G. W. VAN ALSTYNE.

FLOOR POLISHER.

APPLICATION FILED OCT. 28, 1914.

1,164,893.

Patented Dec. 21, 1915.

2 SHEETS—SHEET 1.

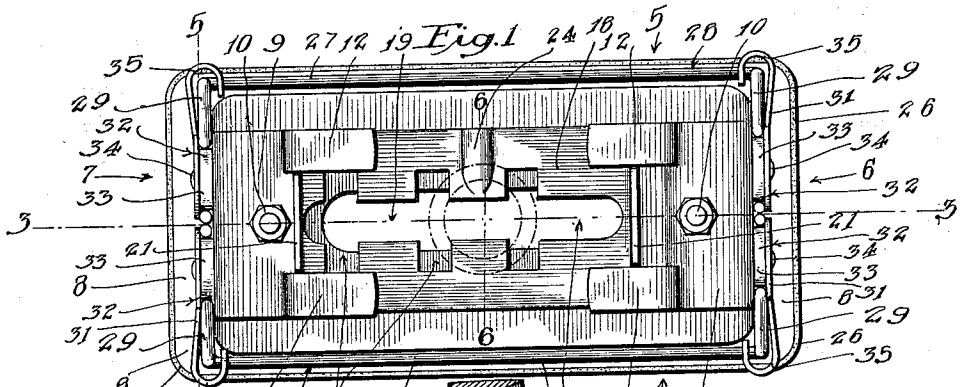


Fig. 1.

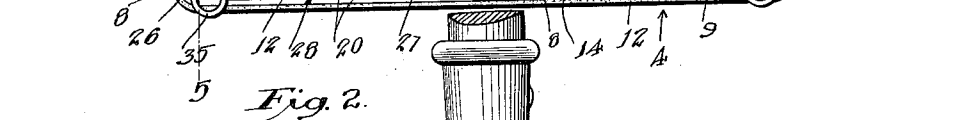


Fig. 2.

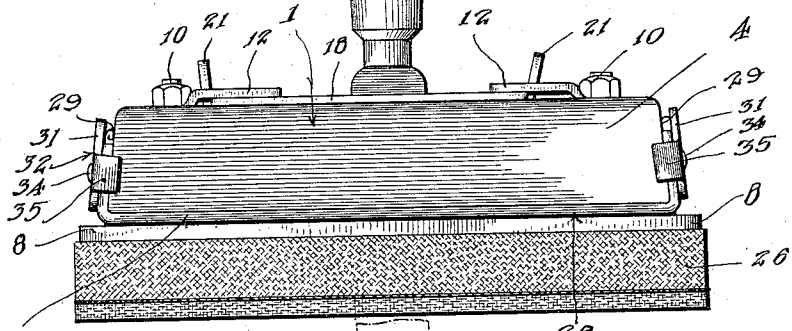
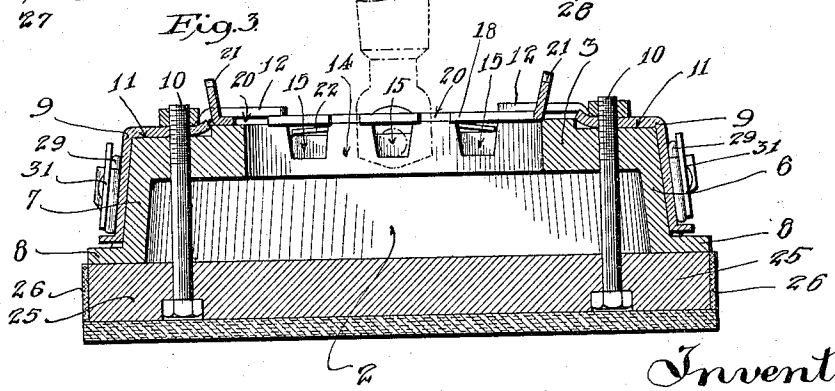


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4

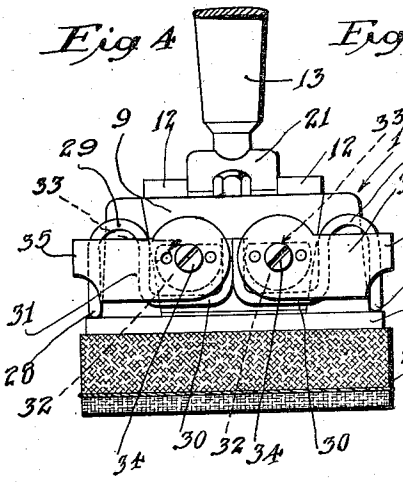


Fig. 6

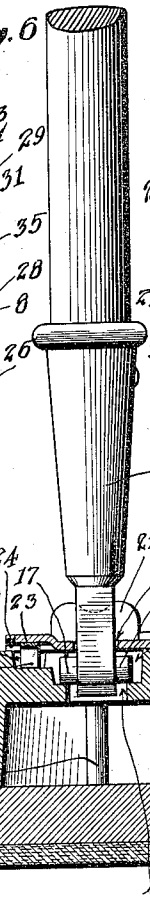
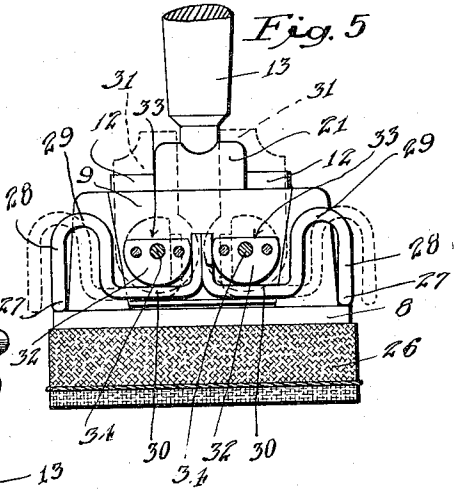


Fig. 5



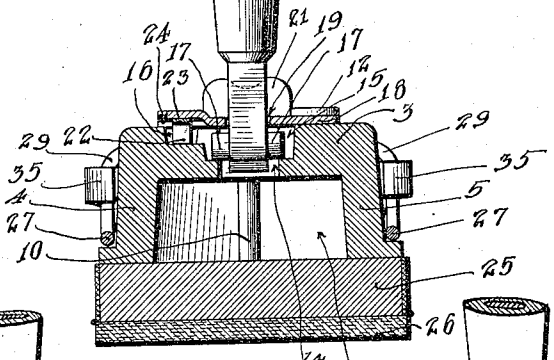


Fig. 8

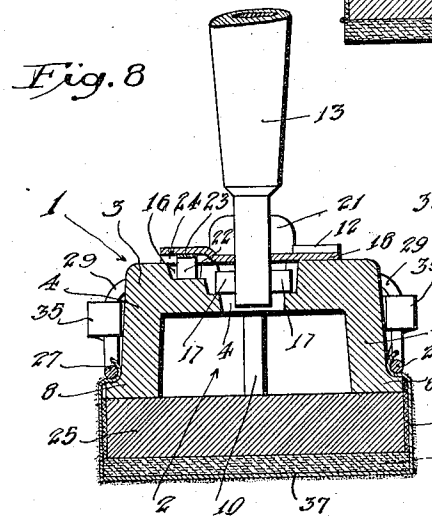


Fig. 9

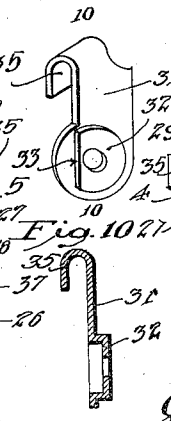
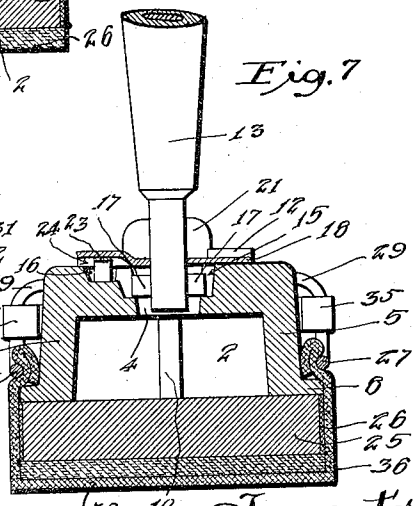


Fig. 10

Fig. 7



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE W. VAN ALSTYNE, OF LOS ANGELES, CALIFORNIA.

FLOOR-POLISHER.

1,164,893. Specification of Letters Patent. Patented Dec. 21, 1915.

Application filed October 28, 1914. Serial No. 868,996.

To all whom it may concern:

Be it known that I, GEORGE W. VAN ALSTYNE, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Floor-Polisher, of which the following is a specification.

One of the objects of this invention is to provide a floor polisher of extremely simple and practical construction, which may be easily assembled and disassembled, and to which may be detachably secured different floor treating materials.

Another and more specific object of the invention is to provide a floor polisher which may be manufactured at a minimum cost, and which is practical, unbreakable and without intricate mechanism.

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

Referring to the drawings: Figure 1 is a top plan view of my polisher with the handle shown in dotted lines. Fig. 2 is a side elevation. Fig. 3 is a vertical longitudinal sectional view. Fig. 4 is an end elevation of the polisher. Fig. 5 is a section taken on the plane of line 5—5 of Fig. 1. Fig. 6 is a transverse sectional view taken on the plane of line 6—6 of Fig. 1. Fig. 7 is a sectional view showing a strip of carpet clamped to the polisher. Fig. 8 is a view similar to Fig. 7, showing a piece of sand paper in place of the carpet. Fig. 9 is a detail view of one of the clamping levers. Fig. 10 is a section taken on line 10—10 on Fig. 9.

Referring to the drawings by numerals, 1 designates as an entirety a hollow block-casting forming the body of the polisher and having a chamber 2 opening downwardly, thus leaving a top wall 3, side walls 4, 5 and end walls 6, 7. A peripheral flange 8 surrounds the lower edge of the body, and is somewhat wider at the ends thereof than along the sides.

A pair of end or attaching plates 9 are secured to the body 1 by means of bolts 10, and the body is recessed, as indicated by the numeral 11, to receive said plates. The plates are angular and are provided on their upper faces with inwardly projecting fingers or lugs 12, which are offset so as to be spaced slightly from the upper edge of the body.

To adjustably and removably secure the handle socket 13 in position at the top of the body, I form the latter with a central longitudinal opening 14 communicant with the chamber 2, and side walls of this opening are provided, intermediate their ends, with a plurality of upwardly opening notches 15 arranged in place. The body is also formed in its upper face and to one side of the central longitudinal opening with a spring receiving recess 16. The handle socket is provided with a pair of laterally extending trunnions 17, which fit loosely within the notches 15, and which are held therein by means of a slidable locking plate 18, resting upon the top of the casting or body beneath the lugs or fingers 12. As shown in Fig. 1, the locking plate 18 is provided with a central longitudinal opening 19 having notches 20 formed in its side edges to register with the notches 15 of the body when it is desired to disconnect the handle socket 13. The plate 18 may be slid longitudinally by means of the upturned end flanges 21, said flanges projecting between the fingers 12 and preventing lateral movement of the plate. The plate, however, is of such length as to slide longitudinally a distance sufficient to cover and uncover the notches 15. The plate is locked in operative position by a flat spring 22 having a tooth or ridge 23 which springs into the groove 24 of the plate.

A block 25 of any suitable material is clamped to the bottom of the body by the bolts 10, and preferably carries a felt base covering 26 which is admirably adapted for use as a cushioning material. To provide for securing strips of other material, such, for instance, as carpet, or canvas to the body, I provide side jaws or clamps 27. These clamps are preferably formed of single lengths of spring steel wire bent so as to form a central clamping portion 28, and U-shaped spring sections 29 at the terminals of the clamping section, and angular attaching end portions 30 having their ends turned upwardly.

The spring portions 29 and the attaching portions 30 of the clamps lie in planes parallel with the ends of the body, and are held in this position by pivoted levers 31. These levers are preferably stamped from

sheet metal and have their inner ends enlarged as shown with the central portions thereof stamped inwardly as shown in Fig. 9 to provide cams 32 having straight faces 33. Rivets 34 pivotally secure the levers to the attaching plates 9. When the levers are forced into horizontal position as shown in Fig. 4, the cams force the upturned inner ends of the attaching portions 30 inwardly, thus drawing the clamping sections 28 against the body. The free ends of the levers are bent to form hooks 35, which partly encircle the outer sections of the spring portions 29, so as to prevent the spring being sprung outwardly. It will be noted, by reference to Fig. 4, that when the levers are brought into operative positions, the inner ends of the clamps come together so that undue strain cannot be brought to bear upon them.

In assembling the polisher, the spring 22 and sliding plate 18 are first placed in position on top of the body, and then the attaching plates 9 carrying the clamps 27 are secured to the body by the bolts 10, which pass upwardly through the block 25, thus holding the block in position. Next, the handle may be secured within one pair of the openings 19, and then any suitable piece of material for contact with the floor, such as the carpet strip 36, shown in Fig. 7, or a sand paper strip 37, shown in Fig. 8 may be secured in position by the clamps. Instead of using a block 25 with a felt face, a brush may be substituted.

The various pairs of notches 15 allow the handle to be secured to the body in different positions to best suit the operator, and the relative length of the trunnions 17 with respect to the distance between the notches, allows the handle to be swung transversely of the body.

From the foregoing description taken in connection with the accompanying drawings, it will be apparent that I have provided a very practical and durable floor treating device, and it is to be understood that I do not wish to be limited in construction to the exact formation shown and described, but may make such changes as will fall within the scope and spirit of the invention as claimed.

What I claim is:

1. In a polishing device of the character described, a body casting, attaching plates secured to the ends thereof, a pair of jaws extending longitudinally of the body for engagement with the sides thereof, and a pair of pivoted lock levers for each of said jaws, the lock levers being secured to the attaching plates.

2. In a floor polisher, a body casting, a pair of clamping members each having a central clamping section extending longitudinally of the body for engagement with the sides thereof, the ends of the clamping members being disposed parallel to the ends of said body casting, a pair of pivoted levers for each of said clamping members, the levers being formed with cams, and the ends of the clamping members being carried around said cams.

3. In a polisher, a body casting, a pair of end plates secured thereto, two pairs of levers pivoted to the end plates to swing in a plane parallel therewith and formed with cams, and a pair of clamping members having clamping portions extending longitudinally of the body for engagement with the sides thereof, the clamping members being bent around the cams, whereby when the levers are turned, the cams will operate to actuate the clamping members.

4. In a polisher, a body casting, a pair of end plates secured thereto, two pairs of levers pivoted to the end plates to swing in a plane parallel therewith and formed with cams, a pair of clamping members having clamping portions extending longitudinally of the body for engagement with the sides thereof, the clamping members being bent around the cams, whereby when the levers are turned, the cams will operate to actuate the clamping members, and a hook formed on the free end of each lever to engage the clamping members and prevent the latter being sprung away from the body.

5. In a polisher, a body, a pair of clamping members, the end portions of said clamping members being bent at right angles to the central portions thereof, and disposed against the end of the body, a pair of pivoted levers secured to each end of the body and formed with cam portions, the end portions of the clamping members being bent around said cams, and hooks formed on the free end of the clamping members to hold the central portions of the clamping members against outward movement.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 14th day of October, 1914.

GEORGE W. VAN ALSTYNE.

In presence of—
RODNEY M. SMITH,
FREDERICK S. LYON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."