

A. OLSIEWSKY.
SCRUBBING MACHINE.

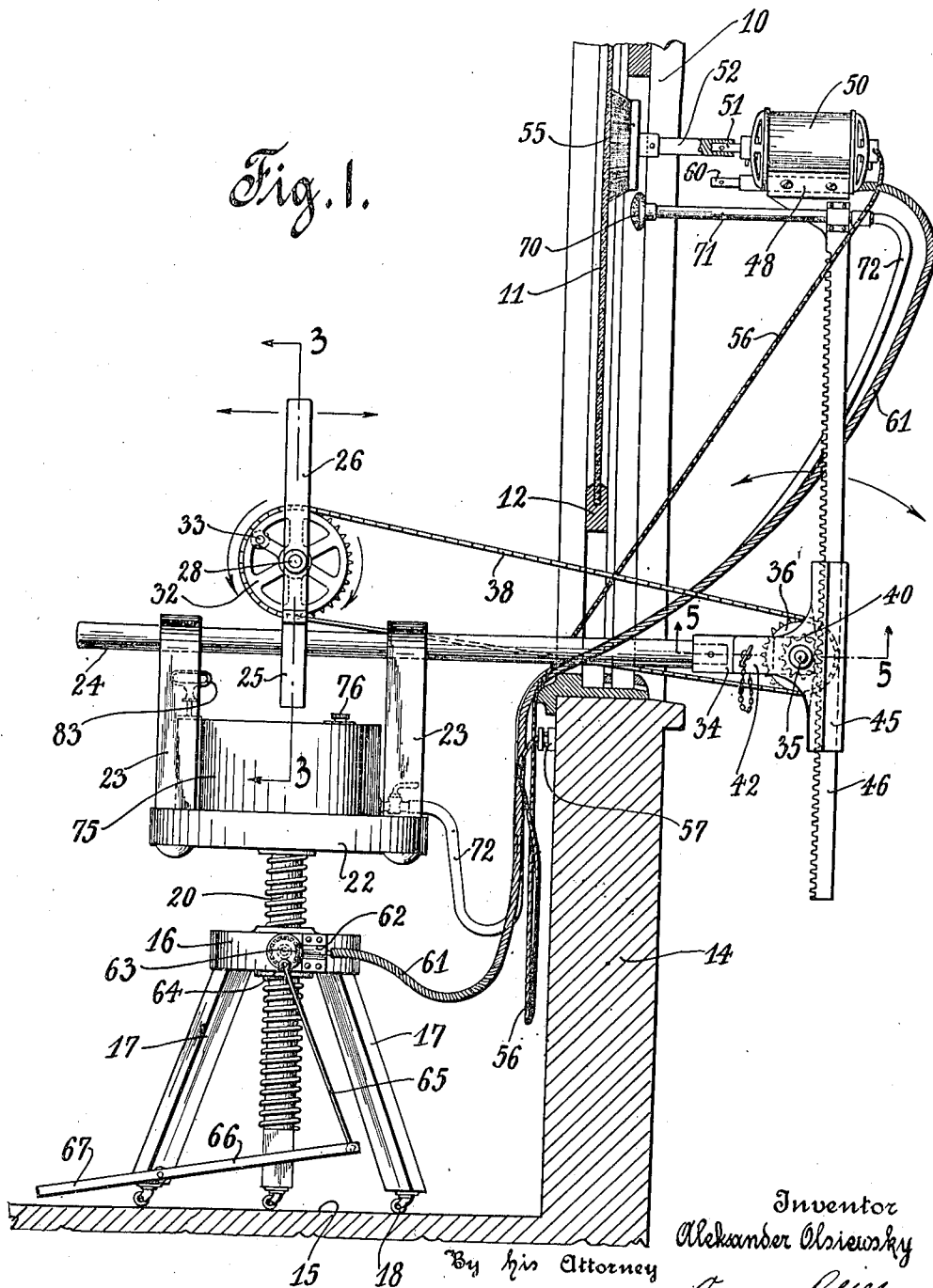
APPLICATION FILED MAY 31, 1917. RENEWED SEPT. 21, 1918.

1,286,076.

Patented Nov. 26, 1918.

3 SHEETS—SHEET 1.

Fig. 1.



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3 SHEETS—SHEET 2.

Fig. 2.

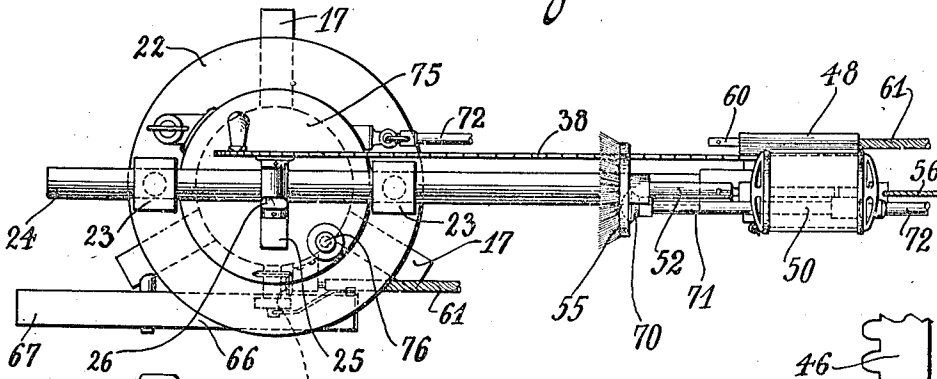


Fig. 4.

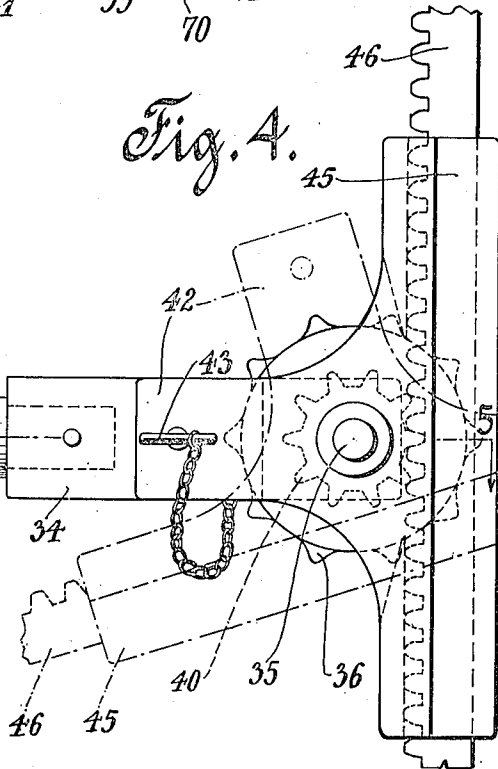
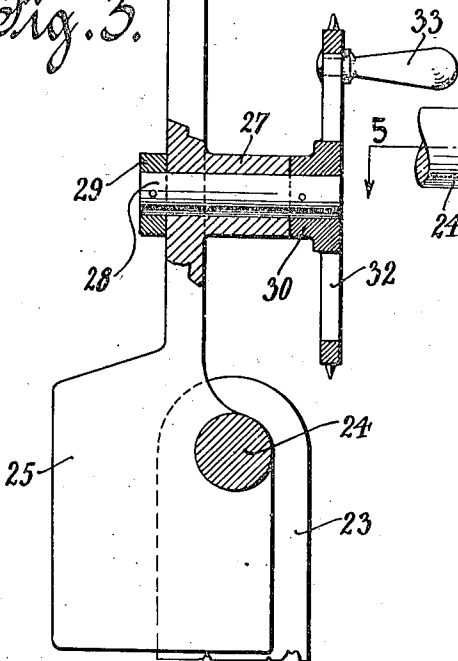


Fig. 3.



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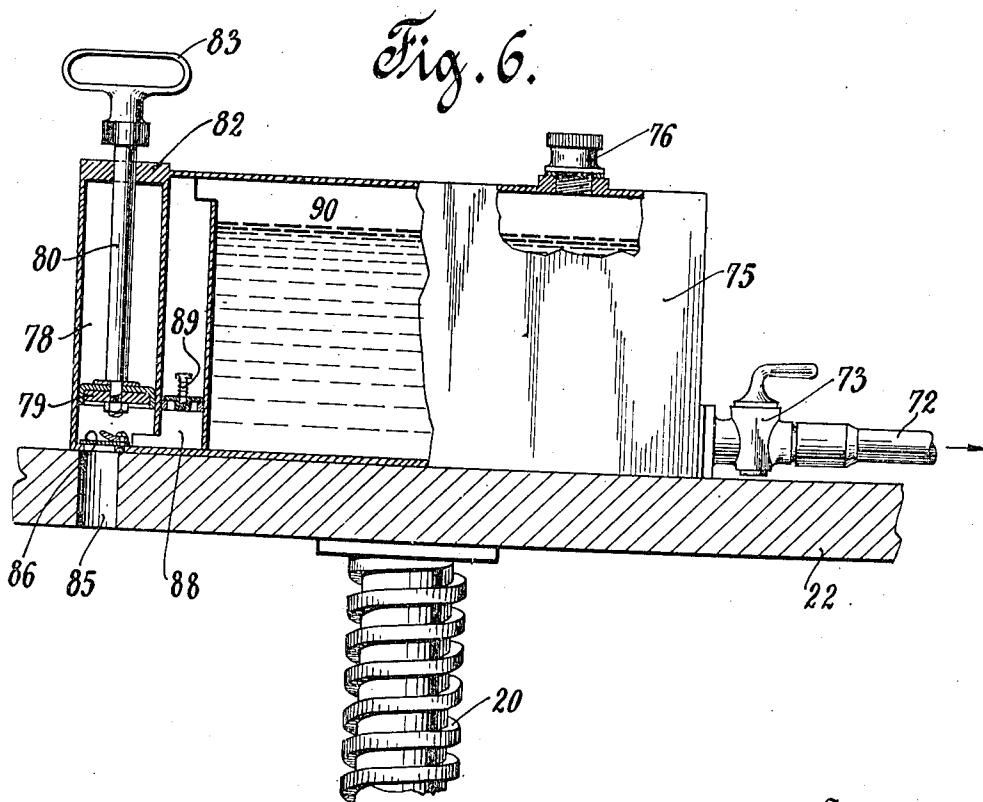
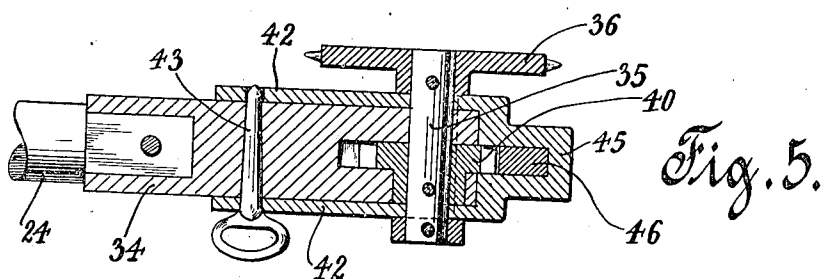
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UNITED STATES PATENT OFFICE.

ALEKSANDER OLSIEWSKY, OF RIVER ROUGE, MICHIGAN.

SCRUBBING-MACHINE.

1,286,076.

Specification of Letters Patent.

Patented Nov. 26, 1918.

Application filed May 31, 1917, Serial No. 171,871. Renewed September 21, 1918. Serial No. 255,189.

To all whom it may concern:

Be it known that I, ALEKSANDER OLSIEWSKY, a subject of the Czar of Russia, resident of River Rouge, county of Wayne, and State of Michigan, have invented certain new and useful Improvements in Scrubbing-Machines, of which the following is a specification.

This invention relates to improvements in scrubbing machines, and the principal object of the invention is to provide a mechanism which may be readily adjusted to suit conditions, and operated manually with a moderate expenditure of muscular labor.

Another object is to provide a scrubbing device which may be electrically driven, the brush or scrubbing elements being movable laterally and vertically while rotating, and finally, to provide means combined with the mechanism which will supply a current of water or cleansing solution.

These and other like objects are attained by the novel construction and combination of parts hereafter described and shown in the accompanying drawings, forming a material part of this specification, and in which:—

Figure 1 is a side elevational view of an apparatus made in accordance with the invention.

Fig. 2 is a top plan view of the same.

Fig. 3 is a fragmentary sectional view taken on line 3—3 of Fig. 1.

Fig. 4 is another enlarged side elevational view showing in detail some of the moving parts in various positions.

Fig. 5 is an enlarged sectional view taken on line 5—5 of Figs. 1 and 4, and

Fig. 6 is a partial side elevational and sectional view of the air pump and water supply tank.

Referring now more particularly to Fig. 1, the apparatus is shown in operation on a pane of glass 11 mounted in a window frame, set in the sash 12, the window frame 10 being supported in a wall or partition 14 contiguous to the floor 15.

The apparatus consists of a circular base 16, supported upon a tripod having three legs 17, equally spaced and provided with rollers 18, by means of which the apparatus may be trundled along from place to place as desired.

Engaged centrally in the base 16 is a coarsely threaded screw 20, the same supporting a rotatable superstructure 22, and

carrying oppositely disposed standards 23, in which is rotatably mounted a horizontal shaft 24, which is also limitedly slidable within the bearings.

Rigidly attached to the shaft 24, midway of the standards 23, is a plate 25, having an upwardly extending arm 26, and having formed with it an extending lateral hub 27, in which the shaft 28 is rotatably mounted, the same being held against longitudinal displacement by the collar 29 at one end, and the hub 30 of the sprocket 32 at the other, both collar and hub being secured by pins rigidly to the shaft, the same being rotatable by means of the handle 33 affixed on the sprocket 32.

At the outer end of the shaft 24 is secured a head 34, the head being reduced in thickness at its outer end and carrying a bearing in which is pivotally mounted a shaft 35, to one end of which is affixed another sprocket 36 engaged by the chain or like driving element 38 with the driving sprocket 32, so that the shaft 35 and spur pinion 40 secured upon it may be rotated.

Also on the shaft 35 is pivoted a clevis 42, the two sides of which engage the head and may be secured thereto by means of a tapered pin 43, the same passing through a hole formed in the head 34, thus locking the clevis and head rigidly together.

Formed transversely with the clevis arms 42 is an elongated guide 45, in which is slidably mounted a rack 46, the teeth of which mesh with the teeth of the pinion 40 so that as the latter is rotated reciprocating motion may be transferred to the rack, which, as will be seen, is maintained at right angles to the axis of the shaft 24 when in an operative position, although it is possible, by removing the pin 43 and rotating the clevis 42 upon the shaft 35, to turn the rack 46 parallel with the shaft 34.

Affixed to the extreme upper end of the rack 46 is a bracket 48, supporting a motor 50, and attached to the shaft 51 is a stem 52 carrying the rotatable brush 55, an electric current being supplied to the motor 50 through the insulated cord 56, the opposite end of which may be engaged with a terminal plug 57, attached to the wall 14 or otherwise as may be convenient.

Should, however, an electric current be unobtainable, the brush stem 52 may be attached to the rotatable shaft 60, carried in the bracket 48 alongside the motor, in suit-

able bearings formed therein, and caused to rotate by the flexible shaft 61, the lower end of which is engaged in a bearing 62 formed on the base 16 and operating through
 5 a pair of miter gears 63, actuated by a crank pin 64, connecting with the link 65, the opposite end engaging with the pedal 66, pivoted upon one of the legs 17, and having the outer end 67 arranged conveniently to be
 10 operated by the foot, water for moistening or rinsing the window being provided by the head 70, the same having a plurality of fine perforations and being engaged by the tube 71, also carried at its outer end by the
 15 rack 46, communicating with which is a flexible hose 72, controlled by the valve 73, the same being secured to the exterior of the tank 75 on the platform 22, and which is provided with a filling opening 76.

20 Also formed in the tank 75 is a cylinder 78, in which is slidably engaged a plunger 79, actuated by the rod 80, which extends upward through the cover plate 82 and is provided with an operating handle 83, the
 25 same acting as a suction pump, the intake 85 of which is formed through the platform 22 and controlled by a flat valve 86, so that as the plunger 79 is raised, a current of air passes into the cylinder 78, while during the
 30 downstroke, the valve 86 closes the passage 85, which forces the air into an adjoining chamber 88 controlled by the valve 89, controlling the passage of air through the chamber 88, permitting it to ascend into the space
 35 90 formed in the tank 75, so as to force the liquid contents out through the pipe 72.

In operation, the tank 75 having been filled with the cleansing solution it is desired to use, the apparatus is moved closely
 40 adjacent to the window or other part, the rack and motor being extended substantially horizontal, as indicated best in Fig. 4, so as to project out through the relatively small opening between the sash and the window

sill; the rack is then raised vertically and 45 held in position by the pin 43, connections being made with the electric current; the brush is pressed against the window pane by moving the apparatus slightly outward or drawing the shaft 24 in such manner as
 50 to cause contact; water in any suitable quantity may be released from the tank 75 by operating the valve 73, and the brush caused to traverse the part to be cleansed by operating the handle 33, thereby causing the
 55 brush to move vertically up or down, or by rotating the shaft 24, as by grasping the bar 26, it may be moved laterally as well.

Thus any desired combination of movements may be given the brush so as to cover 60 the entire area within the range of the apparatus, and it will be obvious that should electric current not be accessible the brush may be operated by means of the foot lever
 65 64, with entire facility.

It will also be noticeable that should the air pressure at any time subside to such an extent that water is not forced out through the head 70, that the pressure can be increased by manipulating the handle 83. 70

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

In an apparatus of the class described, the combination with a base and a frame 75 adjustable vertically in said base, of a pair of standards carried by said frame; a shaft rotatably and slidably engaged in said standards, a head at the outer end of said shaft, a rack carried in said head, a brush, means 80 for rotating said brush, said brush and actuating means being carried by said rack, means for reciprocating said rack, and means for rotating said head upon the axis of said shaft. 85

In testimony whereof I have affixed my signature.

ALEKSANDER OLSIEWSKY.