L. A. Gignac.

Dressing Leather

No. 94,196. Patented Aug. 31, 1869.

Fig: 1.

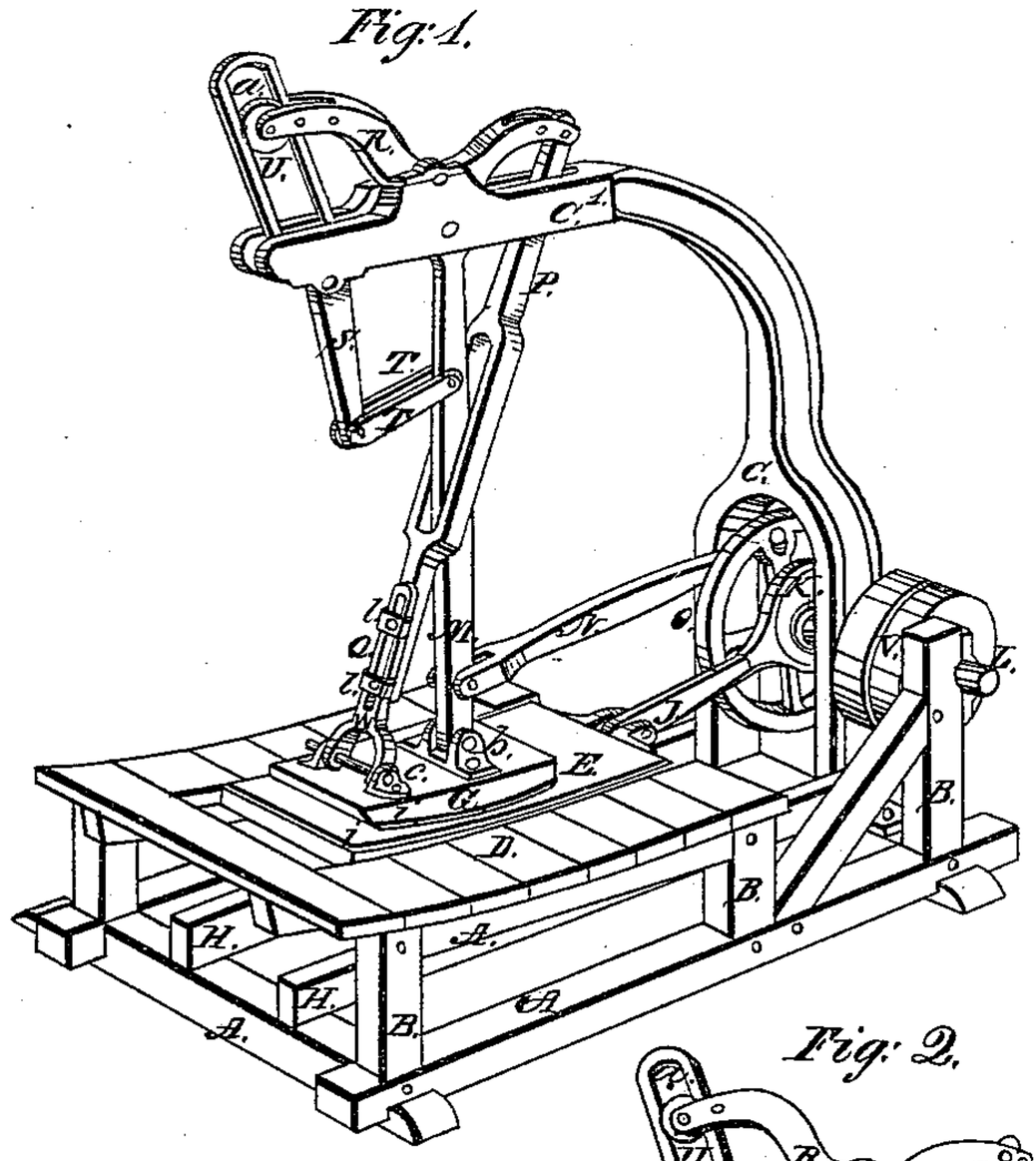


Fig: 2.

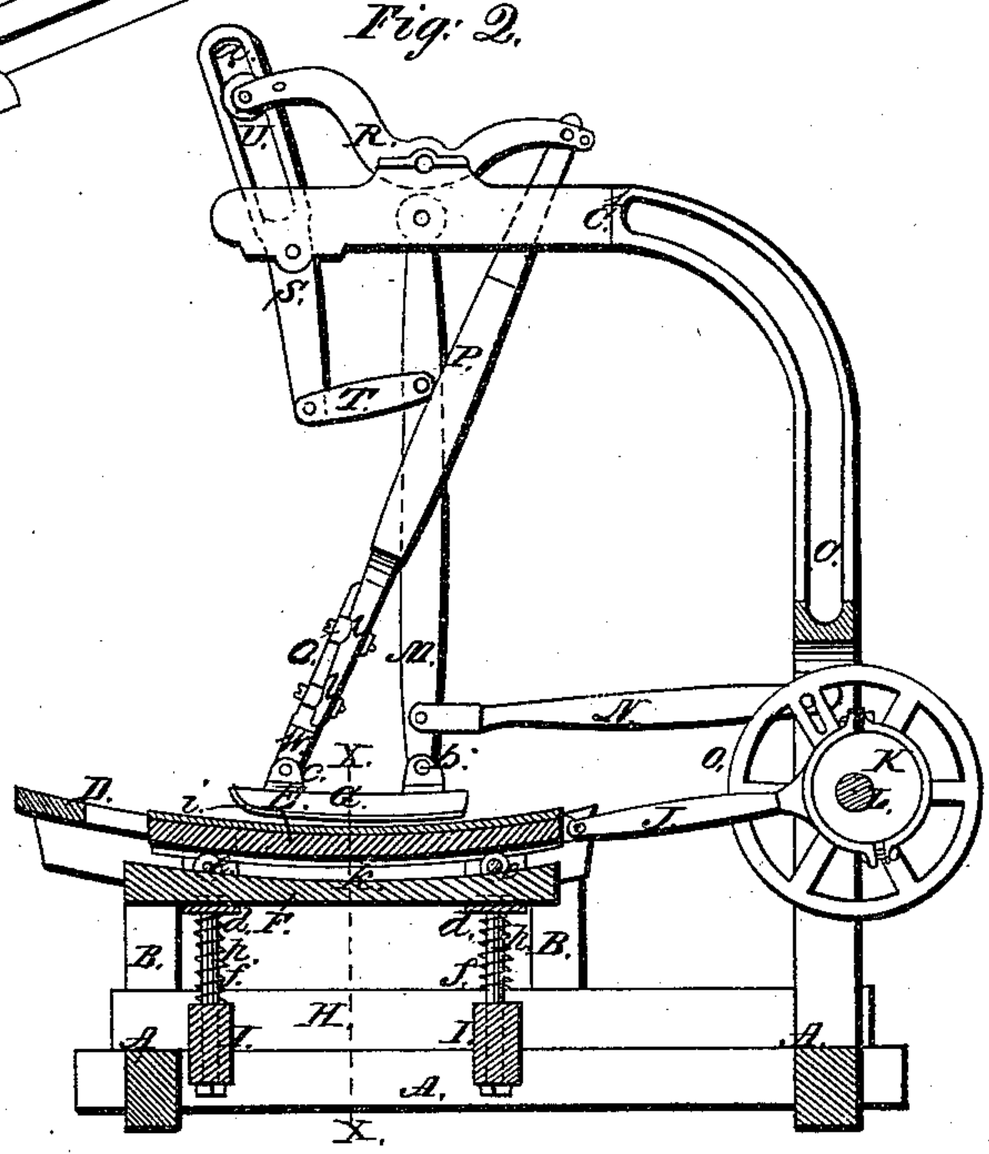
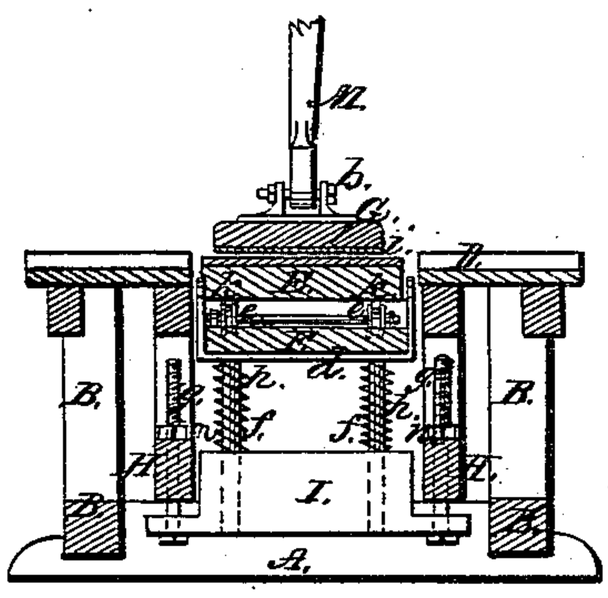


Fig: 3.



Witnesses:

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LOUIS A. GIGNAC, OF TROY, NEW YORK.

Letters Patent No. 94,196, *dated August* 31, 1869.

IMPROVED MACHINE FOR BOARDING AND GRAINING LEATHER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, LOUIS A. GIGNAC, of Troy, in the county of Rensselaer, and State of New York, have invented a certain useful Improved Machine for Boarding and Graining Leather; and I do hereby declare that the following is a full and exact description of the construction and operation thereof, reference being had to the accompanying drawings, and letters of reference marked thereon, making part of this specification, in which—

Figure 1 is a perspective view of said machine;

Figure 2 is a longitudinal vertical section; and

Figure 3 is a vertical transverse section, taken at the dotted line X X of fig. 2.

The same letters refer to like parts in each of said figures.

The said invention consists in the construction, combination, and arrangement of certain mechanical devices, in the manner substantially as hereinafter fully described and shown, thereby constituting an improved machine, whereof the principal distinguishing features consist in the peculiar manner of controlling the operative action of the rubber-board, by means of its combined suspension-links or arms; and also in giving a reciprocating endwise movement to the rubber-table, in combination with the alternating opposite movement of the rubber-board; and also in the combination and inter-arrangement of the endwise-reciprocating moving rubber-table with the rubber-board and the bolster-table or frame, so as to operate with and between the same.

To enable others skilled in the art to make and use my said improved machine, I how proceed to fully describe its construction and operation, which are as follows:

A suitable frame, of timber, or of other material, is made, consisting of the sills A A, uprights B B, bolster bed-pieces H H, and standard C, with arm C′, and provided with a fixed table, D, in manner substantially as shown in the accompanying drawings.

To the bolster bed-pieces H H there are arranged, transversely thereto, the cross-bolster pieces I I, which are secured to and supported from the bolster-pieces H H by means of the adjusting-screws *g g*, which are attached to and pass through the ends of said pieces I I, and then through, and are secured to said pieces H H by the nuts *n n*, which rest on the top sides thereof.

Arranged at each end of said cross-pieces I I, and resting thereupon, are the springs *h h*, around the guide-rods *f*, which are attached at their upper ends to the bolster frames *d d*, while their lower ends pass freely into guide-holes through the bolster-pieces I I, as shown.

Affixed to the bolster-frames *d d* is the bolster-table or frame F, which has its top side arched or curved, so as to conform to the arc described by the rubber-board G, in its operative stroke.

Arranged on and affixed to the upper side of said bolster-frame or table, are the wheels or friction-rollers *e*, in manner substantially as shown.

E is the rubber-table, having its top and bottom sides arched or curved, to conform to the arc of motion of the rubber-board G.

To the under side of said table E there are affixed rails *k k*, which are arranged thereon so as to ride on the wheels or friction-rollers *e e*, when said table is placed thereon in its proper adjusted position for operation, in manner as shown.

The operating-face of said table is covered or lined with cork or India rubber, *i*, or with any other suitable material, which will prevent the leather from slipping thereon while it is under the operation of the machine.

The rubber-board G is made in the form substantially as shown, and has its operating-face also lined with cork, *i*, or India rubber, or with any other suitable substance, that will prevent slipping of the leather thereunder.

This rubber-board is suspended in its proper operative position by means of the arm M, which has its lower end attached to the heel or rear part of the said board, by means of the pivot and jaws *b*, while its upper end is supported by a pivot affixed in the standard-arm C′.

The front, or toe part of said rubber-board G, is controlled and governed in its action on the leather by means of the arm P, its lower end being attached to the front, or toe part of said board, by the pivot and jaws *c*, and the adjustable connecting-piece Q, which is secured to said arm P, after being adjusted so as to either shorten or lengthen said arm, as may be desired, by the clamps and tightening-screws *l l*.

The upper end of the said arm P is pivoted to the rocking connecting-arm R, which is arranged on the top side of the standard-arm C′.

S is a slotted or framed connecting-arm, pivoted to the end part of said standard-arm C′, and has its lower end attached to the arm M aforesaid, by means of the links T, while its upper end, U, which is slotted or framed, to thereby receive a friction-roller or wheel, *a*, connected to the end of the rocking arm R, which is slotted or forked so as to receive said wheel, which rolls within the frame U aforesaid, substantially as shown, and thereby in connection with the oscillating arm M, and the aforesaid intermediate connecting-devices, controls and prevents the toe or front part of the rubber-board G from rising upward off its work.

Operative motion is given to these before-described devices, by means of the connecting-arm N, which

operates the rubber-board G, by being attached to a crank or wrist-pin of the fly-wheel O, on the driving-shaft L, and operative motion is given to the rubber-table E by means of the connecting-rod J, and its eccentric or crank K affixed on said shaft L.

Power is applied to the driving-shaft L through the pulley V.

All of the aforesaid respective parts are combined and arranged in the manner substantially as shown in the accompanying drawings, and thus constitute an improved machine for graining and boarding leather.

This improved machine is operated to "board" and "grain" leather, in manner substantially as follows:

The hide or piece of leather to be operated on is folded with the grain-side together, at the end or place first fed under the rubber-board, at the beginning of its forward stroke; then, by the combined movements of the rubber-board and the rubber-table, in alternating and reciprocating directions in succession, the grain-side of the hide or skin is successively rubbed together, the operator shifting and moving the hide laterally between the rubbing-surfaces, until the grain of the leather is raised, and the hide made pliable.

The rubbing-devices, G and E, are adjusted or set for different thicknesses of leather, by moving up or down the nuts *n* of the adjusting-screws *g*, as aforesaid, which raises or lowers the rubber-table E, and the toe, or front part of the rubber-board G may be adjusted to be high or low, by means of the connecting-piece Q, in manner as before described.

Having thus described my invention,

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

1. The combination of the suspension-arm M, controlling-arm P, rocking arm R, slotted arm S, links T, and rubber-board G, with each other, and the actuating-rod N, or its equivalent, substantially as described, and for the purpose set forth.

2. The combination of the rubber-board G, the reciprocating moving rubber-table E, and the bolster-table F, substantially as described, and for the purpose set forth.

3. The arrangement of the reciprocating moving rubber-table E between the rubber-board G and the bolster-table F, substantially as shown and set forth.

4. The combination of the rails *k k* and wheels *e*, with the movable rubber-table E, the bolster-table F, the actuating-rod J, and its eccentric wheel or crank K, in manner substantially as shown and for the purpose specified.

5. The combination of the cross-pieces I I, longitudinal pieces H H, adjusting and supporting-screws and nuts *g*, springs and guide-rods *h* and *f*, with the bolster-table F, wheels *e*, rails *k k*, and the moving rubber-table E, substantially as shown and for the purpose set forth.

LOUIS A. GIGNAC.

Witnesses:

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