A. J. DAVIS.

Scrubbing Device.

No. 207,108. Patented Aug. 20, 1878.

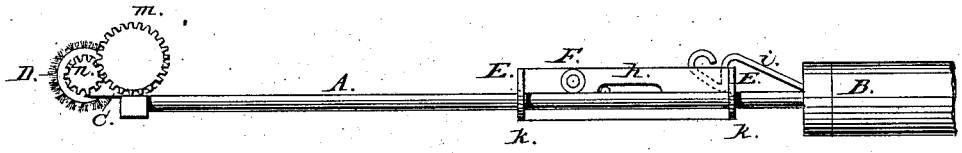
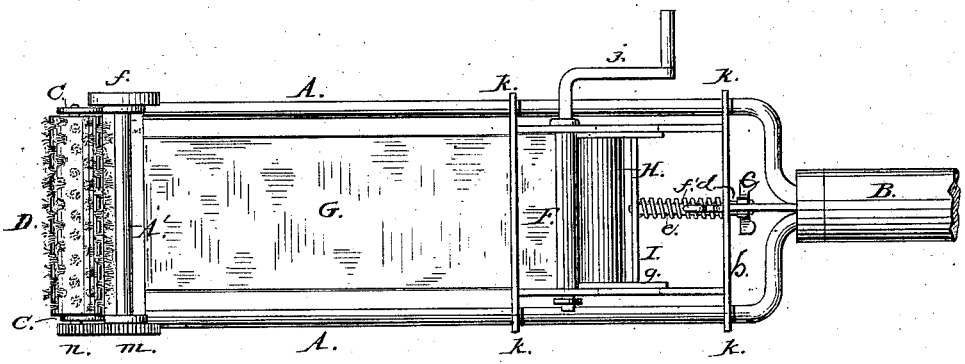


Fig. 1.

Fig. 2.



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UNITED STATES PATENT OFFICE.

ANDREW J. DAVIS, OF HARTFORD, MICHIGAN.

IMPROVEMENT IN SCRUBBING DEVICES.

Specification forming part of Letters Patent No. **207,108**, dated August 20, 1878; application filed March 9, 1878.

To all whom it may concern:

Be it known that I, ANDREW J. DAVIS, of the village of Hartford, county of Van Buren, and State of Michigan, have invented a new and useful Improvement in a Mop, Wringer, and Scrub-Brush Combined, which improvement is fully set forth in the following specification and accompanying drawings.

My invention is an improvement in implements for household use. It consists, essentially, of a wringer composed of a windlass and roller and an apron-shaped mop, to be used in connection with a scrubbing-brush operated by a wheel and gear-wheels when said parts are applied to a main frame attached to an ordinary brush-handle.

The devices are so arranged that when the scrubbing is being performed the floor may be rubbed by the mop to absorb the water, &c., and afterward the mop may be passed between rollers to wring it and prepare it for use again. It consists generally of a rectangular frame attached to an ordinary handle, with jaws extending from it at its lower end, to serve as journal-bearings to the shaft of a rotary scrubbing-brush. A plate to which the jaws to support the brush are fastened is so fashioned as to clasp the end of the rectangular frame, and, extending downward, forms journal-bearings for a shaft, on one end of which is a plain wheel, and on its opposite end a spur-wheel, which engages a pinion to move the rotary brush. Immediately behind the rotary brush is a bar, which forms the end of the rectangular frame before mentioned, which serves as a hold to the end of the mop secured thereon. The mop is of an apron shape, and is secured at the opposite end to a windlass fixed in a second frame. This frame is also rectangular, and is provided with projecting lugs with loops to clasp the first frame, on which it slides. Immediately behind the windlass is a roller fixed in a third frame, which moves longitudinally in slots on either side of the second frame. Between the transverse plate of the third frame and the inner plate of the second frame is a spiral spring, regulated in its compression by a screw, which adjusts the roller to the proper distance from the windlass. The mop passes between the roller and windlass, and is squeezed or wrung, as before stated.

In my drawings, Figure 1 is a side elevation of the combined device. Fig. 2 is a plan view of the same.

Similar letters of reference denote like parts in all of the figures.

Referring to drawings, A is the rectangular frame, composed of rods of suitable material, secured in the handle B. C C are jaws attached to bent plate A′, which serve as bearings to the journals of the rotary brush D. This brush is cylindrical in form, and provided with bristles fixed in its periphery in the usual manner. In the second rectangular frame, E, which is formed of plate or sheet metal, is hung in suitable journal-bearings a windlass, F, provided with a crank, *j*. About the axle of this windlass is wound an apron-shaped mop, G. The mop-cloth is secured to the bar or axle of the windlass at one end and to the lower bar of the frame A at the other.

H is the roller, journaled in the frame I. This frame has a longitudinal movement in the frame E, and is guided in this movement by slots *h* formed in said frame E. The frame E has four loops, *k*, extending laterally from its transverse plates, which fit over the long bars of frame A, on which they slide, for the purpose hereinafter described.

Between the plate *b* of frame E and the transverse plate *g* of frame I is a spiral spring, *f′*, which encircles a rod, *e*, and serves to keep roller H bearing against the mop-cloth as it is rolled on windlass F. A nut, *c*, secured to sleeve *d*, serves to adjust the spiral spring *f′* to a suitable compression. In the bent plate A′ is hung a shaft, which has on one end a wheel, *f*, which bears on the floor when the scrubber is in use, and on the other a spur-wheel, *m*, which gears with a pinion, *n*, on the end of the shaft, forming the axle of the rotary brush. In the handle B is a spring-latch, *i*, which holds the frame E back when the rotary brush alone is in use.

In operating my device I slide the frame E back over the frame A until it is c ght automatically by the latch. With the h dle of the device in the hands of the operator, and the brush on the surface to be cleansed, movement is given back and forth, when the wheel *f*, also bearing on the surface being scrubbed, moves and carries the spur-wheel, and with it

the pinion, to move the brush in a direction opposite to that of wheel *f*. The mop may now be used by releasing frame E from the latch *i* and sliding said frame down on the side rods of frame A to loosen the mop-cloth, so that it will bear in folds on the surface being cleansed. When the mop-cloth has become saturated with water, the crank in the right hand of the operator may be turned to wind the mop-cloth between the axle of the windlass and the squeezing-roller. When the mop-cloth has been properly wrung the frame may be drawn back and secured, and the brush used again, as described.

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

The interchangeable mop, wringer, and scrubbing-brush, consisting, essentially, of the wringer composed of windlass F and roller H, in combination with mop G and scrubbing-brush D, operated by wheel *f* and gear-wheels *m n* when said parts are applied to frame A, as and for the purpose set forth.

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