April 26, 1932. C. BRIGNOLO 1,855,218

MOP HOLDER

Filed April 25, 1931

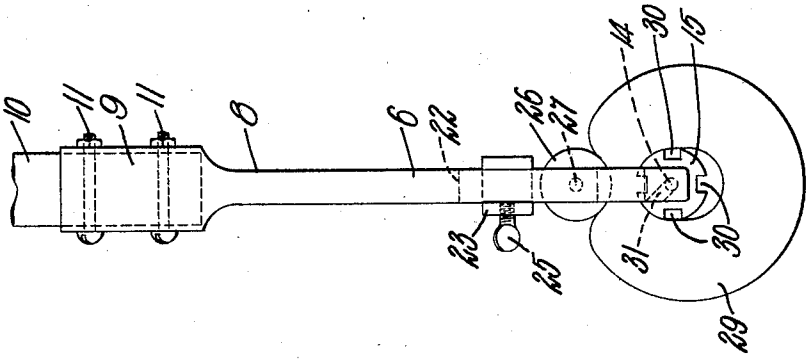


Fig. 2.

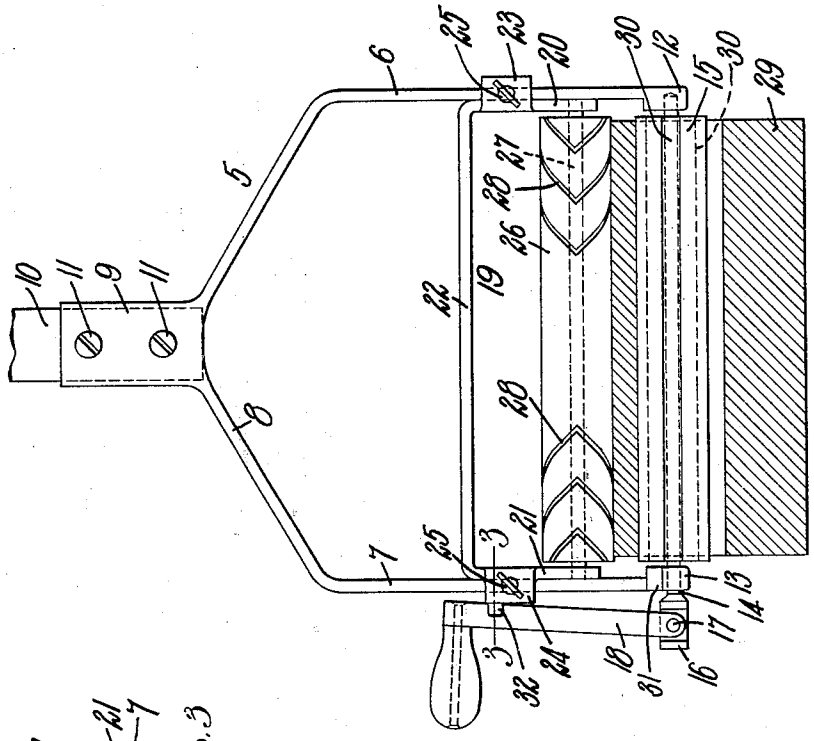


Fig. 1.

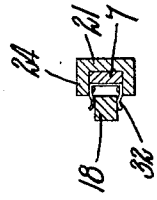


Fig. 3

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UNITED STATES PATENT OFFICE

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MOP HOLDER

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This invention relates to an improved mop holder.

The object of the invention is to provide a convenient and practical mop holder and mop, the mop per se being made the subject matter of a companion application by the same inventor and comprising an endless band of sponge rubber.

The object of this invention is further to provide a practical and convenient holder which is adapted to hold a mop comprising an endless band of sponge rubber when the same is being used to mop a floor or any other surface and which is so constructed that the endless band mop may be fed between a pair of rolls to express the water, dirt, etc., in the mop, whereby the same may be cleansed and also whereby the mop is freed of excess water and made relatively dry, so that the same mop can be used to wash a floor or other surface and also subsequently to dry and polish them.

The invention consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims.

Referring to the drawings:

Fig. 1 is a front elevation of a mop holder embodying my invention with a mop shown in connection therewith in cross section, the handle of the mop holder being broken away.

Fig. 2 is a side elevation of the mop as viewed from the right of Fig. 1.

Fig. 3 is a transverse detail section taken on the line 3—3 of Fig. 1.

Like numerals refer to like parts in the several views of the drawings.

In the drawings, 5 is a main frame comprising a pair of side bars 6 and 7 joined together by a cross bar 8. The cross bar 8 is provided with a hollow cylindrical socket 9 into which one end of a handle 10 projects and to which the handle is fastened by bolts 11. The side bars 6 and 7 terminate at their free ends in bearings 12 and 13 and a shaft 14 is rotatably mounted in said bearings. The shaft 14 has a mop-supporting roll 15 fast thereto and at its left hand end, Fig. 1, terminates in an enlarged portion 16 with pins 17 projecting laterally therefrom and constituting pivots for a crank handle 18.

An auxiliary frame 19 is slidably mounted upon the main frame 5, the same comprising a pair of side bars 20 and 21 and a cross bar 22. The side bars 20 and 21 are provided with ears 23 and 24 which are slidably mounted upon the side bars 6 and 7 of the main frame 5. Thumb screws 25 having screw-threaded engagement with the ears 23 and 24 serve as a means to lock the auxiliary frame 19 in adjusted position.

A presser roll 26 is fast to a shaft 27 and the shaft 27 is rotatably mounted in the free ends of the side bars 20 and 21 of the auxiliary frame. The presser roll 26 is provided upon its periphery with intersecting angular grooves 28 for the purpose of preventing the mop 29 from shifting longitudinally with relation to the rolls 15 and 26. The roll 15 is provided on its periphery with a plurality of longitudinal grooves 30 which prevent the mop 29 from slipping on the roll 15 when it is pressed thereagainst by the presser roll 26.

The mop 29 is formed as an endless band and is composed of sponge rubber, it having been found that new and very beneficial results are attained by the use of sponge rubber in this connection, it being comparatively cheap, very durable and very efficient in its action. It is also pliable and when wet serves efficiently to wash a surface, and when comparatively dry to dry the surface and polish the same. It is also easily compressed so that water can be expressed therefrom and also, it can be firmly held between the presser and mop support rolls while the surface is being washed or polished.

The bearing 13 is provided with an inclined slot 31 through which the shaft 14 can be inserted when the roll 15 is being positioned upon the main frame 5. The shaft 14 is rotated by means of the crank 18 for the purpose of bringing a new portion of the mop into operation and also, particularly for pressing the water out of the mop 29. A U-shaped spring member 32 is fastened to the ear 24 and engages the handle 18 to hold it in the position illustrated in Fig. 1 when the mop is being used and this handle and spring

locking member 32 prevent the roll 15 from rotating when the mop is being used.

The general operation of the device hereinbefore specifically described is as follows:— Assuming the parts to be in the relative positions illustrated in Figs. 1 and 2, the mop 29 is dipped into a pail of water and the floor or other surface is then washed in the usual manner. From time to time the mop can be again dipped in the pail of water and the washing operation continued. When it is desired to dry the surface that has been washed and to polish the same, the handle 18 is withdrawn from the spring locking member 32 and the shaft 14 and roll 15 are rotated by means of said handle. Since the mop passes between the rolls 15 and 26 and since the roll 26 is sufficiently close to the roll 15 to squeeze the endless band mop 29 as it is being fed by means of the roll 15, it follows that the water will be pressed out of the mop sufficiently so that it can then be used to dry the floor and to polish it. The grooves 30 prevent the mop from slipping on the roll 15 circumferentially thereof when the handle 18 is locked in position, and the grooves 28 prevent the mop from shifting longitudinally between the rolls 15 and 26.

When it is desired to remove the mop from the holder, the auxiliary frame 19 is released by turning the said screws 25 in the proper direction and the auxiliary frame is then slid on the main frame away from the roll 15 and the mop 29 supported thereby. The crank handle 18 is then slipped out of the locking member 32, the shaft 14 is moved outwardly through the inclined slot 31 and the opposite end of the shaft 14 is withdrawn from the bearing 12 in the side frame 6.

It has been found by practical use that a mop made of sponge rubber and in the form of an endless band, as hereinbefore stated, accomplishes very improved and beneficial results in washing, drying and polishing floors, walls, ceilings and other surfaces. Another advantage of a mop made of sponge rubber and held in a mop holder of the character hereinbefore described is that it can be utilized to wash floors or other surfaces close up in the corners, so that no part of a floor will be left soiled and unpolished when the operation hereinbefore described is carried out.

I claim:

1. A mop holder having, in combination, a main frame, a handle fastened to one end of said main frame, a mop supporting roll rotatably mounted on the opposite end of said main frame, an auxiliary frame slidably mounted on said main frame, a presser roll rotatably mounted on said auxiliary frame adjacent said mop supporting roll, and an endless belt of porous material constituting a mop and extending around said mop supporting roll and between said presser and mop supporting rolls, one of said rolls being provided with intersecting inclined grooves in its periphery whereby said mop may be prevented from shifting lengthwise of said rolls.

2. A mop holder having, in combination, a main frame comprising a pair of side bars and a cross bar connecting them together, a handle fast to said cross bar, a shaft rotatably mounted on the free ends of said side bars, a mop supporting roll fast to said shaft, one of said side bars being provided with an inclined slot through which said shaft can be inserted, an auxiliary frame comprising a pair of side bars and a cross bar connecting them together, said auxiliary frame side bars being slidably mounted on the side bars of the main frame, means to lock said auxiliary frame to said main frame in adjusted position, and an endless belt of porous material constituting a mop and extending around said mop supporting roll and between said presser and mop supporting rolls.

In testimony whereof I have hereunto set my hand.

CYRILL BRIGNOLO.