

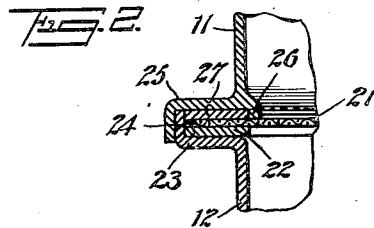
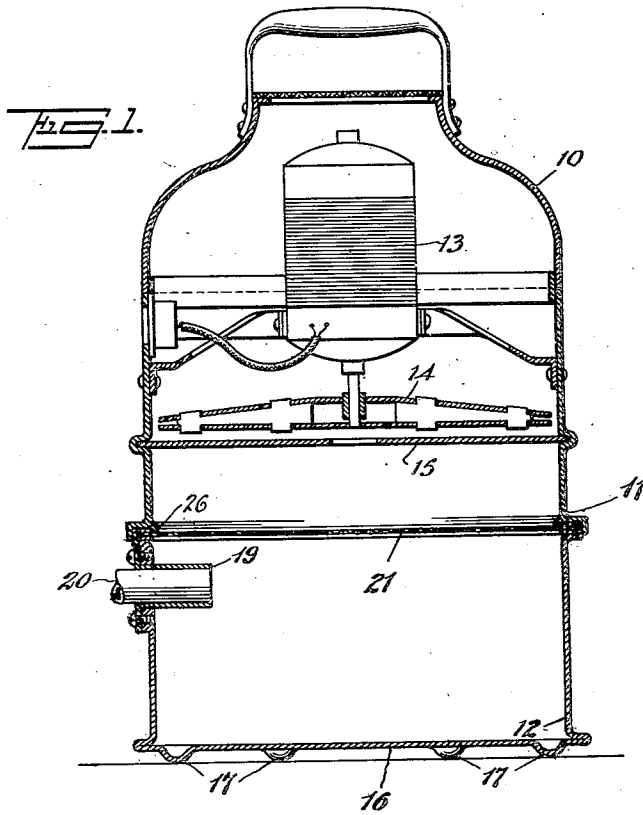
Jan. 13, 1931.

W. H. UPTON

1,789,203

VACUUM CLEANER

Filed April 10, 1929



WITNESSES

B. Scavoy
A. J. Henry

INVENTOR
William H. Upton
BY *Munroe*
ATTORNEYS

UNITED STATES PATENT OFFICE

WILLIAM H. UPTON, OF NEW YORK, N. Y.

VACUUM CLEANER

Application filed April 10, 1929. Serial No. 354,043.

This invention relates to vacuum cleaners.

It is among the objects of the present invention to provide a vacuum cleaner having improved construction of the dust collector and dust receiving chamber.

A further object of the present invention is to provide a vacuum cleaner including a removable dust collecting chamber.

Another object of the present invention is to provide a novel dust collecting screen and means for associating the same with the dust receiving chamber.

Other important objects of the present invention include the combination and interrelation of parts whereby the whole forms a simple, novel and efficient structure well designed to meet the demands of economic manufacture.

Numerous other objects and features of the present invention will be apparent from a consideration of the following specification taken in conjunction with the following drawings, in which

Figure 1 is a vertical section taken through one embodiment of the present invention, and

Fig. 2 is a detail section showing the collecting screen and its mounting.

In illustrating the present invention there has been shown in Fig. 1, one preferred form of vacuum cleaner. This form is similar to that form of vacuum cleaner illustrated in my prior Letters Patent No. 1,458,602, issued July 12, 1923. This form of vacuum cleaner including a casing comprising three members arranged in vertical alinement and indicated at 10, 11 and 12; the member 10 acting as a cover and discharge member for the device. The member 11 is a central motor and fan supporting structure, and the member 12 is the dust receiving chamber suitably mounted within the member 11, a motor 13 and associated fan 14 together with a centrally apertured diaphragm 15 being provided.

It will be understood that the present invention is not confined to the specific form of vacuum cleaner herein illustrated and that the form shown together with the motor and fan assembly form no part of the present invention.

Referring more particularly to the mem-

ber 12, it will be seen that the member forms the bottom for the cleaner, the floor 16 of which includes suitable depressions 17, whereby the device may readily glide over the supporting surface so that the lifting of the device formerly required in such apparatus, is avoided.

The member 12 is further provided with an inlet aperture with which a bushing 19 is associated, the bushing 19 being adapted to receive a suitable pipe connection 20. It will be understood that the connection 20 is adapted to be associated with rigid or flexible tubes and suitable cleaning instruments in the customary manner.

For removing dust and other foreign matter from the air which enters through the pipe 20 in response to rotation of the fan 14, a transversely extending dust-collecting screen 21 is provided. The screen 21 is substantially disk-shaped, its peripheral edge being associated in suitable manner with a stiffening gasket 22, the preferred arrangement being as illustrated, with the peripheral edge of the screen 21 glued or cemented to the stiffening gasket 22, which may be formed of pasteboard, composition, cork, or rubber. In the preferred embodiment, the screen 21 is formed of suitable porous paper or the like, which after use may be conveniently destroyed and replaced inexpensively. It will be understood, however, that the screen 21 may, if desired, be formed of textile or other suitable material and that the present invention is not confined to the materials employed.

For securing the screen 21 transversely of the apparatus, the upper edge of the lower member 12 is flanged outwardly and then upwardly as at 23 and 24, respectively, thus providing a receiving surface and a guiding surface respectively, for the peripheral stiffened edges of the screen 21.

For securing the screen in conjunction with the flanges 23 and 24, the intermediate member 11 is provided at its lower end with an outwardly and downwardly extending flange 25 and with a co-operating inner flange 26, between which a suitable gasket 27 is provided, the arrangement being such that the

gasket 27 contacts with and lies above the upper side of the peripheral edge of the screen 21, while the flange 25 extends outwardly and downwardly to engage the outer face of the flange, so that an air-tight seal is provided between the members 11 and 12, which seal holds in combination therewith, the screen 21.

In the operation of the device, the motor and fan assembly is energized in the usual manner, thus drawing air through the pipe 20 in the lower member 12 and thus through the screen 21, which removes from the air the foreign matter, which drops into the bottom chamber 12.

It will be understood that the chambers 11 and 12 are secured together in any desired manner, preferably by the use of readily assembled bail fasteners (not shown). The arrangement is such that the lower member 12 may be readily removed and the foreign matter dropped therefrom, and the screen 21 readily replaced when desired.

It will be understood that numerous changes and modifications in the structure of the present invention herein illustrated may be resorted to without departing from the spirit or scope of the invention as outlined in the appended claims.

What is claimed is:

1. A vacuum cleaner, including a dust-receiving receptacle base, the side edges of said base including an outwardly extending flange having an annular extending rim, a motor and fan compartment adapted to be supported on said base, said compartment including side walls terminating in a depending inner flange and an outwardly extending flange having an annular depending rim, the outwardly extending flange of said compartment extending beyond the flange and rim of said base, so that said rims will have telescopic relation to provide for maintaining the alignment of said compartment and base, and a horizontal dust strainer maintained between said compartment and base, its peripheral edge being received between said flanges and secured thereby.

2. A vacuum cleaner, including a dust-receiving receptacle base, the side edges of said base including an outwardly extending flange having an annular extending rim, a motor and fan compartment adapted to be supported on said base, said compartment including side walls terminating in a depending inner flange and an outwardly extending flange having an annular depending rim, the outwardly extending flange of said compartment extending beyond the flange and rim of said base, so that said rims will have telescopic relation to provide for maintaining the alignment of said compartment and base, and a horizontal dust strainer maintained between said compartment and base, its peripheral edge being received between said flanges and secured thereby, said strainer including peripheral

binding members on each side thereof, said binding members being adapted to reinforce said strainer and to receive the pressure between the flanges of said compartment and base.

? A vacuum cleaner, including a dust-receiving receptacle base, the side edges of said base including an outwardly extending flange having an annular extending rim, a motor and fan compartment adapted to be supported on said base, said compartment including side walls terminating in an outwardly extending flange having an annular depending rim, the flange of said compartment extending beyond the flange and rim of said base, so that said rims will have telescopic relation to provide for maintaining the alignment of said compartment and base, a horizontal dust strainer maintained between said compartment and base, its peripheral edge being received between said compartment and base and being secured thereby, said strainer including peripheral binding members on each side thereof, said binding members being adapted to reinforce said strainer and to receive the pressure between the flanges of said compartment and base, and a depending inner flange associated with the extending flange of said compartment whereby said depending flange will co-operate with the rim of the base to define a space for the reception of one of the binding members of said strainer.

Signed at New York in the county of New York and State of New York this 3rd day of April, A. D. 1929.

WILLIAM H. UPTON.