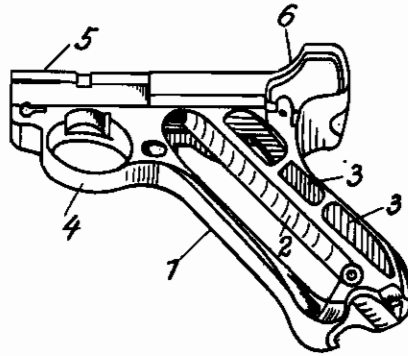


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**GRIP FOR FIRE-ARMS, ESPECIALLY PISTOLS,**  
**AND METHOD FOR THEIR PRODUCTION**  
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# ALIEN PROPERTY CUSTODIAN

## GRIP FOR FIRE-ARMS, ESPECIALLY PISTOLS, AND METHOD FOR THEIR PRODUCTION

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Hitherto the grips and breech-slides, magazine-guides, drum-holders and the like integrally connected therewith in the usual manner have been machined, with tools for removing splinters, from wrought pieces or solid material, obviously with the assumption that the grip is in places very much strained and consequently must be especially hard. This method is very lengthy and expensive. Lightmetal grips produced by sand-casting and heavily machined have not stood the test in consequence of too little surface-hardness and strength.

The invention consists in the grip, and the housing-parts integrally connected therewith, such as slides, magazine-guides, drum-holders and the like being produced by die-casting essentially in its final form without tooling its inner and outer surface, preferably with the employment of easily fusible metals, such as hard aluminium alloys and especially zinc alloys, e. g. consisting of about 91-94% Zn., 3.5-5% Al., and 2.5-4% Cu. By this means the production of the grip is exceptionally accelerated and simplified, as external subsequent machining of the cast grip is almost wholly dispensed with. The above described zinc alloys show themselves to be of especial value for the new casting, because they are cheap and easily fusible and have therewith a tenacity value of about 33-36 kg/mm<sup>2</sup> and furthermore at the surface a high Brinell-hardness (112 kg/mm<sup>2</sup>) and a favourable capacity for sliding relative to steel. Grips of such or similar heavy metal castings have the further advantage that their weight scarcely differs from that of iron-grips and consequently, when firing, the weapon lies in the hand quite as well as a weapon with an iron-grip. In certain cases also easily fusible gunmetal (hard solder alloy) and under certain circumstances white cast-iron are applicable, which can be converted later into forgeable iron with the employment of appropriate additions of carbon, manganese, and silicon by a simple heat-treatment known per se.

An advantageous form of manufacture is that wherein polished cores are inserted in the mould at the places at which the casting is to have sliding surfaces.

By this means on casting the surfaces are already so smooth that a subsequent machining at these places is unnecessary.

According to another way of carrying out the manufacture in accordance with the invention, pieces made of difficultly fusible metal are placed in the mould before casting at places in the casting at which it is to have sliding surfaces. These pieces are embedded in the cast metal and may either have the final shape before casting, e. g. a U-cross-section, or they may have a full cross-section and be machined in the finished casting.

The figure in the drawing illustrates in perspective view one form of grip made in accordance with this invention namely a grip for an automatic pistol.

In the figure the grip consists of a butt **1**, which comprises the magazine guide **2** and the holes **3** for spring and trigger parts and the guard **4** for the trigger. In the upper part of the grip is provided a slide **5**, together with an attached arcuate slide piece **6**, for the reception of the breech and barrel sliding therein.

In making such a grip of a hard zinc alloy consisting of about 91-94% Zn, 3.5-5% Al, and 2.5-4% Cu the whole grip including the sliding surfaces can be cast in a completely finished state without a machining at the sliding surfaces being necessary for the removal of splinters. Suitably, however, a protective layer is applied at all places, which do not serve as sliding surfaces, e. g. by electric oxydation or by applying a lacquer and burning it in.

Instead of zinc-alloys there can be employed for example an easily fusible yellow-or red-metal e. g. a hard-solder alloy. Both alloys have a weight similar to iron, so that the weapon remains in its total weight practically unchanged as compared with iron.

When light metal is employed suitably the slides **5** and **6** are embedded in the casting, the slides being made as special work-pieces in final form or a form subsequently to be machined.

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