

A. A. LONG.  
CLEANING MACHINE.  
APPLICATION FILED JULY 7, 1910.

1,063,559.

Patented June 3, 1913.

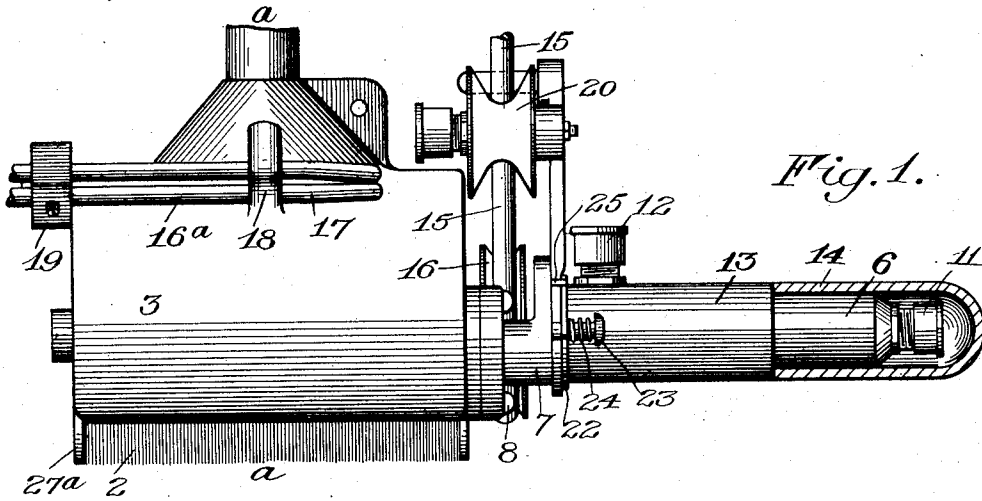


Fig. 1.

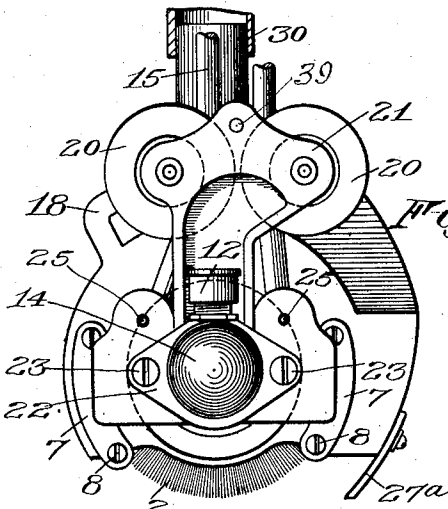


Fig. 2.

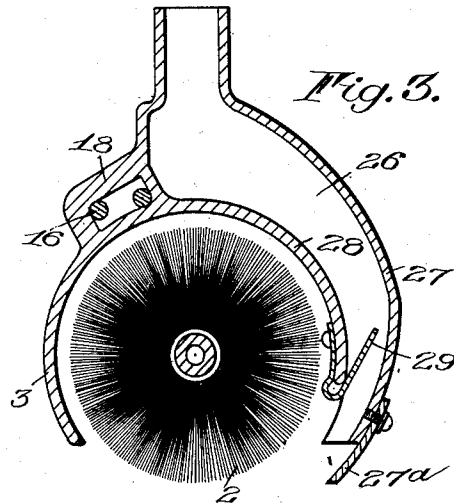


Fig. 3.

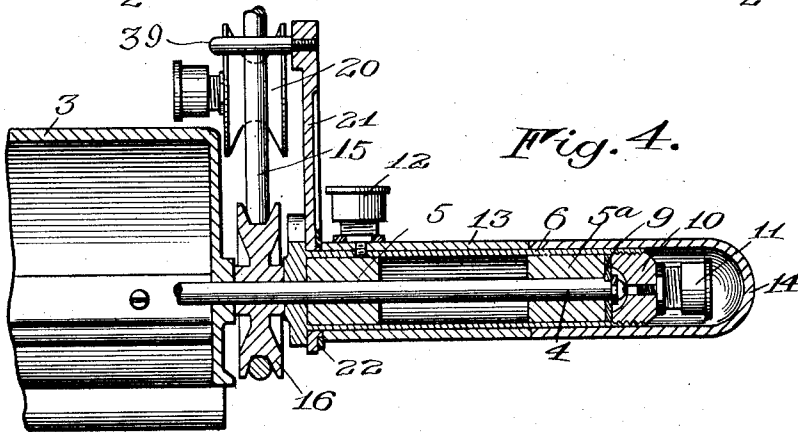


Fig. 4.

Inventor  
Adam A. Long

Witnesses  
Walter B. Payne.  
Nelson Copp.

By *Church & Rich*  
his Attorneys.

# UNITED STATES PATENT OFFICE.

ADAM A. LONG, OF ROCHESTER, NEW YORK, ASSIGNOR TO THE TAILOR'S ACCESSORIES CO., OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

## CLEANING-MACHINE.

1,063,559.

Specification of Letters Patent.

Patented June 3, 1913.

Application filed July 7, 1910. Serial No. 570,743.

*To all whom it may concern:*

Be it known that I, ADAM A. LONG, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Cleaning-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention relates to cleaning machines and it has for its object to provide a simple and efficient device of this nature which will be particularly adapted for cleaning cloth, garments, etc., and for its further object to treat such fabrics in a manner that will leave them not only clean but with a smooth and pleasing finish.

Another object of the invention is to provide improved means for taking care of the dirt and dust extracted.

The improvements are further directed toward lessening the labors of the operator in the manipulation of the machine.

To these and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 is a side view of a machine constructed in accordance with and illustrating one embodiment of my invention; Fig. 2 is a front view; Fig. 3 is a section on the line *a-a* of Fig. 1, and Fig. 4 is a longitudinal section through the casing by which the brush is carried.

The present embodiment of the invention has been designed for cleaning cloth or clothes made from cloth, but it is apparent that it contains features which may be embodied in various types of cleaning machines. The work to be cleaned may be arranged on a support or table and acted upon by an agitator 2 which in this instance is in the form of a rotary brush partially inclosed by a casing 3, the brush being preferably carried by a shaft 4 journaled in the casing walls and extended at one end beyond one of said walls to turn in bearings 5 and 5<sup>a</sup> arranged within a tubular member 6. The latter may be secured to and held in spaced relation to the casing 3 by brackets 7 that are bolted at 8 to said casing, the axial

movement of the shaft 4 in the tubular member being prevented by securing a disk 9 thereto at one end so as to cooperate with the outer face of the bearing 5<sup>a</sup>. This disk may also be engaged by a screw plug 10 introduced into the end of the tubular member 6 and preferably carrying an oil cup 11 which feeds oil to the disk for the lubrication of the bearing 5<sup>a</sup>, the bearing 5 being lubricated by a cup 12. The tubular member 6 preferably serves as a handle for the control of the brush or agitator and may be incased by a rubber sleeve 13 and a removable rubber cap 14, both of which facilitate the manipulation of the machine and at the same time prevent oil passing from the end of the tubular member.

The driving of the brush or agitator 2 and the suspension thereof are preferably effected by an endless cable 15 which passes about a pulley 16 rigidly secured to the shaft 4 between the casing 3 and the tubular member 6, the cable preferably being driven and arranged in the manner shown and described in my prior application, Serial No. 536,087, filed January 3, 1910 whereby it supports the weight of the brush machine though permitting free movement thereof throughout a considerable radius. The pulley 16 and the adjacent guiding pulleys hereinafter referred to are so arranged that the machine is supported by the belt in a balanced position, one part being a counterweight for another and very little effort is therefore required on the part of the operator with his grasp on the handle to manipulate the brush to any desired spot within reach or at any desired angle or with any desired pressure against the work.

The brush may be supported in its inoperative position upon a device comprising two spring arms 16 suitably supported and having their forward ends converging at 17 to facilitate their introduction through a loop 18 formed on the casing 3 inclosing the brush. An adjustable stop 19 may be arranged on the arms to limit the movement of the casing on the arms 16.

While the brush is supported in inoperative position with the preferred driving arrangements of the cable 15, the latter is slack and consequently it is desirable to provide some means to prevent the cable leaving the pulley 16. This is accomplished in this instance by a pair of pulleys 20 coop-

erating with the outer sides of the two strands of the cable and preferably carried upon a movable or swinging member 21 which may be journaled on the tubular portion 6 to turn about an axis concentric with the axis of shaft 4, thus permitting the brush to be carried to either end of the table without imposing any strain on the cable. To prevent the swinging member from moving too freely, a friction member 22 in the form of a plate guided on headed studs 23 may be pressed toward the swinging member by helical springs 24 surrounding said studs, stops 25 projecting into the path of the swinging member at the limits of the movement of the latter. The swinging member 21 may also carry a pin 39 which lies between the two strands of the cable and prevents the latter from leaving the pulleys 20.

For the purpose of removing the dust agitated by the brush 2, the casing 3 surrounding the brush is provided with a passageway 26 having an intake arranged at its bottom and to one side of the brush. The outer wall 27 of the intake depends lower than the inner wall 28 so that the dust may enter freely into the passageway but will be prevented from being carried beneath the casing. In order that all possibility of the latter action may be obviated, the wall 27 carries a depending flexible strip 27<sup>a</sup> which provides a tight joint between the material being cleaned and the casing for any operating position of the machine. It is also desirable to control the size of the intake opening and to this end a piece of pliable sheet material is secured to the inner wall 28 of the passageway and is extended upwardly therein. By moving the end 29 of the sheet material the opening may be varied in size to meet the condition under which the machine is operating.

To the end of producing suction in the

passageway 26 without hampering the movements of the machine, a flexible dust conductor or tubing 30 is connected with the casing to lead to a suitable suction producing means, a type of which is disclosed in my prior application above referred to.

A cleaning machine constructed in accordance with this invention gives opportunity for the use of a brush of maximum size which is so supported that it may be manipulated with ease and the suction producing means may be located in a position where it cannot interfere with the operation of the brush.

I claim as my invention:

1. In a cleaning machine, the combination with a rotary brush, of a casing inclosing the brush having an intake passage formed therein, and means for adjusting the size of the opening of the intake passage embodying a tongue rigidly attached to one wall of the passage.

2. In a cleaning machine, the combination with a rotary brush, of a casing inclosing the brush having an intake passage formed therein, and means for adjusting the size of the opening of the intake passage embodying a tongue of pliable material rigidly attached to one wall of the passage and arranged to project transversely within the passage.

3. The combination with a rotary brush, of a casing inclosing the brush having an intake passage formed therein, the wall of the latter in proximity to the brush being shorter than the other wall, and a tongue composed of pliable material carried by the shorter wall and arranged to project within the opening of the intake passage.

ADAM A. LONG.

Witnesses:

RUSSELL B. GRIFFITH,  
FLORENCE E. FRANCK.