

M. T. GOSS.
FURNACE ROOF.
APPLICATION FILED DEC. 15, 1909.

Patented June 6, 1911.

994,383.

Fig. 1.

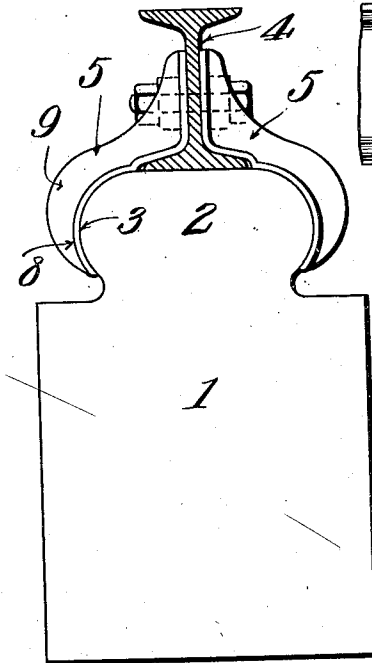


Fig. 2.

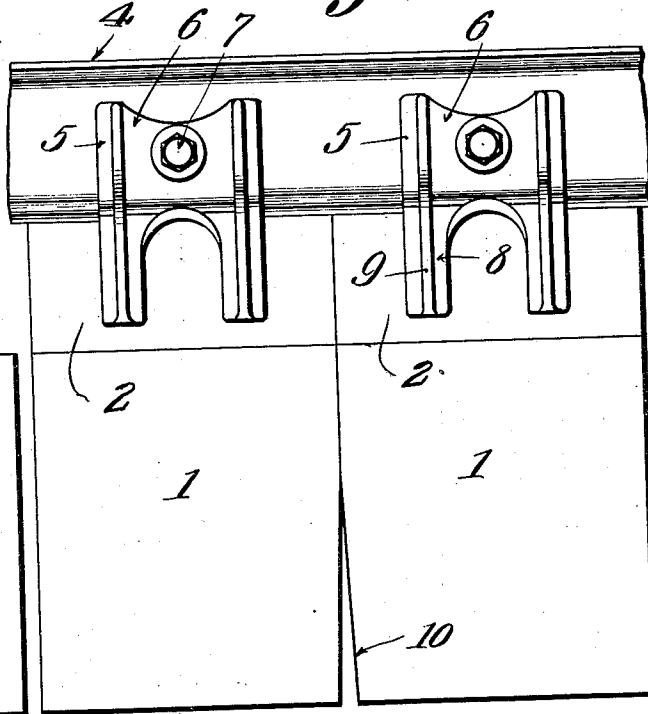
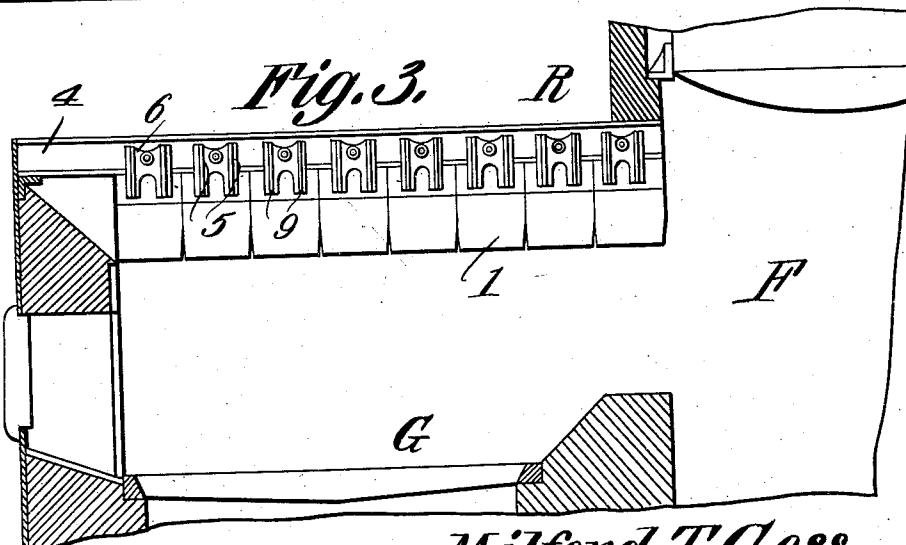


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

MILFORD T. GOSS, OF CHICAGO, ILLINOIS.

FURNACE-ROOF.

994,383.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MILFORD T. Goss, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Furnace-Roof, of which the following is a specification.

My invention relates to furnaces, and more especially to the covers thereof; and the object of the invention is to provide a block and its support for use in the roof of a boiler furnace or a heating oven which may be readily removed and replaced with a new block without in any way interfering with any of the other blocks.

The invention consists in certain novel features which are illustrated in the accompanying drawings and will be hereinafter first fully described and then particularly pointed out in the appended claim.

In the annexed drawings,—Figure 1 is a view showing one of my blocks in end elevation and illustrating the method of supporting the block upon the beam of a furnace. Fig. 2 is a side elevation of a series of blocks supported in their proper positions. Fig. 3 is a section of a furnace with this roof in place.

In the accompanying drawing F designates a furnace having a grate G, and R is my improved roof.

In carrying out my invention, I employ a block consisting of a body 1 having a reduced head 2 which is disposed longitudinally upon the body and is provided with curved or undercut sides, as shown at 3. In constructing a boiler furnace roof with these blocks, the blocks are placed together end to end immediately below an I-beam or similar fixed girder 4 and clamps 5 are secured to the sides of the girder and engage the overhanging sides of the heads of the blocks so as to support the same in position. The clamps are preferably each in the form of a plate or web 6 having a central opening through which a suitable fastening bolt 7 is inserted to secure the clamp against the web of the supporting beam or girder 4 and at

the ends of the web 6 are depending hooks or fingers 8 which conform to the base of the beam and the sides of the heads 2 of the blocks so as to firmly engage and support the same. In order to reinforce the clamp strengthening ribs 9 are preferably formed on the outer face of the same and extend from the upper edge of the web 6 to the lower ends of the hooks 8, as shown. The blocks when placed together and supported in the manner described and shown form a flat roof, and in order to provide for the expansion of the roof the lower portion of the body of the blocks may be tapered, as illustrated at 10, and as will be readily understood.

From the foregoing description, it will be seen that each block is supported in place from an overhead girder and is secured independently of all the other blocks in the roof. Should it be necessary to remove any one block, owing to the breakage of the same or for any other reason, its clamps 5 are loosened so as to release the block and the block will then at once drop from its position without disturbing any of the other blocks and the new block may be pushed upward through the space formerly occupied by the damaged block and secured in place by a tightening of the clamps, as will be understood.

My device is exceedingly simple in its construction and a roof composed of my improved blocks may be very rapidly built. The use of my improved block will reduce the cost of repairs very materially and will expedite the making of the same.

Having thus described my invention, what I claim is:

In a flat furnace roof, an overhead girder consisting of an I-beam; combined with a series of blocks disposed end to end beneath said girder and each having its sides tapered downward and a laterally reduced head at its upper end with the sides thereof rounded and undercut, and for every block a pair of clamps whereof each comprises a plate shaped to fit the web of the I-beam and pro-

vided with depending fingers at its edges
hooked to conform with the base of the beam
and the shape of said head, and strengthen-
ing ribs extending longitudinally of the fin-
5 gers and upward across the plate; and a
bolt through both plates and the interposed
beam.

In testimony that I claim the foregoing as
my own, I have hereto affixed my signature
in the presence of two witnesses.

MILFORD T. GOSS.

Witnesses:

GRACE A. SOUTHWELL,
SUSAN L. TAYLOR.