

J. SWIONTEK.
SCRUBBING MACHINE.
APPLICATION FILED MAY 4, 1912.

1,044,942.

Patented Nov. 19, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

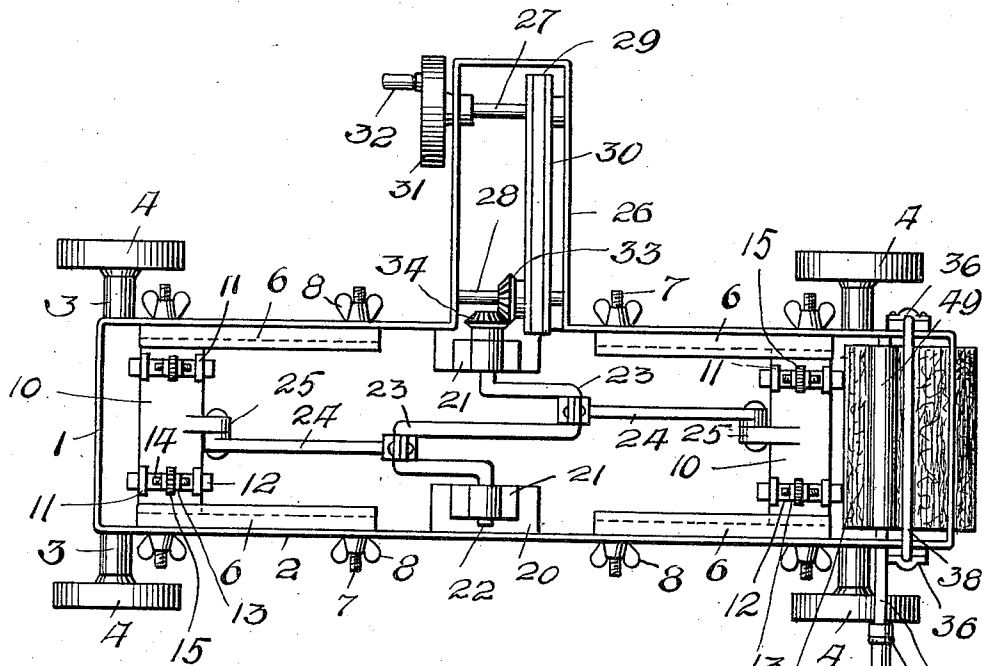
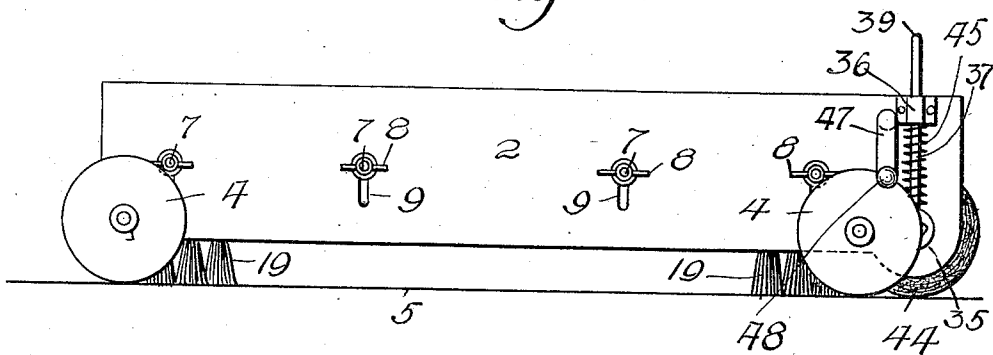


Fig. 2.



WITNESSES

Samuel Payne.
Ralph C. Evert.

INVENTOR

J. Swiontek.

BY

W. E. Smith.

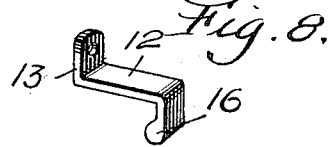
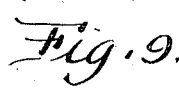
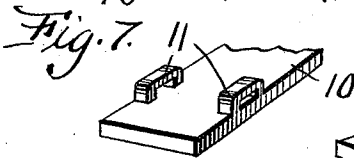
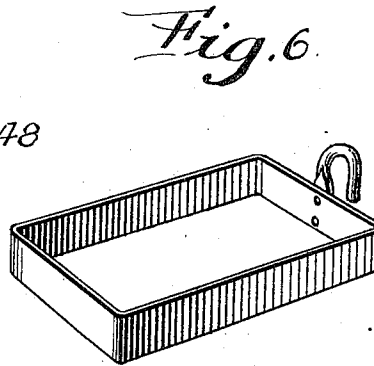
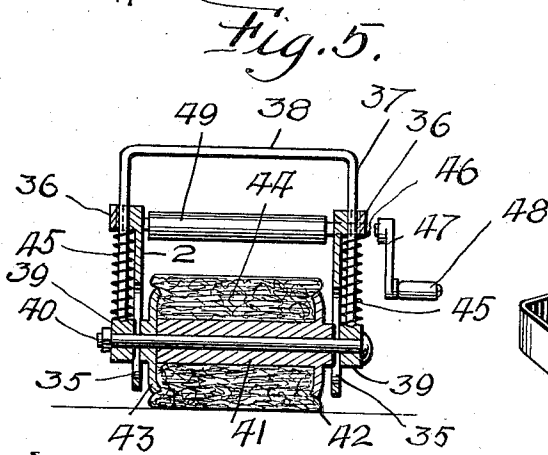
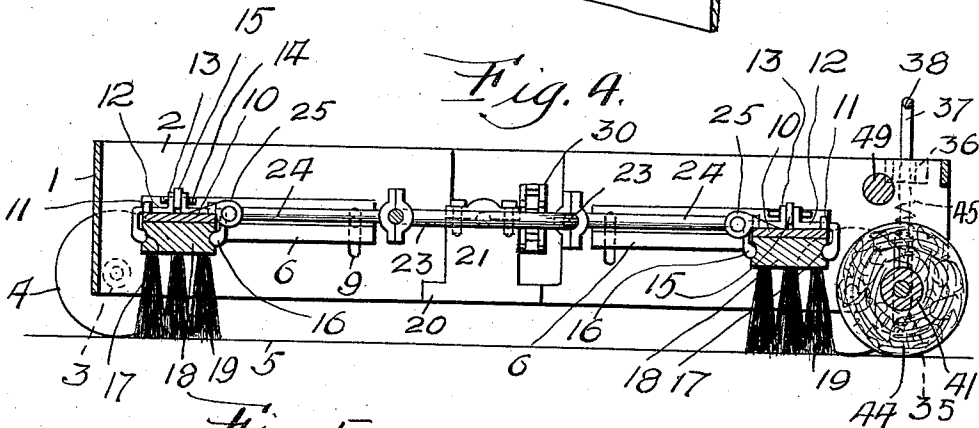
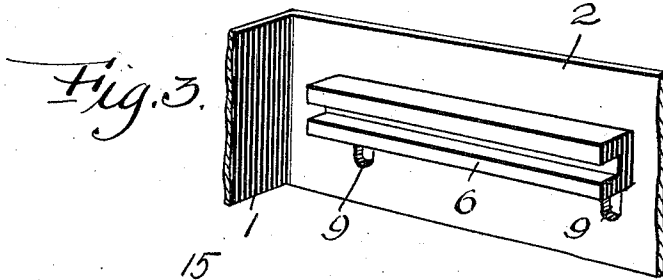
ATTORNEYS

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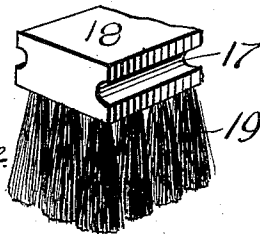
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Ralph C. Evert.



INVENTOR
J. Swiontek.
BY *H. Evert.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN SWIONTEK, OF PITTSBURGH, PENNSYLVANIA.

SCRUBBING-MACHINE.

1,044,942.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN SWIONTEK, a subject of the Emperor of Austria-Hungary, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Scrubbing-Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a scrubbing machine, and the primary object of my invention is to provide a novel machine that can be easily and quickly moved over a floor or other surface for scrubbing, cleaning and removing foreign matter that adheres to the floor.

Another object of this invention is to provide a scrubbing machine embodying reciprocatory brushes that can be adjusted to compensate for wear. The machine also embodies a mopping roll and provision is made for wringing the roll.

A further object of this invention is to provide a floor scrubbing machine that is durable, comparatively inexpensive to manufacture, and highly efficient for the purposes for which it is intended.

With the above and other objects in view, the invention resides in a novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawings, wherein there is illustrated a preferred embodiment of my invention, but it is to be understood that the structural elements are susceptible to such variations as fall within the scope of the appended claim.

In the drawing like numerals denote corresponding parts throughout the several views in which:—

Figure 1 is a plan view of the scrubbing machine. Fig. 2 is a side elevation of the same. Fig. 3 is a perspective view of a portion of the frame of the machine, showing one of the brush guides. Fig. 4 is a longitudinal sectional view of the scrubbing machine. Fig. 5 is a cross sectional view of the same, showing the mopping roll. Fig. 6 is a perspective view of a drip pan. Fig. 7 is a perspective view of a portion of a brush holder. Fig. 8 is a perspective view of a detached brush clamp, and Fig. 9 is a perspective view of a portion of a brush.

The reference numeral 1 denotes a rectangular frame having parallel longitudinal

side walls 2. The side walls 2, at the ends thereof are provided with bearings 3 for revoluble wheels 4 that support the frame 1 above the surface of a floor 5.

The inner sides of the walls 2, adjacent to the ends thereof, are provided with longitudinal channel shaped guides 6 and these guides are oppositely disposed and adjustably held in engagement with the walls 2 by bolts 7 and winged thumb nuts 8.

The side walls of the frame are provided with a series of vertical slots 9. As illustrated each of the walls is provided with four slots. Each guide 6 extends across a pair of slots 9 and is provided with a pair of bolts 7 which project through the slots associated with their respective guide. The nuts 8 are mounted upon the outer ends of the bolts 7 and engage the outer face of the side walls so that the guides are held firmly in the desired position.

Slidably mounted in the channel shaped guides 6 are the ends of brush holders 10 and each holder, contiguous to the ends thereof is provided with a set of straps 11. Arranged in the straps 11 are the inner ends of clamping members 12, the inner ends of said members being bent upwardly to provide apertured lugs 13 that are connected together by a screw 14 and a knurled nut 15, as best shown in Figs. 1 and 4. The outer ends of the clamping members 12 terminate in depending heads 16 that engage in longitudinal grooves 17 provided therefor in the body 18 of a scrubbing brush 19. The scrubbing brushes are arranged transversely of the frame 1 and the bristles of said brushes are adapted to engage the floor 5, as best shown in Fig. 2. As the bristles of the brushes are worn, the guides 6 are adjusted relatively to the frame 1 whereby said brushes can be used until completely worn out.

The side walls 2 intermediate ends thereof, are provided with inwardly projecting brackets 20 for bearing 21. Revolvably mounted in said bearings is a shaft 22 that has crank portions 23. These crank portions are oppositely disposed and are loosely connected to pitmen 24 that have the outer ends thereof pivotally connected to lugs 25 carried by the brush holders 10.

One of the side walls 2, intermediate the ends thereof, is provided with an auxiliary frame 26 that extends at right angles to the main frame 1. Revolvably mounted in the

auxiliary frame 26 are shafts 27 and 28 that have sprocket wheels 29 over which passes an endless sprocket chain 30. The shaft 27 has one end thereof extending through the side walls of the auxiliary frame 26 and is provided with a hand wheel 31 having a crank or handle 32. The shaft 28 has a beveled gear wheel 33 meshing with a similar wheel 34 that is mounted upon the end of the crank shaft 22.

The side walls 2, at the rear end of the machine, are provided with vertical oppositely disposed slots 35 and guide members 36 at the upper edges of said side walls. Slidably mounted in the guide members 36 are the ends 37 of a yoke 38. The lower ends of the yoke 38 are provided with bearings 39 for a transverse bolt or shaft 40 that extends through the slots 35 of the side walls 2.

Revolubly mounted upon the bolt or shaft 40 is a mopping roll, comprising a hub 41 and heads 42 and 43, the former being formed integral with the hub 41 and the latter detachable. Detachably mounted upon the hub 41 is a cylindrical mop 44 made of felt or an absorbent material.

Encircling the ends of the yoke 38, between the guides 36 and the bearings 39, are coiled compression springs 45, said springs retaining the mopping roll normally upon the floor 5, whereby it will absorb water and moisture upon the floor.

Journaled in the side walls 2, adjacent to the mopping roll is a shaft 46 having one end thereof provided with a crank 47 and a handle 48. Mounted upon the shaft 46 between the side walls 2 is a wringing roller 49.

While the scrubbing machine is moved back and forth over the floor 5 with one hand, the other hand can be employed for operating the hand wheel 31, whereby a ro-

tary movement will be imparted to the crank shaft 22 and the brushes 19 reciprocated through the medium of pitmen 24. As the brushes are reciprocated the surface of the floor 5 is thoroughly scrubbed. After the mopping roll has absorbed a quantity of water, the yoke 38 is elevated to place the periphery of the roll in engagement with the roller 49. This roller is revolved to wring the mopping roll, and it is preferable to place a drip pan 50 beneath the mopping roll while water and other matter is wrung from the same. It is apparent that considerable pressure can be brought to bear upon the roller 49 by the mopping roll. Consequently the felt or other material from which the roll is made will be compressed to liberate the water held in suspension thereby.

The manner of connecting the brushes 19 to the holder 10 permit of said brushes being removed from time to time and thoroughly cleaned.

What I claim is:—

A scrubbing machine comprising a portable frame, brushes carried thereby, vertically disposed guide members carried by the rear of said frame, a yoke slidably mounted in said guide members and having the arms thereof provided with bearings, a shaft extending through said arms and mounted in said bearings, a mopping roll mounted upon said shaft and provided with a hub, a mop detachably mounted upon said hub, and resilient means connected to the yoke for maintaining the mopping roll normally upon the floor.

In testimony whereof I affix my signature in the presence of two witnesses.

JOHN SWIONTEK.

Witnesses:

MAX H. SROLOVITZ,
WANDA M. KULEZA.