

J. B. CHANDLER.

HEAT-FENDERS FOR FURNACES.

No. 186,797.

Patented Jan. 30, 1877.

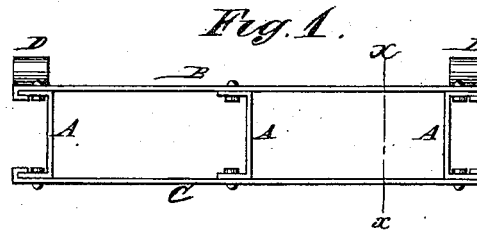
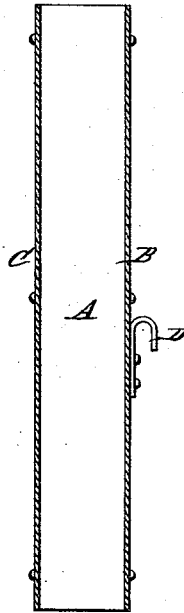


Fig. 2.



WITNESSES:

H. P. ...
John Goethals

INVENTOR:

J. B. Chandler
BY *[Signature]*

ATTORNEYS.

UNITED STATES PATENT OFFICE

JOEL B. CHANDLER, OF CLINTON, IOWA, ASSIGNOR TO FRANCIS L. TUPPER
AND M. A. CHANDLER, OF SAME PLACE.

IMPROVEMENT IN HEAT-FENDERS FOR FURNACES.

Specification forming part of Letters Patent No. **186,797**, dated January 30, 1877; application filed
September 22, 1876.

To all whom it may concern:

Be it known that I, JOEL B. CHANDLER, of Clinton, in the county of Clinton and State of Iowa, have invented a new and Improved Heat-Fender for Furnaces, of which the following is a specification:

Figure 1 is a top view. Fig. 2 is a section on line *x x* in Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to a guard or fender to be placed on the walls of a furnace to prevent the radiation of heat; and it consists of an arrangement of flanged strips, to which are riveted, upon one side, sheets of iron, and upon the other side sheets of zinc, inclosing an air-space between. The device thus formed is provided with hooks on the iron side, for hanging it to the rods that cross the face of the furnace, or for otherwise attaching it to the furnace, the object being to provide a device for protecting firemen or other workmen from the intense heat of a furnace.

A A A are flanged strips of sheet metal, on one side of which a sheet of iron, B, is riveted, and upon the other side a sheet of zinc, C, is attached in like manner.

The size of the sheets and their distance

apart is governed altogether by the location in which they are placed, and by the intensity of the heat of the furnace.

D D are hooks for attaching the fenders to rods stretched across the face of the furnace.

Where the heat of the furnace is very great, a piece of wire-cloth is placed in the air-space near the iron side of the fender, and coated with asbestos or other incombustible non-conductor of heat.

Furnaces which otherwise throw out an insupportable heat are, by my improvement, covered, so that workmen may work in front of them with comparative ease and comfort.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A heat-fender for furnaces, consisting of a sheet of iron and a sheet of zinc, separated by strips of metal, to which they are attached, forming air-spaces, and provided with hooks for attaching it to the front of a furnace, substantially as herein shown and described.

JOEL BURNHAM CHANDLER.

Witnesses:

GEO. B. YOUNG,

FRANK P. LEFFINGWELL.