(21) Application No. 7638/73 (22) Filed 16 Feb. 1973

(23) Complete Specification filed 6 Dec. 1973

(44) Complete Specification published 11 June 1975

(51) INT. CL.<sup>2</sup> B23P 17/00

(52) Index at acceptance B3A 26 68 78K

(72) Inventor ROY SELWYK SMITH

(54) FIGURINE



(71) We, BRITAINS LIMITED, a British Company, of Blackhorse Lane, Walthamstow, London E17 5QJ, do hereby declare the invention, for which we pray that a patent 5 may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:

This invention relates to an improved method of forming a metal figurine having an accessory supported between two parts of

the figurine.

25

Die-cast metal figurines are well known (particularly in the form of toy soldiers) and it is known to provide such figurines with 15 integrally cast accessories (in the case of a toy soldier, the accessory could be a weapon). Where the accessory is elongated of form it is normally a weak structure if it is cast in the same material from which the figurine is formed and completed figurines having integrally formed elongated accessories of this type have the marked disadvantage that they are fragile, the accessory readily becoming broken.

This invention relates to an improved method of manufacturing such a figurine which, without substantially increasing the manufacturing costs, provides a figurine which is far more durable to use.

According to the present invention a method of forming a metal figurine having an accessory supported between two parts of the figurine, comprises the steps of casting the figurine with sufficient clearance between said two parts to permit insertion of the accessory therebetween, inserting the accessory in said clearance and deforming the figurine to reduce the clearance and retain the accessory between the two parts.

Typically, the accessory will be moulded from a resilient plastics material but it will be appreciated this is not an essential feature of the method of the invention.

Normally the figurine will be provided with a projection extending into the clearance between said two parts, the accessory having a shape such that it fits over the projection when located in said clearance. The projection which is formed on one of said two parts may

[Price 33p]

be dimensioned to contact the other of said two parts when the clearance between those parts has been reduced to the desired extent.

(11)

One embodiment of a toy soldier made in accordance with the method of the invention will now be described, by way of example, with reference to the drawing accompanying the provisional specification, in which:-

Figure 1 is a front view of the completed

soldier, and

Figure 2 is an exploded view of the component parts which form the soldier of Figure

Referring to Figure 1, there is shown a toy guardsman 4 equipped with a rifle 1 and a bearskin 2 and standing on a base 3.

Figure 2 indicates that the model is formed from four separate parts, the main part comprising the head and body of the guardsman 4 being die-cast in solid zinc alloy. Pegs 5 are formed on the soles of the feet of the guardsman 4 and are dimensioned to be a force fit in cooperating apertures 6 in a cast metal base 3. The base may be cast from the same alloy as the guardsman 4. The head of the guardsman is provided with a flattened peg 7 (integrally formed with the guardsman and thus also of solid zinc alloy) and over this peg is adapted to fit the bearskin 2, the latter being moulded from polyvinylchloride. A recess 8 is formed in the underside of the bearskin 2 and the peg 7 locates snugly on this to hold the bearskin 2 in place on the head of the guardsman 4.

The right arm of the guardsman 4 is diecast in a position which is outwardly of that desired in the final model to leave a clearance indicated at 10 in figure 2 between the right arm 9 and a projection 11 formed on the guardsman 4.

The rifle 1 (suitably moulded from flexible material such as polypropylene) is provided with an aperture 12 dimensioned to fit over the projection 11 and the guardsman is equipped with his rifle by locating it over the projection 11 and then pressing the right arm 9 inwardly to reduce the clearance 10 to the point where the rifile cannot subsequently

20

40

60

come off the projection 11 without again outwardly deforming the arm 9.

Although the drawing shows a model soldier it will be appreciated that the method of the invention can be applied to any type of cast metal figurine.

Since the figurine has to be deformed somewhat during the forming process it follows that it cannot be used if the figurine is fabricated from a very brittle alloy which will not allow any flexing without breakage. Figure 2 shows the clearance 10 rather larger than it need be in practice, so that only a small deformation of the arm 9 will be required to secure the rifle 1 in position.

By utilising a resilient material for the accessory, it is ensured that it cannot damage a user (e.g. a child) as might happen in the case of a pointed metal accessory.

The absence of the accessory and the base from the main part of the guardsman 4 facilitates the painting or mask spraying of the model. The separate base 3 can be painted by mechanical means and can readily be moulded with a recess on its underside for advertising legends, model number or manufacturers name.

The peg 7 allows the main part of the guardsman 4 to be mechanically handled during manufacturing processing e.g. when sprayed or stoved with an initial undercoating.

Conventional die casting and moulding techniques can be employed for making the parts 1, 2, 3 and 4.

WHAT WE CLAIM IS:-

1. A method of forming a metal figurine

having an accessory supported between two parts of the figurine comprising the steps of casting the figurine with sufficient clearance between said two parts to permit insertion of the accessory therebetween, insering the accessory in said clearance and deforming the figurine to reduce the clearance and retain the accessory between the two parts.

2. A method as claimed in claim 1 in which the figurine is provided with a projection extending into the clearance between said two parts, the accessory having a shape such that it fits over the projection when located in said clearance.

3. A method as claimed in claim 2, in which the projection is dimensioned to contact the other of said two parts when the clearance between those parts has been reduced to the desired extent.

4. A method as claimed in any preceding claim in which the figurine is cast in a metal alloy and the accessory is moulded from a resilient plastics material.'

5. The method of making the figurine illustrated in the drawing accompanying the provisional specification substantially as herein before described.

6. A metal figurine made by the method 65 claimed in any preceding claim.

J. Y. & G.W. JOHNSON, Furnival House, 14-18 High Holborn, London WCIV 6DE. Chartered Patent Agents, Agents for the Applicants.

Printed for Her Majesty's Stationery Office by Burgess & Son (Abingdon), Ltd.—1975.

Published at The Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.

1397373 PROVISIONAL SPECIFICATION

1 SHEET This drawing is a reproduction of the Original on a reduced scale



