

W. E. WARNER.
FLOOR SURFACING MACHINE.
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979,614.

Patented Dec. 27, 1910.

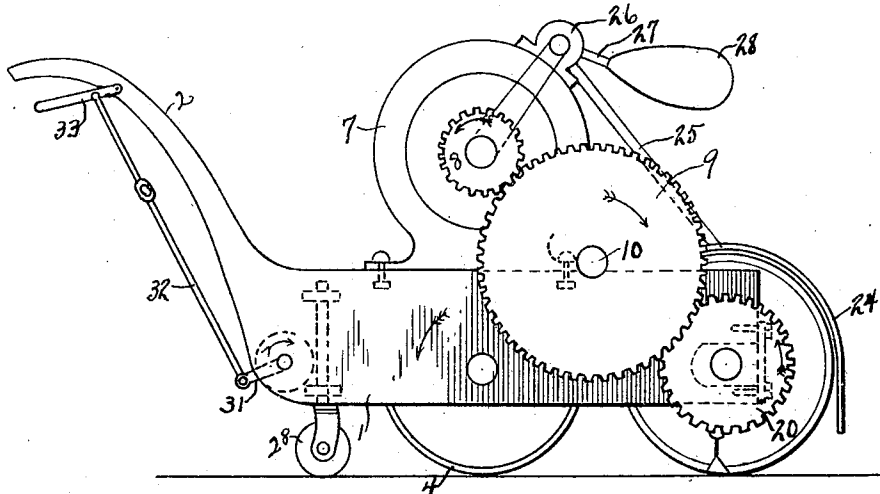


Fig. 1.

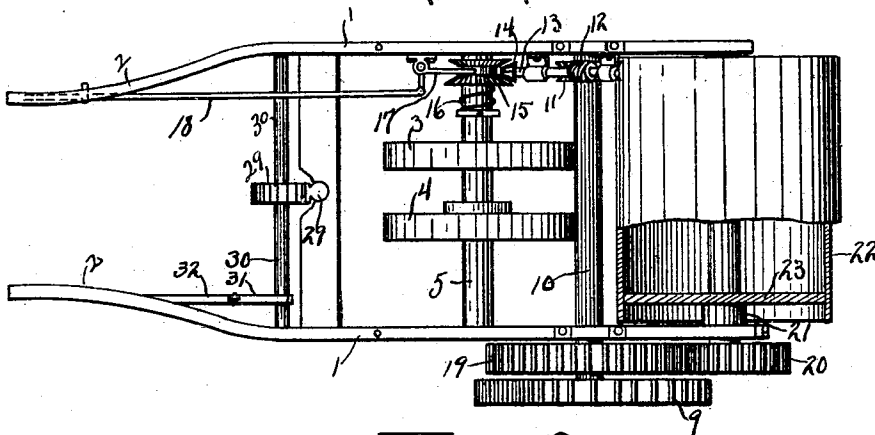


Fig. 2.

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WILLIAM E. WARNER, OF HOUSTON, TEXAS.

FLOOR-SURFACING MACHINE.

979,614.

Specification of Letters Patent.

Patented Dec. 27, 1910.

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To all whom it may concern:

Be it known that I, WILLIAM E. WARNER, citizen of the United States, residing at Houston, in the county of Harris and State of Texas, have invented certain new and useful Improvements in Floor-Surfacing Machines, of which the following is a specification.

My invention relates to new and useful improvements in floor surfacing machines.

The object of the invention is to provide a machine of the character described pivotally mounted upon supporting carriers and carrying an abrading roller which may be forced into contact with the floor to be smoothed, or withdrawn from said contact by operating the machine upon its pivoted support.

With the above and other objects in view my invention has particular relation to certain novel features of construction and operation an example of which is given in this specification and illustrated in the accompanying drawings, wherein:—

Figure 1 is a side elevation of the machine. Fig. 2 is a plan view thereof.

Referring now more particularly to the drawings, wherein like numerals of reference designate similar parts in each of the figures, the numeral 1 refers to the framework of the machine which is composed of suitable side members connected by cross braces. These side members extend rearwardly and terminate in suitable handles 2 for guiding the machine.

The machine is mounted on two conveyers 3 and 4 which are mounted upon a transverse shaft 5 and near the center thereof on either side. This shaft 5 operates in suitable bearings in the side members and is located slightly in front of the longitudinal center of the frame. The conveyers are located near the center of their shaft so as to pivot the frame work in such a manner that it may be teetered either laterally or longitudinally, and the conveyer 3 is rigidly secured to said shaft while conveyer 4 is loosely mounted but secured against lateral movement thereon. When it is desired to turn the machine around it may easily be tilted until it rests only on conveyer 4 and its forward movement thus stopped, thus providing for more ease in turning.

Upon the machine frame I have mounted a motor 7, of the ordinary type, whose shaft carries spur gear 8 which meshes with spur

gear 9 rigidly mounted on the transverse shaft 10 rotatable in suitable bearings upon the side members 1. Upon shaft 10 I have mounted a worm gear 11 designed to mesh with a similar worm gear 12 carried upon the drive shaft 13. This drive shaft carries a bevel gear 14 at its free end for a purpose presently to be described. Upon shaft 5 I have secured a double bevel gear 15 slidable but not rotatable thereon and the bevel gear 14 projects between the members thereof and one of said members is normally held in mesh with said gear 14 through the operation of spring 16, as shown in Fig. 2. When it is desired to throw the machine out of gear the double gear wheel is moved on its shaft until neither member meshes with gear 14 and when it is desired to reverse the machine gear 15 is further moved till its other member is brought into mesh with gear 14. This movement of the gear 15 is accomplished by means of the bell crank 17 pivoted to the side member 1 and one arm of which engages with said gear. To the other arm of this bell crank I have attached a rod 18 leading back to one of the handles of the machine so as to be readily manipulated by the operator. By a proper manipulation of the rod 18, it is readily obvious that the machine may be given forward or reverse gear or may be thrown entirely out of gear. Upon shaft 10 I have also mounted the spur gear 19 which meshes with a similar spur gear 20 carried upon the outer end of transverse shaft 21. This shaft 21 is rotatable in removable bearings, secured in sockets in the forward ends of side members 1. Upon the shaft 21 I have secured an abrading roller 22, which comprises a metallic cylindrical body secured in place about said shaft by means of radiating arms 23, extending from said shaft to the cylinder body. This cylinder is covered by sand paper or some other suitable abrading surface.

The numeral 24 refers to a hood which embraces the abrading roller and is designed to collect the dust and cuttings of the roller and convey the same to dust pipe 25 which communicates with the blow fan 26 which is mounted upon the motor 7 and operated thereby. From the casing of this fan a discharge pipe 27 leads and discharges into receptacle 28.

Near the rear end of the frame I have provided a caster 28 which is vertically movable in its bearings. The rear side of the

shank of this caster has gear teeth which mesh with the gear teeth of gear wheel 29 centrally located on shaft 30. This shaft has an arm 31 extending therefrom to the free end of which rod 32 is attached. This rod provided with a handle 33 through which it is operated and when it is desired to depress the caster and elevate the rear end of the machine frame this result may be readily accomplished through the proper manipulation of the rod 32, and by the elevation of the rear end of the frame the abrading roller is held in contact with the surface to be cut away. When the handle 33 is released the rear end of the frame descends and the abrading roller is elevated away from the surface.

A surfacing machine constructed as described and shown will be found to be simple and easy to construct and operate and will efficiently accomplish the purpose for which it was designed.

What I claim is:

1. In a floor surfacing machine the combination with a pivotally mounted supporting frame of an abrading roller carried by one end thereof; traction wheels for said frame; a motor carried thereby and operatively connected with the abrading roller; a transmission mechanism connecting said motor with the traction wheels of said device whereby forward or reverse movement may be imparted to the same; and a mechanism carried by the end of the frame opposite to the abrading roller for elevating said end and depressing the roller end of the frame, said mechanism including a vertically movable caster, and gear teeth carried by

the shank thereof, a gear wheel carried by the frame and designed to mesh with the teeth of the shank and a hand lever operatively connected to said gear wheel whereby the same may be rotated and the caster moved vertically.

2. In a floor surfacing machine the combination with a pivotally mounted supporting frame of an abrading roller carried by one end thereof; traction wheels for said frame; a motor carried thereby and operatively connected with the abrading roller; a transmission mechanism connecting said motor with the traction wheels of said device whereby forward or reverse movement may be imparted to the same; and a mechanism carried by the end of the frame opposite the abrading roller for elevating said end and depressing the roller end of the frame, said mechanism including a vertically movable caster, and gear teeth carried by the shank thereof, a gear wheel carried by the frame designed to mesh with the teeth of the shank, a crank arm carried by the axle of the said gear wheel and a hand lever operatively connected to said crank arm whereby the same may be rotated and the caster moved vertically and the abrading roller held in positive contact with the surface to be abraded.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM E. WARNER

Witnesses:

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