

# United States Patent Office.

JACOB JAMESON, OF PHILADELPHIA, PENNSYLVANIA.

*Letters Patent No. 92,054, dated June 29, 1869.*

## IMPROVED FLUX FOR MANUFACTURING 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, JACOB JAMESON, of Philadelphia, in the county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Fluxes for Manufacturing Steel; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art, to construct and use my invention, I will proceed to describe it.

My invention relates to fluxes for use in the manufacture of steel; and

It consists in a new compound of ingredients to form a flux.

In the manufacture of steel from cast-iron, or from a mixture of cast-iron and ore, I have ascertained that the process can be much improved and expedited by the use of a new flux, made of the following ingredients, viz:

Silex, about forty parts.

Black oxide of manganese, four parts.

Nitrate of soda, ten parts.

Red clay, thirty parts.

Powdered charcoal, in bulk, equal to one-fourth of the quantity of iron or iron and ore used.

The furnace is charged as usual, and the above-described composition is added as a flux.

The charging of the furnace and its management, having been fully described in the patents heretofore granted to me, need not be herein described.

By the use of the flux above described, I am able to produce a good quality of steel direct from pig-metal alone, or from pig-metal combined with a proportion of raw ore, in a very cheap and expeditious manner.

Having thus described my invention,

What I claim, is—

The herein-described composition, as a flux, for the manufacture of steel.

JACOB JAMESON.

Witnesses:

WM. P. SHATTUCK,

A. H. ROWAND.