E. B. PARKHURST.

Machine for Stoning, Glassing and Pebbling Leather.

No. 205,974. Patented July 16, 1878.

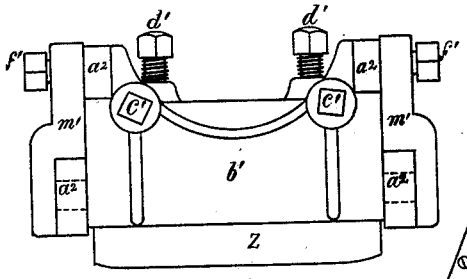

Fig. 3.

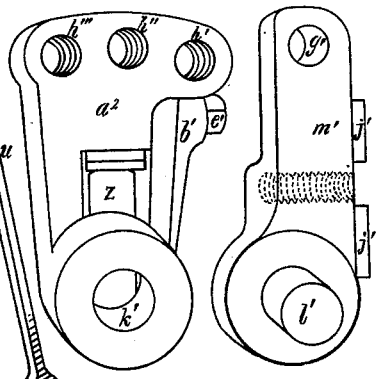

Fig. 4.

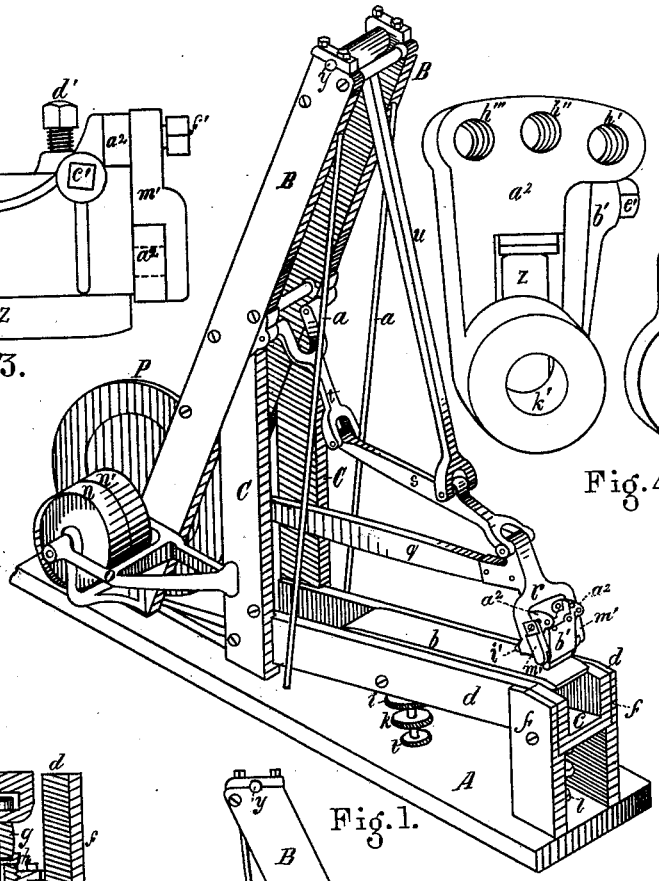

Fig. 1.

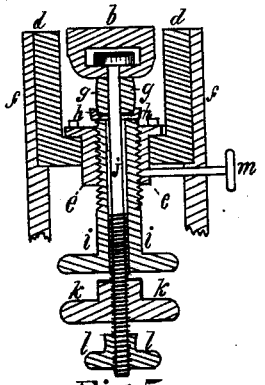

Fig. 5.

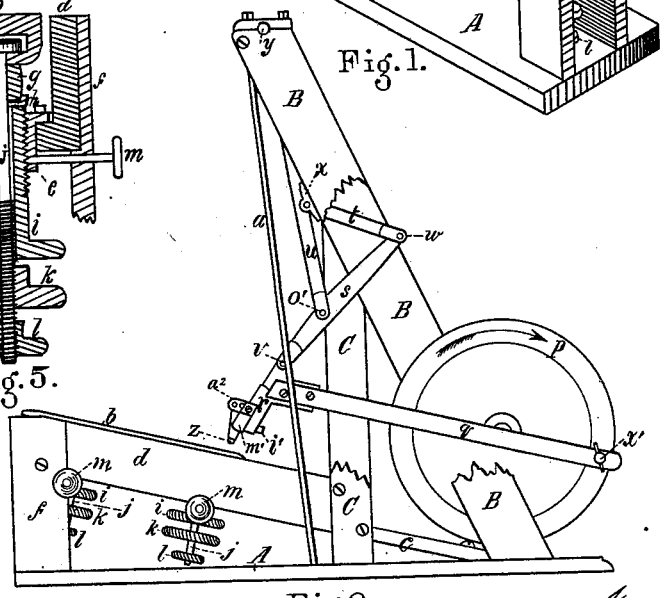

Fig. 2.

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UNITED STATES PATENT OFFICE.

EDWARD B. PARKHURST, OF WOBURN, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR STONING, GLASSING, AND PEBBLING LEATHER.

Specification forming part of Letters Patent No. **205,974**, dated July 16, 1878; application filed June 25, 1877.

To all whom it may concern:

Be it known that I, EDWARD B. PARKHURST, of Woburn, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Machines for Stoning, Glassing, and Pebbling Leather, whereof the following is a specification:

This invention relates to the class of machines employed by curriers to finish the surface of leather by the processes known as stoning, glassing, pebbling, and analogous methods, such machine being constructed with an adjustable yielding bed for the support of the leather, and a reciprocating head constructed to hold the stone, glass, or roll by which the leather is manipulated; and the invention consists in improvements in the constituent parts of the machine, as will, by the aid of the drawings, be herein fully described.

Figure 1 is a side elevation, showing the head advanced and in position to act upon the leather. Fig. 2 is a side elevation the reverse of Fig. 1, and showing the head raised and in position to be advanced. Fig. 3 is an enlarged front elevation of the head. Fig. 4 is an enlarged perspective view of details of the head; and Fig. 5, an enlarged transverse section of one of the bed-supports and adjusting devices.

In these drawings, A is the base, and B B are two inclined standards, which, at their lower ends are secured to base A, and are strengthened by the uprights C C and the stay-rods *a a*, as shown. This frame is well known and does not require a particular description.

b is the adjustable bed on which the leather is placed for manipulation. It presents a straight longitudinal as well as transverse line at top, except that, for convenience in moving the leather, the ends are slightly cut away, as shown. It is placed between the side bars *d d*, and is supported vertically, through the adjusting devices, upon floor *c*, which parts *d d* and *c* are secured at their rear ends to uprights C C and base A, and at their front ends by the short uprights *f f*, as shown and in the usual manner.

Bed *b*, which moves freely between guides *d d*, is supported and adjusted vertically by my improved device, which is described as follows: The flanged screw-sleeve, as shown at *e*, is secured in floor *c*. In this sleeve a similar but inverted screw-sleeve, *i*, works freely up and down, and is locked by set-screw *m*. Screw-rod *j* passes loosely through sleeve *i*, is provided at its lower end with actuating-nut *k* and locking-nut *l*, while its square head is seated in a chamber formed by an ear cast upon or secured to the under side of bed *b*, and through which ear the bolt passes, as shown in Fig. 5. Said ear rests upon cushion *g*, which may be of rubber, or a coiled spring or other material, and the bolt passes centrally through the spring or cushion and a metallic base-plate, *h*, in which the cushion is seated, which protects it from wear, and which rests upon sleeve *i*.

It will be apparent that when nuts *k l* are turned free by actuating-sleeve *i* the cushion *g* and bed *b* may be raised or lowered, as desired, and that having then locked sleeve *i* by means of set-screw *m*, then, by actuating-nut *k*, bed *b* may be depressed to the desired degree to produce the requisite compression and consequent resistance in cushion *g*, so that, when the leather is being glassed or otherwise manipulated on the bed, it may be only sufficiently yielding to afford the desired results.

By employing under bed *b* two sets of the adjusting devices described, as shown in Figs. 1 and 2, it is under perfect control in regard to vertical adjustability.

r is the reciprocating head, the details of which will be hereinafter described, and which is actuated through and by the following devices: The fast pulley *n* and loose pulley *n'* are mounted upon a shaft which is journaled in bracket *o*, secured to the frame, as shown. A crank-wheel, *p*, is mounted upon the opposite end of this shaft between standards B, as shown in Fig. 2, where a central portion of one is broken away to show the parts of the machine. *q* is a pitman pivoted upon a crank-pin in wheel *p*, as shown, and at the opposite end rigidly secured to head *r* in the usual manner. *s* is a rod, pivoted to head *r* at *v*, and to rod *t* at *w*, this latter rod being pivoted to the frame at *x*, while the pendulum *u* is pivoted in the head of the frame at *y*, and to rod *s* at *o'*.

By this combination and arrangement of the operative parts, when the wheel is rotated

in the direction indicated by the arrow thereon, head r will travel a distance nearly equal to twice the throw of crank-wheel p in a straight line and parallel to the plane of bed b, but in different planes; for when the wrist-pin x' is at the point shown in Fig. 2 the head r will have been raised above the bed, as shown, and will travel in that plane until the pin has traversed a little more than ninety degrees of the circle, when, as the pin passes the dead-center, the head will be depressed to the table, and will return in a right line to the opposite end, when, as the pin again passes the opposite dead-center, the head will be again raised, and thus continuously, the equalizing effect of rods s t and pendulum u tending to hold the head in a uniform plane, while the change of pitman q around the dead-centers serves, at the termination of each reciprocation, to change the plane or line of movement of the head.

The lower portion of the head terminates in two depending members, to each of which is secured a carrier, (shown at m', Fig. 4,) by means of screw-bolts i' and the lugs j' j', which enter recesses in said members of the head. Upon each of these carriers is a pin, l', which, when the carriers are in position, are turned toward each other.

The body of the holder in which the glass or stone is held is formed at either end with a terminal, as shown at a^2, Fig. 4. In the lower portion of these terminals is a hole, k', by which it is attached to the carriers m', while a series of threaded holes, h' h'' h''', formed in the upper portion, receives a screw-bolt, f', Fig. 3, which, passing through hole g' in carriers m', locks the holder in position; and, by releasing these bolts, the carrier may be vibrated on pins l', to assume the desired angle relatively to the bed b, and locked at such angle by means of the series of such holes in the terminal.

Instead of holes h' h'' h''', a slot may be provided, in which bolts f' may be inserted and the same result secured.

The stone or glass z is secured in the holder in position by cap b', secured by screw-bolts c', which are threaded in the body of the holder. The set-screws d', also threaded in the holder-body, serve to depress and vertically adjust the glass or stone.

By replacing carriers m' by carriers having suitable bearing for the arbor of a pebbling-roll the machine may be advantageously used for that purpose.

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

1. The combination of bed b, cushions g, sleeves e, provided with interior screw-threads, sleeves i, provided with exterior threads, screw-rods j, secured to bed b and provided with the actuating-nuts k, and the set-screws m, all constructed, combined, and arranged to operate substantially as described, whereby the resistance of the springs may be increased or diminished by compressing or releasing the same, or the bed may be raised or lowered, each independent of the other, for the purposes specified.

2. In a leather-dressing machine, the combination of the inclined adjustable bed b, the tool-holder r, rigidly attached to the pitman q and pivoted to the arm S, which is connected to the standard B by means of the swinging arms t and u, so that the tool will be operated in a straight line and in close proximity to the table when moved in one direction, and be elevated therefrom when moved in a reverse direction, substantially as specified.

3. In combination with the forked head r, the carriers m' m', the glass-holder, with its terminals a^2 a^2, constructed as described, and the locking-bolts f', interchangeable in the threaded holes h' h'' h''', and serving to lock the glass-holder at the desired angle relatively to the carriers, all substantially as described and shown, and for the purposes specified.

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