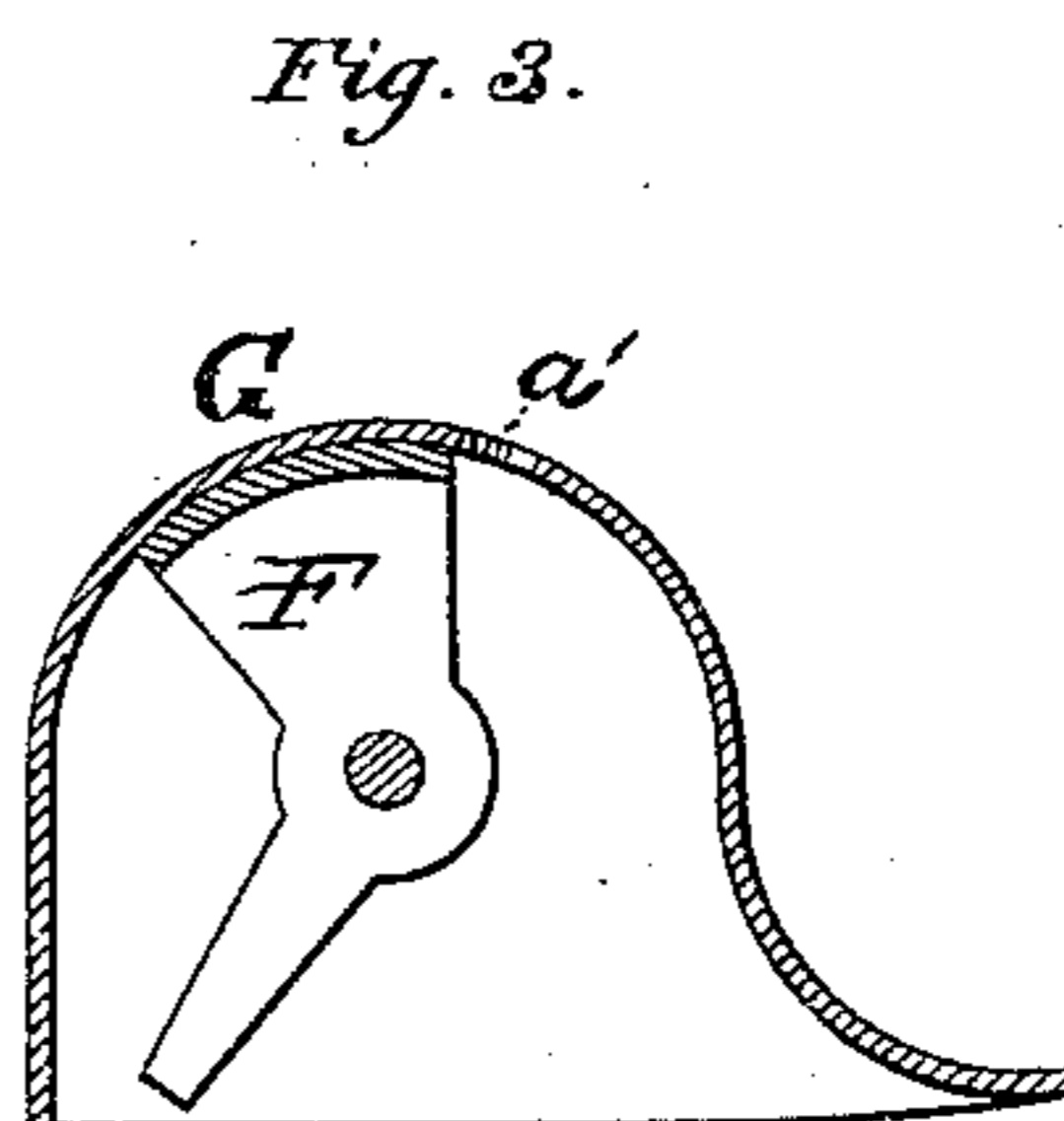
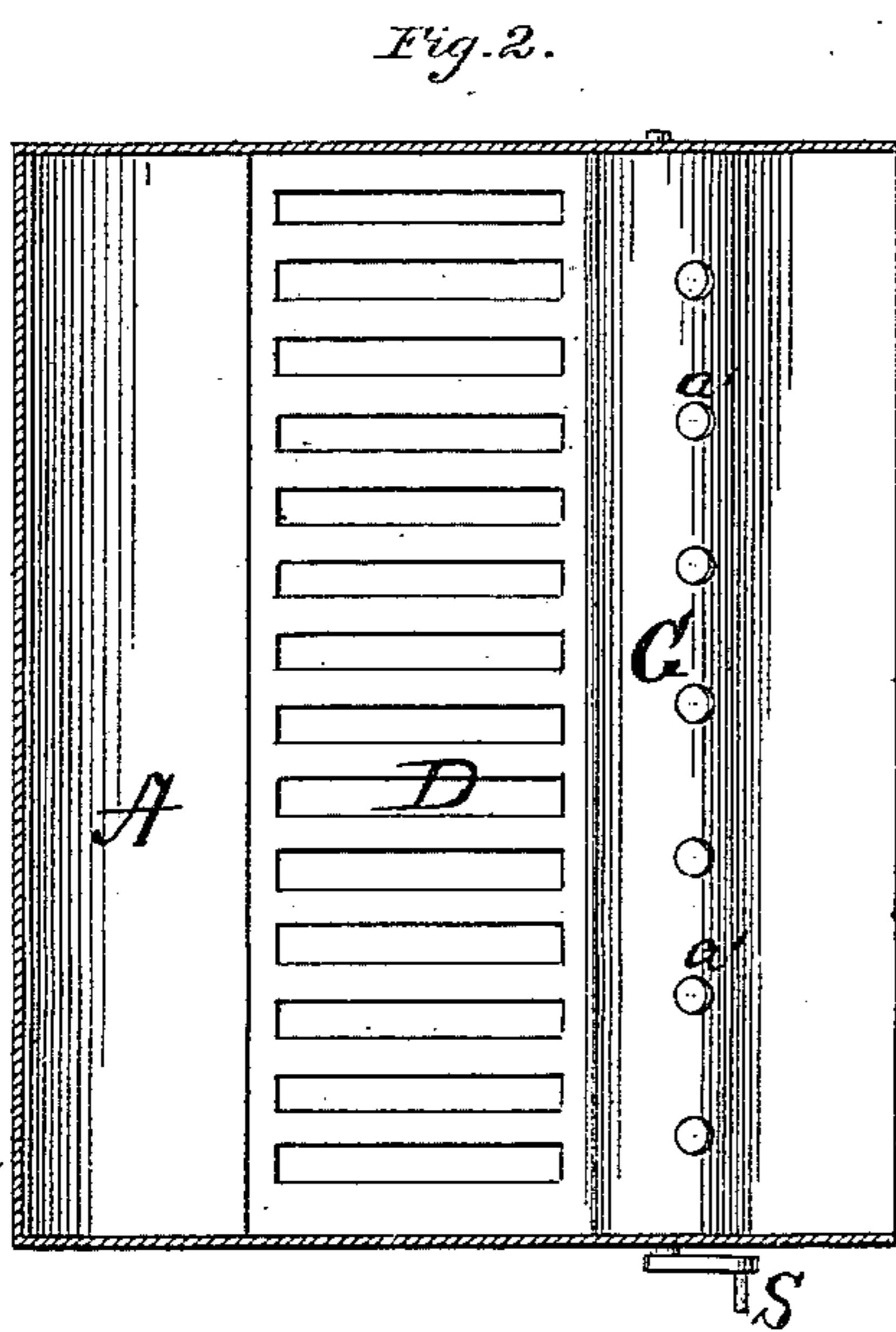
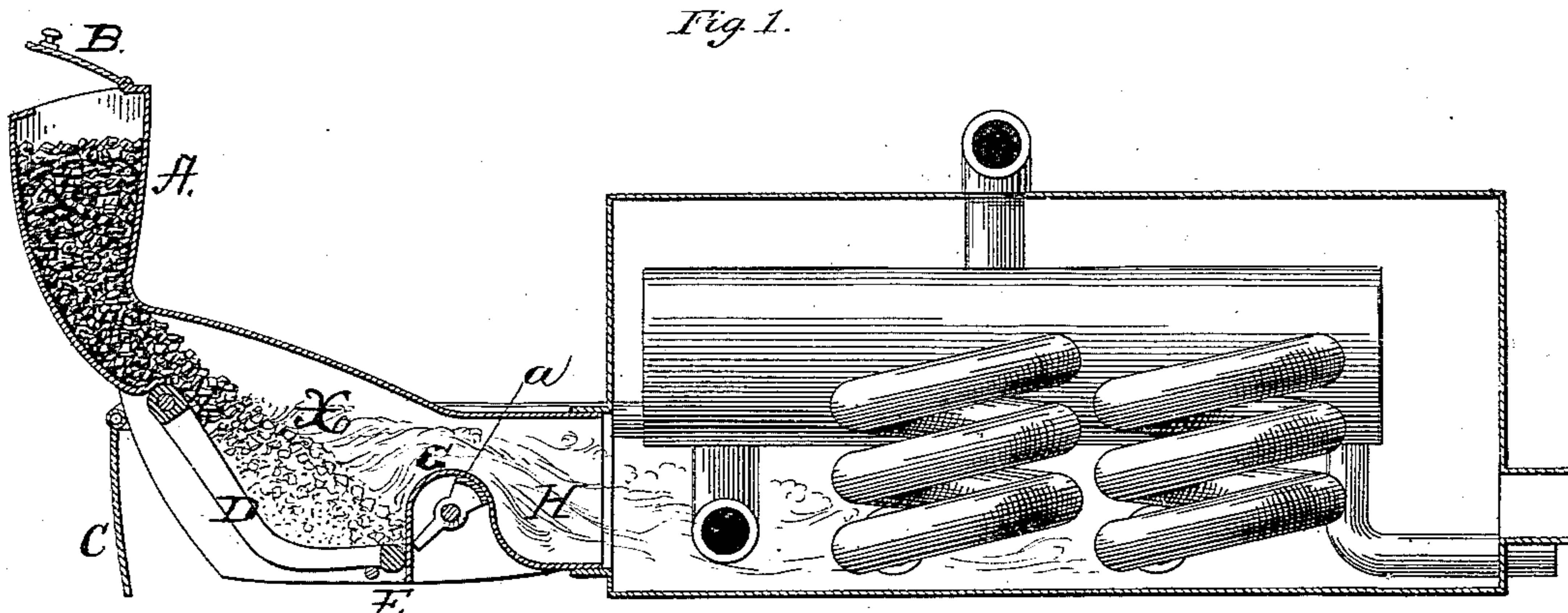


W. S. SALISBURY.
Self-Feeding Furnace for Steam-Boilers.

No. 226,203.

Patented April 6, 1880.



Attest:
A. G. Heylman,
J. J. Kane,

Inventor:
Wilbur S. Salisbury
by Ellery C. Ford
Atty.

UNITED STATES PATENT OFFICE.

WILBER S. SALISBURY, OF CHICAGO, ILLINOIS.

SELF-FEEDING FURNACE FOR STEAM-BOILERS.

SPECIFICATION forming part of Letters Patent No. 226,203, dated April 6, 1880.

Application filed July 19, 1879.

To all whom it may concern:

Be it known that I, WILBER S. SALISBURY, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Self-Feeding Furnaces for Steam-Boilers, which improvements are fully set forth in the following specification and accompanying drawings.

My improvements relate to a detachable furnace with self-feeding apparatus for fuel, the detailed portions admitting its being constructed in the most economic form where safety and height are essential. It is readily dissectible for repairs, removal, or transportation.

My invention consists in the general construction of a furnace with detail parts in their combination, all as hereinafter more fully set forth and described, and pointed out in the claim.

In the drawings hereinbefore mentioned, Figure 1 is a longitudinal vertical section of furnace applied to a boiler. Fig. 2 is a longitudinal top sectional view. Fig. 3 is an enlarged transverse sectional view of bridge-wall G and damper F to furnace X.

In Fig. 1, A represents the feeder to furnace X, which is provided with door B on top for putting in the fuel; a hinged grate, D, provided with a removable rod, E, for the purpose of dumping the grate; also, a hinged baffle-plate, C, for the purpose of protection from heat and to aid in the control of the air to the furnace through the more vertical section of the grate D.

On each side are doors V to furnace X, said furnace being provided with an arching bridge-wall, G, with holes *a' a'* therein, and provided on its under side with an oscillating damper, F, for closing said holes. Thus the operator has full control of the fire, and is enabled thereby to prevent too intense heat by mixing cold air with the gases in flue H before they enter the boiler, thus lessening the danger of overheating.

Fig. 2 shows handle S to damper F, said damper being partially rotated in its operation, and suspended by means of a rod passing through the outside shell of the furnace. The top of the furnace is partially arched, and when in use is to be lined with fire-clay overhead, and covering the bridge-wall and through the flue H, thereby retaining the heat and preventing the burning out of the iron.

This form of furnace is applicable to other forms of boilers.

Having thus fully described my invention, I claim—

A detachable self-feeding furnace or fire-box, X, for steam-boilers, provided with a supply-tank, A, for fuel, a hinged baffle-plate, C, hinged grate D, rod E, bridge-wall G, damper F, and flue H, all constructed and arranged to operate as herein described and shown.

WILBER S. SALISBURY.

Attest:

J. SEGUR SALISBURY,
C. E. KREMER.