(1) Publication number: 0 651 115 A1

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: 94308044.0

(51) Int. Cl.⁶: **E05B 1/00**

(22) Date of filing: 01.11.94

(30) Priority: 01.11.93 KR 2268393

(43) Date of publication of application : 03.05.95 Bulletin 95/18

(84) Designated Contracting States : **DE FR GB IT NL**

(1) Applicant: GOLDSTAR CO. Ltd. 20, Yoido-Dong, Youngdungpo-Gu Seoul (KR) (72) Inventor : Lee, Ki Yeul No.823-48, Yoksam-dong Kangnam-gu Seoul (KR)

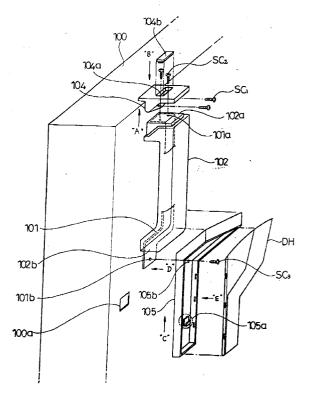
(74) Representative: Hitchcock, Esmond Antony Lloyd Wise, Tregear & Co.
Norman House
105-109 Strand
London WC2R 0AE (GB)

54 Door handle of electronic goods.

57 The door handle of an electrical unit comprises a soft handle (102) with metal reinforcing bracket (101).

The material of the soft handle is composed of rubber and urethan. Means (101, 104, 105) are provided for fixing the upper and lower portions of said soft handle to the door.





EP 0 651 115 A1

10

20

25

30

35

40

45

50

This invention relates to electronic goods, and more particularly to door handles therefor.

The present invention seeks to provide a door handle for electric units that has a soft feeling on use. To this end, the invention provides a door handle for electrical units comprising a reinforcing metal bracket within a body of soft material, the handle having upper and lower portions, and means for fixing such portions to the door of an electrical unit. Normally, the soft material comprises one of rubber and urethan. The metal bracket may extend through the body of soft material, the ends thereof forming the upper and lower portions of the handle.

The invention will now be described by way of example and with reference to the accompanying schematic drawings wherein:

Figure 1(A) is an exploded perspective view showing a door handle for an electrical unit in accordance with a known construction;

Figures 1(B) and 1(C) are detail views of the handle shown in Figure 1(A); and

Figure 2 is an exploded perspective view of a handle embodying the present invention.

As shown in Figure 1, the door 1 of an electrical unit such as a refrigerator has a handle 2 attached thereto.

To mount the handle on the door 1, the engineer inserts the projection 2a which is formed on handle base 2, into a rectangular groove la formed in the door 1 and pushes upward for securement by joining screws 3. The joining shape of the rectangular groove 1a and the groove 2a is shown in Figure 1(C).

After securement of the handle base 2 into the door 1, a decoration piece 4 is set onto the handle 2 and pushed in the direction C, to complete an assembly of two parts. Grooves 4a formed at the sides of decoration handle 4 and projections 2a of the handle base 2 cooperate to secure the decoration piece 4, as is shown in Figure 1(B). The decoration piece 4 is made of hard plastic.

In the embodiment of the invention shown in Figure 2, a soft handle 102 is formed by moulding the shape of handle in rubber and coating urethan onto the surface thereof after completion of said moulding step. The handle 102 may be formed only by moulding of urethan.

The assembly of a handle according to the present invention will now be described.

First, the holder 104 is fixed to the door 100 by screws SC1, and the soft handle 102 pushed upward onto the handle holder 104. The soft handle 102 is then secured by screws SC2.

The screws SC2 joining the handle holder 104 and the soft handle 102 are received in upper side holes 101a of a bracket 101 in the body of the soft handle 102. A cover 104b is then fitted to a rectangular slot 104a in the direction "B" to conceal the screws SC2.

After the upper assembly of the soft handle 102 is completed, a projection 105a, which is formed at the lower portion of said handle base 105, is fitted to a rectangular groove 100a and pushed in the direction "C". After this assembly is completed, the handle base 105 is adjusted so that its hole 105b is in registry with the hole 101b of the bracket 101 and they can be joined by screw SC3.

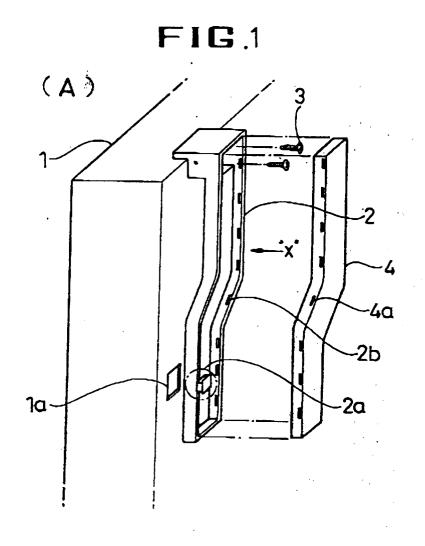
The assembly of the soft handle is completed by pushing and inserting the decoration handle DH to the direction "D".

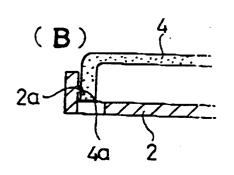
As described herein, a device according to the present invention reinforces a soft handle by inserting a metal bracket. This provides a user with a soft feeling by forming the handle part in a rubber material of urethan.

Claims

- A door handle for electrical units comprising a reinforcing metal bracket within a body of soft material, the handle having upper and lower portions, and means for fixing such portions to the door of an electrical unit.
- A door handle according to Claim 1 wherein the soft material comprises one of rubber and urethane.
- 3. A door handle according to Claim 1 or Claim 2 wherein the fixing means includes a holder assembled with the upper portion and a base assembled with the lower portion, the holder and base being adapted for attachment to a said door.
- 4. A door handle according to any preceding Claim wherein the metal bracket extends through the body of soft material, the ends thereof forming the upper and lower portions of the handle.

2





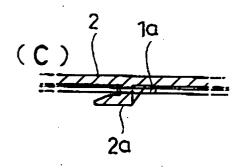
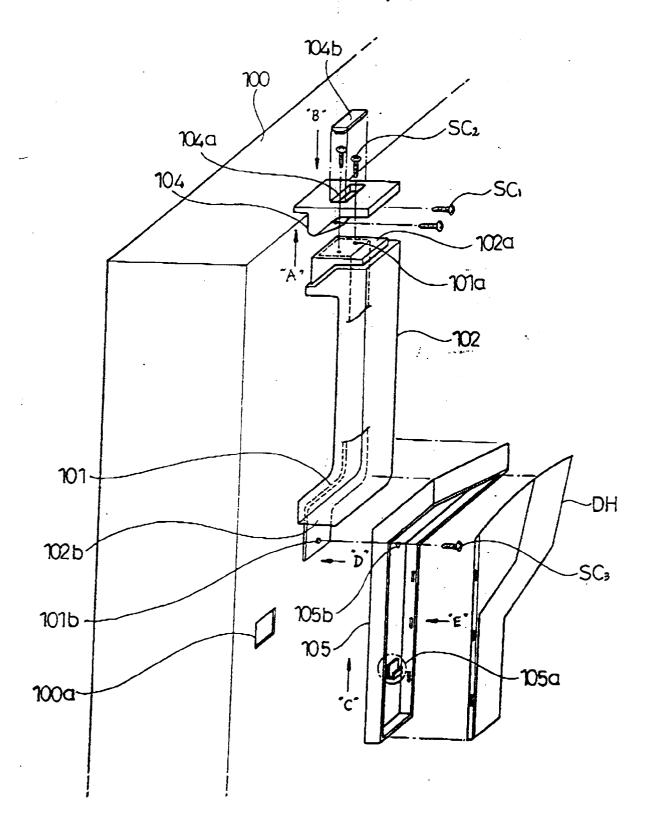


FIG.2





EUROPEAN SEARCH REPORT

Application Number EP 94 30 8044

| ategory | Citation of document with indication of relevant passages | | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int.Cl.6) | |
|--|---|---|--|--|--|
| (| DE-A-17 79 991 (HAPPICH) * the whole document * | 1, | ,2,4 | E05B1/00 | |
| (| FR-A-1 349 522 (HAPPICH) * the whole document * | 1, | ,2,4 | | |
| \ | US-A-4 926 523 (CARLSON) * the whole document * | 1 | | | |
| • | DE-A-39 40 137 (GRONBACH * the whole document * | 1 | | | |
| | | | | | |
| | | | | TECHNICAL FIELDS SEARCHED (Int.Cl.6) | |
| | | | | E05B | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | The present search report has been draw | yn up for all claims | | | |
| | Place of search | Date of completion of the search | | Examiner | |
| | THE HAGUE | 26 January 1995 | Ver | relst, P | |
| CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category | | E : earlier patent documenter the filing date D : document cited in th L : document cited for o | D : document cited in the application L : document cited for other reasons | | |
| A : technological background O : non-written disclosure P : intermediate document | | & : member of the same | | | |