No. 885,937. PATENTED APR. 28, 1908.

A. S. MATHERS.

MOP HEAD AND WRINGER.

APPLICATION FILED APR. 24, 1906.

Fig. 1.

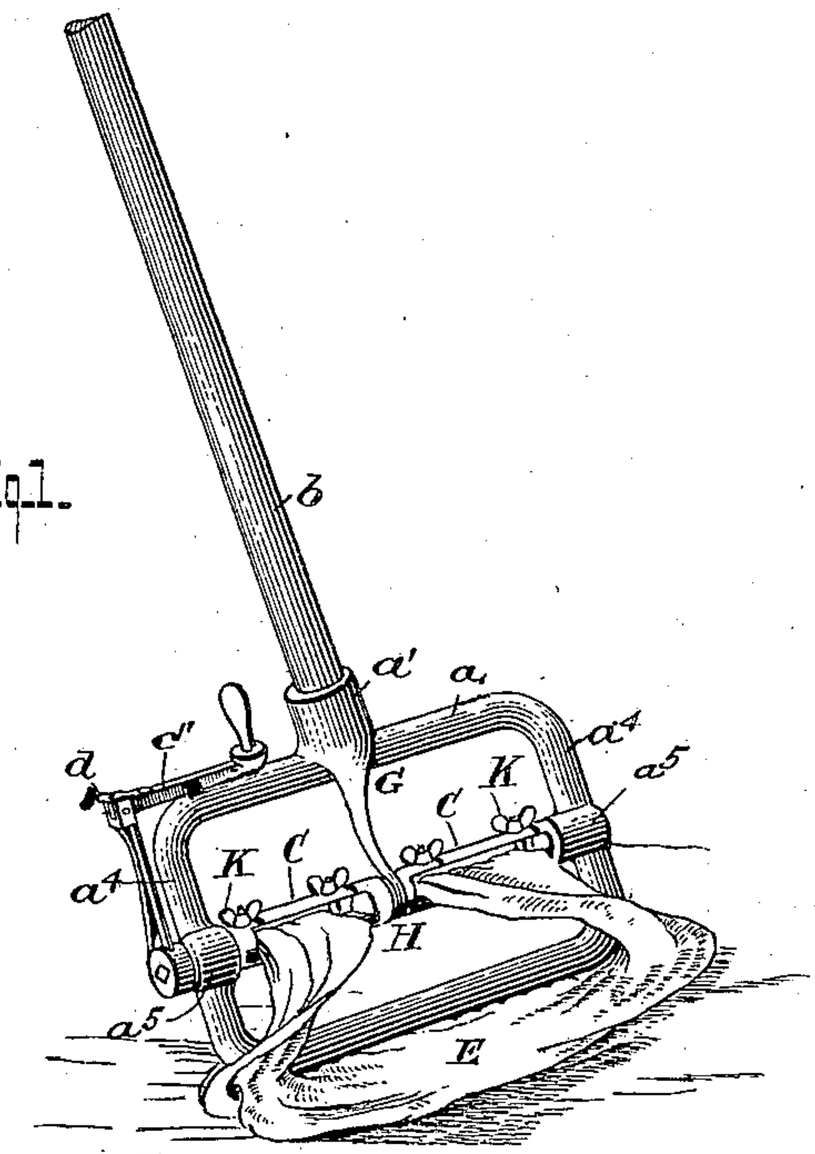


Fig. 2.

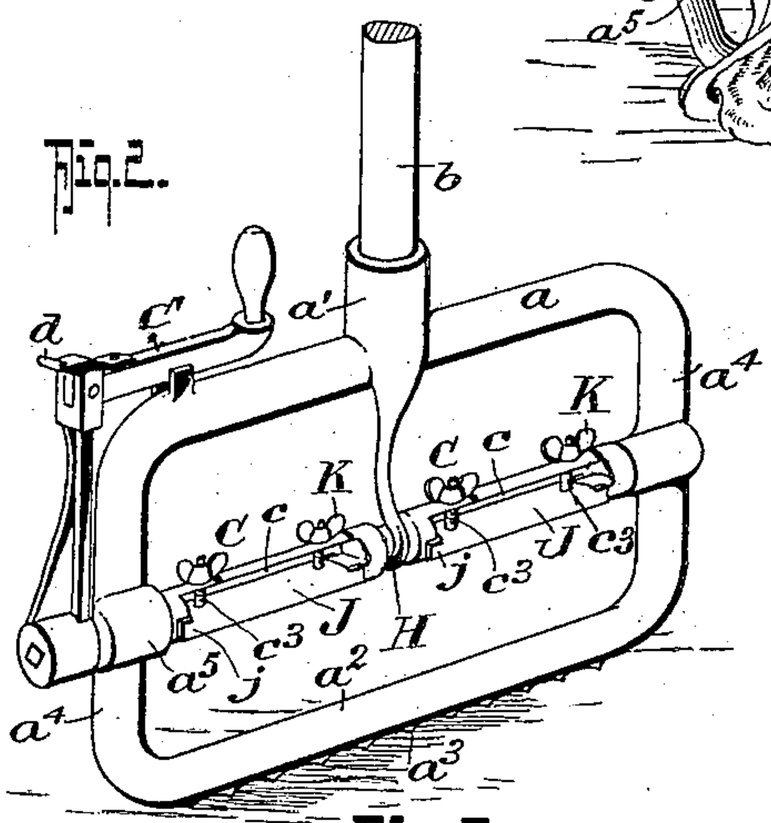


Fig. 3.

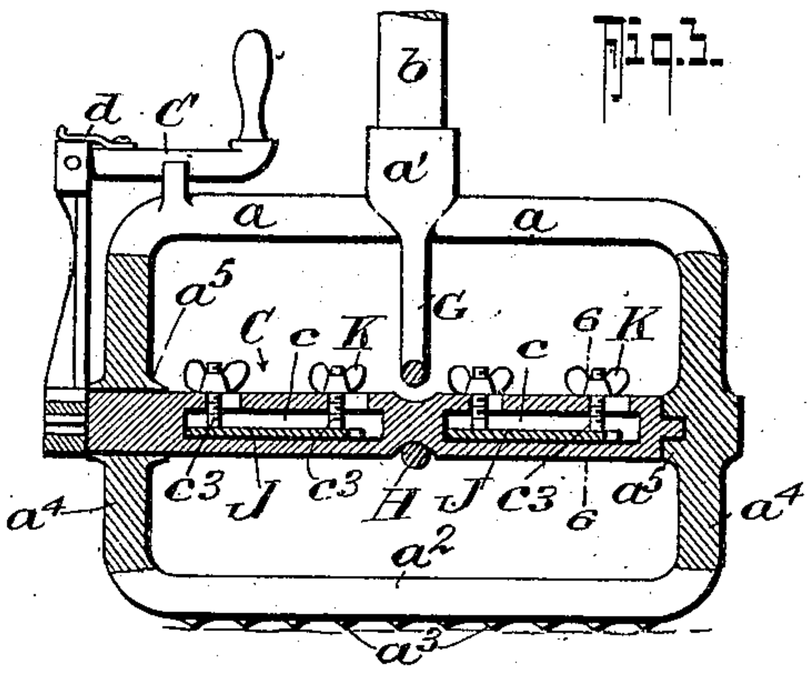


Fig. 4.

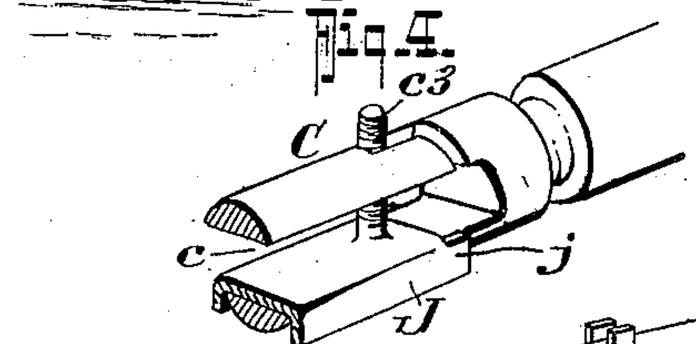
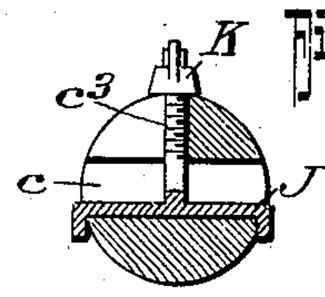


Fig. 5.

Fig. 6.



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ALEXANDER S. MATHERS, OF ARMINGTON, MONTANA.

MOP HEAD AND WRINGER.

No. 885,937. Specification of Letters Patent. Patented April 28, 1908.

Application filed April 24, 1906. Serial No. 313,515.

To all whom it may concern:

Be it known that I, ALEXANDER S. MATHERS, residing at Armington, in the county of Cascade and State of Montana, have invented a new and Improved Mop Head and Wringer, of which the following is a specification.

My present invention, which relates generally to improvements in mop heads and wringers having means for wringing the mop, more particularly refers to that form of mop heads or implements disclosed in my Patent No. 667985 dated Feb. 12, 1901 and it seeks to provide a simplified construction of the said mop head whereby the same can be economically and easily manufactured and in which the mopping cloth can be more easily connected to the head or removed therefrom, when desired, and the operation of wringing the said mopping cloth rendered more effective.

My present invention comprehends generally a rectangular frame having a roughened or serrated edge for gripping the cloth during the operation of mopping, having a handle socket on its upper side and having bearings in its opposite side for receiving the mop fastening and winding shaft, provided with means for conveniently securing the ends of the mop cloth thereto, a crank for rotating the said shaft and means that coöperate with the winding shaft for stretching the cloth whereby to draw the folds or layers thereof upon the shaft and progressively tighter during the operation of wringing.

In its more subordinate nature my invention consists in certain details of construction and combination of parts all of which will be hereinafter fully described, pointed out in the appended claims and illustrated in the accompanying drawings in which:

Figure 1, is a perspective view of my mop head and wringer the mop cloth being shown attached for the mopping action. Fig. 2, is a perspective view of the mop head and wringer with the cloth removed. Fig. 3, is a vertical, longitudinal section thereof, parts being in side elevation. Fig. 4, is a detail perspective view of a part of the mop holding shaft and the clamping devices hereinafter referred to. Fig. 5, is a perspective view which illustrates the manner in which the cloth is wrung, and Fig. 6, is a transverse section, taken substantially on the line 6—6 on Fig. 3.

In my present form of mop head and wringer, the same consists of a rectangular metal frame, the upper longitudinal member a of which has a central socket a' for receiving the handle b, the other longitudinal member a^2 having its lower edge roughened as at a^3 whereby to the better hold the mopping cloth during the operation of mopping, the said frame also including opposite cross members a^4—a^4 having enlarged central bosses a^5 that form a bearing for the cloth fastening and winding shaft C which in practice is slipped through one of the cross members a^4 and has its inner end journaled in the other cross member a^4 as will be clearly understood by reference to Fig. 3 of the drawings.

The shaft C is of substantially uniform diameter throughout its length, see Fig. 3, whereby it can be readily slipped through the apertured boss a^5 and held from endwise movement when necessary for use in a manner shown.

One end of the shaft C has a crank provided with a hinged handle portion C′ which when the mop is being used, folds back on to the head frame and is held to such position by the latch spring d secured to the crank handle portions and adapted to be adjusted over the hinged end of the handle portion, as clearly shown in Figs. 1 and 2, the said spring d being so connected and formed that it can be readily adjusted laterally out of alinement with the main crank member so as to allow for extending the crank to bring the crank members in position for readily turning the shaft, as will be clearly understood by referring to Fig. 5.

Each of the opposite ends of the shaft has a longitudinal slot c for the passage of the opposite ends of the mop cloth E and the slots c—c are disposed one upon each side of a hold back or stop tongue G which may be attached in any suitable manner to the socket a' but is preferably an integral part of the said socket or hub a', as shown in Figs. 2, 3 and 4 by reference to which it will be noticed that the tongue G has its free end held to engage with a central groove portion of the shaft C whereby to divide the said shaft in two sections, the said tongue G engaging an annular groove in the shaft C in such manner that it will hold the shaft from longitudinal displacement. The hub a' merges with a downwardly extending finger or tongue G that terminates in a hook H to coöperate with the reduced central portion of the shaft

C to aid in holding the shaft in its bearings and from endwise movement.

In fitting the mop cloth to the head frame, the two ends of the cloth are pulled through the slots *c*—*c* and they are securely fastened in the said slots.

To provide for quickly and effectively clamping the cloth and for providing means for holding the shaft C in its bearings, I form each slot with a channeled clamping member J—J, each being the full length of the slots *c*—*c* and which has tongue like portions *j*—*j* that straddle the shaft ends.

The tongue-like portions *j*—*j* which are adjacent the boss a^5 on the crank side of the frame serve to prevent the shaft from having sufficient longitudinal displacement to unseat it from its bearings. This function is also performed by the tongue G which engages the annular groove C. It should also be stated, that in practice, the bayonet slots in the shaft C have their outlet portions of sufficient width in practice to allow of the free withdrawal of the spindles c^3.

Near each end the plates J have threaded spindles c^3 that pass up through bayonet slots in the shaft C as clearly shown in Fig. 4, and their ends are projected to receive thumb screws K—K.

By reason of providing clamping members constructed as shown and combining them with the peculiar form of winding shaft as shown, I provide for positively clamping the mopping ends their entire width, since in passing them through the slots they fit above the plates J, and each plate can be turned up to tightly clamp the mop end by adjusting the nuts K—K.

Another and important advantage in making the clamping members as described is that the several parts of the mop head can be readily assembled or taken apart by any one, and the shaft C can be run conveniently since no special fitting of the same is needed, and furthermore the cloth can be quickly detached from the head when required to put in a new one by simply fastening the said screws K—K. Again, by reason of the correlative arrangement of the shaft C, the mop head and the cloth E, it follows that to wring out the cloth it is only necessary to wind the handle end of the clamping member in position to provide for turning the crank which will cause the mop ends to swing over the shaft C and by reason of the loop of the mop cloth engaging the tongue G, it follows that the cloth as it swings upon the shaft, will be progressively tightened and the wringing action thereby rendered very effective, quick and accomplished without handling of the mop cloth and wetting the hands.

Having thus described my invention, what I claim is:—

1. A floor mop comprising a rectangular frame, a crank shaft removably mounted thereon, a means at each end of the shaft for fastening the ends of a mop cloth thereto and a member on the frame that projects on the shaft centrally thereof.

2. A floor mop, comprising a rectangular frame, a shaft removably journaled in the side members thereof, a crank handle for the shaft, an adjustable means at each end of the shaft located within the side bars of the frame for securing the ends of the mop cloth, one of said means forming a lock for holding the shaft in its bearings and a member on the frame that projects down over the shaft centrally thereof, for the purposes described.

3. The combination with the rectangular handle carrying frame, having a centrally disposed inwardly projecting tongue; said frame having a bearing aperture in each of its opposite side portions; of a shaft slidable into the said bearings, a crank member on one end of the shaft, said shaft being disposed closely to the projecting tongue of the frame, and means for holding the shaft while in its bearings from longitudinal displacement.

4. The combination with the rectangular frame. a crank shaft journaled in the opening thereof, said shaft having a pair of separated slots, a rigid member on the frame that projects down over the shaft between its slots and a means on the shaft for fastening the ends of the mop cloth in the shaft slots.

5. The combination with the rectangular frame having a tongue projected inwardly of the opening therein, and having apertured opposing bosses in its side portions; of a shaft removably journaled in said bosses, having a crank handle, said shaft having a pair of separated elongated slots, an adjustable channeled clamp member mounted in each slot, and means for adjusting said members, one of said channeled members having extensions arranged to extend closely to one of the apertured bosses of the frame, all being arranged substantially as shown and for the purposes specified.

ALEXANDER S. MATHERS.

Witnesses:
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