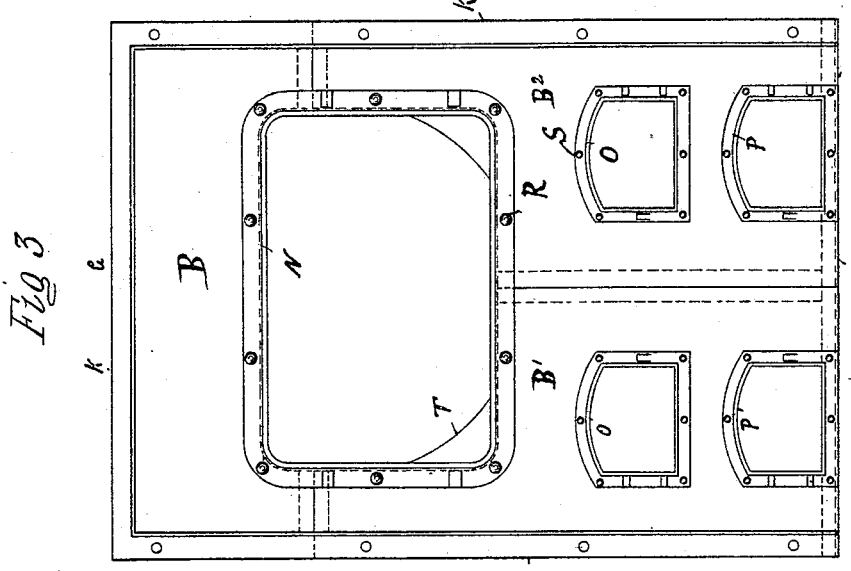
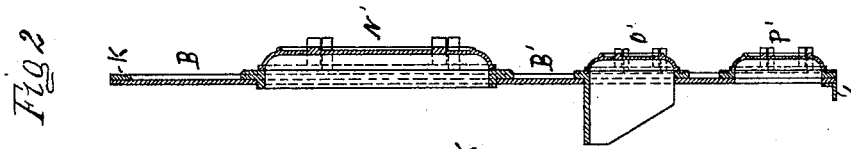
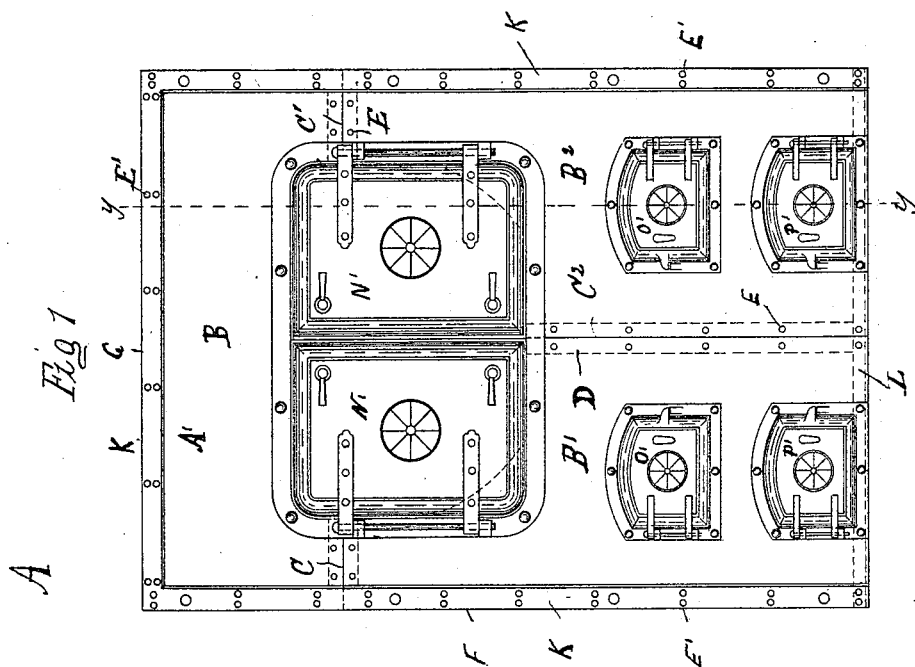


(No Model.)

C. R. SMITH.  
BOILER FRONT.

No. 458,077.

Patented Aug. 18, 1891.



Witnesses  
Alfred B. Watson  
Samuel Smith

Inventor  
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# UNITED STATES PATENT OFFICE.

CHARLES R. SMITH, OF PATERSON, NEW JERSEY.

## BOILER-FRONT.

SPECIFICATION forming part of Letters Patent No. 458,077, dated August 18, 1891.

Application filed March 11, 1891. Serial No. 384,574. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES R. SMITH, a citizen of the United States, residing at Paterson, Passaic county, State of New Jersey, have invented a new and useful Improvement in Boiler-Fronts, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

Usually boiler-fronts of the class shown have been made or constructed of cast metal, which, owing to its want of tensile strength in the action of expansion and contraction under the differences of temperature to which the front is subjected, cracks apart, which not only renders the boiler-front unseemly in appearance, but often makes a renewal of the same necessary, and is therefore objectionable.

The object of my present invention is to provide a boiler-front which shall possess the advantages of the former front, but which shall be free from its objectionable features.

With this end in view my invention consists of a boiler-front composed of wrought metal; and it further consists in certain features of construction and combination of parts, as will be hereinafter fully described and claimed.

Figure 1 of the drawings shows in elevation a boiler-front constructed according to my invention. Fig. 2 is a vertical section of the same, taken on line *yy* of Fig. 1; and Fig. 3 shows the same in elevation, the doors being removed in such figure.

The drawings represent a boiler-front, the body *A'* of which front is composed of wrought metal of any suitable thickness, and is constructed in separate parts *B B' B²*, as shown. These wrought-metal parts *B B' B²*, which compose the body *A'* of the boiler-front *A*, are connected at *C C' C²* by a wrought-metal plate *D*, which latter underlies the separate parts *B B' B²* and which is riveted or bolted to the said parts *B B' B²* by rivets or bolts *E*,

which firmly fastens and fixes the said parts *B B' B²* of the body *A'* together at *C C' C²*, and which, owing to their being made from different pieces of metal, with their grain or textures running in opposite directions, are capable of indefinite strain without fracture. The sides *F* and top *G* of the body *A'* of the front *A* are each provided with a wrought-metal plate *K*, which plate is arranged on the face of the boiler-front and is riveted or bolted thereon by rivets or bolts *E'*, which latter pass through plates *B B' B²*, and thus firmly fix the parts together, while at the bottom parts *B', B²*, and *K* are riveted or bolted to an angle-iron *L*, Figs. 1 and 2. The door-frames *N O P*, which are bolted in position to the parts *B B' B²* by bolts *R S*, are provided with doors *N' O' P'*, Fig. 1. The doors *N'*, which inclose the boiler *T*, fire-box doors *O'*, and ash-box doors *P'*, which are of cast metal, are provided with the usual fastenings, &c.

By my invention boiler-fronts which are lighter, more durable, and ornamental than those now in use are obtained.

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

A boiler-front formed of three plates of wrought-iron and consisting of a top plate *B* of the full width of the front and two similar plates joined together by a central vertical joint and to the said top plate by horizontal joints extending from the boiler-door opening to the sides of the boiler-front, and having the said boiler-door opening formed by cutting away parts of each of the said three plates, in combination with the narrow stiffening-plates secured around the edges of the boiler-front, substantially as set forth.

CHAS. R. SMITH.

Witnesses:

SAMUEL SMITH,  
CHARLES DOUGHERTY.