

(No Model.)

J. READING.
WALL PAPER TRIMMER.

No. 497,528.

Patented May 16, 1893.

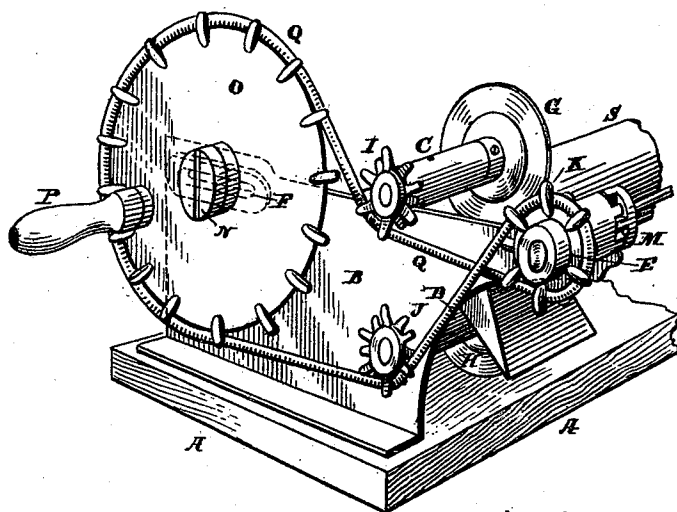


Fig. 1.

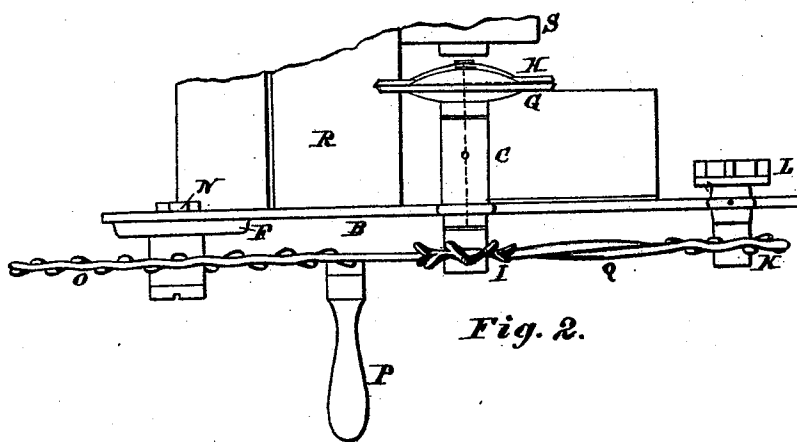


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN READING, OF AKRON, OHIO, ASSIGNOR TO DALLAS H. READING AND
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WALL-PAPER TRIMMER.

SPECIFICATION forming part of Letters Patent No. 497,528, dated May 16, 1893.

Application filed November 17, 1892. Serial No. 452,351. (No model.)

To all whom it may concern:

Be it known that I, JOHN READING, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented a certain new and useful Improvement in Wall-Paper Trimmers, of which the following is a specification.

My invention has relation to improvements in that class of wall-paper trimmers, in which two metallic disks mounted on short shafts, or arbors, journaled in substantially parallel bearings, have their faces, for a short distance of their peripheries, laterally contiguous, arranged to simultaneously revolve in opposite directions, and constitute shearing edges.

Heretofore it has been customary to enforce the contact between the disks by means of springs; and to cause a simultaneous movement of the disks by means of gear wheels; resulting in constant wear of the disks, and noise in the operation of the machine.

The object of my invention is to dispense with gear wheels and springs, and the attendant objectionable features just noted; and to produce an efficient machine, which shall be practically noiseless in operation, and in which the contact of the disks shall be automatically graduated, in proportion to the resistance offered by the paper to be trimmed; and its further object is to reduce the friction of the paper in passing the shearing disks, and to render the driving mechanism readily adjustable to compensate for stretching of the driving belt; and generally to simplify the construction and reduce the number of parts.

To the aforesaid objects, my invention consists in the peculiar and novel construction, arrangement and combination of parts hereinafter described, and then specifically pointed out in the claims, reference being had to the accompanying drawings, forming a part of this specification.

In the accompanying drawings, in which similar reference letters indicate like parts in the different figures; Figure 1, is a perspective view of one end of my improved wall-paper trimmer, showing the operative parts; and Fig. 2, a plan (in outline) of the same.

Referring to these drawings, A is a base, preferably of wood, on which is mounted a head block B, usually of cast metal, embody-

ing journal bearings C, D, E, for the arbors of the upper and lower cutting disks, and the winding rod, respectively; and having a reinforced slot F, (shown in dotted lines in Fig. 1,) for the axle of the driving wheel. The bearing D, is bored in a true line with the machine; and the bearing C, at a slight angle therewith, its outer end being turned to the right.

In the bearings C, D, are journaled arbors that bear on their inner ends the beveled-edge disks G, H, respectively, and on their outer ends the band sprocket wheels I, J; the length of said arbors being such as to permit of slight longitudinal movement in their bearings, the disks being arranged to extend past each other vertically for a short distance at their point of nearest approach, and, by reason of difference in the lines of their axles, as hereinbefore stated, to press their adjacent faces against each other at the left, or toward the front of the machine, as shown in Fig. 2, and at the point of entrance of the paper. In the bearing E, is a short shaft bearing at its outer end a sprocket wheel K, and on its inner end a longitudinally toothed head L, to receive the toothed end of the detachable winding rod M.

Mounted in the slot F, and held by an inner nut, is an axle bolt N, on which is journaled the large driving sprocket wheel O, provided with a handle P. A round endless belt Q, passes around the wheel O, and from the top, under the wheel I, and, from below, around the wheel K, to and beneath the wheel J; the part between the wheels K, and J, passing outside the other part at the point of crossing. By thus arranging and crossing the belt, the disks are simultaneously driven in opposite directions, while the tendency of the belt, when drawn taut, is to force the upper disk C, inward and draw the lower disk H, outward, thereby pressing their adjacent faces together; and this pressure is increased as the resistance to the disks is increased, as by thicker paper, by the additional strain required to drive the machine tending to draw the belt in true lines.

R is the sloping platform on which the paper is led up to the disks G, H, at the right edge of which, and with its top even with the line of intersection of the disks, is a free roller

S, to permit the paper to travel freely, and prevent friction as it passes the shearing disks. I do not, however, by this description intend to confine my invention to sprocket wheels, as
5 grooved pulleys may be substituted therefor with like general effect, the sprocket wheels being preferred as affording surer traction for the belt, the pulleys and sprocket wheels being regarded as equivalents as herein used.

10 I claim as my invention—

1. In a wall-paper trimmer of the class designated, the disk-carrying arbors, with their respective wheels and disks, said disks being arranged to press laterally against each other,
15 and the driving wheel, and the winding rod wheel, combined with an endless belt passed about said driving and winding rod wheels, and partially about the wheels of the disk-carrying arbors, and crossed between the lat-
20 ter wheels and one of the other wheels, the

divergence of the portions of said belt about each disk-carrying arbor wheel by reason of such crossing being opposite the direction in which the disk of said arbor presses against the opposite disk, substantially as shown and
25 described.

2. In a wall-paper trimmer of the class designated, the combination with the wheels I, J, K, and O, and the belt Q, of the head block B, having bearings for the journals of the
30 wheels I, J, K, and the slot F, to receive the pin N, to permit adjustment for tightening said belt, substantially as shown and described.

In testimony that I claim the above I here- 35
unto set my hand.

JOHN READING.

In presence of—

C. P. HUMPHREY,
GEO. M. WRIGHT.