July 26, 1927. 1,637,067

H. WIECKHORST

VACUUM CLEANER

Filed May 18, 1926

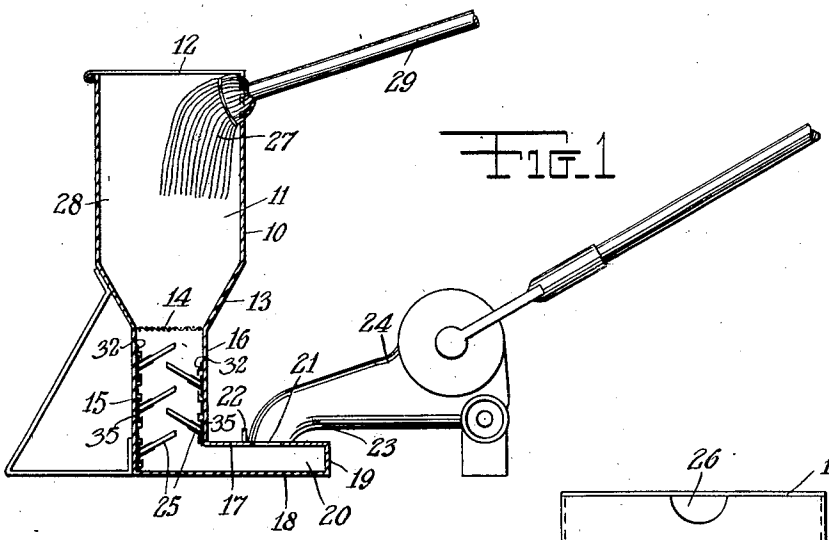


FIG. 1

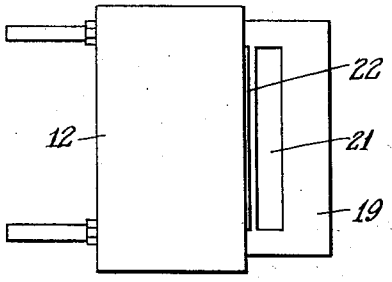


FIG. 2

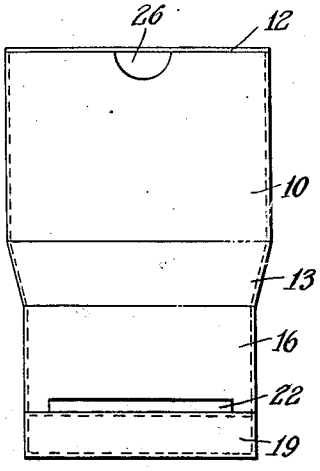


FIG. 3

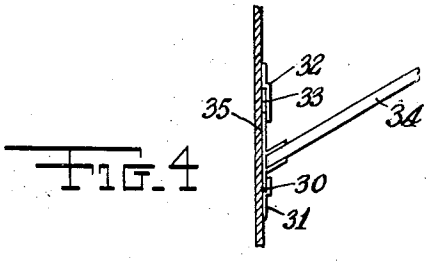


FIG. 4

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VACUUM CLEANER.

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The main object of this invention is to provide an apparatus which combines a vacuum cleaner and a closed hopper for the purpose of extracting dirt and the like from mops or from other articles used for sweeping. The device consists of an enclosed container provided with an opening over which the suction mouth of a vacuum cleaner is mounted.

The above and other objects will become apparent in the description below, in which characters of reference refer to like-named parts in the drawing.

Referring briefly to the drawing, Figure 1 is a longitudinal sectional elevational view of the dirt hopper, showing the vacuum cleaner mounted in place thereon.

Figure 2 is a top plan view of Figure 1.

Figure 3 is a side elevational view of Figure 1.

Figure 4 is a fragmentary sectional elevational view, showing a modified type of baffle plate and its means for detachably mounting the same in place.

Referring in detail to the drawing, the numeral 10 indicates the upper side walls of a hopper. These side walls are joined by end walls 11 which form a rectangular container closed at the top by a hinged cover 12. The lower edges of these walls are inclined toward each other as indicated by the numeral 13, providing a funnel, and at the restricted portion of these inclined walls, a wire mesh 14 is detachably seated. A neck 15 extends from the inclined walls downwardly to the floor. One of the side walls 16 of this neck is shorter than the remaining portions and has mounted thereto a roof 17 of a dirt trap which consists of a floor plate 18 and an end wall 19 which encloses a chamber 20. A rectangular opening 21 extends partly across the width of the roof 17 and beside one side of the opening, a stop ridge 22 projects upwardly from the roof and serves as a member which limits and guides the mouth 23 of a vacuum cleaner 24 to come to rest over the opening 21. The chamber formed by the neck walls receives a plurality of inclined baffle plates 25 which rise toward the center of the chamber. One of the walls 10 facing the free end of the hinged cover 12 is provided with a semi-circular opening 26 thru which the mop end 27 is inserted into the compartment 28.

In Figure 4, a modified form is shown in which the baffle plates are made detachable so that they may be removed when it is desired not to use the same. These baffle plates are mounted in place by sliding the same first upwardly into the channel 33 of a guide plate 32 of relatively longer dimensions than the plate 31 described below, to permit vertical sliding in the channel 33. A retainer plate 31 of the same outline as member 32, but of shorter dimensions, is mounted below the baffle plate 34. The latter has attached thereto a tongue 35 whose end rests in the channel 30. In inserting the baffles, the tongue 35 is slid vertically upward into channel 33, then said tongue is brought flush against the wall 15 or 16, and depressed so that the lower end of the tongue rests in the channel 30.

The hopper is used for extracting dirt or the like from mops and similar other sweeping articles such as brooms. The handle 29 of the mop 27 or other article which is to be cleaned is grasped and the active end of said article is inserted into the semi-circular opening so that said end projects into the chamber 28. A vacuum cleaner, whose mouth 23 completely covers the rectangular opening 21 by backing the vacuum cleaner against the ridge, is supported on one side of the device. The current of air in the vacuum cleaner is then generated and the air enters thru the mouth of the vacuum cleaner and causes a circulation of air from chamber 28 thru the neck, passing the baffle plates 25 and thence entering the chamber 20 after which it passes directly into the dust bag attached to the vacuum cleaner. Articles such as screws or solid material, which is likely to adhere to the mop until it arrives in the cleaning hopper, when dislodged fall upon the wire mesh screen 14, and when this is not used, such articles fall upon the baffle plates 25 or the modified type of baffle plates 34.

It is to be noted that certain changes in form and construction may be made without departing from the spirit and scope of the invention.

I claim:—

1. A device of the class described comprising a hopper having an opening in one side adapted to receive the head of a mop or the like, a hinged door normally closing said hopper, baffle plates, a neck integral with said hopper and beneath the same, and means for detachably mounting said baffle plates in inclined position in the neck of said hopper.

2. A device of the class described comprising a hopper having an opening in one side adapted to receive the head of a mop or the like, a hinged door normally closing said hopper, baffle plates, a neck integral with said hopper and beneath the same, tongues on said baffle plates, and means in said neck cooperating with said tongues for detachably mounting said tongues rigidly in said neck in inclined position.

3. A device of the class described comprising a hopper having an opening in one side adapted to receive the head of a mop or the like, a hinged door normally closing said hopper, baffle plates, a neck integral with said hopper and beneath the same, tongues on said baffle plates, means in said neck cooperating with said tongues for detachably mounting said tongues rigidly in said neck in inclined position comprising guide plates forming an upper channel and a lower channel, the upper channel being deeper than the lower channel, said tongue being adapted to be slipped into the upper channel, slid upwardly and then lowered into the lower channel to detachably secure each of said baffle plates in place in the neck.

In testimony whereof I affix my signature.

HERMAN WIECKHORST.