

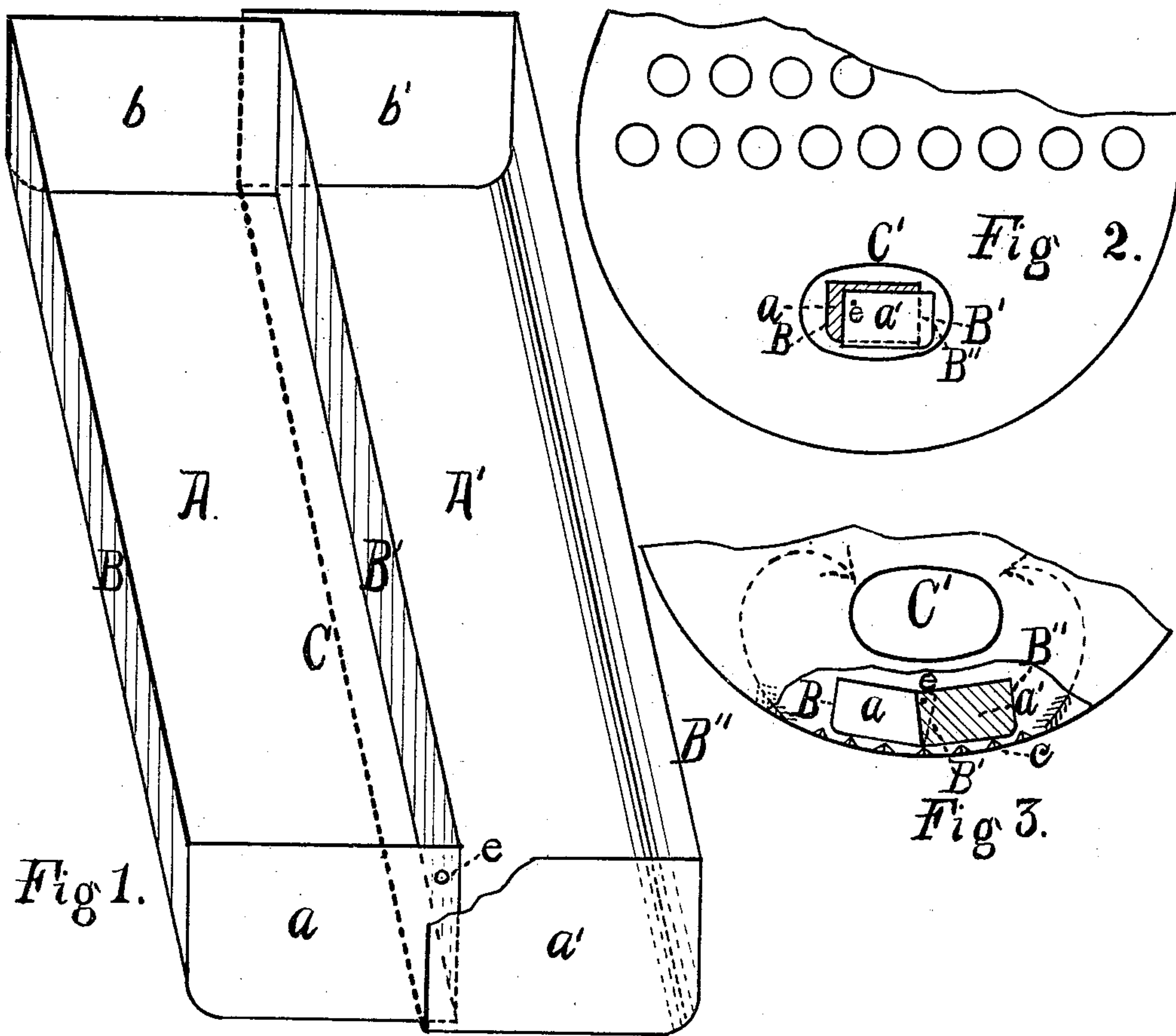
(No Model.)

C. W. BOWERS.

SEDIMENT RECEIVER FOR STEAM BOILERS.

No. 335,559.

Patented Feb. 9, 1886.



Witnesses.  
C. J. Caswell  
Thomas Crane

Inventor.  
C. W. Bowers

# UNITED STATES PATENT OFFICE.

CILE W. BOWERS, OF FORT ATKINSON, ASSIGNOR OF ONE-HALF TO ELI P. MAY, OF JEFFERSON COUNTY, WISCONSIN.

## SEDIMENT-RECEIVER FOR STEAM-BOILERS.

SPECIFICATION forming part of Letters Patent No. 335,559, dated February 9, 1886.

Application filed August 28, 1885. Serial No. 175,589. (No model.)

*To all whom it may concern:*

Be it known that I, CILE W. BOWERS, of the city of Fort Atkinson, Jefferson county, in the State of Wisconsin, a citizen of the United States, have invented an Improvement in Sediment-Receiver to be used in Steam-Boilers, of which the following is a specification.

In the accompanying drawings, Figure 1 represents a receiver or deposit-pan, A and A', made in two sections. Fig. 2 shows an end section of a horizontal cylindrical steam-boiler provided with a hand-hole, C', in which is shown the front end of the sediment-pan A and A', as when being introduced into the boiler through the hand-hole C'. Fig. 3 is an end section of the steam-boiler, broken away to show the position of the pan A and A' resting upon the rivet-heads *c* inside of the boiler. For a small boiler one section is sufficient.

This invention relates to certain novel improvements by which the sediment, which has heretofore settled upon the lowest sheet of the boiler, (and that to its great damage,) is gathered and deposited in a receiver provided for that purpose, the manner of doing which I now proceed to describe, so that others skilled in the art may understand the same.

In the drawings, Fig. 1 represents the sediment-pan complete, constructed in two sections, which are simply two boxes formed of sheet metal, the box A having two sides, B and B', and ends *b* and *a*, the box A' with ends *b'* and *a'*, with one side, B'', but minus side C at dotted line. The right side, B', of box A rests upon the left inside, C, of box or section A', and is fitted to slide freely into it, like a drawer into its case, and thereby the width of the pan is reduced, to allow it to pass freely through the hand-hole into the boiler, as shown in Fig. 2. After thus being introduced into the boiler, the section A is drawn out of section A' to the position shown in Figs. 1 and 3. A bolt is then placed in the hole *e* through the ends *a* and *a'*, which fastens the two sections together loosely, leaving them flexible at that point, so that the two sections may adjust themselves to either a level or curved boiler-bottom, as shown in Figs. 1 and 3.

The rivet-heads *c*, upon which the pan rests

in Fig. 3, are found in the construction of some boilers; but when there are none supports for the sediment-pan must be provided, so as to leave a space between the boiler and the bottom of the pan directly above the furnace. Now, it will be observed that the water and sediment which fill the space beneath the pan, in accordance with the laws of heat, are forced outward each way from the center of the space, curving upward, and finally inward, until the two currents meet above the pan, where there is less agitation. The sediment settles into the pan, as described by arrows, Fig. 3. The two sections of this pan may be passed separately into the boiler through the hand-hole C', after which they can be coupled together by bolt *e* and placed in position, as in Fig. 3.

To remove the pan with the sediment from the boiler, first the two sections must be detached by removing the bolt at *e*. Then each section is removed from the boiler separately. In doing this the side or partition B' of section A divides the sediment between the two sections, and thereby prevents the liability to scatter or spill the sediment while removing them. The lower corner of each section is rounded, to favor the introduction of the pan through the hand hole.

When desired, a single pan may be used.

The height and width of the pan is determined by the size of the hand-hole C', through which it must pass.

I do not claim to be the first to make and use sediment-receivers in steam-boilers, for such were used prior to my invention; but

What I do claim as my invention, and desire to secure by Letters Patent of the United States, is—

In combination with a steam-boiler substantially as described, a sediment-pan provided with a movable partition, B', for dividing the sediment to avoid spilling the same when more than one section is used, substantially as and for the purpose specified.

CILE W. BOWERS.

Witnesses:

C. A. CASWELL,  
THOMAS CRANE.