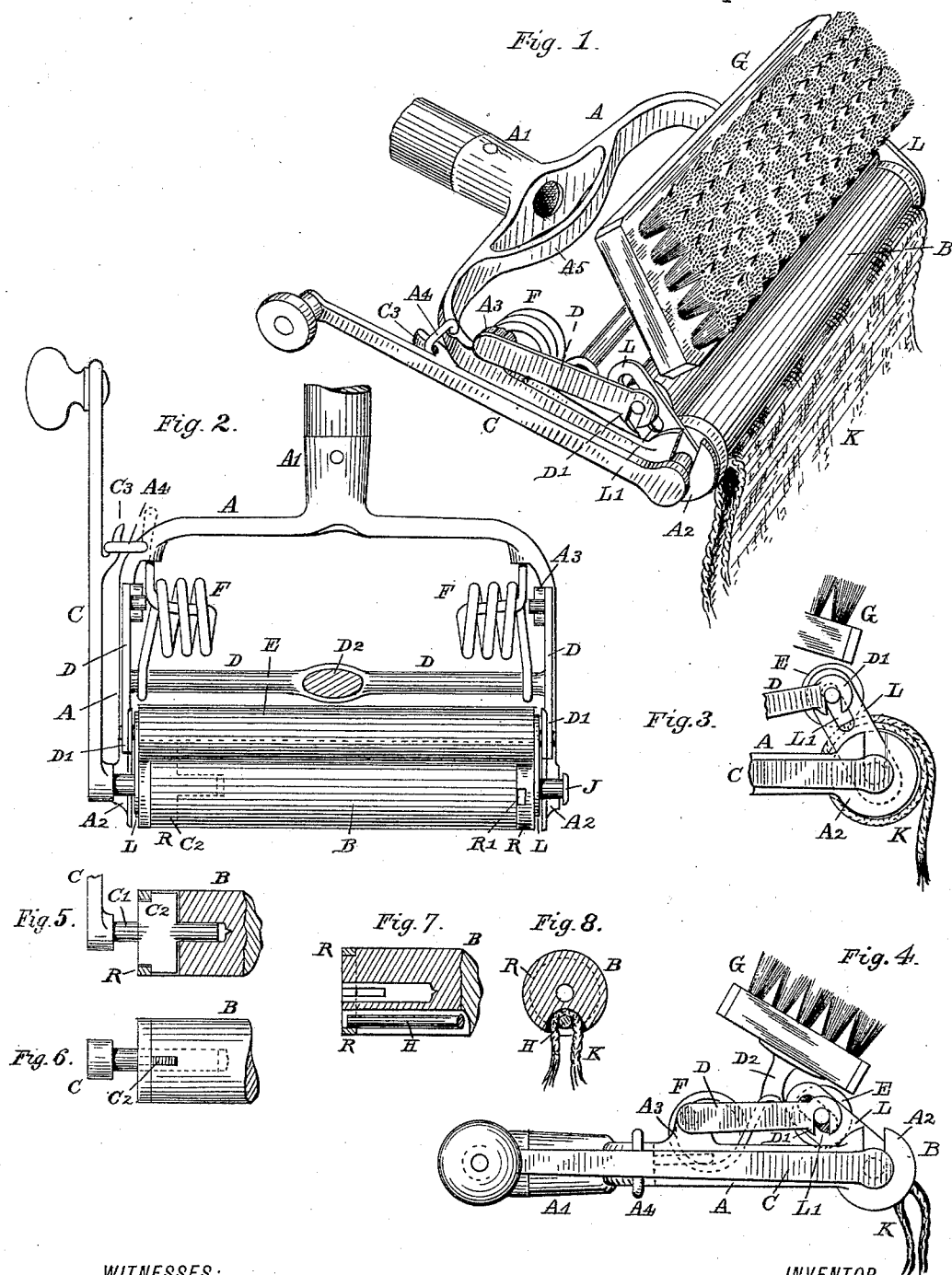


(No Model.)

A. J. LANDRY.
MOP WRINGING DEVICE.

No. 436,457.

Patented Sept. 16, 1890.



WITNESSES:

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ADOLPHUS J. LANDRY, OF GREENFIELD, ASSIGNOR OF ONE-HALF TO JOHN P. WILLEY, OF WORCESTER, MASSACHUSETTS.

MOP-WRINGING DEVICE.

SPECIFICATION forming part of Letters Patent No. 436,457, dated September 16, 1890.

Application filed December 10, 1887. Serial No. 257,505. (No model.)

To all whom it may concern:

Be it known that I, ADOLPHUS J. LANDRY, of Greenfield, in the county of Franklin and Commonwealth of Massachusetts, have invented an Improvement in Mop-Wringing Devices, of which the following description, in connection with the accompanying drawings, is a specification.

My invention has for its object the combining of an improved mop-wringing device with a mop-holder, the combining of a scrubbing-bush with the holder and wringing device, and improvements in the details of construction, the whole constituting an implement possessing labor-saving properties and simplicity and durability of construction.

The invention is illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of the complete implement. Fig. 2 is a plan of the complete implement, except that the brush is removed. Fig. 3 is a side elevation of a part of Fig. 1. Fig. 4 is a side elevation of Fig. 1. Figs. 5 to 8, inclusive, are illustrations of details of construction to be hereinafter described.

My improved mop consists in general of a frame and handle and a roller mounted on the frame in such manner that the mop-cloth attached to the roller may be rolled up by turning a crank, there being a second roller pressed against the first by springs. The cloth is rolled up between the rollers and around the first-mentioned roller, being thereby squeezed and wrung out, as in the operation of the well-known clothes-wringer.

It further consists in providing a scrubbing-brush in such position that by simply turning the implement over the brush can be effectively used without interfering with the other parts.

It also consists of certain improvements in construction whereby simplicity, strength, and durability are secured.

Referring to the several figures, A is a forked frame having a suitable socket A' for the reception of a handle, or it may be otherwise suitably adapted to receive said handle. The fork ends of this frame terminate in disk-shaped enlargements A², which are slotted in

the manner shown to form bearings for the axle of a roller B, in which bearings the roller is free to turn, one end of the axle being provided with a crank C for the purpose of turning the roller.

Pivotaly attached to slotted lugs A³ on the frame A is a swinging frame D, which has enlarged slotted ends D', affording bearings for the axle of a roller E, in which bearings the roller turns freely. A pair of coiled springs F, rigidly inserted at one end in the frame A, bear with their free ends upon the frame D in such direction that the roller E is pressed against the roller B, the slotted bearings of the frame D are pressed against the axle ends of the roller E, and the studs upon the opposite ends of the frame D are pressed down into the slotted lugs A³ on the frame A, thus holding the frame and both rollers in place and bringing the rollers into operation, all being accomplished by the action of the coiled springs.

I prefer to make the main frame with a grip A⁵ to assist the operator in holding the mop while wringing it; but it may be made without, as shown in Fig. 2.

Connecting-plates L connect the axles of rollers B and E, and are provided with openings for the axle of roller B and a slot L' for the axle of roller E.

If, as hereinafter described, the axle at one end of roller B and the crank C are cast in one piece, as for the purpose of economy in manufacture I prefer to do, instead of in two pieces, and then attaching the crank to the axle by a key, set-screw, or other device, of course the opening of the plate to receive the crank end of the axle of roller B must be large enough to admit of adjustment by being passed over the crank C. The importance of this plate for several reasons is readily seen. It prevents the mop from passing by the ends of the rollers, and it sets a limit to the movement of the rollers apart.

To the roller B is attached the mop-cloth K, which by turning the crank C may be rolled up on the roller B, passing under roller E and between the two, being thereby subjected to the pressure due to the coiled springs, squeezing and wringing out the cloth.

I attach the cloth to the roller by doubling it over a rod H, Figs. 7 and 8, the rod and cloth being laid into a longitudinal groove formed in the roller B. At each end of the roller is
 5 a collar or ring R, one of which fits loosely onto the roller and is free to turn thereon. Out of the loosely-fitting ring is cut a notch R', so that when this notch is brought into alignment with the groove in the roller the
 10 rod H, being of proper length, may be laid into the groove, one end passing through the notch in the ring, the other passing under the ring on the other end of the roller. Upon turning the ring until the notch has passed by
 15 the groove the rod cannot be taken out, its ends being held under the rings. Whatever is wrapped around the rod and can be pressed into the groove so that the ends of the rods pass under the rings may be firmly held by
 20 this means, and can be easily and rapidly released and removed as well.

I am not limited to any particular requirements as to the cloth to be used in this arrangement. Any cloth of any weight, shape,
 25 or size can be used equally well, only requiring to be folded if too wide to go into the groove between the rings. To facilitate turning the ring, a spanner or hose-wrench may be provided, or the ring may be slightly enlarged and have a milled edge to be turned
 30 by the fingers.

In use the mop-cloth after being dipped in the water is rolled up while held over the vessel containing the water, and by turning the
 35 crank in the opposite direction it is unrolled ready for use. It is evident that in unrolling, as well as in rolling up at first, the squeeze-roller E acts to wring out the cloth, and if once is not enough the operation may be repeated until the cloth is as dry as desired, or
 40 the cloth may be only partly run between the rollers and a portion left wetter than the rest.

In Fig. 3 is shown the position of the parts when the cloth is partially rolled up.

45 The crank C when not in use should be secured in place. To do this I form on the back of the crank a hook C³, and to the frame A is pivotally attached a wire loop A⁴, so adjusted that it turns into the hook and binds there
 50 enough to retain its position and also holds the crank as desired. The loop is conveniently disengaged by a touch of the finger as the hand of the operator takes hold of the handle of the crank.

55 The scrubbing-brush G may be attached in

position for convenient use to any part of the frame. As shown, the swinging frame D may be cast with a tongue D² on the cross-bar, to which the brush may be screwed or otherwise fastened. When the brush is placed as shown, 60 either it or the mop can be used by simply turning the implement over. When using the brush, the cloth is either thrown back, resting on the frame and handle, or may be rolled up out of the way. 65

The improved construction lies in slotting the ends of the bearing parts of the frame, so that the moving members of the implement can be laid into their bearings, and in so arranging the parts that they are retained in 70 position by the action of the coiled springs, as hereinbefore described. This construction simplifies the implement, cheapens it, renders it less liable to any derangement, and facilitates renewal of parts if repairs are needed. 75

To further secure the same advantages, I construct the roller B in the manner shown in Figs. 2, 5, and 6. The crank C, the axle C', and the wings C² are cast in one piece. The 80 end of the roller is first bored out, then slotted across, so as to receive the axle and wings, as shown, this construction centering the roller with the axle and keying the former to the latter beyond possibility of slipping or failing in any way. The rings R are then 85 slipped onto the ends of the roller, and when the roller thus complete is laid into its bearings the enlargements A² of the ends of the frame form collars to keep all in place end-wise. The axle end opposite the crank end 90 should have an enlarged head, as shown at J, Fig. 2, to prevent the fork ends of the frame from spreading.

Having thus described my invention, I desire to claim as new the following: 95

The combination of the main frame having its arms provided with bearings for the axle of the roller B, one end of the axle being provided with a crank, the swinging frame D, at one end pivotally attached to the main frame 100 and provided with bearings for the roller E, the coiled springs rigidly inserted at one end into the main frame A and bearing with their free ends upon the frame D, the connecting-plates L, the rollers B and E, and the mop, 105 substantially as described.

ADOLPHUS J. LANDRY.

Witnesses:

ROCKWOOD HOAR,
 CHARLES F. ALDRICH.