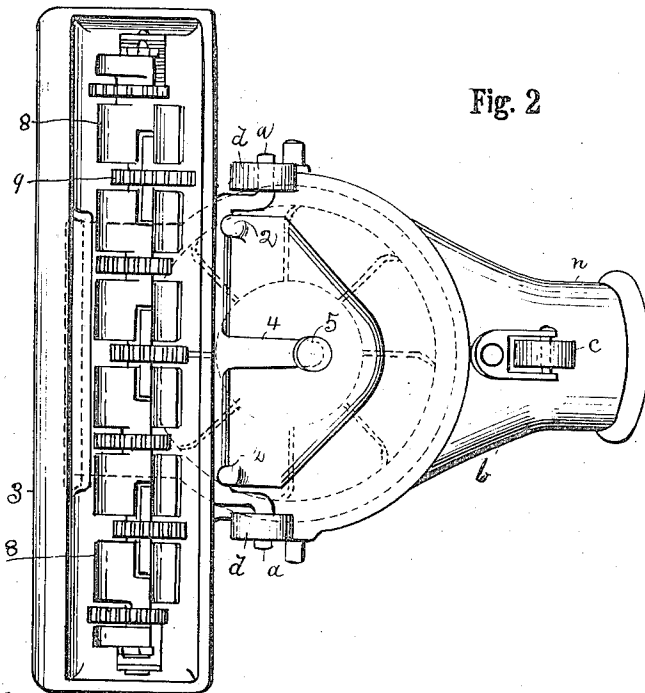
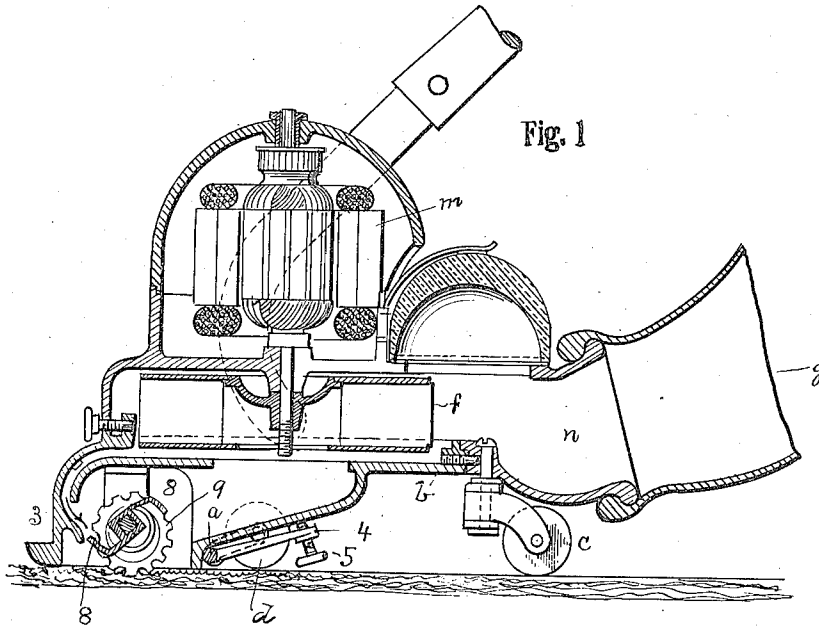


J. B. KIRBY,
VACUUM CLEANING MACHINE.

APPLICATION FILED NOV. 1, 1912. RENEWED JUNE 24, 1915.

1,209,718.

Patented Dec. 26, 1916.



ATTEST
Em. Fisher
J. C. Muesen.

INVENTOR
James B. Kirby
BY Fisher & Mosen. ATTS

UNITED STATES PATENT OFFICE.

JAMES B. KIRBY, OF CLEVELAND, OHIO.

VACUUM CLEANING-MACHINE.

1,209,718.

Specification of Letters Patent.

Patented Dec. 26, 1916.

Original application filed March 30, 1912, Serial No. 687,510. Divided and this application filed November 1, 1912, Serial No. 728,994. Renewed June 24, 1915. Serial No. 36,153.

To all whom it may concern:

Be it known that I, JAMES B. KIRBY, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Vacuum Cleaning-Machines, of which the following is a specification.

This invention relates to an improvement in vacuum cleaning machines, and is a division of my application, Ser. No. 687,510, filed March 30, 1912.

The invention consists in the supporting means for the machine and parts operatively associated therewith, all substantially as shown and described and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a cross section of the machine disclosing particularly the means for carrying the machine upon the floor, and Fig. 2 is a bottom view of the machine.

Respecting the said parent application, it is to be understood that the cleaning mechanism as such and a portion of which is shown herein, is the subject matter of the said application, while the observation window and parts associated therewith is the subject matter of a divisional application concurrent herewith and bearing Ser. No. 728,993. The present invention therefore is limited particularly to the means for supporting the machine upon the floor and the parts dependent thereon for their operation, as hereinafter fully described.

The body of the machine as a whole is indicated by *b*, and the carrying means comprise a swivel caster *c* at the rear of the machine beneath the neck *n* through which the machine discharges into the dust bag *g* and two rollers or wheels *d* supported on a crank shaft or axle *a* located somewhat forward of the immediate center of gravity as shown more particularly in Fig. 1. The said shaft or axle is provided with bearings comprising lugs 2 integral with the bottom of the casing in this instance and adapted to be bent over or onto the said axle to confine the same

and to provide for rotation thereof more or less according to the elevation at which the machine is to be run at any time. A rather refined adjustment of the said shaft is found desirable so as to graduate the level of the vacuum shoe 3 and fix its working position with respect to the surface over which the machine travels and thus make it as effective as possible in gathering up the dust. In some instances it is found best to rest the entire weight of the shoe down upon the surface and in other instances a somewhat raised position is desirable, the character of the carpet or rug or other surface over which the machine passes being the determining factor as to elevation. In any event, however, the suction through the shoe is dependent on vacuum producing means, and in this instance I employ a fan *f* driven by an electric motor *m* and which occupies a chamber directly above said shoe and serves to draw away the dust. The suction usually is strong, so that it raises an ordinary carpet, and this is to be taken into consideration in the adjustment or elevation of the said wheels in order to get the best results. In the present construction adjustment is effected by means of an arm 4 rigid with the said axle between its bearings or at about the middle thereof and provided with a set screw 5 at its free end by which adjustment is made against the bottom of body *b*. Obviously the said adjustment is operatively related to the shoe and to the means therein adapted to make the shoe effective in its work as a dust removing medium, and the said adjustment therefore affects the action of the shoe and its contained and coöperating means, whatever they may be. In this instance they consist of a series of beaters 8 rotatably mounted in the shoe and spaced apart by bearing rings 9.

What I claim is:

The combination with the suction shoe of a vacuum cleaner, of a floor engaging support carried thereby at a distance from the inlet mouth, a crank shaft journaled to said shoe upon a transverse axis between said sup-

port and inlet mouth, wheels journaled upon
said crank shaft, one on each side of the cen-
ter line of the shoe, an arm projecting from
said shaft, and means for securing said arm
5 at a plurality of adjusted positions whereby
the height of said inlet mouth can be regu-
lated.

In testimony whereof I affix my signature
in presence of two witnesses.

JAMES B. KIRBY.

Witnesses:

E. M. FISHER,
F. C. MUSSUN.