

(No Model.)

H. W. TERRY.  
Button Polishing Machine.

No. 239,886.

Patented April 5, 1881.

Fig. 1.

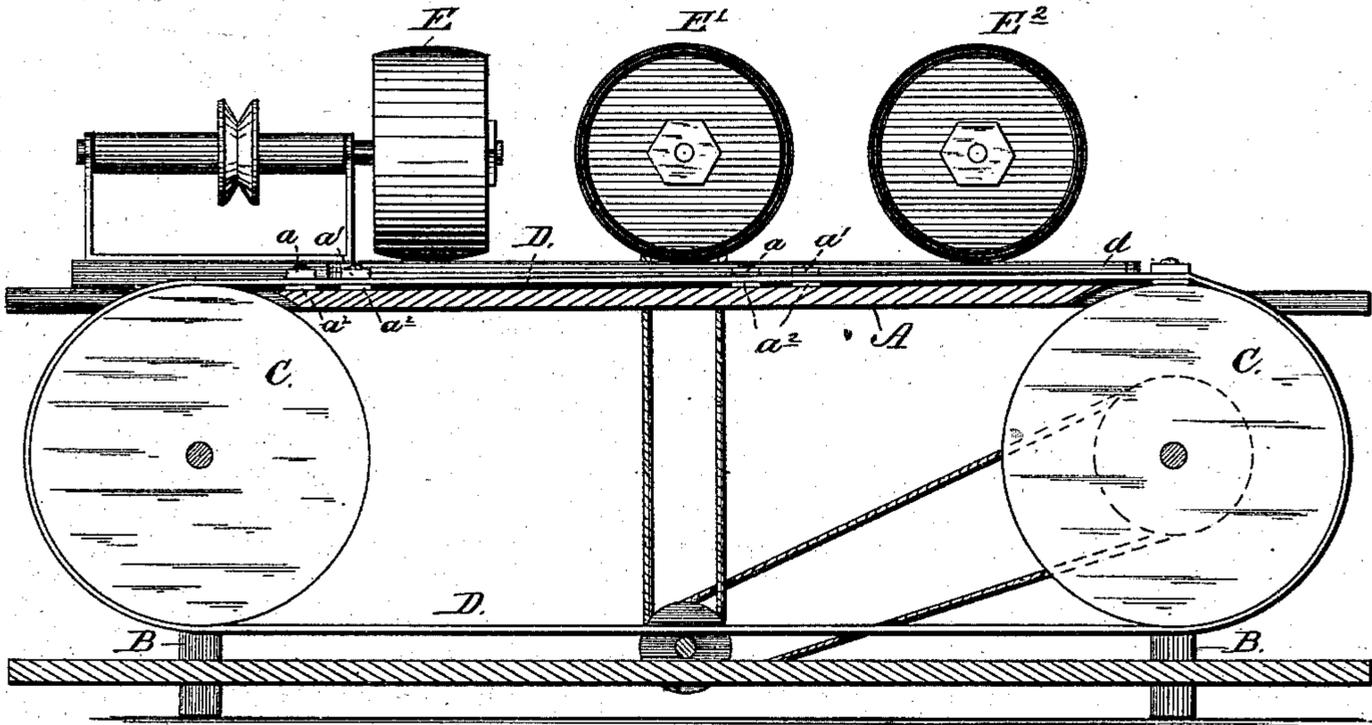


Fig. 2.

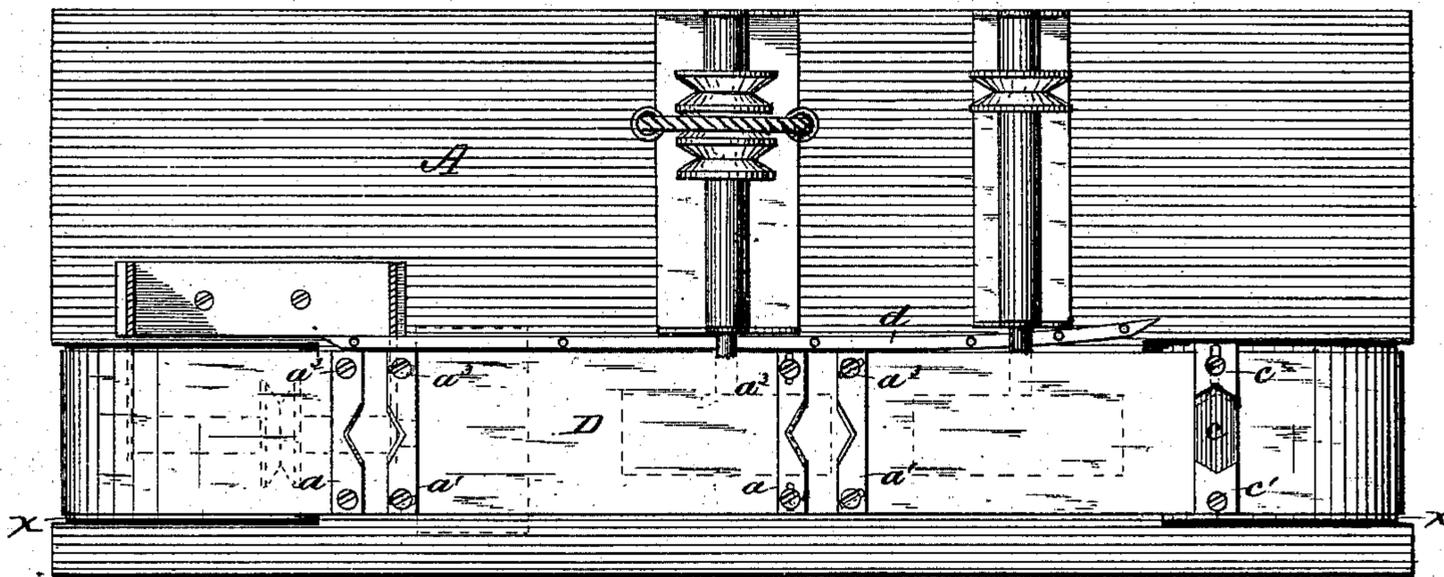
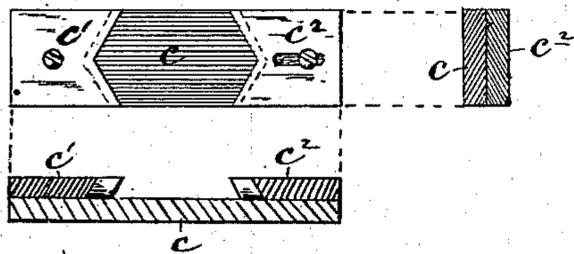


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HOMER W. TERRY, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR TO J. C. TERRY, OF SAME PLACE.

## BUTTON-POLISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 239,886, dated April 5, 1881.

Application filed November 9, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, HOMER W. TERRY, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Button - Polishing Machine, of which the following is a full, clear, and exact description, reference being had to the drawings thereto annexed.

10 The object of my invention is to provide a machine for applying buttons of horn or other material to the buff or polishing wheels in a more expeditious manner than by hand, as is now usually practiced; and to this end my invention consists, mainly, in a movable and flexible or jointed band or apron distended between pulleys or drums, and provided with gripes arranged in a plane parallel with the plane of the belt, and arranged to seize the button by a movement in said plane and hold the same while passing under the buffs, as hereinafter more fully described.

20 In the accompanying drawings, Figure 1 is a front elevation, with the table in section through the line *xx* of Fig. 2. Fig. 2 is a plan view with the buff-wheels removed to better show the belt. Fig. 3 represents details of one of the forms of gripes which may be used on the belt.

30 In the drawings, A represents a table mounted upon legs B, to which are fastened the bearings for the two pulleys, wheels, rollers, or drums C C.

35 D is an endless traveling band, which is distended about these pulleys C, and whose upper section runs upon the surface of the table A.

40 E E' E<sup>2</sup> are buff-wheels, which are arranged in bearings on the table in suitable numbers and at suitable angles to each other, to thoroughly polish the buttons.

45 Upon the surface of the band D at suitable intervals are arranged in pairs gripes *a a'*, which have their adjacent edges notched and undercut, so as to hold the buttons. These gripes are in the nature of notched plates arranged transversely to the belt and in a plane parallel thereto, and spaced thereon so as to leave a flexible or jointed portion of the belt between, and are attached thereto by screws *a<sup>3</sup>* and back plates, *a<sup>2</sup>*, the gripes themselves

being slotted where the screws pass through to permit the two strips forming the gripes to be set farther apart or closer together to accommodate different sizes of buttons. Now, 55 as the belt is revolved by suitable driving mechanism the gripes are opened by the bend of the belt as it passes over the curve of the pulleys, and at this moment the buttons are inserted; then, as the belt leaves the pulley 60 at a tangent, the change from a circle to a right line brings the two sections of the gripe together to hold the button while it passes under the buff-wheels and is polished. Now, after the button has been acted upon by the last 65 buff-wheel and the belt turns the second pulley the bend of the belt in turning this pulley opens the gripes again, and the buttons successively drop out with their faces polished.

70 In carrying out my invention I do not limit myself to any particular form of belt, but may make it of any flexible material, such as leather, rubber, cloth, &c., and pass it around circular pulleys; or I may make it in the nature of jointed metal plates and pass it around a po- 75 lygonal drum.

80 As a modification, also, instead of arranging the gripes to be opened by passing around a curve, a corner, or an angle, I may make the gripes of a metal plate, *c*, Fig. 3, extending across the belt, and carrying a stationary jaw, *c'*, and a sliding jaw, *c<sup>2</sup>*, which latter moves transversely to the belt to clamp the button and is forced against the button by a cam-strip, *d*, on the table arranged beside the edge of 85 the belt, and adapted to force the jaw inward as long as the gripe is passing beneath the buff-wheels. In this case, also, the jaws are opened and closed by the movement of the belt and move in a plane parallel with the belt, for 90 when the movable jaw *c<sup>2</sup>* strikes the first end of the cam-strip *d*, the latter forces the same inward and holds the button while it is passing the cam-strip, which extends beneath all the buff-wheels, and then, when it reaches the 95 end of the cam-strip, the jaw *c<sup>2</sup>* is loosened again and the button drops out. To cause the movable jaw *c<sup>2</sup>* to be guided with a true sliding movement transversely to the belt it is connected to the lower plate by a rib and groove. 100

If desired, the cam may be used to open the gripe, and a spring to close it.

Instead of using an endless belt for the gripe, a belt or apron which is not endless may be employed and made to reciprocate to accomplish the same result.

5 What I claim is—

1. In a button-polishing machine, the combination, with the polishing-wheels and the distending devices for the band, of a flexible band having gripes thereon, arranged in pairs  
10 in a parallel plane to the band, and arranged to move toward each other in a plane parallel with the belt to seize and hold the button, substantially as described.

2. A button-polishing machine consisting of  
15 a set of polishing-wheels and an endless band

having gripes or jaws thereon for seizing and holding the button, which jaws are spaced on the belt so as to leave a flexible or jointed portion of the belt between the two jaws of each pair, in combination with rotary distending  
20 drums, pulleys, or wheels which open the two jaws of each set while passing the bend of the pulley, and close the jaws when proceeding therefrom on a tangential right line, as described.

HOMER WOOD TERRY.

Witnesses:

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