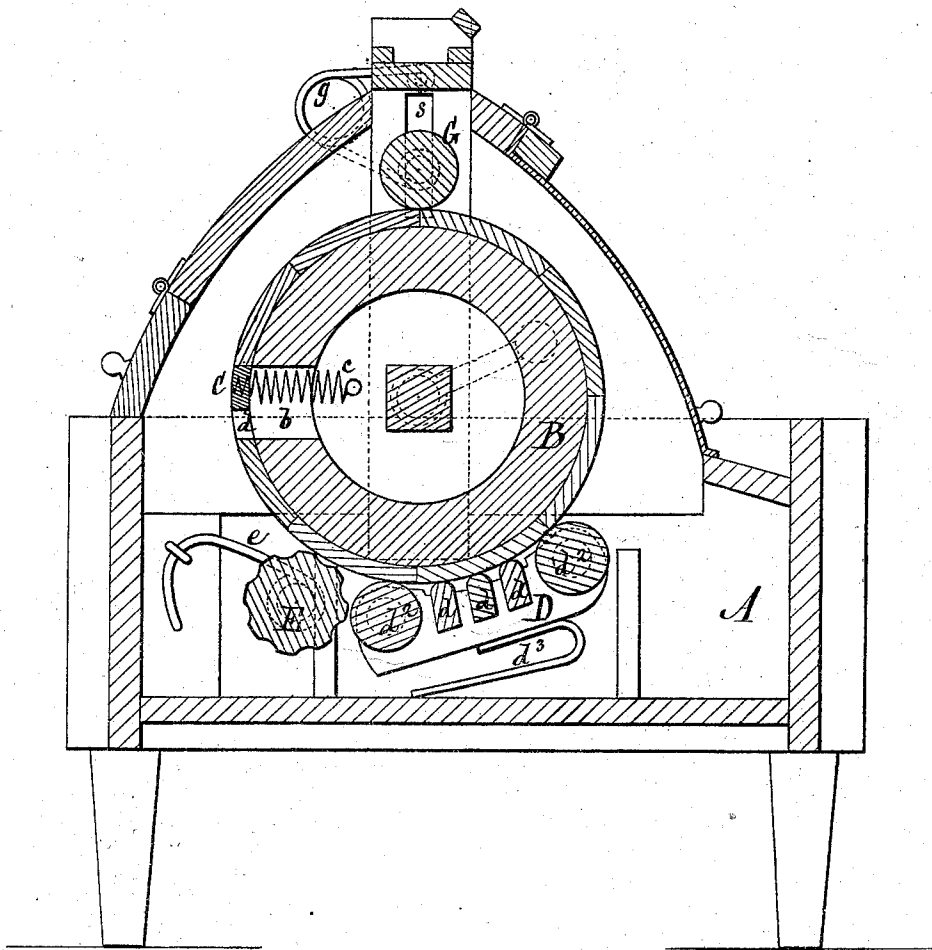


H. H. CASE.
Washing-Machines.

No. 137,177.

Patented March 25, 1873.



WITNESSES

E. A. Bates.

Chas. F. Steele

INVENTOR

Henry H. Case,
Chipman and Fosmire & Co.

Attorneys.

UNITED STATES PATENT OFFICE.

HENRY H. CASE, OF BEREA, OHIO.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 137,177, dated March 25, 1873.

To all whom it may concern:

Be it known that I, HENRY H. CASE, of Berea, in the county of Cuyahoga and State of Ohio, have invented a new and valuable Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a sectional view of my washing-machine.

This invention relates to certain improvements in washing-machines; and it consists in a tub or casing in which a cylindrical drum revolves between a wash-board and rollers working in spring-bearings, carrying the clothes with it in its revolution, being provided with a spring-clamp for holding the clothes in contact with its surface.

In the drawing, A represents the tub or casing, in the sides of which is journaled a cylindrical drum, B, in the surface of which is a longitudinal groove, *b*. In the bottom of this groove are secured the inner ends of two coiled springs, *c c*, the outer ends of which are attached to a bar, C, which lies in the groove *b*. At two points on one side of the groove *b* corresponding with the location of the springs *c* are notches *d d*, large enough to allow the springs to lie freely in them, so that the bar may be drawn out from the groove and be held on the surface while the clothes are arranged in the groove to be held by the bar. D represents the wash-board, consisting of two bars or end pieces, to which are attached three or more ribs, *d*, with a roller, *d*², on each side. The wash-board is located in the bottom of the tub under the drum B, and has

doubled flat springs *d*³ under it, so as to allow it to yield to the pressure of the clothes passing between it and the drum. Adjoining the wash-board is a fluted roller, E, which has its bearings in the coils made in the ends of elastic rods *e* attached to the sides of the tub, thus allowing the roller to yield as the clothes are carried around. At the upper part of the tub or casing a wringing-roller, G, is journaled in coils made in the ends of elastic rods *g*, which are coiled midway of their length, and their opposite ends attached to the sides of the casing. The gudgeons of the roller work in slots *s* in the sides of the tub, allowing them to play vertically as the roller yields to the pressure of the clothes.

The clothes are arranged on the drum B over the groove *b*, where they are held by the bar C, and as the drum revolves it carries the clothes between it and the wash-board D and roller E, which rub the clothes, and between it and the wringer G, which presses the water from them.

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

1. The wash-board D with its ribs *d*, rollers *d*², and springs *d*³, arranged substantially as shown and described.

2. The wringer G journaled in the ends of the bent and coiled elastic rods *g* and having a vertical play in the slots *s* upon the drum B, substantially as shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY H. CASE.

Witnesses:

HENRY DEAN,
F. W. SMITH.