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(54) **Handle of a household appliance, in particular a refrigerating appliance**

(57) The present invention relates to a handle (1) of a household appliance, in particular a refrigerating appliance, said handle (1) being of the type that comprises:
- a grip (10) for opening and closing a door of said household appliance;

- at least one bracket (20) comprising a first end (21), associated with said grip (10), and a second end (22).

The invention is characterized in that said handle (1) comprises a cover (30) adapted to cover substantially the whole surface of said at least one bracket (20).

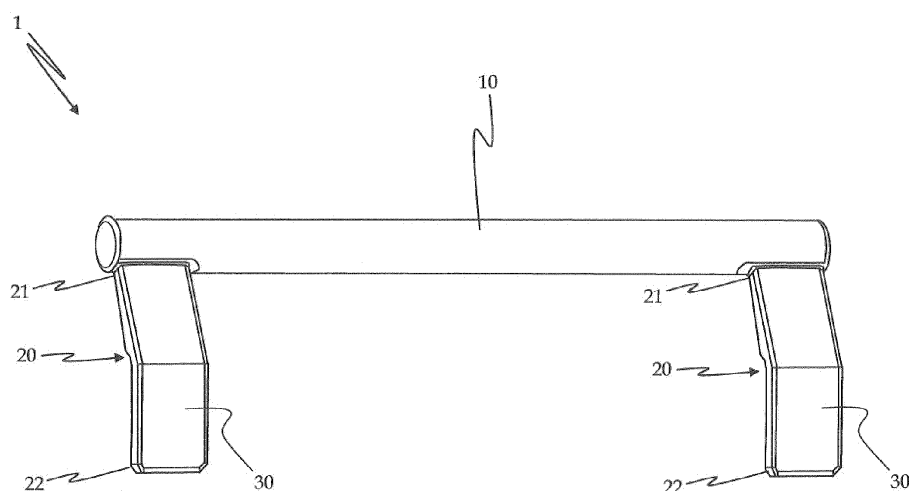


Fig. 1

Description

[0001] The present invention relates to a handle of a household appliance, in particular a refrigerating appliance, according to the preamble of claim 1.

[0002] The present invention further relates to a household appliance, in particular a refrigerating appliance, comprising said handle.

[0003] Known household appliances comprise one or more compartments adapted to be closed by a door, which usually comprises a handle that allows opening and closing said door. Generally, the handles used for opening and closing doors of household appliances known in the art are of the type that comprises:

- a grip for opening and closing said door of the household appliance;
- at least one bracket comprising a first end, associated with said grip, and a second end.

[0004] The handle is typically associated with the door of the household appliance in the vicinity of said second end. In particular, the coupling between the second end of the bracket (or of the bracket portion located in the proximity of said second end) and the door of the household appliance is usually obtained by using fastening means known in the art. Preferably, designers try to avoid leaving said fastening means exposed because, in addition to being unsightly, they can be potentially dangerous for a user, who might be injured or damage his/her clothes upon accidentally touching or rubbing against said fastening means.

[0005] Consequently, it is known in the art to associate a cover with the bracket portion that comprises said fastening means, so as to cover both the fastening means and the respective holes.

[0006] Also this solution has some drawbacks, in that the cover that covers the bracket portion where said fastening means are inserted inevitably creates a discontinuity along the outer profile of the bracket; in addition to being unaesthetic, said discontinuity may also be potentially dangerous for people or objects coming in contact therewith, e.g. because it may create sharp surfaces or anyway surfaces that might become dangerous, in particular when accidentally rubbing against them.

[0007] Furthermore, said discontinuity may become a receptacle of dirt and may make it more difficult to clean the bracket, resulting in worse hygienic conditions of the whole handle.

[0008] Document US5493756 has disclosed a handle of a household appliance, in particular a refrigerating appliance, which comprises a cover adapted to completely cover said handle; in fact, the cover described in said document is so designed as to cover both the ends or brackets of the handle, which are coupled to the door of the household appliance, and the intermediate grip portion of the handle.

[0009] However, this solution has a few drawbacks as

well, in that the cover must necessarily be so designed as to include fastening means to be directly coupled to the door of the household appliance; as a consequence, such a solution weakens the door structure and increases the production costs thereof, because it necessarily requires the drilling of first holes into said door for housing the fastening means that secure the handle, and additional holes for housing the fastening means that secure the cover to the door.

[0010] In this frame, it is the main object of the present invention to overcome the above-mentioned drawbacks by providing a handle of a household appliance, in particular a refrigerating appliance, which is so designed as to provide a slightly solution that includes no elements that might be potentially dangerous for a user or an object coming in contact with said handle.

[0011] In particular, it is one object of the present invention to provide a handle of a household appliance, in particular a refrigerating appliance, which is so designed as to include no sharp surfaces or surfaces that might turn out to be dangerous, in particular when accidentally rubbing against them.

[0012] It is a further object of the present invention to provide a handle of a household appliance, in particular a refrigerating appliance, which is so designed as to include no parts that might become a receptacle of dirt and/or make it difficult to clean the bracket, resulting in worse hygienic conditions of the whole handle.

[0013] Said objects are achieved by the present invention through a handle of a household appliance, in particular a refrigerating appliance, incorporating the features set out in the appended claims, which are intended to be an integral part of the present description. Further objects, features and advantages of the present invention will become apparent from the following detailed description and from the annexed drawings, which are supplied by way of non-limiting example, wherein:

- Fig. 1 shows a perspective view of a handle of a household appliance, in particular a refrigerating appliance, according to the present invention;
- Fig. 2 shows a partial perspective view of a rear portion of the handle of Fig. 1.

[0014] Referring now to the annexed drawings, reference numeral 1 designates as a whole a handle of a refrigerating appliance, in particular a refrigerating appliance, according to the present invention.

[0015] It should be noted that said household appliance is not shown in the annexed drawings, since it is of a type known in the art.

[0016] The handle 1 is of the type comprising:

- a grip 10 for opening and closing a door of said household appliance;
- at least one bracket 20 comprising a first end 21, associated with said grip 10, and a second end 22.

[0017] Usually, the handle 1 is associated with the door of the household appliance in the vicinity of said second end 22. In particular, the coupling between the second end 22 of the bracket 20 (or of that portion of the bracket 20 which is located in the proximity of said second end 22) and the door of the household appliance is generally obtained by using fastening means (which are not shown since they are known in the art).

[0018] Preferably, the handle 1 according to the present invention comprises a pair of brackets 20 (as shown in Fig. 1); however, it is clear that said handle 1 may comprise just one bracket 20.

[0019] It must be pointed out that said at least one bracket 20 allows the grip 10 to be kept at a distance from the surface of the door with which the handle 1 is associated, thus making it easier for a user to grasp said grip 10.

[0020] According to the invention, said handle 1 comprises a cover 30 adapted to cover substantially the whole surface of said at least one bracket 20.

[0021] In particular, said cover 30 is adapted to cover substantially the whole visible surface of said at least one bracket 20; it should be noted that, for the purposes of the present invention, the "visible surface" is meant to be that part of the bracket 20 which, in an operating condition of the handle 1 (i.e. when said handle 1 is associated with a door of the household appliance), is substantially facing a user. Moreover, for the purposes of the present invention, the term "door" refers to any element suitable for closing a portion of the household appliance.

[0022] Preferably, said at least one bracket 20 is removably associated with said grip 30; such a provision ensures considerable advantages in terms of easiness of production of the handle 1 according to the present invention, with reduced costs and increased flexibility of said handle 1.

[0023] As can be seen especially in Fig. 2, said cover 30 preferably comprises:

- a first surface 31 adapted to be associated with an upper portion 20S of the bracket 20;
- at least one second surface 32 extending from said first surface 31, said at least one second surface 32 being adapted to be associated with a side portion 20L of the bracket 20;
- a third surface 33 extending from said first surface 31, said third surface 33 being adapted to be associated with said second end 22 of the bracket 20.

[0024] Preferably, said at least one second surface 32 comprises a pair of second surfaces 32 that extend from opposite sides of said first surface 31, each of said second surfaces 32 comprising a portion associated with the third surface 33.

[0025] The cover 30 according to the present invention is so designed as to leave uncovered the first end 21 of the bracket 20 (in order to allow the bracket 20 to be coupled to the grip 10) and, at least partially, a lower

portion 20I of the bracket 20; as a consequence, the cover 30 according to the present invention is substantially shaped like a parallelepipedon lacking, at least partially, two contiguous faces.

[0026] Preferably, the bracket 20 and the cover 30 comprise coupling means for connecting them to each other.

[0027] In particular, said coupling means comprise:

- at least one first tooth 32D, associated with said at least one second surface 32, and a first seat 22D, at least partially associated with the side portions 20L of the bracket 20, said first seat 22D being adapted to be coupled to said at least one first tooth 32D;
- at least one second tooth 33D, associated with said at least one third surface 33 of the cover 30, and a second seat 23D, at least partially associated with the second end 22 of the bracket 20, said second seat 23D being adapted to be coupled to said at least one second tooth 33D.

[0028] Such a design of the coupling means allows coupling the bracket 20 to the cover 30 preferably by means of:

- a first manoeuvre of sliding the cover 30 over the bracket 20, said sliding manoeuvre being adapted to allow coupling the second tooth 33D to the second seat 23D;
- a second manoeuvre of fitting, in particular snap fitting, the first teeth 32D associated with the second surfaces 32 of the cover 30 into the first seats 22D associated with the side portions 20L of the bracket 20.

[0029] As can be seen in Fig. 2, each first seat 22D may be associated partly with the side portions 20L and partly with the lower portion 20I of the bracket 20, while the second seat 23D may be associated partly with the second end 22 and partly with the lower portion 20I of the bracket 20; it is however clear that said seats 22D, 23D may also be positioned otherwise, because it is apparent that the positions of said teeth 32D, 33D and said seats 22D, 23D may be different than described; for example, at least one of said teeth 32D, 33D may be associated with the bracket 20 to be housed in at least one seat 22D, 23D obtained in the cover 30.

[0030] In an alternative embodiment (not shown in the annexed drawings), said coupling means comprise a pair of first teeth 32D associated with each of said second surfaces 32, and a pair of first seats 22D at least partially associated with the side portions 20L of the bracket 20, said pair of first seats 22D being adapted to be coupled to said pair of first teeth 32D.

[0031] In this alternative embodiment, the provision of an additional first tooth 32D for each second surface 32 allows to obtain a firm coupling between the bracket 20 and the cover 30; in particular, said provision allows to

avoid having to make a second tooth 33D on the second surface 32 of the cover 30 and a second seat 23D on the second end 22 of the bracket 20.

[0032] Furthermore, it can be seen in Fig. 2 that the bracket 20 comprises a bent intermediate portion 20P, and that the cover 30 comprises a bend 30P corresponding to said bent intermediate portion 20P; this allows to understand that the cover 30 has a shape which is complementary to that of the bracket 20.

[0033] The advantages of a handle of a household appliance, in particular a refrigerating appliance, according to the present invention are apparent from the above description.

[0034] In particular, such advantages are due to the fact that the particular design of the cover 30 according to the present invention allows to provide a slightly solution that has no elements which might be potentially dangerous for a user or an object coming in contact with the handle 1.

[0035] Another advantage is that the cover 30 according to the present invention allows to manufacture a handle 1 that has no sharp surfaces or surfaces which might become dangerous, in particular when accidentally rubbing against them.

[0036] A further advantage of the special design of the cover 30 according to the present invention is that it has no parts that might become a receptacle of dirt and/or make it difficult to clean the bracket 20; as a result, such a design allows to significantly improve the hygienic conditions of the whole handle 1.

[0037] The handle of a household appliance, in particular a refrigerating appliance, described herein by way of example may be subject to many possible variations without departing from the novelty spirit of the inventive idea; it is also clear that in the practical implementation of the invention the illustrated details may have different shapes or be replaced with other technically equivalent elements.

[0038] It can therefore be easily understood that the present invention is not limited to the above-described handle of a household appliance, in particular a refrigerating appliance, but may be subject to many modifications, improvements or replacements of equivalent parts and elements without departing from the inventive idea, as clearly specified in the following claims.

Claims

1. A handle (1) of a household appliance, in particular a refrigerating appliance, said handle (1) being of the type that comprises:

- a grip (10) for opening and closing a door of said household appliance;
- at least one bracket (20) comprising a first end (21), associated with said grip (10), and a second end (22),

characterized in that

said handle (1) comprises a cover (30) adapted to cover substantially the whole surface of said at least one bracket (20).

2. A handle (1) according to claim 1, **characterized in that** said cover (30) is adapted to cover substantially the whole visible surface of said at least one bracket (20).
3. A handle (1) according to one or more of the preceding claims, **characterized in that** said at least one bracket (20) is removably associated with said grip (30).
4. A handle (1) according to one or more of the preceding claims, **characterized in that** said cover (30) comprises:
 - a first surface (31) adapted to be associated with an upper portion (20S) of the bracket (20);
 - at least one second surface (32) extending from said first surface (31), said at least one second surface (32) being adapted to be associated with a side portion (20L) of the bracket (20);
 - a third surface (33) extending from said first surface (31), said third surface (33) being adapted to be associated with said second end (22) of the bracket (20).
5. A handle (1) according to claim 4, **characterized in that** said at least one second surface (32) comprises a pair of second surfaces (20) that extend from opposite sides of said first surface (31), each of said second surfaces (32) comprising a portion associated with the third surface (33).
6. A handle (1) according to one or more of the preceding claims 4 and 5, **characterized in that** said cover (30) is so designed as to leave uncovered the first end (21) of the bracket (20) and, at least partly, a lower portion (20I) of the bracket (20).
7. A handle (1) according to one or more of the preceding claims 4 to 6, **characterized in that** said cover (30) is substantially shaped like a parallelepipedon lacking, at least partly, two contiguous faces.
8. A handle (1) according to one or more of the preceding claims, **characterized in that** said bracket (20) and said cover (30) comprise coupling means for connecting them to each other.
9. A handle (1) according to claim 8, **characterized in that** said coupling means comprise:
 - at least one first tooth (32D), associated with said at least one second surface (32), and a first

seat (22D), at least partially associated with the side portions (20L) of the bracket (20), said first seat (22D) being adapted to be coupled to said at least one first tooth (32D);

- at least one second tooth (33D), associated with said at least one third surface (33) of the cover (30), and a second seat (23D), at least partially associated with the second end (22) of the bracket (20), said second seat (23D) being adapted to be coupled to said at least one second tooth (33D).

10. A handle (1) according to claim 9, **characterized in that** each first seat (22D) is associated partly with the side portions (20L) and partly with the lower portion (20I) of the bracket (20), while the second seat (23D) is associated partly with the second end (22) and partly with the lower end (20I) of the bracket (20).
11. A handle (1) according to claim 8, **characterized in that** said coupling means comprise a pair of first teeth (32D) associated with each one of a pair of second surfaces (32), and a pair of first seats (22D) at least partially associated with the side portions (20L) of the bracket (20), said pair of first seats (22D) being adapted to be coupled to said pair of first teeth (32D).
12. A handle (1) according to one or more of the preceding claims, **characterized in that** said cover (30) has a shape which is complementary to the shape of the bracket (20).
13. A handle (1) according to claim 12, **characterized in that** said bracket (20) comprises a bent intermediate portion (20P) and the cover (30) comprises a bend (30P) corresponding to said bent intermediate portion (20P).
14. A household appliance, in particular a refrigerating appliance, comprising a handle (1) according to one or more of the preceding claims 1 to 13.

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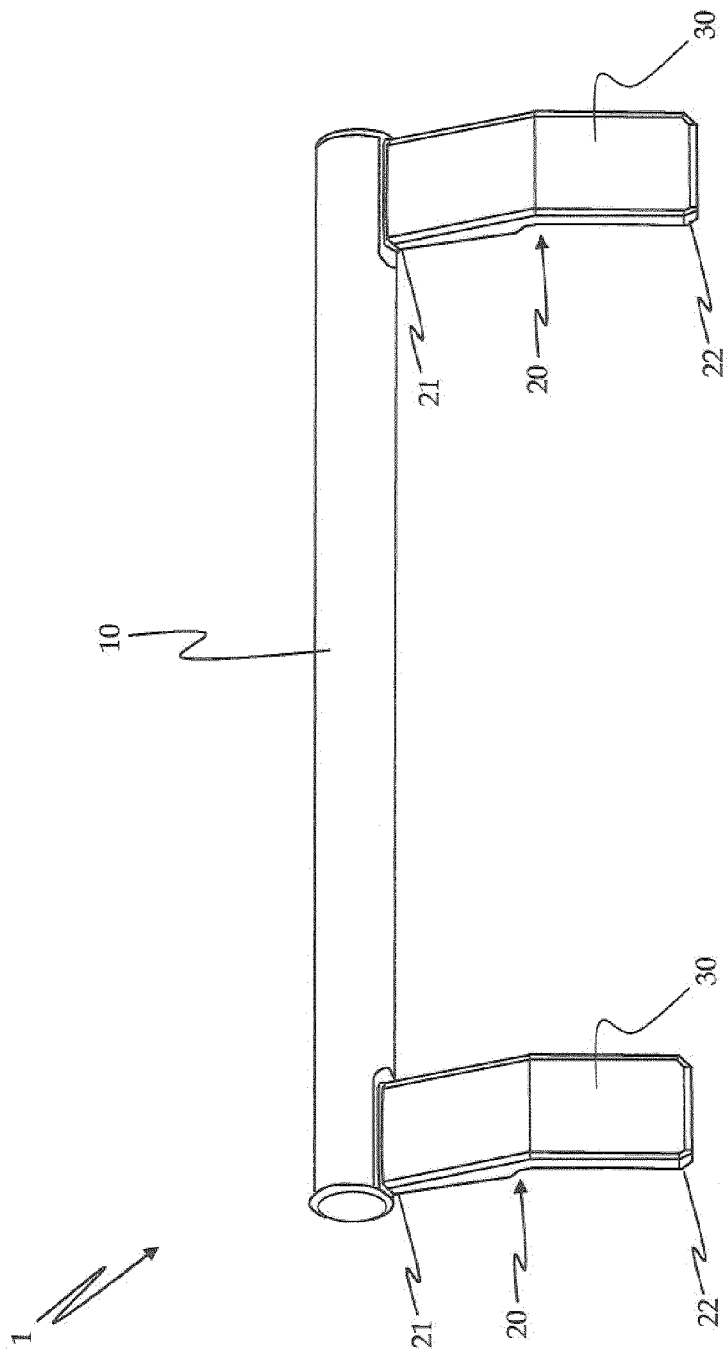


Fig. 1

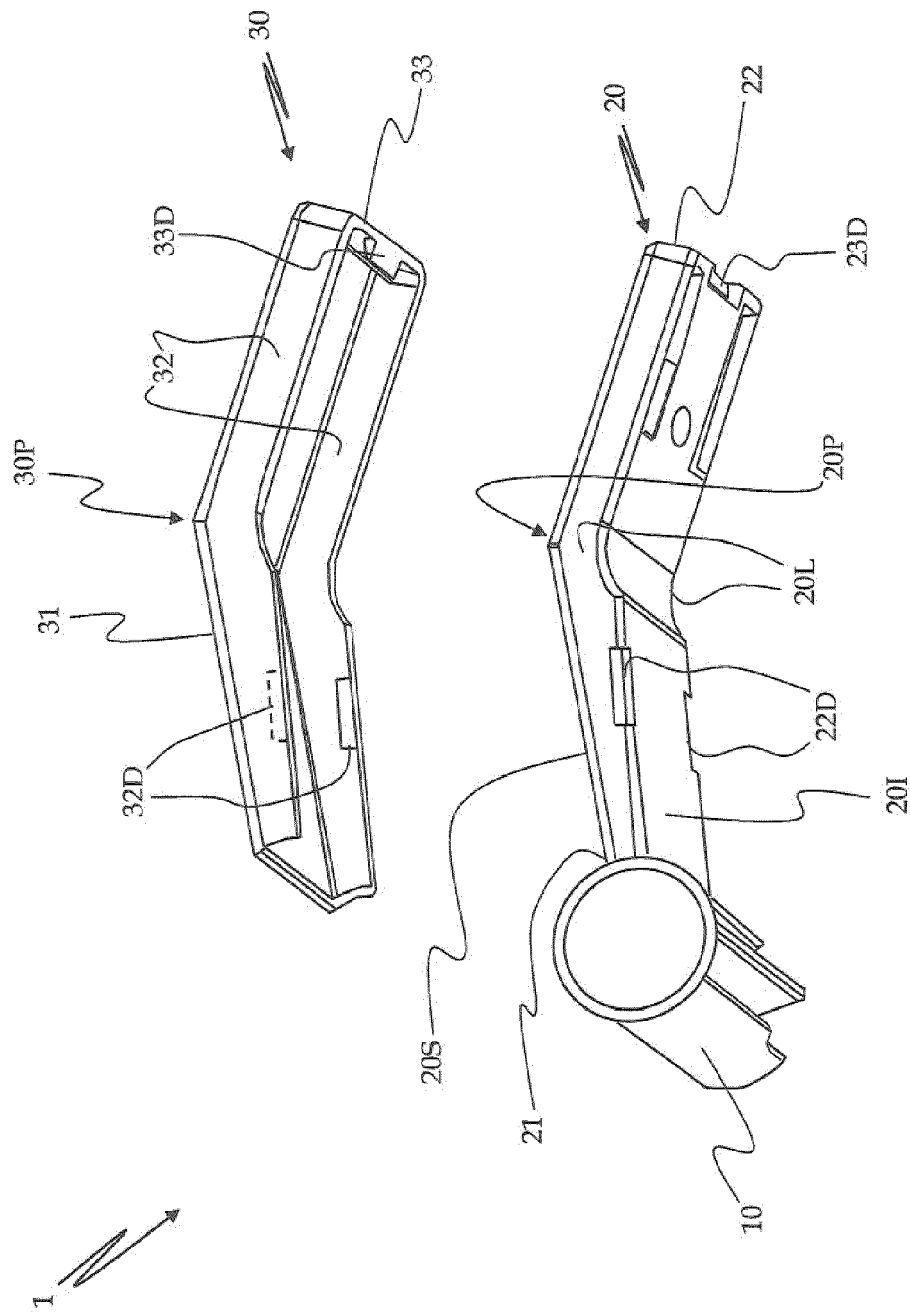


Fig. 2

REFERENCES CITED IN THE DESCRIPTION

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