

# United States Patent Office.

JAMES MYERS, JR., OF WILLIAMSBURG, NEW YORK.

Letters Patent No, 110,489, dated December 27, 1870.

## IMPROVEMENT IN TREATING BESSEMER 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 MYERS, JR., of Williamsburg, in the county of Kings and State of New York, have invented a new and useful Improvement in Converting Bessemer Steel into a workable Steel; 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, reference being had to the accompanying drawing forming part of this specification.

Figure 1 is a detail sectional view of a piece of Bessemer steel plate as rolled from a Bessemer steel ingot.

Figure 2 is a detail sectional view of a piece of the same plate converted by my improved process.

Similar letters of reference indicate corresponding parts.

My invention has for its object to convert the iron known as Bessemer steel into steel that may be melted, welded, tempered, and otherwise worked in the same manner as ordinary steels; and

It consists in converting the said steel as herein-after more fully described.

The Bessemer steel to be converted may be taken in the form of bars or plates, or in the form of manufactured articles.

The Bessemer steel in the desired form is placed in a close retort, in which a quantity of fine or powdered charcoal has been placed, and is heated to a white heat or thereabout.

A stream of benzine or other liquid hydrocarbon is

then introduced into the retort through a small pipe, the other end of which is connected with the reservoir of the hydrocarbon to be used, said liquid hydrocarbon being pumped or otherwise forced into said retort in a constant or intermittent stream, as may be desired or most convenient, the only care necessary being to keep the retort filled with burning gases.

I do not wish to limit myself to the precise process herein described, as the same thing may be done in various other ways, as, for instance, by introducing the hydrocarbon into the retort in the form of gases.

I am aware that reissued Letters Patent, No. 3,222, dated December 1, 1868, was granted the Barron's Patent Steel Manufacturing Company, of New York, N. Y., assignees of John F. Boynton, for improvement in converting iron into steel, and the invention patented in said reissued Letters Patent I do not claim.

Having thus described my invention,

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

The process herein set forth for converting the iron known as Bessemer steel into a workable steel, substantially as herein shown and described.

The above specification of my invention signed by me this 27th day of August, 1869.

JAMES MYERS, JR.

Witnesses:

GEO. W. MABEE,  
JAMES T. GRAHAM.