May 31, 1932. L. REINOLD 1,860,596

HANDGRIP

Filed April 8, 1930

Fig. 1

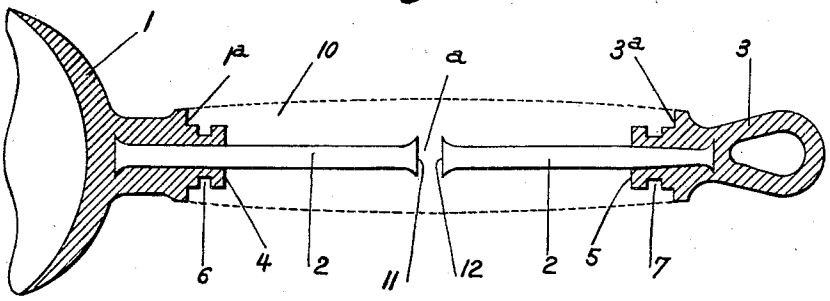


Fig. 2

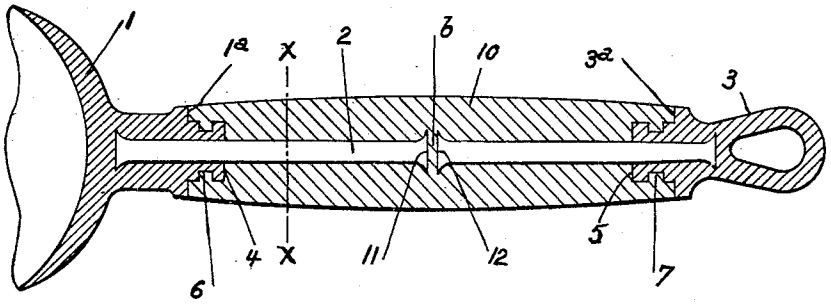
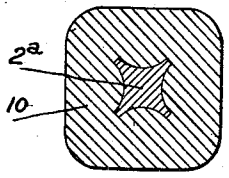


Fig. 3



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UNITED STATES PATENT OFFICE

LOUIS REINOLD, OF TOURNUS, FRANCE, ASSIGNOR TO MANUFACTURE METALLURGIQUE DE TOURNUS, OF TOURNUS, FRANCE

HANDGRIP

Application filed April 8, 1930, Serial No. 442,631, and in France February 24, 1930.

This invention relates to improvements in or modifications of the invention claimed in my prior application Serial No. 404,799.

The subject of the present invention is an improved form of construction of a grip or handle for saucepans or other vessels comprising an insulating covering of plastic material moulded directly thereon, within the scope of my said prior specification.

The object of the invention is to provide a grip or handle which is lighter, less rigid, and of less cost, permitting it to be fitted to relatively cheap saucepans or other vessels.

The form of construction provided for in my said prior specification necesitates in effect, accurate and therefore costly machining for the formation of the frusto-conical end of the core rod and the corresponding lodgment formed in the mass of the terminal piece forming a suspension ring.

Moreover, the method of mounting provided for, by a sliding sleeve fit, as in some prior constructions is relatively heavy with respect to the whole of the grip or handle, and the rigidity of the core, which is not proportionate to the elasticity or the degree of plasticity of the covering material is, in certain cases, a cause of the fracture of the said material.

The new form of construction which forms the subject of the present invention, removes these disadvantages.

It is hereinafter described and is illustrated in the accompanying drawings, in which:

Figure 1 is an axial horizontal section, the moulded cover being shown before its shrinkage and the central core being viewed in elevation.

Figure 2 is a similar view, after the shrinkage of the moulded cover which is shown in section.

Figure 3 is an enlarged view, in section along the line x—x in Figure 2, showing the cross section of the core.

In these figures, 1 is the foot; 2 a core rod member embedded at one end in the foot during casting; and 3 is the end piece terminating in the form of a ring by means of which the utensil can be hung up, the other member of the core rod 2 being embedded at one end in the mass of the said end piece 3 during casting. The cast metal foot 1 and end piece 3 are preferably of aluminum, but may be of any other suitable material.

With regard to the surfaces bounding the cover of moulded material, and also the engaging and holding means permitting the mass of the cover to become rigid with the foot and the end piece, these remain the same as in the construction shown in my said application, and consist of the shoulders 1^a and 3^a, the heads 4 and 5 and the circumferential grooves 6 and 7.

The core rod, which is formed of two members 2, 2, is preferably of a rectangular or other non-irregular shape in cross section as shown at 2^a, Fig. 3. The adjacent inner ends of the core rod members, embedded in the cover material 10, are flared or enlarged, as shown at 11 and 12, and the outer ends of said members, embedded in the foot 1 and end piece 3, are also similarly flared or enlarged, thus affording holding flanges in the cast metal foot 1 and end piece 3 and also in the shrinkable plastic material cover 10, to anchor the said rod members in the said foot and end piece and in the said cover 10. The core members 2, 2, when constructed of non-circular form in cross section offer the greatest adherence to the mass of the cover and the foot and end piece.

The whole of the handle thus formed, is placed in the mould in such a way that the two portions of the rod 2 are situated in axial alignment with each other, the ends 11 and 12 being separated by a few millimetres, for example 5 m/m., as shown at a in Figure 1.

When the mass of the plastic material destined to form the cover has been directly moulded on, (as shown in dotted lines in Figure 1) and after shrinkage a finished handle is obtained, as shown in Figure 2, in which it is seen that the two ends 11 and 12 of the rod 2 have moved closer together and are only separated by a gap b which has been reduced to three millimetres, for example, by the shrinkage of the moulded material of the cover 10.

In view of the fact that all the bending stresses are near the foot 1, the strength of

the handle constructed as shown is in no way reduced, especially since when the utensil is lifted the handle is fully gripped by the hand; on the contrary its elasticity is increased on account of the formation of the rod 2 in two sections or members, while its strength remains the same.

What I claim is:

1. An improved grip or handle, for a utensil, having a foot of cast metal, said foot having a shoulder and a circumferential groove at its outer part, said handle having a cast metal end piece and also having a shoulder and a circumferential groove at its inner piece, a cover of shrinkable plastic material fitting against said shoulders and in said grooves, and a core rod consisting of two parts or members, having enlarged ends embedded in said foot and end piece and in said cover.

2. An improved grip or handle, for a utensil, having a foot of cast metal, said foot having a shoulder and a circumferential groove at its outer part, said handle having a cast metal end piece and also having a shoulder and a circumferential groove at its inner part, a cover of shrinkable plastic material fitting against said shoulders and in said grooves, and a core rod consisting of two non-circular parts or members having enlarged ends embedded in said foot and end piece and in said cover.

3. An improved grip or handle, for a utensil, having a foot and an end piece of cast metal, said handle comprising a cover of molded plastic material and non-circular core rods in said cover, said rods having enlarged ends embedded in said cover and in said foot and said end piece.

In testimony whereof I affix my signature.

LOUIS REINOLD.