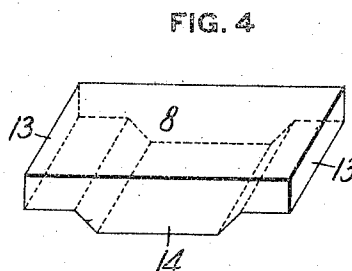
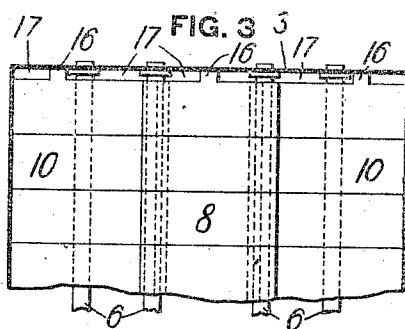
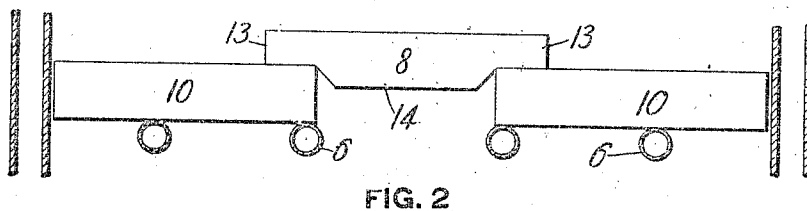
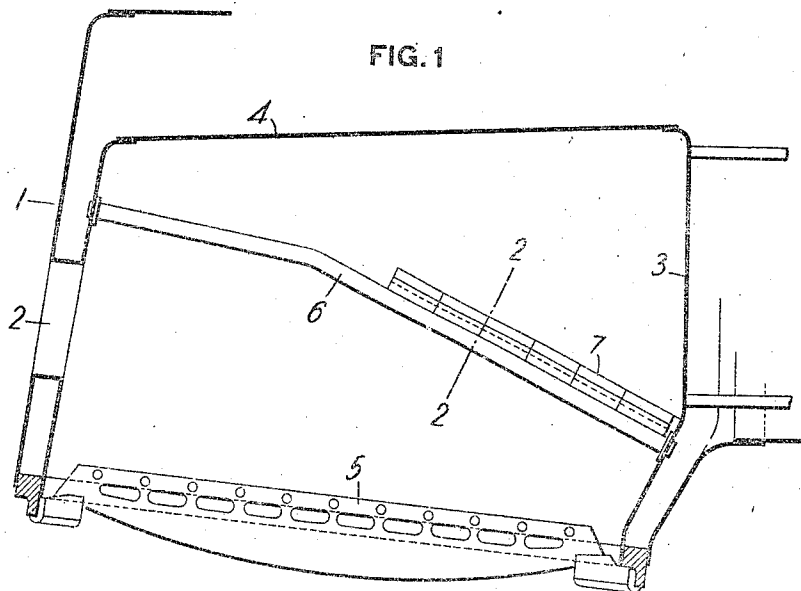


H. D. SAVAGE.  
 BAFFLE WALL FOR LOCOMOTIVE FIRE BOXES.  
 APPLICATION FILED JUNE 1, 1911.

1,030,258.

Patented June 18, 1912



WITNESSES  
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# UNITED STATES PATENT OFFICE.

HARLOW DOW SAVAGE, OF ASHLAND, KENTUCKY.

BAFFLE-WALL FOR LOCOMOTIVE FIRE-BOXES.

1,030,258.

Specification of Letters Patent.

Patented June 18, 1912.

Application filed June 1, 1911. Serial No. 630,532.

*To all whom it may concern:*

Be it known that I, HARLOW D. SAVAGE, a resident of Ashland, in the county of Boyd and State of Kentucky, have invented a new and useful Improvement in Baffle-Walls for Locomotive Fire-Boxes, of which the following is a specification.

This invention relates to baffle walls for locomotive fire boxes.

The object of the invention is to improve the arrangement of fire brick forming such baffle walls to facilitate repair of tubes, reduce the cost of fire brick, and for convenience of handling.

In the accompanying drawing Figure 1 is a longitudinal section through a fire box provided with my improved baffle wall; Fig. 2 is a transverse section on the line 2-2, Fig. 1; Fig. 3 is a plan view of the baffle, and Fig. 4 is a perspective view of one of the brick.

In the drawings 1 represents the front wall of the locomotive fire box provided with a firing opening 2; 3 represents the rear wall of said fire box; 4 the top thereof, and 5 the grate. Extending between the front and rear side walls are the usual longitudinal tubes 6 for supporting the baffle wall. The fire box is provided with four longitudinal tubes 6, which, as shown, are connected in the circulation of the boiler and extend substantially parallel to the central longitudinal vertical plane of the fire box, at least for those portions of their length which support the baffle wall and are also inclined longitudinally, as shown.

The baffle wall 7 is composed of three rows of brick, to wit, a central or intermediate row 8; and two side rows 10. The brick of the two side rows 10 are standard shaped brick preferably rectangular both in cross section and in longitudinal section and having parallel top and bottom faces, although the side edges may if desired be shaped to cause adjacent brick to overlap. The simple form of brick shown in the drawing is, however, preferred. These brick have flat lower faces resting directly upon two adjacent tubes 6, and are of such length as to extend from the side walls 11 at least to the center of the second tube from said side wall. The brick can be of any suitable length, or for that matter a single length of brick can be used in various types or sizes of locomotives, as it will make

no difference even though each side brick extends inwardly a considerable distance beyond the second tube.

The central row 8 is formed of specially shaped brick having flat end portions 13 which overlap the inner ends of the side brick, and intermediate its ends having the downwardly projecting part 14 which lies between the ends of the side brick, and is thereby adapted to prevent lateral movement of the central brick as well as of the side brick, as will be readily apparent. These central brick vary in length according to the width of fire boxes, and in fitting out any fire box standard brick may be used for the side rows 10, while the brick of the central row are of such length that the depending portions 14 fit nicely between the inner ends of the side brick. This necessitates several sizes or lengths of specially shaped brick 8, but the side brick 10 can be standard for all locomotives. As a consequence it is necessary to carry in stock a much lesser number of sizes than with sectional fire brick for locomotive baffle walls as heretofore devised, which have required special sizes or lengths of brick not only for the central row but also for the side rows. The brick of the side rows, it will be noticed, are of standard shape and therefore can be very cheaply manufactured, and on account of using the same sizes or lengths in practically all locomotives a large stock thereof can be cheaply carried. By reducing the special shapes to only one row I have eliminated one of the difficulties with sectional brick for locomotive baffle walls, to wit, the very large number of different sizes and shapes which must be carried in stock for purposes of replacement and repair. A comparatively small number of different sizes of the specially shaped brick 8 will suffice.

The rearmost or lowermost brick of each row is preferably provided with a projection or projections 16 adapted to contact against the rear side wall 3 of the fire box and allow for openings or spaces 17 through which flame can escape.

The baffle wall described is of comparatively cheap construction and has all of the advantages of economy and facility of replacement and repair, in case of repairs to the circulation tube, as any prior sectional brick baffle walls, and as it requires such a

limited number of different shapes or sizes is much more economical as far as the stock to be carried on hand is concerned.

What I claim is:

5 1. A locomotive fire box comprising in combination, side plates, longitudinally inclined circulating tubes between the side plates, two side rows of brick having flat upper and lower faces, each row thereof  
10 resting on two of the longitudinal tubes, and an intermediate row of brick having flat bottom faces at their ends overlapping the ends of the brick of the side rows and resting on the upper faces thereof and hav-  
15 ing portions extending downwardly between the ends of said side brick and adapted to abut against the ends of said side brick to prevent lateral movement of said intermediate and said side brick, the brick  
20 of said side rows being adapted to be used with either flat face up.

2. A locomotive fire box comprising in combination, side plates, longitudinally inclined circulation tubes between the side  
25 plates, two rows of rectangular flat-faced

brick resting on two of said longitudinal tubes and each brick thereof extending laterally of the fire box to the side plates thereof, and an intermediate row formed of brick having flat-faced end portions, said  
30 intermediate brick being located end to end with said side brick and having their ends overlapping and resting on the upper faces of the side brick and having a portion be-  
35 tween the ends extending downwardly between the inner ends of the side brick and adapted to contact therewith and prevent lateral movement of said intermediate and said side brick, said side brick being inter-  
40 changeable with each other and adapted to be used with either side up and with either end inwardly and supporting said intermediate brick.

In testimony whereof, I have hereunto set my hand.

HARLOW DOW SAVAGE.

Witnesses:

E. H. GARTRELL,  
M. L. MALZBERGER.