UNITED STATES PATENT OFFICE.

LEOPOLD BRANDEIS, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN THE MANUFACTURE OF BRONZE-POWDER.

Specification forming part of Letters Patent No. **53,563,** dated April 3, 1866.

To all whom it may concern:

Be it known that I, LEOPOLD BRANDEIS, of the city of Brooklyn, county of Kings, and State of New York, have invented a new and Improved Mode of Manufacturing Bronze-Powder; and I do hereby declare that the following is a full and exact description thereof.

The nature of my invention consists in producing bronze-powder direct from copper, tin, and their alloys with zinc, cast in a shape adapted to the turning, filing, boring, or scraping tools. I employ a disk of ten inches diameter and three inches thick for this purpose.

The process used so far consists in casting the proper alloy into an ingot. To reduce this to its proper dimensions by hammers moved by steam or water power, anneal it, pass it between heavy rollers moved by power, under repeated annealings, and finish it finally by beating between parchment, and sometimes between gold-beater's skin. After this the leaves or sheets have to be forced through sieves to get small fragments, to be reduced further by stampers, grinding-mills, &c. The purpose of all these manifold processes, requiring a large outlay for machinery, a great many hands, furnaces and fuel for annealing, tubs and tables for scouring the metal sheets to get off the scales and to get a bright surface, is merely to get the bronze-powder in flat little fragments reflecting the light and showing a great degree of brilliancy.

I want to patent the principle of producing bronze-powder direct from a casting of the proper alloys, and to avoid thereby all the tedious and costly processes employed so far by me and others to reach the same results.

What I claim as my invention, and desire to secure by Letters Patent, is—

The production of grains, scrapings, filings, shavings, or borings from copper, tin, and their alloys by proper tools, like a turning-lathe or other tool, to flatten these particles of metal by means of rollers or stampers with polished steel or chilled surface, for the purpose of getting them bright and brilliant, to manufacture therefrom bronze-powder in any way used for the purpose of reducing these small flat fragments to still finer ones, always offering a bright surface just the same as if the metal had passed previous through all the processes of repeated hammering, annealings, rollings, beatings, &c.

LEOPOLD BRANDEIS.

Witnesses:

CHAS. E. FROST,

M. FOSTER.