

No. 647,852.

Patented Apr. 17, 1900.

J. LOCH.  
MACHINE FOR PARING FEATHERS.

(Application filed Nov. 14, 1899.)

3 Sheets—Sheet 1.

(No Model.)

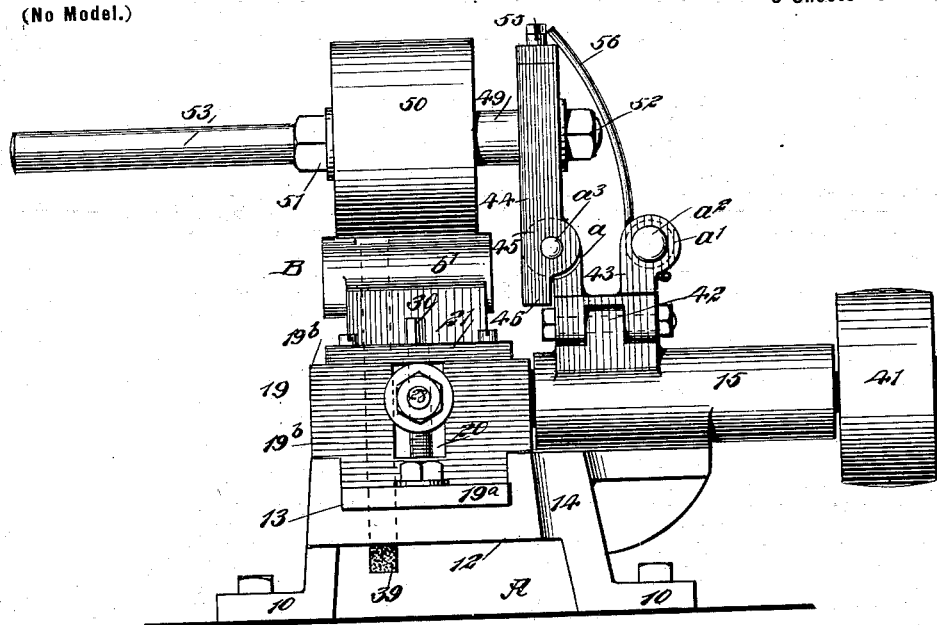


Fig. 1

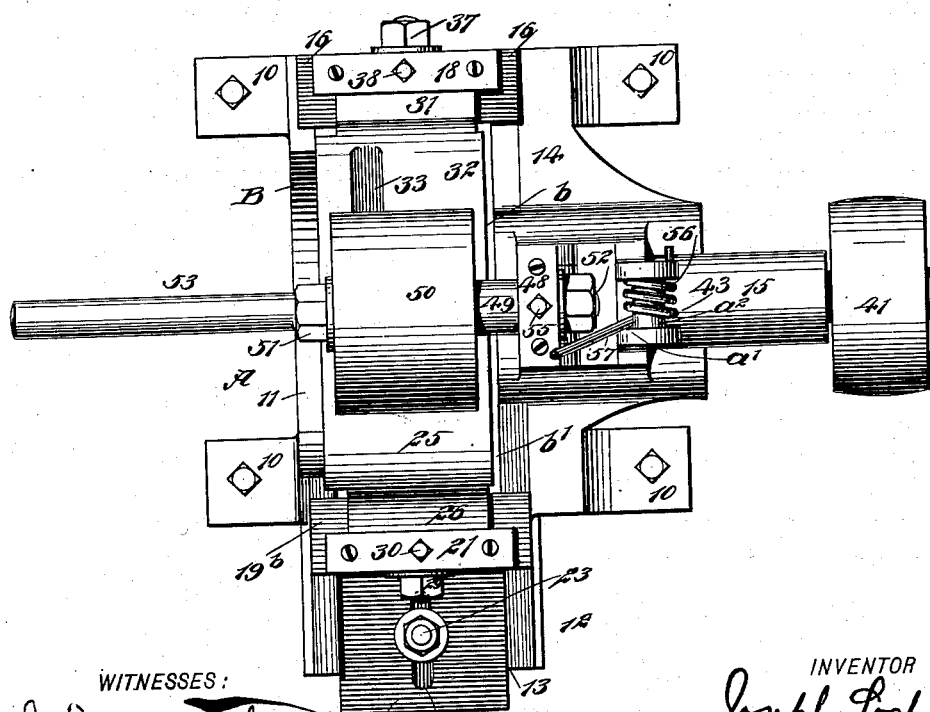


Fig. 2

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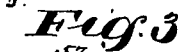
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(No Model.)

**3 Sheets—Sheet 2.**



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3 Sheets—Sheet 3.

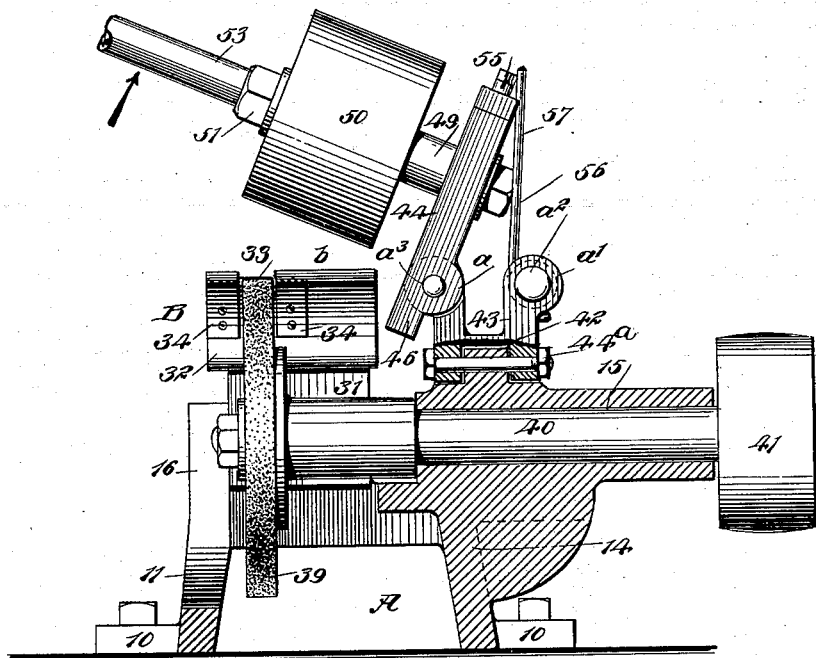


Fig. 5

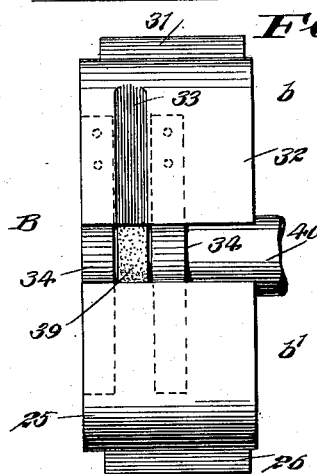


Fig. 6

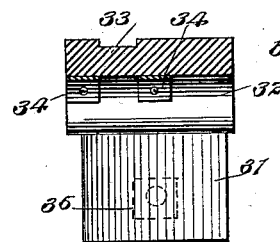


Fig. 7

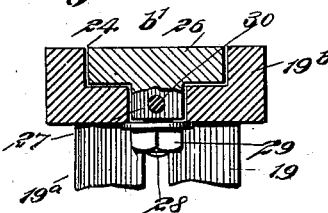


Fig. 8

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# UNITED STATES PATENT OFFICE.

JOSEPH LOCH, OF NEW YORK, N. Y., ASSIGNOR TO JOSEPH SPEKTOSKY  
AND HYMAN SPEKTOSKY, OF SAME PLACE.

## MACHINE FOR PARING FEATHERS.

SPECIFICATION forming part of Letters Patent No. 647,852, dated April 17, 1900.

Application filed November 14, 1899. Serial No. 736,976. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH LOCH, a citizen of the United States, residing at the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Machine for Paring Feathers, of which the following is a full, clear, and exact description.

One object of the invention is to provide a machine especially adapted for paring the stems of feathers and rendering them in such condition that they may be curled or dressed to advantage or effectually employed in dust-ers or for similar purposes.

Another object of the invention is to construct a machine of the character described through which feathers may be readily passed and their stems be uniformly pared and in which the parts may be readily adjusted to meet all conditions of the work.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the machine.

Fig. 2 is a plan view of the same. Fig. 3 is a front elevation, parts being broken away and in section, showing the guides over the grinding-wheel. Fig. 4 is a rear elevation of the machine. Fig. 5 is a longitudinal vertical section through the body portion of the machine, the section being taken on the line 5 5 of Fig. 3. Fig. 6 is a plan view of the bed over which the feathers are passed. Fig. 7 is a transverse section through the bed, the section being taken on the line 7 7 of Fig. 3; and Fig. 8 is a horizontal section on the line 8 8 of Fig. 3.

The base A is provided with suitable legs 10, adapted for attachment to any support.

In the detail construction of the base a front concaved bar 11 is usually employed, and at the right-hand side of the base a horizontal extension 12 is formed, provided with flanges at its sides, forming a slideway 13, and the rear of the base ordinarily consists of a suitable plate 14, having a central tubular en-

largement 15, which extends rearward and is in the form of a sleeve or bearing, as illustrated in Fig. 5. The construction of the base is completed by forming an upright 16 at the left-hand side, in which upright, at its center, a vertical slot 17 is produced, as shown in Fig. 3, and a cap-plate 18 is secured to the upper surface of the left-hand upright 16, crossing or covering the upper portion of the vertical slot 17, as is also shown in Fig. 3. The left-hand upright 16 is likewise provided with a vertical slideway 17<sup>a</sup> in its inner face, for a purpose to be hereinafter described.

The horizontal slideway 13 is adapted to receive an angle-plate 19, comprising a horizontal member 19<sup>a</sup> and a vertical member 19<sup>b</sup>. The vertical member of this angle-plate is provided with a vertical central slot 20, which extends through the upper edge of the angle-plate, and the said angle-plate is provided with a cap-plate 21, corresponding to the aforementioned cap-plate 18, the cap-plate 21 being secured to the top of the vertical member of the angle-plate, crossing the vertical slot 20 therein, as illustrated in Fig. 3. The horizontal member 19<sup>a</sup> of the angle-plate 19 or "slide," as it may be properly termed, is provided with a longitudinal opening 22, which receives a set-screw 23, the said screw being passed into a suitably-threaded aperture in the extension 12, as is also shown in Fig. 3, and by this means the slide 19 may be adjusted to and from the central portion of the frame A. The vertical member 19<sup>b</sup> of the slide 19 is provided at its inner face with a slideway 24, likewise shown in Fig. 3.

The upright 16 and the slide 19 are adapted each to receive a member of a bed B, across which the feathers to be treated are to be drawn. The two members or sections of the bed B are designated, respectively, as *b* and *b'*. The section *b'* consists of a horizontal member 25, the under face of which is curved, so that the inner end of the horizontal member 25 is quite thin. This horizontal member 25 is preferably made integral with a vertical member 26, and the vertical member 26 enters the slideway 24 in the slide 19, being capable of vertical adjustment in the said slide. The vertical member 26 of the right-hand section *b'* of the bed B is provided with

a screw-threaded lug 27, adapted to slide in the slot 20, made in the slide or plate 19, and said lug 27 is provided with an exteriorly-threaded outer projection 28, adapted to receive a nut 29, whereby the section *b'* of the bed B is connected with the main slide 19. The said right-hand section *b'* of the bed is given vertical adjustment through the medium of a screw 30, whose upper end is preferably polygonal and whose inner end is mounted to turn loosely in the bottom wall of the slot 20, as shown in Fig. 3, and the set-screw is also provided with a flange near its upper end, fitted in a recess in the cap 21, so that as the screw 30 is turned it cannot move from its position, but will compel the lug 27 to travel up or down, according to the direction in which the said screw 30 is manipulated, and thus vertically adjust the section *b'* of the bed, as desired.

The opposing section *b* of the bed B consists of an upright 31, mounted to slide in the way 17<sup>a</sup>, produced in the left-hand standard or upright 16, and an upper horizontal member 32, which is given a shape corresponding to the horizontal member 25 of the opposing section *b'* of the bed; but the upper member 32 of the left-hand section *b* of the said bed is provided with a longitudinal recess 33, since the thicker portion of the stem of a feather is received in this recess 33, to prevent the paring device, to be hereinafter described, cutting the reduced portion of the stem to the same extent that it does the thicker portion. Shields 34, preferably in the nature of strap-springs, are secured to the under face of the upper member of the section *b* of the bed, and these shields extend across the space between the two sections of the bed and have bearing against the under surface of the upper member of the right-hand section *b'*, as is shown in Figs. 3 and 6. These shields are at such distances apart that they permit the paring device, to be hereinafter described, to engage with the stem of a feather, but prevent the body of the feather at its edges from becoming entangled with the said paring device.

The vertical member 31 of the left-hand section *b* of the bed is provided with a screw-threaded lug 35, adapted to slide in the slot 17 of the upright or standard 16, and this lug is provided with a threaded outer extension 36, upon which extension a nut 37 is screwed to hold the left-hand section *b* of the bed in the desired position. Said left-hand section *b* is given a vertical adjustment corresponding to the adjustment of the right-hand section *b'* through the medium of a screw 38, whose upper end is polygonal and adapted to receive a key. This screw passes through the lug 35 and has bearing in the bottom wall of the slot 17 and is prevented from rising by means of a collar which engages the under face of the cap 18, through which the upper end of the screw 38 passes, as shown in Fig. 3.

The paring device consists of a corundum or emery wheel 39 of any description, and the

said wheel is located at the front of the machine, and its periphery turns in the said space between the springs 34, connected with the bed-section *b*. This wheel is mounted on a shaft 40, and the shaft is held to turn in the horizontal bearing or sleeve 15, forming a portion of the frame A. The shaft 40 is provided at its rear end with a pulley 41, adapted for connection with any source of power.

A projection 42 is formed upon the upper surface of the bearing 15 of the frame, and a bifurcated support 43 is mounted on the said projection 42 through the medium of a pivot 44<sup>a</sup>, which is in the nature of a bolt, and the mounting of the bifurcated support or frame is such that by loosening the bolt 44<sup>a</sup> the said support or frame may be rocked toward either side of the main frame A and secured in adjusted position. The forward member of the bifurcated frame or support 43 is provided with a single central knuckle *a*, and the rear member is provided with two spaced knuckles *a'*, through which a pin *a''* is passed. A block 44 is provided with side knuckles 45, which are placed at each side of the knuckle *a* of the adjustable bifurcated frame 43, and a pivot-pin *a'''* is passed through these knuckles. The block 44 is limited in its forward movement by projections 46, which extend below its knuckles 45 and engage with the forward face of the forward member of the adjustable bifurcated frame 43, as is shown particularly in Fig. 1, and the engagement of the projections or fingers 46 of the block with the frame 43 is such that when the engagement takes place the block 44 is held in an upright or vertical position.

The block 44 is provided with a vertical slot 47, as shown in Fig. 4, and with a cap 48, which crosses the said slot. One end of a shaft 49 is carried through the slot 47, the said shaft, as shown in the drawings, having mounted thereon a combined guide and presser roller 50, located over the space between the sections of the bed B and adapted to engage with the upper surface of the same stem of a feather being drawn through the machine. The shaft 49 carries a nut 51 and is continued forward beyond the roller 50, forming a handle 53, while the rear portion of the shaft 49 is integral with an enlargement 54, held to slide in the slot 47, and a rear threaded extension 52 is integral with said enlargement 54, while a lock-nut 52<sup>a</sup> is screwed upon this rear threaded extension. The shaft 49 and the roller 50, carried thereby, are adjustable vertically by means of a screw 55, which passes through the enlargement 54, fixed to the shaft, the said screw being held to turn in the bottom wall of the slot 47 and in the cap-plate 48, as is shown in Fig. 4. Thus it will be observed that the pressure-roller 50 is capable of side adjustment and is likewise capable of vertical adjustment, so that the roller may be brought to any position necessary for a perfect operation upon a feather. As a feather is drawn through the

machine the grinding-wheel 39 engages with the under surface of the stem of the feather and grinds its under projecting portion off, leaving the stem flush with the body of the feather, thus enabling a feather to be readily curled or to be bent, as desired, without detriment to the strength of the stem and without injury to the body of the feather.

The shaft 49 and pressure-roller 50 are held in their normal position relative to the bed B through the medium of a spring 56, which spring is coiled around the pin  $a^3$ , passed through the rear member of the adjustable frame 43, and one end 57 of this spring is carried upward to an engagement with the central upper portion of the block 44.

In operation after the parts of the machine have been adjusted it is simply necessary to raise the roller 50 through the medium of the handle 53, place a feather upon the bed, drop the roller on the feather, and draw said feather out from the machine in direction of its left-hand side. This operation may be repeated very rapidly and a large number of feathers may be properly treated in a short time.

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

1. The combination of the bed having an aperture, the paring-wheel located below said aperture, shields extending between the bed and the wheel across the aperture of the former, and a pressure and guide device located above the bed over the exposed portion of the wheel.

2. The combination of the bed having an aperture, the paring-wheel located below said aperture, and shields extending between the bed and the wheel across the aperture of the former.

3. In a machine for paring feathers, a paring-wheel mounted to revolve, a sectional bed extending over the paring-wheel, a space intervening the sections of the bed at which the periphery of the paring-wheel appears, shields extending from one section of the bed to the other, said shields being at each side of the said wheel, and a combined pressure

and guide device, movable to and from the exposed peripheral portion of the wheel, as described.

4. In a machine for paring feathers, a bed over which the feathers are drawn, said bed being constructed in sections, both sections being vertically adjustable and one section vertically and laterally adjustable, a paring-wheel mounted to revolve below the sections of the bed, a portion of the periphery of the wheel being exposed at the space between the sections, shields located at the sides of the exposed portion of the wheel, and a combined guide and pressure device movable to and from the exposed portion of said wheel, said pressure device being mounted to revolve, as described.

5. In a machine for paring feathers, an adjustable sectional bed, one section of the bed being capable of vertical and horizontal adjustment and the opposing section of vertical adjustment only, a guide for the stems of feathers, located upon the upper surface of one section of the body, shields extending from one section of the bed to the other, a paring-wheel mounted to revolve beneath the sections of the bed, between the shields, a combined guide and pressure device located above the said shields and the space between the sections of the bed, said device being mounted to revolve, and a support for the said guide and pressure device, adjustable vertically and laterally, for the purpose described.

6. The combination of the bed having an aperture, the paring-wheel located below said aperture, and shields extending between the bed and the wheel across the aperture of the former at each side of the paring-wheel.

7. The combination of the bed having an aperture, the paring-wheel located below said aperture, and yielding shields extending between the bed and the wheel across the aperture of the former.

JOSEPH LOCH.

Witnesses:

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JNO. M. RITTER.