

(No Model.)

G. W. HAYTON.
BRIDGE WALL FOR BOILERS.

No. 575,948.

Patented Jan. 26, 1897.

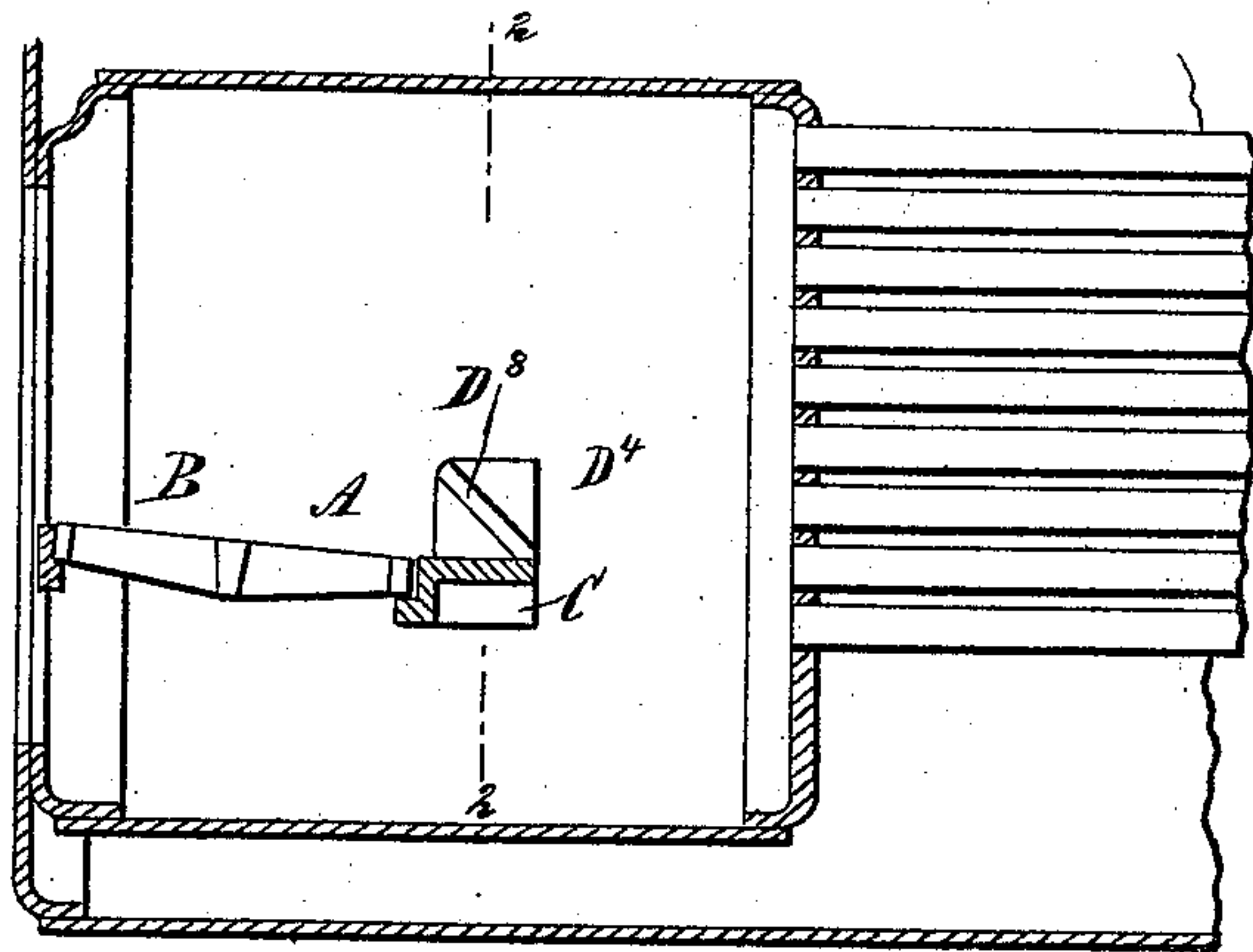


Fig 1

Fig 2

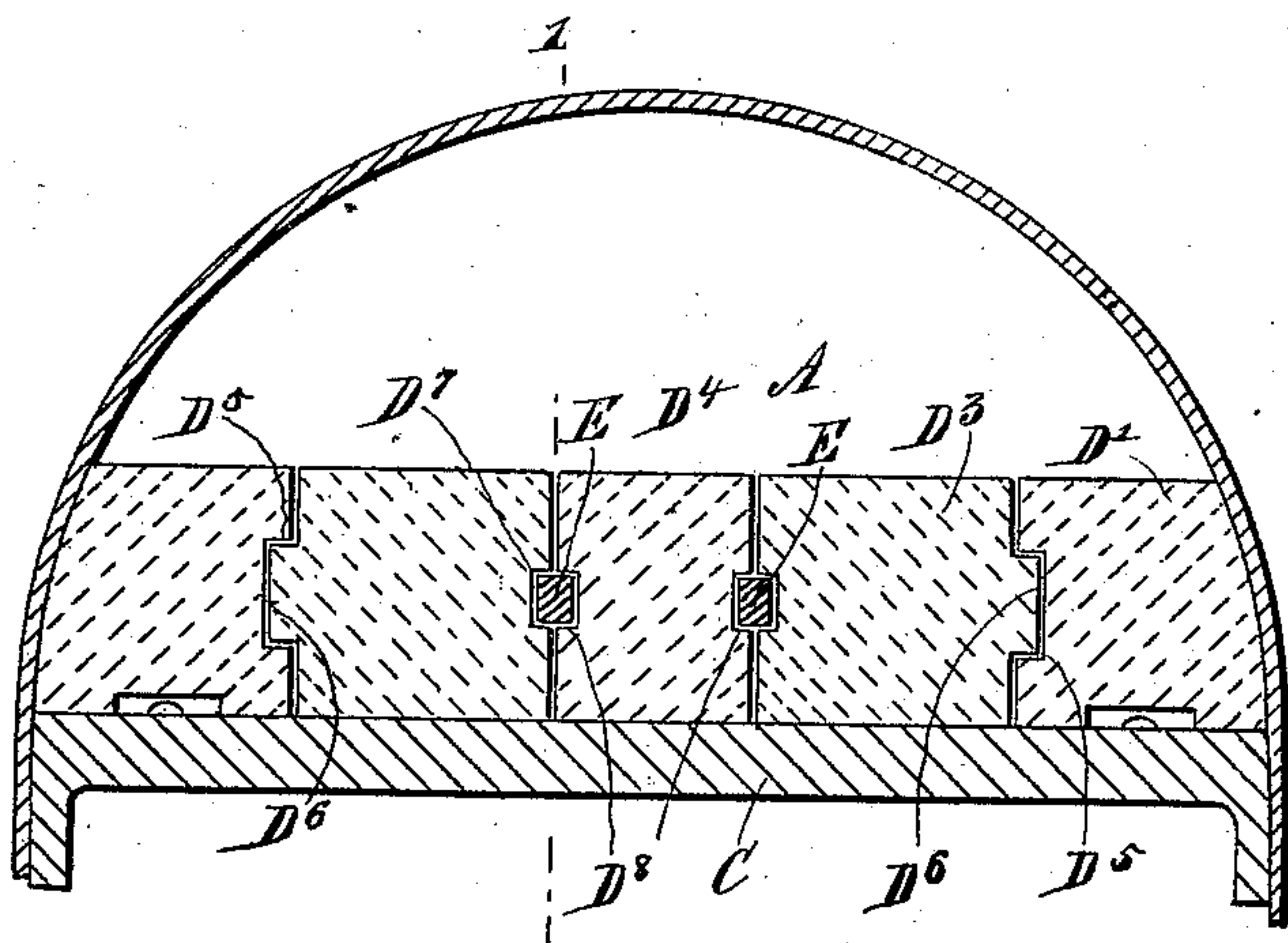


Fig 3

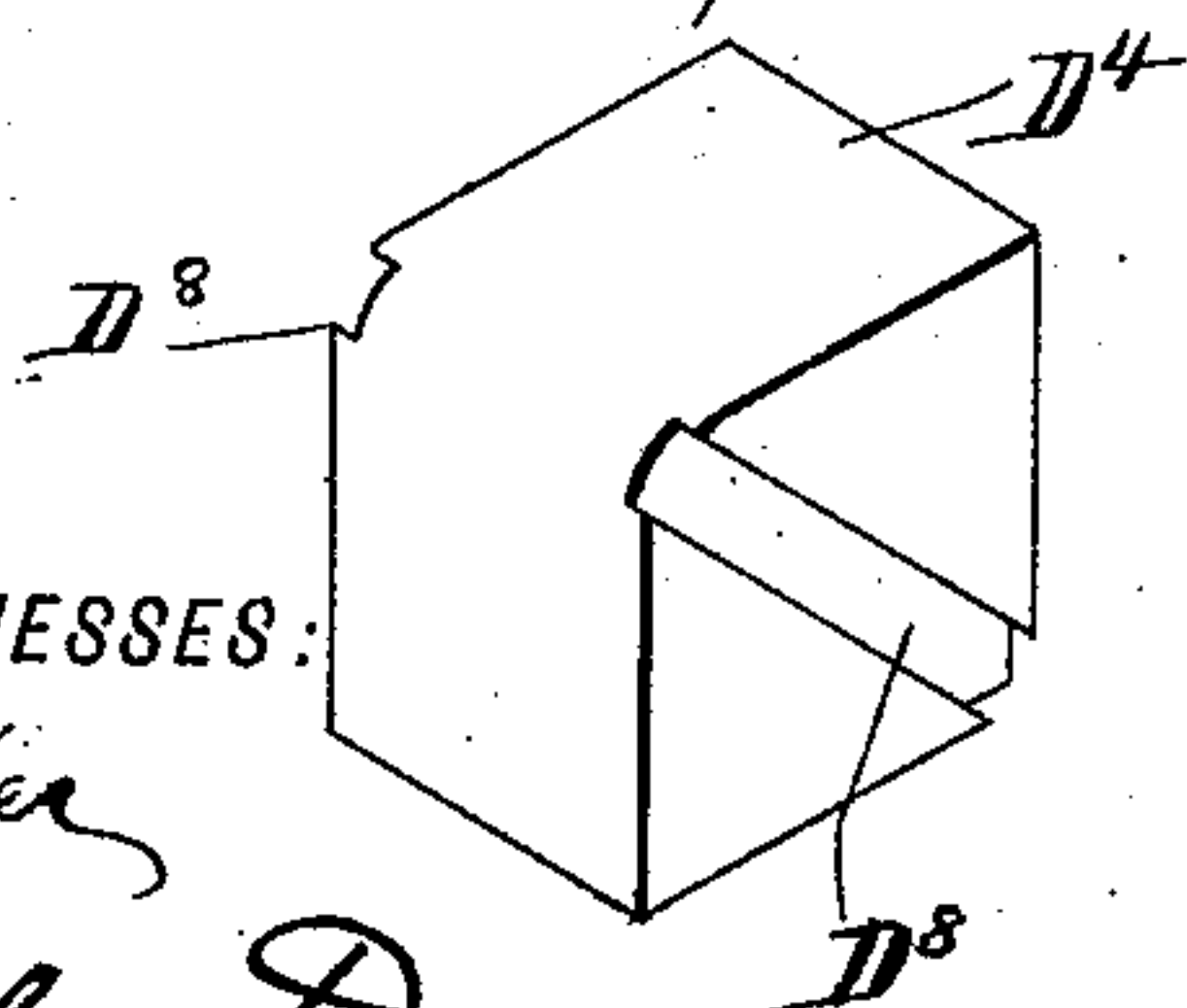
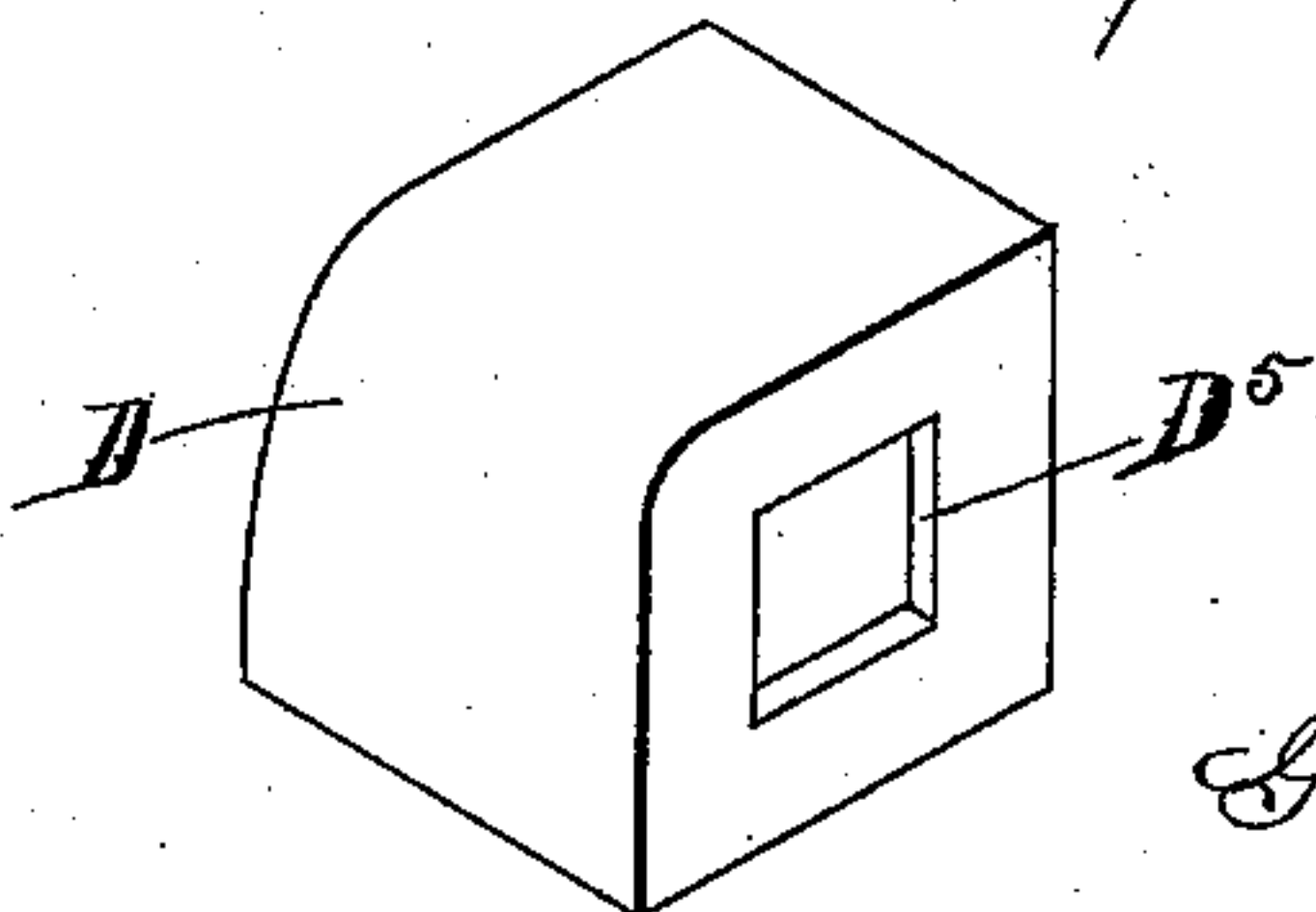


Fig 4



WITNESSES:

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BRIDGE-WALL FOR BOILERS.

SPECIFICATION forming part of Letters Patent No. 575,948, dated January 26, 1897.

Application filed May 1, 1896. Serial No. 589,903. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WALKER HAYTON, of Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Bridge-Walls for Boilers, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved bridge-wall for marine and other boilers, and arranged to securely hold and lock the bricks in place to prevent the wall from being broken by the firemen in raking the fires.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation, on the line 1 1 in Fig. 2, of the improvement as applied. Fig. 2 is a transverse section of the same on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of the key-brick, and Fig. 4 is a similar view of one of the end bricks.

The improved bridge-wall A is arranged at the end of a fire-box B and is provided with the usual transversely-extending supporting-plate C, fastened at the ends to the sides of the boiler in the usual manner. On top of this plate C are set the end bricks D and D', the intermediate bricks D² and D³, and the key-brick D⁴, set in between the intermediate bricks D² and D³.

The opposing faces of the bricks D and D² and those of the bricks D' and D³ are interlocked, and for this purpose the inner faces of the end bricks D and D' are provided with recesses D⁵, into which enter projections D⁶, formed on the outer faces of the intermediate bricks D² and D³. The inner faces of the intermediate bricks D² and D³ are provided with grooves D⁷, and corresponding grooves D⁸ are formed in the outer faces of the key-brick D⁴.

Keys E are used to securely hold and fasten the bricks transversely in place by forcing the end bricks D D' firmly against the side of the boiler, as plainly indicated in Fig. 2. Each

key E fits into the grooves D⁷ and D⁸ of the key-brick D⁴ and the intermediate bricks D² and D³. The two grooves D⁷ and D⁸ register one with the other, and the registering grooves extend diagonally from the front upper corner of the bricks toward the rear lower corner, as plainly indicated in Fig. 1.

Now it will be seen that by the arrangement described the bricks can be readily set up on the plate C and interlocked with each other and securely fastened in position by the keys E, as above explained. It is evident that such a set of bricks can be readily set up by any fireman or other unskilled person, so that in case a set of bricks are burned out they can be readily replaced at any time by the attendant of the boiler and without the use of mortar or like building material.

It is understood that bridge-walls as heretofore constructed are made of ordinary fire-bricks set upon a plate C, and it frequently happens that the bricks are knocked over by the fireman manipulating the raking-bar over the fuel.

The boiler-shell fits snugly over the round-off end bricks D D' to prevent any one of the bricks from being lifted up and knocked off the plate C.

It is understood that the bridges of boilers should be maintained at all times at an even and certain height, with the view of regulating the draft. In ordinary bridges built with bricks the latter are frequently knocked away one at a time, thus lowering the bridge and rendering it ineffective for the purpose for which the wall is built.

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

1. A bridge-wall for boilers, comprising a series of bricks having their faces provided respectively with projections and recesses, whereby they are adapted to interlock with each other, a key-brick provided with grooves in its faces adapted to register with corresponding grooves in adjacent bricks, and keys adapted to be driven into said registering grooves, substantially as shown and described.

2. A bridge-wall for boilers, comprising end bricks, intermediate bricks having their faces

interlocked with the said end bricks, a key-
brick fitted between the intermediate bricks,
and keys inserted between the faces of the
key-brick and the adjacent intermediate
5 bricks, substantially as shown and described.

3. A bridge-wall for boilers, comprising end
bricks, intermediate bricks having their faces
interlocked with the said end bricks, a key-
brick fitted between the intermediate bricks,
10 and keys inserted between the faces of the

key-brick and the adjacent intermediate
bricks, the said keys extending in grooves
formed in the adjacent faces from the upper
front corner toward the lower rear corner,
substantially as shown and described.

GEORGE WALKER HAYTON.

Witnesses:

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JAS. M. HENLEY.