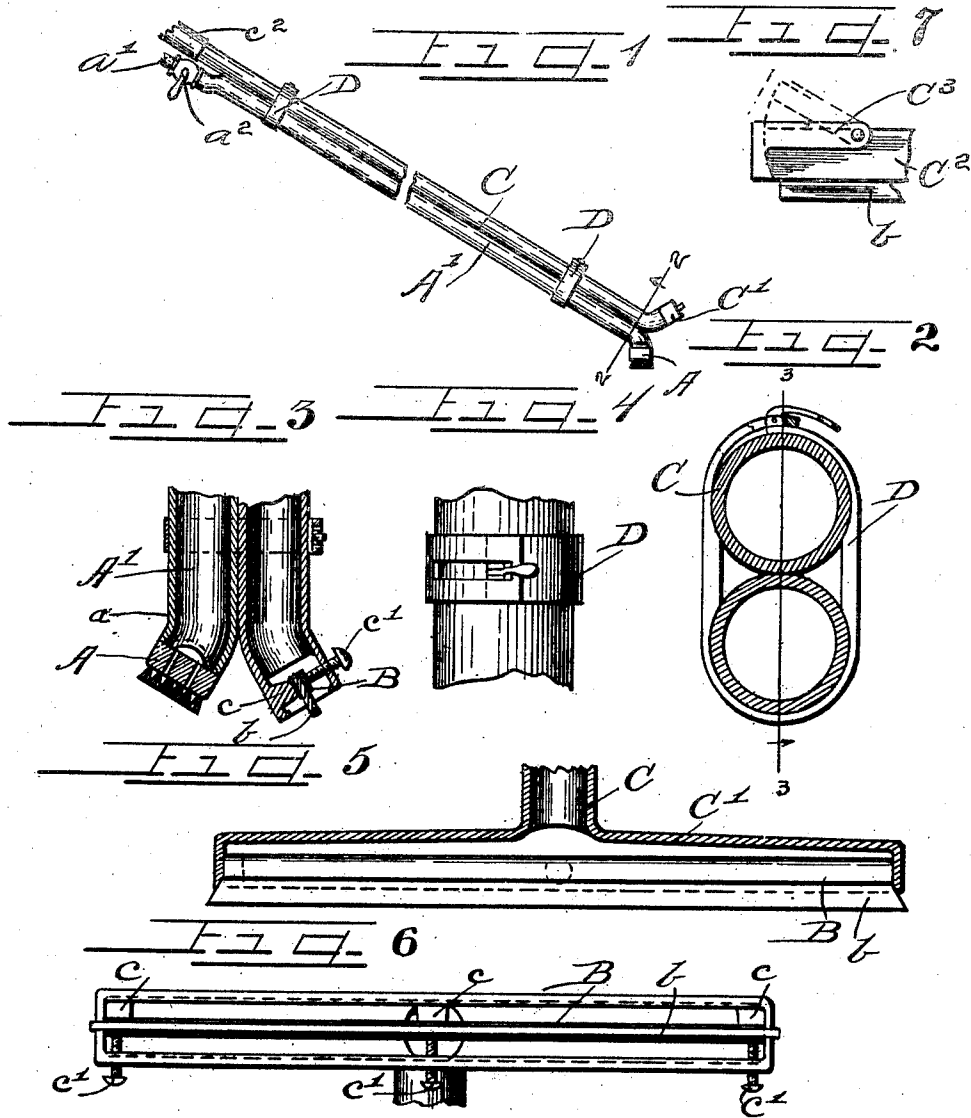


J. P. RAYMOND & C. E. BAKER.
 SCRUBBING MECHANISM.
 APPLICATION FILED FEB. 23, 1906.

1,086,618.

Patented Feb. 10, 1914.



WITNESSES

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SCRUBBING MECHANISM.

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Specification of Letters Patent.

Patented Feb. 10, 1914.

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To all whom it may concern:

Be it known that we, JOHN P. RAYMOND and CHARLES E. BAKER, citizens of the United States, and residents of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Scrubbing Mechanisms; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to scrubbing mechanisms and more particularly suction cleaning apparatus adapted for the removal of the dirty water from the floor after scrubbing.

Heretofore in scrubbing floors or the like, water and soap have been applied by means of mops or brushes and after the dirt has been loosened to a greater or less extent by the solvent action of the fluid, mops or cloths have been used to wipe the dirty water from the floor, usually leaving the floor discolored by the dirty water being rubbed into the grain of the floor.

The object of this invention is to provide mechanism for scrubbing the floor, and for removing the dirty water from the floor by drawing the same from the pores of the wood, as much as possible and leaving the floor practically dry and clean.

It is also an object of the invention to afford strong, cheap and simple mechanism for the purpose described whereby the operation can be performed much more rapidly than by mechanisms heretofore used.

The invention consists in the matters hereinafter described and more fully pointed out and defined in the appended claims.

In the drawings: Figure 1 is a fragmentary side elevation of the scrubbing and drying tool embodying our invention showing the same adapted to be separated. Fig. 2 is an enlarged section taken on line 2—2 of Fig. 1. Fig. 3 is a section taken on line 3—3 of Fig. 2. Fig. 4 is an enlarged detail view of one of the clamping bands showing the same in place. Fig. 5 is a central longitudinal section of the squeegee head. Fig. 6 is a bottom plan view of the same. Fig. 7 is a front elevation of the same showing the stops raised in dotted lines.

As shown in the drawings: A scrubbing

brush having a perforated back A fits to and is secured in a hollow head α , having a tubular handle A' connected by means of a hose α' to any suitable supply of either hot or cold water or suds, and the device is operated for scrubbing purposes by means of said tubular handle A'. The water supply is controlled by means of the valve α'' , connected in said handle so that by opening the valve to greater or less extent, a desired quantity of water is delivered through the perforated back of the brush to the floor while scrubbing.

In removing the water from the floor a squeegee is used and an exhaust pump or vacuum tank as preferred. Said squeegee comprises a metallic or other rigid back B and a flexible strip such as rubber or other suitable material b removably or detachably secured thereto, and projecting outwardly therefrom as is usual. Said squeegee fits in a tubular hollow transverse head C' on the extremity of the handle C. As shown in Figs. 5 and 6, a narrow slot or opening is provided in the under side of the head C' for its entire length and said squeegee is secured at the center of said slot by engaging the metallic back B thereof against studs c integral with and arranged at the ends and at the middle of said head, by means of set screws c' engaged through the opposite side and arranged to correspond with said studs. As shown, said flexible strip or squeegee projects through said slot and extends beyond the surface of said head, being adapted to frictionally engage the surface to which said head is applied. Said handle C, is connected by means of a hose or suction conduit c'' with a suitable exhaust pump or vacuum tank or other suitable exhaust mechanism which is not shown, and whereby the air is drawn inwardly through said squeegee head.

The operation is as follows: Having completed the scrubbing by means of the brush A, the operator takes up the dirty water by means of the squeegee, the flexible edge of which projects through the open slot in the head and is pressed upon the floor or surface to be cleaned. As the squeegee is moved forward and back on the floor the strong inward draft through the squeegee head sucks the water and air inwardly leaving the floor dry. This is facilitated for the reason that as the squeegee moves in one

direction, for example forwardly, the thin edge thereof is turned back to close the slot at one side, namely the rear side of the squeegee, while the water is pushed ahead and collected by the squeegee permitting it to be drawn inwardly through the head and handle. When the reverse movement takes place and the said squeegee moves in the other direction the slot at the other side thereof, to wit the front of the squeegee, is closed and the rear side opens in the same manner, and inasmuch as the soft blade or edge *b* of the squeegee is shaped and is of a length to project somewhat beyond the ends of the head, as shown in Figs. 5 and 6, the squeegee works closely into corners and conforms to any inequalities of the floor thus insuring contact with all parts of the surface and sucking the water and dirt not only from the surface but to a great extent even from the pores of the wood. Of course the brush may be operated by the same handle for scrubbing or the scrubbing may be done in any suitable manner by another operator and the water taken up with the squeegee by an operator who follows the scrubber, or the scrubbing brush and the squeegee may be connected as shown in Figs. 1, 2 and 3 by placing the same back to back and connecting the tubular handles. For this purpose strong metallic clamps *D* engage around said tubular handles and firmly bind the same together and when so connected the operator uses first the scrubbing head, then turns the instrument over and applies the squeegee.

We claim as our invention:

1. A device of the class described comprising a tubular handle, a hollow transverse head thereon communicating therewith and having an open longitudinal slot

in its bottom for its entire length, and a squeegee removably arranged in said slot, and consisting of a flexible blade adapted when moved in one direction to close one side of the slot and when moved in the other to close the other side thereof.

2. A scrubbing mechanism comprising in combination, a hollow elongated head adapted to be connected with suitable exhaust mechanism and having a slotted opening in its bottom, a squeegee arranged in said head with its flexible edge projecting through said slot, and means for detachably securing the squeegee in place in said head.

3. In combination, a hollow, slotted head, a hollow operating handle therefor adapted to be connected with exhaust apparatus, and a squeegee arranged in the slot in said head with its edge projecting beyond the same.

4. In a suction cleaning apparatus, a hollow suction head having a connection for a suction conduit and a narrow inlet passage, and a flexible strip mounted in the passage and projecting beyond the surface of the head.

5. In a cleaning apparatus, the combination of a tubular handle adapted for connection with exhaust mechanism, a hollow transverse head at the extremity of said handle having its bottom slotted, and a flexible strip mounted in said head and projecting through said slot.

In testimony whereof we have hereunto subscribed our names in the presence of two subscribing witnesses.

JOHN P. RAYMOND.
CHARLES E. BAKER.

Witnesses:

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