

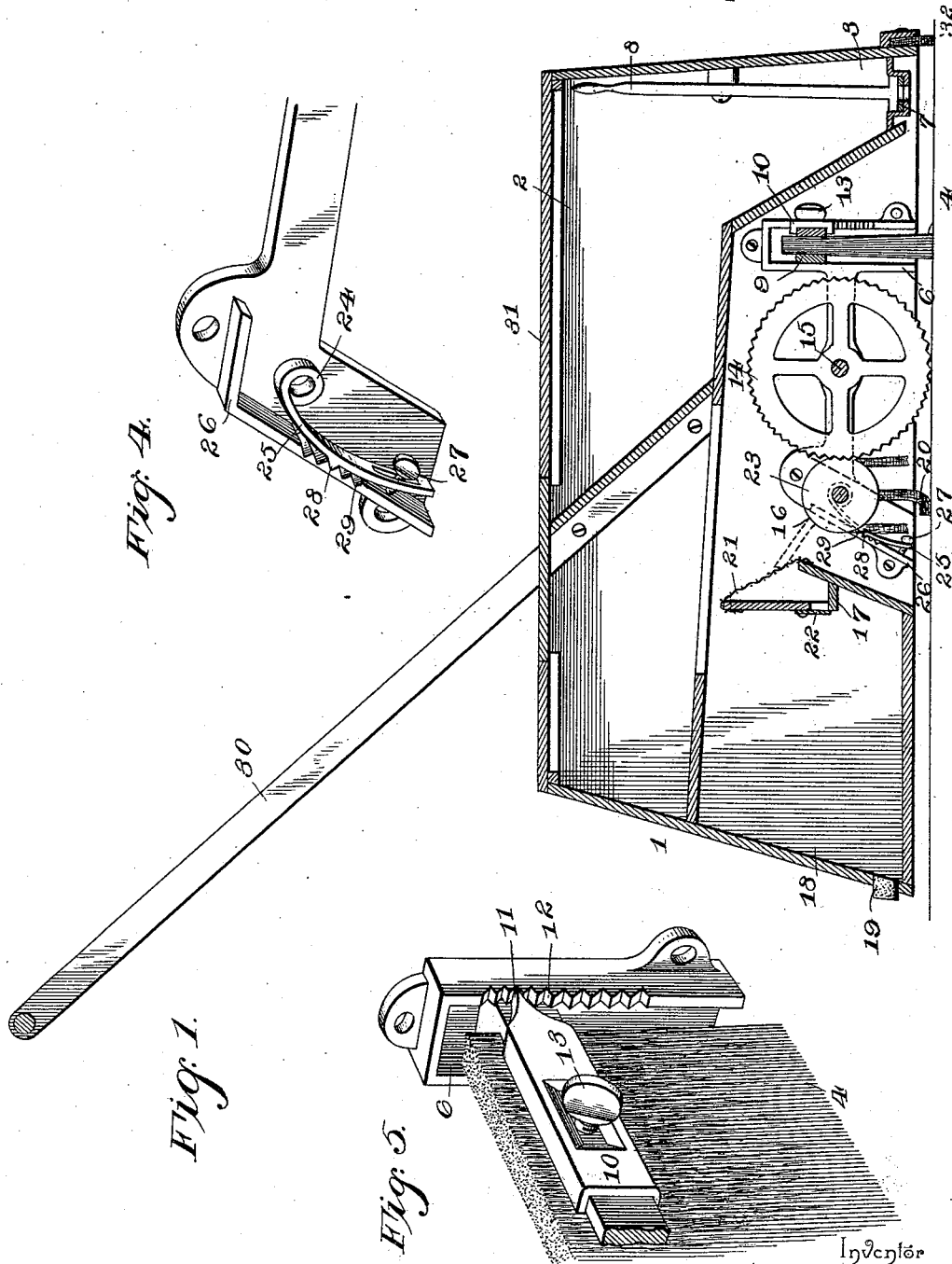
(No Model.)

2 Sheets—Sheet 1.

H. M. PATTERSON.
SCRUBBING MACHINE.

No. 525,392.

Patented Sept. 4, 1894.



Witnesses

C. A. Ford.
H. H. Wiley

By his Attorneys.

Henry M. Patterson,

C. A. Snow & Co.

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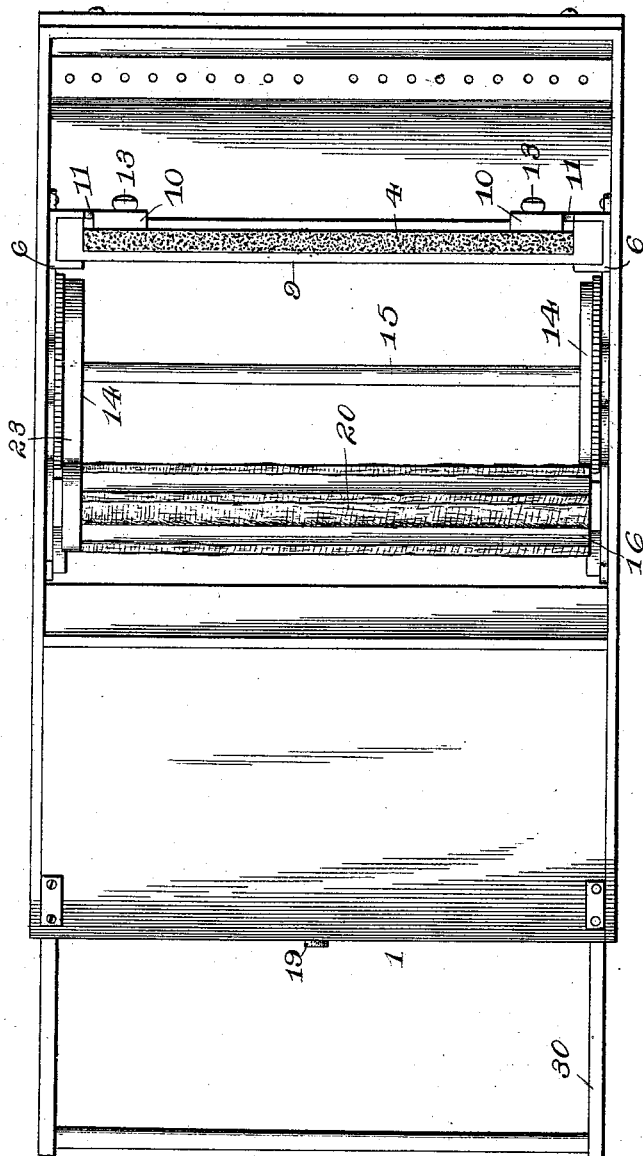


Fig. 2.

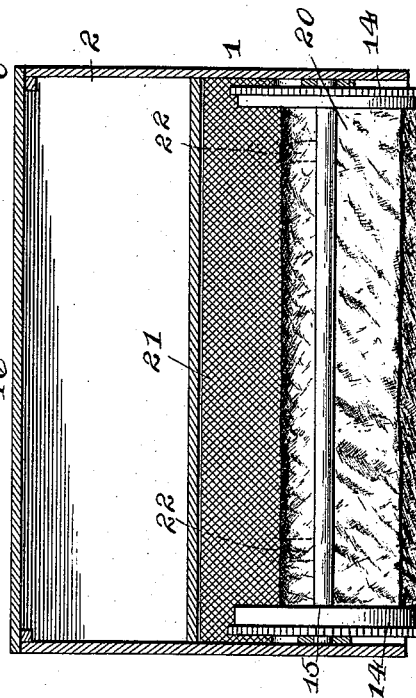


Fig. 3.

Witnesses

C. A. Ford
N. W. Wiley

By his Attorneys.

Inventor
Henry M. Patterson,
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

HENRY M. PATTERSON, OF WICHITA, KANSAS.

SCRUBBING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 525,392, dated September 4, 1894.

Application filed December 7, 1893. Serial No. 493,055. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. PATTERSON, a citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented a new and useful Scrubbing-Machine, of which the following is a specification.

The invention relates to improvements in scrubbing machines.

10 The object of the present invention is to improve the construction of scrubbing machines to increase their efficiency and rapidity of operation, and to provide a simple and inexpensive one which will lessen the labor of scrubbing, and which will prevent the feet of the operator becoming wet and walls and articles from being splashed with muddy water, and which will collect and deposit the surplus water from a floor or other surface to be scrubbed.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

25 In the drawings—Figure 1 is a longitudinal sectional view of a scrubbing machine constructed in accordance with this invention. Fig. 2 is a reverse plan view. Fig. 3 is a transverse sectional view. Fig. 4 is an enlarged detail view illustrating the means for adjusting the wiping roll. Fig. 5 is a similar view showing the means for adjusting the brush.

35 Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates an approximately rectangular casing, constructed of any suitable material and provided at its front with a tapering tank 2, having a narrow transversely disposed perforated bottom 3 for sprinkling water in advance of a scrubbing brush 4. The rear wall of the tank 2 inclines downward and forward, and the scrubbing brush is located below the rear wall of the tank slightly in rear of the front portion thereof in vertical ways 6 of castings, secured to the inner faces of the sides of the casing. The supply of water may be cut off by a horizontal slide 7, arranged on the upper face of the perforated bottom 3 of the water tank and provided with perforations, which are adapted to register with those

of the bottom 3 for supplying water; and the slide is adapted to be moved longitudinally by a lever 8 to cover and close the perforations of the bottom 3 of the tank. The lever 8 is fulcrumed on the front of the casing, and its upper portion serves as a convenient handle by means of which the slide or cut off 7 may be operated.

60 The scrubbing brush may be constructed of any suitable material, which is secured in a horizontal clamping frame 9; and it is adjusted vertically in the guides 6, which receive the ends of the clamping frame 9, by sliding catches 10 provided at their outer ends with a tooth 11, adapted to engage any one of a series of notches or teeth 12 of the adjacent guide or way 6. The sliding catch 10 has its outer end pointed to form the tooth 11, and it is provided at opposite sides with lugs, which receive the clamping frame between them; and it has a longitudinal slot receiving a set screw 13 by means of which the sliding catch may be held in engagement with the notches or teeth of the adjacent guide or way 6. As the scrubbing brush becomes worn by use it may be adjusted downward; and new material may be readily supplied to the clamping frame 9 when necessary.

80 The casing is supported by the carrying wheels 14, which are fixed to an axle or shaft 15, and which communicate motion to a wiping roll 16, arranged in rear of the carrying wheels and adapted to remove the water from a floor and deposit the same into a waste water trough or channel 17 from which the water runs into a tank or receptacle 18 having a discharge opening or vent 19. The wiping roll is provided with absorbent material 20, such as fabric or the like, and during the rotation of the wiping roll the superfluous water is removed by the absorbent material, which comes in contact with a screen 21, arranged over the trough or channel 17, and the water held by the absorbent material is removed by the pressure and runs into the trough 17. At the rear side of the trough or channel at each end thereof is an inwardly opening valve 22, which permits water from the trough or channel to escape into the waste water tank or receptacle, but which prevents the water from splashing from the tank or receptacle 18 back to the trough or channel.

The rotation of the wiping roll may be produced by positive or toothed gearing, or by frictional gearing 23 engaging a portion of the periphery of the carrying wheels 14, which are preferably provided with slight serrations or corrugations to insure a positive operation of the machine. The wiping roll is journaled in bearings 24 of curved springs 25, which are arranged in inclined ways 26. The bearing 24 is at the upper end of the curved spring 25, which has its lower end engaged and adapted to be forced rearward by an adjusting screw 27, whereby the upper end of the curved spring is thrown forward to hold the friction wheel 23 in contact with the adjacent carrying wheel. The curved spring 25 is provided intermediate of its ends at its convex face with a tooth 28, adapted to engage any one of a series of notches 29, in order to enable the wiping roll to be adjusted vertically to obtain the proper contact with the surface to be scrubbed.

The scrubbing machine is moved over the floor or other surface to be scrubbed by means of a handle frame 30, which is secured to the casing at opposite sides thereof, and is arranged adjacent to the rear face of the inclined back of the supply tank. The casing is provided at its top with a cover section 31 and a removable cover 33 to prevent any upward splashing.

As the machine is moved forward the surface is scrubbed; the superfluous water is removed from the floor and deposited in the waste water tank or receptacle; and there is no liability of the operator's feet becoming wet. In operating about corners the machine may be moved rearwardly and is provided at its front in advance of the supply tank with a transverse mop 32, which wipes up the superfluous water during the rearward movement of the scrubbing machine.

It will be readily apparent that the scrubbing machine is simple and comparatively inexpensive in construction, that it is positive and efficient in its operation and is capable of scrubbing with great rapidity and ease, and that there is no liability of splashing the walls or articles of furniture by its use as the scrubbing brush and the wiping roll are located within the casing in the intervening space between the compartments which form the tank and the waste water receptacle.

Changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. In a scrubbing machine, the combination of a casing provided at its front with a supply tank and having at its back a waste water receptacle provided with a trough at its front and having inwardly opening valves communicating with the trough, a screen covering the trough, a scrubbing brush, and a wiping roll arranged adjacent to the trough, substantially as described.

2. In a scrubbing machine, the combination of a casing provided with ways having series of notches or teeth, a scrubbing brush arranged in the ways and being adjustable therein, and sliding catches mounted on the scrubbing brush and arranged to engage the notches or teeth to secure the scrubbing brush in its adjustment, substantially as described.

3. In a scrubbing machine, the combination of a casing, carrying wheels journaled on the casing, a wiping roll having a friction wheel engaging the adjacent carrying wheel, a spring provided at its upper end with a bearing to receive the wiping roll and fulcrumed intermediate of its ends, and an adjusting screw engaging the lower end of the spring, substantially as and for the purpose described.

4. In a scrubbing machine, the combination of a casing provided with notches or teeth, carrying wheels journaled on the casing, a wiping roll, a curved spring provided at its upper end with a bearing receiving the wiping roll and having intermediate of its ends a tooth engaging the notches or teeth of the casing, and means for securing the lower end of the spring in engagement with the carrying wheel, substantially as described.

5. In a scrubbing machine, the combination of a casing, a casting secured to the casing and provided with notches or teeth, a carrying wheel journaled on the casing, a wiping roll having a friction wheel engaging the carrying wheel, a curved spring provided at its upper ends with a bearing to receive the wiping roll and having at its lower end a slot, and provided intermediate of its ends with a tooth to engage those of the casting, whereby the wiping roll is vertically adjustable, and an adjusting screw arranged in the slot and engaging the lower end of the spring, to regulate the tension thereof substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HENRY M. PATTERSON.

Witnesses:

C. L. ENGLE,
F. R. JONES.