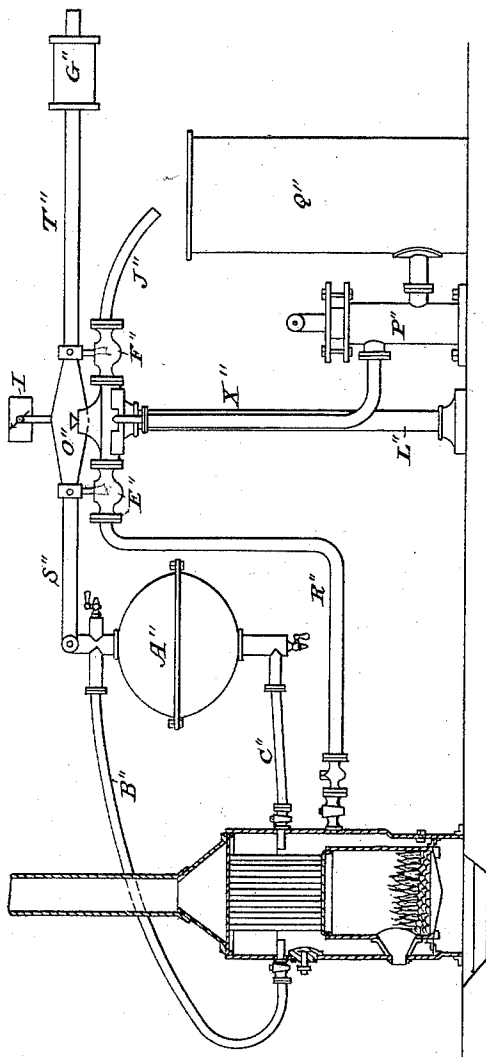


(No Model.)

L. DREUX.
BOILER FEEDER.

No. 483,668.

Patented Oct. 4, 1892.



WITNESSES:

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BY

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UNITED STATES PATENT OFFICE.

LOUIS DREUX, OF PRESLES, FRANCE.

BOILER-FEEDER.

SPECIFICATION forming part of Letters Patent No. 483,668, dated October 4, 1892.

Application filed May 23, 1892. Serial No. 434,102. (No model.)

To all whom it may concern:

Be it known that I, LOUIS DREUX, a citizen of the Republic of France, and a resident of Presles, (Seine and Oise,) in the Republic of France, have invented certain Improvements in Automatic Boiler-Feeding Apparatus, of which the following is a specification.

My invention includes a movable receptacle arranged to be influenced as to its vertical position by the influx thereto of steam when the water in the boiler falls below a certain point and of water when the said water rises to a certain point, the vertical movement of the receptacle controlling certain inlet and relief valves; and my invention consists in the combinations of devices hereinafter pointed out.

The drawing is a side view of my invention in connection with a boiler, which latter is shown in section.

The feed-water pipe R'' connects with the boiler and extends to the top of the stand L'', where it connects with the pipe X'', leading down to the pump P'', which draws the water from the tank Q''. A relief branch J'', controlled by a relief-valve F'', extends from the top of the stand L'' back over the tank Q'', said relief-pipe of course communicating with the supply-pipe X'' and the feed-water pipe R'', which latter is controlled by a valve E''. The sensitive vessel A'' connects with the boiler through the flexible pipes B'' C''. It is intended to operate the valves E'' and F'' from the vertical movement of the vessel A'', which takes place either upward or downward, according as the steam is admitted thereto by reason of the fall of water below the ports of the pipes B'' C'' or the water by reason of the rise thereof above the said ports, and in carrying out this part of my invention I aim to utilize the same means for supporting the vessel A'' and operating the two valves E'' and F'' positively and reversely, and to that end I form a fulcrum on the up-

per end of the stand L'' intermediate of the two valves, and pivot thereon a lever O'', which has one arm S'' extending to the left over the valve E'', connected thereto and pivotally supporting at its extremity the receptacle A'', and a second arm T'' extending to the right over the valve F'', connected thereto and carrying at its outer end the adjustable weight G''.

The operation will be clearly understood. The pump P'' operating continuously forces the water through the pipe R'' into the boiler until the water rises above the port of the pipe C'', when the water will then flow into receptacle A'', lowering the same, shutting the valve E'', and opening the relief-valve F'' for the escape of the water to the tank, the parts remaining in this position until the water in the boiler falls below the flexible pipe when the steam enters the receptacle, raises it, and through the lever opens valve E'' and closes valve F'', thus supplying more water to the boiler.

I claim—

In combination, the boiler, the feed-water pipe, the receptacle A'', the flexible-pipe connection therefrom to the boiler, the inlet and relief valves, and the means for operating both of said valves reversely and positively and for supporting the removable receptacle, consisting of the lever O'', fulcrumed between the two valves, having an arm extending over each and connected thereto, the said receptacle A'' being pivoted to the extremity of one arm and the weight G'' adjustable on the end of the other arm, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS DREUX.

Witnesses:

G. CAMNES,
COMPAGNON CAMILLE.