

United States Patent Office.

WILLIAM SCHRIER, OF LOGANSFORT, INDIANA.

Letters Patent No. 103,089, dated May 17, 1870.

IMPROVED COMPOSITION METAL OR ALLOY.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, WILLIAM SCHRIER, of Logansport, in the county of Cass and State of Indiana, have invented an Improved Composition of Metals, to be used for the working-parts of machinery and other similar purposes; and I do hereby declare that the following is a full and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the several metals used and how they are compounded.

The following are the component parts and quantities used:

Copper, nine pounds; block-tin, three pounds; zinc, three pounds; cast-iron, nine pounds; cast-steel, eight pounds.

The steel and cast-iron are each melted in separate crucibles, and the copper, block-tin, and zinc in the same crucible, care being taken to have all of the metals fused at the same time. So far the operation is quite simple, and can be performed by any person possessing ordinary skill in metallurgy, the secret being in combining the metals after they are melted, and before they are poured into the mold.

The pouring, as now done, requires the services of three persons, one to handle each crucible, the metal

all being poured at the same time. This process will answer when large boxes and other large pieces are to be cast; but, when small articles are to be made, an intermediate trough, having a suitable spout, should be used, so that the several metals can be poured into it and mix before entering the mold; otherwise there will be different colored layers in the casting, which would make it wear unevenly. The metals thus combined form a very hard compound, which is much cheaper than brass, and will wear three times as long.

I do not intend to use the composition except for the smaller parts of machinery, such as boxes, bearings, cross-heads, pivots, journals, &c. For those purposes it is found to exceed in cheapness and durability any metal or composition now in use.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent of the United States, is—

The combination of the within-described metals, melted in separate crucibles and poured into a mold, as described.

WILLIAM SCHRIER.

Witnesses:

W. B. SCHRIER,
R. R. CARSON.