No. 768,776. PATENTED AUG. 30, 1904.

C. E. SHAW.

COMBINED MOP AND MOP WRINGER.

APPLICATION FILED JULY 29, 1903.

NO MODEL.

Fig. 1.

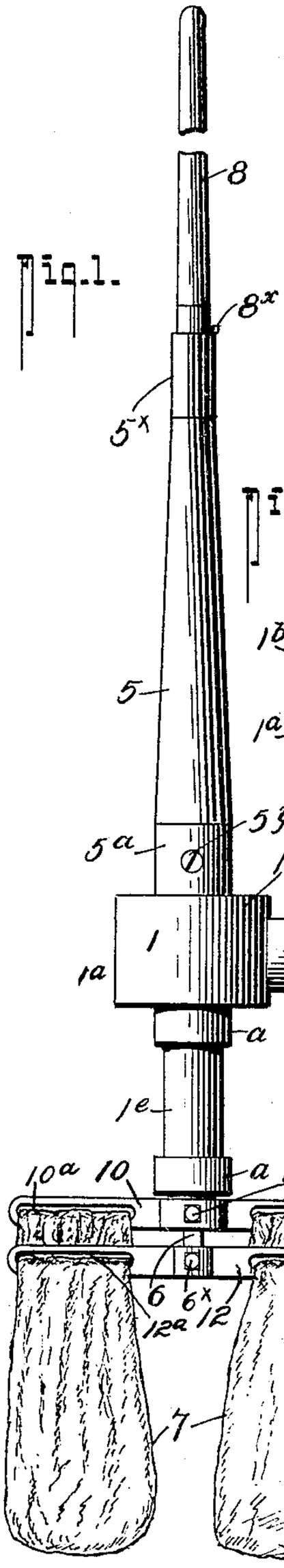

Fig. 3.

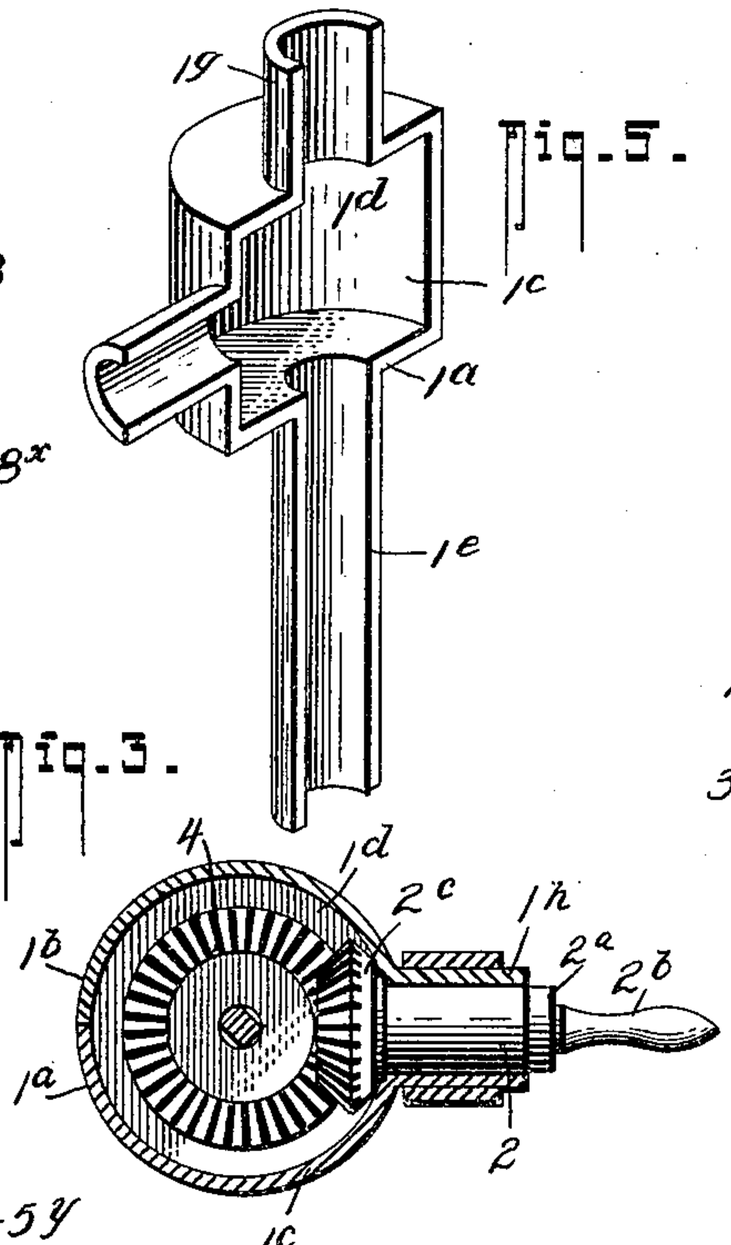

Fig. 5.

Fig. 2.

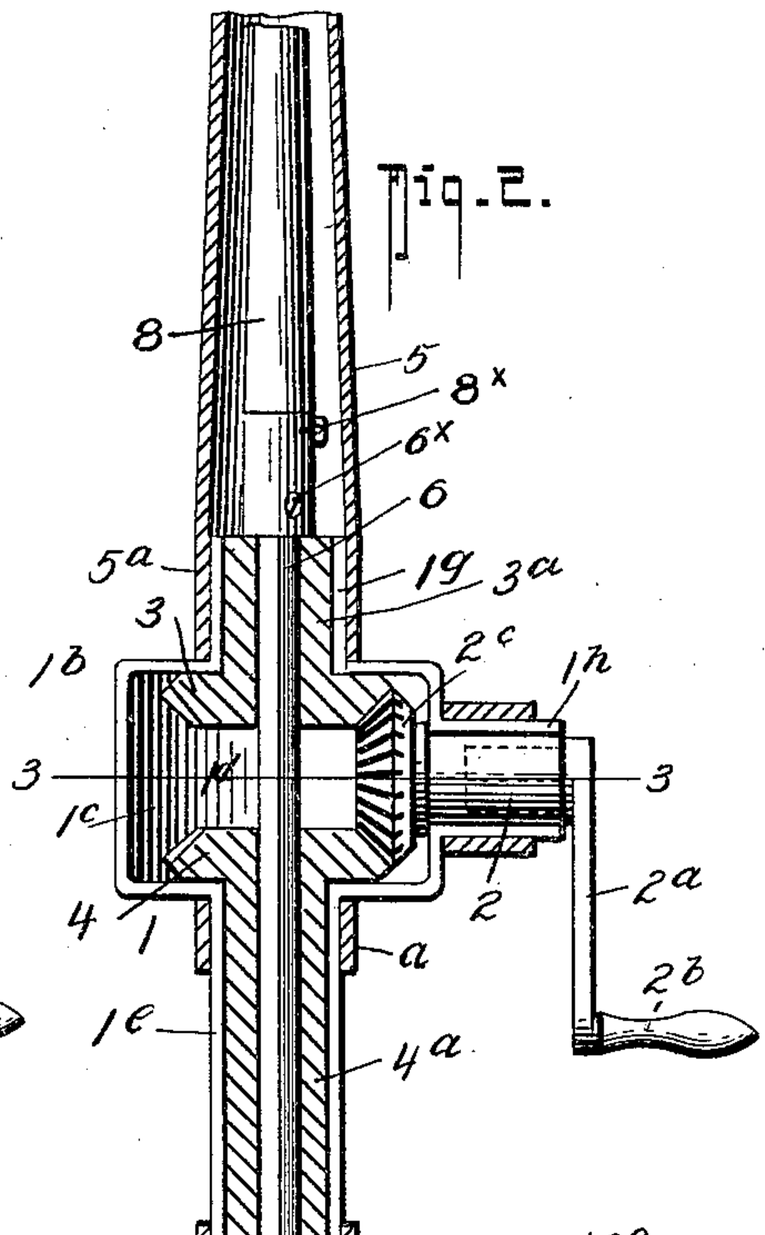

Fig. 4.

WITNESSES:
F. C. Gibson.
John J. Schrott

INVENTOR
Charles E Shaw.

BY
Fred G. Dieterich & Co.
ATTORNEYS.

No. 768,776. Patented August 30, 1904.

UNITED STATES PATENT OFFICE.

CHARLES E. SHAW, OF SPOKANE, WASHINGTON.

COMBINED MOP AND MOP-WRINGER.

SPECIFICATION forming part of Letters Patent No. 768,776, dated August 30, 1904.

Application filed July 29, 1903. Serial No. 167,501. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. SHAW, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in a Combined Mop and Mop-Wringer, of which the following is a specification.

My present invention seeks to provide a wringer in which the wringing devices are a part of the mop-holder, and it more particularly seeks to provide a device of this character of simple, economical, and inexpensive construction which will effectively serve its intended purposes.

The invention further seeks to provide an improved mop-wringer of the kind disclosed in my prior patent, which was granted on October 8, 1901, and bears the number 684,115.

Further objects and advantages of my invention will be readily understood by reference to the accompanying drawings, in which—

Figure 1 is a side elevation of the mop-wringer constructed in accordance with my invention. Fig. 2 is an enlarged longitudinal section of a portion thereof, the parts being shown in the position which they assume when the device is to be used to wring mop-cloths. Fig. 3 is a cross-section taken practically on the line 3 3 of Fig. 2. Fig. 4 is an enlarged detail view illustrating the manner in which the endwise-movable shaft of the device is held against downward movement in the hollow when the device is to be used as a mop. Fig. 5 is a detail view of the two-part casing.

Referring now to the accompanying drawings, in which like numerals and letters of reference indicate like parts in all of the figures, 1 designates a casing consisting of the sections 1^a 1^b, each of which includes an enlarged portion 1^c, forming a chamber 1^d, a long tubular portion 1^e, and a short tubular portion 1^g, for a purpose presently to appear. The sections of the casing 1 are in practice held together by collars or bands *a a* taking around the long tubular portions 1^e of the several sections and by a hollow handle member 5, the lower end 5^a of which fits over the short tubular portions 1^g of the casing 1 and is held in position by the screws 5^y, as clearly shown in Figs. 1 and 2. Each casing-section 1^a 1^b includes a horizontally-disposed short tubular portion 1^h 1^h, which forms a bearing for the shaft 2 when the parts are assembled, and the said shaft 2 carries at its outer end a crank member 2^a, having a handle 2^b, and at its inner end within the chamber 1^d the shaft 2 carries a bevel-gear 2^c to mesh with the bevel-gears 3 and 4 hereinafter again referred to.

Mounted to turn within the long tubular member 1^e, which serves as a bearing therefor, is a hollow shaft 4^a, carrying a bevel-gear 4 at its upper end within the casing 1 and in mesh with the bevel-gear 2^c. At its lower end the shaft 4^a carries a cross-arm 10, detachably secured to the said shaft by the screws 10^x, as shown. The said cross-arm 10 has elongated apertures 10^a 10^a to receive the mop-cloths 7, as shown in Figs. 1 and 2.

6 designates a long shaft, preferably square in cross-section, which passes loosely through the hollow shaft 4^a and hub 3^a of the bevel-gear 3, which hub 3^a has a central aperture to coöperate with said long shaft 6, whereby the shaft 6 and the gear 3 will turn together for a purpose presently to appear. The gear 3 is held in mesh with the gear 2^c within the casing 1^d. Connected to the upper end of the shaft 6 by screws 6^x or otherwise and adapted for longitudinal adjustment within the hollow handle 5 is a rod 8, preferably constructed of hardwood, and the said rod 8 serves as a continuation of the handle 5 when the parts are to be used as a mop, as shown in Fig. 1.

By reference to Fig. 4 it will be seen the rod 8 carries near its lower end a latch 8^x, mounted in the horizontal bore 8^a of the rod 8, and the said latch, which is normally forced to its operative or handle-engaging position by a coil-spring 8^b, is prevented from being pushed out over the bore 8^a by the cross-pin 8^c, which passes through the elongated aperture 8^d in the latch 8^x. The latch 8^x is so arranged that when the parts are in the position shown in Fig. 1 the said latch will engage the upper portion of the hollow handle

5 to prevent the downward movement of the rod 8, and consequently the shaft 6, when the mop is in its operative position. To prevent the latch 8^x engaging with the inner side of the hollow handle 5 when the mop-cloths are being wrung out, I provide the said handle with a reduced portion 5^x near its upper end and the rod 8 with a large and a reduced portion, the diameter of the lower end of the said rod 8 being the same as the diameter of the reduced upper portion of the handle 5, whereby the lower end of the said rod will snugly fit the upper end of the handle when the parts are in the position shown in Fig. 1. Detachably secured to the extreme lower end of the rod 6 by screws 6^x or otherwise is a second cross-arm 12 of the same construction as the cross-arm 10, and the said cross-arm 12 has elongated apertures 12^a 12^a to receive the mop-cloths 7.

So far as described the operation of my invention can be best explained as follows: When the parts are in the relative position shown in Fig. 1, the latch 8^x serves to retain them in such position, and the device may therefore be used as a mop with the same facility and ease as the ordinary mop, the operator grasping the rod portion 8. When it is desired to wring the mop-cloths 7, the operator grasps the hollow handle 5 and rod 8 and through the medium of the latter moves the endwise-movable shaft 6, so as to carry its cross-arm 12 into the position shown in Fig. 2. When this is done, the operator grasps the handle 5 in one hand and with the other hand turns the crank 2^a, when the endwise-movable shaft 6 and the hollow shaft 4^a will be turned in opposite directions to the mop when it is wrapped around the extended portions of the shaft 6 and thoroughly wrung free of water. During this operation the latch 8^x will rest in the comparatively large portion 5^y of the hollow handle 5, and hence will not interfere with the rotation of the shaft carrying the cross-arm. As soon as the wringing operation is completed, however, the parts may be restored to the position shown in Fig. 1 by simply placing the head 12 upon the floor and shoving the casing and hollow handle down on the shaft 6 until the head 10 is adjacent to the head 12 and the latch 8^x springs outward and assumes the position above the upper end of the hollow handle 5. In this latter position the latch will hold the shaft carrying the head 12 against casual endwise movement with respect to the casing 1, and shaft-section 4^a, hollow handle 5, and hence the mop, may be handled and used in the ordinary manner.

To turn the device into a mop-wringer, it is simply necessary that the operator press the latch 8^x inwardly and push down the rod 8 into the hollow handle.

From the foregoing description, taken in connection with the accompanying drawings, it is thought the complete operation and advantages of my invention will be readily apparent to those skilled in the art to which it appertains.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A combined mop and mop-wringer, comprising in combination; a two-part casing having pendent vertical bearing portions and integral lateral horizontal bearing portions, means mounted on the vertical and horizontal bearing portions for holding the two-part casing together, said casing also including short upwardly-extending bearing portions 1^g, a hollow handle extended upwardly from the part 1^g of the casing, a hollow shaft 4^a having a pinion 4 mounted within the lower end of the two-part casing, a slotted cross-arm connected to the lower end of the cross-shaft adapted to receive the mop-cloth, a gear 3 having a stub portion to fit within the parts 1^g of the casing, a shaft 6 upon which the gear 3 is mounted, said shaft extending through the hollow shaft 4^a, a slotted cross-arm secured to the lower end of the said shaft adapted to receive the mop-cloth and a drive-gear 2^c that meshes with the gears 3 and 4 mounted in the lateral extensions of the two-part casing and a supplemental handle attached to the upper end of the shaft 6 located within the hollow handle 5 and having portions projected above it, all being arranged substantially as shown and described.

2. In a combined mop and mop-wringer, the combination with a two-part casing 1, having vertical bearing portions 1^e and horizontal bearing portions 1^h, of rings *a a* adapted to pass over the vertical bearings 1^e and a ring adapted to pass over horizontal bearings 1^h to hold the casing-sections together said casing also including a short vertical portion 1^g, a hollow handle 5 having a portion 5^a to slip over the said casing portions 1^g to hold the casing together, said hollow handle tapering upwardly and terminating in the cylindrical portion 5^x, of a hollow shaft 4^a having a pinion 4 at one end disposed within the casing, and a cross-arm 10 detachably connected to the said shaft to receive the mop-cloth, a gear 3 having a stub-shaft 3^a adapted to fit within the casing and within the vertical extension 1^g of the casing, said gear having a longitudinally-disposed aperture, a shaft 6 passing through said gear 4 and its shaft 4^a and through the aperture in the gear 3 and adapted to coöperate with said gear 3, of a crank having a bearing-hub 2^a arranged within the bearing portion 1^h of the casing and carrying a pinion 2^c meshing with the pin-

ions 3 and 4, of a supplemental handle 8 attached at one end to the shaft 6, and tapering upward, a spring-catch mounted within the said supplemental handle near the juncture with the shaft 6, a cross-arm at the lower end of the shaft 6 adapted to receive the mop-cloth, all being arranged substantially as shown and described.

In testimony whereof I have hereunto set my hand in presence of subscribing witnesses.

CHARLES E. SHAW.

Witnesses:
L. L. WESTFALL,
M. H. NICKERSON,
N. M. WILEY.