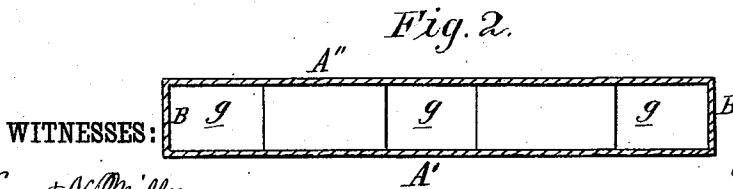
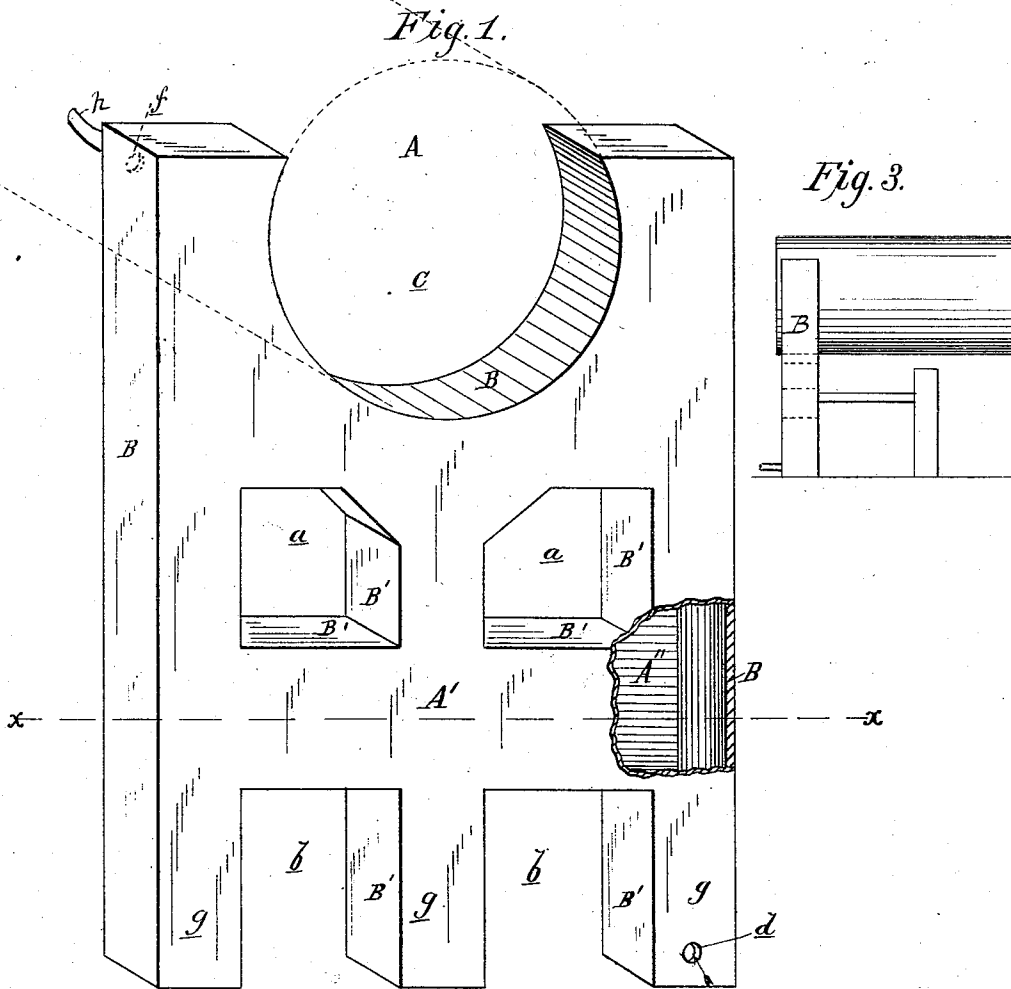


(Model.)

T. H. & J. PARVIN.
Boiler Front.

No. 236,174.

Patented Jan. 4, 1881.



INVENTOR:
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UNITED STATES PATENT OFFICE.

THOMAS H. PARVIN AND JOHN PARVIN, OF CARMI, ILLINOIS.

BOILER-FRONT.

SPECIFICATION forming part of Letters Patent No. 236,174, dated January 4, 1881.

Application filed May 13, 1880. (Model.)

To all whom it may concern:

Be it known that we, THOMAS H. PARVIN and JOHN PARVIN, of Carmi, in the county of White and State of Illinois, have invented a new and Improved Boiler-Front, of which the following is a specification.

The object of this invention is to provide a combined boiler-front and feed-water heater, especially adapted to stationary boilers.

Ordinarily the fronts of horizontal cylindrical stationary boilers are made of single plates of iron, that permit a great and constant loss of heat by radiation from the fires, and that quickly burn out, crack, and become distorted.

Our invention is designed to remedy these defects; and it consists of a boiler-front constructed with hollow walls of boiler-plate or other suitable material, so as to form a water-chamber in which the boiler feed-water may pass and become heated on its passage to the boiler.

Figure 1 is a perspective elevation of the device with a portion broken away to exhibit other parts. Fig. 2 is a horizontal section on line *xx*, Fig. 1. Fig. 3 is a side elevation, showing the front supporting the end of a cylindrical boiler.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the boiler-front, consisting of outer and inner plates, A' A'', respectively held apart and joined at their edges by the edge-plates B, and about the fire-door and ash-pit openings by plates B', as shown, thereby forming a hollow front to be filled with the boiler feed-water. The front end of the boiler is designed to be supported in the semicircular depression *c* in the top of the boiler-front, and *a a* represent the fire-door openings, and *b b* the ash-pit openings. In one leg of this boiler-front A is an opening or pipe-connection, *d*, to which the feed-water pipe is to be attached, while to the opening or connection *f*, or any other conven-

ient place, the boiler-supply pipe *h* is to be attached. This front A supports the boiler, instead of masonry, is designed to be hollow throughout, and may be so constructed as to bear an equal steam-pressure with the boiler. Suitable valves for regulating the feed or supply of water to the boiler-front and the boiler are to be placed in the supply-pipes.

The feed-water passing through the front A may, if desired, be retained therein long enough to become heated to the boiling-point before entering the boiler, and at all times it keeps the said front from burning out or cracking, and also preserves a more moderate temperature in front of the boiler, thus avoiding the excessive radiation and consequent loss of heat common to ordinary boiler-fronts, and saving the expense and trouble of the ordinary feed-water heaters. The legs *g g* of this front A, being hollow, serve as mud-drums for the deposit of the sediment from the feed-water, and suitable openings or man-holes will be made in said legs *g g* for the removal of said deposit.

The connecting water-pipes can be attached to any points in the boiler-front that may be most suitable or convenient.

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

The within-described combined boiler-front support and water-heater, consisting of a box with a recess adapted to receive the end of a cylindrical boiler, provided with fuel and ash-pit openings, communicating with an inlet-pipe and with the boiler, but detachable from the latter and from the walls of the fire-place, and constituting the front and supporting the end of the boiler, as set forth.

THOMAS HENRY PARVIN.
JOHN PARVIN.

Witnesses:

JAMES A. MILLER,
WALTER BLOUNT.