

J. J. SLEVIN.
ELECTRIC SWITCH ATTACHMENT FOR VACUUM CLEANING DEVICES.
APPLICATION FILED MAR. 20, 1911.

1,015,352.

Patented Jan. 23, 1912.

Fig. 1.

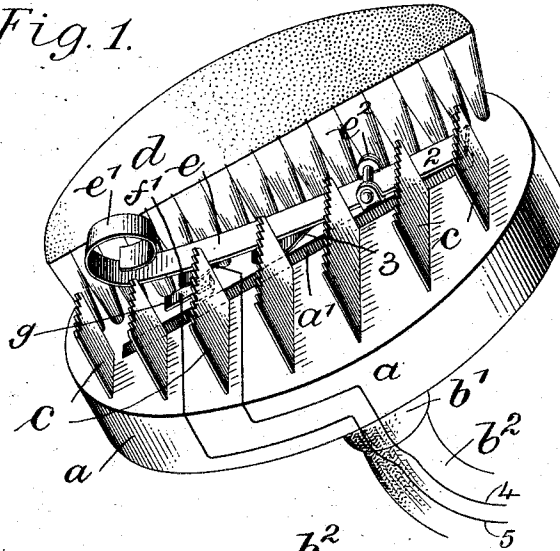


Fig. 2.

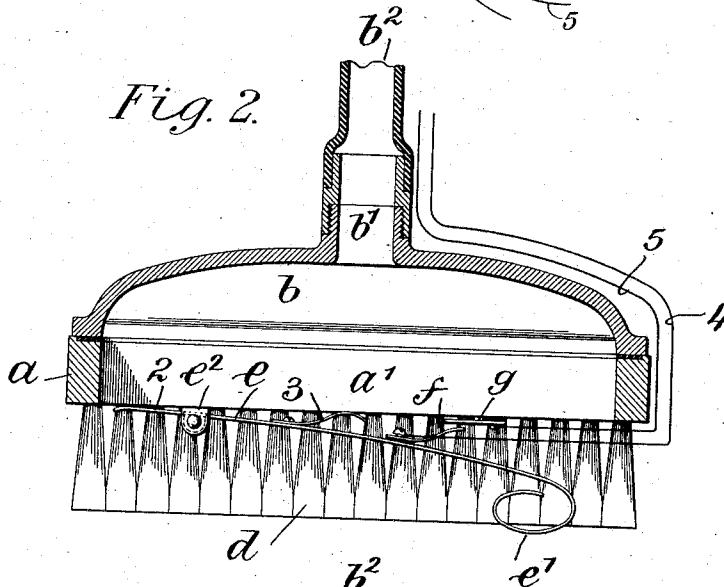
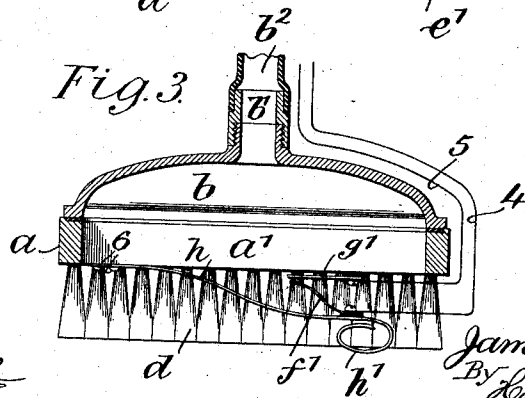


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

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ELECTRIC SWITCH ATTACHMENT FOR VACUUM CLEANING DEVICES.

1,015,352.

Specification of Letters Patent.

Patented Jan. 23, 1912.

Application filed March 20, 1911. Serial No. 615,677.

To all whom it may concern:

Be it known that I, JAMES J. SLEVIN, a citizen of the United States, residing at the borough of Manhattan, in the city, county, and State of New York, have invented an Improvement in Electric Switch Attachments for Vacuum Cleaning Devices, of which the following is a specification.

My invention relates to an electric switch attachment for vacuum cleaning curry-combs or brushes.

It has heretofore been proposed to cleanse and brush the coat of hair of such animals as horses and cows by a vacuum cleaning device and brush adapted for use in connection therewith.

In my application for Letters Patent of the United States, filed February 13, 1911, Serial No. 608,435, I have shown and described a combined curry-comb and brush of novel form and construction adapted for use with a vacuum cleaning device, and in view of the fact that such a large proportion of vacuum cleaning devices are electrically actuated, I have proposed to control the electric power thus employed at and by the implement of my improved combined curry-comb and brush cleaner.

In carrying out my invention and in combination with the brush and curry-comb blades and the holder therefor provided with a slot and a pipe to a vacuum cleaning device, I employ an automatically acting electric switch connected to the under side of the holder and placed in the midst of the bristles of the brush or the blades of the curry-comb, or both, and adapted when the cleaning device is placed manually against the body of the animal to complete the circuit and start the vacuum apparatus in motion; consequently when the cleaning device is removed the circuit is broken and the vacuum cleaning device stopped.

This switch device preferably includes a spring blade having a free end for contact with the body of the animal and of such form as to be unaffected by the movement of the cleaning implement manually in any direction, all of which is hereinafter more particularly described.

In the drawing, Figure 1 is a perspective view representing a combined curry-comb and brush slotted and with the switch de-

vice of my invention in position. Fig. 2 is a vertical central longitudinal section of the same through the slot and with the switch parts and brush in elevation, and Fig. 3 is a section similar to the section Fig. 2, but in smaller size and representing a form or modification of my invention.

Similar letters and numerals of reference in the respective figures indicate similar parts.

a represents the brush body or holder, *a*¹ a central longitudinal slot therethrough, *b* a hollow longitudinal cover secured to one surface of said body or holder *a* and the latter cover provided with a neck *b*¹ to which is connected a flexible hose *b*². Upon the opposite surface of the body or holder *a* I have shown a series of curry-comb blades *c* secured in position parallel with the shortest dimensions of the holder and at right angles to the longest dimensions, and these are shown as located upon one side of the slot *a*¹, while on the other side a brush *d* is shown composed of tufts of bristles secured in the body or holder in any manner well known in the art of brush making.

Referring particularly to Figs. 1 and 2, I have shown a blade *e* of spring metal with a free end *e*¹ rounded and with a short end 2; said blade being provided with pivot yokes adapted to connect the same by a pivot pin to the yokes *e*² secured to the under surface of the body or holder *a*, whereby the said blade *e* is pivotally connected to the under surface of the body or holder *a*. In connection with this blade *e* I have illustrated a spring 3 preferably of lighter weight than the blade *a* and connected to the surface of the blade *e* next to the body or holder *a* with the free end of the spring 3 bearing against the surface of the body or holder to normally maintain the end 2 in contact with the body or holder *a* and the free rounded end *e*¹ normally projecting beyond the plane of the bristles of the brush *d* and also of the surface of the curry-comb blades.

f represents a contact blade fastened to the blade *e*, and *g* a contact blade fastened to the under surface of the body or holder *a*; there being a sliding function between said parts for the blade *f* over the surface of the blade *g*. These blades *f* and *g*

are insulated from their respective supports and the electric wires 4 5 shown are connected to these blades *f g*. I have shown these electric wires as extending outside of the body or holder *a* and as lying parallel with the flexible hose *b*², but in use these electric wires will probably be insulated and pass through the body or holder *a* and extend along the flexible hose *b*² in a suitable cover provided therefor, so that the wires will be out of the way and will not be separated from the device as it is manually actuated as a whole.

In the form of my invention shown in Fig. 3, *h* represents a spring switch blade connected by the screws or rivets 6 to the under surface of the body or holder *a* in very much the same position as the blade *e* hereinbefore described. This has a rounded end *h*¹ also projecting beyond the plane of the bristles forming the brush or of the curry-comb blades or both. This spring *h* is provided with a contact blade *f*¹ and the body or holder *a* with a contact blade *g*¹ from which the electric wires 4 5 extend, and the description hereinbefore made with reference to the location of the electric wires in connection with Figs. 1 and 2, applies with equal force and effect to the electric wires shown in Fig. 3.

The device of my improvement is to be taken in the hand of the operator and while the free ends of the respective contact blades shown and described are normally separated, they are at once brought into contact by the resting of the brush or curry-comb, or both, upon the back of the animal to be groomed, which completes the circuit and starts in operation the motor of the electric cleaning device so that the cleaning device is made effective by the current of air that is drawn in through the slot *a*¹, cover *b*, neck *b*¹ and hose *b*² to a suitable receptacle to be provided therefor, and this connected current is maintained so long as the cleaning device bears upon the body of the animal and also regardless of the pressure that may be manually applied to the cleaning implement, because the circuit is maintained regardless of the spring action or the force applied because the spring members all yield to pressure and keep in contact so long as pressure is maintained and the cleaning operation in force; said parts at once separating and breaking the circuit when the implement is lifted away from the body of the animal.

While the rounded end *e*¹ of the blade *e* and the rounded end *h*¹ of the blade *h* are both adapted to bear upon the body of the animal being cleaned and thereby in the use of the implement to be moved to complete the circuit and to be in the same plane with the body of bristles or the curry-comb blades or both in use, I do not limit my in-

vention to making the blades *e* and *h* with such rounded integral ends as it is quite apparent that some other and equivalent end for said blades could be employed having a like function and as equally operative.

I claim as my invention:

1. A vacuum cleaning and electric power controlled device for cleaning animals, comprising a foundation of suitable material to be held in the hand, provided with a slot, cleaning members connected to one surface thereof and an intake nozzle connected to the other side of the foundation over the slot and adapted for connection with the flexible hose, and a switch structure connected to the foundation or holder and placed in the midst of the cleaning devices and adapted to complete the electric circuit upon contact with the surface to be cleaned, and electric wires passing along the flexible hose to the source of power.

2. A vacuum cleaning and electric power controlled device for cleaning animals, comprising a foundation or holder of suitable material to be held in the hand, provided with a slot and intake nozzle connected to the one side of the foundation over the slot and a flexible hose therefrom to a vacuum cleaning device, cleaning members connected to the other side of the foundation, a metal blade secured to the same side of the foundation in the midst of the cleaning devices, a rounded end thereto adapted to rest upon the body of the animal being cleaned, contact members for completing an electrical circuit connected respectively to said blade and said foundation or holder, and electric wires from the said contact blades extending along the flexible hose to the source of electric energy for controlling the power with the application of the cleaning device to the body of the animal.

3. A vacuum cleaning and electric power controlled device for cleaning animals, comprising a foundation or holder of suitable material to be held in the hand, provided with a slot and intake nozzle connected to one side of the foundation over the slot and a flexible hose extending therefrom to a vacuum cleaning device, a series of bristles forming a brush member connected to the other side of the foundation or holder on one side of the slot and spaced therefrom, a series of curry-comb blades secured to the same side of the foundation or holder and upon the other side of the slot, a blade of metal connected to the foundation in the midst of the cleaning devices and along one side of the slot on which the bristles are spaced, and said blade having a rounded free end adapted to rest against the body of the animal being cleaned, a contact blade secured to the aforesaid blade and an electric wire therefrom, a second contact blade co-acting therewith and secured to the un-

der surface of the foundation or holder and
an electric wire therefrom, whereby when
the rounded end of the blade is brought
into contact with the body of the animal to
be cleaned, the electric circuit is completed
and the source of power set in motion, sub-
stantially as described.

Signed by me this 14th day of March
1911.

JAMES J. SLEVIN.

Witnesses:

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E. ZACHARIASEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."