

UNITED STATES PATENT OFFICE.

WALTER WYERS, OF NORRISTOWN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO
HERMAN KLEINMAN, OF CONSHOHOCKEN, PENNSYLVANIA.

ANTIFRICTION METAL.

1,002,190.

Specification of Letters Patent. **Patented Aug. 29, 1911.**

No Drawing.

Application filed November 18, 1910. Serial No. 593,096.

To all whom it may concern:

Be it known that I, WALTER WYERS, a citizen of the United States, residing at Norristown, county of Montgomery, State of Pennsylvania, have invented certain new and useful Improvements in Antifriction Metals, of which the following is a specification.

My invention relates to a new composition of metals adapted to be substituted for brass and other metals now in use where less friction is desired. Its antifrictional nature makes it possible to replace the metals in many instances where more expensive metals are in use for bushings, bearings and numerous other castings. When in a finished casting it will hold its luster for a great length of time. The component parts of which the alloy is composed being of an antifrictional nature make it less subject to the action of heat and therefore less lubrication is necessary. The herein described alloy comprises zinc, lead, copper, iron and manganese, the zinc comprising fifty per cent. or more of the total weight.

I find by tests that the following component parts produce a good antifrictional metal: zinc seventy eight parts by weight, lead seven parts by weight, copper twelve

parts by weight, iron two parts by weight, and manganese one part by weight.

I do not limit my invention to the exact proportions herein described as they may be varied, as for instance the proportional part of zinc may be increased or reduced (but not below fifty per cent.) to permit of an increase of lead or manganese, or the iron can be increased from two to five, or by increasing the ratio of manganese the iron may be dispensed with.

Having now described my invention what I claim is:

1. An alloy containing zinc, copper, lead, iron and manganese, the quantity of zinc being in excess of 50 per cent. of the mixture.

2. An alloy containing about 78 per cent. of zinc, 12 per cent. of copper, 7 per cent. of lead, 2 per cent. of iron and 1 per cent. of manganese.

In testimony whereof I hereby sign my name to this specification in the presence of two subscribing witnesses.

WALTER WYERS.

Witnesses:

GEORGE R. H. CHELL,
HERBERT S. WYERS.