

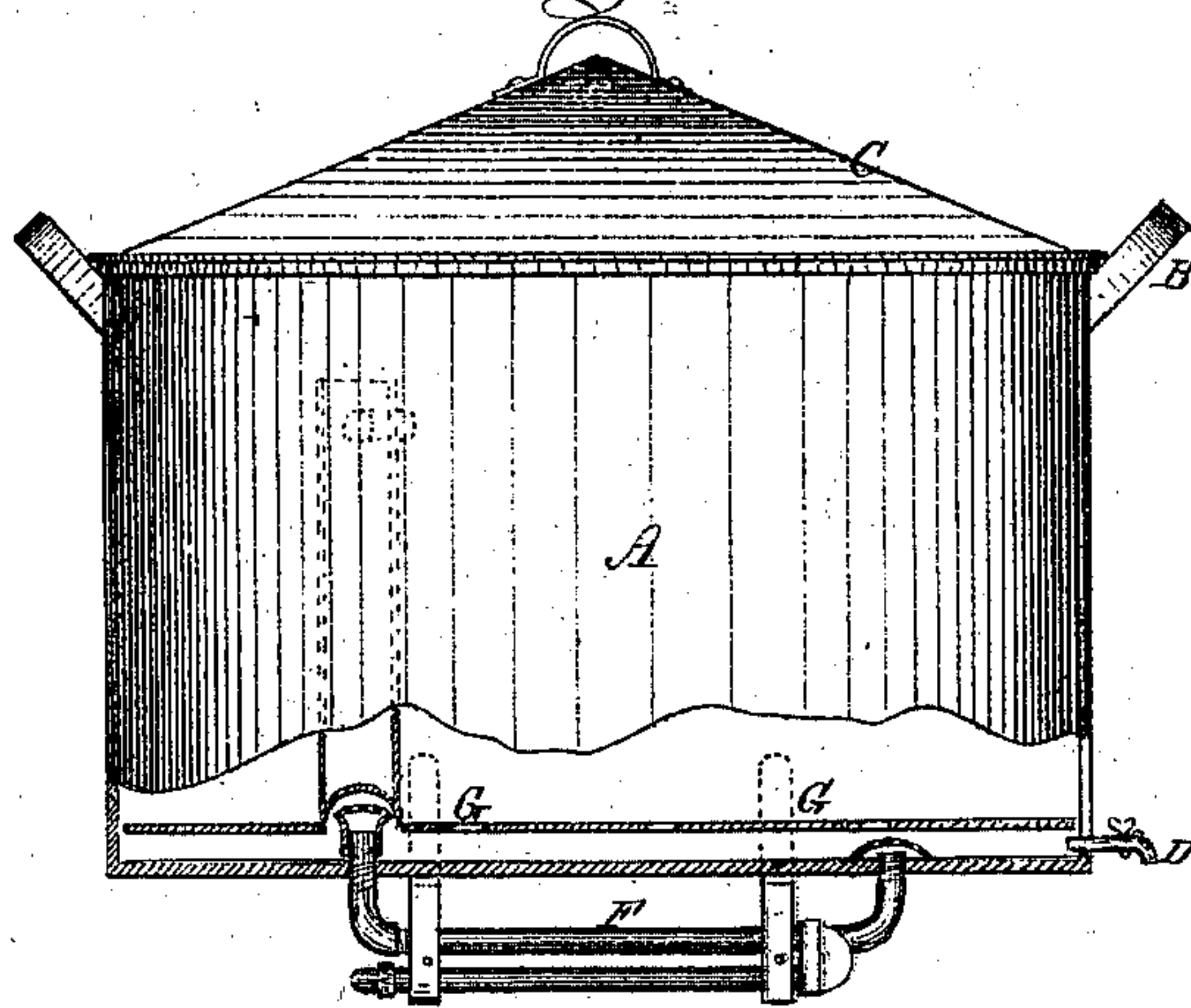
*L. H. Whitney,*

*Wash Boiler.*

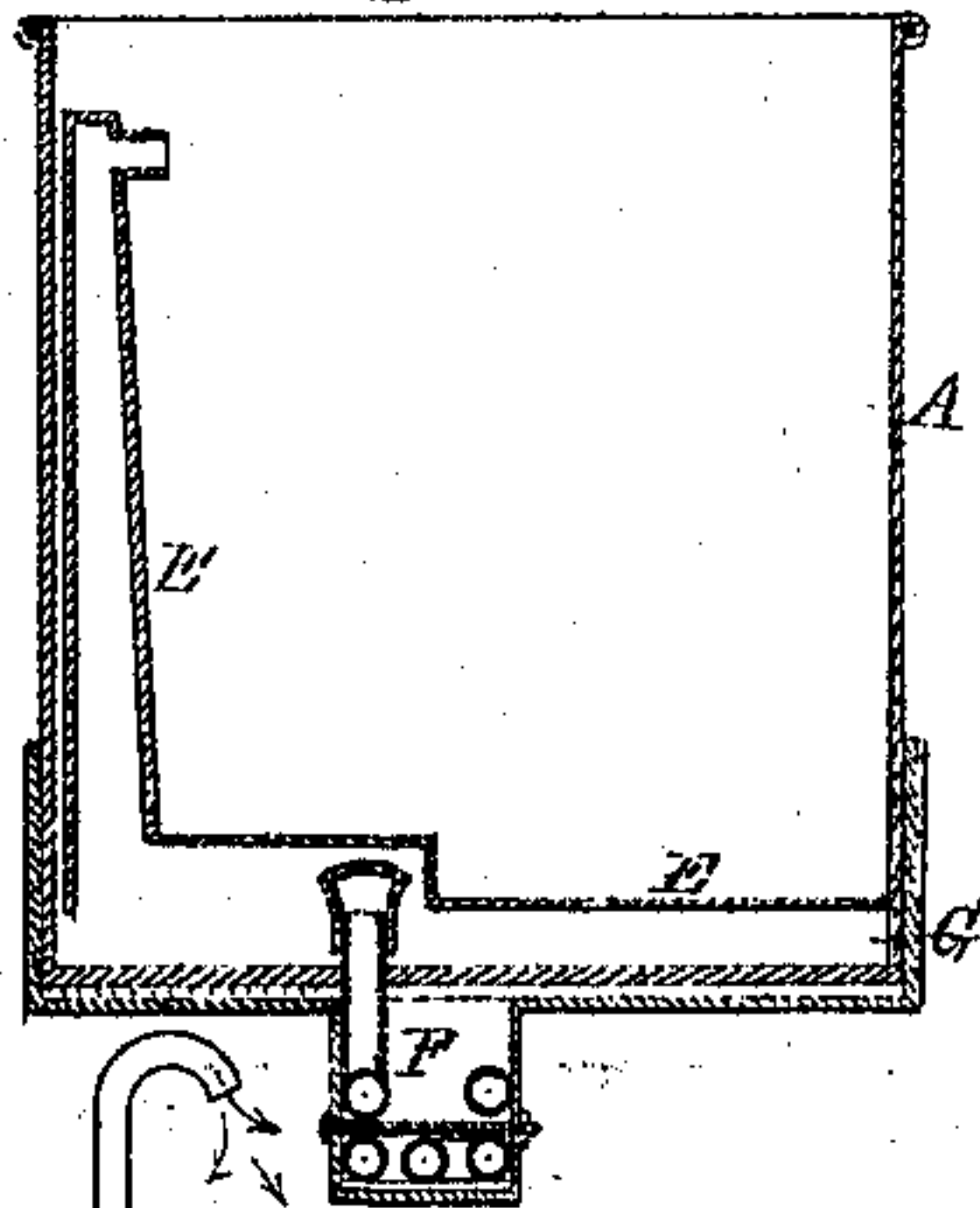
*No. 94,931.*

*Patented Sep. 14. 1869.*

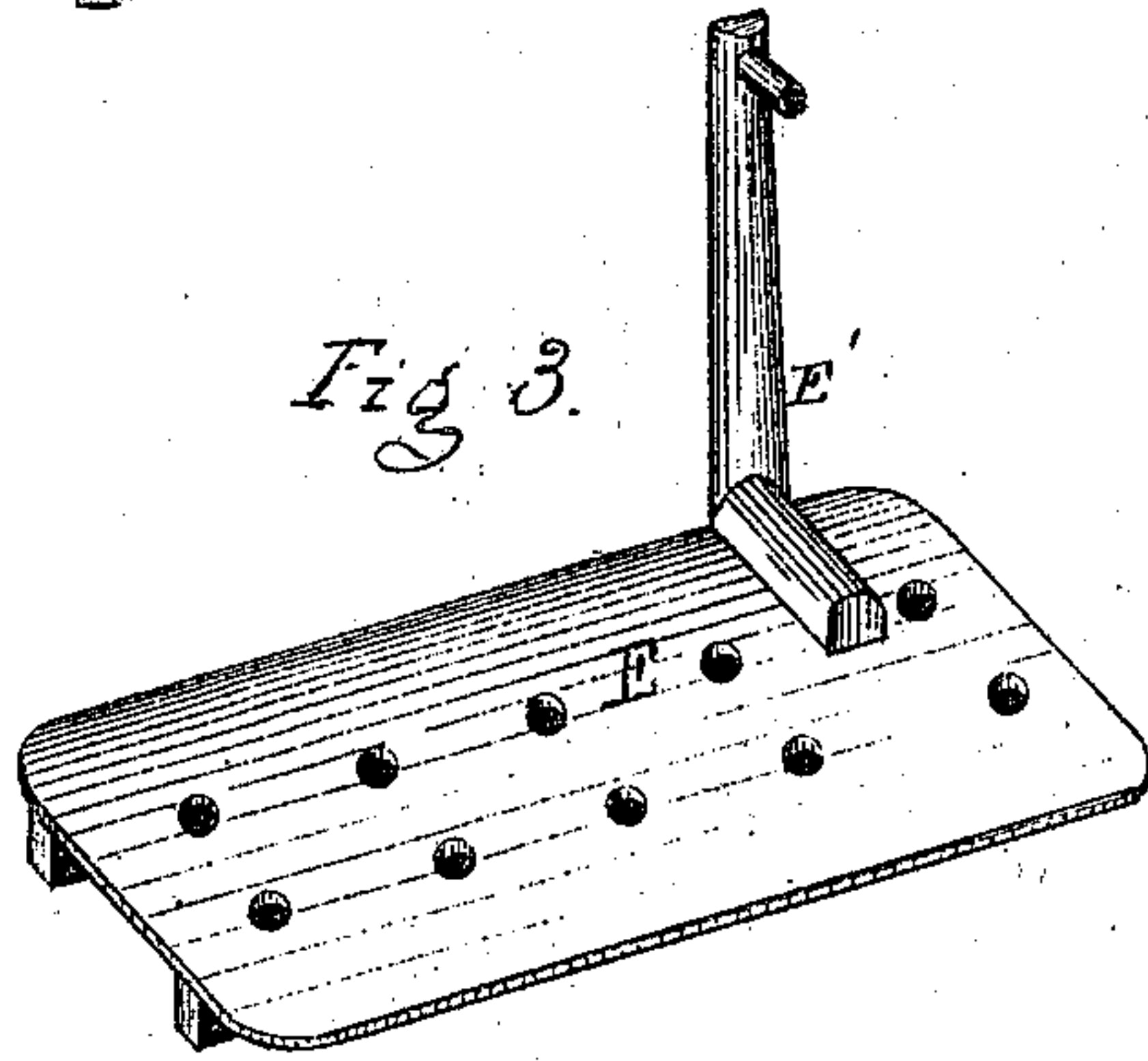
*Fig. 1.*



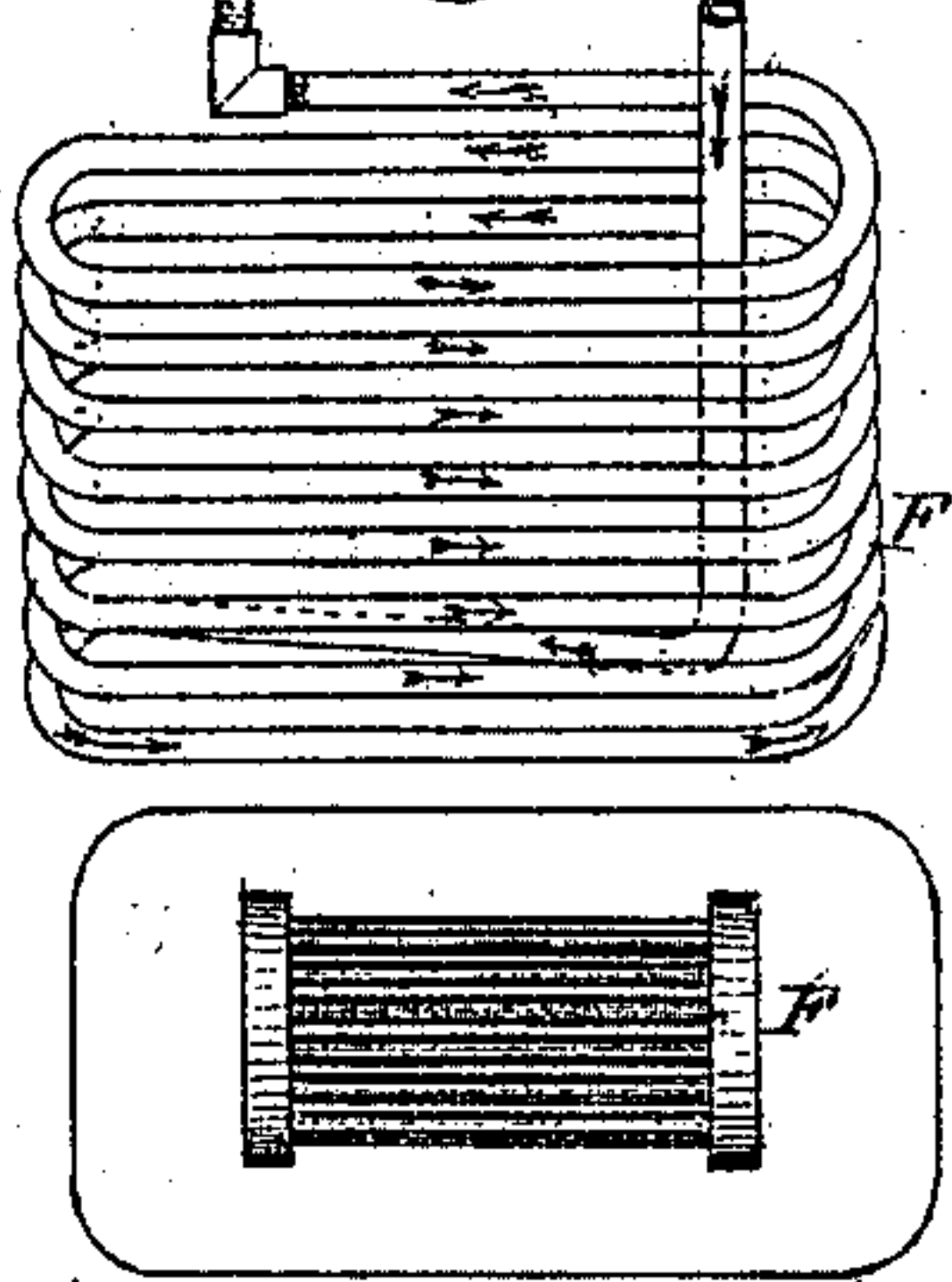
*Fig. 2.*



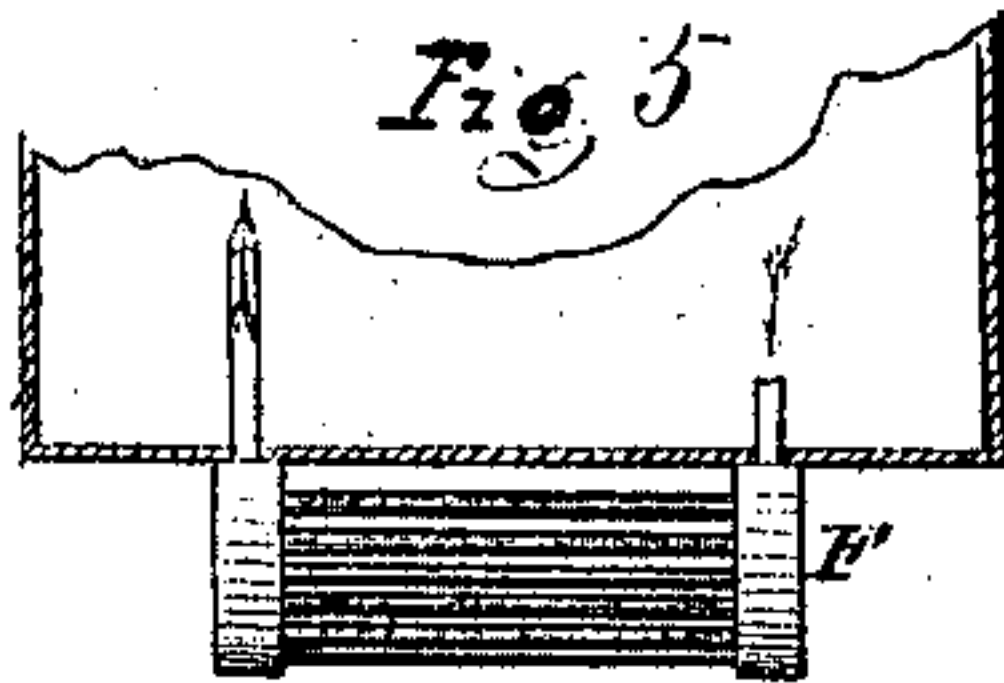
*Fig. 3.*



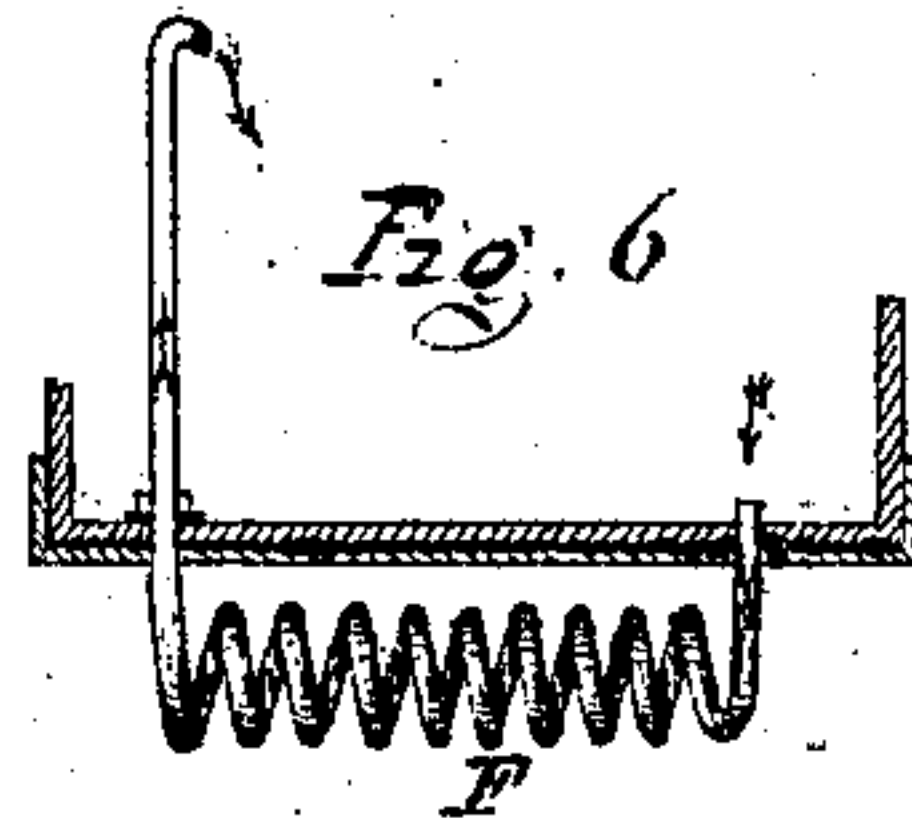
*Fig. 4.*



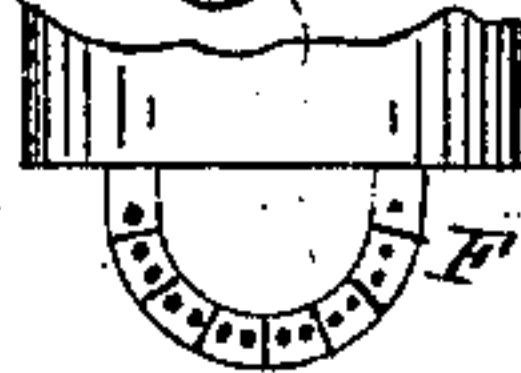
*Fig. 5.*



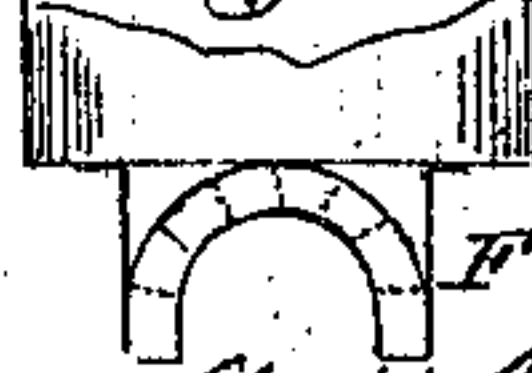
*Fig. 6.*



*Fig. 7.*



*Fig. 8.*



*Fig. 8.*

*Attest*  
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# UNITED STATES PATENT OFFICE.

LEVI H. WHITNEY, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN CLOTHES-BOILERS.

Specification forming part of Letters Patent No. 91,931, dated September 14, 1869.

*To all whom it may concern:*

Be it known that I, LEVI H. WHITNEY, of Washington, in the county of Washington and District of Columbia, have invented a new and useful Improvement in Clothes-Boilers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a side elevation of my improved clothes-boiler, with a portion of the outside wall broken away to show the arrangement of the false bottom and the manner of attaching the pipes. Fig. 2 is a vertical sectional elevation, showing the arrangement of the false bottom and the pipe which conducts the water to the upper portion of the boiler. Fig. 3 is a perspective view of the false bottom, the cleats upon the bottom thereof, and the pipe above alluded to. Figs. 4, 5, 6, 7, and 8 represent modifications of the pipes or water-heating devices, which may be attached to the boiler in place of those shown in the aforementioned figures.

Corresponding letters refer to corresponding parts in the several figures.

This invention relates to a boiler in which clothes are to be boiled by having a stream or jet of water forced from the bottom or lower portion of the boiler, through a pipe or pipes, to the surface of the clothes within the boiler; and it consists in combining with such a boiler a series of heating-pipes and a false bottom, to the upper portion of which is attached a pipe for conducting the water to the surface of the contents of the boiler, as will be more fully described hereinafter.

A in the drawings represents the exterior portion of the boiler. It may be of tin or other sheet metal, and of any size and form to suit the views of the constructor.

B B represent handles, which are to be placed upon the outer surface of the boiler for convenience in handling the same.

C represents a cover, which may be of any approved form of construction, it being supplied with a handle upon its top for removing the same when desirable.

D represents a cock or faucet, which is to be secured to the lower portion of the boiler, the object being to enable the operator to draw off hot water from such boiler at any time while in use, which water may be allowed

to run into a washing-machine or into any other receptacle.

E represents a false bottom, which may be made of sheet metal, or of any other suitable material, its dimensions being such that it will nearly cover the interior surface of the fixed bottom of the boiler. To the lower surface of this false bottom two or more cleats are to be attached, which are to be of sufficient depth to permit the water, which in practice percolates through the material within the boiler, to circulate freely under the false bottom and between the same and the fixed bottom.

E' represents a right-angled pipe, which is to have its horizontal portion secured to the upper surface of the bottom E, with the space below which it communicates, and from which the water passes into it and into the vertical portion, which portion extends upward to near the upper edge of the boiler, where it is to be provided with another short horizontal pipe, for the purpose of directing the water toward the opposite side of the boiler, and upon the material which is being cleansed. The water, after having been discharged from the nozzle of pipe E', percolates through the clothes or material which may be in the boiler, as before stated, and passes through a series of perforations in the false bottom, and thus returns to the space below such bottom, and to the heating-pipes, soon to be described, when a portion of it is converted into steam, the force of which causes the remaining portion to be again carried up through the pipe E', and thus a continuous circulation is kept up, which effectively, and in a short space of time, boils any fabric which may be placed within the boiler and subjected to such action of the water.

F represents a pipe or series of pipes, one end of which passes through the fixed bottom of the boiler, as is shown in Fig. 2 of the drawings. The upper inner end of this pipe may, if desired, be protected by a strainer, while that portion which is outside of the boiler may extend downward for a short distance, and is then to be turned into a horizontal position; or it may be coiled into a circle and held in its position by means of straps G, as shown in Fig. 2. The arrangement of this heating-pipe is clearly shown in Fig. 2, its object being to afford the means of bringing the water which is to be heated into nearer proximity to the



burning fuel, and thus effect the greater economy of fuel required to do the work, as well as of the time in which it is done.

It has been ascertained to be a fact that the efficacy of clothes-boilers depends mainly upon the force or rapidity with which the jet of water is delivered from the pipe which conducts it to the surface of the body of material to be acted upon, and as the momentum of the water depends upon the amount of heat which is imparted to it before it enters the pipe through which it is carried to the proper point to be discharged, it follows that any additional facilities for heating such water will result in economy of fuel and time, especially if the heating-surface is increased, and at the same time brought into more immediate contact with the burning fuel.

I have shown several modifications of heating-pipes, those seen in Figs. 4 and 6 being coils of pipe, one end of which is to be secured to the fixed bottom of the boiler, so that the water may enter it from the space below the false bottom and circulate through the different coils, and be delivered upon the contents of the boiler from the upper curved end of the same pipe.

In Figs. 5 and 7 I have shown how two chambers may be attached to the bottom of the boiler, and have the communication between them made by the use of heating-pipes, so that the water may be received from the boiler into one of the chambers and conducted to and through the discharge-pipe and be heated in its passage. In Fig. 8 is shown a similar device, the chambers being inverted, but acting upon the same principle.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of the body or shell A of the boiler, the false bottom E, and heating-pipes F, or their equivalents, substantially as and for the purpose set forth.

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

LEVI H. WHITNEY.

Witnesses:

B. EDW. J. EILS,

C. F. CLAUSEN.