May 3, 1927. E. E. LOCKWOOD 1,626,742

FLOOR POLISHING MACHINE

Filed Jan. 18, 1926

Fig 1

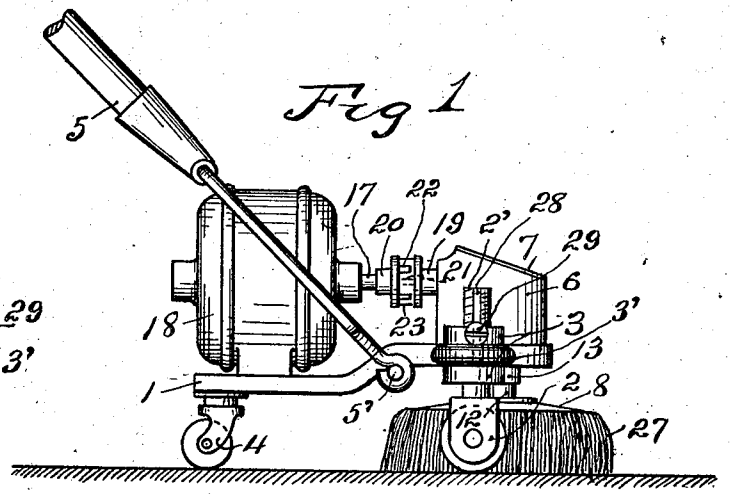


Fig 7

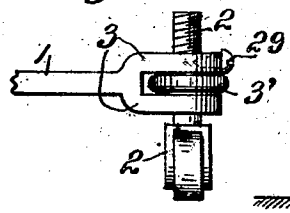


Fig 2

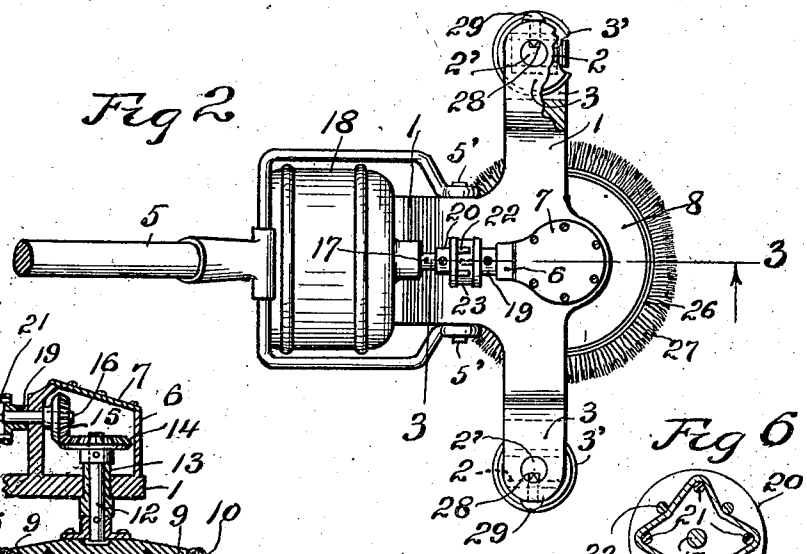


Fig 3

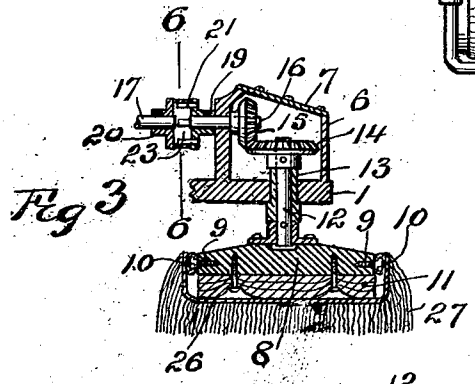


Fig 6

Fig 4

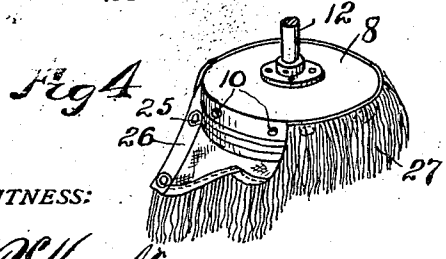
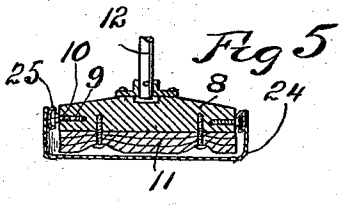


Fig 5



WITNESS:

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UNITED STATES PATENT OFFICE.

EDNA EARL LOCKWOOD, OF KANSAS CITY, MISSOURI.

FLOOR-POLISHING MACHINE.

Application filed January 18, 1926. Serial No. 82,016.

My invention relates to improvements in floor polishing machines.

One of the objects of my invention is to provide a novel floor polishing machine, which is simple, cheap to make, durable, not liable to get out of order, and which is efficient in operation.

The novel features of my invention are hereinafter fully described and claimed.

In the accompanying drawing, which illustrates the preferred embodiment of my invention,

Fig. 1 is a side elevation, partly broken away, of my improved floor polishing machine.

Fig. 2 is a top view of the same.

Fig. 3 is a section on the line 3—3 of Fig. 2.

Fig. 4 is a perspective view of the polishing head, partly broken away, and having the polishing member partly buttoned thereon.

Fig. 5 is a vertical sectional view showing the polishing head, partly broken away, and the floor waxing member buttoned thereon.

Fig. 6 is an enlarged section on the line 6—6 of Fig. 3.

Fig. 7 is a front elevation of one of the front casters and parts connected therewith.

Similar reference characters designate similar parts in the different views.

1 designates a cross shaped supporting member, the arms of which are respectively supported by two casters 2 each having a threaded stem 2′. The outer end of each arm is bifurcated the arms 3 of each bifurcation being one above the other, Figs. 1 and 7. The stems 2′ are respectively vertically adjustable in said pairs of arms 3, and fitted on each of said stems 2′, between the arms 3 is a nut 3′, by the adjustment of which the front part of the member 1 may be vertically adjusted. The rear portion of the member 1 is supported by a centrally disposed caster 4. A handle 5 has two arms respectively pivoted to two trunnions 5′ on the member 1.

Centrally between the casters 2 on the upper side of the member 1 is a gear casing 6 having a removable cover 7.

8 designates the circular body of a waxing and polishing head provided with peripheral radial studs 9 having heads 10. Fastened to the under side of the body 8 is a yielding pad 11, of suitable material, such as felt or canvas. Fastened to the body 8, is a central vertical shaft 12 rotatable in a bearing 13 mounted in the member 1. A bevel gear 14 in the casing 6 is fastened to the shaft 12 and meshes with a bevel gear 15, which is mounted in the casing 6 on a horizontal intermediate shaft 16 extending through and rotatable in the rear wall of the casing 6. A flexible coupling connects the shaft 16 with the armature shaft 17 of an electric motor 18, which is carried on the member 1 at the rear of the casing 6. Such coupling preferably comprises two coupling members 19 and 20 respectively fastened to the shafts 16 and 17. Extending rearwardly from the member 19 are circularly arranged pins 21, which are disposed alternately between similarly arranged pins 22, which extend forwardly from the member 20.

As shown in Fig. 6, an endless belt 23 is mounted on and interwoven between the pins 21 and 22, so that a flexible driving connection is effected between the shafts 16 and 17.

By means of this coupling, an accurate alinement of the motor shaft 17 and the intermediate shaft 16 need not be made.

For waxing floors, there is provided a circular rubbing member 24, Fig. 5, which is of some flexible material, such as layers of cheese cloth, and which extends under the pad 11, and which is adapted to encircle the periphery of the body 8, and is provided on its inner side with sockets 25 adapted to respectively releasably receive the heads 10 of the studs 9.

A polishing member 26, similar in form to the member 24, and adapted to be used interchangeably on the polishing head, is similarly provided on its inner side with sockets 25 adapted to receive releasably the stud heads 10. The outer side of the flexible floor rubbing member 26 is provided with a shag 27.

In the operation of my invention, the waxing member 24 is mounted, as described on the body 8 with floor wax inserted between the member 24 and the pad 11, after which the sockets 25 are made to engage the stud heads 10. The motor 18 is then started, thereby revolving the head and the attached floor rubbing member 24, which is in contact with the floor that is being polished, through the intermediacy of the shaft 17, coupling members 19 and 20, pins 21 and

22, belt 23, shaft 16, gears 15 and 14, and shaft 12. The handle 5 is then used to move the machine from place to place on the floor as the waxing thereof proceeds.

After the floor has been waxed, the member 24 is detached and the polishing member 26 is substituted therefor, the shag of the latter rubbing on the waxed floor polishes the latter.

By vertically adjusting the member 1 through the proper adjustment of the nuts 3′ on the stems 2′ of the casters 2, the machine may be disposed so that it is adapted for use with either the waxing member 24 or the shag 27 of the polishing member 26 having the proper pressure on the floor, and at the same time have the wheels of the casters 2 resting on the floor. This may be readily effected, as the pad 11, member 24 and the member 26 are yielding. Thus, to lower the shag 27 from the position, shown in Fig. 1 to a position in which it will have a pressure against the floor, the nuts 3′ are turned so as to lower the member 1.

To hold the caster stems 2′ from accidental turning, each stem 2′ is provided with a vertical peripheral groove 28, Figs. 1 and 2, adapted to receive therein the inner end of the adjacent one of two horizontal screws 29, which are respectively mounted in the upper arms 3 of the member 1. These screws 29, respectively enter the grooves 28, but do not have a bearing against the stems 2′ such as will prevent their free sliding movement, when the nuts 3′ are turned.

I do not limit my invention to the structure shown and described, as many modifications, within the scope of the appended claims, may be made without departing from the spirit of my invention.

What I claim is:—

1. In a floor polishing machine, a supporting member having two pairs of arms, the arms of each pair being one above the other, two casters having threaded stems extending through and respectively vertically slidable in said pairs of arms, two nuts respectively mounted on said stems and respectively mounted between the arms of said pairs and supporting said supporting member, a rotary polishing head mounted on said supporting member between said casters and adapted by adjustment of said nuts to contact with a floor supporting said casters, and means for rotating said head.

2. In a floor polishing machine, a supporting member having two arms, two casters having threaded stems extending respectively through said arms and vertically slidable therein, each stem having a vertical groove, two devices mounted in said arms respectively and respectively entering said grooves for holding said stems from turning, two nuts respectively fitted on said stems and respectively supporting said arms, and a rotary polishing head mounted on said supporting member between said casters and adjustable with said supporting member toward and from a floor on which said casters may be resting, and adapted to revolve against said floor.

In testimony whereof I have signed my name to this specification.

EDNA EARL LOCKWOOD.