## G. BURKHARDT. Washing-Machine.

No. 203,704.

Patented May 14, 1878.

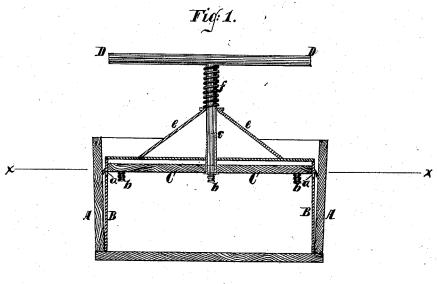
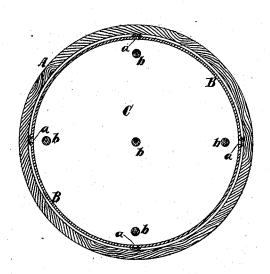


Fig. X.



Witnesses: Augo Bueggemann Rose E. Miller Inventor: Gustav Burkhardt Van Santvoord a Hauft Atter

## UNITED STATES PATENT OFFICE.

GUSTAV BURKHARDT, OF HOMER, ILLINOIS.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 203,704, dated May 14, 1878; application filed February 26, 1878.

To all whom it may concern:

Be it known that I, GUSTAV BURKHARDT, of Homer, in the county of Champaign and State of Illinois, have invented a new and useful Improvement in Washing-Machines, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 is a vertical central section. Fig. 2 is a horizontal section in the plane x x, Fig. 1. Similar letters indicate corresponding parts.

This invention consists in the combination, with the hood of a washing-machine provided with openings which allow air to enter, of a plunger or pounder provided with lugs or projections, which lugs serve to rinse the clothes about and insure thorough washing, and of a spring which lessens or destroys the strain on the hood caused by raising the plunger.

In the drawing, the letter A designates a

In the drawing, the letter A designates a tub, in which the water and the clothes to be washed are put. B B is a hood of sheet metal or any other desired material. This hood is placed in the tub A, and covers the clothes to be washed. C is a plunger or pounder, provided with lugs or projections b b, which lugs rinse the clothes about in the hood when the plunger C is turned, and so thorough washing is secured. The plunger C is connected by a rod, c, to the handle D, and by this means a revolving as also a reciprocating motion can be communicated to the plunger C.

In order to allow said plunger to move up and down easily inside the hood B, said hood is provided with a number of openings, a a, which allow the air to enter and escape. The top of the hood B is provided with an attachment, e, in the shape of a truncated cone. The

rod c, being guided by the top of the hood B and the top of said attachment e, is caused to move perpendicularly up and down, and no lateral motion of said rod c is liable to occur, which lateral motion might rupture the hood. It has been found also that by far the greater strain on the hood B is caused by raising the handle D. To remove this strain, the handle D and plunger C are raised by means of the spring coiled around the rod c, which spring raises the plunger as soon as the pressure on the handle D is removed.

I am aware that washing-machines have been constructed similar to the one just described, as, among others, in the patents to H. J. Noyes, No. 128,501; B. A. Williams, No. 137,161; and E. Crowell, No. 169,963. But my machine is much simpler; and I disclaim any arrangement shown in the patents above named and other patents of such a nature, and limit myself to the construction of a machine substantially as the one described above.

What I claim as new, and desire to secure by Letters Patent, is—

The combination, in a washing-machine, of the flat disk plunger C, having a series of downward-projecting lugs or pins, b, for pounding and turning the clothes to be washed, with the perforated hood B, rod c, spring f, and the handle D, all constructed and operating substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 20th day of Folymony 1878

day of February, 1878.

GUSTAV BURKHARDT. [L. S.]

Witnesses:

D. A. SPRAKER, AUSTIN HENDERSON.