

No. 835,631.

PATENTED NOV. 13, 1906.

W. H. MOONEY, J. E. PEIRCE & T. H. MOONEY.
MACHINE FOR GRINDING MOSAIC FLOORING.

APPLICATION FILED NOV. 13, 1905.

3 SHEETS—SHEET 1.

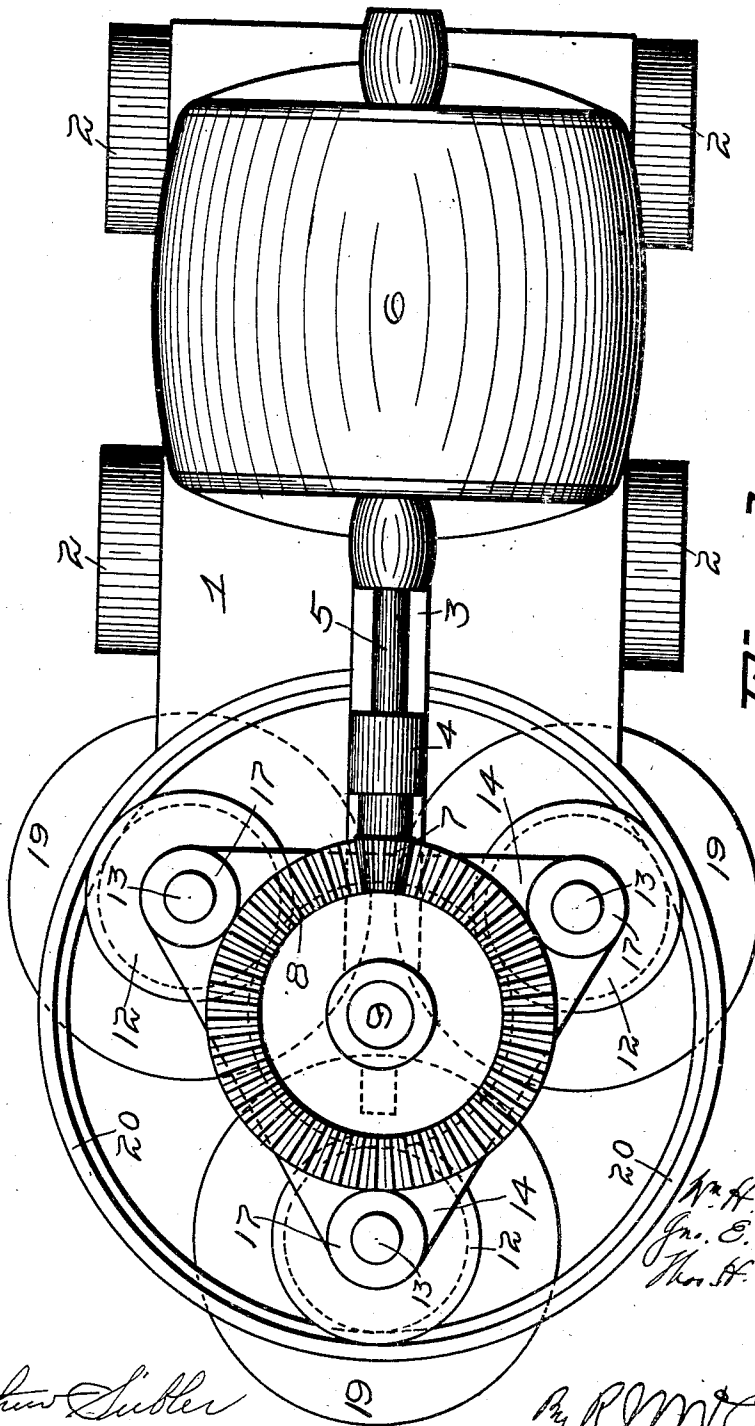


FIG. 1

Witnesses

Manhu Lubler
E. W. Theobald.

W. H. Mooney.
J. E. Peirce.
T. H. Mooney.
Inventors

R. J. M. Carty

Attorney

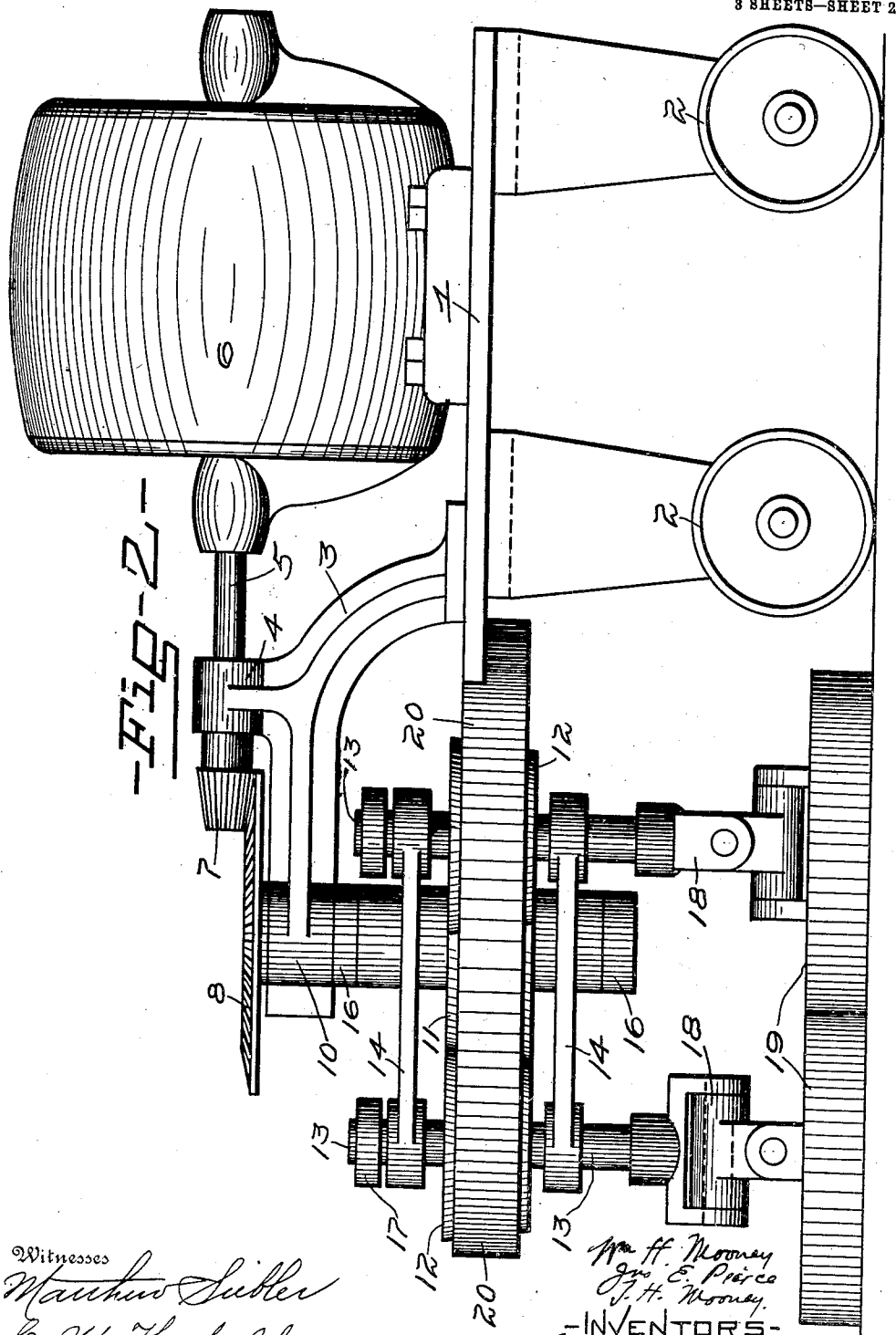
No. 835,631.

PATENTED NOV. 13, 1906.

W. H. MOONEY, J. E. PEIRCE & T. H. MOONEY.
MACHINE FOR GRINDING MOSAIC FLOORING.

APPLICATION FILED NOV. 13, 1905.

3 SHEETS—SHEET 2.



Witnesses
Manhu Silber
C. M. Theobald.

Wm. H. Mooney
J. E. Pierce
T. H. Mooney.
-INVENTORS-
R. J. McCarty Attorney

No. 835,631.

PATENTED NOV. 13, 1906.

W. H. MOONEY, J. E. PEIRCE & T. H. MOONEY.

MACHINE FOR GRINDING MOSAIC FLOORING.

APPLICATION FILED NOV. 13, 1905.

3 SHEETS—SHEET 3.

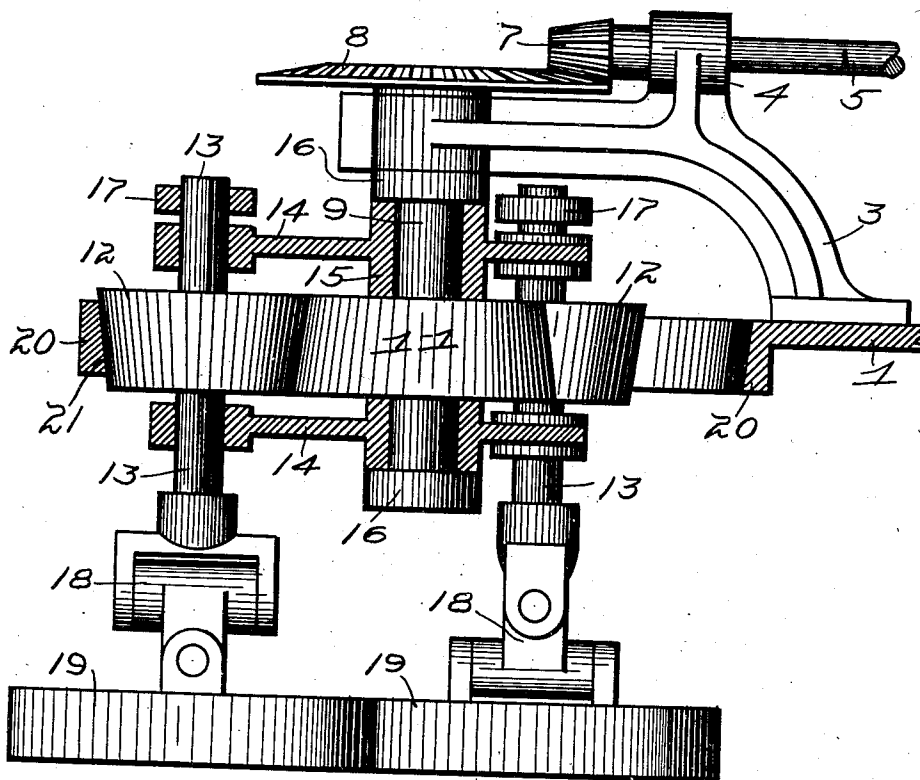


Fig. 3

W. H. Mooney.
John E. Peirce
Thos. H. Mooney
Inventors.

Witnesses
Marshall L. L. L.
C. H. Theobald.

By

R. J. McAnty
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM H. MOONEY, JOHN ELLIOT PEIRCE, AND THOMAS H. MOONEY,
OF DAYTON, OHIO.

MACHINE FOR GRINDING MOSAIC FLOORING.

No. 835,631.

Specification of Letters Patent.

Patented Nov. 13, 1906.

Application filed November 13, 1905. Serial No. 287,042.

To all whom it may concern:

Be it known that we, WILLIAM H. MOONEY, JOHN ELLIOT PEIRCE, and THOMAS H. MOONEY, citizens of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Machines for Grinding Mosaic Flooring; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to a machine for leveling or grinding to a true surface mosaic or marble flooring or tiling.

The object of the invention is to provide means whereby the labor incidental to this class of work is greatly curtailed, as hereinafter described and claimed.

Preceding a detail description of the invention reference is made to the accompanying drawings, of which—

Figure 1 is a top plan view of the grinding-machine. Fig. 2 is a side elevation. Fig. 3 is a vertical sectional view through the frame or the forward portion of the frame, illustrating the grinding mechanism.

In a detail description of the invention similar reference characters indicate corresponding parts.

The machine is movable by hand over the floor during its grinding operation and for this purpose consists of a truck 1, supported on ground-wheels 2 and having an extended bracket 3, which forms a bearing 4 for the shaft 5 of the motor 6, said motor being suitably secured in position on the truck. The motor-shaft 5 drives the cone-shaped gear 7, which engages a crown-gear 8 on vertical shaft 9, the said shaft being supported in bearings 10 on the bracket or arm 3. The shaft 9 has rigidly secured to it a cone-shaped pulley 11, which is in frictional contact with and drives a number of similar pulleys 12, assembled around it. These latter pulleys are mounted upon shaft 13 and are maintained in their relative positions by fitting in upper and lower bearing plates or yokes 14, which project from a sleeve 15, that loosely surrounds the central shaft 9 and is held in position thereon by upper and lower collars 16.

In order that the pulleys 12 may be allowed to have compensating movement consequent upon the wear or grinding effect, there is permitted a certain amount of up-and-down movement of the shafts 13 within said yoke 14. The extent of this movement is indicated by the space between the upper surface of the yoke and the nuts or collars 17. Supported on the lower ends of the shafts 13 by means of universal couplings 18 are grinders 19, consisting of disks with a flat grinding-surface which comes in contact with the surface of the mosaic or marble flooring. In their operations these disks revolve on their own axes—to wit, the shafts 13—and they travel around the shaft 9, thus having two movements, one upon their own axes and one upon the central shaft of the machine, both movements being simultaneous. They are enabled to travel in a circle around the shaft 9 while revolving upon their own axes by a stationary ring 20, which is secured to the frame of the truck and has a tapering inner surface 21, which engages the peripheries of the pulleys 12, the tapering surface of said ring allowing compensation for wear. It will thus be seen that the pulleys 12 are frictionally engaged on opposite sides by this ring 20 and the driving-pulley 11 on the center shaft 9.

Having described our invention, we claim—

1. In a machine of the type specified, a plurality of grinders revolving individually around a common center, a pulley adapted to simultaneously revolve each grinder upon its own axis, and a stationary ring frictionally engaging the outer sides of revolving pulleys.

2. In a machine for grinding mosaic flooring, a stationary ring, a driving-pulley mounted within said ring, a plurality of driven wheels mounted between said driving-pulley and engaged on their outer sides by said stationary ring, a plurality of grinders, and universal connections between each grinder and its respective driving-wheel.

3. In a machine for grinding mosaic flooring, a central driving-wheel, a series of tapered friction-wheels driven by said central driving-wheel, a stationary ring having its inner surface parallel with the tapered wheels and engaging the outer surfaces of said tapered wheels, a series of grinding-

wheels mounted upon the shafts of said tapered wheels, and a universal coupling connecting each of said grinding-wheels with each of said shafts.

- 5 4. In a machine for grinding mosaic flooring, the combination with a motor, of a central driving-wheel geared to said motor, a stationary ring surrounding said central driving-wheel, a plurality of driven wheels engaged at
10 opposite points by said central driving-wheel and said ring, a plurality of shafts upon which said driven wheels are mounted, upper and lower yokes in which said shafts are loosely mounted and enabled to have verti-

cal compensating movement, a sleeve sur- 15
rounding the shaft of the central driving-wheel and to which said yokes are rigidly fixed, a plurality of grinders, and universal couplings by which said grinders are connect-
20 ed with the shafts of the driven wheels.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM H. MOONEY.
JOHN ELLIOT PEIRCE.
THOMAS H. MOONEY.

Witnesses:

C. M. THEOBALD,
R. J. McCARTY.