H. E. Smith,

Washing Machine,

No. 42,119. Patented Mar. 29, 1864.

Fig. 1.

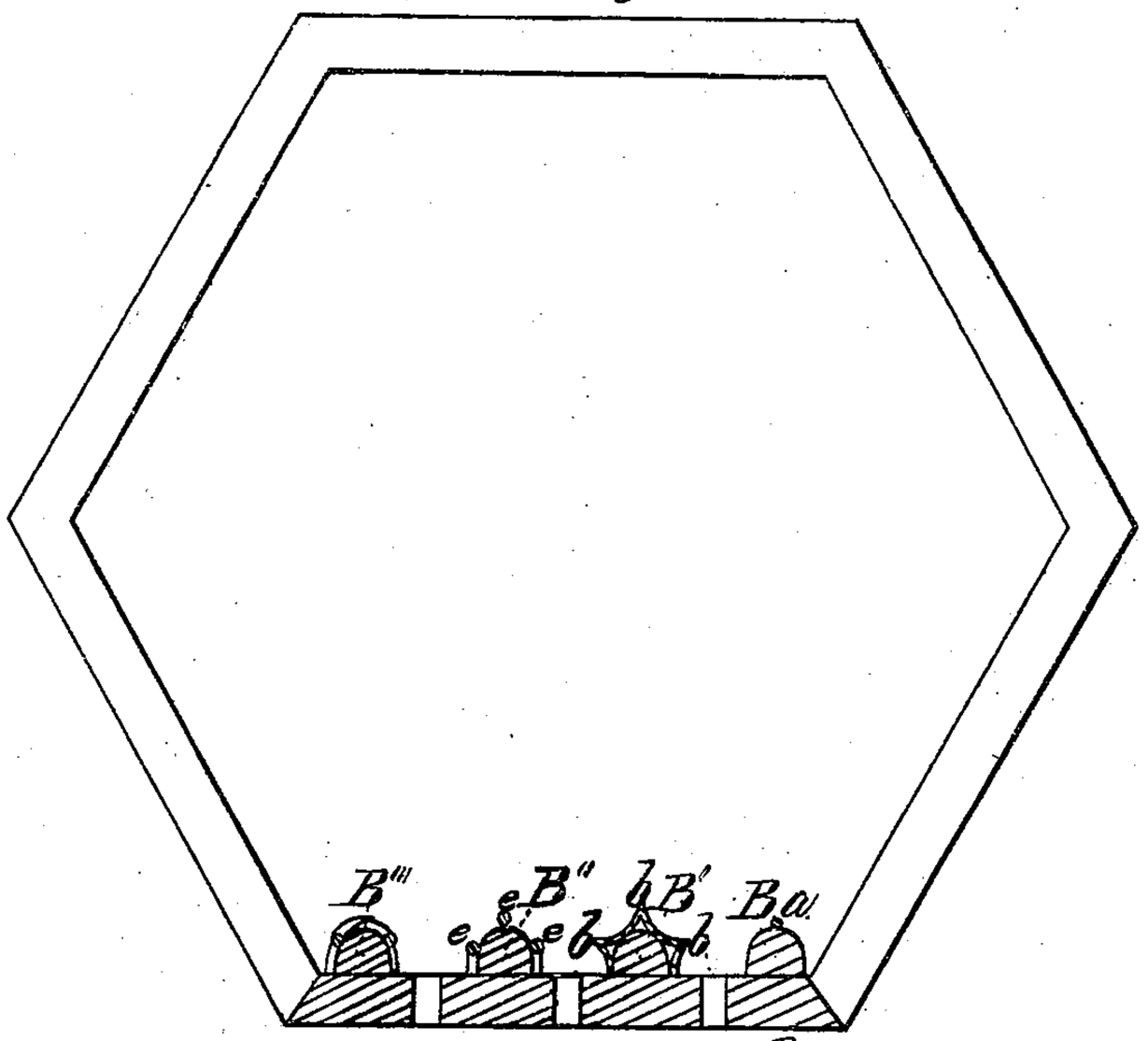
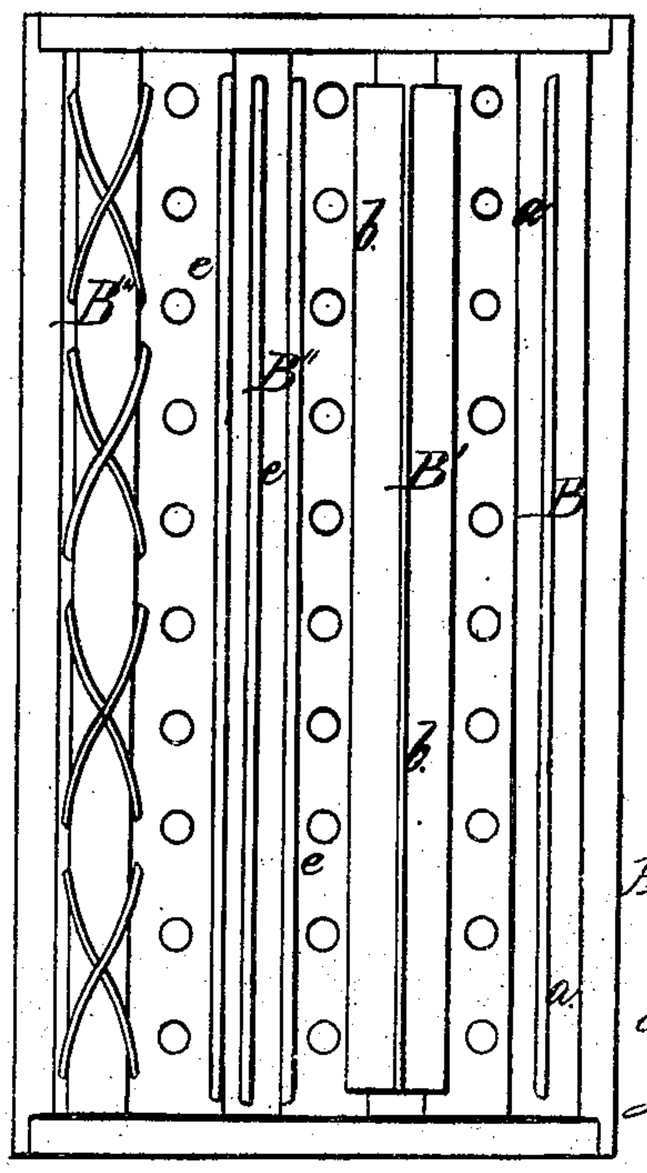


Fig: 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

HAMILTON E. SMITH, OF PITTSBURG, PENNSYLVANIA.

IMPROVED WASHING-MACHINE.

Specification forming part of Letters Patent No. **42,119**, dated March 29, 1864.

To all whom it may concern:

Be it known that I, HAMILTON E. SMITH, of Pittsburg, Allegheny county, Pennsylvania, have invented an Improvement in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to that class of washing-machines which consist of perforated vessels of hexagonal or other form, arranged to revolve in water; and my invention consists in arming the internal wooden ribs of such vessels with metal wires, plates, or bars, substantially in the manner described hereinafter, so that the wooden ribs may be protected, and so that prominent edges may always be presented on the ribs for acting on the clothes.

In order to enable others to make my invention, I will now proceed to describe its construction.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 represents in section a portion of a perforated vessel which contains the clothes, and which is caused to revolve in a trough containing water, soap, &c.; and Fig. 2 is a plan view of Fig. 1.

A is a board, forming one side of a hexagonal vessel, the remaining sides of which are represented by the red lines, the vessel being perforated, so that the water in which it revolves can have access to the clothes in the interior.

The cleansing of the clothes is effected by turning the vessel rapidly round, so that the position of the clothes may be constantly changed and all portions of the fabric subjected to the action of the agitated water.

I have found by repeated experiments that the cleansing effect is increased by arranging within the interior of the vessel a number of longitudinal ribs one inch thick and one inch wide, or thereabout, the tops of each rib presenting a prominent edge, slightly rounded, so as not to cut or tear the clothes. As wooden ribs of the desired size and reduced to the required rounded edge soon become worn and unable to perform the duty demanded, and as metal ribs of the desired bulk would add to the expense and weight of the vessel, I have adopted the plan represented in the drawings of arming the ribs with metal plates or wires. The rib B is armed at the top with a wire, *a*, which is secured to the rib at the opposite ends and presents an edge sufficiently sharp. The rib B′ is covered with a thin metal plate so crimped as to form three comparatively sharp edges. The rib B″ is armed with three wires, and the rib B‴ with wires arranged spirally, as shown in Fig. 2.

The desired purpose of protecting the wooden ribs and presenting prominent edges is accomplished by all of the four modifications.

I claim as my invention and desire to secure by Letters Patent—

Arming the wooden ribs of the revolving perforated vessel of a washing-machine with metal wires, plates, or bars, substantially as and for the purpose herein set forth.

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

HAMILTON E. SMITH.

Witnesses:

HENRY HOWSON,

JOHN WHITE.