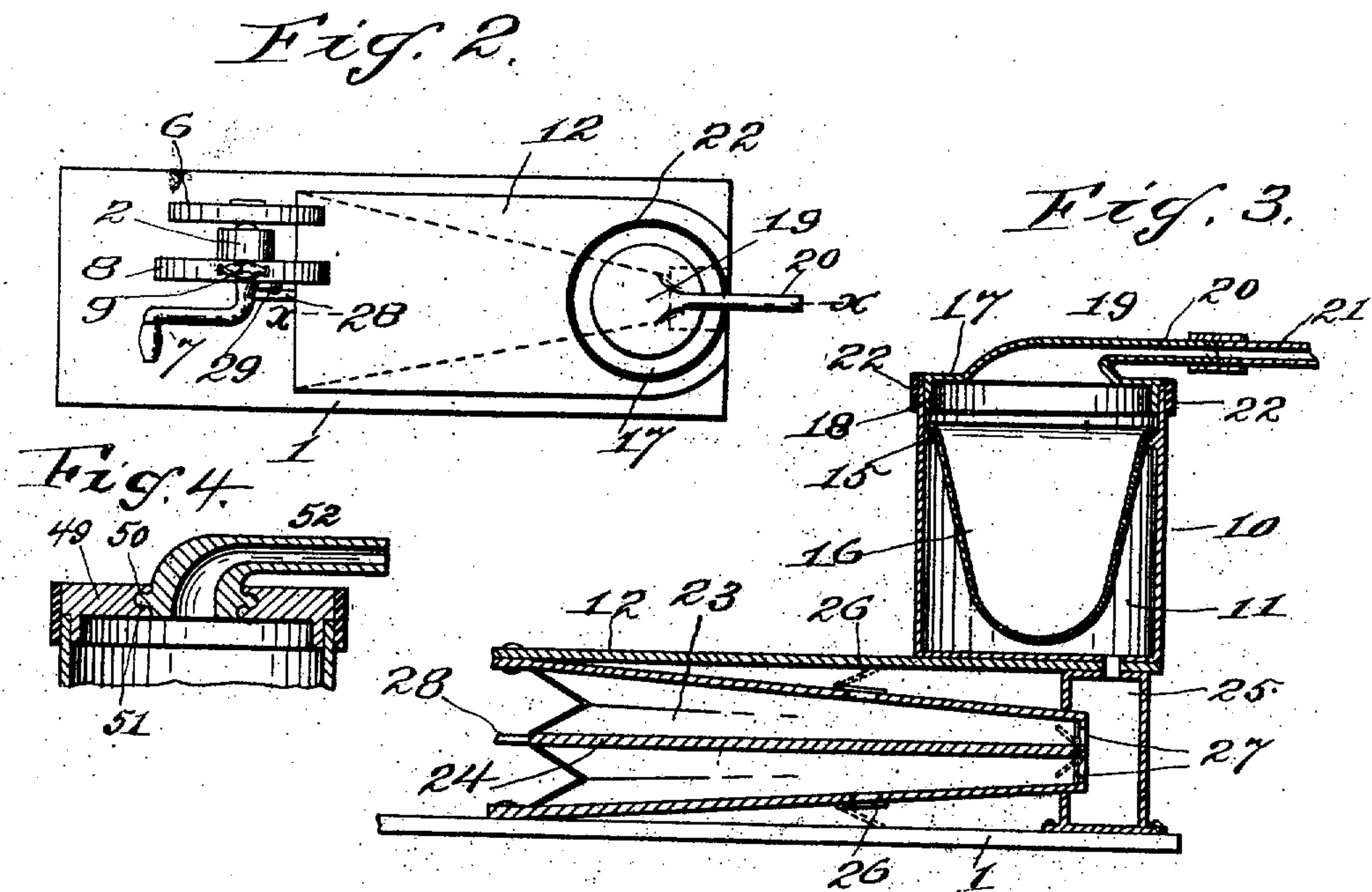
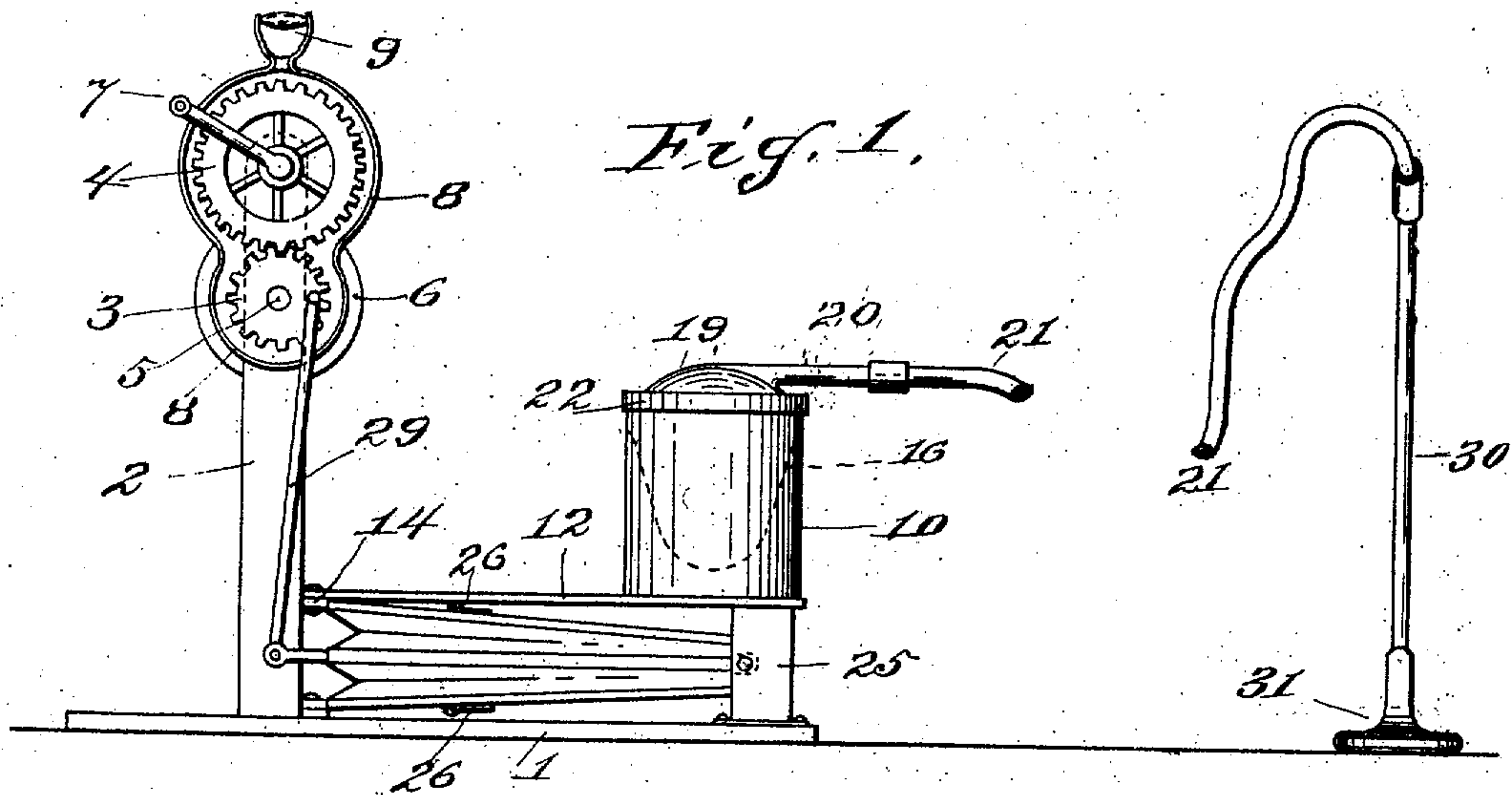


F. C. DE VALLANT.
PNEUMATIC DUST COLLECTOR.
APPLICATION FILED AUG. 3, 1909.

954,938.

Patented Apr. 12, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

FRED C. DE VALLANT, OF EARLVILLE, NEW YORK.

PNEUMATIC DUST-COLLECTOR.

954,938.

Specification of Letters Patent.

Patented Apr. 12, 1910.

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To all whom it may concern:

Be it known that I, FRED C. DE VALLANT, a citizen of the United States, residing at Earlville, in the county of Madison and State of New York, have invented certain new and useful Improvements in Pneumatic Dust-Collectors, of which the following is a specification.

This invention relates to pneumatic dust collectors, and pertains especially to a pneumatic hand device for cleaning carpets and floors.

The object of the invention is to provide a suction hand operated machine or device of novel and peculiar construction and arrangement of parts for cleaning carpets and floors and adapted to have a currycomb attached thereto for cleaning horses and cattle.

A further object of the invention is to provide a suction apparatus adapted to be operated by suitable motive power or by hand, and having such special construction and relative arrangement of parts as to afford simple and expeditious operation.

Various other objects advantages and improved results are attainable in and by the apparatus hereinafter to be fully described.

In the accompanying drawings forming part of this application: Figure 1 is a side elevation of the apparatus the hose being partly broken away, and one side of the gear casing removed. Fig. 2 is a top view without the hose. Fig. 3 is an enlarged section on the line $x-x$, Fig. 2. Fig. 4 is a sectional view of a modified form of cylinder cover.

The same reference numerals denote the same parts throughout the several views of the drawings.

The apparatus or device is mounted on a suitable base-board 1, which may be transported without removing all the parts therefrom, and preferably none of the parts are removed or detached from the base, yet they may be so attached thereto as to permit removal should occasion demand.

Like others of such machines this machine may be moved from place to place or from one floor or room to another by hand, and while it is shown for hand operation, it may be operated by any suitable motive power.

The base 1 has a standard or upright 2, at one end thereof, in which a pinion 3 and

a gear 4 are journaled; the pinion shaft 5 has a balance wheel 6 and the gear shaft is provided with a crank-handle 7. The gears are inclosed by a casing 8 having a hand-grip 9.

A cylinder 10 forming an air-chamber 11, is supported by a platform 12 having one end resting on the air-chest 25, and the other end secured to or seated on a lug 14 of the standard 2. The cylinder 10 has an inner annular rim 15 from which is suspended in the chamber 11, a dust-bag or sack 16. The cylinder cover 17 has a flange 18 fitting within the cylinder, and is provided with a conical nozzle 19, having a stem 20, adapted to be coupled to a hose 21. In order to make an air-tight joint between the cylinder and its cover, an elastic or rubber ring or band 22 is placed over the joint between the cylinder and its cover. This ring or band may be expanded and slid into and out of position on the cylinder in placing and removing the cover without removing the band.

A horizontal bellows 23 having a dividing partition 24, (making it a double bellows) is located between the base 1 and the platform 12 and is provided with suitable valves 26. The air-chest 25 of the bellows has suitable valves 27, and is connected to the base 1 under the platform and in communication with the air-chamber 11. The bellows partition has a rod 28 connected with the pinion 3 by a connecting rod 29.

The hose 21 is connected to a metal hand pipe 30 having a floor or carpet nozzle 31 attached thereto.

Referring to the modification shown in Fig. 4, the casing cover 49 has a circular central recess or groove 50, in which an annular flange 51 of a nozzle 52 is fitted for turning or revolving on the cover as may be desired in using the hose.

It will be seen that owing to the double action of the bellows a positive continuous suction is produced through the air-chamber and suction-pipe, thus making the suction through the dust-bag regular and uninterrupted during the working of the bellows.

It is obvious that the machine is capable of being conveniently carried to such place or position as may be desired without detaching its parts, yet it is of such simple construction, and the connections are such as to permit the parts to be quickly and expeditiously disconnected and assembled.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a portable hand operated dust collector, the combination, with a supporting base, a platform, a double bellows between the base and the platform, an air chest under the platform and connected with one end of the bellows, and means for operating the bellows, of an air chamber supported by the platform over the air chest and in communication therewith, and means for connecting the other end of the bellows with the said base.

2. A portable hand operated dust collector comprising a transportable base, an

air chest carried by the base, a platform supported by the air chest, an air or dust chamber supported by the platform over the air chest and having an air duct or passage through the top of the air chest and through the bottom of the said chamber, a bellows fixed between the platform and the said base, means for connecting the bellows with the air chest, and means for operating the bellows.

In witness whereof I hereunto set my hand in the presence of two witnesses.

FRED C. DE VALLANT.

Witnesses:

C. D. NASH,
H. C. ROWLEY.