A. I. MALTBY & E. C. DOOLITTLE.

MACHINE FOR SURFACING WOOD FLOORS.

APPLICATION FILED JUNE 10, 1912.

1,039,983.

Patented Oct. 1, 1912.

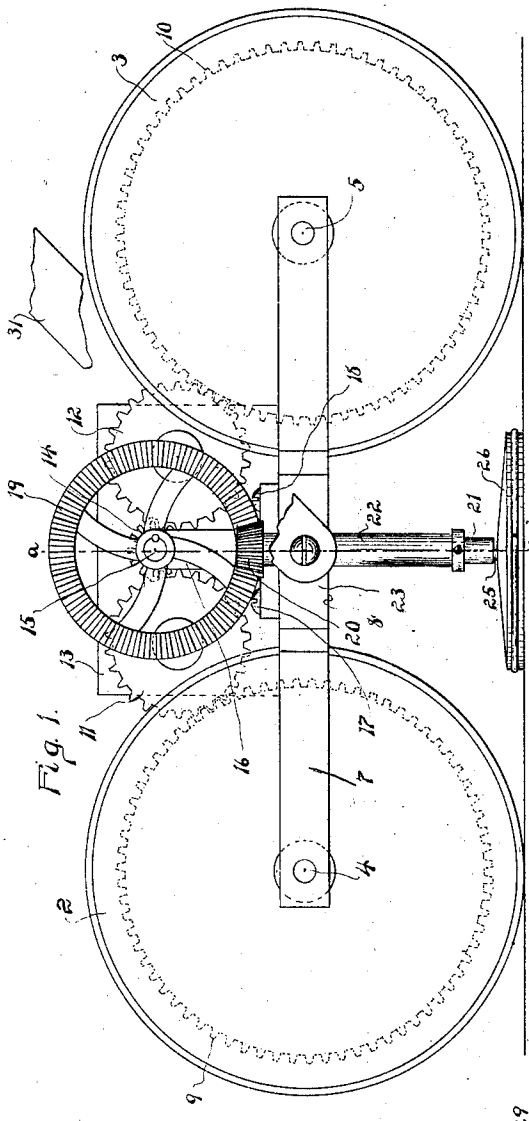

Fig. 1.

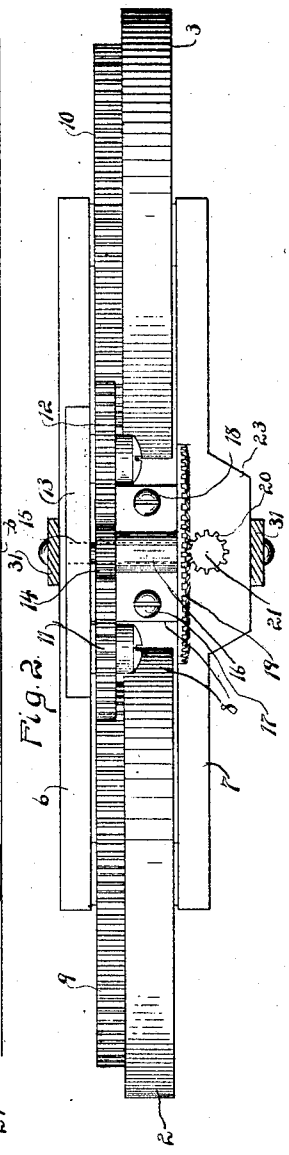

Fig. 2.

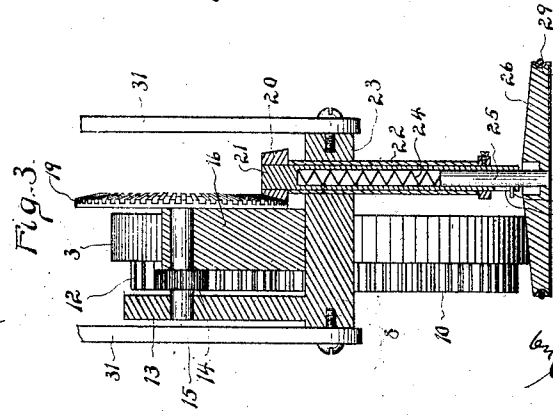

Fig. 3.

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UNITED STATES PATENT OFFICE.

ARTHUR I. MALTBY AND ELBRIDGE C. DOOLITTLE, OF WALLINGFORD, CONNECTICUT, ASSIGNORS OF THREE-FOURTHS TO SAID MALTBY AND ONE-FOURTH TO SAID DOOLITTLE.

MACHINE FOR SURFACING WOOD FLOORS.

1,039,983. Specification of Letters Patent. Patented Oct. 1, 1912.

Application filed June 10, 1912. Serial No. 702,753.

To all whom it may concern:

Be it known that we, ARTHUR I. MALTBY and ELBRIDGE C. DOOLITTLE, citizens of the United States, residing at Wallingford, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Machines for Surfacing Wood Floors; and we do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Figure 1 a side view of a machine for surfacing wood floors constructed in accordance with our invention, the handle being broken away. Fig. 2 a top or plan view of the same. Fig. 3 a sectional view on the line *a—b* of Fig. 1.

This invention relates to an improvement in machines for surfacing wood floors either by grinding with sand paper or other similar material, or by oil, wax or other substance used in finishing floors, the object of the invention being to produce a device by which the surface of the floor may be ground or polished in a convenient manner and with but little effort; and the invention consists in the construction hereinafter described and particularly recited in the claims.

In carrying out our invention, we employ two rollers 2, 3, mounted on axles 4, 5, supported by a frame consisting of side bars 6, 7, and a central base 8. The rims of the rollers are covered with rubber or other material which will assist the rollers in securing a frictional contact with the floor. These rollers are arranged in line with each other and are each provided on one side with a gear 9 or 10 somewhat smaller in diameter than the diameter of the rollers and formed integral with or secured to the said rollers. These gears mesh with pinions 11, 12, mounted on one side of a plate 13 extending upward from the side bar 6, and these two pinions mesh with a pinion 14 mounted on a shaft 15 which has a bearing at one end in the plate 13 and is also supported by a post 16 secured to the central portion 8 of the frame by screws 17, and 18. This shaft carries a beveled gear 19 meshing with a beveled pinion 20 secured to the upper end of a vertically arranged shaft 21 which has a bearing in a sleeve 22 mounted in the frame which is provided with an offset 23 to receive it. The lower end of the shaft 21 is tubular to receive a spring 24 and the upper end of the stem 25 of an operating disk 26. The stem is held in place by means of a pin 27 which extends through a vertical slot 28 formed in one side of the lower end of the shaft 21 and so that the stem may have slight up and down movement with relation to the shaft, but will be turned with it.

Preferably and as herein shown, the edge of the disk 26 will be formed with an annular groove 32 to receive a ring 29 by which a surfacing material of sand paper, cloth or other suitable material which will cover the under face of the disk, may be attached. A suitable handle 31 will be provided which will be connected with opposite sides of the frame and by which the frame may be moved back and forth. If the surface of the floor is to be ground or sand papered, a suitable material will be attached to the disk 26 and then as the device is moved back and forth this disk will be rapidly rotated in one direction or the other and grind the surface of the floor. If the floor is to be polished the disk will be covered with cloth or other suitable material which will carry oil, wax or a substance employed for polishing. The arrangement of gearing shown will cause the disk to be revolved very rapidly compared to the backward and forward movement of the device, and so that the floor may be surfaced with but little effort. The spring 24 will permit the disk to yield for riations in the surface of the floor and regulate the pressure of the disk upon the floor.

We claim:—

1. A machine for surfacing wood floors comprising a frame, a pair of rollers mounted in said frame, a gear carried by each roller, a pair of pinions with which the said gears mesh, a horizontal shaft driven by said pinions, a beveled gear carried by said shaft, a vertically arranged shaft having a beveled pinion at its upper end with which the said beveled gear meshes, and a disk connected with the lower end of said shaft.

2. A machine for surfacing wood floors comprising a frame, a pair of rollers mounted in said frame in line with each other, each roller provided on one side with a gear,

pinions supported by the frame and meshing with said gears, a horizontally arranged shaft arranged between said pinions and turned thereby, a beveled gear carried by said shaft, a vertically arranged shaft supported by said frame and provided at its upper end with a beveled pinion with which the beveled gear meshes, said vertically arranged shaft formed with a chamber, a spring in said chamber, and a disk provided with a stem which extends into the said chamber, means for coupling the stem with the said shaft, and means for connecting a surfacing material with the said disk.

In testimony whereof, we have signed this specification in the presence of two subscribing witnesses.

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ELBRIDGE C. DOOLITTLE.

Witnesses:
FREDERIC C. EARLE,
CLARA L. WEED.