

C. E. T. DEDICKE.

MACHINE FOR BUFFING OR FINISHING FELT.

No. 588,055.

Patented Aug. 10, 1897.

Fig. 1.

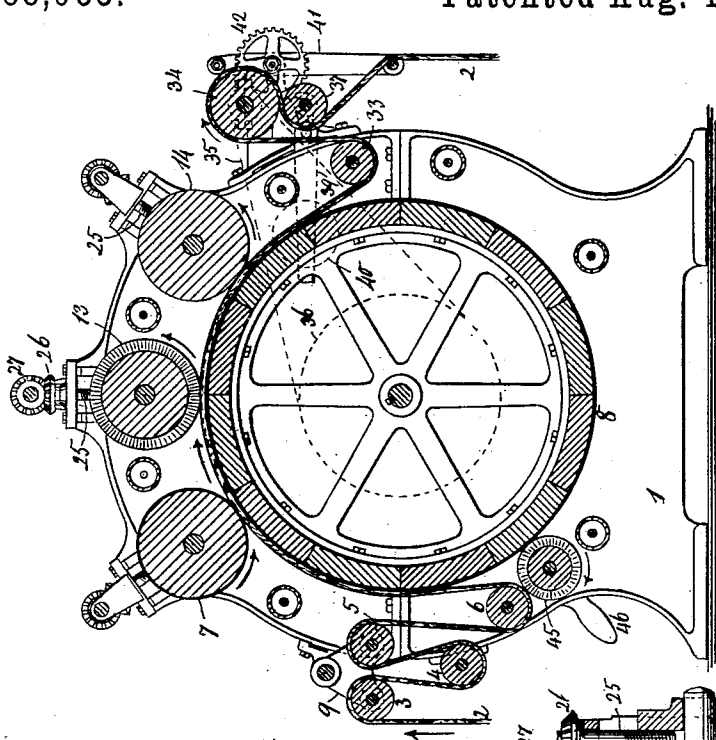


Fig. 3.

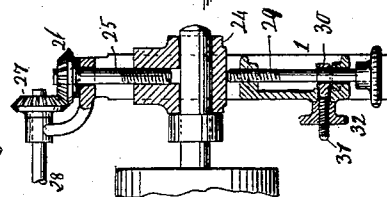
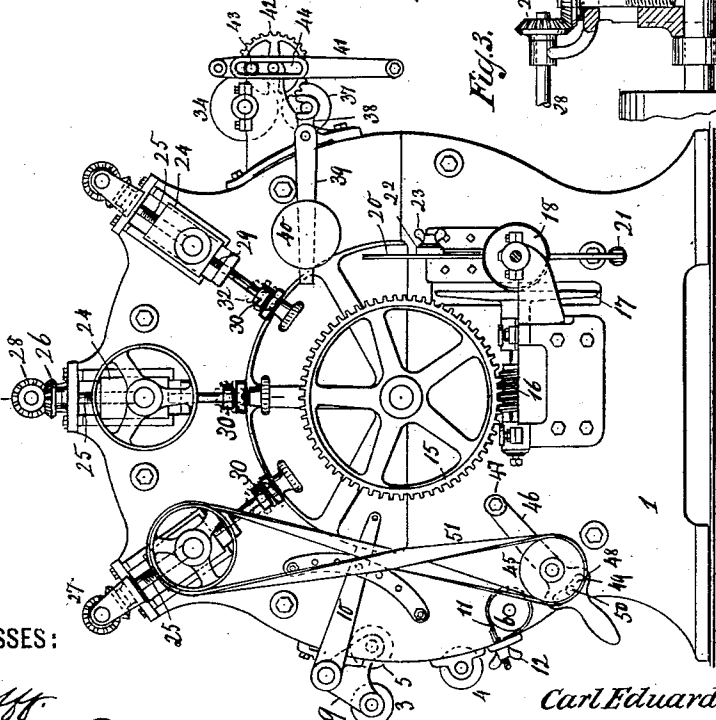


Fig. 2.



WITNESSES:

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INVENTOR

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(No Model.)

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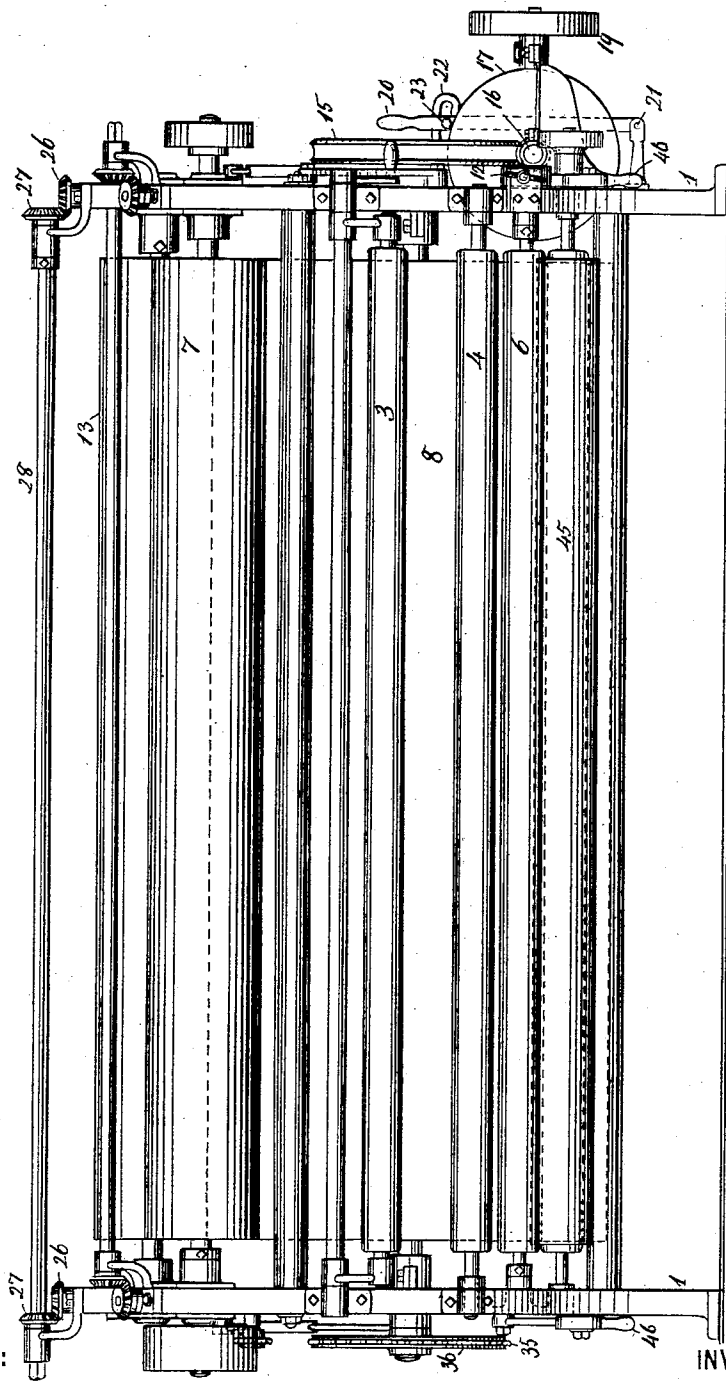
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Fig. 4.



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UNITED STATES PATENT OFFICE.

CARL EDUARD THEODORE DEDICKE, OF DOLGEVILLE, NEW YORK, ASSIGNOR TO ALFRED DOLGE & SON, OF NEW YORK, N. Y.

MACHINE FOR BUFFING OR FINISHING FELT.

SPECIFICATION forming part of Letters Patent No. 588,055, dated August 10, 1897.

Application filed November 28, 1896. Serial No. 613,817. (No model.)

To all whom it may concern:

Be it known that I, CARL EDUARD THEODORE DEDICKE, a citizen of the United States, residing at Dolgeville, in the county of Herkimer and State of New York, have invented new and useful Improvements in Machines for Buffing or Finishing Felt, of which the following is a specification.

This invention relates to a machine capable of being readily adjusted and regulated as required for varying kinds of work, the machine being suitable for such work as buffing or finishing piano-felts; and the invention resides in the novel features of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a sectional side elevation of a buffing-machine. Fig. 2 is a side elevation of Fig. 1, partly in section. Fig. 3 is a detail view of a roller-adjusting mechanism. Fig. 4 is a front elevation of Fig. 1.

The frame or support is shown at 1, and the fabric or material 2 to be treated is passed about tension-rollers 3 4 5 6, which create a tension and prevent the material being drawn or moved along by the sand or friction roll 7 any faster than is suitable for the speed of rotation of drum 8. The rollers 3 and 5 are shown journaled in a swinging or tilting support 9, which can be given different inclinations by a handle or lever 10. One of the tension-rollers, as 6, is shown with a friction band or strap 11 and regulating-screw 12, so that the resistance to rotation of roller 6 and the consequent tension of the material 2 are under control.

The drum 8 has a cushion or covering of felt secured or cemented thereto. This covering is accurately trued by the sand or friction roller 7. The material travels along between this drum 8 and the friction-roller 7, the brush-roller 13, and the buffing-roller 14. The drum is driven by a worm-gear 15 and worm 16, having a driving-disk 17, which latter is driven by frictional contact with an actuating-disk 18, provided with a driving pulley or motor 19. A lever 20, fulcrumed at 21 and capable of being set or adjusted at a suitable point along slotted plate 22 by means of set-screw 23, enables the actuating-disk 18 to

be adjusted toward and from the center of the driving-disk, so that the drum 8 will be rotated with a proper degree of slowness, as required.

The rollers 7, 13, and 14 can be adjusted toward and from the drum, as required by the thickness of the work or material, said rollers being journaled in boxes 24, Fig. 3, which can be set or adjusted by screws 25, having gears 26, engaging gears 27 on shafts 28, which can be rotated by a suitably-applied crank wrench or handle. After a roller has been thus adjusted for thickness screw stops or stems 29 can be set or screwed up against the boxes 24 to prevent the rollers changing adjustment.

The screw-stems 29 are clasped by the collars 30, Fig. 3, of the binding screws or stems 31, engaged by nut 32, and when tightened the binding bolts or screws 31 prevent accidental rotation of the screw-stems 29. When the binding-screws are loosened, the stems 29 can rotate in the eyes or collars 30. The buffing-roller 14, instead of being covered with sandpaper, as the friction-roller 7, is covered with heavy canvas.

The treated material passes from the drum to an idle-roller 33, and thence about roller 34, which is driven by belt or chain connection 35 from a sprocket-wheel 36 on the feed-drum. The roller 37 is journaled in arm 38 of the lever 38 39, weighted, as at 40, so that the roller 37 bears against the roller 34. The material passing between rollers 34 and 37 can be suitably delivered, as in folds or plaits, or passed under the machine to form an endless band. The folds can be suitably produced, as by a folding or vibrating arm 41, reciprocated by gear-wheel 42, driven by a gear on roller 34 and oscillating the arm 41 by a crank-pin and slot connection 43 and 44.

The sand or friction roll 7, coming into contact with the goods, leaves a finish in the form of a nap. The brush-roller 13 brushes the material and takes up dust and waste. The buffing-roller 14, being covered with canvas or the like, puts a finish on the material.

A cleansing or brushing roller 45 keeps the drum and material clear and free from obstructions or foreign matter that might adhere to the fabric or to the covering of the

drum, such as waste wool or the like. This cleaning-roller 45 is adjustable toward and from the tension-roller 6, as required for different thicknesses of goods or material. The cleaning-roller 45 is journaled on or supported by an arm or arms 46, swinging or movable about point or support 47 and capable of being set to desired adjustment by the slotted plate 48, having its slot 49 engaged by set-screw 50. By means of belt connection 51, Fig. 2, the roller 45 will receive motion from sand-roller 7.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a machine for finishing and polishing cloth, the combination with a feed-drum and means for variably rotating said drum, of a sand or friction roller, a brush-roller and a buffing-roller arranged about the feed-drum and operating to successively nap, brush and polish the cloth as the latter is carried around by the drum in contact with said rollers, and a cleaning-roller arranged to clean the cloth, substantially as described.
2. In a machine for finishing and polishing cloth, the combination of a feed-drum, a worm-wheel on the shaft of said drum, a worm engaging said wheel, a friction driving-disk on the worm-shaft, an actuating friction-disk in engagement with the driving-disk, means for adjusting the actuating-disk toward and from the center of the driving-disk, a sand or friction roller, a brush-roller and a buffing-roller arranged around the periphery of the feed-drum and operating to successively nap, brush and polish the cloth, and a cleaning-roller, substantially as described.
3. In a machine for finishing and polishing cloth, a feed-drum, and means for driving said drum, in combination with a sand or friction roller, a brush-roller, a buffing-roller and a cleaning-roller arranged around the periphery of the feed-drum and operating to

successively clean, nap, brush and polish the cloth as it is fed by the drum to said rollers, a belt or driving connection between the friction and cleaning roller, and means for adjusting said cleaning-roller toward and from the drum, substantially as described.

4. In a machine for finishing and polishing cloth, a feed-drum and a variable feed for the drum, in combination with a sand or friction roller, a brush-roller and a buffing-roller arranged around the periphery of the feed-drum and operating to successively nap, brush and polish the cloth as it is fed by the drum under said rollers, means for adjusting the rollers toward and from the drum, stops for securing the roller when adjusted, said stops comprising a stop-screw for holding a roller away from the drum and a binding screw or stem claspingsaid stop-screw, and a cleaning-roller, substantially as described.

5. In a machine for finishing and polishing cloth, a feed-drum and a variable feed for the drum, in combination with a sand or friction roller, a brush-roller and a buffing-roller arranged about the periphery of the feed-drum and operating to successively nap, brush and polish the cloth as it is fed by the drum under said rollers, tension-rollers journaled in a swinging frame in front of the feed-drum, a tension-roller journaled in fixed bearings in proximity to the feed-drum, means for breaking said tension-roller, a cleaning-roller arranged to rotate in contact with the cloth and feed drum, a guide-roller at the rear of the drum and discharge-rollers for drawing off the cloth, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CARL EDUARD THEODORE DEDICKE.

Witnesses:

WILLIAM M. LOUCKS,
WILLIAM SCHUCHARDS.