

B. HALL.
WOOL WASHING MACHINE.

No. 173,222.

Patented Feb. 8, 1876.

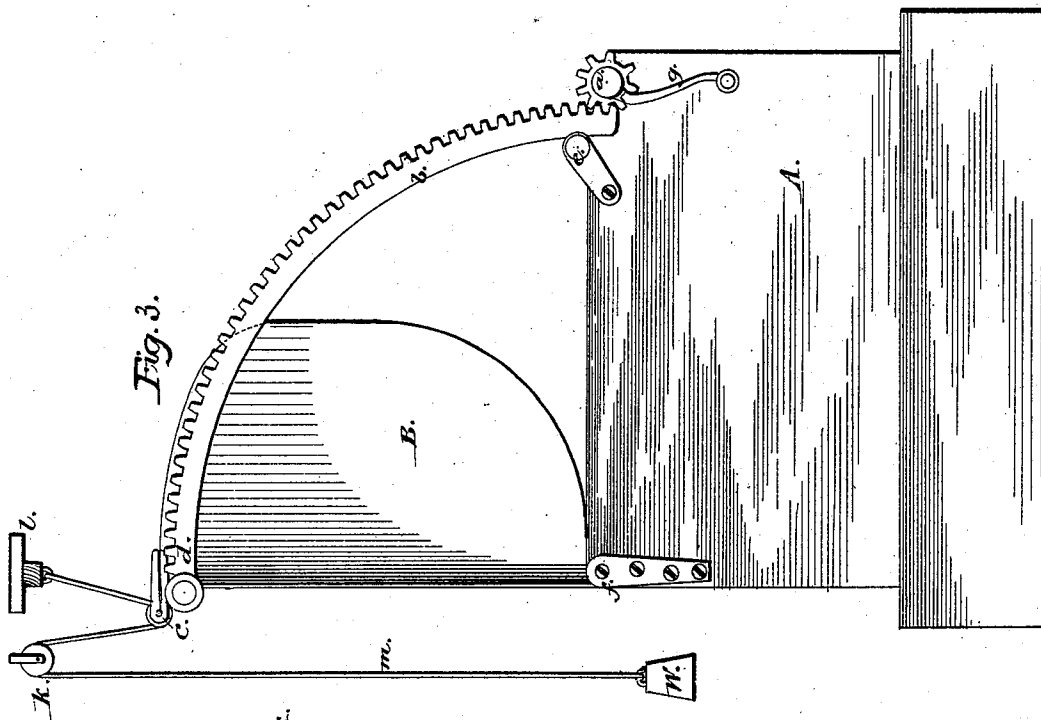


Fig. 1.

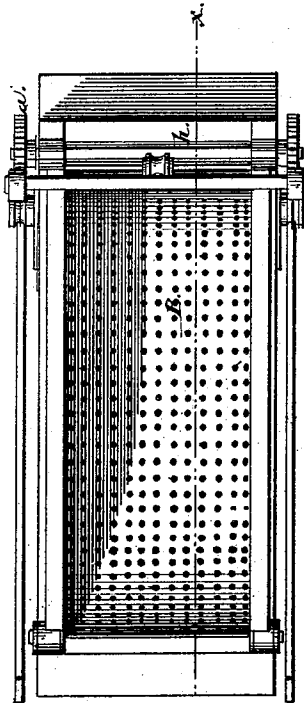
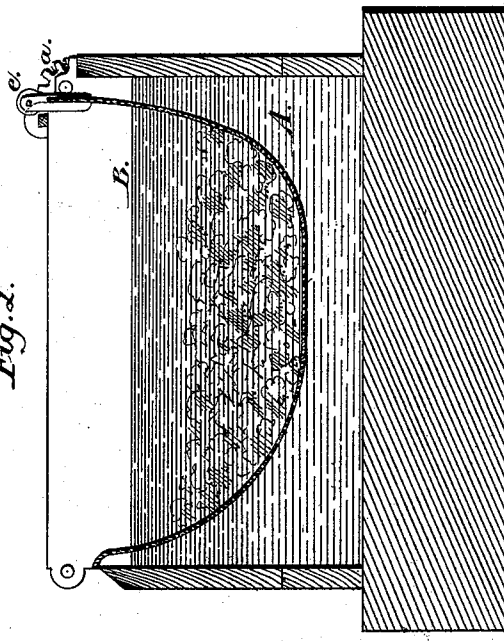


Fig. 2.



Witnesses:
Allen Henry
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UNITED STATES PATENT OFFICE.

BENJAMIN HALL, OF PRESTON, CONNECTICUT.

IMPROVEMENT IN WOOL-WASHING MACHINES.

Specification forming part of Letters Patent No. 173,222, dated February 8, 1876; application filed January 20, 1876.

To all whom it may concern:

Be it known that I, BENJAMIN HALL, of Preston, county of New London and State of Connecticut, have invented a Washing-Machine Box, for cleansing wool-waste, rags, paper-stock, or any kind of dirty woolen stock used in woolen-mills, also for cleansing cotton-waste, of which the following is a specification:

The object of my invention is to increase the quantity of work with less labor and expense and scouring material.

My invention consists of a tank or box built of wood or iron, with an inside box built of metal of a circular form, perforated with holes, which can be dumped either by hand or power, said inside tank or box being fulcrumed upon one edge of the outer one.

In the drawings, Figure 1 is a plan view as seen from above; Fig. 2, a longitudinal section through the lines *xx* of Fig. 1; Fig. 3, a side view when the inside tank is raised when dumping the wool.

A is the outer tank; B, the inside perforated one, of metal or any suitable material. *a* is the pinion for operating the rack *b*, permanently attached to the inner tank at *d*. *e* is a friction-roller. *f* is the attachment of the inner tank to the outer. *g* is the crank for rotating the pinion *a*, and *h* the shaft connecting to a similar pinion upon the opposite side. A duplicate of rack *b* is upon the opposite side, and not shown. *k* is a pulley in the ceiling of the room; *l*, the attachment of the weight-cord *m*. Inside the circular box of metal there is a space for sediment which settles from the stock in process of scouring. When the wool is dumped, the sediment remains in the bottom of the tank or box. In this way the liquor is prevented from being stirred up, and as a consequence is kept in a purer form. In all manufacturing concerns, the wool, after it is scoured, is thrown out with a fork. It generally takes from one-half to three-quarters of an hour to throw out short-stapled wool, and even then it is difficult to get out all of the wool, as it slips through the fork, and a good deal of it remains in the box. Then, too, the wool remaining becomes very much damaged by remaining. It not only becomes discolored, but loses, in a great degree, the strength of its fiber.

With my invention the wool can be en-

tirely dumped after it is scoured, in from two to three minutes, and when it is dumped it leaves no wool in the tank at all. Then, too, the liquor that remains is kept pure and ready for any other grade of wool without drawing off the liquor.

My invention saves the sediment and dirt in the tank from being thrown onto the floor, thus making a neater job, and leaving no dirt or water about, outside of the tank.

Connected with the metal box, and on each side of the same, there are circular racks with pinions, by means of which the box is raised or dumped. These are so graduated as to be counterbalanced by a weight, W, suspended from the ceiling, and passing over a pulley, *c*, in the inside tank, so that a boy can dump the wool.

They can be worked from either side, and stopped at any point in the process of dumping, so that the liquor can be drained into the tank, thus saving the liquor, and preventing its waste. As shown, the box is raised by means of a crank; but it can be so arranged as to be worked either by hand or power.

The base on which the tank or box stands represents the floor. It is made thick; otherwise it could not be worked. On the metal box there is a stud, on which there is a sheave for attaching a cable for counterbalancing. The box may be built in a square or circular form.

Another advantage of my invention is, that it does not bead the wool. The machine works clear. The water or liquor is received from one side, and discharged from the other side through any opening desired.

I am aware that an inner tank to be raised is not new, but I know of none combined with a dumping device.

Having described my invention, I claim as follows:

An inner perforated tank combined with an outer tank or box, upon which it is fulcrumed at one end or side, and a curved rack with pinion-wheel and crank, for elevating the inner tank to dump the wool or other article being cleansed, all arranged substantially as described.

BENJAMIN HALL.

Witnesses:

ALLEN TENNY,

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