Sept. 2, 1941. J. B. GILSDORF 2,254,648

MOP

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FIG. 1.

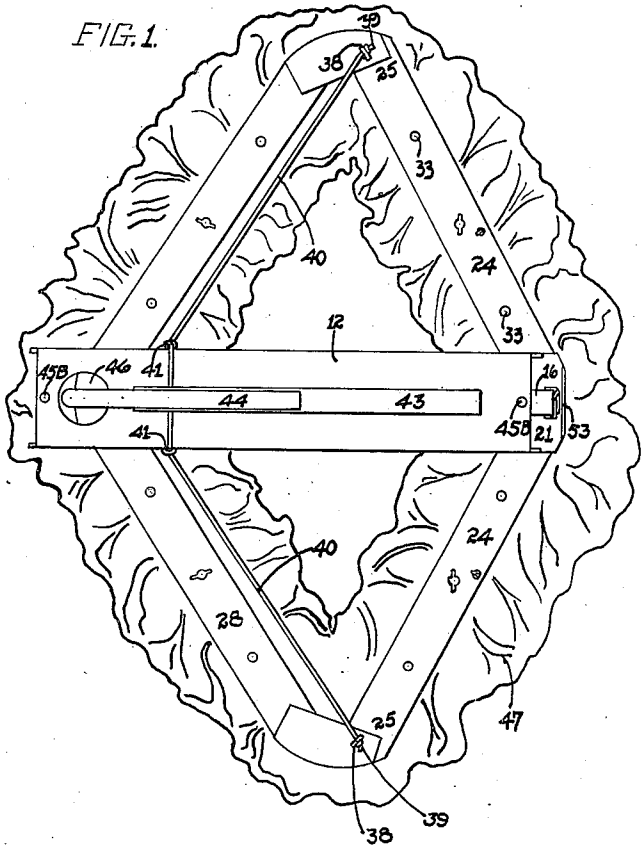


FIG. 2.

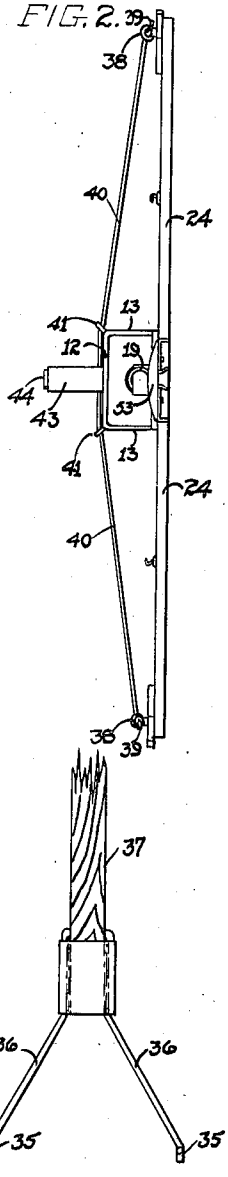
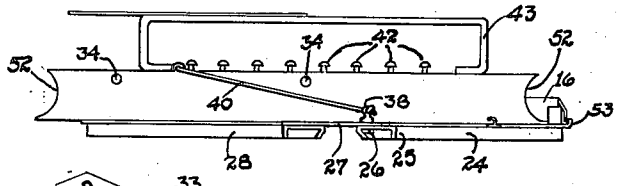


FIG. 3.



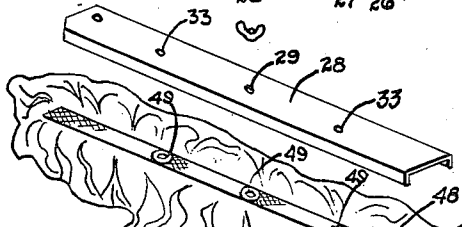


FIG. 7.

FIG. 5.

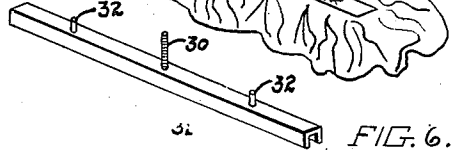


FIG. 6.

FIG. 4.

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FIG. 10.

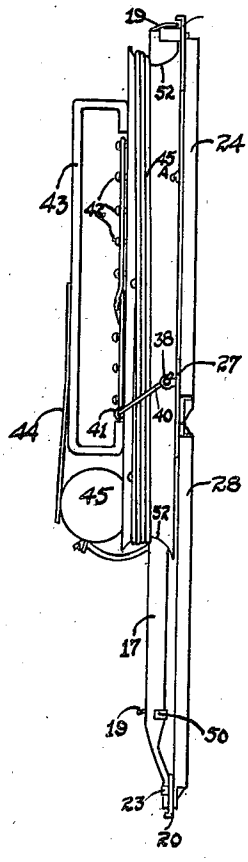


FIG. 9.

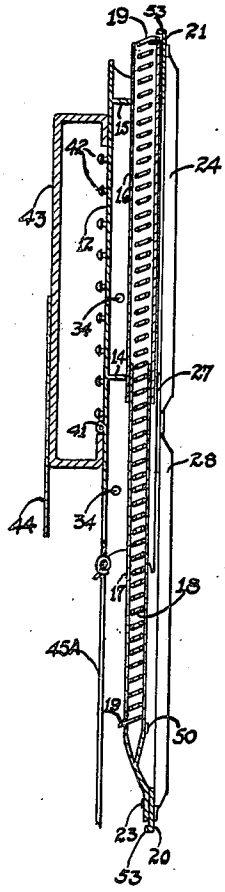


FIG. 8.

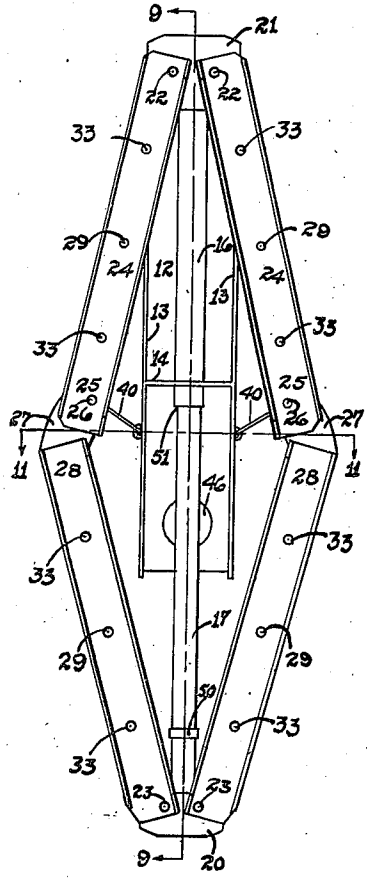
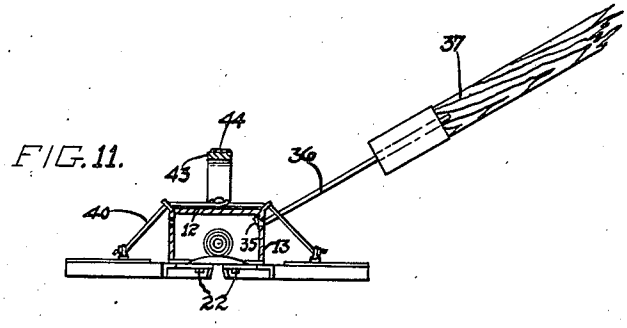


FIG. 11.



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2,254,648

MOP

Joseph B. Gilsdorf, Huber, Oreg.

Application March 8, 1940, Serial No. 322,907

4 Claims. (Cl. 15—147)

This invention relates generally to cleaning appliances, and particularly to mops.

The main object of this invention is to construct a special form of mop adaptable for ordinary mopping purposes and for use in mopping under seats and tables.

The second object is to construct a mop of the class described which may be either propelled by the means of the ordinary mop handle or drawn by means of a line under rows of chairs or seats.

The third object is to construct a mop of the class described which will have a variable width, which width is adjustable to suit special requirements.

The fourth object is to construct a mop of the class described having storage space for the hauling line and for the ball by means of which the hauling line is propelled.

The fifth object is to construct a special form of replaceable mop unit for use in connection with the device.

These and other objects are accomplished in the manner set forth in the following specification as illustrated in the accompanying drawings, in which:

Fig. 1 is a plan of the device showing same in an open position.

Fig. 2 is a front elevation of the mop in the position shown in Fig. 1.

Fig. 3 is a side elevation of the mop in the position shown in Fig. 1.

Fig. 4 is a fragmentary detail of the mop handle.

Fig. 5 is a perspective view of the twine portion of the mop.

Fig. 6 is a perspective view of the channel on the underside of the twine element shown in Fig. 5.

Fig. 7 is a perspective view of the channel member on the top side of the element shown in Fig. 5.

Fig. 8 is a bottom view of the device showing the twine units removed.

Fig. 9 is a longitudinal section taken along the line 9—9 in Fig. 8.

Fig. 10 is a side elevation of the mop showing the hauling cord wound upon the frame and showing the twine propelling ball stored away on the mop frame.

Fig. 11 is a transverse section taken along the line 11—11 in Fig. 8.

Similar numerals refer to similar parts throughout the several views.

Referring in detail to the drawings, there is shown a channel shaped frame 12 between whose sides 13 are placed the cross ties 14 and 15 through which extends the fixed tubular guide 16. Within the guide 16 is mounted the tubular slide 17. A tension spring 18 is placed within the members 16 and 17 and has its ends 19 secured thereto for the purpose of urging the slide 17 to a retracted position.

On the outermost end of the slide 17 is secured a T-head 20 and on the opposite end of the frame 12 is secured the head 21. In the head 21 are disposed the spaced rivets 22 and in the T-head 20 are disposed the spaced rivets 23.

Hinged to the rivets 22 are the channel shaped mop holders 24 whose opposite ends 25 are joined by the rivets 26 to the hinge plate 27 which is secured to the upper side of the mop holder 28. Each mop holder 28 is joined by means of a rivet 23 to the T-head 20.

The mop holders 24 and 28 are each provided with a central hole 29 adapted to receive the clamping screw 30 which is rigidly attached to the lower mop holding channel 31. Each channel 31 is provided with a pair of dowel pins 32 which are adapted to engage the holes 33 in the member 24. Members 24 and 28 are substantially identical except that the member 28 has the hinge plate 27 attached thereto.

In the sides 13 are formed the openings 34 adapted to receive the bent ends 35 of the forked shanks 36 of the handle 37. It will be noted that the rivets 26 are provided with eyes 38 on the top side to form fastenings for the ends 39 of the cord 40 which also passes through the eyes 41 on the frame 12. The cord 40 serves to limit the separation of the members 27. In order to vary the separation there are provided a plurality of rivets 42 which project upwardly from the member 12 over which rivets the cord 30 may be caught as desired.

A handle 43 is attached to the top side of the member 12 and has projecting from the end thereof a flat spring 44 under which may be held a ball 45 for which there is provided a hole 46 in the member 12. The cord 45A is attached to the ball 45 in any convenient manner and to one end of the frame 12 by passing it through the holes 45B.

The twine portion 47 of the mop is shown in Fig. 5 and simply consists of a plurality of parallel pieces of twine held between a double row of tape 48 by suitable stitching. Grommets 49 extend through the tape 48 and are adapted to receive the screw 30 and the dowel pins 32.

The elements 47 are the only portions of the

device which are subject to wear and replacement. These are therefore made readily removable for substitution or for cleansing purposes.

It will be noted that there is provided a stop 50 on the slide 17. This stop engages the end 51 of the guide 16 when the mop is expanded to its maximum width. It will also be noted that the ends 52 are curved inwardly as shown for the purpose of affording storage for the cord 45A.

The operation of the device is as follows:

Assuming that it is desired to pass the mop along a floor under rows of seats, the operator merely needs to unwind the cord 45A after first removing the ball 45 from its position under the spring 44 and then throw the ball 45 in the direction it is desired to move the mop. He then walks to the stopping place of the ball 45 and hauls in the cord 45A drawing the mop under the seats.

It will be understood that the cord 40 has been permitted to lengthen sufficiently to allow the members 27 to separate a desired amount.

In practice it is preferable to flange the ends 53 as shown to prevent injury to woodwork or furniture if the mop is handled in too vigorous a manner.

It can be seen that the spring 18 will urge the mop to its maximum width subject to the setting of the cord 40 and at the same time act as a shock absorber in case the side of the mop strikes any object too violently.

I claim:

1. A device of the class described consisting of a quadrangular mop holder having a fixed perimeter and having hinge connections at the corners thereof and having mopping elements attached to the underside thereof in combination with a frame member disposed across opposite corners of said mop holder, said frame including a telescopic slide whose outer end is attached to one corner of the mop holder while the opposite end of the frame is attached to the opposite end of the mop holder, a spring for urging said telescopic slide toward a retracted position, means for limiting the amount of retraction of said slide, a weighted line attached to said frame and means for storing said line upon said frame.

2. In a device of the class described, the combination of a quadrangular mop holder having a fixed perimeter the corners of which holder are hinged together and having a telescopic brace between opposite corners thereof, a spring associated with said brace adapted to urge same toward a minimum length, an adjustable tie between the remaining corners of said holder adapted to limit the separation of said corners, a cord attached at one end of said brace, a weight attached to the opposite end of said cord and means associated with said device for storing said cord and weight.

3. In a device of the class described, the combination of a channel shaped frame having one corner of a quadrangular mop holder hingedly connected thereto, the sides of which are hingedly connected at the corners of the mop holder, a tubular slide adapted to guide in said frame and having its outermost end hinged to the corner of the mop holder opposite to the one hinged to said frame, a spring for urging said slide to a retracted position, a handle on said frame having a spring projecting therefrom, said frame having a recess therein underneath said spring, a ball adapted to seat in said recess and to be retained by said spring, said ball having a line attached thereto and to said frame and removable twine mopping elements attached to said holders.

4. A device of the class described consisting of a four sided mop holder the corners of which are hinged together and having a diagonal brace across two of the corners thereof, means for adjusting the setting of said brace to change the shape of said mop holder without changing its perimeter, mop holding elements attached to said holder and means for drawing the device in a line parallel to said brace.

JOSEPH B. GILSDORF.