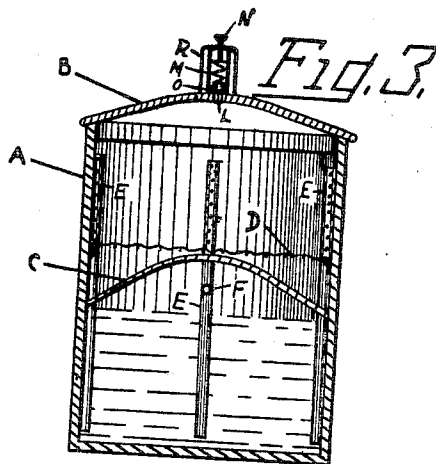
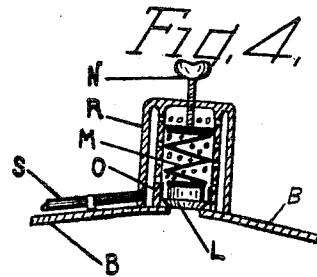
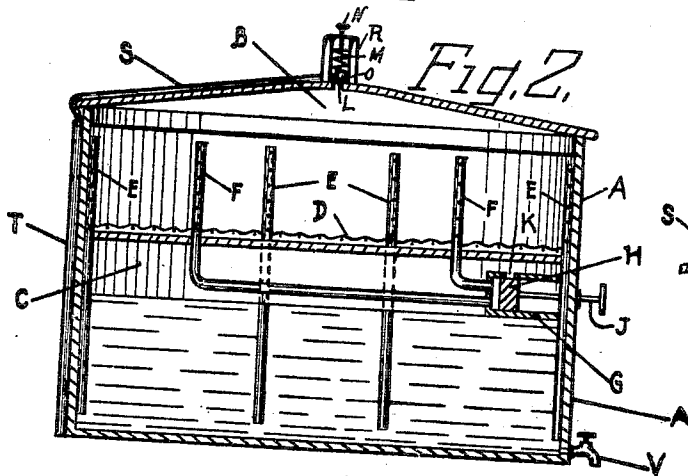
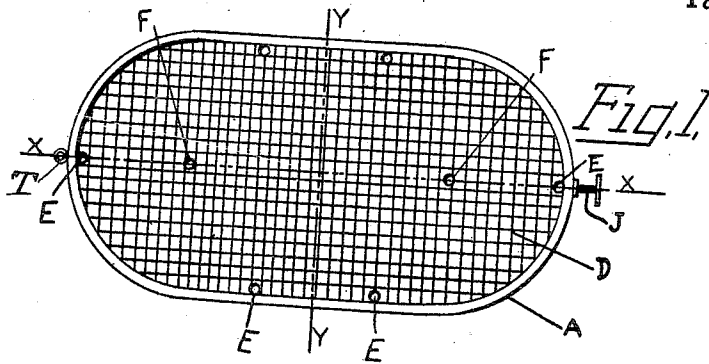


971,086.

V. A. SMITH.
CLOTHES BOILER.
APPLICATION FILED APR. 15, 1910.

Patented Sept. 27, 1910.



WITNESSES:

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UNITED STATES PATENT OFFICE.

VICTOR A. SMITH, OF MINERAL WELLS, TEXAS.

CLOTHES-BOILER.

Specification of Letters Patent. **Patented Sept. 27, 1910.**

Application filed April 15, 1910. Serial No. 555,612.

971,086.

To all whom it may concern:

Be it known that I, VICTOR A. SMITH, citizen of the United States, residing at Mineral Wells, in the county of Palo Pinto and State of Texas, have invented certain new and useful Improvements in Clothes-Boilers, of which the following is a specification.

My invention relates to new and useful improvements in clothes boilers.

Its object is to provide a clothes boiler in which a circulation of water will take place automatically, tending to clean the clothes during the boiling thereof.

A further object of the invention is to provide a device of the character described that will be simple and efficient and comparatively easy to construct, and also one which will not be likely to get out of working order.

With these and various other objects in view my invention has relation to certain novel features of construction and operation, an example of which is described in the following specification and illustrated in the accompanying drawing, wherein:

Figure 1 is a top view of the clothes boiler with the cover thereof removed. Fig. 2 is a vertical sectional elevation on the line $x-x$ of Fig. 1. Fig. 3 is a vertical sectional elevation taken on the line $y-y$ of Fig. 1. Fig. 4 is a detail sectional elevation of a safety valve mounted upon the lid of the boiler.

Referring now more particularly to the drawing wherein like letters of reference designate similar parts in all the figures, the letter A denotes the body of the boiler and B the lid thereof. A transversely arranged partition C extends across the middle of the boiler dividing the same into an upper and lower compartment. Directly above the partition C a screen D is horizontally mounted, which screen furnishes a support for the clothes to be boiled. Adjacent to the sides of the boiler 6 pipes E are vertically mounted, the upper portions of which are perforated above the partition C, the lower extremities of the pipes being open. A pair of pipes F extend vertically through the partition C in the central portion of the boiler, said pipes being turned horizontally beneath the partition C, and having communication with a cylindrical valve chamber G secured to one of the ends of the boiler. In the valve chamber G a valve H is mounted operated by a stem J, and entering a steam inlet K.

The exhaust valve in the lid of the boiler is closed by a plunger L acted upon by a coiled spring M the tension of which may be controlled by a thumb screw N. The spring M is mounted in a cylindrical valve chamber O, the walls of which are perforated. This valve chamber is surrounded by a steam chamber R, which is drained by a pipe S. The pipe S communicates with a pipe T vertically secured to the exterior of one of the ends of the boiler. The letter V designates a drainage outlet.

In the operation of this device, the lower compartment of the boiler is first filled with water, which water may be poured into the upper compartment and will pass to the lower one through the perforated pipes. Clothes are then placed in position upon the screen D and the water is brought to a boil. As soon as the boiling begins steam will accumulate beneath the partitions C, and since there is no escape for this steam as long as the valve H is closed, the steam pressure will cause the water in the lower compartment to pass through the pipes E into the upper compartment of the boiler. When the circulation of the water thus set up has continued for a sufficient length of time, the valve H may be opened admitting steam from the lower compartment to the pipes F from which it will escape into the upper compartment, equalizing the steam pressure in the two compartments so that the water will flow back to the lower one. This process may be repeated as many times as desired. In case the steam pressure in the upper compartment becomes too high the valve L will be raised and the steam will escape into the valve chamber O. Passing through the perforated walls of this chamber the steam will enter the outer steam chamber R from which it will be drained by the pipe S. The pipe S empties into the pipe T, and a suitable receptacle may be provided to receive the condensed steam from the pipe T. By producing a forced circulation of water it is believed that the above described boiler will prove more efficient than the ordinary boiler in which the circulation depends entirely upon the ebullition of steam.

I am aware that changes may be made in the form and proportion of the parts and details of the herein described device without departing from the spirit or sacrificing the

advantages thereof, and I therefore reserve the right to make such changes and alterations in said device as fairly come within the scope of the following claims.

5 What I claim is:

1. In a clothes boiler, the combination with a partition separating the boiler into an upper and a lower compartment, of a plurality of pipes establishing communication between the bottom of the lower compartment and the upper compartment, the upper portions of said pipes being perforated, pipes establishing communication between the upper portion of the lower compartment and the upper compartment, said last named pipes also being perforated in said upper compartment, means by which communication established through these latter pipes may be opened or closed manually, and a safety valve adapted to permit the escape of steam from the upper compartment at a certain pressure.

2. In a clothes boiler the combination of

an arched partition separating the boiler into an upper and a lower compartment, of a screen horizontally positioned above said partition, vertical pipes extending through said partition the lower extremities of which open into the lower portion of the lower compartment, their upper extremities being perforated, pipes adapted to establish communication between the upper portion of the lower compartment and the upper compartment, said last named pipes being perforated in the upper compartment, means controlling the communication established by the last named pipes, a removable lid, and a safety valve carried by said lid.

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

VICTOR A. SMITH.

Witnesses:

J. S. MURRAY,
S. R. HICKMAN.