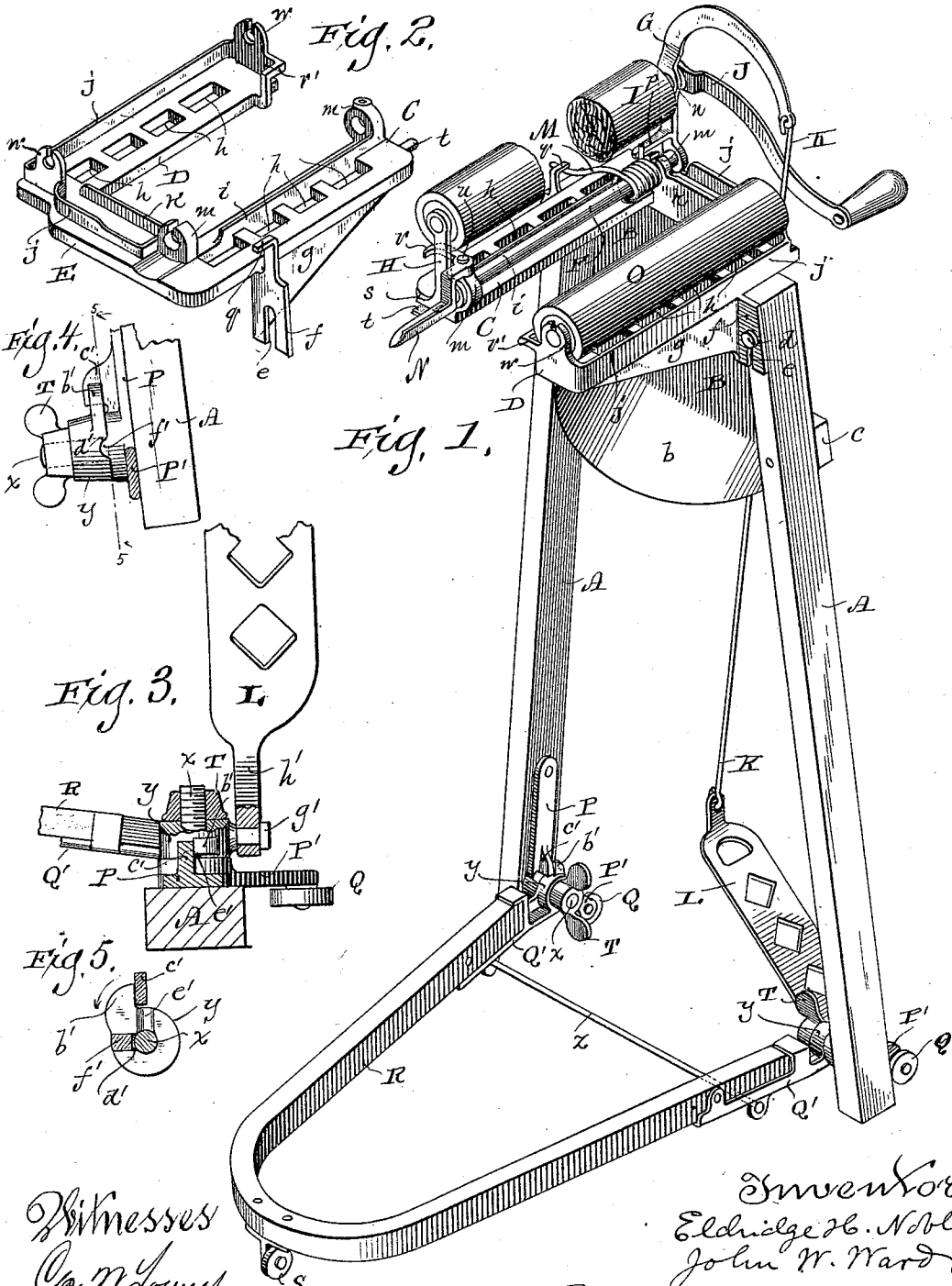


(No Model.)

E. H. NOBLE & J. W. WARD. MOP WRINGER.

No. 521,216.

Patented June 12, 1894.



Witnesses
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UNITED STATES PATENT OFFICE.

ELDRIDGE H. NOBLE AND JOHN W. WARD, OF POSTVILLE, IOWA; SAID
NOBLE ASSIGNOR TO SAID WARD.

MOP-WRINGER.

SPECIFICATION forming part of Letters Patent No. 521,216, dated June 12, 1894.

Application filed February 7, 1893. Serial No. 461,302. (No model.)

To all whom it may concern:

Be it known that we, ELDRIDGE H. NOBLE and JOHN W. WARD, citizens of the United States, and residents of Postville, in the county of Allamakee, and in the State of Iowa, have invented certain new and useful Improvements in Mop-Wringers; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention has for its object to simplify, cheapen and otherwise improve the mop-wringer set forth in Patent No. 418,585, issued December 31, 1889, to Eldridge H. Noble, assignor of one-half to John W. Ward, the same being the parties to the present application; and the said invention consists in certain peculiarities of construction and combination of parts hereinafter described with reference to the accompanying drawings and subsequently claimed.

In the drawings: Figure 1 represents a perspective view of our improved mop-wringer with a roller thereof broken away; Fig. 2, a detail perspective view of the wringer-head; Fig. 3, a detail plan-view partly in section and illustrating the connection between the head-standards and a folding platform, as well as a treadle-connection with this platform; Fig. 4, a detail elevation illustrating the standard and platform connection, and Fig. 5, a section on line 5-5 of the preceding figure.

Referring by letter to the drawings, A A represent a pair of standards that converge in an upward direction and have the front sides of their upper ends joined to a vertical plate B, the lower end of the latter being in the form of a water-guide or spout *b* bent inward between the standards, as shown in Fig. 1, and a transverse brace *c* is joined to said front sides of the standards just above the bend in the plate.

Engaging bolts or rivets *d* passed through the standards A are vertical notches *e* in right angle wings *f* of flanges *g* depending from a horizontal head, the latter being in the form of parallel rearwardly extended arms C, D, joined at the front by a cross-piece E, it being preferable to provide each of said arms with a series of openings *h* through which water dripping from rollers, hereinafter speci-

fied, may find its way into a receptacle supported on a platform that is also hereinafter specified.

The arm C of the head is provided with a longitudinal flange *i* adjacent to its inner edge, this flange serving as a deflector of water toward the openings *h* in said arm. The other arm D of the head is provided with a similar water deflecting flange *j* adjacent to its outer edge and this flange is continued along the cross-piece E and returned thereon in such a manner as to form a water guide *k*, as is best illustrated in Fig. 2.

Rising from the arm C of the head are bearings *m* for a shaft F, and held fast on the ends of this shaft by any suitable means are levers G, H, in which a wringer-roll I is journaled. The front journal *n* of the roller I is rigidly connected to a crank J and the adjacent lever G has a curved upper extremity connected by a link-rod K with a treadle L, the latter being connected to the platform hereinafter specified. A rearwardly extended finger *p* on the lever G abuts against one end of a spiral-spring M coiled under contraction around the shaft F, and the other end of this spring extends laterally from said shaft to rest under a hook *q* extended upward from the arm C of the head hereinbefore partly specified.

The lever H is provided at its lower end with a lateral lug *s* that normally comes against a stop *t* on the rear end of the head-arm C to limit outward swing of the spring-controlled wringer-roll.

The rear-bearing of the shaft F is provided with a vertical stud *u* that serves as a pivot for what we term a mop-gage N, the latter being a double right-angle arm provided with a horizontal lateral crook *v* engaged by the lever H, whereby when the latter is in its normal position the gage will stand in the position shown in Fig. 1, but if this lever be actuated incidental to a descent of the treadle L there will be a movement of said gage on its pivot to come under against an angular projection *v'* on the head-arm D to thereby close the normally open end of the head, said angular projection serving as a stop.

The head-arm D is provided with bearings *w* for the journals of a wringer-roll O opposed

to the spring-and-lever controlled wringer-roll I above specified.

The wringer-head with the flanges, bearings and other projections described in connection therewith are preferably cast in one piece from any suitable metal.

Fast to the inner sides of the standards A at their lower ends are plates P having forward extensions or hangers P' for casters Q, and laterally extended from the plates are screw-threaded studs x that loosely engage eyes y forming the front terminals of socket-plates Q' for a bent-wood bow R, the latter having a depending rear-caster S and constituting the platform referred to in the foregoing description, said platform being braced by a stay-rod z connected to said socket-plates. Thumb-nuts T engage the studs x and retain the socket-plates Q' thereon, and these socket-plates are provided with lugs b' that impinge against stops c' on the standard-plates P, when the platform is lowered, but if this platform be swung up between the standards A the erstwhile upper edges of said socket-plates will come against the stops to limit the movement of said platform. Each of the front or eye-like terminals of the socket-plates is provided with notches $d' e'$ at right angles to each other, and if the platform be swung down, the former notches will engage lugs f' on the standard plates P to form a lock when the thumb-nuts are turned on the studs x against said socket-plates, but the other notches are likewise engaged when said platform is swung up, it being obvious that said thumb-nuts must be loosened each time an adjustment of the aforesaid platform is effected, and that the latter has enough spring and play on the stay-rod z to permit of an automatic engagement of the notches and lugs.

The socket-plate Q' at that side of the machine farthest from the spring-and-lever controlled wringer-roll I has a forwardly extended lug g' that engages an angle bend h' of the treadle L hereinbefore specified.

Assuming that the parts are in the position shown by Fig. 1, and a water-soaked mop be inserted in the wringer-head against the roll O a depression of the treadle L will cause the roll I to swing over against said mop, and at the same time any of the latter that may not be outside of said head will be forced in between the rolls and held there by the movement of the gage N under control of the lever H, as specified in the foregoing. The tension on the mop depends upon the depression of the treadle, and the wringing action of the rolls is caused by a revolution of the crank J connected to a journal of one of said rolls. Incidental to the depression of the treadle, the spring M is further contracted and on release of said treadle the expansion of said spring causes an automatic return of the roll I and mop-gage N to their normal positions, the wrung-out water from the mop having been caught in a suitable receptacle on the platform herein specified.

By means of the casters Q, S, the machine above set forth may be easily moved about from place to place, and when not in use the platform is swung up out of the way to economize space.

Having now fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a mop-wringer, the combination of a horizontal head having a mop-opening in the rear end thereof, a wringer-roll journaled in fixed bearings on the head, a spring-controlled shaft having its bearings on said head, a vertical stud on the rear one of the latter bearings, levers fast on the shaft, another wringer-roll journaled in the levers, and an angular mop-gage that has pivotal connection with said stud and is provided with a horizontal crook engaged by one of said levers, substantially as set forth.

2. In a mop-wringer, the combination of a horizontal head comprising a pair of arms joined at the front by a cross-piece, bearings extending upward from one of the head-arms, a spring controlled shaft arranged in the bearings, levers fast on the shaft, a wringer-roll journaled in the levers, another wringer-roll journaled on the head-arm, and a double right angle mop-gage pivoted on the rearmost shaft-bearing and provided with a horizontal lateral crook opposed to one of said levers, substantially as set forth.

3. In a mop-wringer, the combination of a horizontal head having a mop-opening at the rear end thereof, a wringer-roll journaled in fixed bearings on the head, spring-controlled shaft having its bearings on said head, a vertical stud on the rear one of the latter bearings, levers fast on the shaft, another wringer-roll journaled in the levers, an angular mop-gage that has pivoted connection with said stud and is provided with a crook engaged by one of said levers and an angular projection on an arm of said head in the path of the free end of the mop-gage, substantially as set forth.

4. In a mop-wringer the combination of a horizontal head comprising a pair of arms joined at the front by a cross-piece, a shaft having its bearing on one of the arms, a wringer-roll journaled on the other arm, levers fast on the shaft, another wringer-roll journaled in the levers, a spring coiled on said shaft, a finger on one of the levers in opposition to an end of the spring, and a catch on the shaft-arm of the head engaged by the other end of said spring, substantially as set forth.

5. In a mop-wringer, the combination of a horizontal head having a mop-opening therein, a shaft and parallel wringer-roll having fixed bearings on the head, levers fast on the shaft, another wringer-roll journaled in the levers, a spring coiled on said shaft and having its ends opposed to projections on said head and one of the levers, a mop gage pivoted adjacent to said opening and controlled

by the other lever, and a treadle connected to the spring opposed lever, substantially as set forth.

6. In a mop-wringer, the combination of a horizontal head having a mop-opening therein, a wringer-roll and spring-controlled shaft having their bearings on the head, levers fast on the shaft, a wringer-roll journaled in the levers, a stop at the rear of said head, and a lug extension at the lower end of one of said levers for impingement against the stop when in normal position, substantially as set forth.

7. In a mop-wringer, a head comprising parallel arms united at one end by a cross-piece, bearings on each arm of the head, and water-guide flanges on these arms and the cross-piece, the latter flange being a continuation of one of the arm flanges and returned on said cross-piece adjacent to the same, substantially as set forth.

8. In a mop-wringer, the combination of the wringing apparatus mounted on standards, stud-plates fast to the standards and provided with stops and lugs, and a platform having

eye-like terminals that engage the plate-studs, lugs on these terminals in opposition to the plate-stops, notches in said platform-terminals for engagement with the plate-lugs, and thumb-screws on said plate-studs in opposition to the aforesaid platform terminals, substantially as set forth.

9. In a mop-wringer, the combination of a wringing apparatus mounted on the standards, stud-plates fast to the standards and provided with caster-hangers, a platform having pivotal connection with the plate-studs, and stops for limiting the movement of platform on its pivots, substantially as set forth.

In testimony that we claim the foregoing we have hereunto set our hands, at Postville, in the county of Allamakee and State of Iowa, in the presence of two witnesses.

ELDRIDGE H. NOBLE.
JOHN W. WARD.

Witnesses:

F. S. BURLING,
L. L. DUNNING.