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SUCTION CLEANER

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Fig. 1.

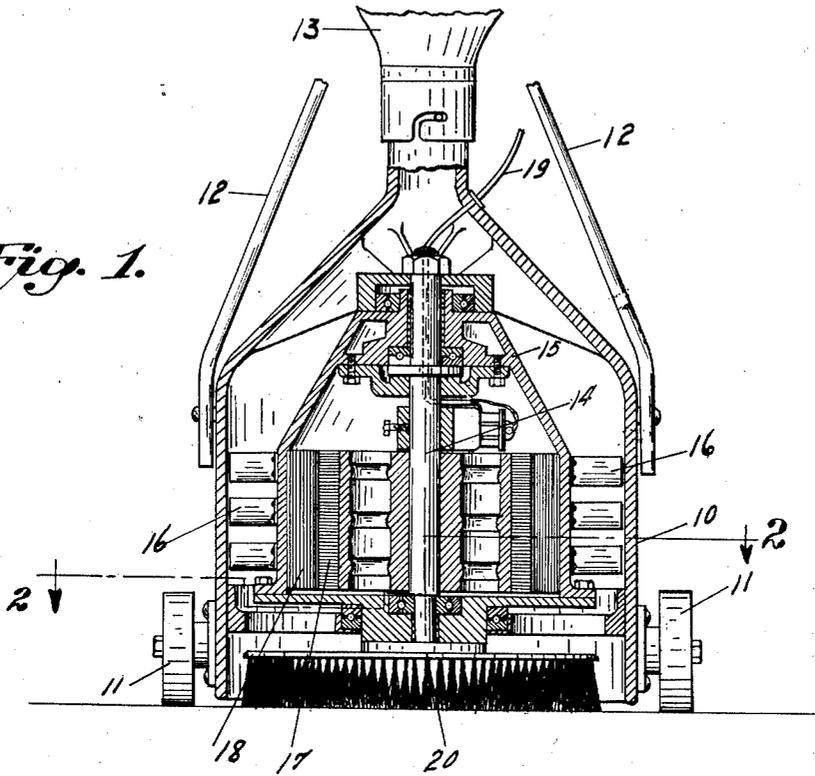
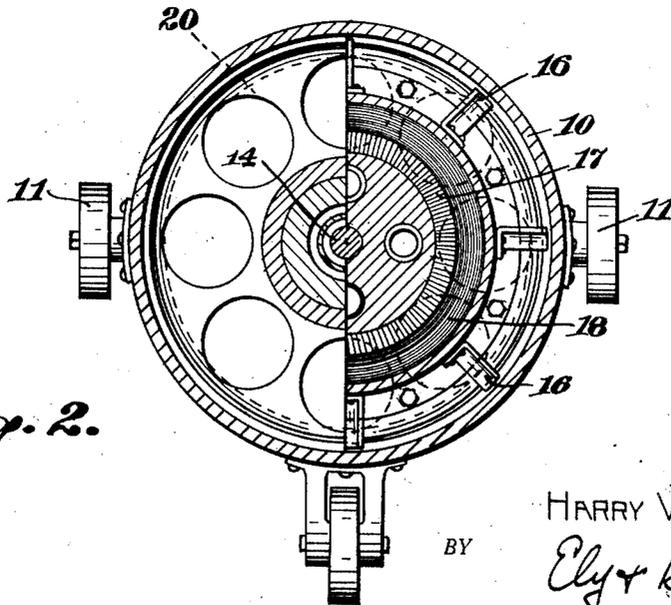


Fig. 2.



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SUCTION CLEANER.

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This invention relates to suction cleaners and combined suction cleaners and sweepers generally, and particularly to suction sweepers for domestic use.

5 The general purpose of the invention is to greatly simplify these constructions to provide a compact inexpensive yet highly effective cleaner.

10 One object of the invention is to provide a self-contained motor and fan unit in the suction nozzle of a cleaner in which a fixed armature and revolving field is employed, the latter being mounted on a casing journaled in the cleaning nozzle and having the 15 fan blades mounted directly upon the outer side thereof, the air passing through the nozzle cooling the motor.

20 Another object is to mount directly upon the bottom of said casing a rotary brush adapted to be driven in the inlet of the nozzle by said motor.

25 The foregoing and other objects are obtained by the suction sweeper shown in the accompanying drawing. It is to be understood that the invention is not limited to the specific form thereof shown and described.

30 Figure 1 of the accompanying drawing is a diametral section through the nozzle of a suction sweeper embodying the invention; and

Figure 2 is a sectional plan on line 2—2 of Figure 1.

35 Referring to the drawings, the numeral 10 represents a cylindrical nozzle open at its bottom to provide a suction inlet and supported in any suitable manner as by wheels indicated at 11, 11, domestic sweepers having an operating handle 12 attached thereto and the top of member 10 delivering 40 dust-laden air to a suitable collector indicated at 13.

45 Arranged in nozzle 10 is a vertical fixed shaft 14 on which is journaled a casing 15 having fan blades 16, 16 secured upon the outer periphery thereof. Shaft 14 has fixed thereon an armature 17 and the inner periphery of casing 15 has fixed thereon a field 18 which provides a motor to which 50 electricity may be supplied by cable 19 extended downwardly through shaft 14 into

motor casing 15 and connected to the armature of said motor.

On the bottom of motor casing 15 is secured a disc brush 20 rotating in the suction inlet of the nozzle in engagement with the 55 surface being cleaned. It will be understood that any suitable cleaning devices used on the rotary elements of vacuum cleaners may be employed instead of the simple brush 20.

60 In use, the motor will be continuously driven, thus driving brush 20 in engagement with the surface being cleaned to loosen dirt, ravellings, etc., and also driving fan blades 16 creating a suction of air upwardly about 65 motor casing 15 into the collector 13, the current of air effectively cooling the motor.

70 It will appear from the foregoing that a simple, inexpensive, but very effective suction cleaner has been provided by the invention and that modifications of said invention may be resorted to without departing from the spirit thereof or the scope of the 75 appended claims.

What is claimed is:

1. A suction sweeper including a suction nozzle, a self-contained motor mounted in the nozzle and including a rotatable casing housing the motor, a suction fan secured to the outside of the motor casing, and a 80 brush on the bottom of the motor casing in the suction inlet.

2. A suction sweeper including a suction nozzle, a motor including a fixed armature and revolving field mounted in said nozzle, 85 a rotatable casing housing the motor and to which the field is attached, a suction fan secured to the outside of the motor casing, and means on the bottom of the casing adapted to rotate therewith in engagement 90 with the surface cleaned to loosen dirt therefrom.

3. A suction sweeper including a suction nozzle, a motor including a fixed armature and revolving field mounted in said nozzle, 95 a rotatable casing housing the motor and to which the field is attached, and a suction fan secured to the outside of the motor casing.

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