

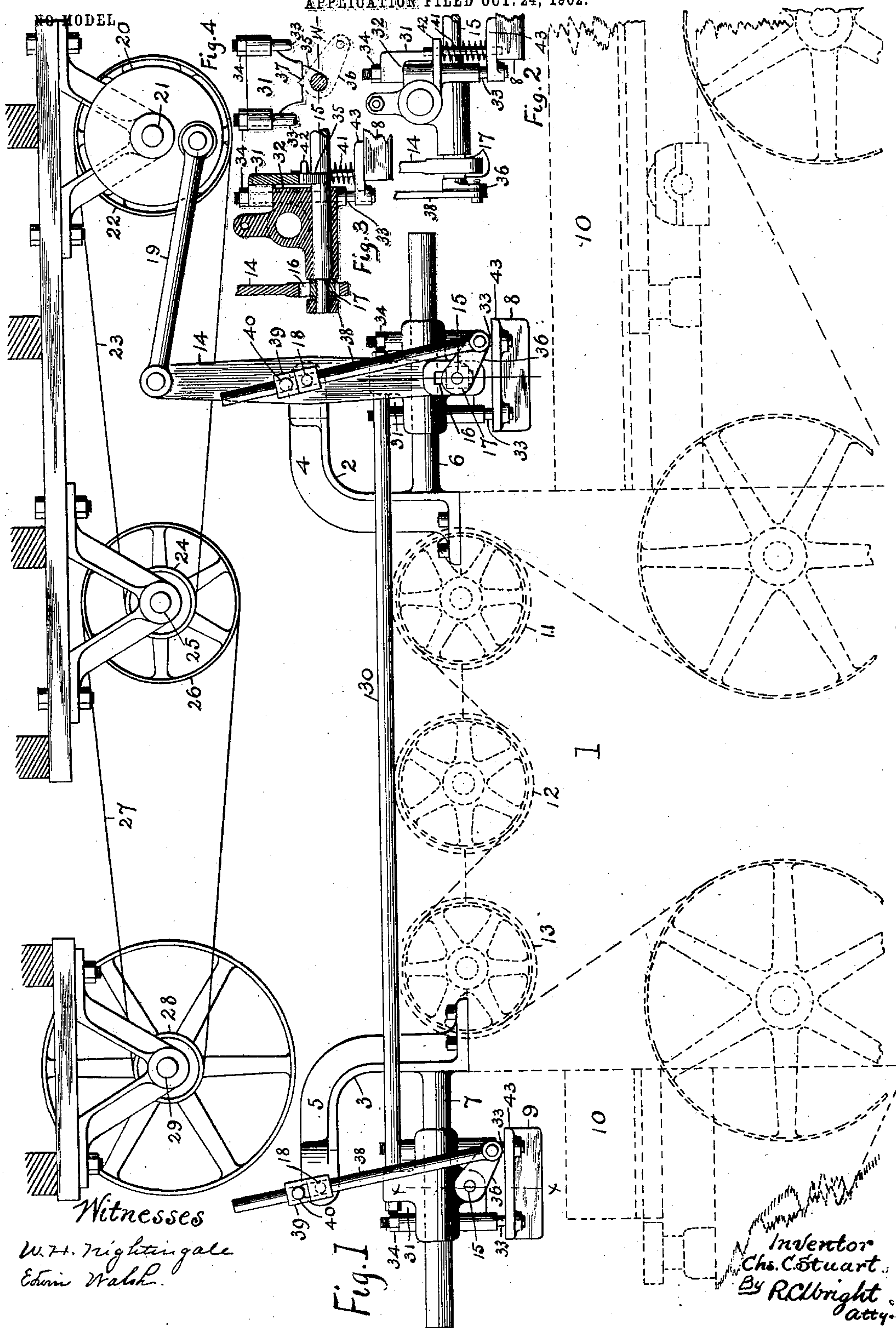
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C. C. STUART.

SUPPLEMENTAL DRIVING MEANS FOR SANDPAPERING MACHINE
PAD MECHANISM.

APPLICATION FILED OCT. 24, 1902.



UNITED STATES PATENT OFFICE.

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SUPPLEMENTAL DRIVING MEANS FOR SANDPAPERING-MACHINE-PAD MECHANISM.

SPECIFICATION forming part of Letters Patent No. 738,955, dated September 15, 1903.

Application filed October 24, 1902. Serial No. 128,549. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. STUART, a citizen of the United States, residing at Campville, in the county of Litchfield and State of Connecticut, have invented certain new and useful Improvements in Supplemental Driving Means for Sandpapering-Machine-Pad Mechanism, of which the following is a specification.

My invention relates to an attachment to the class of sandpapering-machines having rotatable abrasive drums. Supplemental to the drums I employ abrasive pads parallel-guided for reciprocating movement on the work having adjustable resilient pressure means, means to independently put them into or out of working position, and driven by means exterior to the driving means for the machine and its drums. This separate pad mechanism with driving mechanism does not interfere with or complicate the original mechanism of the machine, which can be added at small expense and little trouble and which will greatly improve the character of the work done by the machine. The pads are secured to the machine in any suitable manner which is adapted to the special style or formation of its framework.

I have illustrated the application of my mechanism in the accompanying drawings as applied to a machine with multiple drums and a platen or bed driven thereunder; but the construction of the machine, except in so far as to use sandpaper-covered drums, is immaterial, as the attachments can be made in each instance to suit the conditions.

As illustrated, Figure 1 is a partial side elevation of a machine, in dotted lines, with my pad mechanism removably attached and driven from the shafting usual in manufacturing where the machines are employed. Fig. 2 is an end elevation of one of the pads. Fig. 3 is a section on line *x x*, Fig. 1. Fig. 4 is an elevation of the elevating-plate, showing the means for placing the pads into or out of contact with the work or into operative or inoperative position.

Similar characters of reference indicate similar parts throughout the views.

To the framework 1 of a machine I attach brackets 2 at each side on one end and brack-

ets 3 at each side of the opposite end. The brackets have lever-supporting members 4 5 and pad-guides 6 7. Pads 8 9 are supported above the platen or bed 10 at about the same elevation as the drums 11 12 13—that is, as to their lower or working surfaces. The pads are designed to be reciprocated on their guides 6 7 and for such purpose have levers 14 secured at their lower ends to shaft 15, which passes through the pair of pads 8. The levers have slots 16, in which are sliding boxes 17 to accommodate the arc movement of the levers to the right-line movement of the pads and their attachments. Levers 14 are fulcrumed at 18 on supports 4 and at their upper ends are coupled to connecting-rods 19, driven by crank-disks 20 on shaft 21, which has a pulley 22, driven by belt 23 from pulley 24 on shaft 25, which has another pulley 26, driven by belt 27 from pulley 28 on main-line shaft 29, the shafts being suitably supported. The system of shafting, pulleys, and belts is not arbitrary, but merely used as an illustration of the means, in a general way, used to drive the pads from a source of power exterior to the machine to which they may be applied. Rods 30 connect the pads at each side for simultaneous movement. As the pads are designed to finish the work after the rougher work done by the drums, it is necessary to elevate the pad in front of the drums or at the end where the work passes in, and for such purpose the pads have an elevating-plate 31, which rests on bosses 32 when the pad is down in working position, where it is suspended by rods 33, having nuts 34 for their adjustment. Under plate 31 shaft 15 has a cam 35, which is clearly shown in Fig. 4, and at its lowest or inoperative position; but when arm 36 is moved up to a level position, as line *w*, cam 35 will force up plate 31 and the pad carried by its rods 33, the cam at such time engaging notch 37. Arm 36 is operated by rod 38, which is pivotally guided at 18 and has a stop 39, which abuts 18 when arm 36 is moved down to put the pad into operative position. A handle 40 permits the operator to elevate or lower the pad when in motion or at rest. As the pad must at times yield to the stock it is working, it is provided with springs 41, placed between lugs 42 and pad-holder 43, which

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 permit the necessary yielding movement, and the tension of the springs is regulated by nuts 34, which permit any desired pressure upon the work. Pad 9 is provided with means for
 5 its elevation, depression, yielding to its work, and adjustability with mechanism such as already described for pad 8.

I claim—

1. The combination with a drum sandpa-
 10 pering-machine of independent reciprocating abrasive pads, affixed to the machine aforesaid, guided to cooperate with the drums, having resilient pressure means, and reciprocated by means exterior to and other than
 15 that of the machine aforesaid.

2. The combination with a drum sandpa-
 pering-machine of separable and independ-
 20 to adjust the resilient pressure means, and

means for their reciprocation which is separate from the machine to which the pads are attached.

3. In a drum sandpapering-machine, the combination with its drums and the driving
 25 mechanism therefor and for the machine, of separate abrasive pads having guiding means attached to the machine, means to place the pads into or out of operative position, each independent of the other, resilient pressure
 30 means for each pad and means for the adjustment of the pressure, and means distinct and separate from the machine and whereby the pads are driven in alternate directions.

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

CHARLES C. STUART.

Witnesses:

R. C. WRIGHT,

WILLIAM C. STOEVEER.