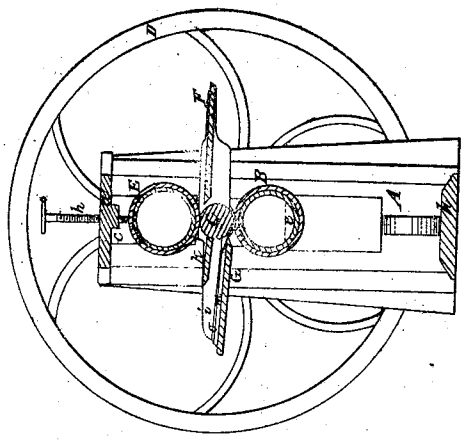
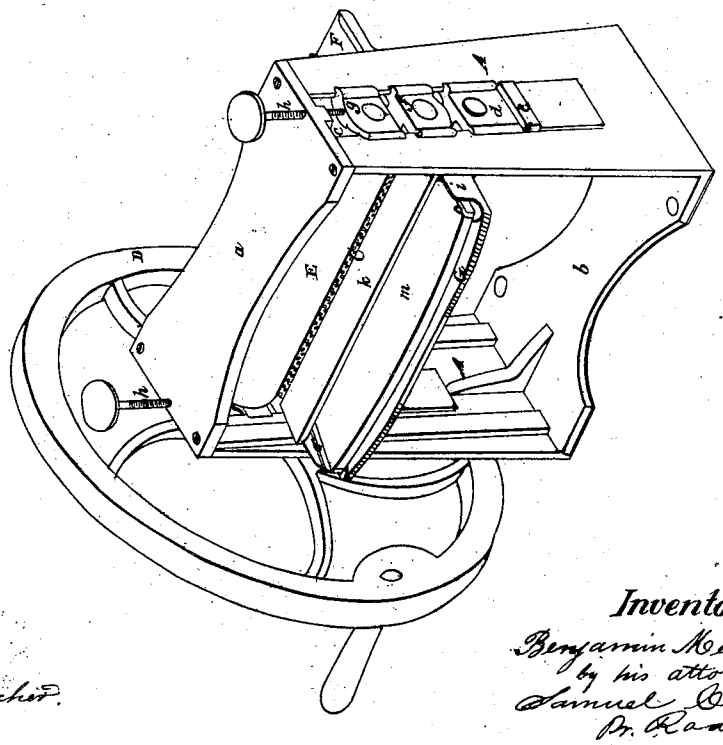
B. Merritt Jr.

Dressing Leather.

No. 36,228. Patented Aug. 19, 1862.





Witnesses

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UNITED STATES PATENT OFFICE

BENJAMIN MERRITT, JR., OF CHELSEA, MASSACHUSETTS.

IMPROVED MACHINE FOR PEBBLING OR EMBOSSING LEATHER.

Specification forming part of Letters Patent No. **36,228**, dated August 19, 1862.

To all whom it may concern:

Be it known that I, BENJAMIN MERRITT, Jr., of Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Machines for Pebbling or Embossing Leather, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of the machine; Fig. 2, a transverse vertical section of the same.

A considerable amount of thin leather—such as sheep-skins, or splits from them—is used by book-binders, pocket-book manufacturers, &c., which is pebbled or embossed to give it a surface filled with small indentations, like "shagreen," or to imitate "morocco." This finish has heretofore been given to the skin either by passing over the skin a narrow roll on which was engraved the indentations or creases to be put on the leather, or narrow strips of leather have been passed between short rolls, one of which was suitably roughened or engraved, or by applying to the surface of the leather an engraved copper plate, to which the required pressure was applied by any suitable press. All of these processes have been slow and limited in their operations, and the leather showed where the edge of the roll or plate came, to avoid which difficulty is the object of my present invention, which consists in a machine in which a whole skin, or two skins at the same time, may be passed through the machine, to be figured or pebbled by a single roll of sufficient length properly supported to prevent its springing, as will now be more fully described in such terms that others skilled in the art may understand and use my invention.

In the said drawings, A are housings braced by suitable top and bottom braces, *a b*. In a slot, *c*, in each housing is placed, first, the boxes *d* of a vulcanized-rubber roll, B, these boxes resting on rubber or other suitable springs, *e*, secured in the housings. Above the roll B and resting on it is the engraved or indented roll C, of iron or other suitable metal, which is to give the figure or impression to the leather. Its boxes *f* also slide up and down in the housings, and it is revolved by suitable power applied to the wheel D on its shaft. Another roll, E, similar to B, rests on the roll C. Its boxes *g* slide in the slot *c* in the housings, but are prevented from rising beyond certain limits by set-screws *h*, which pass through the ends of the brace *a* and bear on these boxes, so that the pressure applied to the skin being passed through the machine may be regulated.

A frame, *i*, is attached to each box *f*. They support on each side of the rolls a table, F or G, the former being placed at such a level that a skin placed on it may be fed in over the roll C, and the latter at a lower level to feed a skin in between the rolls C and B as the wheel D is revolved in the direction of its arrow. This permits two skins to be run through the machine at the same time, though either table may be used independently of the other. A rest or guide-bar, *k*, placed above the table G, receives the skin as it comes through the rolls from the table F and carries it over clear of the table G, when it will be received by the attendant.

I sometimes use a slide, *m*, which is beveled off thin at its front edge and has a rabbet, *o*, at each end to prevent its being drawn between the rolls, on which the skin is laid, and is kept distended by the attendant while he feeds it up to the rolls.

The rolls B and E are each made of a metal tube with heads at intervals of about one-fourth its length, through which the shaft passes, and a tube of vulcanized rubber is drawn on over the metal tube.

By the above arrangement of the rolls and their sliding boxes the pressure applied by passing the skin through on either or on both sides of the roll C is communicated to the springs *e*, except what is absorbed by the elastic rolls B and E, and may be regulated by the set-screws *h*, while a support being given by the rolls B and E to the whole length of the metal roll C, I am enabled to make it of sufficient length to pebble or figure a whole skin at one operation without having to make the roll of so great a diameter as would make the machine too heavy and costly.

I am aware that in machines for other purposes long rolls of small diameter have been supported for the whole of their length to prevent them from springing.

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

1. The above-described machine for pebbling or figuring leather, consisting of the indented or engraved roll C, with the elastic rolls B and E above and below it, with their bearings or boxes *d f g* sliding and supported in the housings A, in the manner specified.

2. Suspending the tables F and G and rest *k* on the boxes *f* of the roll C, so that they shall maintain their proper positions with respect to this roll as it rises or falls.

BENJAMIN MERRITT, JR.

Witnesses:

THOS. R. ROACH,

P. E. TESCHEMACHER.