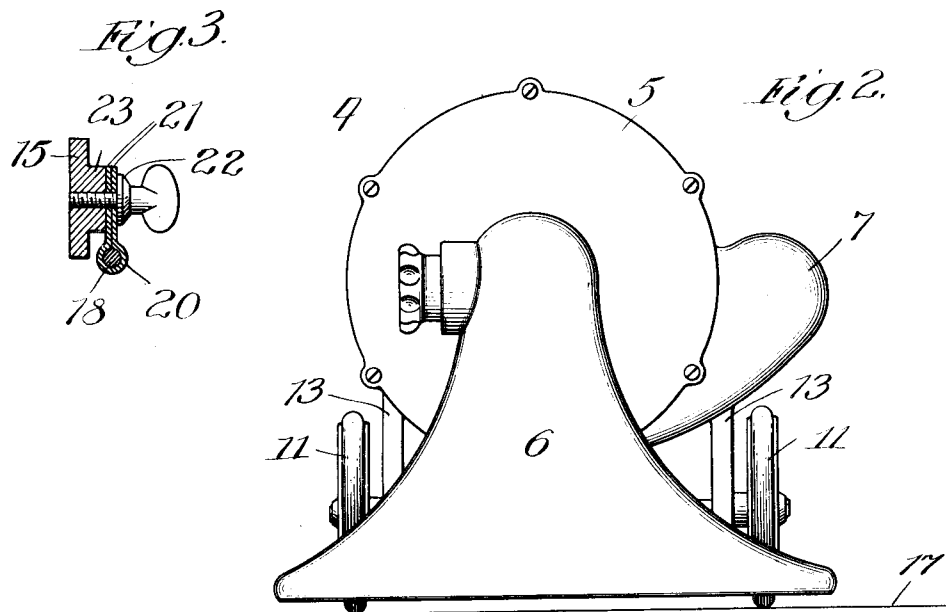
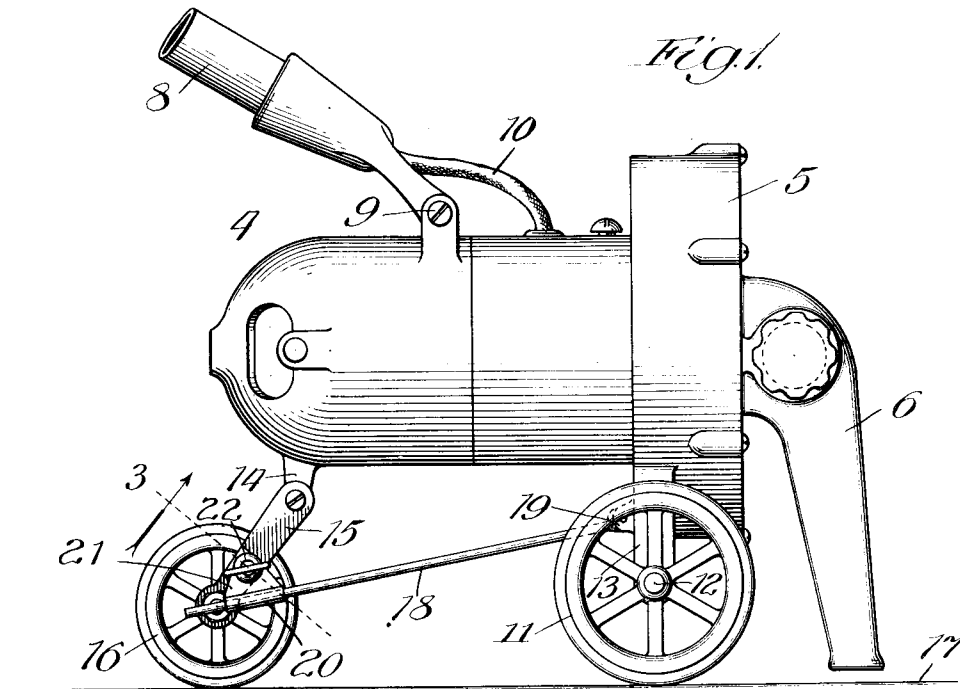


F. A. ENGLISH.
 SUCTION CLEANER.
 APPLICATION FILED SEPT. 25, 1911.

1,033,563.

Patented July 23, 1912.



Witnesses:
 E. C. Gaylord,
 G. F. Chase.

Inventor:
 Frederick A. English,
 By *Dyrenforth, Le., Crittenden & Miles,*
 Attorneys.

UNITED STATES PATENT OFFICE.

FREDERICK A. ENGLISH, OF CHICAGO, ILLINOIS, ASSIGNOR TO BIRTMAN ELECTRIC COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

SUCTION-CLEANER.

1,033,563.

Specification of Letters Patent.

Patented July 23, 1912.

Application filed September 25, 1911. Serial No. 651,214.

To all whom it may concern:

Be it known that I, FREDERICK A. ENGLISH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Suction-Cleaners, of which the following is a specification.

My invention relates to an improvement in the type of pneumatic cleaners in which the entire machine, involving a nozzle-equipped wheeled casing containing the rotary fan and the motor for driving it, is bodily movable, through the medium of a handle connected with the casing, over the surface to be cleaned by suction through the nozzle on the advance-end of the casing.

In the use of a pneumatic cleaner of the type referred to it is desirable to adapt the suction-nozzle to operate quite closely and less closely to the surface upon which it is moved. Thus, for cleaning a bare floor, the nozzle should extend closely, or even bear against the floor-surface, as is also the case in cleaning matting, to cause dust to be sucked from beneath it, and sometimes, also, a carpet; but for renovating, by raising the nap, as well as cleaning a rug, for example, the nozzle should operate some distance above the surface to enable the suction to draw the rug upwardly from the floor against the nozzle and form an air-space underneath the rug to enable a profusion of air to be drawn through the fabric.

The object of my invention is to render the cleaner readily adjustable for setting the nozzle according to desire relative to the surface to be cleaned; and to this end I provide means for tilting the casing lengthwise and securing it in the tilted position, to set the nozzle on its advance-end.

In the accompanying drawing, Figure 1 shows a wheeled pneumatic cleaner in side elevation, provided with my improvement in the preferred form of its embodiment; Fig. 2 is a view of the same in front elevation, and Fig. 3 is an enlarged section on line 3, Fig. 1, through the rear-wheel adjusting mechanism.

The machine proper need involve no features of novelty, that shown being in common use and involving a casing containing a suitable motor near its forward end which terminates in an enlarged annular head housing the rotary fan and from which depends the nozzle 6. The mechanism re-

ferred to, within the casing, needs no illustration or further description, being well known in the particular connection. In the present type of cleaner the dust-bag (not shown) is attached to a nipple or elbow extending from the head for conducting off the dust which passes through the fan; and the machine is manipulated through the medium of a suitable handle 8 hingedly connected with the casing, as shown at 9, and carrying the electric cable for connection through the top of the casing with the motor therein. The casing is carried by a pair of forward wheels 11 journaled on an axle 12 supported in depending bearings 13.

A lug 14 on the bottom of the casing centrally near its rear end, is embraced by and has pivotally connected with it one end of a bracket 15, in the free end of which is journaled a rear wheel 16, thereby adapting this wheel to be swung to extend the bracket vertically from the casing and thus tilt the latter downwardly toward its forward end to bring the nozzle close to the surface, indicated at 17, on which the machine rides, and to extend it obliquely, as to the position shown, for lowering the rear end of the casing and raising the nozzle, on its forward end, relative to the said surface. As simple means for releasably securing the rear wheel in any adjusted position thereof, I provide a rod 18 pivotally fastened at one end between lugs 19 projecting from the back of the head 5 to aline with a resilient sheet-metal sleeve 20 having a pair of ears 21 extending from its edges and through which a thumb-screw 22 works in a bearing 23 on an arm of the bracket 15. The rod 18 extends through the sleeve, to be clamped therein by tightening the thumb-screw to compress the ears together and thus hold the wheel 16 in its set position, from which it is releasable by loosening the screw to permit expansion of the ears and sleeve and resetting of the wheel.

Any support for the casing, other than wheels, upon which to ride the machine for operating it, and adapting the casing to be tilted as and for the purpose herein described, is intended to be included within my invention.

What I claim as new and desire to secure by Letters Patent is—

1. In combination with a suction-cleaner

having a casing equipped with a handle and provided with a nozzle on its advance-end, a pair of wheels for supporting the casing near said end, a bracket hingedly suspended centrally on the casing near its rear end to adapt said bracket to be turned lengthwise of the casing, a wheel journaled in the bracket, and a rod hinged at one end to the casing to extend lengthwise underneath it and adjustably connected at its opposite end with said bracket, for the purpose set forth.

2. In combination with a suction-cleaner having a casing equipped with a handle and provided with a nozzle on its advance-end, a pair of wheels for supporting the casing

near said end, a bracket hingedly suspended centrally on the casing near its opposite end to adapt said bracket to be turned lengthwise of the casing, a wheel journaled in the lower end of the bracket, a clamping sleeve having ears and a set-screw working through said ears in a side of the bracket, and a rod hinged at one end to the casing and confined at its opposite end in said sleeve, for the purpose set forth.

FREDERICK A. ENGLISH.

In presence of—

JOHN WILSON,
RALPH SCHAEFER.