

T. E. DURBAN.  
FURNACE CASING.  
APPLICATION FILED MAY 28, 1909.

998,079.

Patented July 18, 1911.

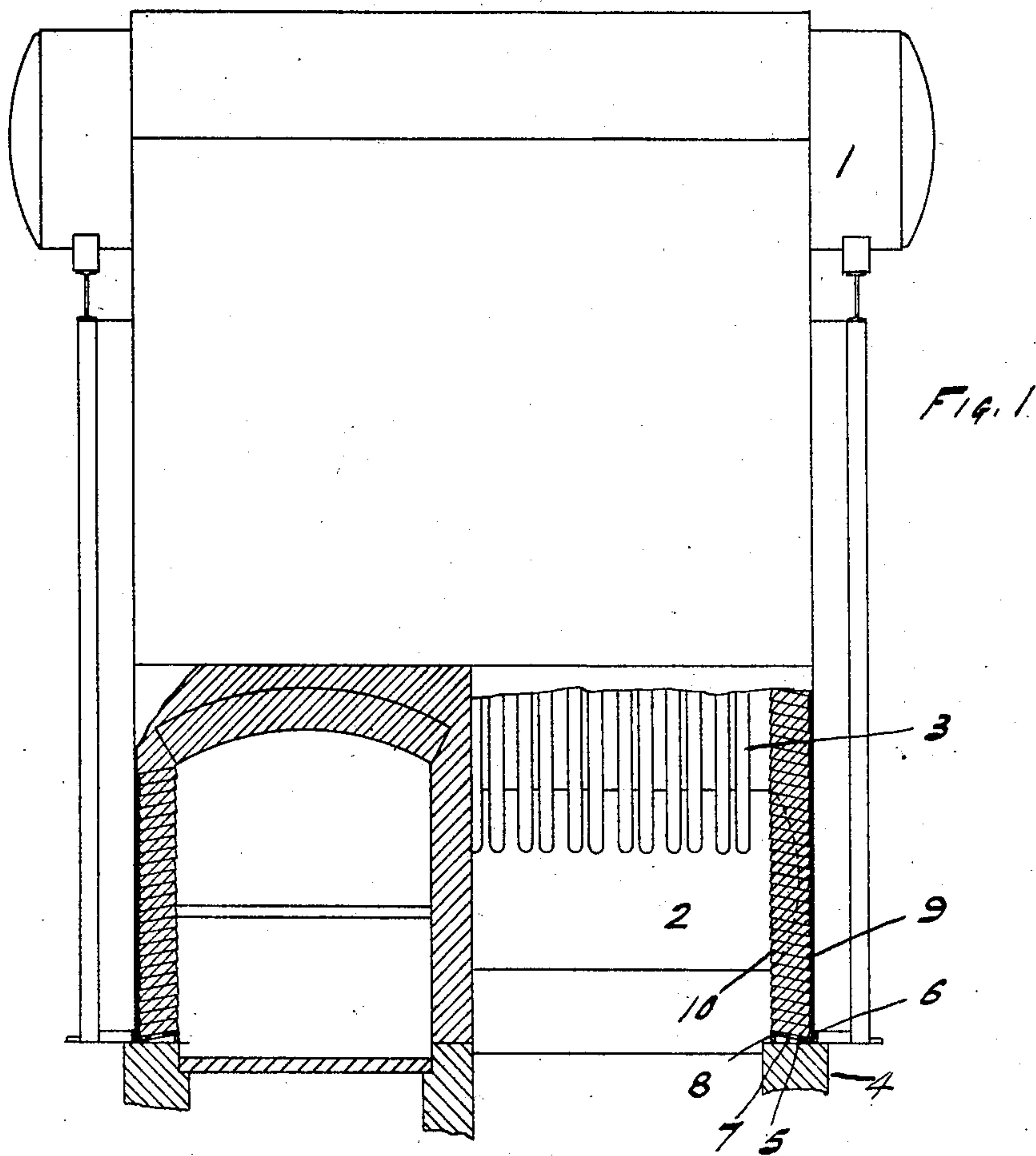


Fig. 1.

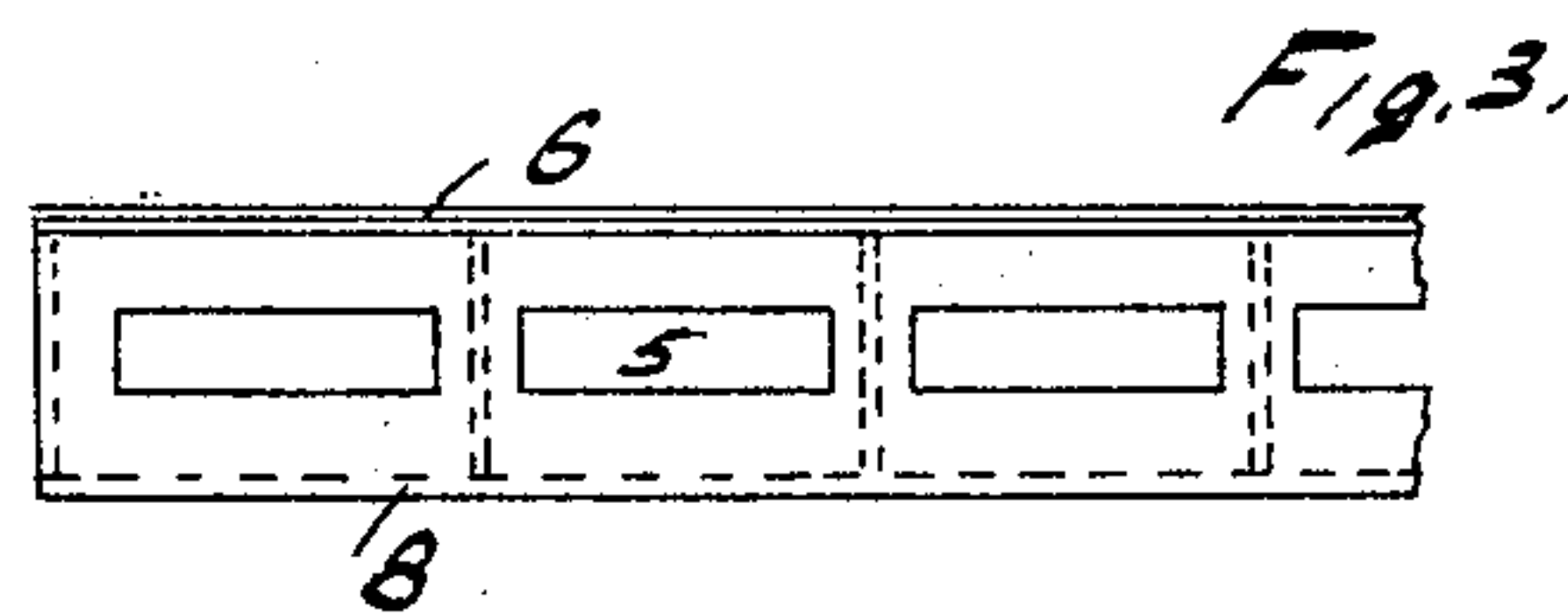
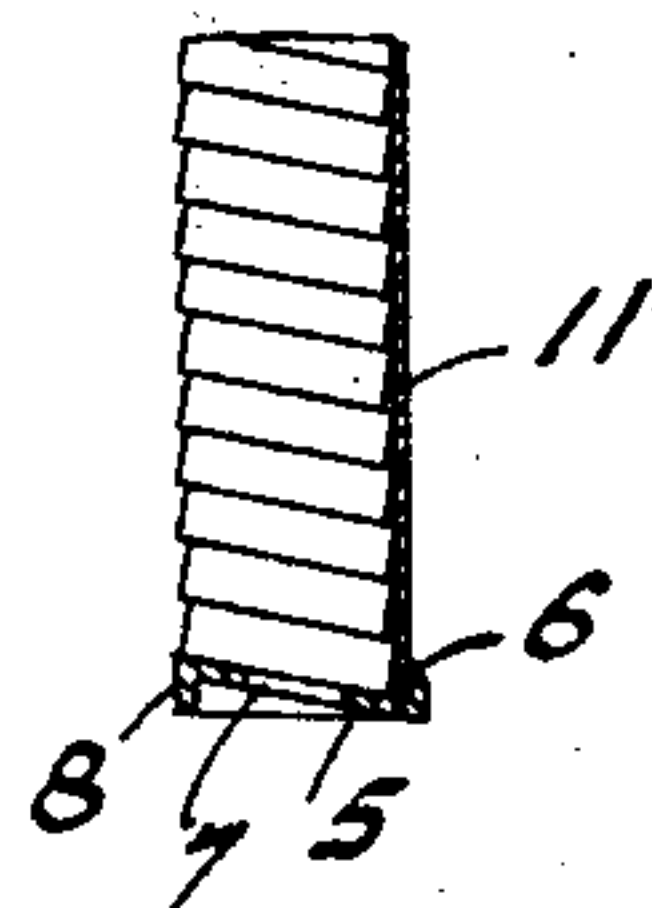


Fig. 3.

Fig. 2



Witnesses  
Margaret Beigle  
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# UNITED STATES PATENT OFFICE.

THOMAS E. DURBAN, OF ERIE, PENNSYLVANIA, ASSIGNOR TO ERIE CITY IRON WORKS,  
A CORPORATION OF PENNSYLVANIA.

## FURNACE-CASING.

998,079.

Specification of Letters Patent.

Patented July 18, 1911.

Application filed May 28, 1909. Serial No. 498,943.

*To all whom it may concern:*

Be it known that I, THOMAS E. DURBAN, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented new and useful Improvements in Furnace-Casings, of which the following is a specification.

This invention relates to furnace casings, and consists in certain improvements in the construction thereof, as will be hereinafter fully described, and pointed out in the claims.

More particularly this invention relates to furnace casings used in connection with steam boilers and is as shown in the accompanying drawings as follows:

Figure 1 shows an elevation of a steam boiler setting, the casing being in section to better show the construction. Fig. 2 is an enlarged view of the casing in section. Fig. 3 is a plan view of the supporting rail for the casing.

1 marks the upper drum of the boiler; 2, the lower drum, and 3 the connecting tubes. These are of ordinary type. The casing is supported by a foundation 4. Arranged on this foundation is the supporting rail 5. The supporting rail has the upwardly extending lip along the outer edge, the connecting base portion 7 and the downwardly extending lip 8 along the inner edge. The base portion 7 is inclined by reason of the lip 8 resting on the foundation.

The jacket 9 is arranged on the supporting rail just inside of the ledge or lip 6. The lining is made up of bricks 10, which are laid on the supporting rail. The inclination of the supporting rail inclines the bricks so that their weight holds them in contact with the jacket. The upper outer corners of the bricks contact the jacket and there is formed between the edges of the bricks and the jacket, air spaces 11, so that the inclination of the rail, and consequently the

bricks serves two purposes. It holds the bricks in place, and at the same time, provides the air spaces between the bricks and the jacket, thus insulating the jacket.

What I claim as new is:

1. In a furnace casing, the combination of a jacket; and a lining of bricks, the said lining having bricks in contact with the jacket with their faces next the jacket at a slant to the jacket and forming in conjunction with each other and the jacket dead air spaces.

2. In a furnace casing, the combination of a jacket; and a lining of rectangular bricks, the said lining having bricks in contact with the jacket with their faces next the jacket at a slant to the jacket and forming in conjunction with each other and the jacket dead air spaces.

3. In a furnace casing, the combination of a jacket; and a lining of bricks sloping upwardly inwardly from the jacket, the said lining having bricks in contact with the jacket with their faces next the jacket at a slant to the jacket and forming in conjunction with each other and the jacket dead air spaces.

4. In a furnace casing, the combination of a jacket; a supporting rail on which said jacket rests having an outer lip 6 extending upwardly outside the jacket; and the inclined supporting surface 7; and a lining of bricks arranged on the rail, the rail giving to the bricks an inclination to the jacket, forming air spaces between the bricks and the jacket, said inclination tending to hold the bricks in contact with the jacket.

In testimony whereof, I have hereunto set my hand in the presence of two subscribing witnesses.

THOMAS E. DURBAN.

Witnesses:

O. A. POTTER,

CHARLES G. BREVILLIER.