

J. STEINLEIN.

EMBOSSING-MACHINE FOR WEARING-APPAREL.

No. 172,831.

Patented Feb. 1, 1876.

Fig. 1.

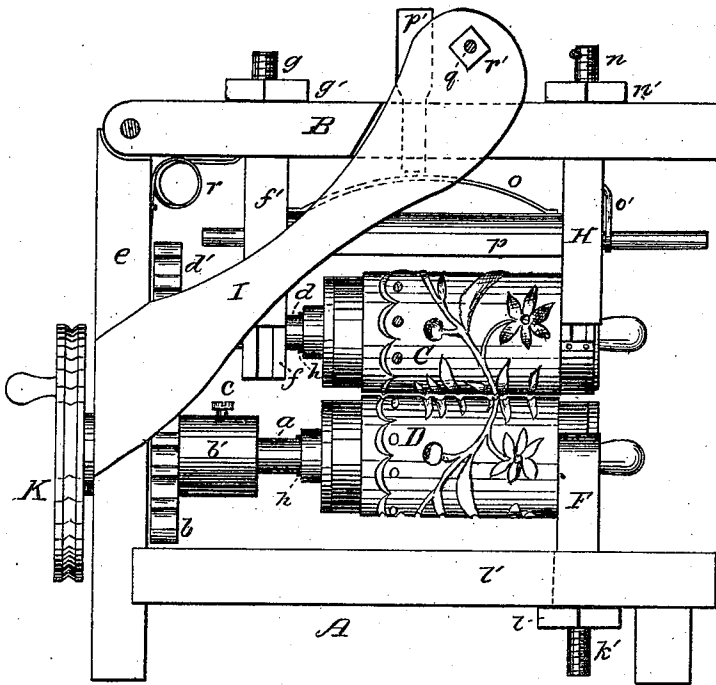
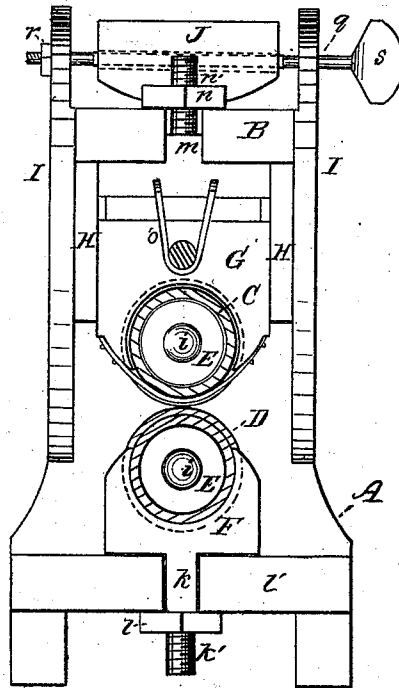


Fig 2.



WITNESSES
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IMPROVEMENT IN EMBOSSING-MACHINES FOR WEARING-APPAREL.

Specification forming part of Letters Patent No. **172,831**, dated February 1, 1876; application filed December 8, 1875.

To all whom it may concern:

Be it known that I, JOHN STEINLEIN, of Egg Harbor City, in the county of Atlantic and State of New Jersey, have invented a new and valuable Improvement in Machines for Producing Raised Ornaments upon Wearing-Apparel; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a side view of my invention. Fig. 2 is an end view of the same.

This invention has relation to devices used for ornamenting under or other garments after they have been laundried, and consists in two hollow metal cylinders having upon their outer face any suitable design, the design upon the upper roller being raised above or beyond the ground or plane upon which it is formed, while that upon the lower roller is sunk, making together a rotary die, that will, as the material passes between them, produce raised ornamental figures, said rollers being heated by any suitable means, and attached to a suitable frame, the construction of which will hereinafter be more fully described, and subsequently pointed out in the claims.

In the drawings, A represents the lower or stationary part of the frame, which, if desired, may be bolted or otherwise secured to a suitable table or stand.

Passing through the end of this frame is a short shaft, *a*, carrying a tooth-wheel, *b*, with a sleeve, *b'*, secured to the shaft by a set-screw, *c*.

Above the shaft *a* is another shaft, *d*, also carrying a toothed wheel, *d'*, and has a sleeve by which it is secured to the shaft, similar to the lower wheel *b*, the end of said shaft having its bearing in an elongated opening formed in the end piece *e* of the stationary frame A, also in a vertically-sliding box, *f*, within a frame, *f'*, said frame being attached to, and capable of removal from, the upper or hinged frame B by a screw-bolt and nut, *g g'*.

The shafts *d a* upon their outer ends are provided with webs *h*, which fit within the

solid ends of cylinders C D, to prevent said cylinders from turning upon their shafts.

These cylinders, which form the principal part of my invention, are constructed of any suitable metal, and made hollow to receive heated rollers E E; the same being provided at their ends with knobs *i*, to facilitate handling in withdrawing or placing them in the cylinders, which are provided upon their outer face with any suitable design, and a set of cylinders may accompany the machine having different ornaments or designs thereon, so that various ornamental figures may be produced upon the garments, as would best suit the taste of the wearer, provision being made for the ready withdrawal or replacing of the cylinders within the frame of the machine.

The figures upon the cylinders C are raised, while those upon the lower roller D are sunk, so that the two together will form a rotary die, and the fabric, as it is fed along between the cylinders, will be ornamented with raised figures upon its surface.

Suitable covers, if desired, may be employed to close the open ends of the cylinders C D and confine the heat therein, preventing the too rapid cooling of the rollers E.

The cylinders, as before stated, are capable of being removed from the machine for the purpose of replacing others. To accomplish this end the cylinder D has its bearing in a frame, F, the same having a guide-bar, *k*, with a screw-bolt, *k'*, and nut, *l*, by which it may be secured to or removed from the cross-piece *l'* of the stationary frame A when it is desired to support or withdraw the cylinder.

The upper roller C has its bearings in a vertical sliding box, G, within a frame, H, said frame being connected to the frame B, and capable of being moved to or from the cylinder C by the screw, bolt, and nut, *n n'*, working within an opening, *m*, in the frame B.

The cylinder C is kept pressed down upon the cylinder D, and is capable of automatic adjustment, for the purpose of permitting the distance between the face of the cylinder to accommodate itself to any difference in the thickness of the fabric passing between them, which result is accomplished by the vertically-sliding boxes *f G*, aided by a spring, *o*. The spring *o* bears upon a shaft, *p*, the ends of

which pass through or are rigidly connected to the boxes *f* G, the pressure of the spring being regulated by a screw-rod, *p'*. The vertically-sliding box G is supported within the frame H by a brace-rod, *o'*, which passes around the ends of the shafts *p*, and is connected to the upper part of the frame H.

Upon each side of the stationary frame A, and connected to the upright pieces *e*, is an arm, I, forming bearings for a rod, *q*, upon which is secured an eccentric, *j*, for the purpose of holding the hinged frame B down to its place, or by turning said rod, so as to bring the eccentric away from the frame, the same will be thrown upward by the spring *r* to admit the ready insertion of the material between the rollers.

When it is desired to obtain access to the different parts of the machine, for the purpose of repairing or removing them, the hinged frame B may be raised or swung back by simply unscrewing the nut *r'*, which secures the rod to the arms H, thus allowing the rod to be withdrawn from the eccentric, when the frame may be raised. That portion of the rod *q* which passes through the eccentric J is formed square, which fits a correspondingly-formed opening in the eccentric, thus preventing the rod from turning within the same, the rod having at one end a thumb-piece, *s*, by which it may be operated.

As a means for operating the cylinders there is connected to the shaft *a* a driving-wheel, K', which may be worked by hand, or said wheel may be connected to a treadle by suitable belting or levers, as I do not desire to confine myself to any particular means for operating the machine.

To prevent the toothed wheels *b* *d'* from becoming disengaged or thrown out of gear

when the frame B is raised the teeth are made long, thereby increasing the depth of the spaces between them.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The embossing-cylinders C D, provided upon their faces with desired patterns, the cylinder C, having its bearings in automatically-sliding boxes *f* G, in combination with the removable and longitudinally-adjustable frames *f'* H, substantially as and for the purpose set forth.

2. The cylinders C D, the former having its bearing in automatically-sliding boxes *f* G, said boxes working within adjustable and removable frames *f'* H, in combination with the brace-rod *o'*, shaft *p*, spring *o*, and regulating-screw *p'*, constructed to operate substantially as specified.

3. The combination, with the stationary frame A and arms I, of the hinged frame B, with eccentric J, substantially as and for the purpose described.

4. The stationary frame A, with arms I, said frame supporting and carrying the cylinder D, in combination with the hinged frame B carrying the cylinder C, and the shaft *q* with the eccentric J, the shaft and eccentric being capable of separation and withdrawal from the arms for the purpose of allowing the hinged frame B to be raised, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN STEINLEIN.

Witnesses:

NAT. E. OLIPHANT,
THOMAS C. CONNOLLY.