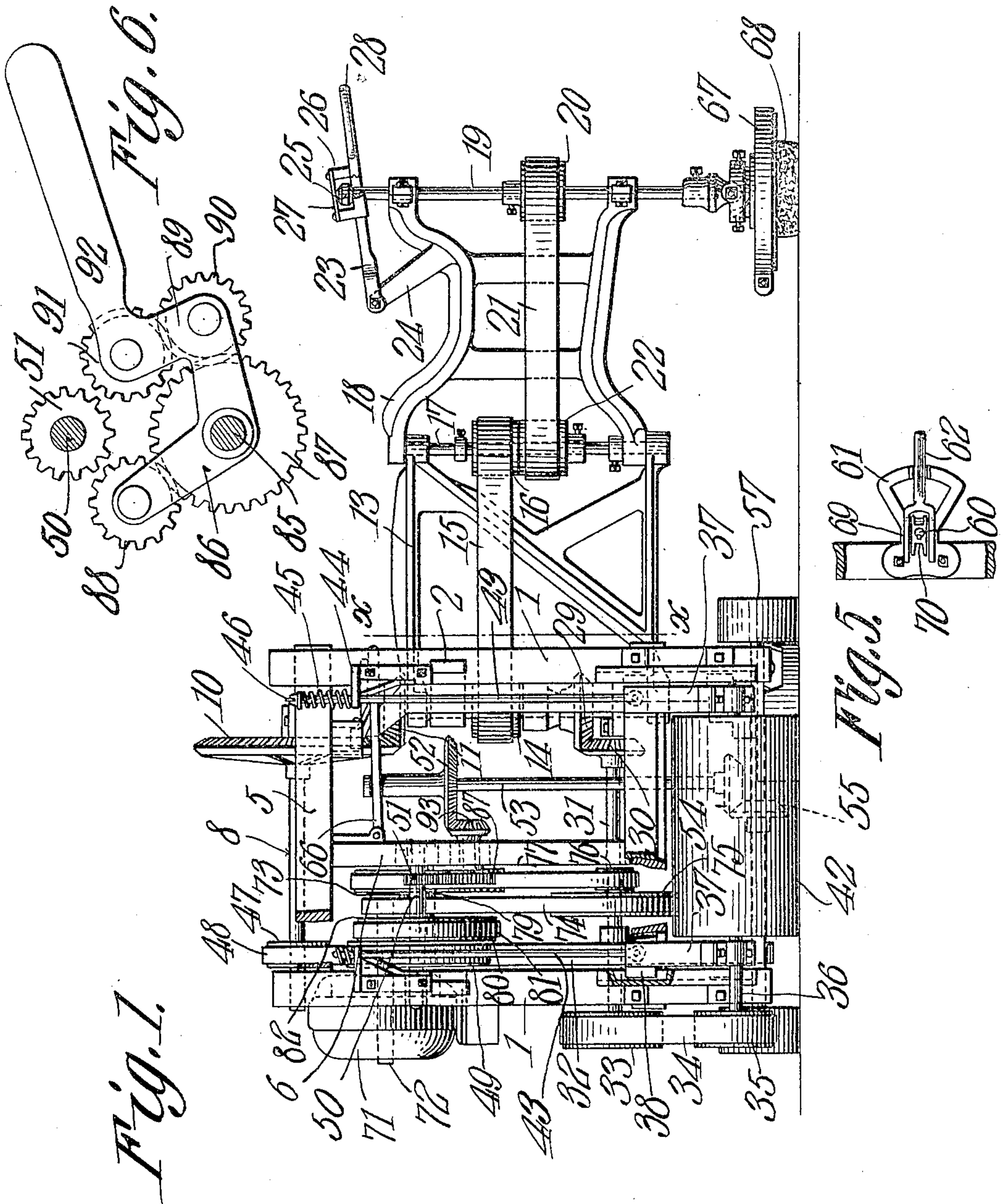


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927,548.

Patented July 13, 1909.  
2 SHEETS—SHEET 1.



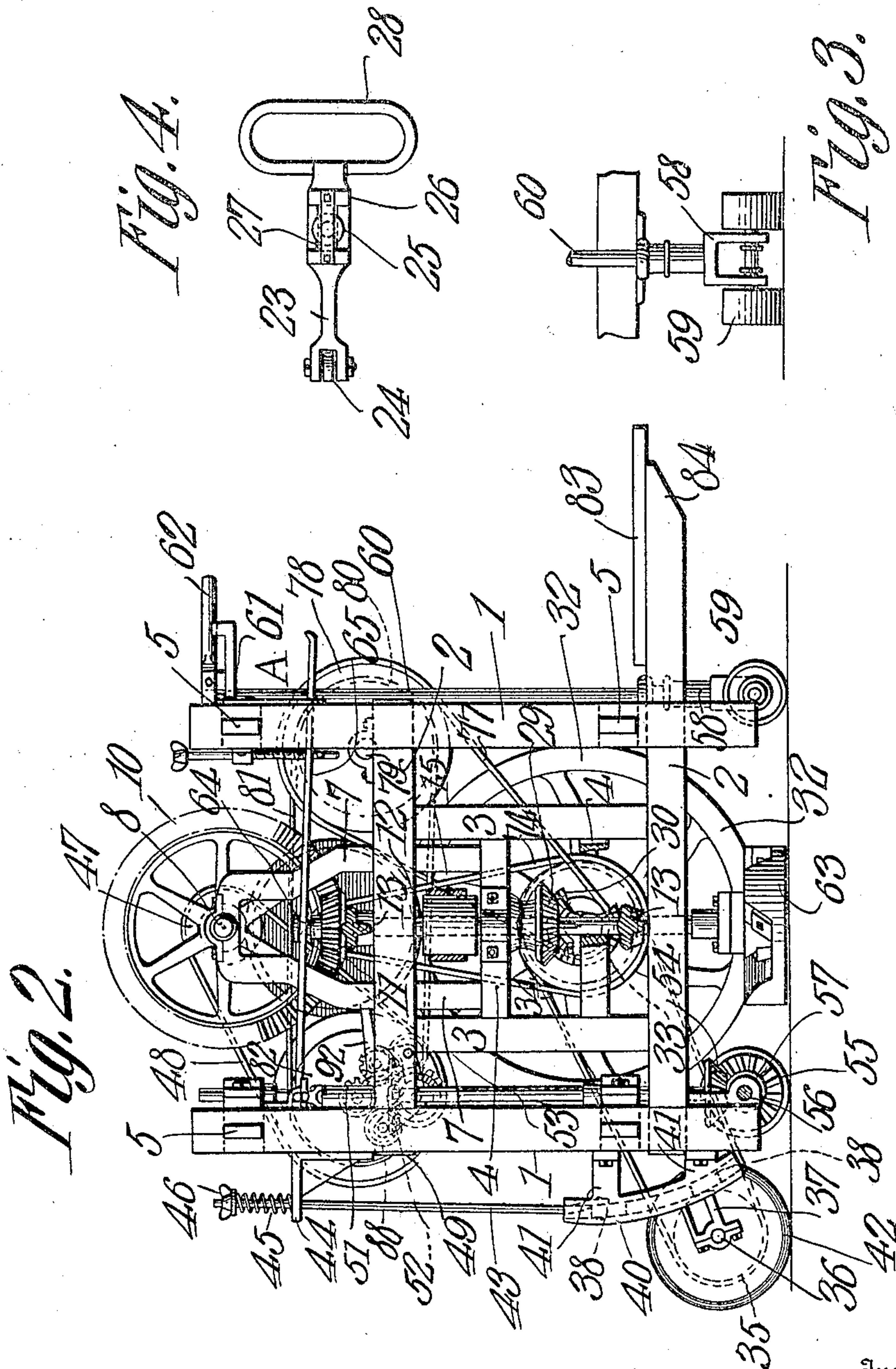
Witnesses  
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# UNITED STATES PATENT OFFICE.

GEORGE J. KEPPLINGER, OF DWIGHT, ILLINOIS.

## MACHINE FOR DRESSING FLOORS.

No. 927,548.

Specification of Letters Patent.

Patented July 13, 1909.

Application filed December 6, 1907. Serial No. 405,384.

*To all whom it may concern:*

Be it known that I, GEORGE J. KEPPLINGER, a citizen of the United States, residing at Dwight, in the county of Livingston and State of Illinois, have invented a new and useful Machine for Dressing Floors, of which the following is a specification.

This invention relates to machines for dressing floors and it is more particularly an improvement upon the construction described and claimed in Patent No. 854,950, granted to me on May 28, 1907.

The object of the invention is to provide novel means whereby the area operated upon by the machine can be greatly increased without materially increasing the size of the machine.

Another object is to provide means whereby a floor can not only be planed but can be burnished and sand-papered.

Another object is to provide a lateral extension carrying floor dressing means.

A still further object is to provide simple and efficient means whereby the movement of the extension can be conveniently controlled and the floor dressing device carried thereby can be readily raised or lowered.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claim.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a front elevation of the machine embodying the present improvements. Fig. 2 is a side elevation thereof, the side extension being removed on the line  $x-x$ , Fig. 1. Fig. 3 is a front elevation of the steering axis. Fig. 4 is a detail view of the adjusting lever of the extension. Fig. 5 is a detail view of the steering lever and its holder. Fig. 6 is an enlarged elevation of the gearing utilized for controlling the direction of movement of the machine.

Referring to the figures by characters of reference, A designates the frame of the machine, the same consisting of corner posts 1 connected to the sides by upper and lower longitudinal strips 2 which are in turn connected by uprights 3 having cross strips 4 interposed between and secured to them. The

corner posts are connected at the ends of the frame by upper and lower cross strips 5 and an upright 6 connects these strips 5 at one end of the frame.

Secured upon the upper strips 2 and 4 are standards 7 on which is journaled a shaft 8 which extends transversely of the machine. A gear 10 is secured upon the shaft 8 and meshes with a gear 11 secured to the upper end of a shaft 12. This shaft is journaled upon the strips 2 and 4 of the frame and constitutes the pivot of a swinging bracket 13 extending laterally from the frame. This bracket is held against vertical movement by the strips 2 and 4 and is capable of swinging upon the shaft 12. A pulley 14 is secured to the shaft 12 and is designed to drive a belt 15 which is mounted on a pulley 16. This pulley is secured to a shaft 17 journaled in the outer end of the bracket 13 constituting the pivot of a bracket extension 18. A shaft 19 is journaled in the outer end of this extension and has a pulley 20 secured to it and designed to receive motion through a belt 21 from a pulley 22 on shaft 17. Shaft 19 is not only revolvably mounted within the extension 18 but is also capable of vertical movement and the upper end of this shaft is fitted loosely within a lever 33 pivotally mounted upon an arm 24 extending upward from the extension.

A head 25 is formed at the upper end of shaft 19 and bears loosely upon the lever 23 and said lever has studs 26 extending upward therefrom and connected by a retaining plate 27. This plate extends over the head 25 and serves to confine it so as to prevent independent vertical movement of the shaft and lever. A handle 28 of any suitable form is arranged at the free end of the lever so that the same can be conveniently manipulated.

A gear 29 is secured to shaft 12 and meshes with a gear 30 secured to a transversely extending shaft 31 journaled on the lower strips 4 and carrying a fly wheel 32. A pulley 33 is mounted on this shaft and is disposed to transmit motion through a belt to a pulley 35 secured to a transversely extending shaft 36. This shaft is journaled in sliding brackets 37 having laterally extending wings 38 which are mounted to slide



within curved guide rails 40. Arms 41 extend from these guide rails and are suitably fastened to the frame and the rails 40 are disposed concentric with the shaft 31. A roller or buffer 42 is secured to shaft 36 between the sliding brackets 37 and its outer surface may be finished in any suitable manner so as to produce desired results when the roller is applied to the surface to be dressed. Rods 43 are connected to the upper ends of the brackets 37 and are slidably mounted within guide brackets 44 secured to the upper portion of the frame A. Coiled springs 45 are arranged upon these rods and bear on brackets 44 and suitable means such as thumb nuts 46 are arranged on the rods whereby the stress of the springs can be increased and the rods 43 and the parts connected to them can be raised so as to lift the buffer out of contact with the floor.

Secured to the shaft 8 is a pulley 47 which is disposed to receive motion through a belt 48 from a pulley 49 secured to a shaft 50. This shaft is journaled upon one of the upper side strips 2 and also upon the upright 6 and has a gear 51 secured to it. A shaft 85 is located below and parallel with shaft 50 and has a bell crank lever 86 journaled thereon close to a gear 87. One end of the lever is provided with an intermediate gear 88 constantly in mesh with gear 87 while the other end of the lever has an angular extension 89 carrying two meshing gears 90 and 91. Gear 90 constantly meshes with gear 87. A handle 92 extends from the lever and by means thereof either gear 88 or gear 91 can be moved into mesh with gear 50 which, obviously will reverse the rotation of the driven gear. A beveled gear 93 is carried by shaft 85 and meshes with a beveled gear 52, feathered on a vertical shaft 53 and another gear 54 is secured to the lower end of said shaft and meshes with a gear 55 which is secured to the drive axle 56 of the machine. This axle has rollers 57 secured to it. In order that the machine may be guided during this movement a steering axle 58 is journaled upon one end of the frame, the same preferably having two rollers 59 as indicated particularly in Fig. 3. A rod 60 extends upward from the axle and is journaled at its upper end within an arcuate holder or bracket 61 extending from the frame. A steering lever 62 is provided, the same having a forked end 69 pivotally connected to a block 70 secured to rod 60. By manipulating the lever 62 the axle can be turned so as to steer the machine in any desired direction.

Secured in any preferred manner to the lower end of shaft 12 is a cutter head 63 which may be of any desired construction. The gears 29 and 11 and pulley 14 are all feathered on the shaft 12, and the upper end of the shaft has an annular groove 64 in which is seated a lever 65. By swinging this lever ver-

ically the shaft 12 can be raised or lowered so as to lift the cutter head 63 out of contact with the floor or force it into contact therewith. A lever 66 also loosely engages the gear 52 and by actuating this lever said gear can be placed in or out of engagement with gear 51 so as to control the movement of the machine. The shaft 19 has a head 67 detachably connected to its lower end and this head is designed to carry suitable means such as a stone, sand paper, or the like for the purpose of dressing a floor. Such means has been indicated at 68.

A suitable motor, which has been indicated at 71, is mounted upon the frame A and has a drive shaft 72 carrying a pulley 73 designed to transmit motion through a belt 74 to a pulley 75 on shaft 31. Another preferably smaller pulley 76 is secured on shaft 31 and drives a belt 77 which transmits motion to a pulley 78 journaled upon a shaft 79 at one end of the frame A. A pulley 80 is also secured to this shaft 79 and transmits motion through a belt 81 to a pulley 82, which is secured to shaft 50.

A platform 83 is preferably supported upon the rear end of frame A upon extensions 84 of the lower strips 2 and this platform is designed to hold the operator while the machine is in use and being moved from place to place.

When the motor 71, which can be either of the electric or gasolene type, is set in motion, pulley 73 will drive belt 74 and motion will thus be transmitted to the shaft of the fly wheel and belt 77 will thus drive the pulley 78 so as to cause motion to be transmitted through belt 81 to shaft 50 and through belt 48 to shaft 8. As a result of this transmission of motion the various gearing described can be operated to actuate the rollers 57, buffer 42, cutter head 63, and grinding head 67. When the machine has reached a desired position the same can be stopped by disengaging gear 52 from gear 51. Bracket 13 and extension 18 can thus be swung at the side of the frame so as to permit the grinding head 67 to act upon a considerable area without necessitating further movement of the machine. This extension, and the shaft 19, can be controlled by means of lever 23. The buffer 42 can be raised or lowered by manipulating the thumb nuts 46, any upward pull upon the rods 43 causing the sliding brackets 37 to travel upward within the guides 40. By shifting handle 92 as heretofore described the gears 88 and 91 can be shifted so as to drive the machine either forward or backward.

What is claimed is:

In a machine of the class described, a frame, a driven shaft journaled in the frame, the said shaft being freely movable vertically in the frame, a floor treating device carried at the lower end of the shaft, a lever pivoted



to the frame, the said shaft being provided at  
its upper end with a head, the said lever being  
formed with a slot extending lengthwise  
thereof and at each end of the slot with an  
5 upstanding lug, and a strip removably se-  
cured at its ends to the upper ends of the lug  
and extending above the upper extremity of  
the lever and in engagement therewith.

In testimony that I claim the foregoing as  
my own, I have hereto affixed my signature 10  
in the presence of two witnesses.

GEORGE J. KEPPLINGER.

Witnesses:

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CHAS. D. McWILLIAMS.