No. 854,625. PATENTED MAY 21, 1907.

M. L. BEAL.

SANDPAPERING AND POLISHING MACHINE.

APPLICATION FILED JAN. 23, 1906.

2 SHEETS—SHEET 1.

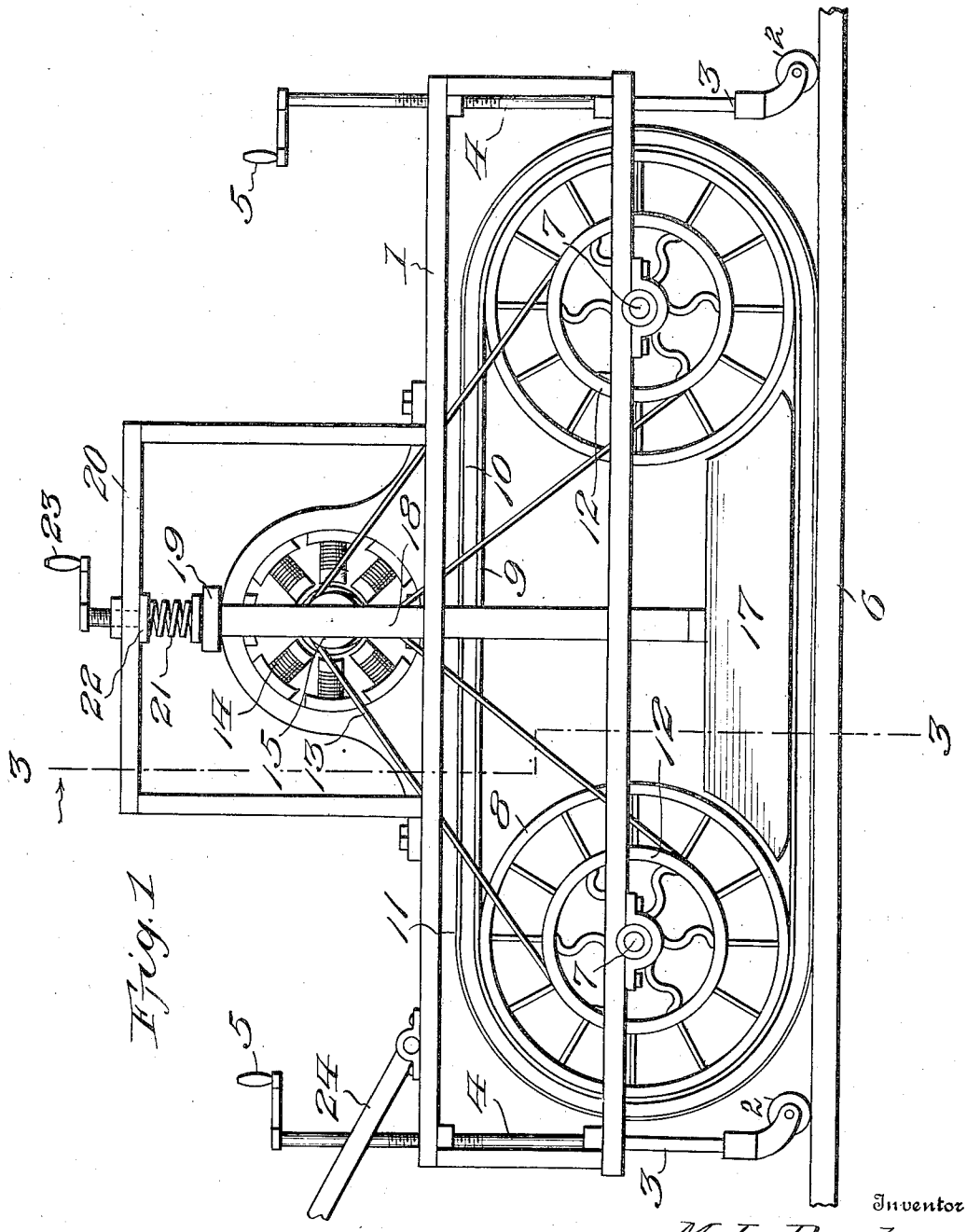


Fig. 1

Witnesses

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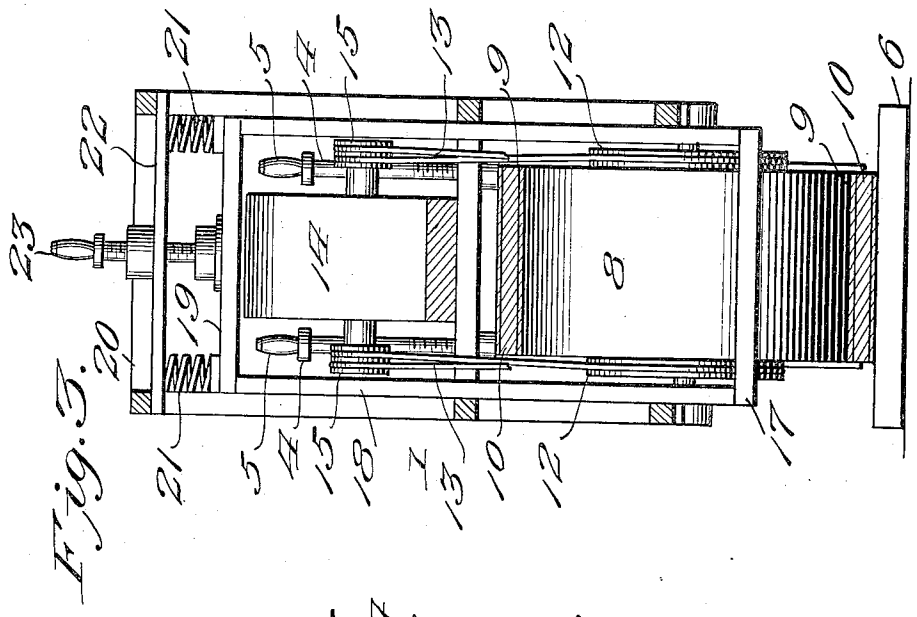


Fig. 1.

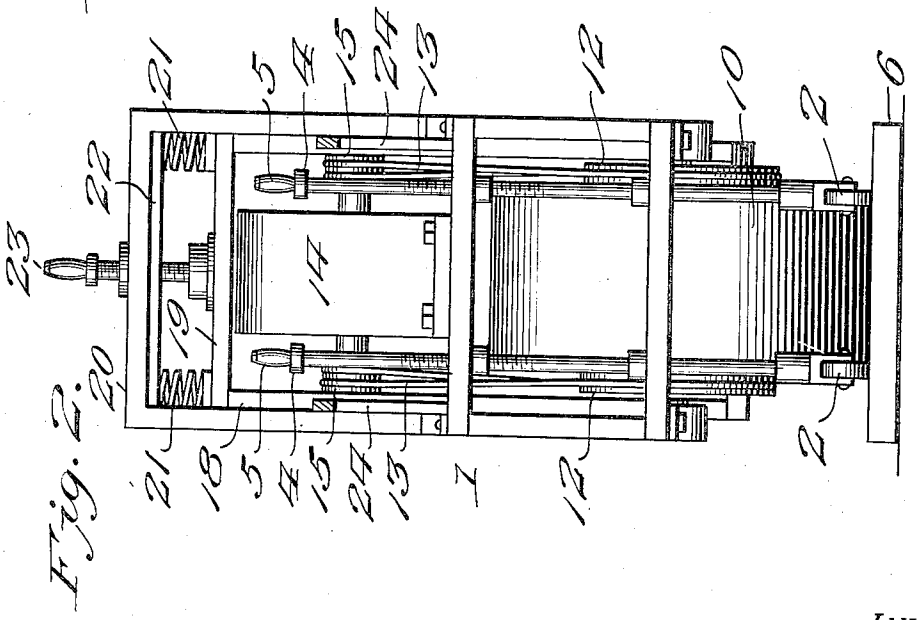


Fig. 2.

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UNITED STATES PATENT OFFICE.

MICHEAL L. BEAL, OF PASADENA, CALIFORNIA.

SANDPAPERING AND POLISHING MACHINE.

No. 854,625. Specification of Letters Patent. Patented May 21, 1907.

Application filed January 23, 1906. Serial No. 297,499.

To all whom it may concern:

Be it known that I, MICHEAL L. BEAL, a citizen of the United States of America, residing at Pasadena, in the county of Los Angeles and State of California, have invented new and useful Improvements in Sandpapering and Polishing Machines, of which the following is a specification.

This invention relates to a sand papering and polishing machine for sand papering and polishing floors, lumber and the like.

The object of the invention is to provide a simple, effective and easily operated device of this character which may be readily moved along the surface to be sand papered or polished or held fixed while a board to be treated is moved relatively thereto, and which may be conveniently adjusted to regulate the pressure of the sand papering or polishing element.

In the accompanying drawings:—Figure 1 shows in side elevation a sand paperin or polishing machine constructed in accordance with my invention. Fig. 2 is an end elevation of the same. Fig. 3 is a vertical cross section on line 3—3 of Fig. 1.

The numeral 1 in the drawing designates a supporting frame or carrier, preferably of oblong rectangular form, and provided at each of its corners with caster wheels or rollers 2 carried by supporting standards 3 operatively connected with screw shafts 4 mounted upon the carriage and provided at their upper ends with actuating crank handles 5. By this construction the frame or carriage may be raised and lowered relative to the surface 6 which is to be sand papered or polished and on which the wheels or rollers 2 travel, as will be readily understood.

Journaled upon the frame are transverse shafts 7 carrying guide sheaves or pulleys 8 around which travels an endless belt or band 9 provided upon its outer face with an acting material 11, composed of sand paper or some other suitable abrading, smoothing or polishing substance or material, thus forming a rotary dressing belt. For polishing purposes, felt may be employed.

Fixed upon the shafts 7 are drive pulleys 12 engaged by drive belts 13 operated by an electric or other motor 14 centrally supported upon the upper portion of the frame, the drive belts passing around pulleys 15 on the motor shaft. Through the action of the motor and drive gearing just described motion is communicated to the dressing belt 9, as will be readily understood.

The lower horizontal stretch of the dressing belt is designed to be moved in contact with the surface 6 to be dressed, and its pressure thereon may be regulated through the instrumentality of a presser shoe or member 17 disposed between the pulleys 8 and arranged to bear against the inner surface of the said lower stretch. The shoe is attached to the lower end of a verticlly adjustable frame comprising side standards 18 connected at their upper ends by a cross bar 19 and slidably connected in any suitable manner with the frame. The main frame 1 has a superposed frame portion 20, between which and the cross bar 19 are arranged one or more presser springs 21 arranged to bear against a bar or member 22 adjustable through the medium of one or more adjusting screws 23 mounted upon the said superposed frame portion 20. The spring 21 holds the frame 18 and shoe 17 downward to cause the latter to bear with yielding pressure on the lower or working stretch of the dressing belt, the pressure of which on the surface 6 to be dressed may be regulated as desired by varying the resistance of the spring.

An operating handle 24 is provided to enable the machine to be pushed or pulled along the surface and transported from place to place and in operation it will be understood that as the machine is moved along the surface 6 the working stretch of the belt will engage and sand paper or polish the same.

It will be obvious from the foregoing description that a simple and effective construction of machine is provided for sand papering, polishing or otherwise dressing floors, lumber or other surfaces, and one that is susceptible of convenient manipulation.

In polishing or sand papering floors and other fixed surfaces, the machine is drawn or pushed along the surface and may be steered by swinging the frame in one direction or the other on the caster wheels 2. In dressing lumber and other portable articles, the casters may be removed and the machine attached to a suitable table or support provided with automatic means for feeding the board beneath the working surface of the dressing belt.

Having thus described the invention, what is claimed as new, is:—

1. A machine of the character described

comprising a frame, wheeled supports for the frame, means for vertically adjusting the frame on said supports, guides upon the frame, a traveling dressing belt movable around said guides, a shoe arranged between the guides for exerting pressure on the working stretch of the belt, springs acting on the shoe, a pressure regulating element bearing on the springs, and a screw shaft for adjusting said pressure regulating element.

2. A machine of the character described comprising a frame, wheeled supports for the frame, means for vertically adjusting the frame on said supports, guides upon the frame, a traveling dressing belt movable around said guides, a shoe arranged between the guides for exerting pressure on the working stretch of the belt, a vertically adjustable carrier frame supporting said shoe, springs for imparting downward pressure on said frame, the latter being provided with a head bar against which the springs bear, and a screw shaft acting on the bar for compressing said springs to regulate their pressure on the shoe.

3. A machine of the character described comprising a main frame, wheeled supports therefor, means for vertically adjusting said frame on said supports, guides upon the frame, a traveling dressing belt movable around said guides, a shoe arranged between the guides for exerting pressure on the working stretch of the belt, a vertically adjustable carrier frame supporting said shoe, said frame being provided with a head piece, a movable bar arranged above said head piece, springs interposed between the bar and head piece, and a screw shaft acting on the bar for compressing said springs to regulate their pressure on the shaft.

4. A machine of the character described comprising a frame, wheeled supports for the frame, means for vertically adjusting the frame on said supports, guides upon the frame, a traveling dressing belt movable around said guides, a shoe arranged between the guides for exerting pressure on the working stretch of the belt, spring means exerting pressure on the shoe, and means for regulating the pressure thereof.

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

MICHEAL L. BEAL.

Witnesses:
C. H. PARSONS,
MAUD H. BURTT.