suitcases. Because of such an arrangement, the front shell and the rear shell of each suitcase are of different structural constructions, and two moulds have to be provided for production of the differently-constructed front shell and rear shell, thus resulting in higher development time and cost. Mounting the handles on the metal frames would also limit the height and/or width of the suitcase body, and thus the packing volume of the suitcase.
[0003] It is thus an object of the present invention to provide a suitcase and a suitcase body in which at least one of the aforesaid shortcomings are mitigated or at least to provide a useful alternative to the trade and public.
SUMMARY OF THE INVENTION
[0004] According to a first aspect of the present invention, there is provided a suitcase body including a first body part, a second body part fixedly engaged with said first body part via a first engagement member, a second engagement member fixedly engaged with said first engagement member, and a handle member fixedly engaged with and between said first body part and said second body part.
[0005] According to a second aspect of the present invention, there is provided a suitcase including a suitcase body including a first body part, a second body part fixedly engaged with said first body part via a first engagement member, a second engagement member fixedly engaged with said first engagement member, and a handle member fixedly engaged with and between said first body part and said second body part.

Description

BRIEF DESCRIPTION OF THE DRAWINGS
[0006] A suitcase and a suitcase body according to an embodiment of the present invention will now be described, by way of examples only, with reference to the accompanying drawings, in which:
[0007] FIG. **1** shows a first partial perspective view of a suitcase with a suitcase body according to an embodiment of the present invention;
[0008] FIG. **2** shows a second partial perspective view of the suitcase shown in FIG. **1**;
[0009] FIG. **3** shows an exploded view of the suitcase shown in FIG. **1**;
[0010] FIG. **4** shows a partial sectional longitudinal exploded view of a handle assembly of the suitcase shown in FIG. **1**;
[0011] FIG. **5** shows a partial sectional transverse exploded view of the handle assembly shown in FIG. **4**;
[0012] FIG. **6** shows a partial sectional longitudinal assembled view of the handle assembly shown in FIG. **4**;
[0013] FIG. **7** shows a partial sectional transverse assembled view of the handle assembly shown in FIG. **6**;
[0014] FIG. **8** shows a top perspective assembled view of the handle assembly shown in FIG. **6**; and
[0015] FIG. **9** shows a bottom perspective assembled view of the handle assembly shown in FIG. **8**.
DESCRIPTION OF THE EMBODIMENTS
[0016] Partial perspective views of a suitcase according to an embodiment of the present invention are shown in FIGS. **1** and **2**, the suitcase being generally designated as **10**.

[0017] The suitcase **10** has a suitcase body **12** with a first body part **14** and a second body part **16** fixedly engaged with each other, such that the first body part **14** and the second body part are immovable relative to each other. The suitcase **10** has a number of handles **18** around the suitcase body **12**. In the embodiment as shown in FIGS. **1** and **2**, the handles **18** are all fixedly engaged with and between the first body part **14** and the second body part **16**. In particular, the handles **18** are each dead-centre of the first body part **14** and the second body part **16**. Put another way, the first body part **14** and the second body part **16** are symmetrically disposed relative to the handles **18**. In other embodiments of a suitcase according to the present invention, one or more of the handles **18** may be fixedly engaged with only the first body part **14** or the second body part **16**.
[0018] The body **12** is in the form of an endless loop with a number of walls **13** surrounding and defining an interior space, and a first opening and a second opening which are opposite to each other. To a side of the body **12** is pivotally engaged a first cover **15***a*. The first cover **15***a* is pivotally movable relative to the body **12** between an opened position in which access to the interior space of the suitcase body **12** through the first opening is allowed and a closed position in which access to the interior space of the suitcase body **12** through the first opening is prevented.
[0019] Similarly, to an opposite side of the body **12** is pivotally engaged a second cover **15***b*. The second cover **15***b* is pivotally movable relative to the body **12** between an opened position in which access to the interior space of the suitcase body **12** through the second opening is allowed and a closed position in which access to the interior space of the suitcase body **12** through the second opening is prevented.
[0020] As shown in FIG. **3**, the first body part **14** of the body **12** of the suitcase **10** is fixedly engaged with an outer frame **20** in the form of an endless loop, which may be made in one piece of a metal or alloy, such as aluminium. The suitcase **10** also includes an inner frame **22** in the form of an endless loop, at least part of which being made of a metal or alloy, such as aluminium.
[0021] FIGS. **4** and **5** show partial sectional exploded views of a handle assembly **19** of the suitcase **10**, including the handle **18**, the outer frame **20** and the inner frame **22**.
[0022] The handle **18** has two ends, of which only one end **24** is shown in FIG. **4**. Two screw-threaded holes **26** are provided in a downward-facing side **28** of the end **24** of the handle **18**. The end **24** of the handle **18** has a reduced lower portion **30** sized and configured to be received within an opening **32** of the outer frame **20**. The inner frame **22** also has two holes **34** (which may be screw-threaded) which, when assembled, are aligned with the two screw-threaded holes **26** of the end **24** of the handle **18**. The same arrangement is provided between the other end (not shown) of the handle **18** and the inner frame **22**.
[0023] Referring in particular to the outer frame **20**, when viewed transversely, and as shown in FIG. **5**, such has an upper portion **36**, a middle portion **38** with two side wings **40**, and a lower portion **42**, which are integrally formed with one another. The middle portion **38** with the two side wings **40** is wider than the upper portion **36** and the lower portion **42**. The upper portion **36** is spaced apart from the middle portion **38**, thus forming two recesses **44***a*, **44***b* running parallel to the length and along both sides of the outer frame **20**. The lower portion **42** of the outer frame **20** is sized and configured to be received at least partly within an elongate trough **46** of the inner frame **22**.
[0024] When the suitcase **10** is assembled, the outer frame **20** is fixedly engaged with and between the handle **18** and the inner frame **22**. As shown in FIGS. **6** to **9**, at least a part of the lower reduced portion **30** of the end **24** of the handle **18** is received within the opening **32** of the outer frame **20**, and the screw-threaded holes **26** of the end **24** of the handle **18** are aligned with the two holes **34** of the inner frame **22**. Screws (not shown) are threaded through the two holes **34** and into the screw-threaded holes **26** of the end **24** of the handle **18** to fixedly engage the end **24** of the handle **18**, the outer frame **20** and the inner frame **22** with one another. Similar arrangement is provided to fixedly engage the other end of the handle **18**, the outer frame **20** and the inner frame **22** with one another, to thereby fixedly engage the handle **18**, the outer frame **20** and the inner frame **22** with one

another. Although screws are disclosed here for fixedly engaging the handle **18**, the outer frame **20** and the inner frame **22** with one another, it is envisaged that other engagement elements or means, such as rivets or adhesive material, may also be used.

[0025] When the suitcase **10** is thus assembled, and as shown in FIGS. **7** to **9**, the inner frame **22** is out of contact with both the first body part **14** and the second body part **16**. In addition, at least a part of a respective side edge **48**, **50** of each of the first body part **14** and the second body part **16** is fixedly received within a respective of the elongate recesses **44***a*, **44***b* between the upper portion **36** and the middle portion **38** of the outer frame **20**, thus fixedly engaging the handle assembly **19**, the first body part **14** and the second body part **16** with one another.

[0026] When thus assembled, and as shown in FIGS. **8** and **9**, at least a part of the respective side edge **48**, **50** of each of the first body part **14** and the second body part **16** is fixedly received within a respective of the elongate recesses **44***a*, **44***b* between the upper portion **36** and the middle portion **38** of the outer frame **20**. The first body part **14** and the second body part **16** are thus fixedly engaged with each other via and along the outer frame **20**. To enhance the fixed engagement between the first body part **14** and the second body part **16**, the inner frame **22** is positioned inner of the outer frame **20**, the first body part **14** and the second body part **16**. In the sense as shown in FIGS. **4** to **9**, the inner frame **22** is positioned below the outer frame **20**, the first body part **14** and the second body part **16**. Engagement elements (for example, screws or rivets) are inserted through the inner frame **20** and the inner frame **22** to fixedly engage the outer frame **20** and the inner frame **22** with each other, thus also fixedly engaging the first body part **14** and the second body part **16** with the inner frame **22**. In this way, the inner frame **22** acts as a backing for enhancing the structural integrity of the suitcase body **12**, and thus that of the suitcase **10**.

[0027] By way of the present invention, it is possible to arrange for both the first body part **14** and the second body part **16** to be structurally identical with each other. Both the first body part **14** and the second body part **16** may therefore be produced by a single mould. This provides savings in development time and cost. In addition, such an arrangement of the handle **18** would lower the height of the handle **18**, and as a result of which the first body part **14** and the second body part **16** may be made taller and wider, thus increasing the packing volume of the suitcase **10**.

[0028] It should be understood that the above only illustrates examples whereby the present invention may be carried out, and that various modifications and/or alterations may be made thereto without departing from the spirit of the invention. In particular, various features of the invention which are, for brevity, described in the context of a single embodiment, may be provided or separately or in any suitable sub-combination.

Claims

1. A suitcase body including: a first body part, a second body part fixedly engaged with said first body part via a first engagement member, a second engagement member fixedly engaged with said first engagement member, and a handle member fixedly engaged with and between said first body part and said second body part.

2. The suitcase body of claim 1, wherein said first engagement member is in the form of an endless loop.

3. The suitcase body of claim 1, wherein said second engagement member is in the form of an endless loop.

4. The suitcase body of claim 1, wherein said first engagement member is fixedly engaged with said second engagement member via at least one engagement element.

5. The suitcase body of claim 1, wherein said first body part and said second body part are structurally substantially identical with each other.

6. The suitcase body of claim 1, wherein said second engagement member is out of contact with said first body part and said second body part.

7. The suitcase body of claim 1, wherein said first engagement member includes at least one opening receiving a part of said handle member.
8. The suitcase body of claim 1, wherein said first engagement member is in one piece.
9. The suitcase body of claim 1, wherein said first engagement member includes a first elongate recess and a second elongate recess, wherein a part of said first body part is fixedly received within said first elongate recess, and wherein a part of said second body part is fixedly received within said second elongate recess.
10. The suitcase body of claim 1, wherein said suitcase body is in the form of an endless loop with a plurality of wall members defining an interior space, and having a first opening and a second opening which are opposite to each other.
11. The suitcase body of claim 1, wherein said first body part and said second body part are symmetrically disposed relative to said handle member.
12. A suitcase including a suitcase body of claim 1.
13. The suitcase of claim 12, further including a first cover member pivotally engaged and movable relative to said suitcase body between an opened position in which access to an interior space of said suitcase body through said first opening is allowed and a closed position in which access to said interior space of said suitcase body through said first opening is prevented.
14. The suitcase of claim 13, further including a second cover member pivotally engaged and movable relative to said suitcase body between an opened position in which access to said interior space of said suitcase body through said second opening is allowed and a closed position in which access to said interior space of said suitcase body through said second opening is prevented.