G. S. BENNETT.

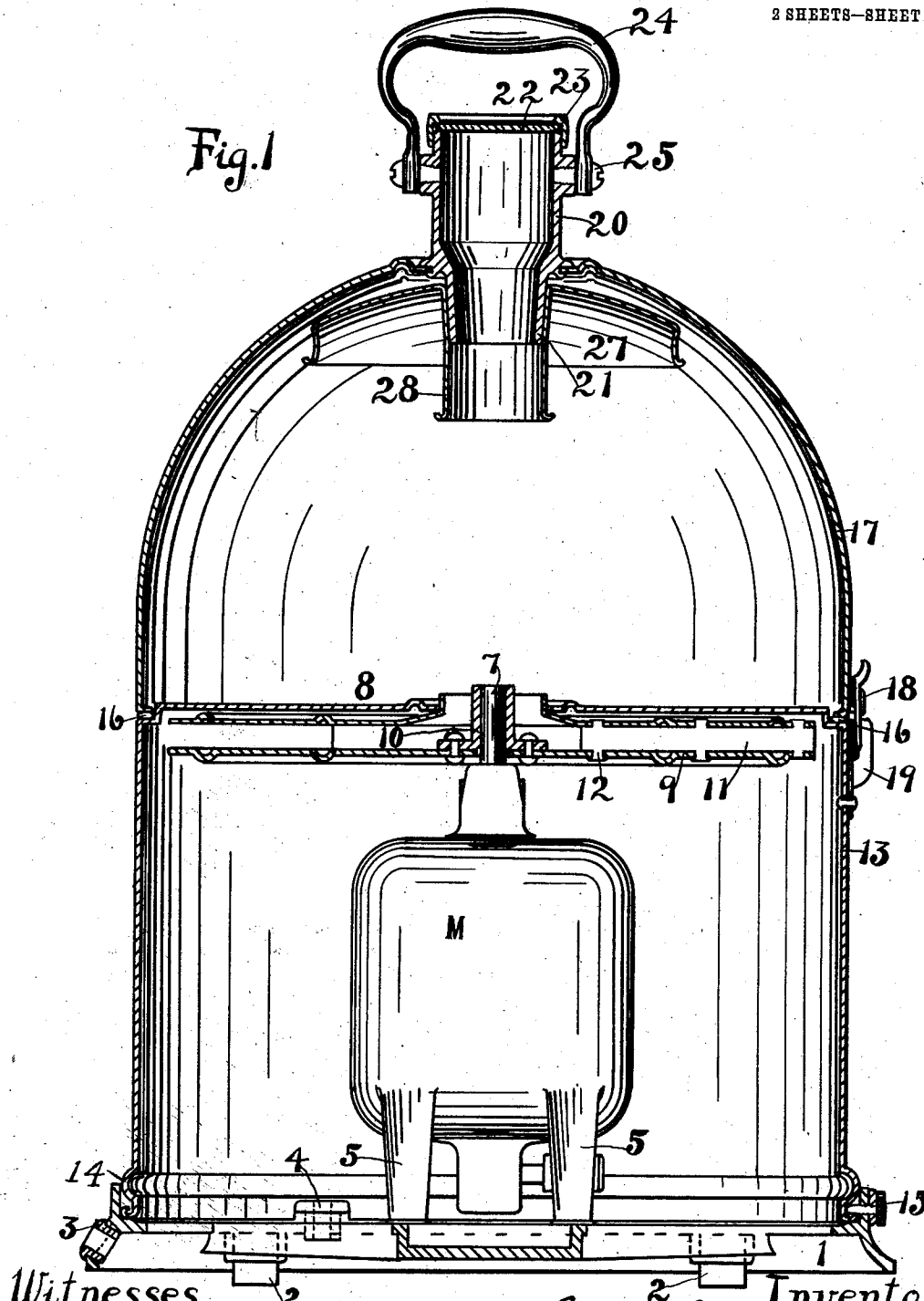
VACUUM CLEANER.

APPLICATION FILED JUNE 26, 1909.

956,148. Patented Apr. 26, 1910.

2 SHEETS—SHEET 1.

Fig. 1



Witnesses

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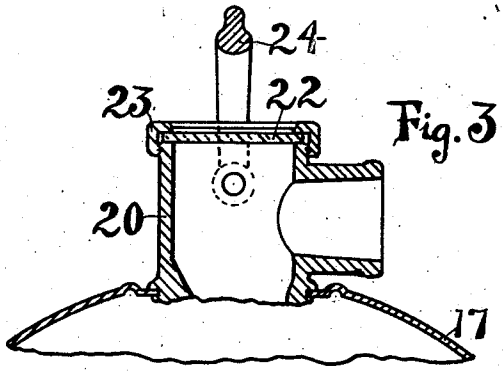
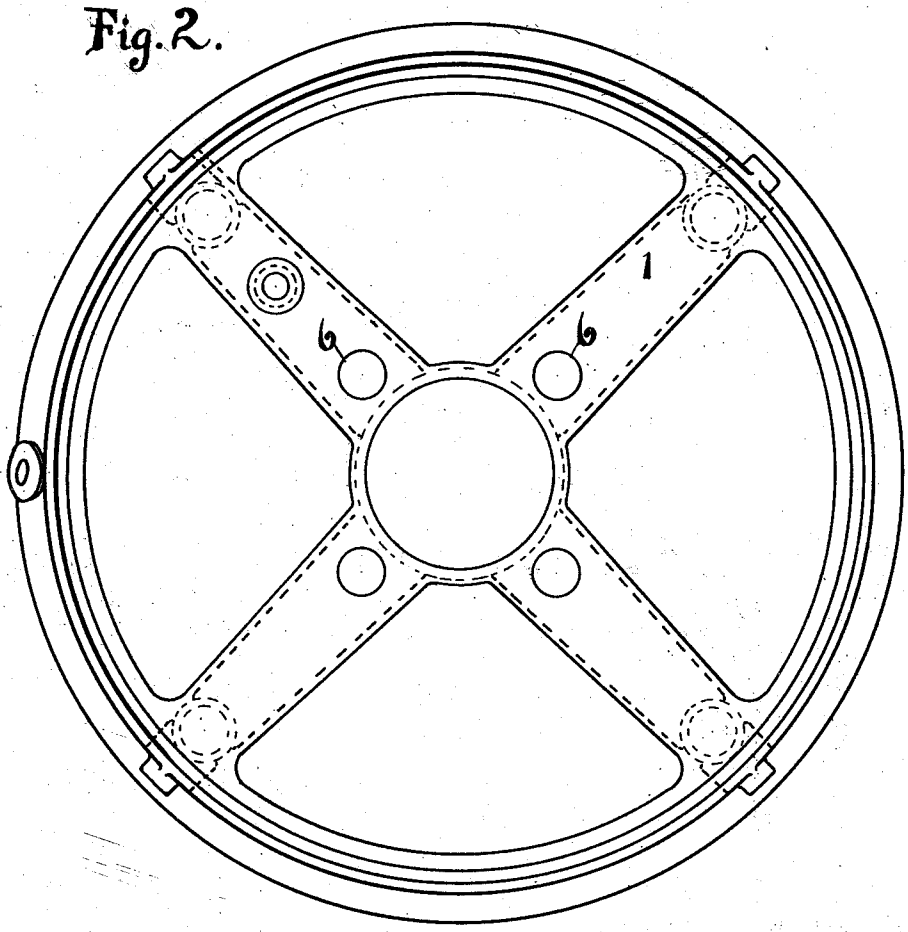


Fig. 3

Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE S. BENNETT, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO VACUUM SPECIALTY MANUFACTURING COMPANY, A CORPORATION OF ARIZONA.

VACUUM-CLEANER.

956,148. Specification of Letters Patent. Patented Apr. 26, 1910.

Application filed June 26, 1909. Serial No. 504,479.

To all whom it may concern:

Be it known that I, GEORGE S. BENNETT, a citizen of the United States, residing on Sacramento street, in the city and county of San Francisco and State of California, have invented a new and useful Vacuum-Cleaner, of which the following is a specification in such full and clear terms as will enable those skilled in the art to construct and use the same.

This invention relates to a vacuum cleaner used for the purpose of collecting the dust from carpets, lace curtains, floors, and in fact any place in a home or office in which dust may accumulate, and its object is to produce a machine which can be carried from place to place easily.

A further object of the invention is to produce a machine which will have all its working parts concealed from view and covered in such a manner as to preclude the possibility of having hangings tangled in the moving parts of the machine, should they brush against it.

Another object of the invention is to provide means whereby the dust laden current may be observed to ascertain whether or not the cleaning operation has been completed at any given place, since as long as dust can be observed it is clear that the fan is still drawing it from the carpet or other surface.

A further object of the invention is to produce a machine which in addition to being light will be as compact as possible thus making the machine attractive to the user, since a large machine, no matter how light, would not appeal to the user as a small compact machine would.

A further object of the invention is to provide a special means for attaching the dust collecting bag to the casing in such a manner as to permit the removal of said bag when loaded with dust without creating a dust cloud when the same is taken from the machine.

In the drawings, in which the same numeral of reference is applied to the same portion throughout the several views, Figure 1 is a vertical sectional view through the center of the complete machine, Fig. 2 is a plan view of the base of the machine on which the motor is supported, and, Fig. 3 is a vertical sectional view of the inlet head in a plane at right angles to that of Fig. 1.

The machine comprises a spider 1 which forms the base of the entire machine, said spider being cast from aluminum in order that it may be as light as possible. The base has four rubber feet 2 which support it a short distance above the floor, and it is provided with the rubber bushings 3 and 4, said bushings being for the purpose of insuring perfect insulation of the electric current wires which must be connected with the motor M. The motor is of the vertical type having four legs 5, of which only two are shown, said legs being seated in holes 6 in the top of the spider 1. This spider has a depression at the center under the motor shaft, the object of said depression being to collect any oil which may drip from the lower end of the motor shaft.

The suction fan is secured directly to the upper end of the motor shaft 7, said fan comprising a pair of disks 8 and 9, the lower of which is secured to the boss 10 on the motor shaft, while the upper disk has a hole through its center and is secured to the fan blades 11, said fan blades being riveted to both disks by means of the projections 12.

The motor and fan are covered with the casing 13 which has a rim 14 at the bottom thereof, said casing being held securely to the base by means of a set of thumb screws 15. This casing has two functions, first it acts as a cover to conceal the fan, and second, it acts as a casing to confine the suction of the air to a given place, that is the center of the upper portion thereof. The casing 13 has a rubber gasket 16 secured to its upper edge and outer corner, said gasket cooperating with the lower edge of the upper casing 17 to produce a chamber within which the dust collecting receptacle may be placed. The casing 17 is dome shaped and has several projections 18 which form abutments for the latches 19 which are secured to the upper part of the casing 13, there being such a number of said latches as may be deemed desirable. The casing 17 has an inlet pipe, or head 20 at its top, said head having a depending pipe 21, and a glass 22 at the top, said glass being held in place by means of a threaded collar 23. The head has a handle 24 secured thereto by means of screws 25. The inlet into the head is at right angles to the inlet from the head into the casing 17, as illustrated in Fig. 3.

The dust collecting receptacle, commonly

a sack of any fine mesh material as cotton flannel, may be secured to the dome 27 at its outer edge, the inner part 28 of said dome being used as a handle to force the dome onto the depending pipe of the inlet head, an airtight joint being made by the spring of the metal of the dome against the depending pipe 21.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is as follows:

1. In a vacuum cleaner, a base plate, a motor having a vertical shaft carried by said base plate, a fan secured to said shaft above the motor, a casing having an opening immediately over the fan shaft said casing being closely adjacent the fan, and a removable supplementary casing producing a chamber above the first casing, substantially as described.

2. In a vacuum cleaner, a base, a motor having a vertical shaft and carried by said base, a fan secured to said shaft above the motor, a casing covering the fan and motor and having an opening therein immediately above the fan shaft, a second casing removably secured to the first casing, and an air inlet pipe at the top of said second casing, substantially as described.

3. In a vacuum cleaner, a base, a motor having a vertical shaft and carried by said base, a fan secured to said shaft above the motor, a casing covering the motor and fan and having an opening therein immediately above the motor shaft, a second casing forming a chamber above the first casing, latches to removably secure the two casings together, an air inlet pipe at the top of the upper casing, and a handle secured to said air inlet pipe whereby the machine may be carried from place to place, substantially as described.

4. In a vacuum cleaner, a base, a motor having a vertical shaft on said base, a fan carried at the upper end of the motor shaft, a casing covering the motor and having an opening immediately over the motor shaft, means to removably secure said casing to the base, a second casing removably secured to the top of the lower casing, an air inlet pipe at the top of the said second casing, and a sack holder adapted to be removably secured within the said second casing around the air inlet thereof, substantially as described.

5. In a vacuum cleaner, a base, a motor secured to said base, a horizontal fan driven by said motor, a casing covering the motor and fan and having an opening therein immediately above the center of the fan, a second casing removably secured to the first casing and having an air inlet at its top, a glass window at said air inlet whereby the incoming air may be seen, and a sack holding member secured to the inside of the upper casing, substantially as described.

6. In a vacuum cleaner, a base, a motor carried thereby, a horizontally revoluble fan driven by said motor, a casing covering the fan and motor and having an opening therein immediately over the center of the fan, a second casing adapted to be placed on the top of the first casing, means to removably secure said second casing to the first casing, an air inlet pipe at the top of said second casing and depending within the latter, a sack holding dome adapted to be held on said depending pipe by frictional contact therewith, and a handle whereby the cleaner may be moved from place to place, substantially as described.

In testimony whereof I have hereunto set my hand this 17th day of June, A. D. 1909, in the presence of the two subscribed witnesses.

GEORGE S. BENNETT.

Witnesses:
A. K. DAGGETT,
C. P. GRIFFIN.