

1,207,239.

FIG. 1

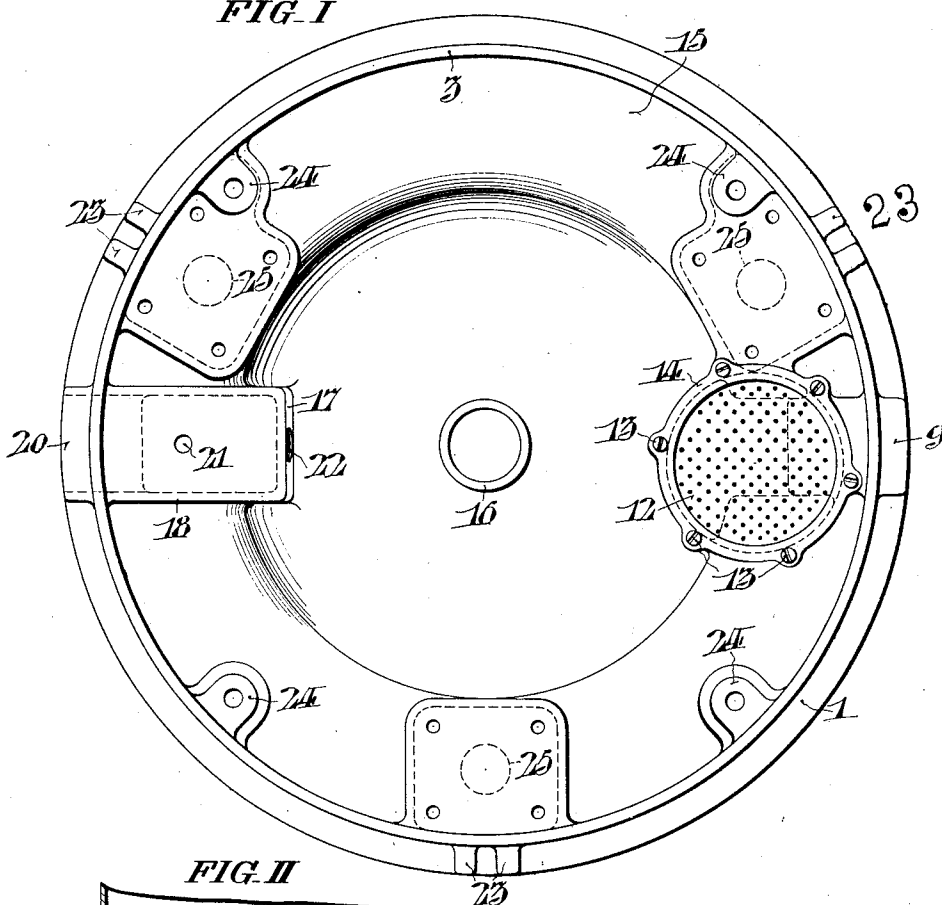


FIG. II

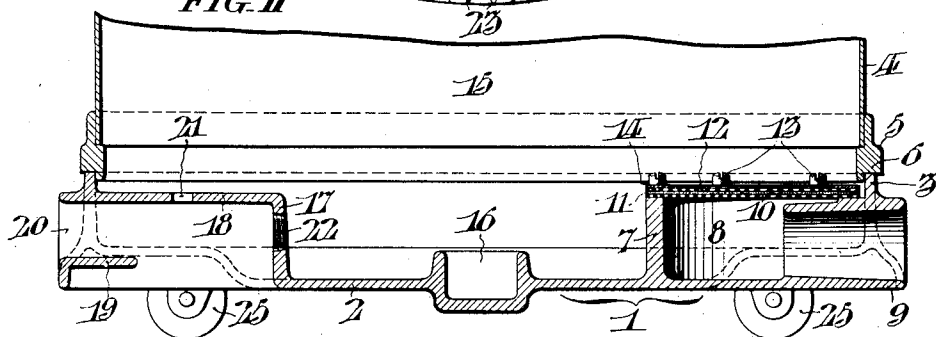
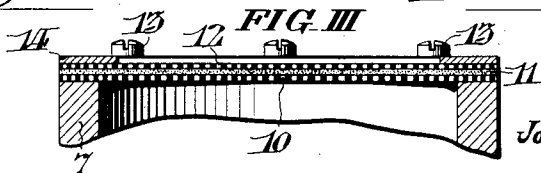


FIG. III



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UNITED STATES PATENT OFFICE.

JOSEPH H. TEMPLIN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK

VACUUM-CLEANER MUFFLER.

1,207,239.

Specification of Letters Patent.

Patented Dec. 5, 1916.

Application filed January 5, 1912. Serial No. 669,539.

To all whom it may concern:

Be it known that I, JOSEPH H. TEMPLIN, of the city and county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Vacuum-Cleaner Mufflers, of which the following is a specification, reference being had to the accompanying drawings.

The invention relates more particularly to vacuum cleaners of the portable type, which are employed in houses for cleaning. In devices of this character, it is very important that not only the vibration of the machine, but also the noise thereof, incident to the releasing of the air from the pressure chamber, be reduced to a minimum, in order to prevent any annoyance therefrom.

An object of the invention is to provide a novel construction of muffler, which may be utilized for muffling the discharge of air from the pressure chamber.

A further object of the invention is to provide a supporting base for a vacuum cleaner, which embodies a muffler of the above character.

These and other objects will in part be obvious, and will in part be hereinafter more fully described.

In the drawings which show by way of illustration one embodiment of the invention, Figure I, represents a plan view of a cleaner base and muffler, embodying the invention. Fig. II, represents a sectional elevation of the structure shown in Fig. I. Fig. III, is a sectional elevation on an enlarged scale, showing the muffler construction.

In the illustrated embodiment of the invention, I have shown a supporting base 1, for a cleaner, which embodies a muffler through which the air passes from the pressure chamber. While I prefer to locate the discharge outlet for the cleaner in the supporting base, it will be obvious that from certain aspects of the invention, the muffler may be applied to the discharge outlet of a cleaner, regardless of its character or location. The supporting base 1, is provided with a bottom portion 2, having an upwardly extending flange 3. The casing 4, of the cleaner as herein shown, is provided with a reinforcing ring or annulus 5, which is suitably recessed as at 6, and seated on the upwardly extending flange 3, of the supporting base 1. The bottom portion 2, of

the base, is formed with an upwardly extending flange or wall 7, which extends into union with the sides of the base, and forms a chamber 8, which communicates by means of the outlet 9, with the atmosphere and thus forms a discharge outlet for the cleaner. The internal wall of said outlet is preferably tapered in order that the blowing or other working nozzle or tool may be readily secured in assembled position with respect thereto, and removed from engagement therewith. In order that the discharge passing through the outlet may be muffled, thereby reducing to a minimum the noise incident to the release of the air from the pressure chamber, I have provided a muffler consisting of an apertured plate 10, which may be in the form of a wire screen or a perforated plate, and said plate is seated on the upper portion of the wall 7. Above the apertured plate 10, is a layer of felt 11, and above the felt 11, is a second apertured plate 12, which may be similar to the plate 10, and these members 10, 11, and 12, form the muffler.

The plates 10, and 12, are secured to the wall 7, by suitable fastening devices 13, each of which passes through a ring 14, which ring engages the outer upper edge of the apertured plate 12, as clearly shown in Fig. I. It will be noted that the air from the chamber 15, formed by the casing, which is connected with the inner parts of the base, must pass through the ring 14, the apertures in the plate 12, the layer of felt 11, and the apertured plate 10, in order to reach the muffler chamber 8, and the discharge outlet 9. By this construction, the noise incident to the release of the air from the pressure chamber will be muffled and reduced to a minimum.

The bottom portion 2, of the supporting base is preferably formed with a chamber or seat, which in practice is adapted to receive a lug carried by the lower end of the motor casing, which operates the cleaning device. The bottom portion 2, is also provided with an upwardly extending portion 17, from which extends a lateral wall 18, into union with the sides of the base. The base is also formed with an inwardly projecting portion 19, which forms a passage 20, adapted to receive the electric contact mechanism, the wall 18, being formed with a suitable aperture 21, for a fastening

means, and the wall 17, being formed with a suitable aperture 22, for the cable which leads to the motor. The base is also provided with spaced projecting lugs 23, which
5 are adapted to cooperate with any suitable type of fastening devices for securing the parts of the cleaner in assembled position. As herein shown, the base is further provided with projecting portions 24, which
10 are apertured in order to secure the standards thereto, which carry the cleaning mechanism. I may also provide the base with supporting rollers 25, which are secured thereto in any desired manner.

15 While from certain aspects of the invention the muffler for the discharge outlet may be located in any desired place in the cleaner, there are, however, certain useful functions flowing from the particular use
20 of the muffler herein described. When the muffler is located in the supporting base and at the extreme lower part of the pressure chamber 15, the air will pass through the muffler at a comparatively low speed and
25 the sound-waves will therefore, be broken up and the noise reduced to a minimum.

It will be obvious that minor changes in the details of construction and arrangement of parts may be made, without departing from the spirit of the invention
30 as set forth in the appended claims.

Having thus described my invention, I claim:

1. A vacuum cleaner having a suitable outlet passage and a muffler composed of permeable material extending across the
35 passage leading to the outlet, and means for supporting said muffler.

2. A vacuum cleaner comprising a supporting base having an outlet at one side
40 thereof, a flange carried by said base, and forming a chamber in proximity to the outlet, and a muffler composed of permeable material for closing one end of said chamber.

3. A vacuum cleaner comprising a supporting base, having an outlet at one side
45 thereof, a flange carried by said base and forming a chamber in proximity to the outlet, a plurality of spaced perforated plates, extending across the opening leading to the
50 chamber and a layer of felt between the perforated plates, and also extending across the opening leading to the chamber.

In testimony whereof, I have hereunto
55 signed my name at Philadelphia, Pennsylvania, this third day of January 1912.

JOSEPH H. TEMPLIN.

Witnesses:

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