

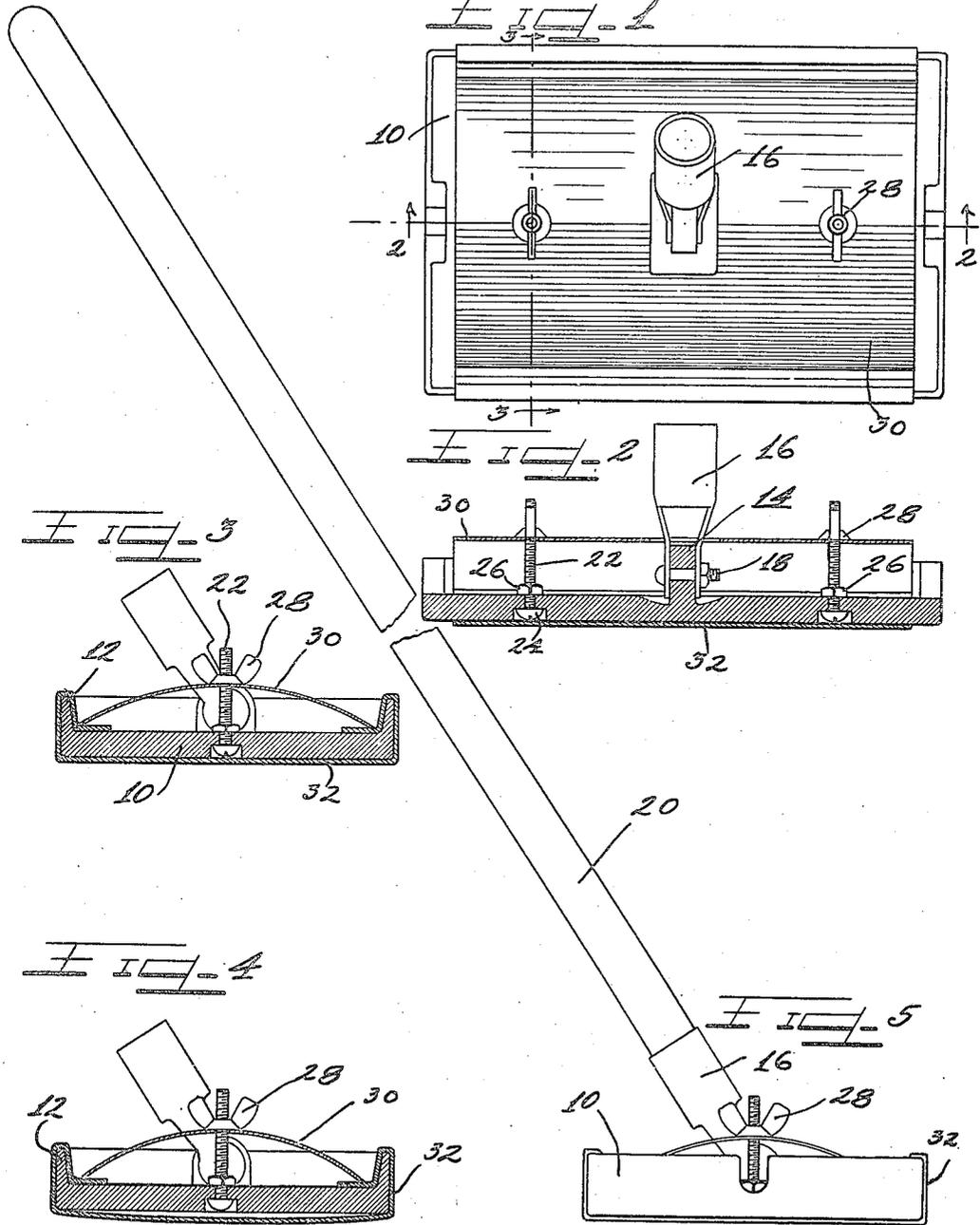
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W. SEVERNS

SANDER AND POLISHER

Filed June 27, 1921



WITNESSES

H. Marks

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UNITED STATES PATENT OFFICE.

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SANDER AND POLISHER.

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To all whom it may concern:

Be it known that I, WILLIAM SEVERNS, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Sander and Polisher; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the numerals of reference marked thereon, which form a part of this specification.

This invention relates to improvements in sanders and polishers for floors or the like and has for one of its objects the provision of such an apparatus which can be readily manipulated and to which the polishing means or sanding means such as a cloth, sand paper, or the like, may be applied, and on which said surfacing means will be very securely held in position.

An object of this invention is the provision of a sander and polisher which is adapted to be pushed about on a floor by means of a handle fitted thereto by a flexibly mounted socket and which sander shall have sufficient weight so that any undue pressure thereon is not required.

A further important object of this invention is the provision of a sander or polisher having means thereon adapted to securely clamp and hold in position any polishing or abrasive means and which shall so hold the sanding or polishing means that it will be impossible for the same to work loose while in use.

A still further important object of the invention is the provision of a sanding and polishing means provided with a tensioned clamping means which is adjustable.

Still another important object of the invention is the provision of a sanding and polishing apparatus provided with a clamping means consisting of a spring plate or the like cooperating with the base of the holder in such a manner as to securely hold any thickness of sanding or polishing means thereon no matter in what position, and to hold the same without any danger of its becoming loose during use.

Other and further important objects of this invention will be apparent from the disclosures in the accompanying drawings and following specification.

The invention (in a preferred form) is illustrated in the drawings and hereinafter more fully described.

On the drawings:

Figure 1 is a top plan view of the improved polishing and sanding apparatus, with the handle removed therefrom.

Figure 2 is a section taken on the line 2—2 of Figure 1 looking in the direction indicated by the arrows.

Figure 3 is a section taken approximately on the line 3—3 of Figure 1.

Figure 4 is a sectional view showing the apparatus before the tensioning means has been adjusted to holding position.

Figure 5 is a side elevation of the sander and polisher assembled and with the handle applied thereto.

As shown on the drawings:—

The apparatus comprises a base 10 of any hard and heavy material such as a suitable metal of a desired thickness and having an upstanding flange 12 therearound encircling all the sides thereof. This base 10 is preferably of a rectangular form as shown. Adapted to cooperate with the base by means of an attachment to an upwardly extending integral lug 14 in the middle thereof is a socket member 16 pivoted thereto by means of a bolt or rivet 18 passing through a hole in the lug 14 and this socket 16 is adapted to be swung about said pivot for the accommodation and manipulation of a handle 20 which is provided with screw threads or other means on the end thereof for suitable cooperation with the socket 16. Fitted in the bottom of the base 10 and having their heads 24 set in depressions therein are the upwardly extending threaded bolts 22 provided with lock nuts 26 coacting with the upper face of the base 10 to hold the bolts in position. These bolts 22 are provided with screw threads and have winged nuts 28 mounted thereon adapted to cooperate with and hold in position a flexible spring plate 30 formed preferably in the shape of a circular arc as shown in Figures 3 and 4 and made of such material that it may be subjected to tension. The edges of this arc-shaped tension member or plate 30 are straight and adapted to contact with the top of the base 10, or with the inner face of the flanges 12 on two opposite sides thereof near the junction of these faces and

the top. This junction forms the interior of an angle which acts like a groove to cooperate with the edge of the spring and cause the covering 32 to be tightened upon turning down the nuts 28. This covering 32 which is of sand paper, polishing cloth or the like is thus securely held in position.

The operation is as follows:

The plate member 30 is lifted from the base 10 by unscrewing the winged nuts 28 on the bolts 22 and then a piece of polishing cloth, sand paper, or the like, as shown at 32, is placed in position upon the base passing thereunder and with its ends overlapping the upper edges of the upwardly extending flange 12 on two sides of the apparatus. The plate 30 is then placed in position as shown in Figure 4 with the polishing cloth or sand paper 32 drawn as tightly as possible. After this the winged nuts 28 are tightened, thereby tensioning the plate 30 and causing its straight sides or edges to push the polishing member or sand paper 32 very closely into the angles formed between the base 10 and its upstanding flanges 12 as shown in Figure 3, securely holding the same in position and affording a very accurate contact between the bottom of the base 10 and the polisher 32. The apparatus is then ready for use and can be used in connection with almost any material to be polished, as floors, furniture or the like, the size of the polisher being of course variable to suit the particular requirements. Its weight is such that no undue pressure will be needed to polish a floor or the like, the pressure necessary to push the body over the surface of the article being polished usually being found entirely sufficient.

It will be evident that the polishing member or cloth 32 may be readily changed whenever desired and with a minimum of time and inconvenience and that when placed in position it will be very securely held and cannot become loose through the operation of the polisher.

It will further be evident that when this device is used as a polishing means with a polishing cloth or the like 32 upon the bottom thereof, a quantity of liquid polish may be placed in the base or a suitable container therein and allowed to penetrate to the polishing cloth 32 through the openings around the bolts 22 or other small openings which may be made through the base 10 if desired.

The shape of the polisher may be varied as desired, a triangular, circular or other form of base being readily adaptable to the invention. The winged nuts may further be substituted by any suitable clamping means, and the bolts coacting therewith may be made integral with the base if preferred.

I am aware that many changes may be made and various details of construction varied without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted thereon otherwise than necessitated by the prior art.

I claim as my invention:

A floor polishing device, comprising a base formed with an upstanding flange and a central integral lug, an arc-shaped spring plate, threaded bolts fixed to said base and at their upper ends passing through apertures in said spring plate, wing nuts on said bolts adapted to engage the upper surfaces of said spring plate to flatten the same and to grip a finishing material between the plate edges and the inner faces of the flange on said base, and a handle-receiving socket pivoted to the central lug on said base and projecting freely through a central slot in said spring plate.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

WILLIAM SEVERNS.

Witnesses:

OSCAR HARTMANN,
CARLTON HILL.