

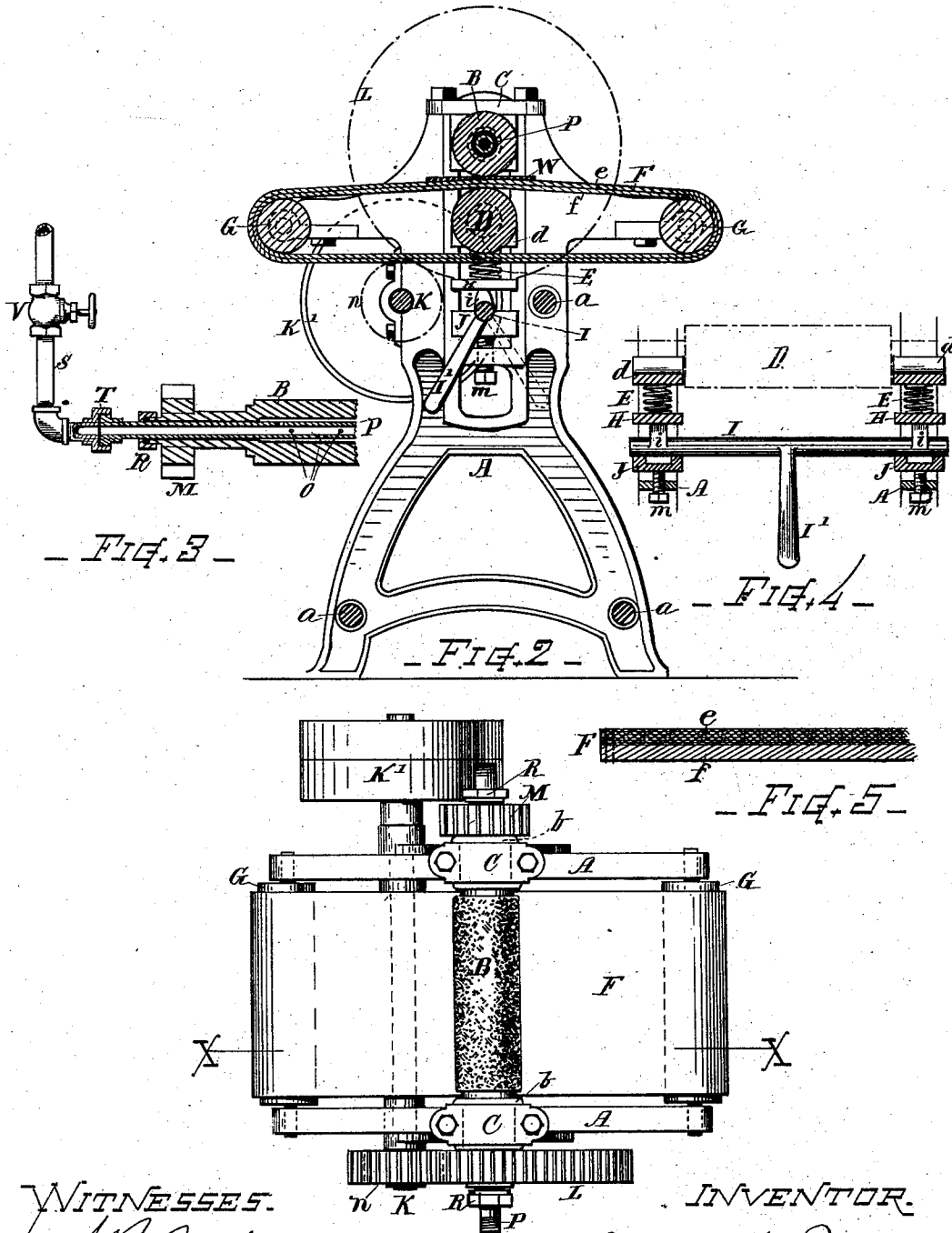
(No Model.)

J. H. PARKER.

MACHINE FOR PEBBLING OR EMBOSSING BOOT OR SHOE UPPERS.

No. 292,572.

Patented Jan. 29, 1884.



WITNESSES.

W. P. Barton
Charles Bacon

- FIG. 1 -

INVENTOR.

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Att'y

UNITED STATES PATENT OFFICE.

JAMES H. PARKER, OF MILFORD, ASSIGNOR TO JOHN L. PARKER, OF WORCESTER, MASSACHUSETTS.

MACHINE FOR PEBBLING OR EMBOSSING BOOT OR SHOE UPPERS.

SPECIFICATION forming part of Letters Patent No. 292,572, dated January 29, 1884.

Application filed November 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. PARKER, a citizen of the United States, residing at Milford, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Machines for Pebbling or Embossing Parts of Boot and Shoe Uppers, and for similar purposes; and I declare the following to be a description of my said invention sufficiently full, clear, and exact to enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

The objects of my present invention are, first, to provide a practical and convenient machine for the use of boot and shoe manufacturers for pebbling or embossing parts of boot and shoe uppers after they are blocked out, or for preparing scrap pieces of leather so that said pieces can be utilized for making tops for boots and shoes, and for similar purposes; second, to provide an elastic traveling bed or apron for carrying the small pieces through the rolls, which bed will not become permanently compressed and hard by the rolling action to which it is subjected in the use of the machine; third, to provide means for giving hot pressure to the material heated and facilities for conveniently changing the pattern-roll when required; fourth, to provide means for conveniently raising and depressing the lower roll, so that the bed-belt or apron can be lowered away from the heated roll when the machine is not in action. These objects I attain by the mechanism shown in the drawings and herein described, the particular subject-matter claimed being hereinafter definitely specified.

In the drawings, Figure 1 is a plan view of my improved pebbling-machine. Fig. 2 is a vertical section of the same at line *x x*. Fig. 3 is a view of one end of the top roll, showing the manner of arranging the heating devices. Fig. 4 is a transverse sectional view, showing the devices for raising and depressing the lower roll; and Fig. 5 is a section of the traveling bed-belt.

In referring to parts, A designates the side frames, provided with suitable guiding-jaws or vertical slots to receive the roll-bearings, and connected together by means of suitable rods or girts, *a*.

B denotes the pebbling or pattern roll, mounted in fixed bearings *b b*, supported at the upper part of the frame A, and retained firmly in position by the cap-plates C, which are bolted to the top of the side frames, as indicated.

D denotes the lower or bed roll, which is mounted in bearings *d*, arranged to slide up and down in the jaws of the side frames. Said roll is adapted to give yielding pressure by means of springs E, arranged beneath the bearings *d*. The rolls B and D are made about two and one-half inches (more or less) in diameter. The face of the lower roll, D, is made plain, and the face of the upper roll, B, is indented or engraved with the pattern to be impressed upon the leather, such as pebbling alligator grain or other desired pattern.

F denotes an endless traveling bed-belt or apron passing forward between the rolls B and D and back beneath the latter roll, and retained extended by guide-rolls G G', mounted on arms or brackets of the side frames, A, as illustrated. Said bed or apron is made with a foundation or backing, *f*, of leather, to the outer or top surface of which is secured a thick facing of felt, *e*, of about one-fourth inch (more or less) in thickness. The felt and leather may be cemented to each other, stitched through, or secured together by other suitable means, so as to form a continuous integral apron or traveling bed for the material to be pebbled as it passes between the rolls.

H indicates movable plates arranged in the jaws for supporting the springs E.

I indicates a rocker-shaft arranged across the machine, below the roll D, mounted in adjustable bearings J, and provided with lugs or cams *i*, that act against the under side of the plates for raising and depressing the same, together with the bearings *d* and roll D, for carrying said roll and the central part of the bed-belt toward or from the pattern-roll B. The springs E are made of such length that they will not materially interfere with the depression of the roll D by the cams *i*. A handle, I', is provided at convenient position upon the shaft I, to facilitate the turning of said shaft to swing the cams *i* up or down, as desired. By moving said handle to the position indicated by dotted lines, Fig. 2, the cams are swung downward, permitting the roll D and bed-belt

F to drop away from the face of the roll B. Adjusting-screws *m* are arranged beneath the bearings J, for regulating the position of the cam-shaft I.

5 K indicates the shaft on which the pulleys K' for the driving-belt are arranged. The roll B is provided with a large gear, L, which meshes with a pinion, *n*, on the shaft K, whereby motion is transmitted to said roll, and the
10 lower roll, D, is connected with the upper roll, B, by direct-acting gears at M, so that the rolls operate in unison. The endless belt or apron F is carried forward by the action of the rolls B and D.

15 For heating the roll B, a pipe or tube, P, is arranged through the center of the roll, which is made with a hollow somewhat larger than the pipe, and perforations *o* are formed through the pipe within the roll. Stuffing-boxes R
20 are arranged at the ends of the roll-arbors around the pipe P, so that the roll can revolve while the pipe remains stationary. The steam-supply pipe S and waste-pipe are connected to the respective ends of the tube P by union-couplings T, which permit of the roll contain-
25 ing the tube P being conveniently removed and interchanged for one of different pattern when desired. Suitable cocks or valves, V, are arranged in the supply and waste pipes, for regulating the flow of steam to and from
30 the interior of the roll. In the drawings, Fig. 3, only one end of the roll B, with the steam-supply pipe, is shown. The arrangement of pipe-connections at the opposite end would, however, be the same, with the exception that
35 the pipe S and valve V would be directed downward, or below the axis of the roll, instead of upward, or above the axis, as here shown, so that the water of condensation would
40 pass off through the waste-cock.

If desired, the machine can in some instances be made and used without the heating devices; also, the cam-shaft for elevating and depressing the lower roll may in some
45 cases be omitted. I prefer, however, to construct the mechanism substantially as before specified.

In the operation of my improved pebbling-machine the pieces W of shoe-uppers, after
50 being blocked out or cut to proper form, are placed upon the endless belt F and passed between the rolls B D, and the pattern of the roll B is impressed upon the surface of the leather in a very perfect and satisfactory man-
55 ner. The traveling belt supports and carries the piece W, so that it is not injured or spoiled by being stretched, crimped, or distorted out of shape by the action of the rolls. The felt facing *c* of said belt forms a cushion that supports the piece, while it yields
60 to inequalities and depressions and forces the stock into the depressions of the roll B, while it retains its condition and does not become solidified and hard by the continued
65 action between the rolls, as would a belt of rubber or a belt wholly of leather.

By the use of this machine the smaller pieces and skirtings of leather left over after the ordinary cutting of boot and shoe uppers, and usually considered as waste, can be cut
70 and utilized for top pieces or other small parts of uppers, the same being pebbled or embossed in the desired style of finish suitable for such purposes, thus saving much material that would otherwise go to waste, and obviat-
75 ing the necessity of buying whole new stock for the purposes for which the waste pieces can be used.

I am aware that rolls have heretofore been employed for pebbling or embossing pur-
80 poses; and I do not therefore herein make claim, broadly, to such rolls irrespective of their arrangement. Neither do I claim, broadly, the feature of heating the pebbling-roll, except in the combination herein shown and
85 described.

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

1. The combination of the roll B, having a patterned surface, the lower roll having plain
90 surface, and an endless traveling belt or apron passing between said rolls and supported on guiding-rolls at either side, and means for imparting uniform rotative movement to said pattern and bed-rolls, for the purpose set
95 forth.

2. The combination of the pattern-roll B, the bed-supporting roll D, the endless traveling bed-belt F, the guide-rolls G, the springs E, support-plates H, and means for elevating
100 and depressing said plates and bed-rolls, substantially as and for the purpose set forth.

3. The combination of the pattern-roll B, mounted in fixed bearings, the roll D, mounted in movable bearings, and geared to said roll
105 B, for uniform action therewith, the endless traveling bed-belt F, passing between said rolls and around guiding-rolls G, the springs E, the support-plates H, the cam-shaft I, having
110 cams *i* for elevating said plates, the adjustable bearings J, and the adjusting-screws *m*, substantially as and for the purposes set forth.

4. The combination, with the pattern-roll and bed-roll in a machine for pebbling or em-
115 bossing leather pieces, of a belt-apron or traveling bed for passing the work between said rolls, composed of a comparatively firm backing-ply and a soft face-ply or cushion-surface, substantially as set forth.
120

5. The belt or apron F, formed of a ply or backing, *f*, of leather, and a ply or facing, *c*, of thick felt, secured together, in combination with the pattern-impressing rolls in an em-
125 bossing-machine, substantially as and for the purpose set forth.

Witness my hand this 29th day of October, A. D. 1883.

JAMES H. PARKER.

Witnesses:

CHAS. A. AMBLER,
FRED L. ELLIS.