## UNITED STATES PATENT OFFICE.

JOSEPH KINTZ, OF WEST MERIDEN, CONNECTICUT, ASSIGNOR TO HIMSELF AND P. J. CLARK, OF SAME PLACE.

## IMPROVEMENT IN MELTING COPPER.

Specification forming part of Letters Patent No. 119,365, dated September 26, 1871.

To all whom it may concern:

Be it known that I, Joseph Kintz, of West Meriden, in the county of New Haven and State of Connecticnt, have invented a new and useful Improvement in Melting Copper; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same.

My invention has for its object to melt copper in such a manner as to enable it to possess, when cooled, the density, toughness, and malleability

of rolled or drawn copper.

I have discovered, after much thought and many practical experiments, that this object may be accomplished by excluding the carbonaceous matter, which becomes comminuted and interpenetrates the metal during the operation of melting. I take a black-lead crucible, line it with

clay, insert the copper, and then cover the top with the same carbon-excluding substance, or any other having the same effect. I then pour it from the crucible into the mold. The product thus obtained will exhibit no brittleness whatever, but can be drawn on the anvil with facility.

Having thus described all that is necessary to a full understanding of my invention, what I esteem to be new, and desire to protect by Letters Patent, is—

The process of melting copper by interposing between a black-lead crucible and the copper an intermediate lining of carbon-excluding substance, as and for the purpose specified.

JOSEPH KINTZ.

Witnesses:

JOHN Q. THAYER, CHARLES S. GALLAGER.