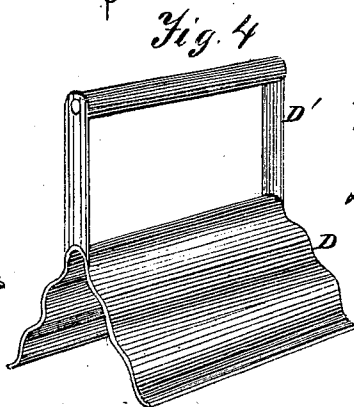
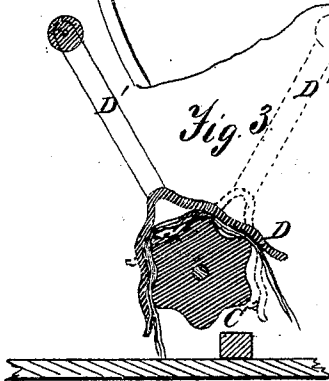
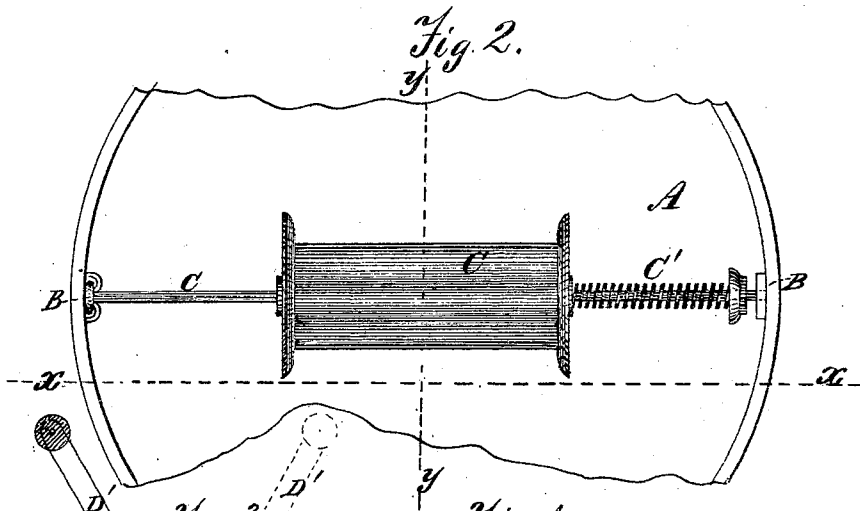
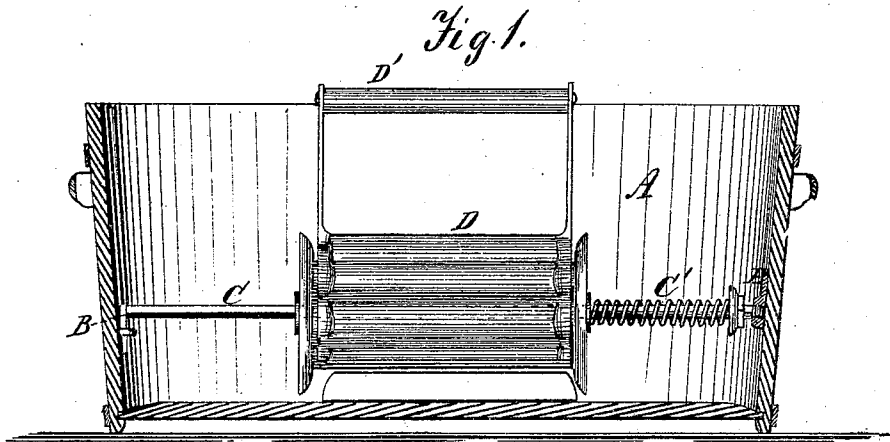


GEORGE L. WITSIL.
Washing Machine.

117,846.

Patented August 8, 1871.



Witnesses.
A. Ruppert
Edw. J. Bils

Geo. L. Witsil
Inventor.
D. P. Holloway & Co.
Atty's

UNITED STATES PATENT OFFICE.

GEORGE L. WITSIL, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 117,846, dated August 8, 1871.

To all whom it may concern:

Be it known that I, GEORGE L. WITSIL, of the city and county of Philadelphia and State of Pennsylvania, have invented certain Improvements in Clothes-Washing Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making part of this specification, in which—

Figure 1 is a vertical section on line *xx*, Fig. 2, showing the shaft and spring which hold the corrugated cylinder or roller and the concave corrugated rubber. Fig. 2 is a top view, showing a portion of the tub, the shaft, spring, and corrugated rubber. Fig. 3 is a transverse section of the corrugated cylinder and of the rubber on line *yy* of Fig. 2, the material being worked being shown in position. Fig. 4 is a perspective view, showing the construction of the rubber and the handle for operating the same.

Corresponding letters refer to corresponding parts in all the figures.

This invention relates to machines for washing wearing apparel; and it has for its object the production of such a machine which in its operation and effect shall be the same as is produced by the hand of the operator when an ordinary wash-board is used; and to this end the invention consists in the construction, combination, and arrangement of the parts of which the machine is composed, as will be more fully explained hereinafter.

In constructing machines of this character I use any form of tub A which is adapted to receive and hold the articles to be washed and the moving parts of the machine. Upon the inner surface of the tub A suitable bearings B B are secured, as shown in Figs. 1 and 2, and in these bearings or boxes a shaft, C, is placed which extends across the tub at some distance from its bottom. This shaft is designed to be stationary, and upon one of its ends there is placed a spiral spring, C', which, with the shaft, should be of brass or of some other non-corrosive material. Outside of the spring there is placed, a nut, which works upon a thread formed upon the shaft. Near the center of the shaft there is placed a corrugated cylinder or roller, which has flanges upon its ends for keeping the clothes in place while being washed. The outer cylindrical surface of this roller is corrugated so as to give it the form

and function of a common wash-board. This roller is made to fit upon the shaft in such a manner as to turn freely thereon; but its movement is regulated by the spring and nut upon the end of the shaft. When it is desirable to have it move freely thereon the nut is screwed back so as to cause the spring to have but a small amount of tension; but when it is desirable to have it stationary, or that it shall have but slight motion upon its axis, the nut is screwed up against the spring, and thus forces the roller against a collar or shoulder upon the shaft, and thus its movements upon the shaft may be regulated to suit the work to be done. In order to provide a means for rubbing the clothes in washing them a rubber, D, is provided, which is to be substantially of the form shown in Fig. 4, it being concave or semi-cylindrical upon its inner surface and corrugated to correspond with the roller or cylinder upon which it is placed. This roller may be constructed with a greater or lesser amount of concavity upon its inner or lower surface, or it may be of any arc of a circle that will enable it to retain its position upon the roller when in use, it being provided with a handle, D', for the purpose of operating it.

In operating this machine the parts are to be placed as shown in Fig. 1, the proper amount of water and soap put into the tub, the rubber raised up or removed, and the materials or articles to be washed are to be placed upon the cylinder or roller, as shown in Fig. 3, and the rubber returned to its proper position, when, by taking hold of the handle D' and imparting to it an oscillatory movement, the rubbing of the material between it and the roller will be effected very much in the same manner as is done by the common washing-board. When that portion of the material which is immediately under the rubber has been sufficiently rubbed or cleansed and it is desirable to bring other portions in that position, it is only necessary to press downward upon the handle in moving it, and the roller or cylinder will be partially rotated, which will bring a portion of the material not before rubbed into a position to be acted upon by the rubber, and this shifting of the position of the material may be effected as often as is necessary to bring all of the parts into contact with the rubber.

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

1. The combination of a tub for holding clothes to be cleansed, a corrugated cylinder suspended within such tub, and an oscillating corrugated rubber, substantially as and for the purpose set forth.

2. The combination and arrangement of the tub A, shaft C, spring C¹, cylinder or roller C², and rubber D, substantially as and for the purpose set forth.

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

GEO. L. WITSIL.

Witnesses:

JOS. T. K. PLANT,
D. P. HOLLOWAY.