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UNITED STATES PATENT OFFICE.

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ALLOY.

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My invention relates to a new and useful improvement in an alloy, and has for its object the provision of an alloy which may be adapted for various uses, and particularly for the uses to which the babbit or bearing metal is now customarily used.

It is an object of the present invention to provide for this purpose a metal harder than any metal now on the market and used for this purpose.

It is another object of the invention to provide a metal which is frictionless and will not heat under any speed or load to which the bearings are subjected. In this statement as to heating under any speed or load, ordinary normal working conditions are considered.

Another object of the invention is the provision of an alloy which will not abrade or cut shaftings of steel or other metal, which are rotating and with which it comes into contact.

Another object of the invention is the provision of a metal whereby a greater length of life of the metal may be provided, particularly when it is used for bearings, bushings, etc.

Another object of the invention is the provision of an alloy which may be remelted and recast without affecting its physical properties or in any manner diminishing its utility.

Another object of the invention is the provision of a metal of this class which will melt at a comparatively low temperature.

Other objects will appear hereinafter.

The alloy referred to consists of the following ingredients, to wit: copper, tin, and lead. These ingredients are used preferably in the following proportions, to wit:

Copper	70 3/10 parts or 65 per cent.
Tin	24 53/100 parts or 29 per cent.
Lead	5 2/10 parts or 6 per cent.

Certain variations in the proportions may be provided, although I have found the above proportions most desirable. I have also found that satisfactory results were obtained by mixing the ingredients in the following proportions, to wit:

	Per cent.
Copper	75
Tin	18
Lead	7

In compounding the alloy the copper is melted. In a separate crucible the tin and lead are melted and the temperature of the alloy of the tin and lead is then raised to the distilling or boiling point. While at this distilling or boiling point, the alloy of tin and lead is poured into the melted copper, and thoroughly mixed.

The process of mixing these ingredients forms no part of this present invention, as the same is covered in a patent application of even date herewith.

While I have illustrated and described the preferred composition or alloy, I do not wish to limit myself to the precise composition herein set out, but desire to avail myself of such variations, and particularly such variations in the proportions as will suggest themselves, while remaining within the spirit of the invention consisting in the combining of copper, tin and lead for the purpose of forming a metal of this class.

What I claim is:

An alloy consisting in substantially the proportions herein set out, of

	Parts.
Copper	70 3/10
Tin	24 53/100
Lead	5 2/10

In testimony whereof I have signed the foregoing specification.

GEORGE H. BENDER.