J. J. SHICKLUNA.

POLISHING MOP.

APPLICATION FILED MAR. 3, 1919.

1,428,263. Patented Sept. 5, 1922.

2 SHEETS—SHEET 1.

Fig. 1.

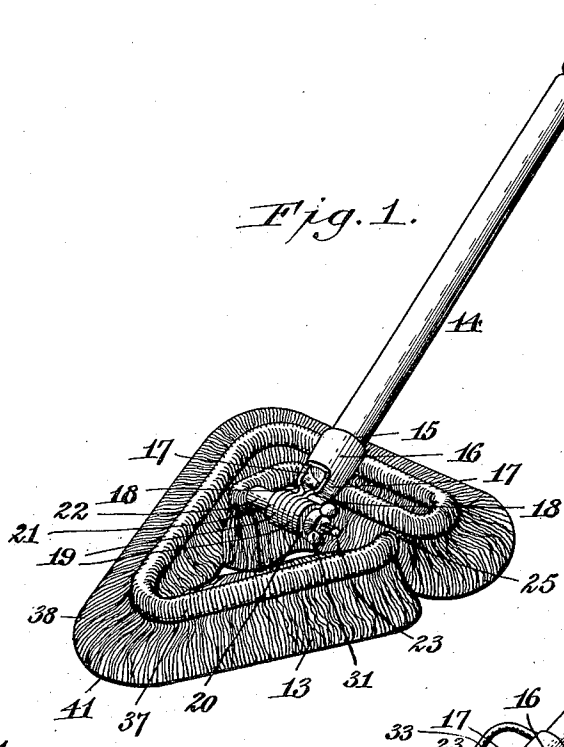


Fig. 2.

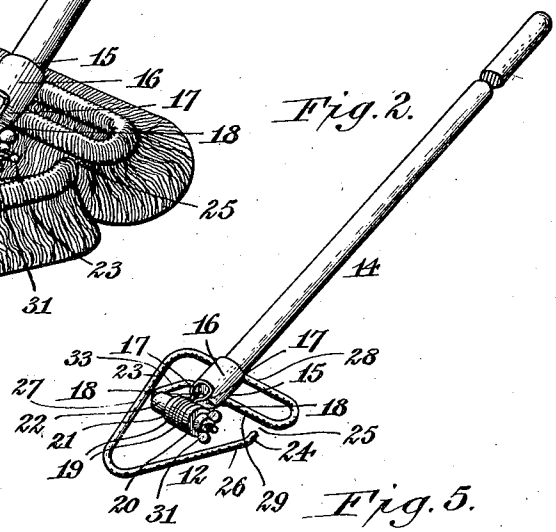


Fig. 3.

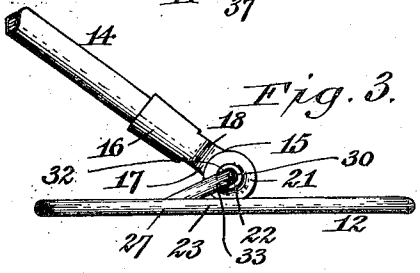


Fig. 5.

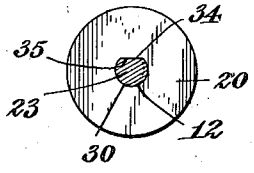


Fig. 4.

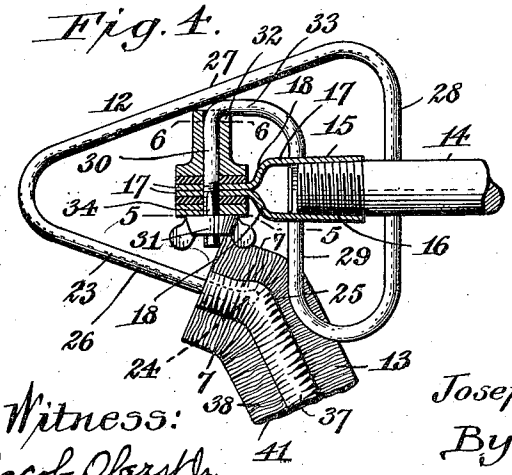
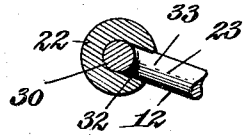


Fig. 6.



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2 SHEETS—SHEET 2.

Fig. 7.

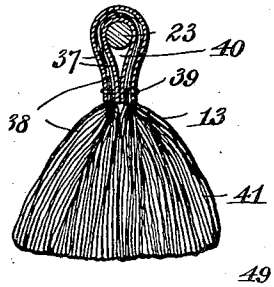


Fig. 8.

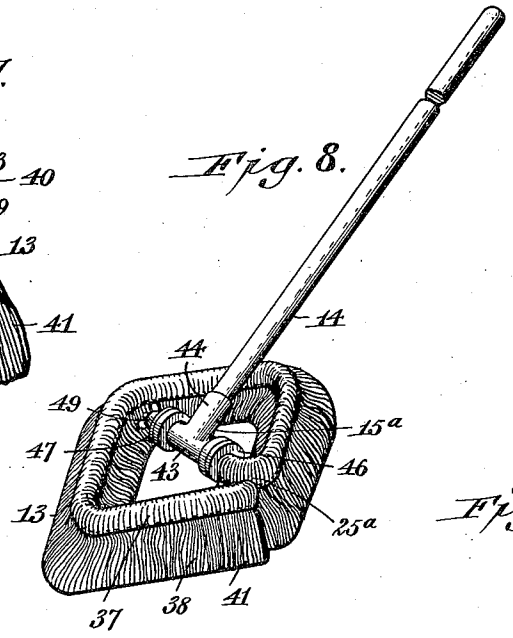


Fig. 9.

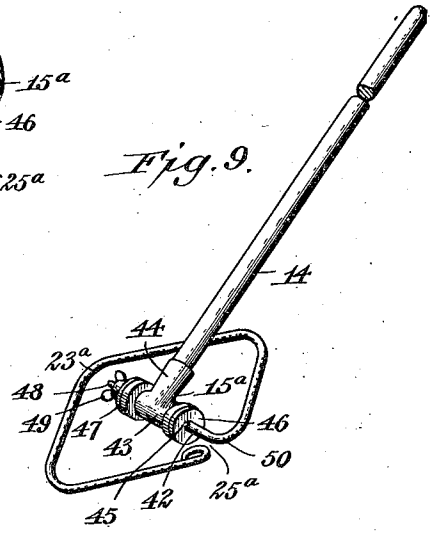


Fig. 10.

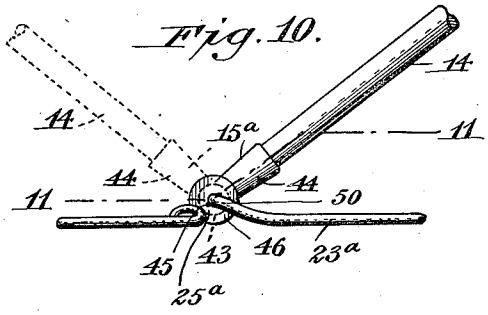
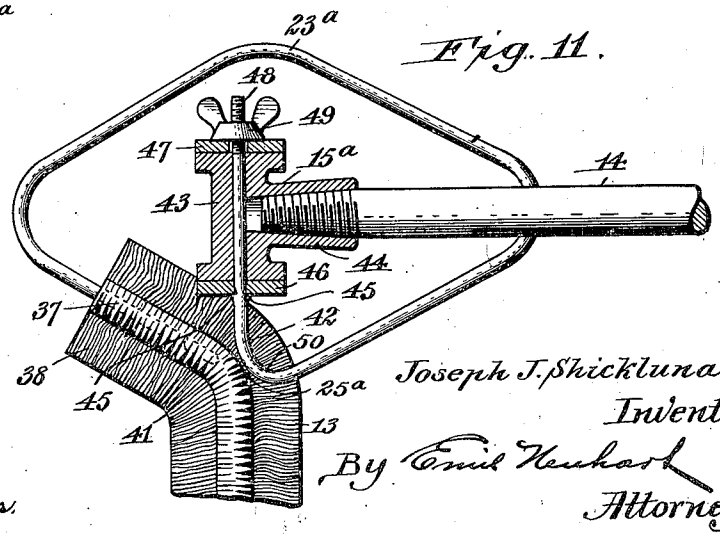


Fig. 11.



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Patented Sept. 5, 1922. 1,428,263

UNITED STATES PATENT OFFICE.

JOSEPH J. SHICKLUNA, OF BUFFALO, NEW YORK, ASSIGNOR TO BUFFALO SPECIALTY COMPANY, OF BUFFALO, NEW YORK, A CORPORATION OF NEW YORK.

POLISHING MOP.

Application filed March 3, 1919. Serial No. 280,266.

To all whom it may concern:

Be it known that I, JOSEPH J. SHICKLUNA, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Polishing Mops, of which the following is a specification.

My invention relates to a polishing mop or similar article of manufacture.

One of the objects of my invention is the provision of an improved mop of this kind embodying a substantially rigid member constructed to enable a flexible mopping element to be quickly applied thereto without resorting to the use of clamping means, and to be as readily removed therefrom for the purpose of washing or otherwise cleaning said mopping element.

Another object of my invention is the provision of a mop receiving frame or head having a slender member formed or fashioned with parts arranged to trend in different directions, said member being supported at one end by a suitable handle or a suitable fitting at one end of a handle and having its other end free to provide a slip opening at one point of the frame or head so as to permit a flexible mopping element to be slipped onto said slender member from one end and entirely cover said member.

Another object is the provision of an open or skeleton mop receiving frame or head for supporting a flexible mopping element, said frame or head having a manipulating handle secured thereto in a plane above its major portion and having also a flexible mopping element applied thereto.

A further object of my invention is the provision of a mop having an open or skeleton mop receiving frame or head formed or fashioned to provide an outlining or peripheral portion surrounding an open space and a filler portion extending transversely across said space, said outlining portion and filler portion having a flexible mopping element secured thereto.

Another object is the provision of a mop having a polygonally-shaped mop head with a slip opening at a point between two angles of said head.

Still further objects are to provide a mop of this kind which is simple in construction, inexpensive, thoroughly practicable, and which permits the attachment of a mopping element thereon, or the removal therefrom, with the greatest facility.

With these and other objects in view the invention consists in a mop having a handle and a mop receiving frame or head connected to said handle and formed of a slender member bent, cast or otherwise formed into loop shape, said slender member being preferably fashioned to provide a confining or outlining portion bounding an open space and a filler portion arranged within said space, and a flexible mopping element having a tubular portion substantially co-extensive with said slender member and having the latter threaded through the tubular portion of said flexible element.

It also consists in a mop receiving frame or head having a slender member formed or fashioned to provide parts trending in different directions, and a flexible mopping element having a tubular portion from end to end thereof, which tubular portion is adapted to be slipped onto said slender member from one end thereof so that said tubular portion may entirely cover said slender member.

It further consists in the novel features of construction, and in the arrangement and combination of parts to be hereinafter described and more particularly pointed out in the subjoined claims.

In the drawings:—

Fig. 1 is a perspective view of a polishing mop representative of my invention, the arrangement shown being what I now consider the preferred form of my invention and being one of the many different constructive forms falling within the scope of the principle involved.

Fig. 2 is a similar view with the flexible mopping element removed therefrom.

Fig. 3 is a side elevation of the lower end of the mop with the flexible mopping element removed therefrom.

Fig. 4 is a sectional plan view of the lower end of the mop, the section being taken through the connection between the mop head and the handle of the mop, this section illustrating the manner in which the frame or head of the mop is threaded onto the flexible mopping element from one end thereof or, as it may be stated, the manner in which the flexible mopping element is

slipped onto the slender member forming the mop receiving frame or head.

Fig. 5 is an enlarged section taken on line 5—5, Fig. 4.

Fig. 6 is an enlarged section taken on line 6—6, Fig. 4.

Fig. 7 is an enlarged section taken on line 7—7, Fig. 4.

Fig. 8 is a perspective view of a polishing mop illustrating this invention in modified form.

Fig. 9 is a perspective view of the mop illustrated in Fig. 8, with the flexible mopping element removed therefrom.

Fig. 10 is a side elevation of the lower end of the mop shown in Fig. 8, with the flexible mopping element removed therefrom.

Fig. 11 is an enlarged sectional view taken on line 11—11, Fig. 10, with the lower portion of the handle thereof shown in elevation and with a portion of the mopping element in connection therewith, one end of the mopping element being slipped onto the mop-receiving frame or head or, as it may well be termed, the wire of said frame or head being threaded into the tubular portion of the flexible mopping member at one end thereof.

Having reference to the drawings in detail, the numeral 12 designates the mop receiving frame or head considered as a whole, 13 the flexible mopping or brushing element applied to said frame or head, and 14 a handle which is of the usual length for conveniently manipulating the mop. It is of course apparent that an entirely different form of handle may be used if desired.

The mop receiving frame or head has a suitable fitting or connection cast, forged or otherwise formed by means of which the handle is secured thereto and, in the preferred form shown in Figs. 1 to 7 inclusive, this fitting or connection, designated by the numeral 15, is formed of sheet metal fashioned to provide a handle-receiving thimble or sleeve 16 and two arms or extensions 17 projecting from the lower end of said thimble or sleeve and being offset, as at 18 to bring the extremities of said arms or extensions close together, said extremities being preferably of circular formation, as clearly shown in Figs. 1 and 2. This fitting or connection comprises a plurality of parts including two friction disks 19 which I peferably construct of fiber or other similar material and which are arranged at opposite sides of the circular lower extremity of said fitting or connection with a washer 20 lying against the outer face of one of said friction disks and a washer 21 lying against the outer face of the other friction disk and having a sleeve extension 22 formed thereon.

The handle 14 is threaded or otherwise secured in the thimble or sleeve 16 of the fitting or connection 15, and the mop receiving frame or head 12 is adapted to be secured to said fitting, as will presently be described.

The frame or head 12 is in the form of an open or skeleton frame or what may be termed a loop-shaped frame, and comprises a slender member 23 formed or fashioned into any suitable shape which will provide parts that trend in different directions, one end or terminal of said slender member being secured to the fitting or connection 15 and the other end or terminal being preferably free, as at 24, and spaced from an adjacent or intermediate portion of said slender member so as to provide a slip opening 25, at the periphery of the frame for a purpose to appear hereinafter. By "an intermediate portion" I mean any part or portion of the slender member or frame between the ends thereof.

In the preferred form embodying the principles involved in a mop receiving frame or head of this type, the slender member of the frame or head is constructed of stiff wire bent or otherwise fashioned into substantially triangular form to provide the three bounding or confining parts 26, 27, 28, said wire being bent inwardly from one of these parts to provide a cross or filler part 29, which extends transversely within the space bounded by said bounding or confining parts, the end of the wire within said space being re-bent, as at 30, to form a pivot portion on which the handle 14 may swing, the washer 21 with its sleeve extension, the friction disks 19, the circular extremity of the fitting 15, and the washer 20 being all mounted on said pivot portion and said pivot portion being provided with external screw threads and having a wing nut 31 threaded thereon.

The outer end of the sleeve extension 22 of the washer 21 is provided with a notch 32 into which the bight 33 of the re-bent or pivot portion 30 of the frame or head is fitted so that this washer is held against rotation on said pivot portion. Said pivot portion 30 is provided with a flattened portion 34 and the opening through the washer 20 is provided with a flat surface 35, which bears against said flattened portion 34. By tightening the thumb nut 31 upon the pivot portion of said frame, the washers 20, 21 and friction disks 19 with the circular extension between said disks are all securely clamped and the desired friction applied against opposite sides of said circular extension so that the handle may be caused to swing on the pivot portion 30 of the frame or head, yet be retained by the frictional contact of the fiber friction disks at any position in which it may be placed. It is to be noted that the bent portion 33 of the wire is directed upwardly to bring the pivot portion 30 above the plane of the triangular frame portion so that the pivot of the handle

is elevated and the handle may be swung into a comparatively low position without coming in contact with the cross or filler part 29 of the frame.

One end of the wire terminates at the periphery of the frame in spaced relation to the cross or filler part 29 thereof so as to form the slip opening 25.

The mopping element 13 is preferably formed of strips of fibrous material 37, such as cotton or the like, and threads or strings of cotton or other material 38 arranged in regular formation, to which the said strips of cotton or other material is sewed, as at 39. This provides an elongated flexible member with strips of material sewed to opposite sides and this flexible member is folded or doubled upon itself longitudinally and sewed together to form a passage or tube 40, which extends from one end of said flexible member to the other, with the strips of cotton or other material lining the threads within the tube and facing the same around the tube so that said threads are fully concealed at the tube portion of the mopping element and the exterior and the interior of the passage or tube is provided with smooth surfaces. When thus constructed, the threads hang from the tube or tubular portion of the mopping element and form a brush-like lower portion 41 which is adapted to be saturated with a polishing fluid, and as the entire mopping element is constructed of fibrous material in thread or string form and in sheet form secured to the threads or strings thereof, it possesses capillary attraction and by use becomes saturated throughout with polishing fluid. This mopping element is preferably of a length conforming to the length of the wire which forms the frame or head, measuring from the outer end of the sleeve extension 22 of the washer 21 to the extremity of the wire at the periphery of the frame, and by providing the mopping element with the passage or tube 40, as described, it may be slipped onto the wire forming the skeleton frame through the slip opening 25 at the periphery of the frame, as indicated in Fig. 4, the tube of the mopping element being moved along the wire until the entire length of the exposed portion of the wire is fully covered. When the mopping element has been slipped onto the wire in the manner shown in Fig. 1, a portion of said element extends across the open space formed by the three sides of the skeleton frame, and this portion may be termed a filler region. Owing to the fact that the thread or string portion of the mopping element hangs loosely from the tubular portion of the same, the threads of the side or peripheral portions, as well as those of the filler portion, will spread when brought in contact with the surface to be polished, with the result that practically no openings will exist within the frame.

When the mopping element is applied to the frame or head, it is supported on parts arranged at different angles or trending in different directions, and there is no possibility of said mopping element becoming accidentally removed from the frame or head, since by moving said frame or head equipped with the mopping element in any direction or at any angle, there is always a strain on one part of the mopping element which is opposed to the strain applied to another part thereof, or at least the strain on one part is applied in a direction different from that applied to another part of the mopping element so that the slipping of said mopping element on the frame is entirely eliminated.

The mopping element may be easily removed from the frame or head by grasping the tubular portion thereof and drawing the same lengthwise along the wire forming this frame, and as the angular portions of the frame are of rounded formation rather than sharp, the application of the mopping element to the frame, or the removal therefrom may be accomplished with the greatest facility, and after being applied to the frame, absolute assurance is had that the mopping element will be retained thereon, regardless of the manner in which it may be used.

In the modification shown in Figs. 8 to 11 inclusive, a mop receiving frame or head of different formation is shown. In this modification the handle 14 is threaded into a fitting or connection 15^a, and this fitting or connection is applied to one end of the slender member 23^a forming the skeleton frame or head. This frame, like the frame shown in the preferred construction, is preferably constructed of wire, but in this instance it is bent or otherwise fashioned into diamond shape, which shape also provides parts trending in different directions, and from the side or periphery of the wire frame, one end portion of the wire is carried inwardly, as at 42, to form a pivot portion onto which the fitting 15^a, which is T-shaped, is mounted. This fitting is cast, forged or otherwise formed with a horizontal portion 43 and with a lateral sleeve-extension 44 into which the handle 14 is threaded or otherwise fastened. The pivot portion 42 is provided with two stop lugs 45 punched from the wire, between which lugs and one end of the horizontal portion 43 of said T-shaped fitting a washer 46 is interposed. A second washer 47 is fitted over the pivot portion 42 of the frame and bears against the opposite end of said horizontal portion and the extremity of said pivot portion is threaded, as at 48, and has a thumb nut or other fastening device 49 threaded thereon which bears against said last-mentioned washer and retains the fitting 15^a on said pivot por-

tion. This permits the handle to be swung at any angle and enables the frame or head to adjust itself automatically in accordance with the surface to which the mopping element is applied.

As in the preferred construction, one end of the wire forming the skeleton frame terminates at the side or periphery of the frame in proximity to the angular portion 50 of the same, formed by bending the opposite end portion of the wire inwardly to form the pivot portion 42, but said first-mentioned end is spaced from said angle to form a slip opening 25ª. In this construction the tubular portion of the mopping element is also slipped over the wire frame through the slip opening 25ª by drawing said element along the wire forming said frame or, in other words, threading the frame into said passage or tube until the entire exposed portion of the frame is covered.

While I have shown a triangular shaped frame or head in the preferred construction and a diamond shaped frame or head in the illustrated modification of my invention, it will be apparent that without departing from the principle involved, this receiving frame or head may be given various other formations, all of which may be said to be substantially loop shaped.

It will also be clear that the manner of securing the mopping element to the mop receiving frame or head may be varied, but I consider the provision of a tube on or passage through the mopping element as a means to conveniently support the latter on the receiving frame or head, since it entirely covers said frame or head, and the threads of the mopping element sewed between the two strips of cotton or other fibrous material provide a buffer or cushion which when coming in contact with polished surfaces will not in any manner mar the same. I also consider the formations of mop receiving frames or heads as shown in the drawings advantageous, since they provide pointed portions which can be directed into corners, with the result that every portion of a floor can be thoroughly polished.

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

1. In a device of the kind described, a mop head formed of wire bent into loop shape with one end portion extending inwardly into the open space of said head and terminating therein and its other end terminating at a peripheral portion, a mopping element having a tubular portion fitting over said wire, and a fitting to which the inwardly extending end portion of the wire is secured.

2. A device of the kind described; comprising a mop head formed of a single length of wire bent into triangular shape with one extremity of the wire terminating at one of the three sides of the triangle, said wire being directed inwardly adjacent said extremity to form a filler part within said triangle and being thence rebent to form a pivot portion, a fitting mounted on said pivot portion and having a handle secured thereto, and means for clamping said fitting on said pivot portion.

3. A device of the kind described; comprising a mop head formed of a single length of wire bent into triangular shape with one extremity of the wire terminating at one of the three sides of the triangle, said wire being directed inwardly adjacent said extremity to form a filler part within said triangle and being thence rebent to form a pivot portion, a fitting mounted on said pivot portion and having a handle secured thereto, friction disks on said pivot portion bearing against opposite sides of said fitting, a washer on said pivot portion bearing against one of said friction disks and having a sleeve extension thereon provided with a radial notch into which the bent portion of said wire adjacent said pivot portion is entered to prevent rotation of said washer, a second washer bearing against the other friction disk and held against rotation on said pivot portion, and a nut threaded onto the extremity of said pivot portion and bearing against said last-mentioned washer.

4. In a device of the kind described, a mop receiving frame formed into loop shape and having one end of the material forming the frame terminating within the loop to serve as a pivot for a handle and the other end terminating at the periphery of the frame and spaced from an intermediate portion of said frame material to form an opening.

5. In a device of the kind described, a mop-receiving frame formed into loop shape and having one end of the material forming the frame terminating within the loop for connection of a handle thereto, and the other end terminating at the periphery of the frame in spaced relation to an intermediate portion of said frame material so as to form an opening.

In testimony whereof I affix my signature.

JOSEPH J. SHICKLUNA.