P. BYRNE, Jr.

SCRUBBING-MACHINE.

No. 189,426. Patented April 10, 1877.

Fig. 1.

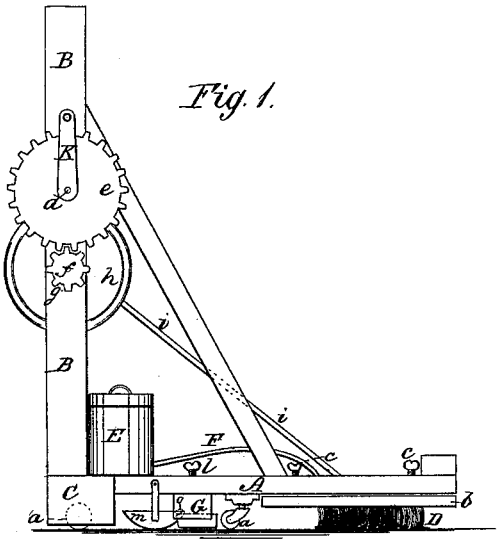


Fig. 2.

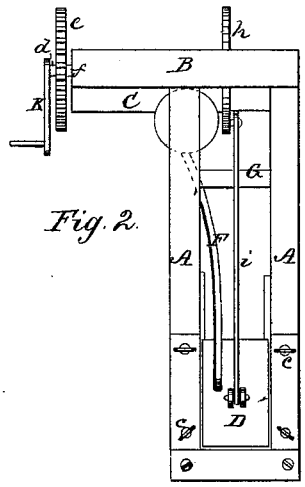


Fig. 3.

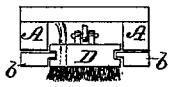
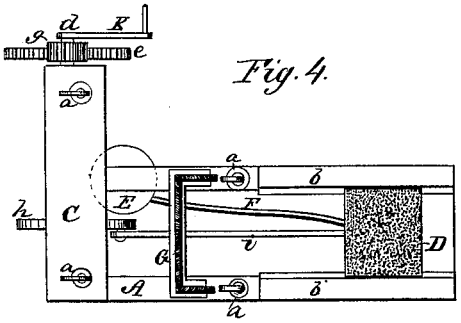


Fig. 4.



WITNESSES:

W. W. Hollingsworth

Edw. W. Byrn

INVENTOR:

Peter Byrne Jr.

BY

Munn & Co.

ATTORNEYS.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

PETER BYRNE, JR., OF NORWALK, WISCONSIN.

IMPROVEMENT IN SCRUBBING-MACHINES.

Specification forming part of Letters Patent No. **189,426**, dated April 10, 1877; application filed February 10, 1877.

To all whom it may concern:

Be it known that I, PETER BYRNE, Jr., of Norwalk, in the county of Monroe and State of Wisconsin, have invented a new and Improved Machine for Scrubbing and Mopping Floors; and I do hereby declare that the following is a full, clear, and exact description of the same.

The machine consists of a wheeled frame, carrying a reciprocating scrubber and mechanism for operating it; also, a water-holder which is connected with the scrubber by a flexible tube, and a mop and pan for taking up the water that has been used in the scrubbing operation. The machine is pushed about on its wheels, so that the floor is both scrubbed and mopped as the machine advances.

In the accompanying drawing, forming part of this specification, Figure 1 is a side elevation of my improved machine. Fig. 2 is a top-plan view of the same. Fig. 3 is an end view of the horizontal part or base of the machine. Fig. 4 is an inverted plan view of the machine.

The frame of the machine is mounted on casters *a*, so that it may be easily pushed about over the floor, and consists of a horizontal part, A, and vertical portion B, attached to a head or block, C. The scrubber D is suitably grooved to adapt it to slide on ways or guides *b*, attached by means of set-screws *c*, to the under side of the horizontal part A of the frame, and thus made adjustable up and down to vary the pressure of the scrubber on the floor. The scrubber is reciprocated by gearing, consisting of crank-shaft *d*, carrying a spur-gear, *e*, a shaft, *f*, carrying a pinion, *g*, and a balance-wheel, *h*, which is connected with the scrubber by rod *i*. The machine is propelled backward and forward over the floor by pushing against the vertical part B of the frame, and the crank *k* is rotated by hand to work the scrubber.

To supply water in requisite quantity to scrub the floor clean, I provide a bucket, E, which is supported in a fixed position on the horizontal frame B, and connected with the scrubber by a flexible tube, F, having a stop-cock to regulate the flow of water.

A rubber mop, G is attached, by set-screws *l*, to frame B, at a point between the ways *b* and block C. The mop is semicircular or angular in form, and a hole leads through the rubber plate or rim to a pan, *m*, Fig. 1, located behind it, so that the water that has been used in scrubbing may be taken up as the machine is pushed along. (The mop will, in practice, be made detachable to adapt it for use upon a handle.) The machine is thus adapted to act as a combined scrubber and mopper.

The quality and stiffness of the scrubbing-brush should, of course, have a certain relation to the work to be done. For example, a coarse stiff brush is suitable for office, saloon, and hallway floors, and a fine soft brush for smooth painted floors of apartments.

What I claim is—

1. The combination, with the horizontal frame, of the reciprocating scrubber, sliding on ways, the rod *i*, the wheel *h*, and gearing for rotating the same, as shown and described.

2. The combination of the scrubber and its vertically-adjustable ways or guides with the part B of the frame, substantially as shown and described.

3. The water-holder E, flexible tube, and the reciprocating scrubber, combined as shown and described.

4. The combination of the pan *m* with the rubber mop G, having an angular or curved form, and provided with a hole, *o*, for the passage of water to pan.

PETER BYRNE, JR.

Witnesses:
E. PURPLE,
J. J. BOYLE.