M. B. NAUSS.

WASHING-MACHINES.

No. 193,718. Patented July 31, 1877.

Fig. 1.

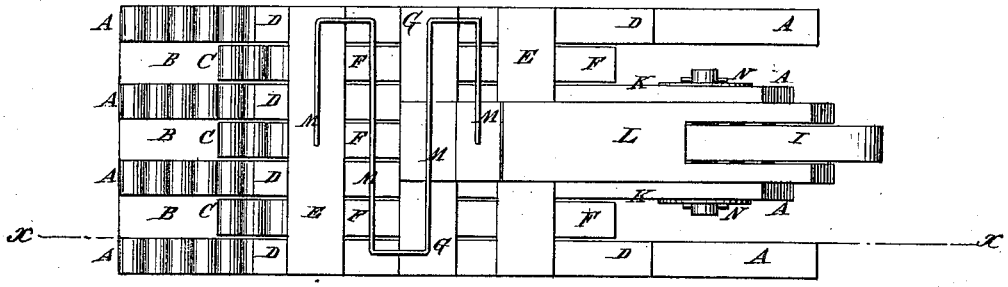
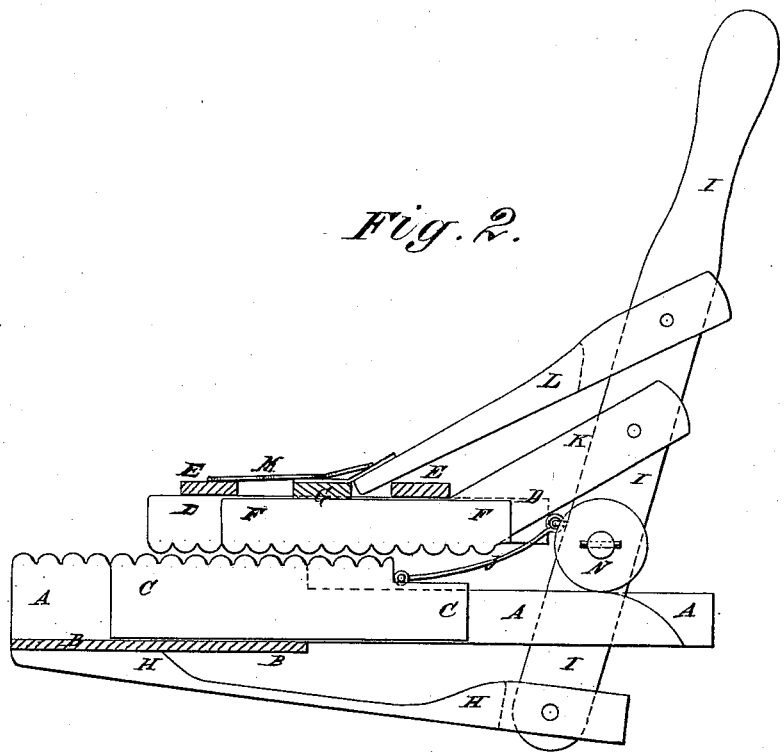


Fig. 2.



WITNESSES:

H. Rydquist

J. H. Scarborough.

INVENTOR:

M. B. Nauss.

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

MICHAEL B. NAUSS, OF GOLDSBOROUGH, (ETTERS P. O.,) PENNSYLVANIA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 193,718, dated July 31, 1877; application filed June 4, 1877.

To all whom it may concern:

Be it known that I, MICHAEL B. NAUSS, of Goldsborough, (Etters P. O.,) in the county of York and State of Pennsylvania, have invented a new and useful Improvement in Washing-Machine, of which the following is a specification:

Figure 1 is a top view of my improved machine. Fig. 2 is a side view of the same, partly in section, through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved washing-machine, which shall be simple in construction, convenient in use, and effective in operation, washing the clothes with a rolling, rubbing, and squeezing movement, which may be manufactured at small cost, and which may be used in an ordinary wash-tub.

The invention consists in the combination of the corrugated strips, their connecting boards or strips, the lower spring, the lever, and the connecting rods or bars; in the combination of the upper spring with the upper corrugated strips and their connecting strips and bar; and in the combination of the wheels with the lever and the middle stationary bars, as hereinafter fully described.

A are four narrow strips of wood, which are secured to a board, B, parellel with each other, and at such distances apart as to receive similar strips C between them. Above the strips A are placed four strips, D, which are kept in their places by having two cross-strips, E, attached to their upper sides. Between the strips D are placed similar strips F, to the middle parts of the upper sides of which is attached a cross-strip, G. The upper sides of the strips A C and the lower sides of the strips D F are corrugated transversely, as shown in Figs. 1 and 2.

To the middle part of the lower side of the board B is attached the forward end of a spring, H, to the rear end of which is pivoted the lower end of a lever, I. The lever I passes up between the rear ends of the two middle strips A. With the rear parts of the strips C are connected the forward ends of the rods J, the rear ends of which are pivoted to the lever I a little above the bars A. With the rear ends of the strips D, or with the rear cross-bar E of said strips, is connected the forward end of a bar, K, the rear end of which is pivoted to the lever I a little above the pivoting-point of the rods J.

To the cross-bar G of the strips F is pivoted or hinged the forward end of a bar, L, the rear end of which is pivoted to the lever I a little above the pivoting-point of the bar K.

M is a spring-rod, bent several times at right angles, and placed above the strips D F and the cross-bars E G. One end of the spring M is attached to the forward cross-strip E, and its other end is attached to the lower part of the bar L. The spring M is designed to keep the strips D F level, and to apply pressure to the clothes.

If desired, two spiral springs, placed between the middle cross-bar G and the rear cross-bar E, may be used in the place of the zig-zag springs M.

With this construction, when the machine is being used the strips A will be stationary, the bars C will have a forward and back motion, and the bars D F will have a forward and back motion; but the bars F will move a little farther and faster than the bars D, so that the clothes will be washed by being rubbed, rolled, and squeezed.

To the opposite sides of the lever I are pivoted two small wheels, N, which, when no clothes are in the machine, rest and roll upon the upper side of the rear parts of the bars A, and keep the corrugated faces of the strips A C D F from coming in contact with each other.

When the upper end of the lever I is moved far back the wheels N roll down upon the rounded rear ends of the middle bars A, which raises the strips D F so that the clothes can be conveniently put in and taken out.

The machine is designed to be attached to an ordinary wash-tub, so that it will not be necessary for the purchaser of a machine to buy also a large tub or box to put it in.

The invention consists in washing clothes between two corrugated boards or rubbers made in strips or sections, and the sections moving at different rates of speed and different distances, and the devices for so moving the several parts, as set forth.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. The combination of the corrugated strips A C D F, their connecting boards or strips B E G, the spring H, the lever I, and the connecting rods or bars J K L, substantially as herein shown and described.

2. The combination of the springs M with the upper corrugated strips D F, their connecting-strips E G, and the bar L, substantially as herein shown and described.

3. The combination of the wheels N with the lever I and the middle bars A, having rounded rear ends, substantially as herein shown and described.

MICHAEL B. NAUSS.

Witnesses:
T. KIRK WHITE,
WM. BEITZEL.