## United States Patent Office.

## JAMES E. ATWOOD, OF PITTSBURG, PENNSYLVANIA.

Letters Patent No. 107,322, dated September 13, 1870.

## IMPROVEMENT IN REFINING IRON AND STEEL.

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, James E. Atwood, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have discovered a new and useful Chemical for Refining Iron and Steel; and I do hereby declare the following to be a full, clear, and exact description thereof, sufficient to enable others to make and use the same.

My discovery consists in mixing, in definite proportions, iodide of potassium with the carbons and fluxes used in making cast-steel and in refining iron.

In carrying out my discovery I use the following substances, in about the proportions named:

Of iodide of potassium, about fifteen grains; lampblack or charcoal, about ten ounces; manganese, about four ounces; iron, about eighty pounds. These are melted in a crucible in the usual manner, and it will be found that steel made from this compound will be superior in quality to that made in the old English manner.

Having thus described my discovery,

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

The combination of iodide of potassium with the carbons and fluxes used in the manufacture of iron and steel.

JAMES E. ATWOOD:

Witnesses:

J. G. BACKOFEN, Ed. Krieg.