

Oct. 23, 1928.

1,689,166

S. VARNER

POWER DRIVEN CLEANING DEVICE

Filed July 14, 1926

3 Sheets-Sheet 1

Fig. 1.

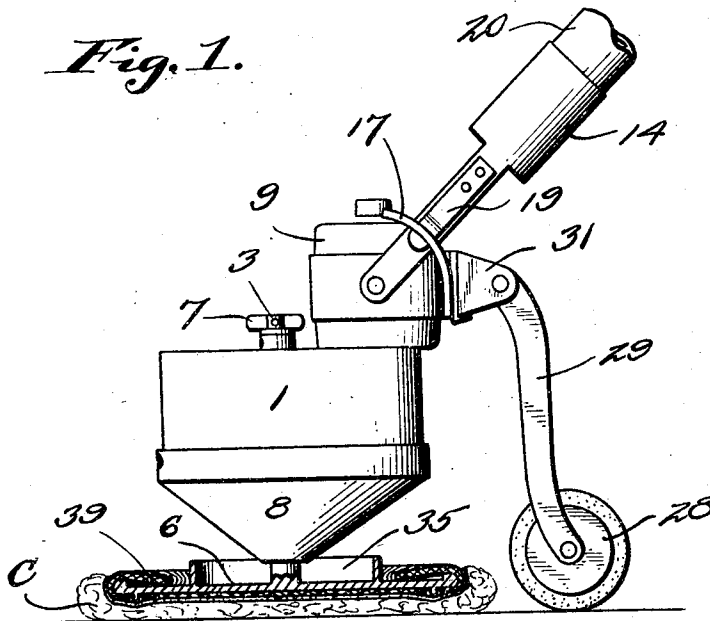
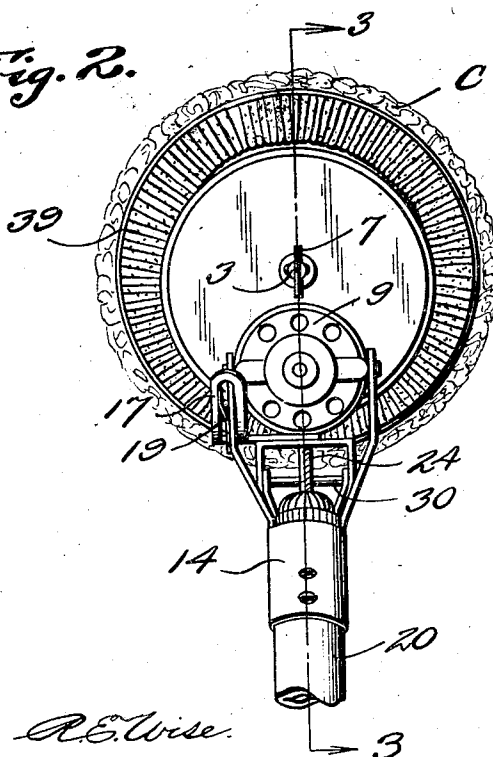
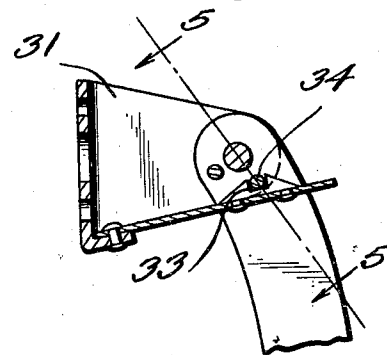


Fig. 2.



R.E. Wise.

Fig. 4.



Sallie Varner

INVENTOR

BY *Victor J. Evans*

ATTORNEY

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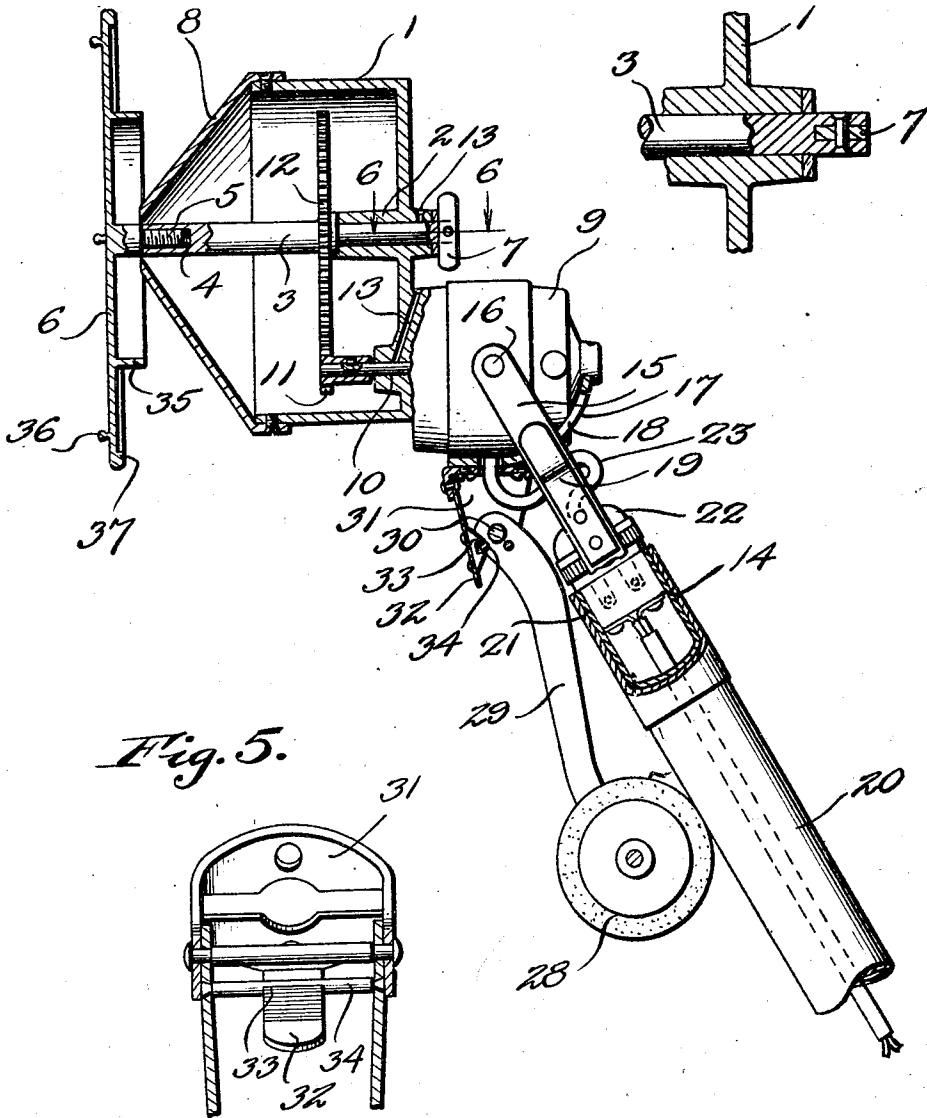
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Fig. 3.

Fig. 6.



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3 Sheets-Sheet 3

Fig. 7.

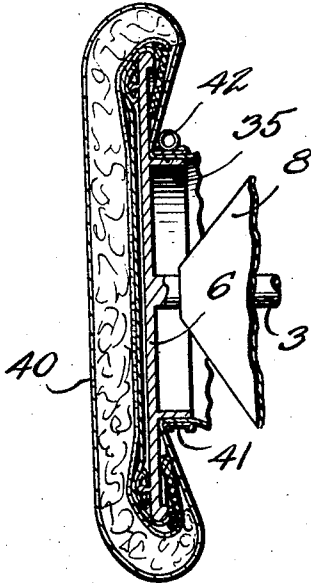


Fig. 8.

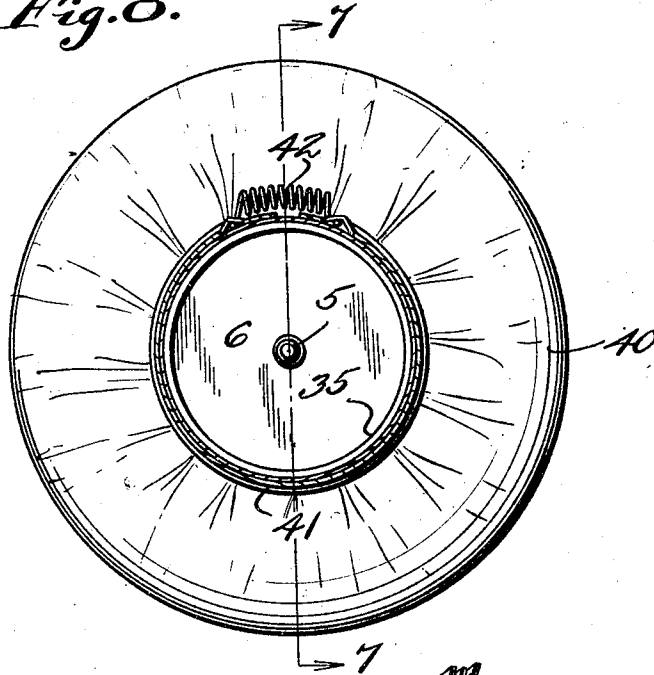


Fig. 9.

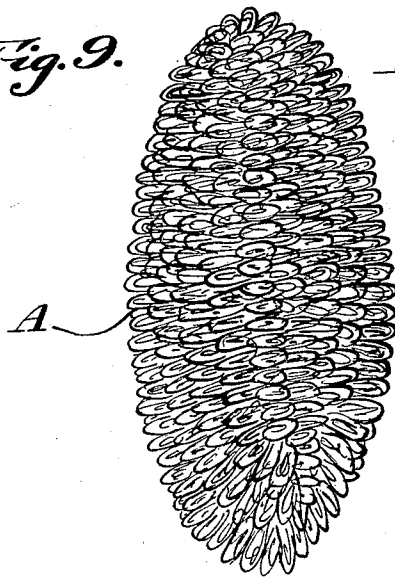
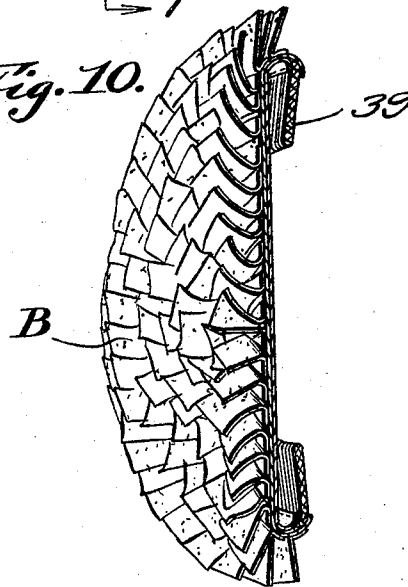


Fig. 10.



A. E. Wise.

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UNITED STATES PATENT OFFICE.

SALLIE VARNER, OF ELTON, PENNSYLVANIA.

POWER-DRIVEN CLEANING DEVICE.

Application filed July 14, 1926. Serial No. 122,417.

This invention relates to a power driven rotary cleaning device for cleaning floors, walls, windows and other surfaces, the general object of the invention being to provide a rotary member suitably supported and driven from an electric motor, with means for holding the member in various positions from a handle.

Another object of the invention is to provide various kinds of mops or other cleaning means, each of which is provided with means for detachably connecting it with the rotary member.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is an elevation, with parts in section, showing the device being used on a flat surface, such as a floor.

Figure 2 is a plan view of Figure 1.

Figure 3 is a section on line 3—3 of Figure 2.

Figure 4 is a sectional view showing the roller arm supporting bracket.

Figure 5 is a section on line 5—5 of Figure 4.

Figure 6 is a section on line 6—6 of Figure 3.

Figure 7 is a section on line 7—7 of Figure 8.

Figure 8 is a view showing a cloth stretched over a mop carried by the rotary member.

Figure 9 is a view of a mop made of soft cotton thread.

Figure 10 is a view of a mop made of chamois.

In these views, 1 indicates a casing which is provided with a long bearing 2 for rotatably supporting a shaft 3, the outer end of the shaft being provided with a threaded socket 4 for receiving the threaded projection 5 of a mop carrying disk or member 6. A cross piece 7 is fastened to the projecting rear end of the shaft and forms a fingerhold for holding the shaft stationary when the threaded projection 5 is to be inserted in the socket or removed therefrom. A conical shaped cap 8 is detachably fastened to the casing 1 and

has an opening in its tip through which the shaft passes. A motor casing 9 is formed with or connected to a part of the rear of the casing 1 and the shaft 10 of said motor extends within the casing 1, where it has attached thereto a pinion 11 which meshes with a gear 12 on the shaft 3, so that the said shaft will be driven from the motor. The parts are provided with oil passages, as shown at 13, wherever desired.

A socket 14 has a pair of prongs or legs 15 attached to one end thereof and these legs or prongs are pivotally connected to the motor casing, as shown at 16, at the opposite sides thereof, so that the motor casing is pivotally supported between the legs. A curved member 17 is fastened to a part of the casing and has a slot 18 therein through which one of the legs passes, and this leg carries a spring 19 which frictionally engages a wall of the slot and tends to hold the parts in adjusted position, as the handle must be forcibly moved on its pivot 16 relative to the motor casing in order to cause the spring 19 to slide in the slot, as this spring will resist this sliding movement. A tubular handle section 20 fits in the socket 14 and is suitably fastened therein and a part 21 of a sectional plug is fitted in the end of this handle section. The other part 22 of the plug is connected by the conductors 23 with the circuit of the motor. Thus the motor can be connected by means of the part 22 with any wall socket or other source of current by a length of cable or it may be attached through the handle to such source of current by inserting the part 22 in the part 21 and attaching said part 21 to the source of current, through conductors passing through the handle.

A roller or wheel 28 is carried by the arms 29 which are pivoted at 30 to a bracket 31 which is fastened to the motor casing 9. A spring tongue 32 is attached to the bracket and has notched members 33 thereon for engaging a rod 34 carried by the arms 29. This arrangement will hold the roller and its arms in either the inoperative position shown in Figure 3 or the operative position shown in Figure 1, where the roller and its arms will help support the device from the floor or other surface.

The member 6 is provided with a ring-shaped flange 35 on its rear face and with pin-like projections 36 on its front face, the periphery of the member being thickened or enlarged, as shown at 37. Various kinds of

mops can be used with the device, each mop having snap fastening devices 38 thereon for engaging the projections 36 and a band 39 of elastic or other flexible material for fitting over the periphery of the rotary member, as shown in Figure 7. Thus the mop is detachably held to the rotary member and when desired, a strip 40 of any suitable material can be placed over the mop and held in place by a split ring 41 clamping the edge of the strip 40 to the flange 35 and having a coiled spring 42 yieldingly holding its ends together.

Figure 9 shows a mop A formed of soft cotton thread, the thread being formed into a plurality of loops, while Figure 10 shows a mop B formed of strips of chamois. Of course, the mops can be made of any suitable material and of any desired shape.

From the foregoing, it will be seen that I have provided means for rotating a mop on a surface to clean the same, the mop being rotated by means of an electric motor so that the surface will be thoroughly cleaned and with the least possible effort. The handle provides means for holding the device in the most suitable position for the work being done. By providing various kinds of mops with the outfit, the device can be used for carrying out various kinds of cleaning operations.

The device can be manufactured to sell at

low cost and is of very light construction so that it will not tire one even when used for a long period of time. One mop can be easily and quickly removed and a new one substituted whenever required, and the roller can be used or not as desired.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What I claim is:—

A cleaning device of the class described comprising a casing, a shaft rotatably mounted therein, a mop carrying member attached to one end of the shaft, a motor connected with the casing and having its shaft extending into the same, gears for connecting the shafts together, a handle connected with the motor casing, a mop, detachably secured to said mop carrying member, a cover including a strip of cloth surrounding the mop and lapping over the edges of the mop carrying member, an annular flange on said mop carrying member, and a ring for clamping said strip of cloth to said flange.

In testimony whereof I affix my signature.

SALLIE VARNER.