A. B. VANT & H. O. CHENEY.

Washing-Machines.

No. 152,261. Patented June 23, 1874.

Fig. 1

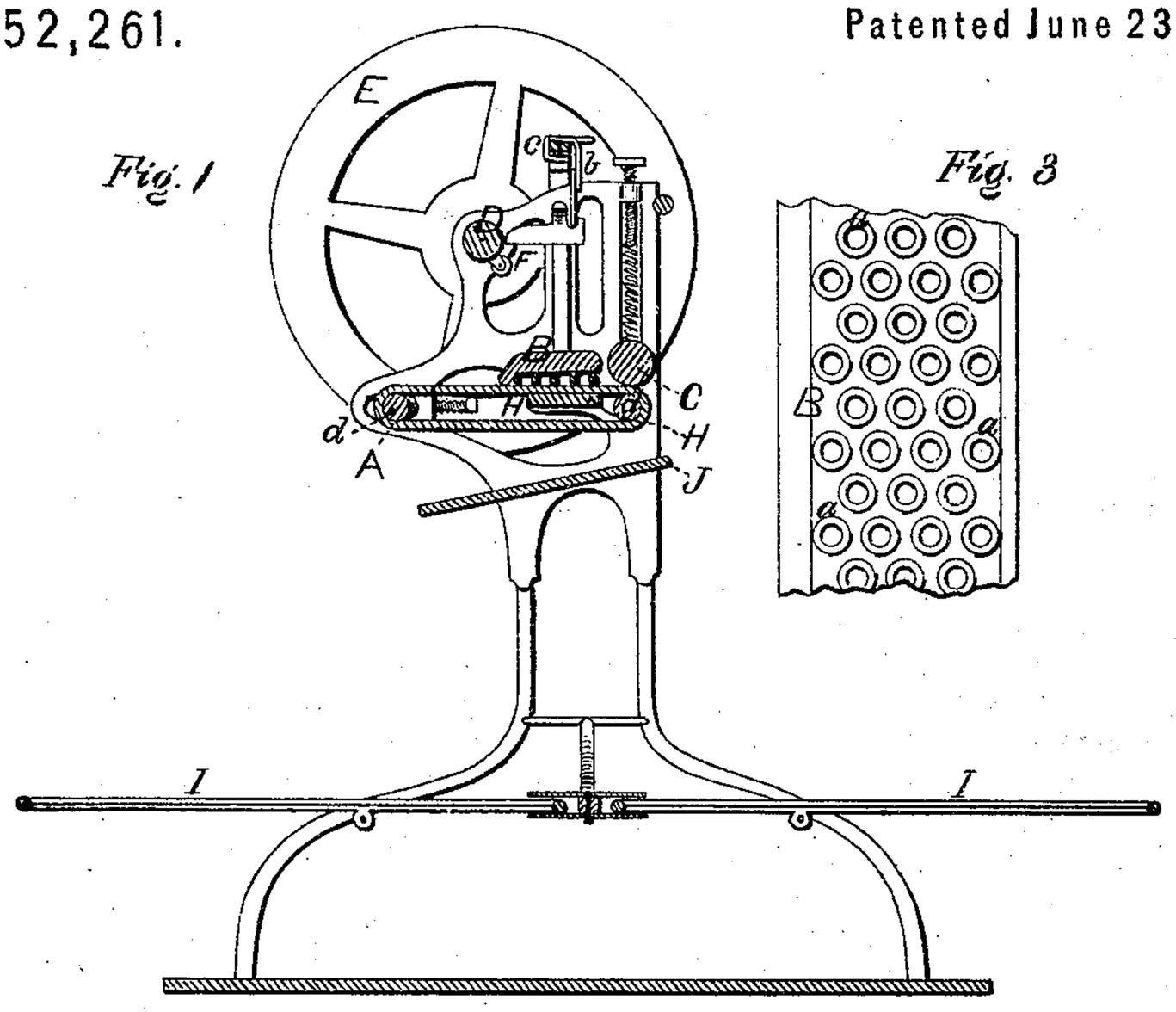
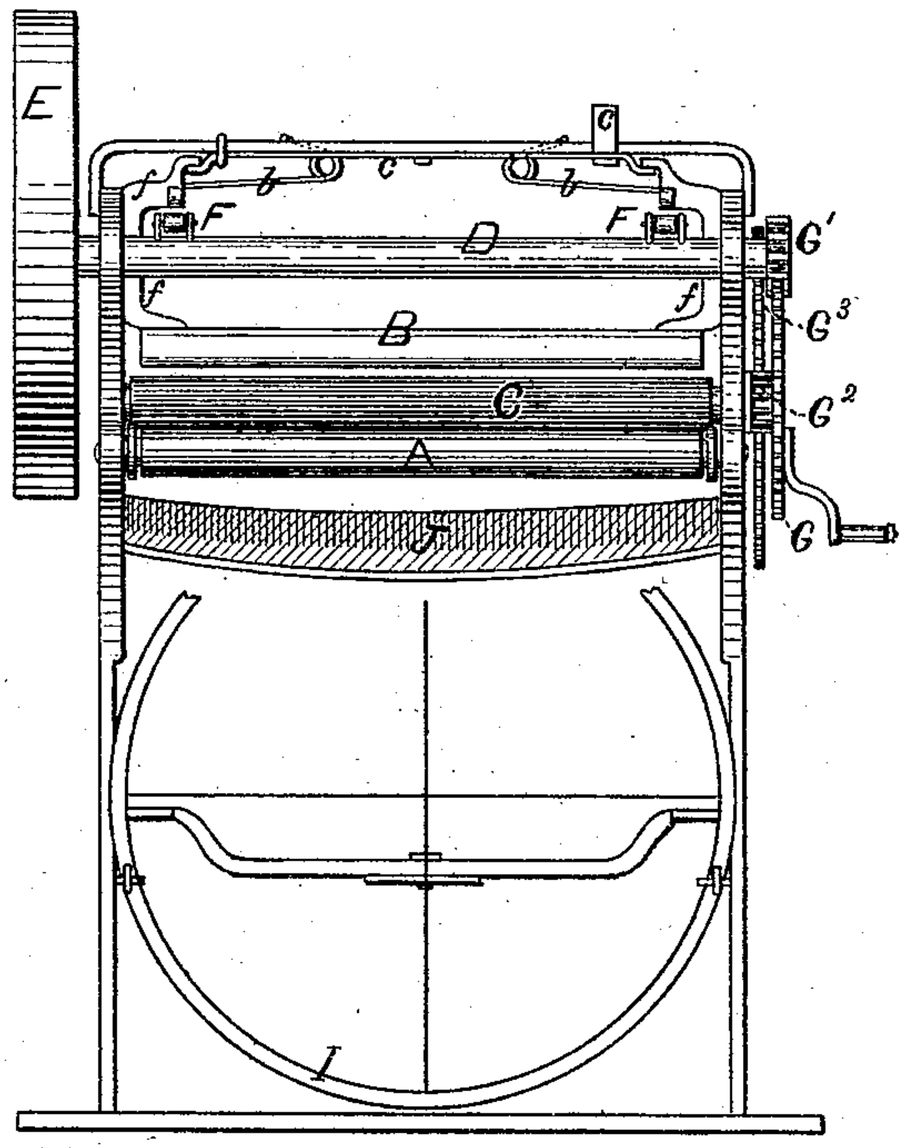


Fig. 3

Fig. 2.



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AM. PHOTO-LITHOGRAPHIC Co. N. Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

ARTEMAS B. VANT, OF MILFORD, AND HENRY O. CHENEY, OF HOPKINTON, MASSACHUSETTS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **152,261**, dated June 23, 1874; application filed September 22, 1873.

To all whom it may concern:

Be it known that we, ARTEMAS B. VANT, of Milford, and HENRY O. CHENEY, of Hopkinton, in the State of Massachusetts, have invented an Improved Washing-Machine, of which the following is a specification:

Our machine consists of three main parts: First, an endless apron or carrier; second, a pounder; and third, a roll, by which, in connection with the apron, the wet clothes are pulled along under the pounder; and our invention consists, first, in the combination of these elements, and, secondly, in the details of the construction of the pounder and the carrier.

In the drawings, A represents the carrier, B the pounder, and C the roll. D is the main shaft of the machine; E, a fly-wheel, upon one of its ends; F F, wipers upon it, which lift the pounder once at each revolution of the main shaft; G G^1 G^2 G^3, gearing, by which motion is imparted to the shaft D, to the roll C, and through the roll C to the carrier A. H is a bed, which supports the carrier and the wet clothes upon it under the blow of the pounder. I I are stands for the tubs. The clothes to be washed are taken from the suds in the tub and placed upon the carrier. The machine is then put in motion, and the clothes upon the carrier are slowly carried along under the pounder, which delivers its blows rapidly while the clothes are passing. The clothes pass between the roller C and the carrier, and are thus pulled along constantly and certainly. When they pass from between the roll and the carrier they fall into the other tub. They are wrung, of course, by thus passing between the roll and the carrier, and may be hung out, or, if not sufficiently washed, be again passed through the machine, as before. It is important to slant the carrier, so that the water expressed from the clothes may pass backward, and keep the clothes under the pounder well wet.

The pounder is best constructed of wood, faced at each end with metal pieces *f f* to fit in the ways in the frame of the machine, and its acting face made as shown in Fig. 3, in which *a a a* represent short rubber tubes, inserted and secured in holes bored in the body of the pounder, and projecting about half an inch. We have tried other constructions, but much prefer this, as the rubber tubes act in a very peculiar and desirable manner.

In order to get a lively stroke, the pounder is raised against the springs *b b*, which throw it downward much better than if it were made heavy and acted by gravity only.

The carrier is best made of stout canvas, covered with rubber, strongly united to it, the canvas being next to the rollers *d d*, upon which the carrier is supported, and the rubber outside. In a machine of the ordinary size we make this carrier about eighteen inches wide, the rubber about three-sixteenths of an inch thick, and the distance between the centers of the rollers *d d*, which support the carrier, about eight inches. The under surface of this carrier travels over the upper surface of the bed H, which is firmly secured between the uprights of the frame, and which should be stout and strong.

The roll C is a wringer-roll, of any suitable construction, with its boxes mounted in ways, and moving upward against a spring or springs, as usual in wringers. Its shaft may be geared with the roll *d* beneath it; but we have not found this necessary.

The top of the bed H we sometimes cover with a sheet of rubber, about half an inch thick; but this is not necessary.

With an apron of the dimensions given, we use a pounder whose working-face is about two and three-fourths inches by eighteen inches; but these dimensions, of course, are not essential.

J is a drip-board, to carry the water back into the tub. The stands I I are so mounted that they can be folded up out of the way when not in use.

Where the machine is to be used as a wringer only, the pounder is lifted and held up by the bar C, as shown in the drawings. It works much more easily than any other wringer known to us, because of the fly-wheel E, and the gear-wheels G^2 and G^3.

What we claim as our invention is—

1. The combination of the carrier A and pounder B, as described.

2. The combination of the carrier A, pounder B, and roll C, as described.

3. The pounder B, having a working-face formed of rubber tubes, secured to and projecting endwise from the body of the pounder, as described.

4. The combination, in a washing-machine, of a reciprocating rubber-faced pounder and a rubber-faced bed, substantially as described.

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