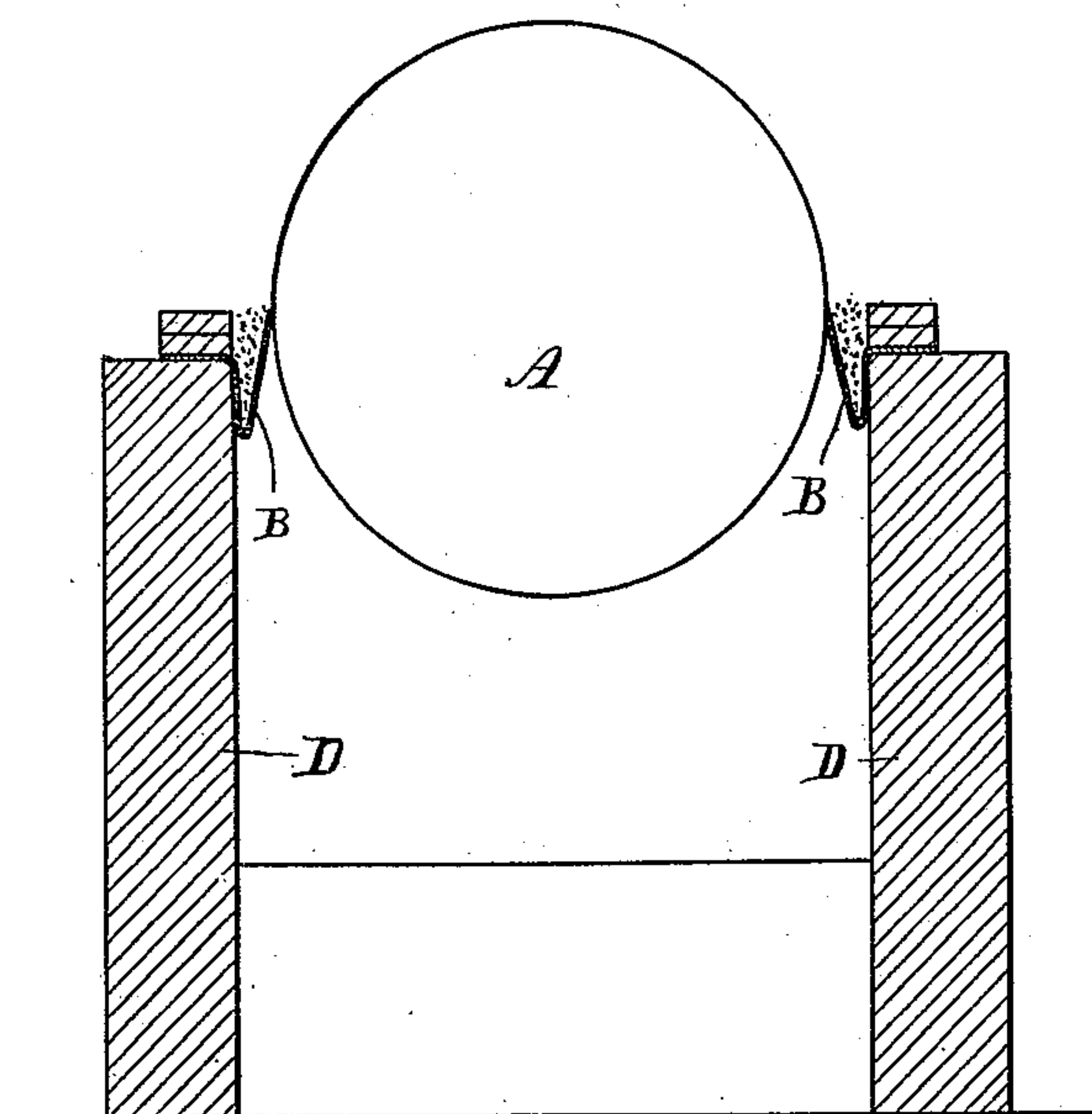


(No Model.)

M. WALKER.
BOILER FURNACE.

No. 354,754.

Patented Dec. 21, 1886.



Attest:

John Schuman.
J. Sprague

Inventor:

Miciah Walker.

by his Atty

W. J. Sprague

UNITED STATES PATENT OFFICE.

MICIAH WALKER, OF PORT HURON, MICHIGAN.

BOILER-FURNACE.

SPECIFICATION forming part of Letters Patent No. 354,754, dated December 21, 1886.

Application filed October 14, 1886. Serial No. 216,189. (No model.)

To all whom it may concern:

Be it known that I, MICIAH WALKER, of Port Huron, in the county of St. Clair and State of Michigan, have invented new and useful
5 Improvements in Boiler-Furnaces; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, which forms a part of this specification.
10 This invention relates to certain new and useful improvements in boiler-furnaces, whereby all danger of leakage at the point of connection between the boiler and its setting is prevented.
15 In setting boilers in brick it is usual to run the walls up to a point at or about the top of the flues in the boiler, and then draw in the brick-work until it meets the boiler. Now, as the boiler when put into operation expands
20 through heat, it expands and crowds the brick-work away from it. In cooling off, the boiler contracts and draws away from the brick-work, thereby leaving a space between the wall and the boiler, which allows cold air to
25 be drawn in, thereby tending to cool the boiler at that point.

My object in the present invention is to provide means by which there will always be a close connection at this point to the exclusion
30 of the cold air, thereby effecting a large saving in fuel.

In the accompanying drawing my improve-

ment is shown in a cross-section of a boiler and its setting, and therein A represents the boiler, and D the side walls of the furnace setting. 35

B represents a sheet of metal, with its flat portion inserted between the bricks of the wall, with its projecting end bent downward in the form of a V-shaped spring, as shown, 40 so that its free edge rests against the side of the boiler. Now, this spring portion of the sheet metal will give and take with the expansion and contraction of the boiler. To prevent the escape of heat at this point, I 45 preferably fill the interior of the V-shaped spring with asbestos, mineral wool, or other non-conducting substance that will not interfere with the action of the spring itself.

What I claim as my invention is— 50

1. In combination with a boiler and its furnace-setting, a spring-support interposed between the two and secured in the wall of the furnace, substantially as and for the purpose described. 55

2. A spring-support interposed between a boiler and the side wall of the furnace and secured to the latter, in combination with a filling of non-conducting material, substantially as specified.

M. WALKER.

Witnesses:

H. S. SPRAGUE,
E. SCULLY.