

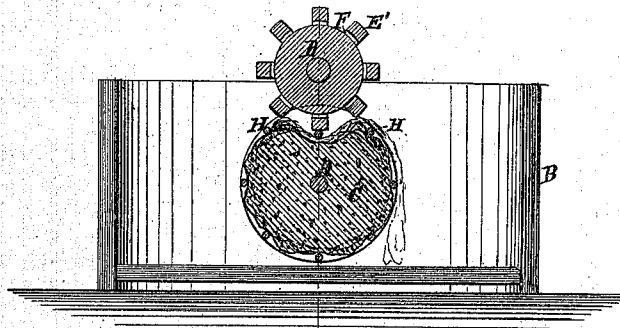
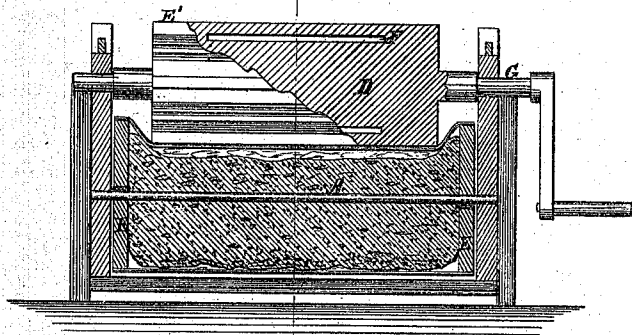
NATHAN BOOTH.

Improvement in Washing Machines.

No. 115,272.

Patented May 30, 1871.

*Fig. 1.*



Witnesses:

A. Bernecker & Co.  
per H. C. Smith.

Inventor:

N. Booth.

PER

*Munnell*  
Attorneys.

# UNITED STATES PATENT OFFICE.

NATHAN BOOTH, OF CHESHIRE, CONNECTICUT.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 115,272, dated May 30, 1871.

### *To all whom it may concern:*

Be it known that I, NATHAN BOOTH, of Cheshire, in the county of New Haven and State of Connecticut, have invented a new and Improved Washing-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in washing-machines; and it consists in a roller or shaft covered with sponge, and a fluted or ribbed roller arranged together in a case or tub for passing the clothes between them, the fluted or ribbed roller being so arranged as to compress the sponge at the same time that it presses the clothes upon it, in such a manner that the water is forced through the clothes in a way calculated to be very efficient in cleaning them.

Figure 1 is a longitudinal sectional elevation through the rollers and the tub; and Fig. 2 is a transverse section of the rollers; also a section of the tub.

A represents a shaft, or it may be a small roller, arranged horizontally in bearings of any kind in a tub, B, and having a disk or flange, E, at each end, one being secured by a key, screw, or other means by which it may be readily detached; and between these disks the roller is provided with a sponge, C, wholly surrounding it, being applied, preferably, by making a hole through the sponge and passing the shaft through said hole; but it may be applied in any approved way, whereby a regular cylindrical covering of sponge can be applied, the pieces of sponge being selected of uniform size for the purpose. They need not be made fast to the shaft in any other way, as they are not required to be turned by it, nor to turn, it being immaterial whether they turn on the shaft or the latter turns with it. D is a roller of wood, mounted above the shaft A, parallel with it, and provided with the long ribs or cogs E', which form a deeply-fluted surface. The said ribs have recesses F formed in

the sides, which are attached to the roller for making slots, through which the water may escape when the sponge is forced up into the grooves as they pass over the sponge, to prevent it being forced from the ends of the grooves with such force as to throw it out of the tub, as is the case when the slots are not provided. The shaft of roller D is arranged in suitable bearings G, and one end is provided with a crank for turning it. H represents elastic or other cords or straps stretched across the sponge between the disks B to be used for holding the clothes to the sponge-roller to carry them between it and the fluted roller, one being lifted, and the clothes, or one end thereof, tucked under it, so as to be held when the cord drops back.

The piece of clothing to be washed will wind around the sponge-roller and the water will be forced through it back and forth by the contraction and expansion of the sponge, being forced through when the sponge expands by the capillary attraction, which takes up the water rapidly, and when contracted by the expressing of the water by the fluted roller. This action is such that in the case of a long piece of goods, as a sheet or the like, which winds several times around the sponge-roller, the inner layers or plies will be washed as effectually as the outer ones.

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

1. The combination of the fluted roller D and the sponge-roller C, substantially as specified.

2. The combination, with the sponge roller, of the cords or straps H, substantially as specified.

3. The slots F, between the ribs and the surface of the roller D, in combination with the roller C, substantially as specified.

The above specification of my invention signed by me this 13th day of March, 1871.

Witnesses: NATHAN BOOTH.

GEO. W. MABEE,  
T. B. MOSHER.