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PATENTED MAR. 12, 1907.

G. J. WALLACE & F. J. HARHAGER.  
FLOOR CLEANING DEVICE.

APPLICATION FILED AUG. 2, 1906.

Fig. 1.

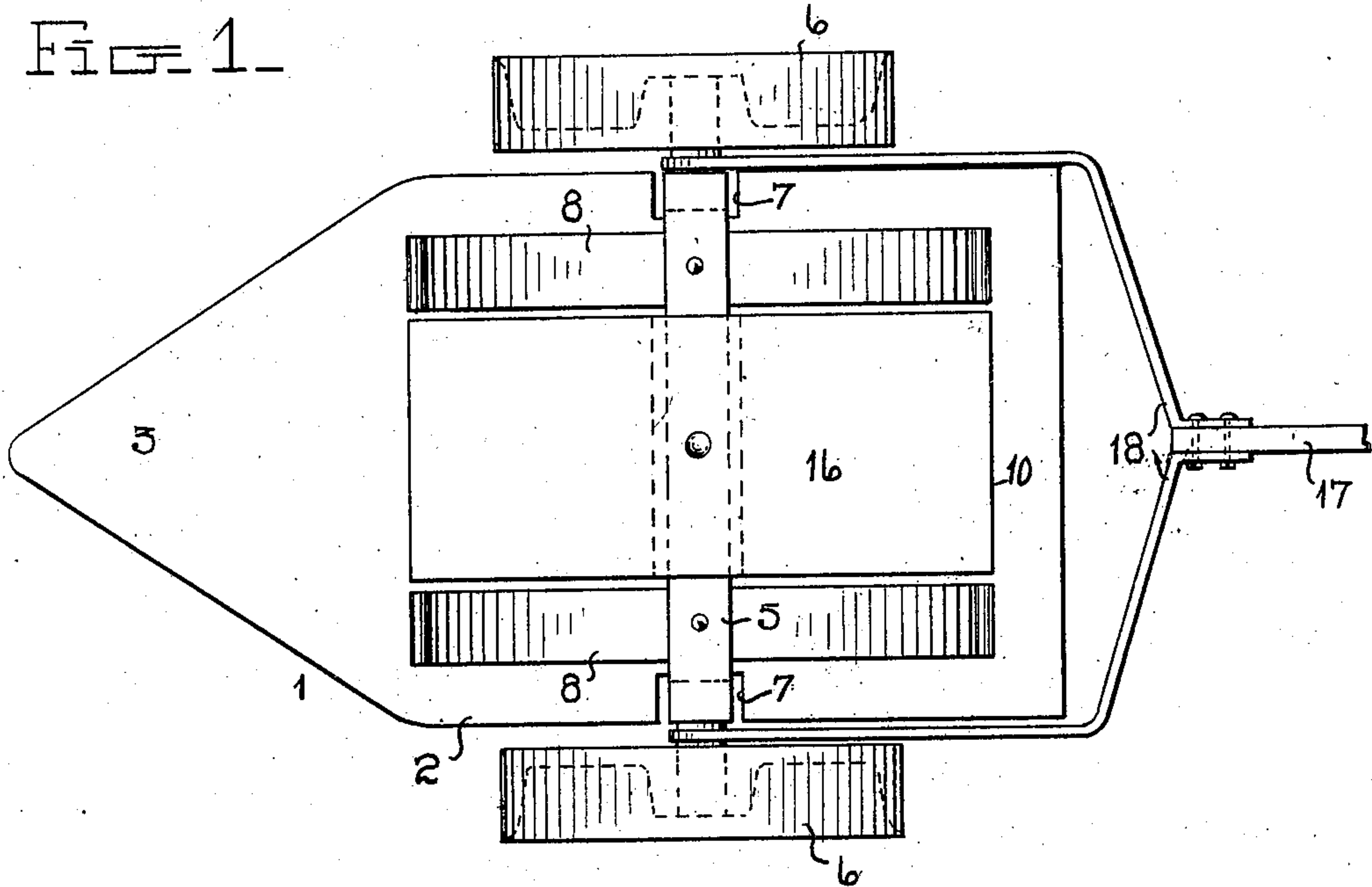


Fig. 2.

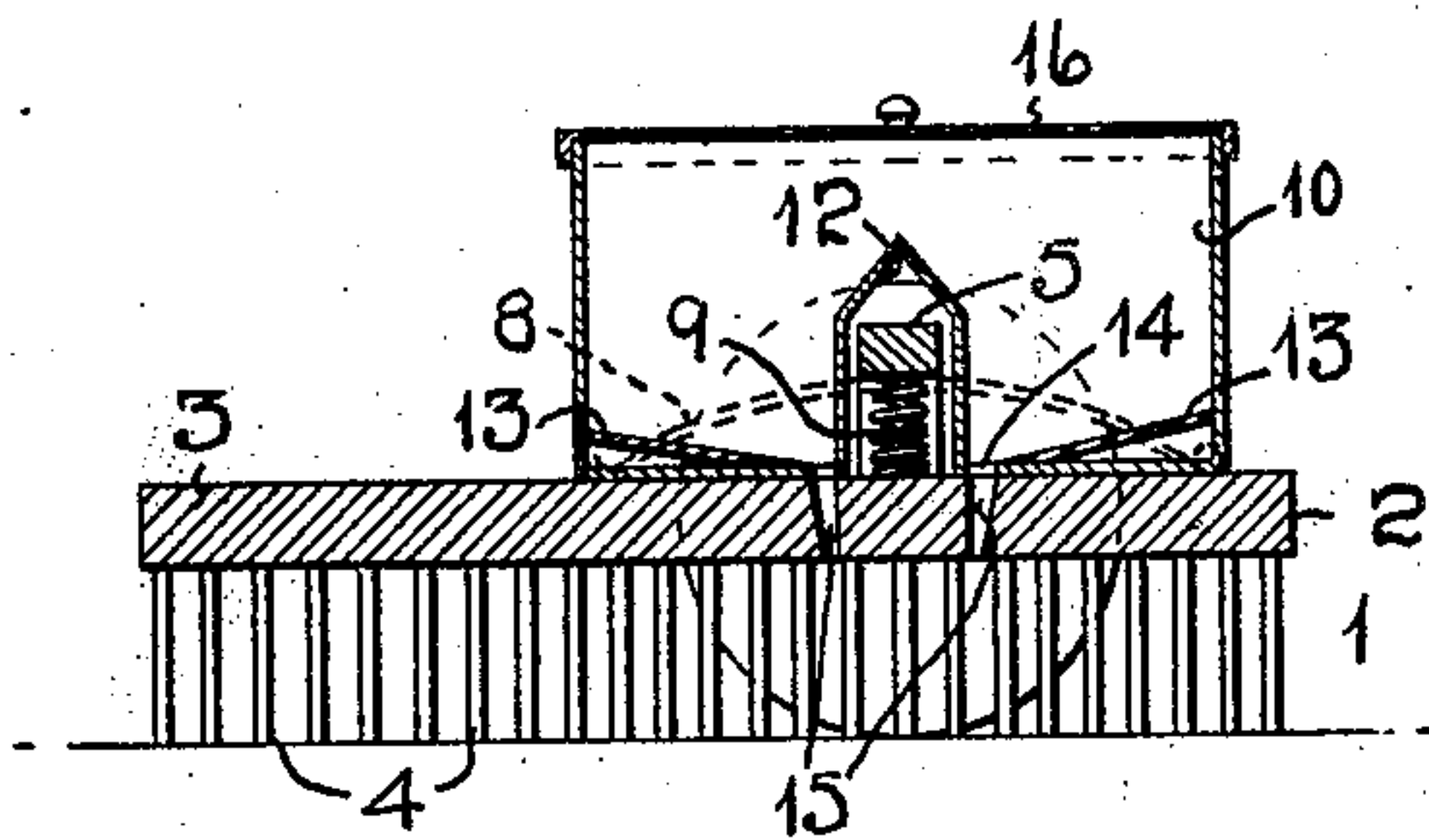
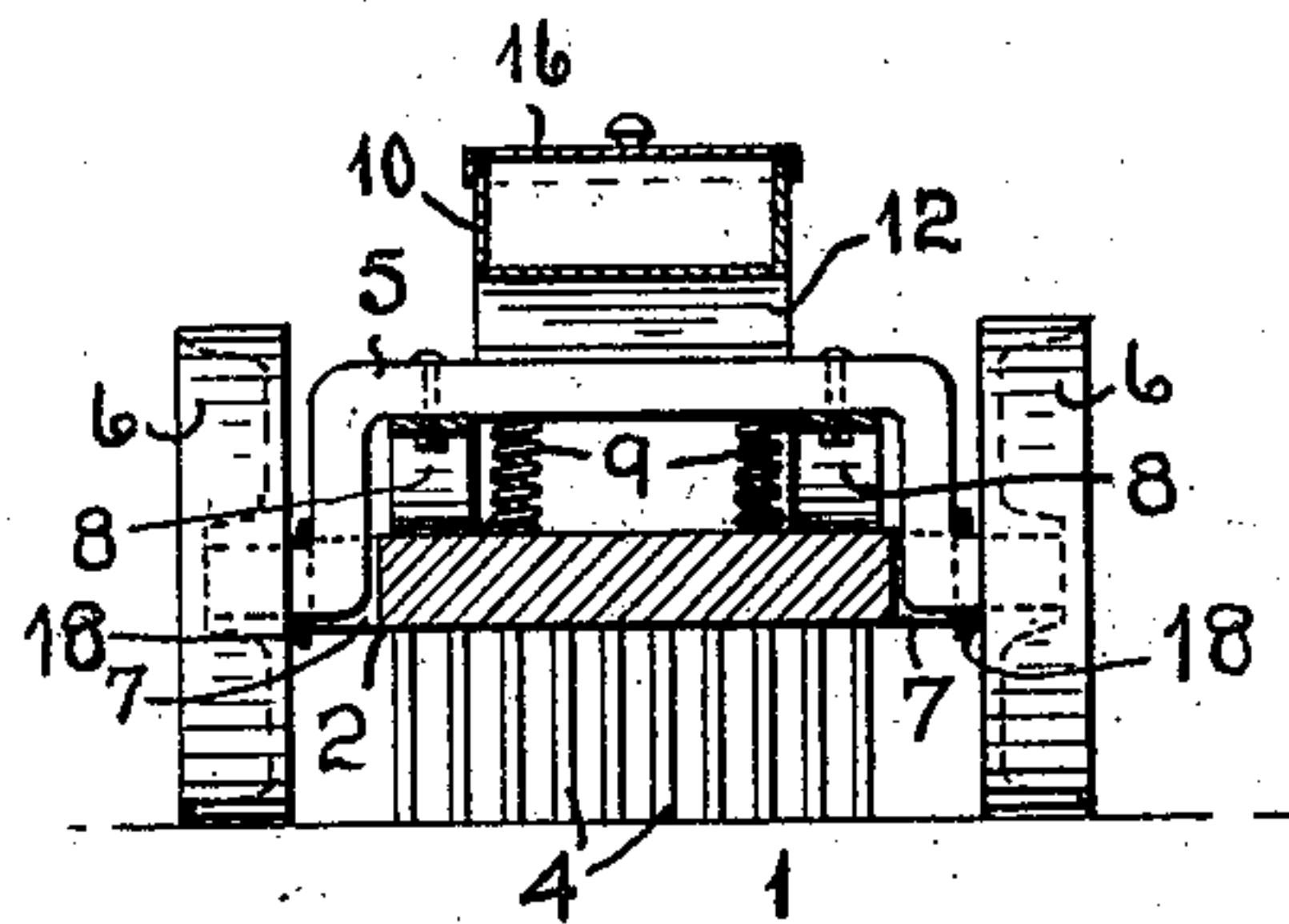


Fig. 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## FLOOR-CLEANING DEVICE.

No. 847,136.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed August 2, 1906. Serial No. 328,963.

*To all whom it may concern:*

Be it known that we, GEORGE J. WALLACE and FRANK J. HARHAGER, citizens of the United States, residing at Scottdale, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Floor-Cleaning Devices; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in floor-cleaning machines.

The object of the invention is to provide a machine of this character by means of which a floor or other surface may be thoroughly scraped, means being provided whereby a suitable scouring material may be automatically supplied to the cleaning devices of the machine.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a top plan view of a cleaning-machine constructed in accordance with the invention. Fig. 2 is a vertical longitudinal sectional view, and Fig. 3 is a central vertical transverse sectional view, of the same.

Referring more particularly to the drawings, 1 denotes the brush of the machine, said brush consisting of a back or body portion 2, which may be of any suitable shape and size, said back being here shown as having a rectangular rear end and a pointed forward end 3. Secured to the under side of the back 2 are cleaning devices 4, said devices being here shown and are preferably in the form of stiff wire bristles, which are adapted to scrape the floor or surface over which the machine is pushed.

The brush is preferably mounted in an arched axle 5, on the ends of which are journaled supporting-wheels 6. The edge of the brush 1 is recessed on each side, as shown at 7, to receive the downwardly-bent ends of the arched axle, said ends forming guides upon which the brush may move up or down. The brush 1 is provided with bowed springs 8, which are secured to the back thereof adjacent to the inner side of each downwardly-

bent end of the axle, said springs being connected midway between their ends to the under side of the upper cross or arched bar of the axle, as shown. The brush is further connected to the axle by means of two or more coil-springs 9, arranged between the springs 8. The springs 8 and 9 serve to connect the brush with the axle and also to force the same downwardly into yielding engagement with the floor or surface to be cleaned.

Between the springs 8 and connected to the top of the brush is a sand-box 10, said box being formed with a transversely-disposed recess or passage 12 to receive the arched portion of the axle, as clearly shown in Figs. 2 and 3 of the drawings. The box 10 is provided on each side of the passage 12 with bottom plates 13, which are inclined from the ends of the box toward the passage 12. At the lower ends of the plates 13 adjacent to the walls of the passage 12 are formed discharge-openings 14, which communicate with aligned discharge-passages 15 in the back or body portion of the brush, by means of which the sand in the box is adapted to feed through the brush and onto the floor or surface being cleaned, where it coacts with the wire bristles or cleaning devices to thoroughly scour said floor or surface. The box 10 is preferably provided with a removable cover 16, by means of which the sand or other cleaning material may be placed in the box.

The machine is preferably provided with a handle 17, the lower end of which has secured there to angularly-bent attaching members 18, which are connected to the axle between the wheels 6 and the adjacent side edges of the brush, as shown.

A cleaning-machine of this character may be employed for cleaning, scrubbing, and polishing any kinds of surfaces, and while we have shown and described the same as having wire bristles or cleaning devices it is obvious that said devices may be formed of other material and also that cleaning materials other than sand may be employed to coact with said cleaning devices. The machine as herein shown and described is especially adapted for cleaning floors of bake-shops and the like.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the



invention will be readily understood without requiring a more extended explanation.

Various 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 as defined by the appended claims.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A cleaning-machine comprising an arched axle, a brush mounted to slide vertically on said axle, springs to yieldingly force said brush onto the surface to be cleaned, supporting means journaled on the ends of said axle, a box arranged on said brush to contain cleaning material, said box having discharge-apertures adapted to aline with similar apertures in the back of the brush, and a handle connected to the axle of the machine, substantially as described.

2. A machine of the character described comprising an arched axle, supporting-wheels journaled on the ends of said axle, a wire-bristle brush slidably mounted on said arched axle, springs connecting said brush with the axle and to force the brush into yielding engagement with the surface to be cleaned, a sand-box arranged on the back of the brush over said arched axle, said box having formed therein discharge-apertures adapted to aline with similar apertures in the

back of the brush, and a handle connected to the axle of the machine, substantially as described.

3. A machine of the character described comprising an arched axle, supporting-wheels journaled on the ends of said axle, a brush comprising a back having guide notches or recesses formed on the side edges thereof to engage the arched portion of said axle, metallic bristles secured to the under side of said back, springs connected to said axle and to the brush to yieldingly force the same into engagement with the surface to be cleaned, a sand-box having formed therein a transversely-disposed passage adapted to fit over the arched axle and to rest on the back of said brush, inclined bottom plates arranged in said sand-box to conduct sand or cleaning material to discharge-apertures formed in the bottom of the box, said apertures being alined with similar apertures in the back of the brush, and a handle connected to the ends of the axle between the wheels and the side of the brush, substantially as described.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

GEORGE J. WALLACE.  
FRANK J. HARHAGER.

Witnesses:

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JESSE S. COOK.