(No Model.)

L. M. BARLOW.

BOILER.

No. 573,195. Patented Dec. 15, 1896.

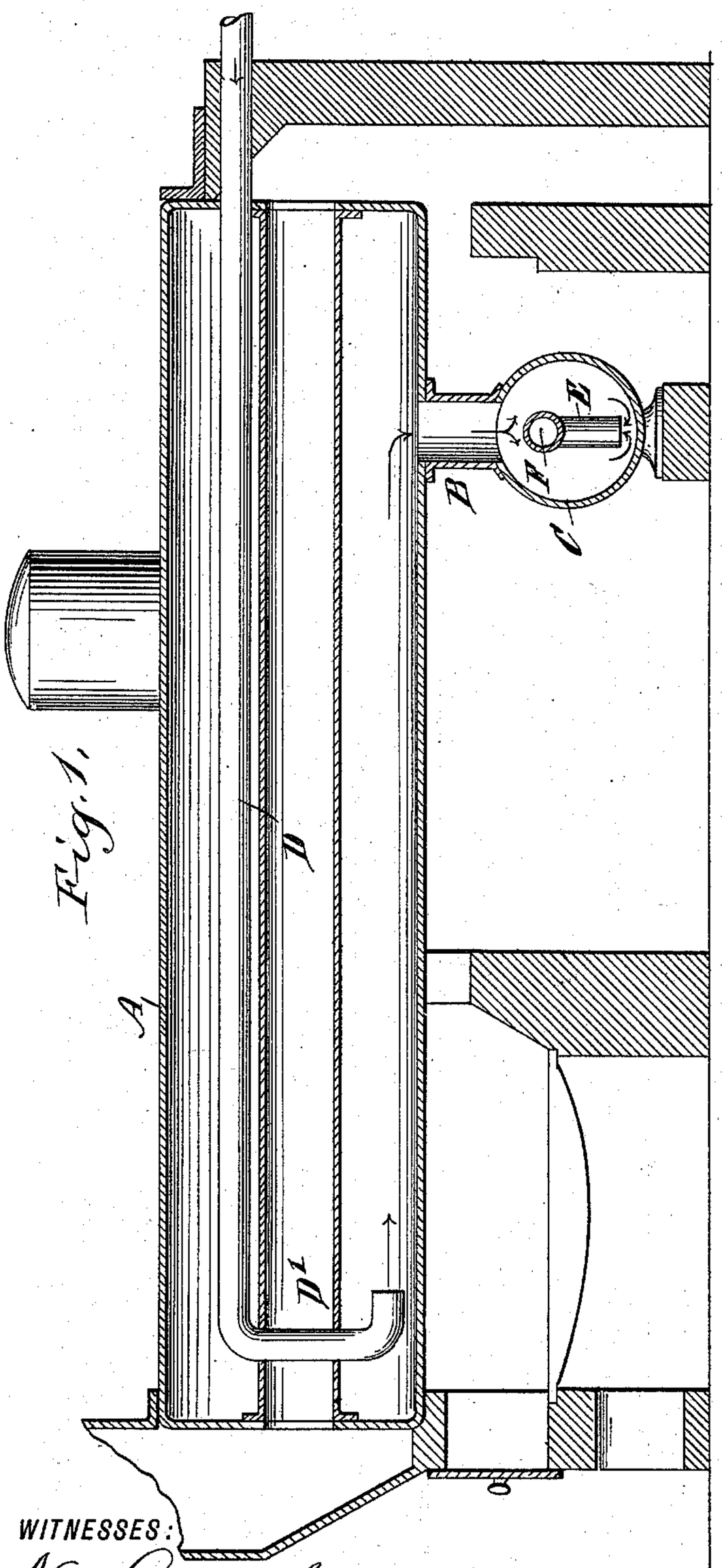

Fig. 1.

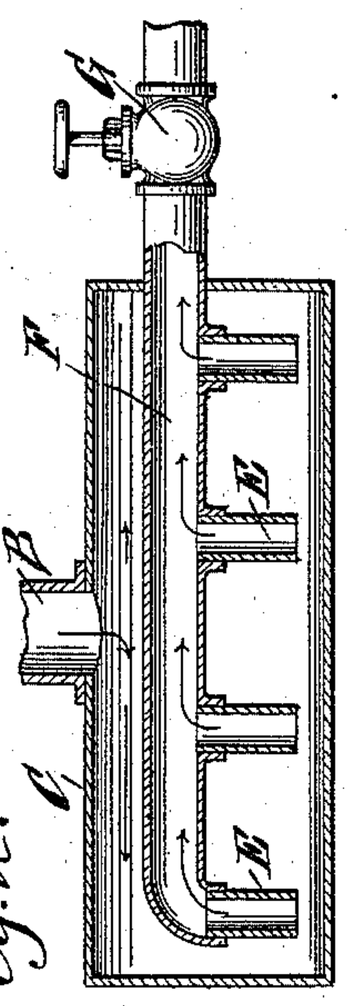

Fig. 2.

WITNESSES:

L. N. Legendre.

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INVENTOR

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LEWIS M. BARLOW, OF DONALDSONVILLE, LOUISIANA.

BOILER.

SPECIFICATION forming part of Letters Patent No. 573,195, dated December 15, 1896.

Application filed April 16, 1896. Serial No. 587,855. (No model.)

To all whom it may concern:

Be it known that I, LEWIS M. BARLOW, of Donaldsonville, in the parish of Ascension and State of Louisiana, have invented a new and Improved Boiler, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved boiler arranged to prevent scales from forming in the shell and to permit of readily discharging from time to time all impurities accumulating in the mud-drum.

The invention consists principally of a boiler having a stand-pipe leading from the bottom of the boiler-shell to the mud-drum at or near one end of the shell, and a feed-pipe discharging into the other end of the shell, near the bottom thereof, in a longitudinal direction toward the stand-pipe.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a sectional side elevation of the improvement, and Fig. 2 is a transverse section of the mud-drum.

The boiler is provided with the usual shell A, connected at its rear end and at the bottom thereof with a stand-pipe B, leading downwardly into a mud-drum C, preferably arranged transversely, and supported on suitable brickwork forming part of the boiler-brickwork. Into the shell A extends a feed-pipe D, connected at its outer end with a suitable pump, injector, or other feed-water device for forcing the water through the pipe D into the shell A at the end opposite to that on which the stand-pipe is located, the feed-water pipe D being for this purpose preferably curved downwardly and rearwardly, as at D′, to cause the water to flow along the bottom of the shell and boiler to disturb all scales and other impurities and drive the same to the rear end of the shell A, where they accumulate above the stand-pipe B and settle down through the said stand-pipe into the mud-drum C. Thus the water in the shell A is at all times kept pure and scales are prevented from forming in the shell.

In the drum C are arranged a series of nipples E, leading from within a short distance of the bottom of the drum to a transverse pipe F, extending through one end of the drum to the outside thereof, said pipe carrying at its outer end a suitable valve G, which is opened from time to time to discharge the impurities that have collected in the drum C. It will be seen that when the valve G is opened then the steam-pressure on the water in the shell A, stand-pipe B, and drum C causes a sudden rush of the water, so that the impurities located in the bottom of the drum C are caused to pass upward and into the nipples E, and from the latter into the pipe F and to the outside to a suitable place of discharge.

Thus by the arrangement described the shell A is kept clear from scales, and the impurities collected in the mud-drum can be readily discharged from time to time without stopping the working of the boiler.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

A boiler having an opening near one end, a mud-drum located beneath and communicating with the boiler through such opening, a pipe extending longitudinally in the mud-drum and passing out one end thereof, the pipe having a series of nipples communicating with it and extending downwardly to the lower portion of the mud-drum, the nipples also communicating with the mud-drum, and a feed-pipe extending into the boiler and having its discharge-orifice located adjacent to the end of the boiler which end is opposite the mud-drum, such orifice discharging toward the mud-drum, substantially as described.

LEWIS M. BARLOW.

Witnesses:
R. MCCULLOH,
GUSTAVE ISRAËL.