

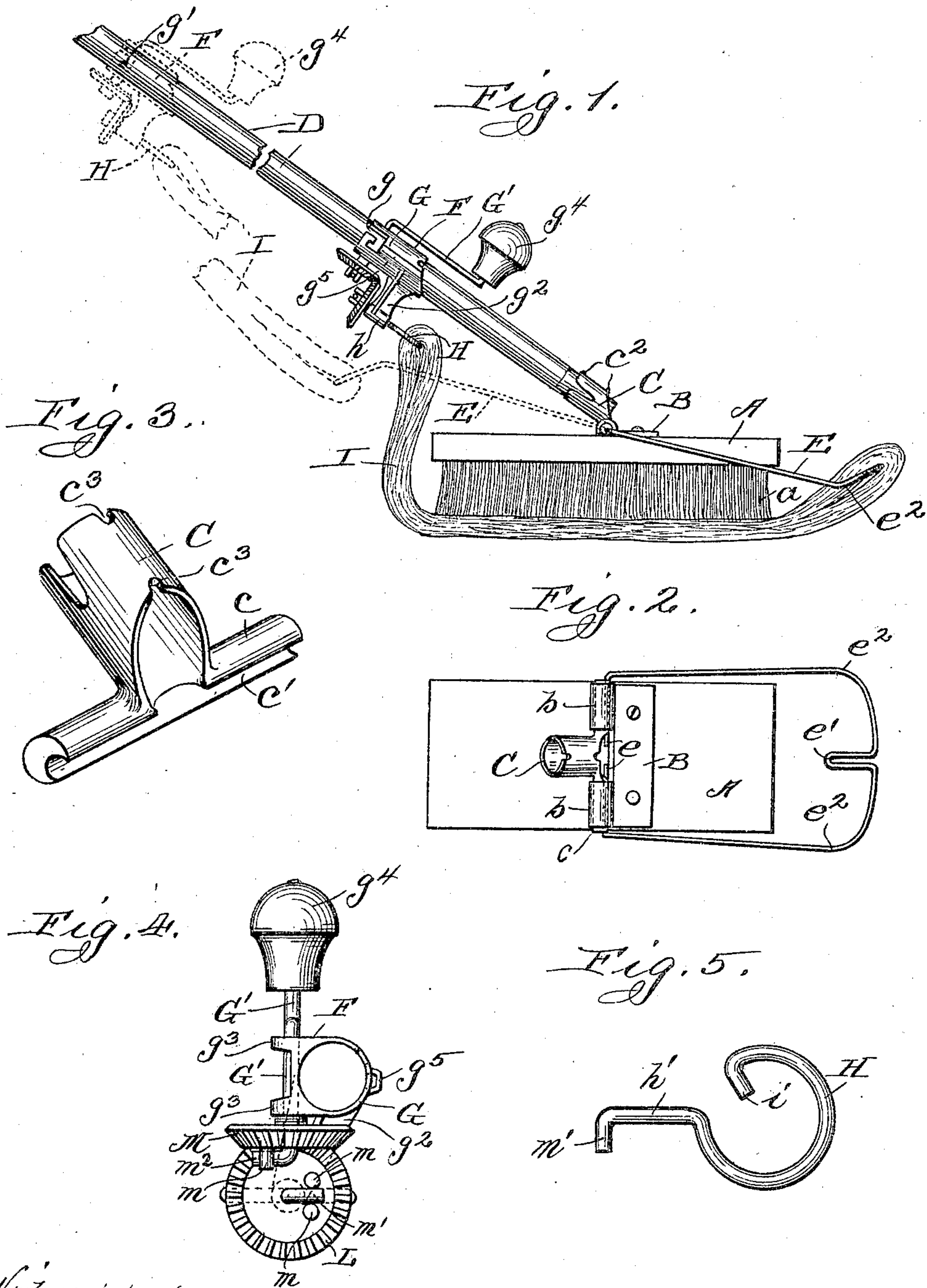
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E. HILKER.
COMBINED MOP AND BRUSH.

(Application filed Jan. 9, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

EDWARD HILKER, OF CHICAGO, ILLINOIS.

COMBINED MOP AND BRUSH.

SPECIFICATION forming part of Letters Patent No. 682,195, dated September 10, 1901.

Application filed January 9, 1901. Serial No. 42,592. (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 Brush, of which the following is a specification.

This invention relates to improvements in a combination mop and brush; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

One object of my invention is to provide a combined mop and scrub-brush which shall be simple and inexpensive in construction, strong, durable, and effective in operation, and which shall be so constructed that the mop-cloth may be twisted or wrung so as to extract the water therefrom without soiling the hands of the operator.

Another object is to so construct the device that a mop-cloth made in the form of a hank or loop may be attached to and removed from the holders therefor without cutting the cloth.

Another object is to retain the cloth when it is being used as a mop directly under the brush and so as to prevent it slipping to one side thereof.

Another object is to provide means for twisting or wringing the mop-cloth by the use of either hand of the operator.

Still another object is to so construct the device that the brush only may be used for scrubbing or the brush and mop-cloth both may be employed at the same time.

A further object is to so hold the mop or cloth that when it is being wrung the water may be caught in a vessel or bucket, while the brush will remain on the outside thereof.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a view in side elevation of a combined mop and brush embodying my invention and illustrating by continuous lines the position of the parts when the mop and brush are both being used and showing by dotted lines the position of the parts when

the mop is in position to be wrung or the brush only is to be used. Fig. 2 is a plan view of the brush and bail or holder for one end of the mop-cloth, showing the socket-piece for the handle. Fig. 3 is a detached perspective view of the socket-piece for the handle. Fig. 4 is a view in end elevation of the sleeve and gearing used for adjusting the mop-cloth and for wringing the same, and Fig. 5 is a detached view of a hook or holder for one end of the mop-cloth.

Similar letters refer to like parts throughout the different views of the drawings.

A represents a brush-block, of the ordinary or any preferred construction, which is provided, as usual, on its lower surface with bristles *a*, formed of any suitable material. Secured transversely on the upper surface of the block A and about its middle is a plate B, which is provided with circular flanges *b* to form bearings for the transverse arm *c* of the socket-piece C for the handle or staff D, which is employed for moving the mop and brush back and forth. The arm *c* is provided with a longitudinal groove *c'* for the reception and operation of the inturned ends *e* of the bail E, which is preferably formed of wire and of substantially the shape shown in Fig. 2 of the drawings—that is to say, the sides of the bail are substantially parallel with one another and sufficiently far enough apart to permit the block A of the brush to pass therebetween. The free end of the bail is provided with an inwardly-bent portion *e'*, which is slightly downwardly inclined. The sides of the bail are formed near their free ends with elbows *e''* for the purpose to be presently explained. The inturned ends *e* of the bail are bent so as to be substantially at right angles to the sides, and when the bail is in position on the block said ends are located in the groove *c'* of the arm *c* of the socket-piece C for the handle. The bail may be detached from the brush by springing the ends *e* apart, so as to remove them from the groove *c'* in the socket-piece arm. The handle D may be held in position within the socket-piece C by means of small nails *c''*, driven in the handle and located in the notches *c'''* therefor in the upper portion of the socket-piece.

Movably located on the handle is a sleeve

or casting F, which comprises a cylindrical portion G, which surrounds the handle and has in its upper portion a slot g to receive and engage a pin or projection g' on the handle. As is clearly shown in the drawings, the slot g extends longitudinally in the cylindrical part G and then transversely and terminates in a recess, so that the pin g' may readily enter the slot, when by turning the sleeve or casting F it will fit in the recess thereof and hold said sleeve in its raised position, as shown by dotted lines in Fig. 1 of the drawings.

Extending from the cylindrical portion G is a bracket g^2 , which has on its free portion a cylindrical part h , in which is journaled the shaft h' of the hook or holder H, used for one end of the mop-cloth I, which is preferably made in the form of a hank or loop. Near its upper end the cylindrical portion G of the sleeve F is provided on one of its sides with two lugs g^3 , through suitable openings in which is passed the crank-shaft G' , which is provided at its end with a handle or knob g^4 to be used for operating the gear employed for twisting the mop-cloth.

Fixed on the upper end of the shaft h' of the hook or holder H is a beveled gear L, which meshes with a similarly-shaped gear M, which is fixed on the end of the crank-shaft G' , as is clearly shown in Fig. 4 of the drawings. Each of these gears is provided on its outer surface, near the central opening therein, with lugs m , which are located a slight distance apart, so as to receive therebetween the bent portions m' m^2 of the shafts h' and G' , respectively, thus affording a convenient means for fixing said gears on said shafts. The cylindrical portion G of the sleeve is provided with a longitudinal groove g^5 on its inner surface to allow said sleeve to pass over the pin g' when it is desired to remove the sleeve from the handle.

While I have shown the gears L and M provided with lugs m to receive the bent ends on the shafts h' and G' and have found this construction to be a convenient one for fixing the gears on the shafts, yet I do not desire to be limited to said means, as I may secure them on the shafts in any other suitable manner without departing from the spirit of my invention. Neither do I desire to be limited to the specific manner shown of pivoting the bail E to the body A, as it is apparent that it may be done in various ways. The bail E, as before stated, is provided near its free ends with bends or elbows e^2 , which are for the purpose of receiving the rim of the bucket or vessel employed to catch the water wrung from the mop-cloth when in the position shown by broken lines in Fig. 1 of the drawings, and when the loop is being used in conjunction with the brush to wipe or scrub the floor the elbows formed by said bends will rest on the floor or mop, and thus prevent the latter slipping under the brush in the operation of scrubbing or wiping. The loop or

bend e' on the free portion of the bail may be inserted through the mop-cloth, which will prevent the same slipping to one of the sides of the bail, as is apparent. As is clearly shown in the drawings, the mop-cloth I is connected at one of its ends to the free end of the bail E and at its other end to the hook or holder H, the inturned portion i of which will prevent said end being accidentally disengaged therefrom. By turning the crank, which, as shown in Fig. 1 of the drawings, is located above the upper surface of the handle D, so that it can be used with either hand of the operator, it is evident that the mop-cloth will be twisted or wrung so as to extract the water therefrom.

To use the mop for wiping or scrubbing, it is only necessary to slightly raise the sleeve F until the pin g' is freed from the recess in the slot g , when by turning the sleeve F in the proper direction the pin will pass out of the slot and allow the sleeve to slide down on the handle, in which operation the bail E may be swung in front on the brush, carrying with it the mop or cloth, the main portion of which will lie under the brush, as shown in Fig. 1 of the drawings. As the brush is moved back and forth the elbows e^2 will rest on the floor or mop and will prevent the cloth or mop sliding from under the brush. It is obvious that instead of using a complete brush I may use a block without bristles, of any suitable material and form, to which the handle and bail may be secured.

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

1. The combination of a block, with a handle secured thereto, a bail pivotally secured on the block, a sleeve movably located on the handle and having means to fix it thereto, a rod or shaft journaled on said sleeve, a mop secured at one of its ends to said rod or shaft and at its other end to the said bail, and means to rotate the shaft, substantially as described.

2. The combination with a block, of a handle pivotally connected thereto, a bail substantially U-shaped and pivotally secured at its ends on the block and provided near its free end with elbows, a sleeve movably secured on the handle and having means to fix it thereto, a shaft journaled on said sleeve, a mop secured at one of its ends to said shaft, and at its other end to the bail, and means to rotate the shaft, substantially as described.

3. The combination with a block, of a plate secured on its upper surface and having curved flanges extending crosswise the body, a socket-piece having a transverse arm located in the curved flanges of the said plate, a handle secured in the socket-piece, a bail having its bearings in the said flanges and provided in its free end between its sides with an inwardly-bent portion, a sleeve movably secured on the handle and having means to fix it thereto, a shaft journaled on said sleeve, a mop connected at one of its ends to said

shaft and at its other end to the bail, and means to rotate the said shaft, substantially as described.

4. The combination with a block, of a plate
5 secured on its upper surface and having curved flanges extending crosswise the body, a socket-piece having a transverse arm provided with a longitudinal groove and located in the curved flanges of the said plate, a handle
10 secured in the socket-piece, a bail having its ends bent inwardly and located in the groove of the arm and in said flanges, a sleeve

movably secured on the handle and having means to fix it thereto, a shaft journaled on said sleeve, a beveled gear on said shaft, a
15 mop connected at one of its ends to said shaft and at its other end to the bail, a crank-shaft journaled on the sleeve at right angles to the first-named shaft, and a beveled gear on the crank-shaft, substantially as described.

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