May 12, 1959 P. A. JOHNSON 2,885,714

COMBINED HASSOCK AND VACUUM CLEANER

Filed Dec. 6, 1956 2 Sheets-Sheet 1

Fig. 1.

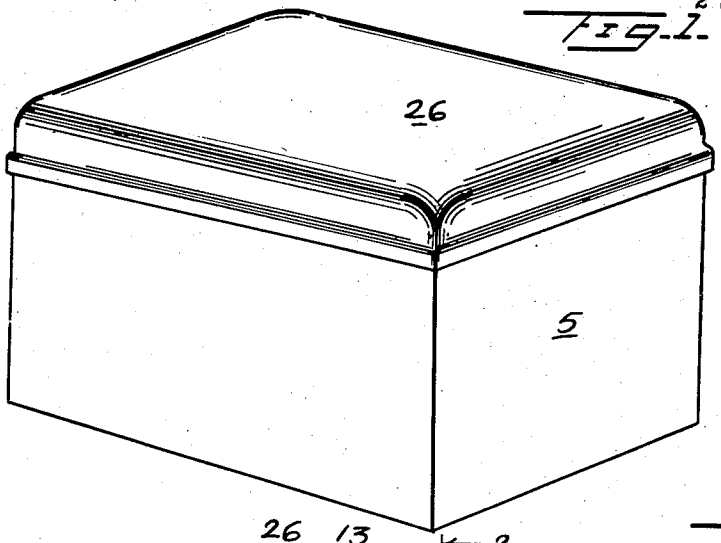
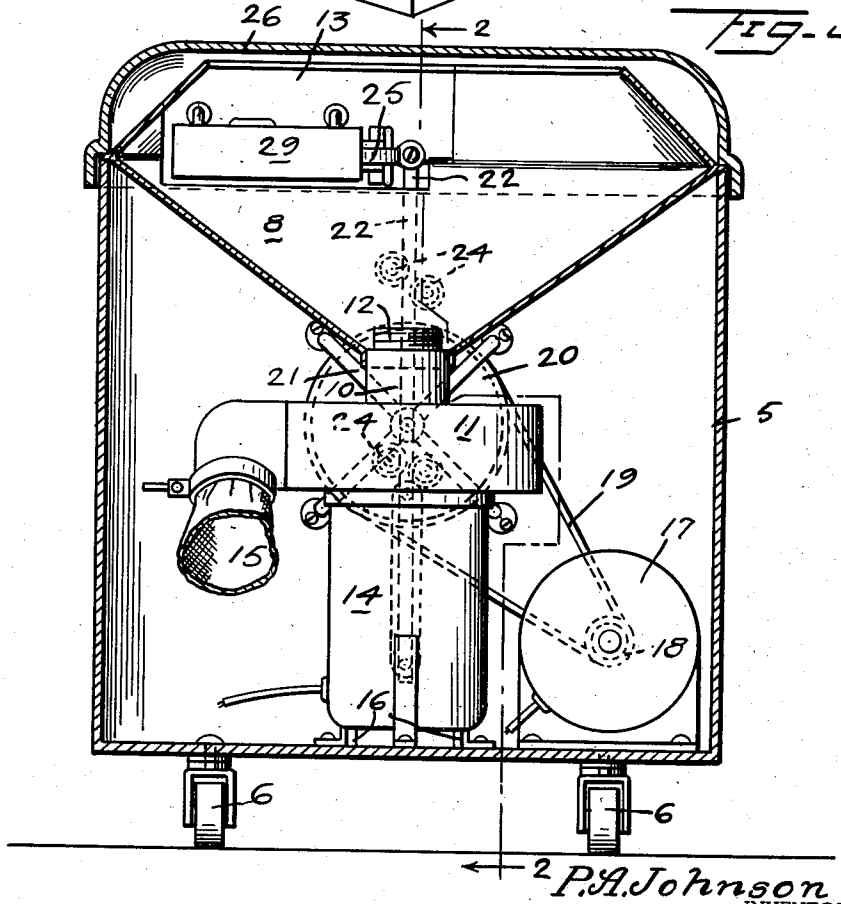


Fig. 3.



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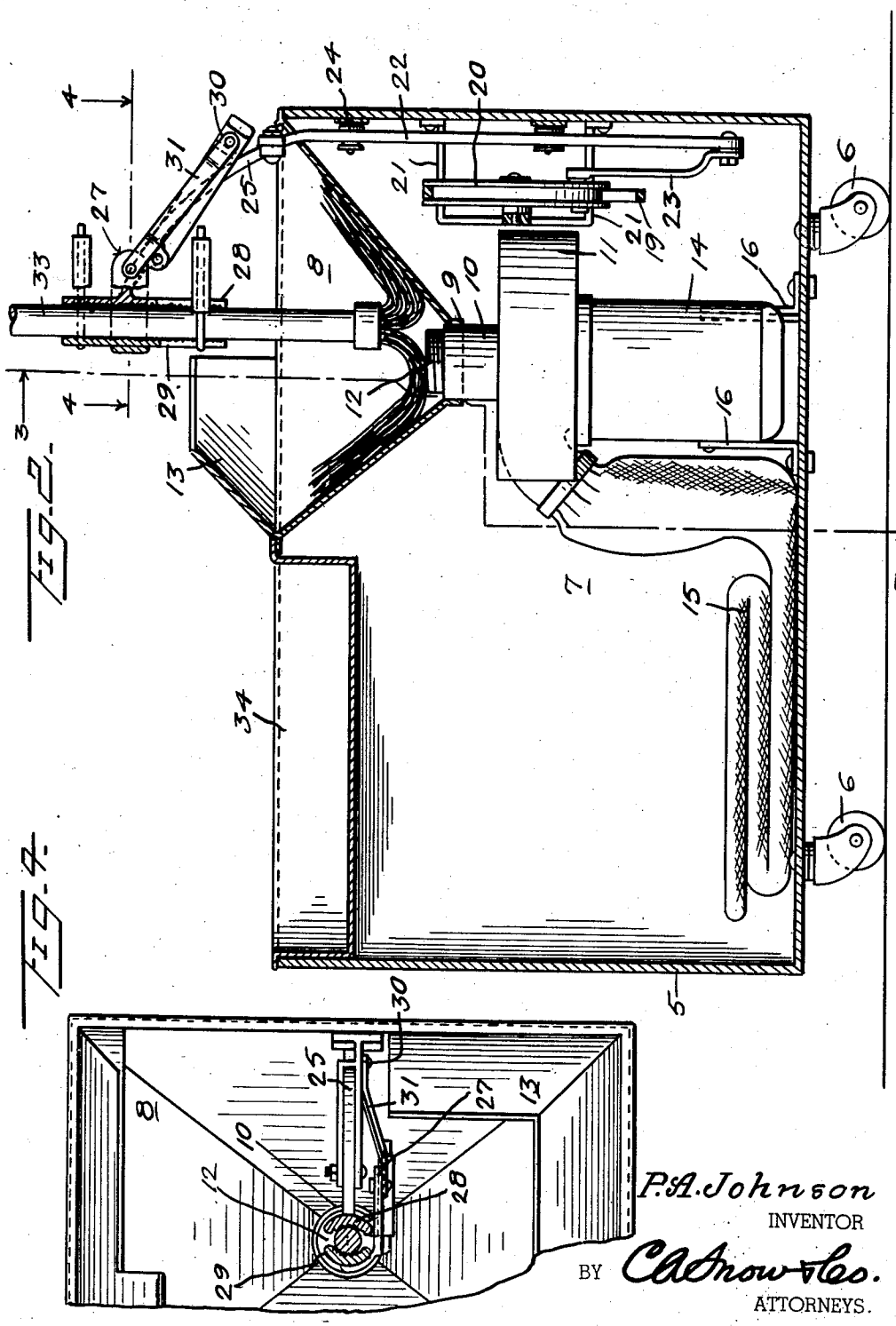


FIG. 2.

FIG. 4.

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COMBINED HASSOCK AND VACUUM CLEANER

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1 Claim. (Cl. 15—331)

This invention relates to vacuum cleaners.

An important object of the invention is to provide a vacuum cleaner supported within a portable housing in such a way that the vacuum cleaner may be operated in the conventional manner by attaching the usual suction hose and nozzle to the neck of the suction fan or blower housing.

Another object of the invention is to construct the hassock or housing in such a way that a compartment is provided within which the neck of the fan or blower housing extends, for attachment to the hose of the conventional vacuum cleaner.

Still another object of the invention is to provide means supported adjacent to the compartment for clamping a mop in an upright position so that the mop head will rest within the compartment and be subjected to the suction of the fan or blower of the vacuum cleaner, for removing dust from the conventional dry mop supported therein, thereby avoiding the possibility of dust escaping to the atmosphere of the room during the mop cleaning operation.

A further object of the invention is to provide clamping means which will not only clamp the mop handle, but will operate to vibrate the mop head within the compartment in such a way that the strands of the mop head will be caused to strike the inclined surfaces of the compartment to dislodge dust from the mop head, the dust being carried away by the suction created in the vacuum cleaner.

Other and further objects and advantages of the invention will be hereinafter described and the novel features thereof defined in the appended claim.

Referring to the drawings:

Fig. 1 is a perspective view of a combined hassock and vacuum cleaner, constructed in accordance with the invention.

Fig. 2 is a sectional view taken on line 2—2 of Fig. 3.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 2.

Fig. 4 is a sectional view taken on line 4—4 of Fig. 2.

Referring to the drawings in detail, the housing for the vacuum cleaner, which is in the form of a hassock, is indicated generally by the reference character 5, and is supported on the castors 6 so that the housing may be readily and easily moved from one location to another.

The housing or hassock 5 is divided into a vacuum cleaner compartment 7 and a dust compartment 8, the dust compartment being arranged adjacent to one end of the housing or hassock 5 as better shown by Fig. 2 of the drawings.

The wall of the dust compartment is of inverted cone shape construction, and provided with an opening 9 at the bottom thereof, which opening 9 is of a diameter to accommodate the neck 10 forming a part of the suction fan or blower housing 11.

The neck 10 is formed with a threaded extension 12 affording means whereby a suitable collar on one end of a suction hose of a vacuum cleaner may be readily

and easily secured thereto, in the event that the device is to be used in the usual way as a vacuum cleaner.

An inwardly and upwardly extended marginal flange 13 is formed along the upper edge of the wall of the dust compartment, so that the mop head which is held within the dust compartment during the removal of dust from the mop head, may contact these inclined surfaces and dislodge the dust and foreign matter therefrom, during the vibrating movement of the dust mop within the dust compartment 8.

The vacuum cleaner which is mounted within the housing or hassock 5, is indicated by the reference character 14 and includes a dust bag 15, which connects with the fan or blowing housing 11 to receive dust and foreign matter therefrom.

Supporting arms 16 are secured to the bottom of the housing or hassock 5 and are secured to the vacuum cleaner 14, as clearly shown by the drawings.

Mounted within the housing or hassock 5, is an auxiliary motor 17 which is provided with a pulley 18 over which the belt 19 operates, the belt 19 also operating over the substantially large pulley 20 supported within the bracket 21 secured within the housing or hassock 5. The reference character 22 indicates a vertically movable arm that is connected with the crank arm 23 eccentrically connected to the pulley 20, as better shown by Fig. 2 of the drawings.

This vertically movable arm 22 is guided in its vertical movements, by the guide rollers 24 between which the arm 22 moves.

Pivotally connected with the arm 22 is an arm 25 which is adapted to swing from a vertical position to a horizontal position as shown by Fig. 3 of the drawing, so that the arm and mechanism supported thereby may be swung downwardly out of the way, when the apparatus is used as a hassock and the cover 26 is moved to its closed position and the vacuum cleaner and dust compartment concealed.

Connected with the upper end of the arm 25, is a mop handle clamp 27, the mop handle clamp comprising a stationary jaw 28 and a movable jaw 29 controlled by the operating lever 30 and so constructed that when the operating lever 30 is moved downwardly, the links 31 connected thereto, will act to draw the movable jaw 29 of the mop handle clamp into clamping relation with respect to the stationary jaw to grip the mop handle which in the present showing is indicated by the reference character 33, securing the mop handle in a vertical position with the strands of the mop head held within the dust compartment.

In the use of the apparatus as a means for cleaning and removing dust and foreign matter from a dry mop, the dry mop is secured in an upright position by means of the mop handle clamp 27 which securely grips the mop handle holding the mop in such a position that the strands of the mop head will rest on the inclined bottom of the dust compartment.

The vacuum cleaner is now set in motion to cause the fan or blower thereof to create a suction through the vacuum cleaner in the usual manner, which creates a down draft or suction removing dust from the strands of the mop head and compartment 8.

The auxiliary motor is set in motion simultaneously with the operation of the vacuum cleaner, which causes a vertical movement of the arm 22 and jaws of the mop supporting mechanism which results in a beating action between the strands of the mop head and the inclined bottom of the dust compartment and inclined surfaces of the marginal flange 13. It will of course be obvious that during the beating action the dust and foreign matter is liberated from the strands of the mop head and is im-

mediately carried off by the suction created within the vacuum cleaner.

While the dust compartment 8 closes substantially one-half the area of the upper portion of the housing or hassock, a tray 34 is constructed with a flange 35 that is designed to rest on the upper edge of the housing or hassock 5, removably supporting the tray 34. This tray may be used in supporting various articles used with the vacuum cleaner.

It will of course be understood that when the apparatus is to be used in removing dust and foreign matter from a dry mop, the mop is supported in a manner as shown by Fig. 2 of the drawings. The vibration of the mop head within the dust compartment and the contact of the strands of the mop head with the inclined surface of the dust compartment and flanges 13 will cause the dust and foreign matter to be dislodged from the strands and carried off by the suction through the vacuum cleaner.

In the event that the device is to be used in the usual way as a vacuum cleaner, the dust mop of course is removed and a vacuum cleaner hose and nozzle secured to the threaded portion 12 of the neck 10 of the fan or blower housing 11.

When the device is out of use, it is obvious that by swinging the arm 25 downwardly to a position as shown by Fig. 3 of the drawings, the mop handle clamp will be out of the way and the cover may be moved to a closed position as shown by Fig. 1 of the drawings converting the device into a hassock.

What is claimed is:

A combined vacuum cleaner and dry mop cleaner, comprising a hollow body having an opening in its top through which a mop head may be inserted, a dust compartment within said hollow body, said dust compartment having an opening in the bottom thereof, a suction creating mechanism including a suction pipe having a threaded end extended through the opening in the bottom of said dust compartment through which dust laden air is drawn from said dust compartment, a clamp for clamping the handle of a mop supporting the mop head thereof within said dust compartment, mechanism for vibrating said mop head vertically against the bottom of said dust compartment for dislodging dust from said mop head, and said threaded end of said suction pipe adapted to receive a hose of a vacuum cleaning nozzle converting said apparatus into a vacuum cleaner.

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