

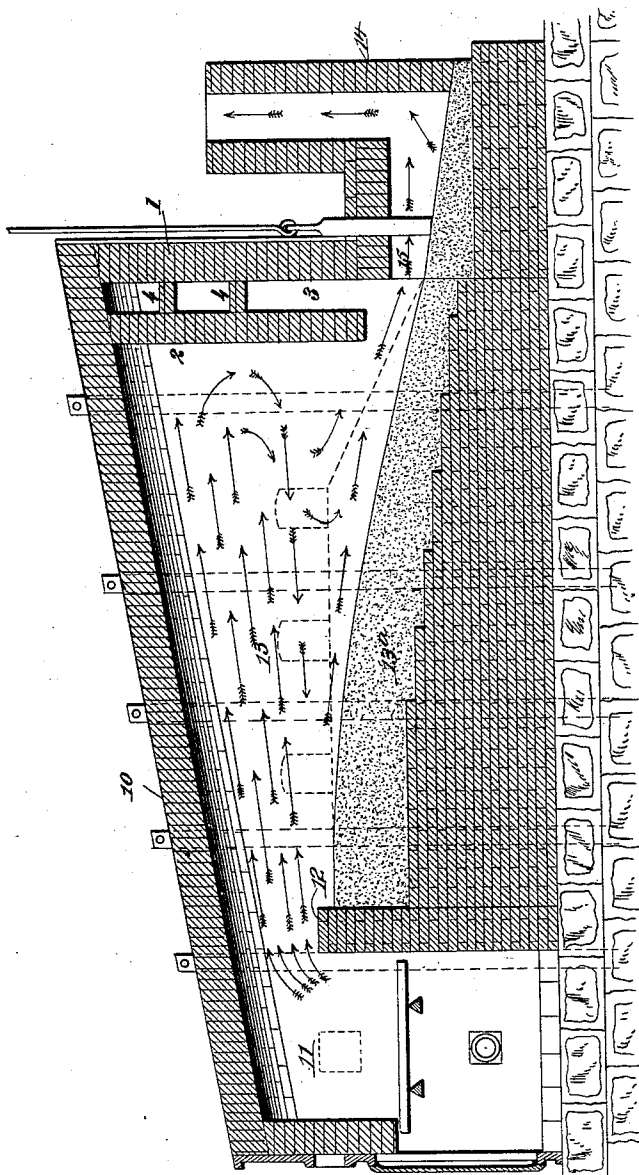
(No Model.)

J. N. LAUTH.

FURNACE FOR METALLURGICAL OPERATIONS.

No. 484,329.

Patented Oct. 11, 1892.



Attest:

George E. Cruise

Inventor:

John N. Lauth,

By *Wright & Bros*

Attest

UNITED STATES PATENT OFFICE.

JOHN N. LAUTH, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE LAUTH PATENT FURNACE COMPANY, OF SAME PLACE.

FURNACE FOR METALLURGICAL OPERATIONS.

SPECIFICATION forming part of Letters Patent No. 484,329, dated October 11, 1892.

Application filed May 13, 1892. Serial No. 432,891. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. LAUTH, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Furnaces for Metallurgical Operations, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification.

My present invention relates to a certain new and useful improvement in the metallurgical furnaces shown, described, and claimed in my application for patent filed December 10, 1891, Serial No. 414,647, allowed April 19, 1892.

My present invention consists in locating a wall a short distance in front of the back wall of the furnace with a space between them, as hereinafter more fully described.

The drawing is a vertical section of my improved furnace.

Referring to the drawing, 10 represents the inclined roof of the furnace; 11, the fire-chamber; 12, the bridge-wall; 13, the main chamber of the furnace, having a hearth 13^a for the metal; 14, the stack, and 15 the opening between the chamber 13 and the stack. To these parts my present invention does not relate, they being the same as in my application referred to.

1 represents the back wall of the furnace.

2 represents a wall placed parallel with the

back wall and a short distance from it, leaving a space 3 between them.

4 represents narrow stays between the walls and which traverse the space 3 and act to strengthen and support the wall 2. The object of this wall 2 is to increase the reverberatory action of the furnace. It will be seen that this wall, with the air-space behind it, will become very hot, and that the heat and products of combustion striking against it will be reverberated or directed back with much effect into the metal to be heated. The space 3 protects the wall 2 from being affected by the outer temperature, thus permitting the wall to be highly heated and to maintain its heat.

I claim—

In a furnace for metallurgical operation, the combination of a fire-chamber, a hearth for the metal, a bridge-wall interposed between the fire-chamber and the hearth, the vertical back wall, beneath which is an exit to the stack of the furnace, a roof inclined upwardly from the front to the back of the furnace, and an independent inner wall located at a distance from the back wall and forming a space between them, substantially as and for the purpose set forth.

JOHN N. LAUTH.

In presence of—

GEO. H. KNIGHT,

ALBERT M. EBERSOLE.