

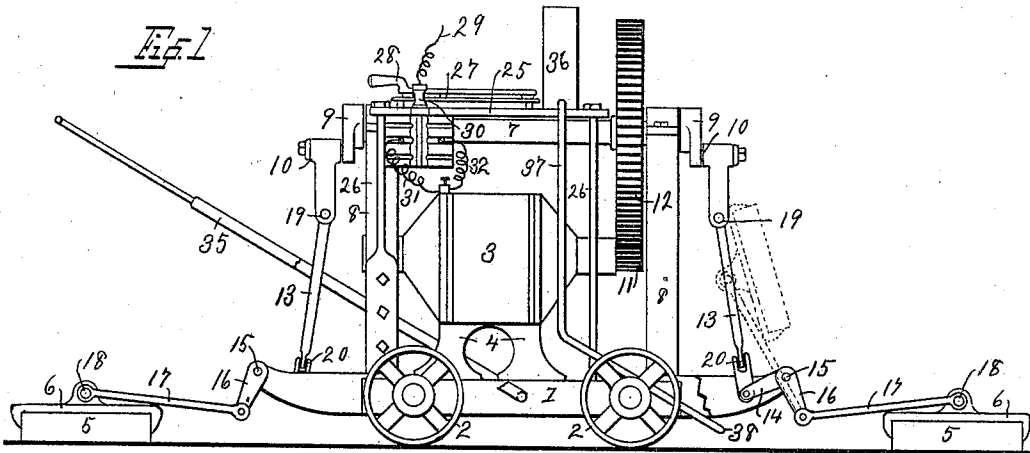
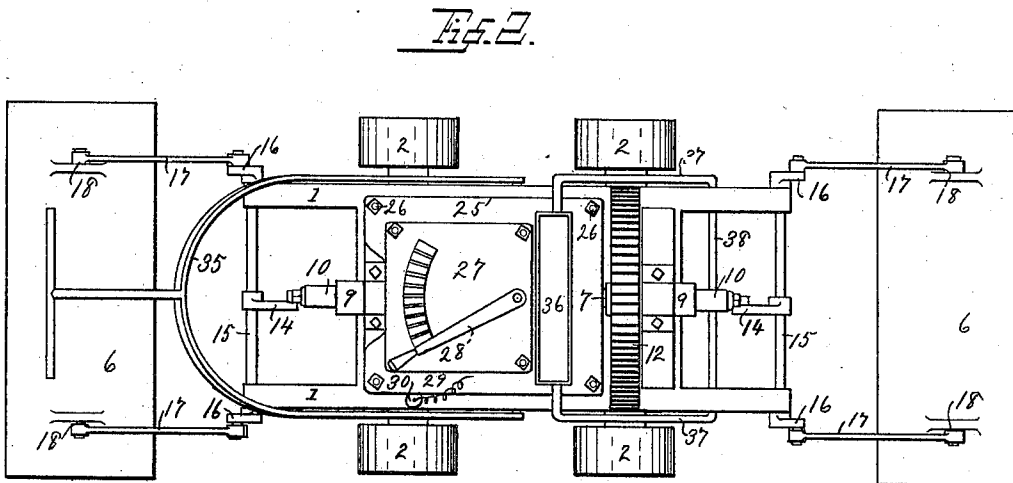
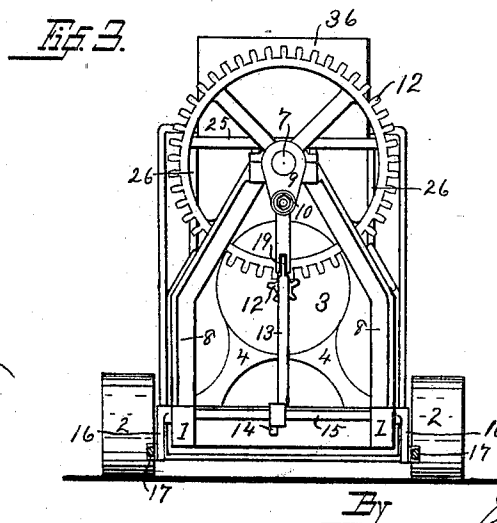
No. 687,795.

Patented Dec. 3, 1901.

A. S. TULLOCH.
POLISHING MACHINE.

(Application filed Apr. 5, 1901.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

ARTHUR S. TULLOCH, OF OSHKOSH, WISCONSIN.

POLISHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 687,795, dated December 3, 1901.

Application filed April 5, 1901. Serial No. 54,439. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR S. TULLOCH, a citizen of the United States, residing at Oshkosh, county of Winnebago, and State of Wisconsin, have invented new and useful Improvements in Polishing-Machines, of which the following is a specification.

My invention relates to improvements in wood-polishing machines, with especial reference to devices for polishing the surfaces of bowling-alleys, floors, &c.

The object of my invention is to provide a portable machine-driven device which will operate longitudinally of the grain of the wood and in which a set of polishing devices will operate simultaneously in opposite directions, whereby vibration is prevented. Provision is also made for distributing oil and other liquid compounds upon the surface to be polished, whereby the same may be thoroughly distributed and rubbed in by the action of the polishing devices.

In the following description reference is had to the accompanying drawings, in which—

Figure 1 is a side view of my improved polishing-machine. Fig. 2 is a top view of the same. Fig. 3 is an end elevation in detail, showing the frame, driving-gear, and crank.

Like parts are identified by the same reference characters throughout the several views.

1 is the frame of a truck or carriage, of which 2 2 are the wheels.

3 is an electrical motor inclosed in a suitable casing mounted on a bed 4, located on the frame of the truck.

5 represents polishing-blocks which engage in metallic holders 6. These blocks may be formed of any suitable material surfaced with emery or other abrasive substances or with cloth where the final operation of buffing or polishing is to be performed. The holders 6 are formed with a channel in their undersurfaces, in which the blocks 5 are engaged, as clearly shown in Fig. 1, the blocks being arranged transversely of the carriage or truck and being of a length equal to or extending the width of the truck.

7 is a drive-shaft mounted in suitable bearings on standards 8 and provided with cranks 9 and pitmen 10 at each end.

Motion is communicated from the motor 3

to the polishing-blocks 5 through the medium of the gear-wheels 11 and 12, shaft 7, cranks 9, (at each end thereof,) pitmen 10, connecting-rods 13, arms 14, cross-shafts 15, arms 16, links 17, and block-holders 6, one arm 16 being located at each end of each cross-shaft 15 and being connected by links 17 with the block-holders 6 at points 18 near the respective ends of the holders. The connecting-rods 13 are provided with knuckle-joints 19 and 20. With this construction the rotary movement of the motor is converted into a reciprocating movement of the blocks 5.

25 is a platform mounted upon supporting-rods 26, extending upwardly from the base or main frame of the truck. Upon this platform I have located a suitable controller-box 27, the controller being provided with a lever 28 for supporting and stopping the motor and regulating the speed thereof. It will be understood that the controller may be made of any ordinary construction, and therefore need not be illustrated in this connection.

The motor is driven from any suitable source of current-supply through the medium of the flexible conductors 29, a removable contact-block 30 being connected with these conductors and adapted to be inserted into contact with suitable electrodes 31 and 32, whereby an electrical connection is established between the conductors 29 and the motor. It will be understood, however, that I do not limit the scope of my invention to the use of an electrical motor, as it is obvious that any other motive power may be employed, if desired.

35 is a handle by means of which the truck is manually adjusted from one position to another, and 36 is an oil-tank mounted on the platform 25, with a pipe 37 leading downwardly from the tank and communicating with a transverse drip-pipe 38, whereby the oil or other liquid compounds may be distributed upon the surface to be polished.

I attach great importance to the provision of means for the operating and polishing block 5 at each end of the truck, with means for actuating the blocks in opposite directions, as this arrangement produces a balanced machine and prevents the vibration or forward and back movement of the truck which would otherwise result and which, if permitted,

would cause the wheels of the truck to mark or mar the surface of the floor or alley which is to be polished.

When it is desired to remove the apparatus
5 from one arm to another or from one bowling-alley to another, the holders 6 and blocks 5 may be lifted and swung backwardly to the positions indicated by dotted lines in Fig. 1, where they will be supported by the connect-
10 ing-rod 13, and the truck may then be readily moved upon its supporting-wheels to any desired position.

Having thus described my invention, what I claim as new, and desire to secure by Letters
15 Patent, is—

1. The combination of a supporting-truck; a transverse shaft mounted at each end thereof; polishing-blocks arranged transversely of the truck at each end thereof; arms secured
20 to the respective ends of said transverse shafts, and linked to the corresponding ends of the polishing-blocks; and means for actuating said transverse shafts simultaneously in opposite directions, whereby the polishing-
25 blocks are caused to reciprocate in opposite directions.

2. The combination with a suitable truck; polishing-blocks located adjacent to the respective ends of the truck; a suitable motor
30 mounted on the truck; and driving connections adapted to communicate motion from said motor to oscillate the polishing-blocks simultaneously in opposite directions in a common line of movement.

35 3. The combination of a suitable truck; a motor mounted thereon; a driving-shaft operatively connected with said motor; cranks

located at each end of said driving-shaft; polishing-blocks located adjacent to said truck and having operative connection with the
40 cranks at the respective ends of the driving-shaft, said cranks and connections being arranged in such relation as to oscillate the polishing-blocks in opposite directions in a common line of movement.

4. The combination with a suitable truck; a set of transverse shafts mounted thereon; a pair of arms rigidly connected with the shaft; polishing-blocks; links connecting the
50 respective ends of each polishing-block with the arms of one of said transverse shafts; and driving mechanism mounted on said truck, with connections adapted to oscillate said shafts in opposite directions.

5. The combination with a suitable truck; 55 a set of transverse shafts mounted thereon; a pair of arms rigidly connected with the shaft; polishing-blocks; links connecting the respective ends of each polishing-block, with the arms of one of said transverse shafts; and
60 driving mechanism mounted on said truck, with connections adapted to oscillate said shafts in opposite directions; together with a receptacle for oil or other liquid compounds, mounted on said truck; and a transverse liq- 65 uid-distributing tube communicating with said receptacle.

In testimony whereof I affix my signature in the presence of two witnesses.

ARTHUR S. TULLOCH.

Witnesses:

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