

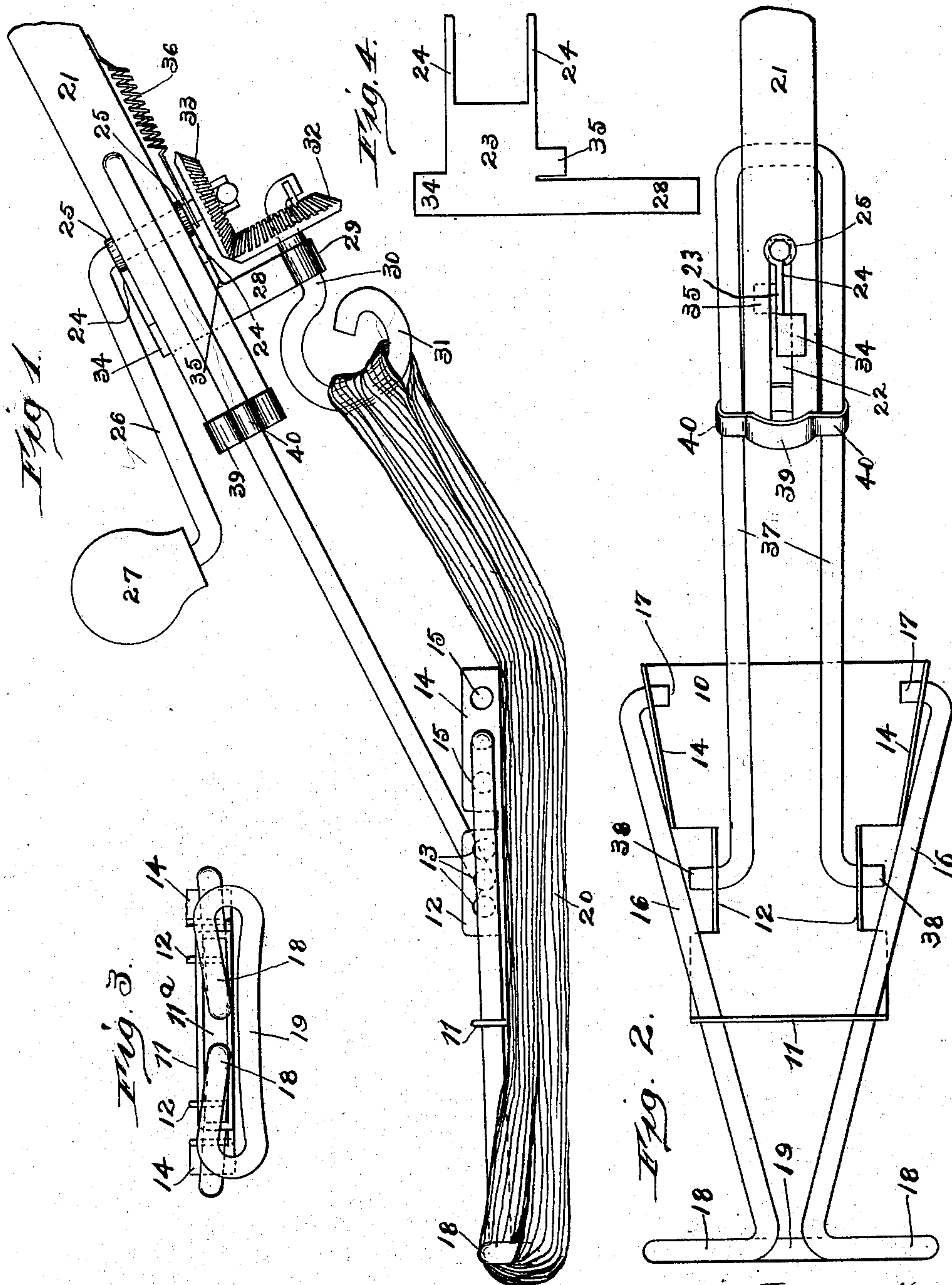
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E. HILKER.  
COMBINED MOP AND WRINGER.

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NO MODEL.



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# UNITED STATES PATENT OFFICE.

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## COMBINED MOP AND WRINGER.

SPECIFICATION forming part of Letters Patent No. 752,679, dated February 23, 1904.

Application filed September 8, 1903. Serial No. 172,202. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD HILKER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Combined Mop and Wringer, of which the following is a specification.

This invention relates to improvements in a device to be used for mopping, wiping, and scouring floors and other surfaces and then wringing the mop or cloth, so as to extract the water therefrom; and the principal objects thereof are to so construct and arrange its various parts that the mop or cloth will be held substantially taut at all times and, further, to enable the mop or cloth to be wrung or twisted throughout its entire length.

A further object of the invention is to simplify and lessen the cost of the construction, as well as to adjustably connect certain parts of the device so that it may be adapted to the use of cloths or mops of different lengths.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

Referring to the accompanying drawings, Figure 1 is a view in side elevation of a mop and wringer embodying my present invention and showing the parts in position to be used for wiping or mopping the floor or other surface. Fig. 2 is a plan view thereof with the mop or cloth and wringing mechanism removed. Fig. 3 is a front end view of the adjustable mop-holder, and Fig. 4 is a side view of a blank from which the wringer-body is formed.

Like numerals of reference refer to corresponding parts throughout the different views of the drawings.

The mop holder or head comprises a plate 10, which may be of any suitable size, form, and material, but preferably of metal and of the shape shown in Fig. 2 of the drawings. This plate is formed or provided at one of its ends, which I will designate as the "front" end, with an upturned portion or flange 11, having an opening or slot 11<sup>a</sup> to receive the members of the mop-holder extension, as will be presently explained. Each side edge of the plate

10 is formed or provided at about its middle portion with an upturned flange 12, each of which is provided with a series of openings 13 to receive the lower ends of the handle extension. At the rear of the flanges 12 each edge of the plate 10 is provided with an upturned flange 14, which has a series of openings 15 to receive the rear ends of the mop-holder extension, which comprises a piece of wire bent to form two members 16, and the transverse and broken loop at its front end. By reference to Figs. 2 and 3 of the drawings it will be seen and readily understood that the members 16 are bent at their rear ends to form projections 17 to fit in the openings 15 of the flanges 14 of the plate 10 and are approximated at their front portions and are then each bent laterally to form the arms 18 and the transverse portion 19, which arms and portion comprise the broken loop. As will be observed, the adjacent ends of the arms are a slight distance apart and the transverse portion 19 is bent upwardly, so as to force and hold a portion of the mop or cloth 20 between said arms, thus preventing the cloth slipping to either end of the loop.

The lower end of the handle 21 is provided with a longitudinal slot 22 for the reception and operation of the wringer body or support, which consists of a main piece 23, having at its upper and lower edges longitudinally-extending arms or projections 24, each of which is provided at its free end with an eye or bearing 25 for the crank-shaft 26, which is journaled therein and has on one of its arms a knob or handle used for turning the same. The main piece or plate 23 of the wringer body or support is also provided at its front portion with a projection 28, which is formed or provided at its free end with an eye or bearing 29, in which another shaft, 30, is journaled. This shaft is provided at one of its ends with a hook 31 and has on its other end a beveled gear 32, to mesh with a similar gear 33 on the crank-shaft. The main plate or piece 23 of the wringer-support is also provided at its upper and lower edges with projections 34 and 35, which are bent laterally in opposite directions, so that when the body 23



is located in the slot 22 of the handle one of said projections will rest on the top of the handle, while the other will rest on its bottom, thus retaining the wringer body or support in position, yet allowing it free longitudinal movement. Connected at one of its ends to the handle and at its other end to the crank-shaft 26 is a spring 36, which serves to retract the wringer body or support, so as to hold the mop or cloth 20 substantially taut at all times. Passing transversely through an opening in the handle above the slot 22 therein is a handle extension, which comprises a piece of wire bent to form two members 37, the free ends of which are provided with projections 38 to fit in the openings 13 of the flanges 12 on the plate 10 of the mop-holder.

Fitted around the lower end of the handle 21 is a ferrule 39, which is provided on each of its sides with an internally-open extension 40 to receive the members 37 of the handle extension. This ferrule serves the double purpose of firmly holding the handle extension and also preventing accidental dislocation of the wringer body or support.

By contracting or approximating the front portions of the members 16 of the mop-holder extension and constructing the transverse loop as shown and above set forth it is obvious that by turning the crank-shaft 26 the mop or cloth 20 will be twisted or operated on throughout its entire length in such a manner as to extract the water therefrom. It is also evident that as the wringer-body has a longitudinal movement on the handle and is spring-actuated the mop or cloth will be at all times held substantially taut. By providing the flanges 12 and 14 of the plate 10 with a series of openings I am enabled to adjust the parts to accommodate cloths or mops of different lengths.

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

1. The combination with a mop-holder, of a handle pivotally united thereto and having a longitudinal slot, a wringer-body located in said slot, a wringing device on said body, a spring secured at one of its ends to the handle and connected at its other end to the wringer, and a mop or cloth connected at one of its ends to the wringing device and at its other end to the holder.

2. The combination with a mop-holder, comprising a plate and a mop-holder extension adjustably connected to said plate, said extension having at its front end a transverse loop, of a handle extension pivotally secured to the plate, a handle connected to the upper end of said extension and having in its lower portion a longitudinal slot, a wringer-body located in said slot, a wringing device on said body, and a mop or cloth connected at one of its ends to

the wringing device and at its other end to the loop of the holder.

3. The combination with a mop-holder comprising a plate having at its front end a slotted flange and at each of its side edges a flange provided with a series of openings, and a mop-holder extension having two members located in said slot and engaging the side flanges and provided with a transverse loop at its front portion, of a handle extension pivotally secured to the plate, a handle connected to the upper end of the handle extension and having in its lower portion a longitudinal slot, a wringer-body located in said slot, a wringing device on said body, and a mop or cloth connected at one of its ends to the wringing device and at its other end to the holder.

4. The combination with a mop-holder, of a handle extension pivotally secured thereto, a handle connected to the upper end of said extension and having in its lower portion a longitudinal slot, a ferrule secured on the lower end of the handle and embracing the handle extension, a wringer-body movably located in said slot, a wringing device on said body, a spring secured at one of its ends to the wringing device and at its other end to the handle, and a mop or cloth connected at one of its ends to the wringing device and at its other end to the holder.

5. The combination with a mop-holder, of a handle extension pivotally secured thereto, a handle connected to the upper end of said extension and having in its lower portion a longitudinal slot, a ferrule secured on the lower end of the handle and embracing the handle extension, a wringer-body movable longitudinally in said slot and having on its upper and lower edges lateral extensions, a wringing device on said body, a spring secured at one of its ends to the wringing device and at its other end to the handle, and a mop or cloth connected at one of its ends to the wringing device and at its other end to the holder.

6. A mop-holder comprising a plate having at one of its ends a slotted flange and at each of its side edges apertured flanges, and a mop-holder extension comprising two members located in said slot and engaging the side flanges of the plate and having at its front portion a transverse loop.

7. A wringer body or support comprising a main piece having longitudinal projections provided with eyes and another projection provided with an eye and located at a right angle to the first-named projections, said main piece also having oppositely-extending lateral projections on its upper and lower edges.

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