

UNITED STATES PATENT OFFICE.

ENRIQUE A. TOUCEDA, OF ALBANY, NEW YORK.

ANTIFRICTION ALLOY.

933,139.

Specification of Letters Patent.

Patented Sept. 7, 1909.

No Drawing.

Application filed January 11, 1909. Serial No. 471,677.

To all whom it may concern:

Be it known that I, ENRIQUE A. TOUCEDA, a citizen of the United States, residing at Albany, county of Albany, and State of New York, have invented certain new and useful Improvements in Antifriction Alloys, of which the following is a specification.

This invention relates to an improvement in the alloy forming the subject-matter of U. S. Letters Patent No. 897,431, granted to me September 1, 1908, and the object of the present invention is to impart to an alloy made substantially as set forth in said Letters Patent, additional or increased qualities, adapting the same for use as an antifriction bearing alloy.

The invention consists in incorporating in an alloy of lead and cadmium a proportion of magnesium, whereby both the lead and cadmium constituents are hardened and toughened.

The following is one of several methods by which my improved alloy can be produced. The lead is melted in a suitable vessel under a suitable flux, or protected from oxidizing agencies, and after it has reached a temperature somewhat above its melting point the magnesium is added, and after the magnesium has been melted the cadmium is added, and after the mass has become molten it is run off into molds in the usual manner. The proportions of lead, cadmium and magnesium can be varied to impart to the alloy different degrees of hardness and toughness, in accordance with the conditions under which the bearing is to be used. Such an alloy containing from one-tenth of one per

cent. to five per cent. of magnesium, about ten per cent. of cadmium and the remainder lead is well adapted for use under ordinary conditions, but I do not wish to be limited to the proportions stated, nor to the use of lead, cadmium and magnesium alone, as the proportions of the various metals entering into the alloy can be varied to meet different conditions of use, and I consider within the scope of my invention any antifriction bearing alloy containing both cadmium and lead, wherein both the lead and the cadmium are hardened by the presence of magnesium.

What I claim as new and desire to secure by Letters Patent is—

1. An antifriction bearing alloy containing lead, cadmium and magnesium.

2. An antifriction bearing alloy containing a relatively small proportion of magnesium and relatively large proportions of cadmium and lead.

3. An antifriction bearing alloy containing cadmium and lead both hardened by the presence of magnesium.

4. An antifriction bearing alloy containing a relatively small proportion of magnesium, a relatively larger proportion of cadmium, and a larger proportion of lead than of cadmium.

In testimony whereof, I have hereunto set my hand this 28 day of Dec. 1908.

ENRIQUE A. TOUCEDA.

Witnesses:

JACOB ACKER,
FRANK C. CURTIS.