

J. J. ADGATE & F. HICKMAN.

SEDIMENT-COLLECTOR FOR STEAM-BOILERS.

No. 184,948.

Patented Dec. 5, 1876.

Fig 1

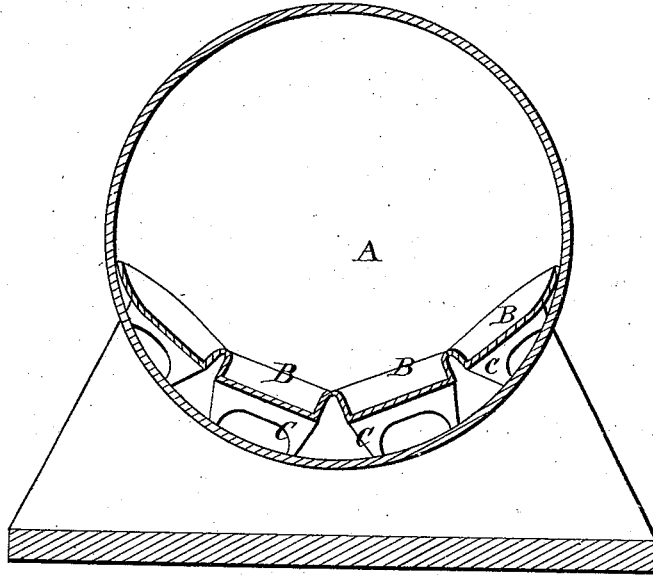
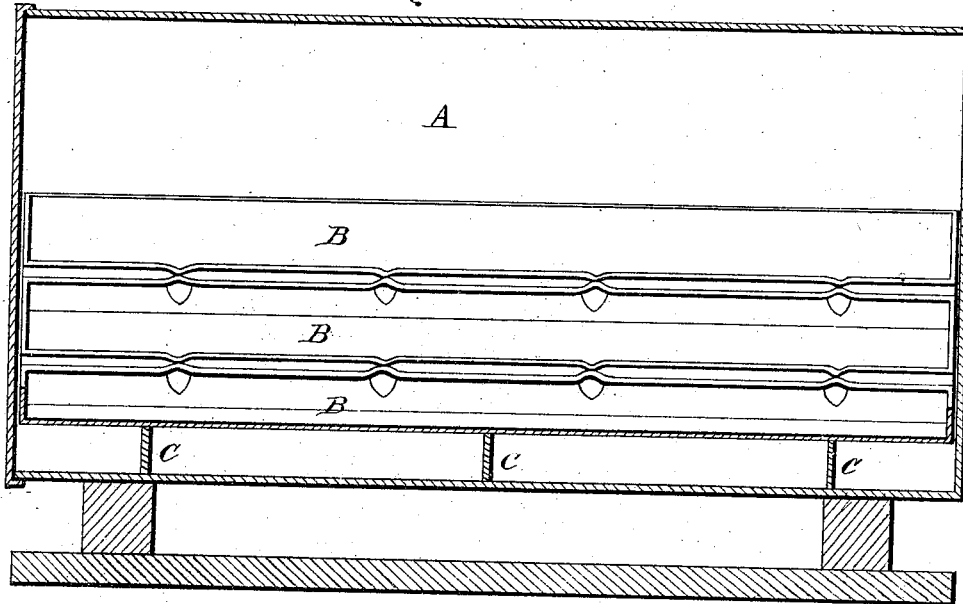


Fig 2



WITNESSES
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JOSEPH J. ADGATE, OF NEW YORK, N. Y., AND FRANCIS HICKMAN, OF
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IMPROVEMENT IN SEDIMENT-COLLECTORS FOR STEAM-BOILERS.

Specification forming part of Letters Patent No. 184,948, dated December 5, 1876; application filed
April 24, 1876.

To all whom it may concern:

Be it known that we, JOSEPH J. ADGATE, of New York, N. Y., and FRANCIS HICKMAN, of Reading, in the county of Berks, and in the State of Pennsylvania, have invented certain new and useful Improvements in Sediment-Collector for Steam-Boilers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists of a series of independently-removable pans, which form a false bottom for collecting the sediment in steam-boilers, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a cross-section of a steam-boiler embodying our invention. Fig. 2 is a longitudinal section of the same.

A represents an ordinary horizontal steam-boiler, provided with a false bottom, made in sections B B. These sections are preferably made concave, or of trough or box shape, and of either cast or wrought iron. These sections are sustained by legs or other supports, C C, a sufficient distance from the bottom of the boiler, within the same, for a proper circulation of the water while making steam. The bottom sections B may be of the same length as the boiler, as shown in Fig. 2, or they may be made in shorter lengths to facilitate their adjustment and removal.

The sections are separated a slight distance from each other, in the manner shown in Fig. 2, or by any other equivalent means which will allow circulation of water in the boiler, and any one or more of the sections may be independently removed, if required.

The object of thus interposing this false bot-

tom between the bottom of the boiler and the body of the water is to receive the deposit or scale thrown out or deposited from the water while making steam, whereas, without this, the scale accumulates upon the surface next to the furnace and renders the boiler unsafe, such scale then having to be removed by chipping with chisel and hammer, which is laborious and expensive, and liable to injure the boiler by cutting into the boiler-plate.

With our invention these difficulties are obviated, as the scale will be deposited on the false bottom, and this can be removed at any time for chipping off the scale. For this purpose we propose to have two bottoms or sets of sections, so that when one is removed the other can be put in immediately, thus saving the time required for chipping off the scale, as that can be done at leisure while the machinery is in motion; and as the false bottom does not have to be removed as often as the boiler should be scaled to render it safe, there is a further advantage of cheapness and safety, as it prevents the boiler from blistering, which occurs by the scale adhering to the heated surface, and preventing the water from coming in contact with the iron.

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

In a steam-boiler, a sediment-collector consisting of a series of pans, B, supported upon feet extending lengthwise of the boiler, slightly separated from each other by means of projections on the walls of the pans, and independently removable from each other, substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 23d day of March, 1876.

JOSEPH J. ADGATE.
FRANCIS HICKMAN.

Witnesses:

C. HOLTON,
F. M. BANKS.