

UNITED STATES PATENT OFFICE

WILLIAM WHEELER HUBBELL, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN METAL ALLOYS FOR COMMERCIAL COIN.

Specification forming part of Letters Patent No. **191,146**, dated May 22, 1877; application filed April 4, 1876.

To all whom it may concern:

Be it known that I, WILLIAM WHEELER HUBBELL, of Philadelphia, Pennsylvania, have invented a new and useful Metal Alloy for Commercial Coin, and the following is a description thereof:

The invention consists in the discovery and manufacture of a denser, more valuable, or heavier alloy for a given size, adapted to coin-dollars, and more difficult to counterfeit; and consists of certain proportions of gold, silver, and copper. The exact and best proportions are one pound of gold, twenty-four pounds of silver, and two and a half pounds of copper. Melt them separately and pour them together, and, in mixing, add one grain of sulphate of sodium or sulphate of potassium to one thousand grains of the metal. The alloy metal is slightly heavier than the mean of the component metals, which makes it peculiarly valuable for coin, not easily counterfeited. At the same time a dollar of the alloy is very much less in size than a silver dollar. The proportions may be slightly varied. The silver may be increased to thirty parts to one of gold, and decreased to twenty parts to one of gold. The

copper may be increased to one-eighth, and decreased to one-twelfth. But the most perfect or maximum affinity is established in the proportions of one of gold, twenty-four of silver, and two and a half of copper.

The alloy metal free from flaws shows a density 10.802, and with flaws 10.710. The mean density of the several metals is 10.685, and the alloy metal shows an increase in value or weight or density of .025 to .117. Usually gold and silver alloyed are less in density than the mean of their constituents.

This alloy of gold, silver, and copper, within these proportions specified, owing to its great density and intrinsic value, is especially valuable or suited for coin-dollars and fractions of a dollar.

I claim as my invention—

The alloy coin metal of gold, silver, and copper, substantially in the proportions and for the purpose described.

WM. WHEELER HUBBELL.

Witnesses:

THOMAS C. CONNOLLY,
A. E. BEECHER.