2 Sheets—Sheet 1.

E. FITZHENRY.

LEATHER DRESSING MACHINERY.

No. 180,018. Patented July 18, 1876.

Fig 1.

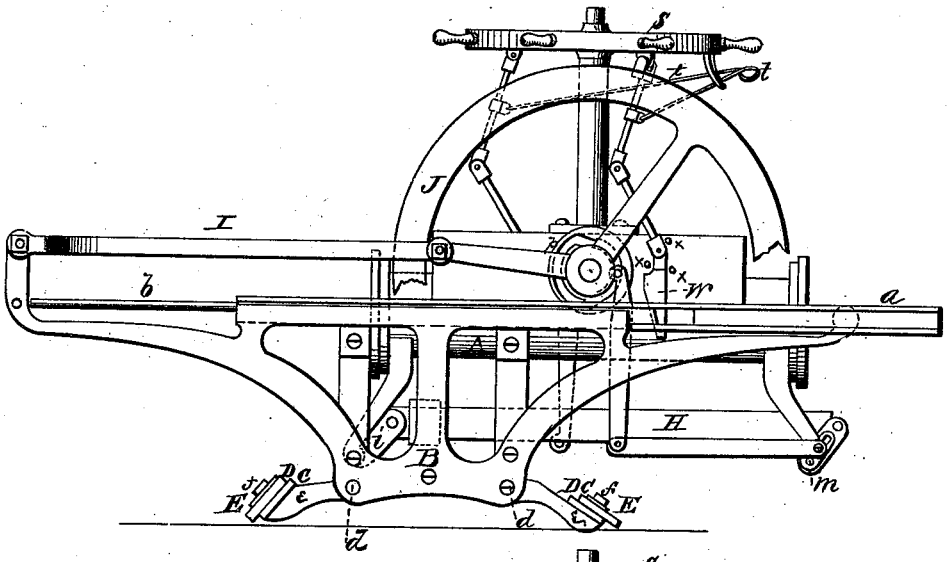
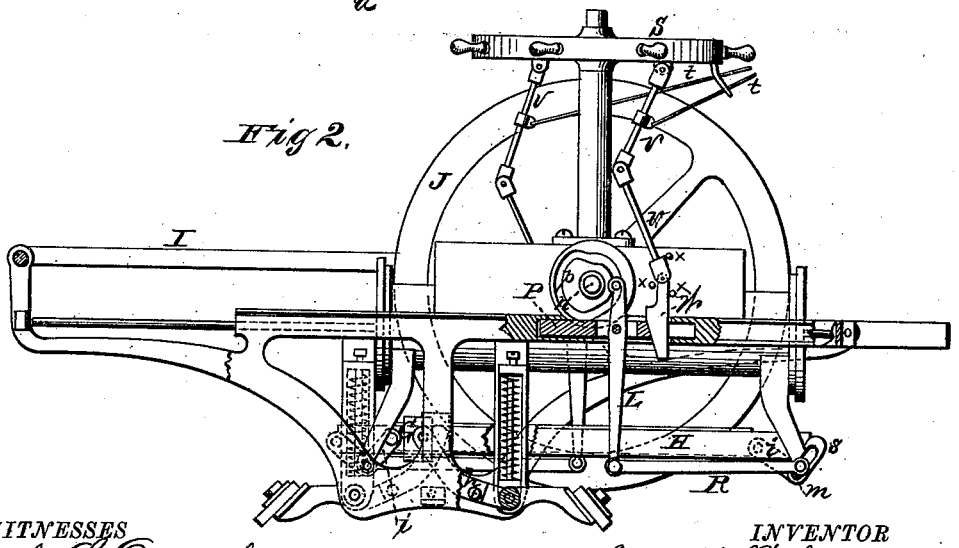


Fig 2.



WITNESSES

Franck L. Durand

Henry N. Miller

INVENTOR

Edward Fitzhenry

By Alexander Mason

Attorneys

2 Sheets—Sheet 2.

E. FITZHENRY.

LEATHER DRESSING MACHINERY.

No. 180,018. Patented July 18, 1876.

Fig 3

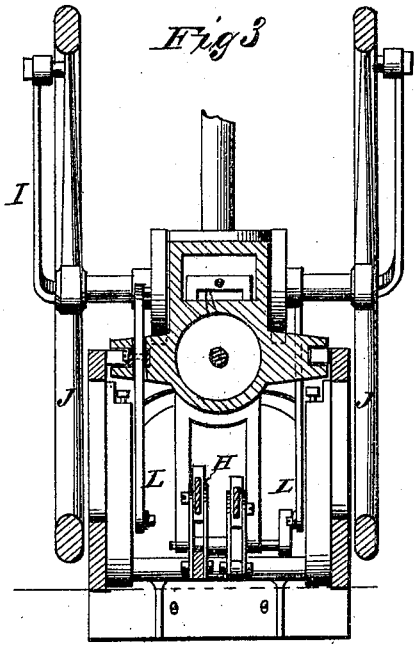
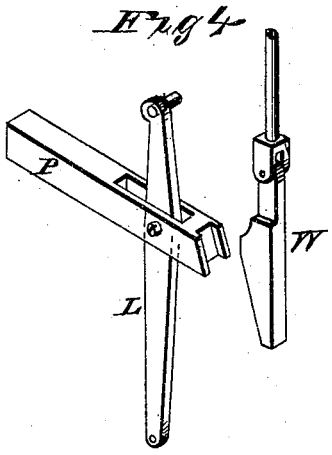


Fig 4



WITNESSES

Franck L. Ouraud

Henry N. Miller

INVENTOR

Edward Fitzhenry.

By Munn & Mason

Attorneys

UNITED STATES PATENT OFFICE.

EDWARD FITZHENRY, OF SOMERVILLE, MASSACHUSETTS.

IMPROVEMENT IN LEATHER-DRESSING MACHINERY.

Specification forming part of Letters Patent No. **180,018**, dated July 18, 1876; application filed May 29, 1876.

To all whom it may concern:

Be it known that I, EDWARD FITZHENRY, of Somerville, in the county of Middlesex, and in the State of Massachusetts, have invented certain new and useful Improvements in Leather-Dressing Machine; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My present invention is intended as an improvement on the hide-and-leather-working machine for which Letters Patent Nos. 125,276 and 156,991 were granted to me, respectively, April 2, 1872, and November 17, 1874; and it consists in the construction and arrangement of the devices for raising and lowering the tools, and for starting and stopping the same to and from the work, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side elevation of the steam-cylinder and carriage embodying my invention. Fig. 2 is a partial longitudinal section of the same. Fig. 3 is a transverse vertical section thereof; and Fig. 4 is a view of detached parts of the machine.

A represents the steam-cylinder provided on its sides with the grooved ways *a*, in which the frame or carriage B is moved back and forth by the piston-rod *b* passing through both ends of the cylinder, as shown and described in my former patents above referred to. In the lower portion of the frame or carriage B at each end is a rocking shaft, *d*, with arms *e e* projecting outward therefrom, and to the outer ends of said arms the tool-holder C is secured. D is the tool, and E the covering-plate, which are fastened to the tool-holder by screws *f f* passing through them. From the back of each rocking shaft *d* extends an arm, *h*, which is curved upward, as shown, and the upper portion slotted or forked and pivoted to a slide, G. This slide or sleeve is placed loosely on a bar, H, to each end of which are pivoted two links, *i i*. The links at one end of the bar H are placed loosely on a shaft, *m*, while the links at the other end are secured to a similar shaft, *m*. The two bars H H with their links are so arranged that each shaft *m* has two links fast thereon and two loose links.

At one end of the frame or carriage B are pivoted two pitmen, I I, which connect with and operate two fly-wheels, J J, placed on the ends of a shaft, *n*, above the cylinder A in the center. On this shaft are secured two cams, *p p*, each of which operates a lever, L, pivoted in a slotted bar, P, placed in the frame-work connected to the cylinder. The lower ends of the levers L L are, by bars or rods R R, connected with cranks *s s* on the shafts *m m*—that is, one lever connects with one shaft, and the other lever with the other shaft.

When the machine is in operation the shafts *m m* are rocked by means of the cams *p*, levers L, connecting-bars R, and cranks *s*, whereby the bars H are moved lengthwise, and alternately raised and lowered, thereby alternately raising and lowering the tools.

S is the hand-wheel for swinging the entire mechanism in any direction. On the under side of this wheel are two rods, *t t*, each of which connects with hinged levers V V carrying a wedge, W. These wedges are pushed down in grooves at the ends of the fulcrum-bars P P to hold them stationary while the machine is in operation. To stop the tools it is only necessary to push the rods *t* inward, when the wedges will be drawn and the bars or boxes P become movable, thereby removing the fulcrums of the levers L so that they will not operate. The wedges W are guided in their up and down movement by means of pins *x x*.

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

1. The combination of the cam *p*, lever L, connecting-bar R, crank *s*, bar H with links *i*, slide G, and arm *h*, connected to the rocking tool-holder, substantially as and for the purposes herein set forth.

2. The combination of the lever L, fulcrum bar or box P, wedge W, levers V, and rod *t*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 10th day of May, 1876.

EDWARD FITZHENRY. [L. S.]

Witnesses:
C. L. EVERT,
JAS. B. BELL.