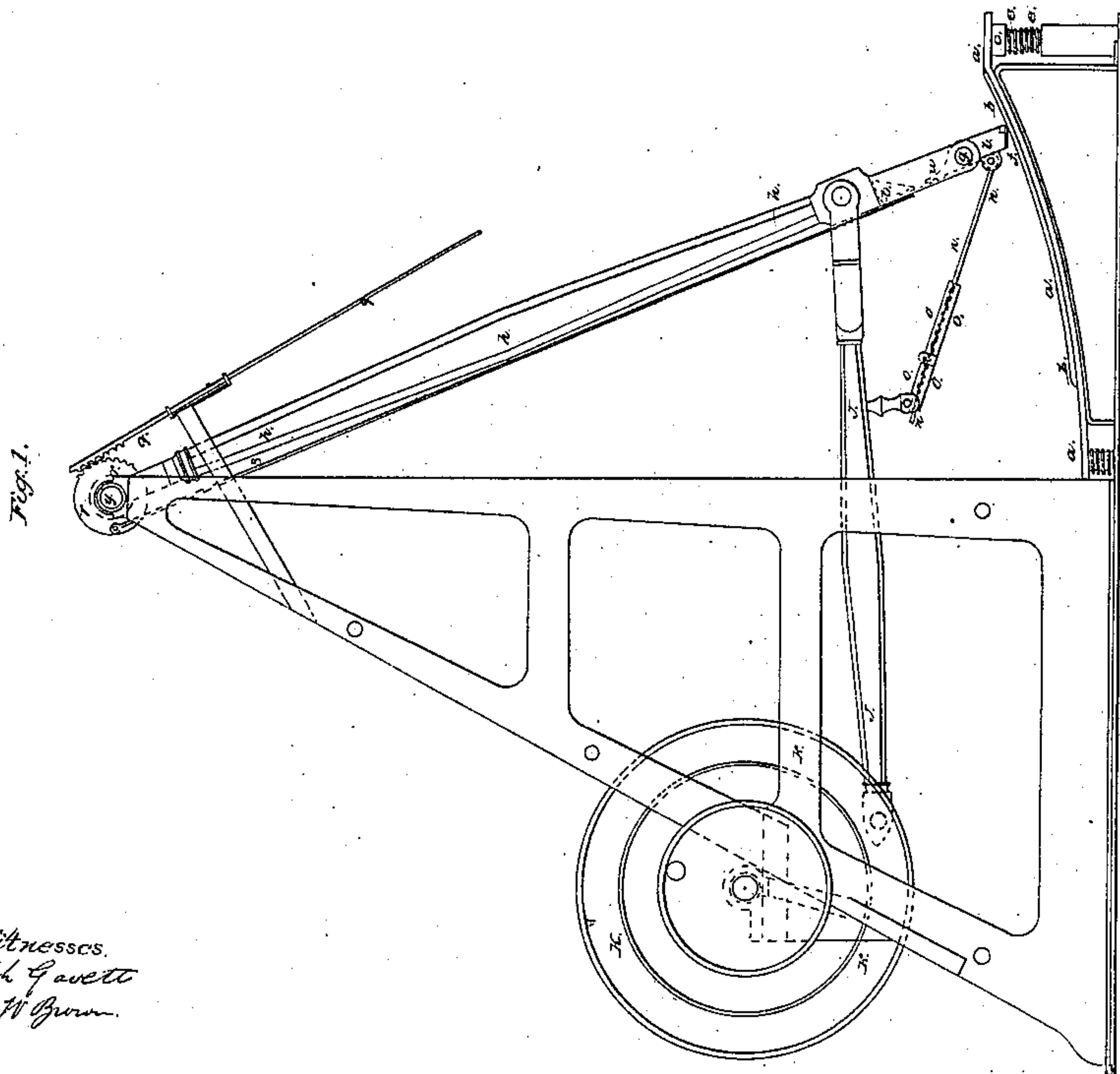
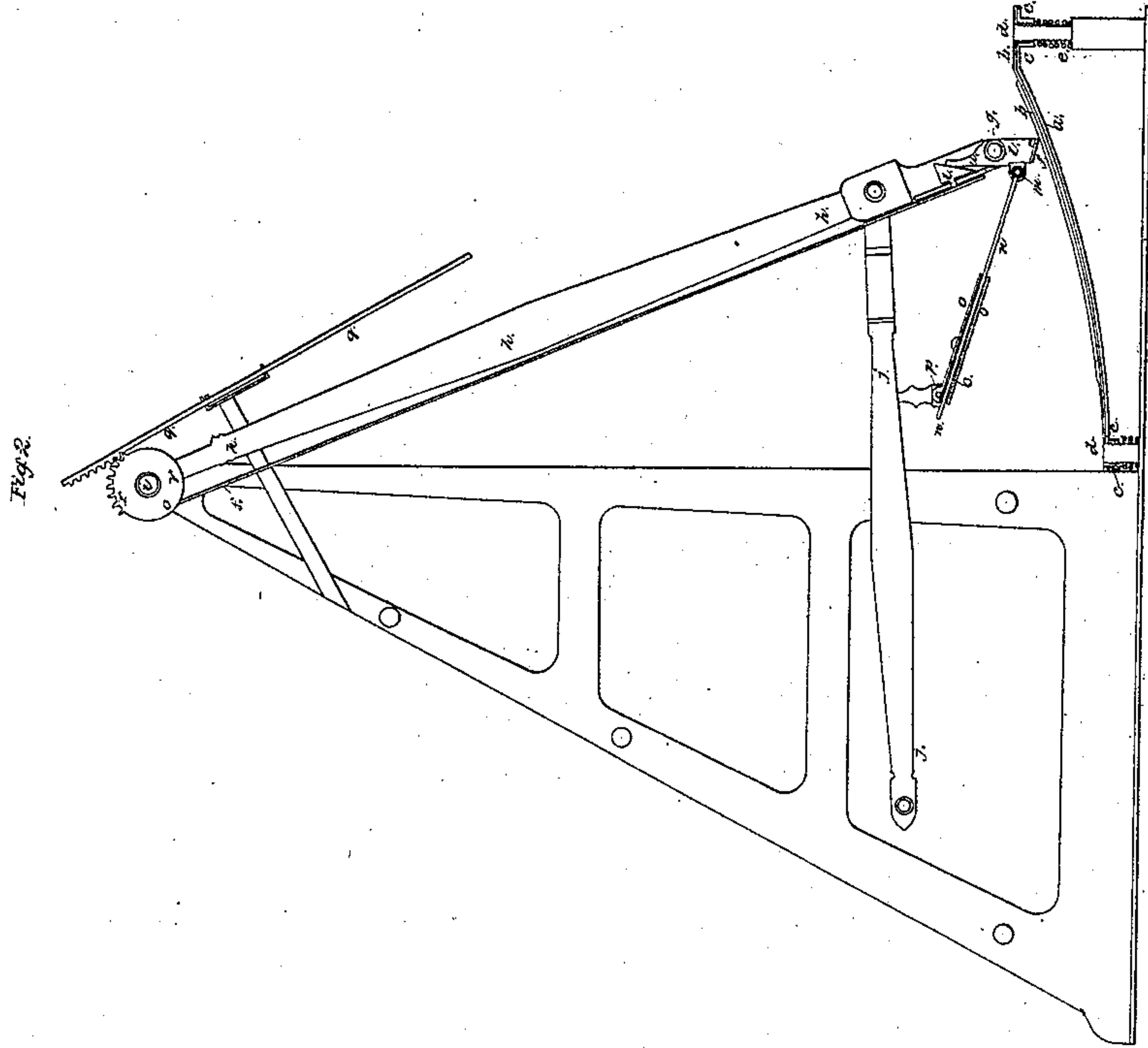


T. F. Weston

Dressing Leather

N^o 24,344.

Patented June 7, 1859.



Witnesses.
Joseph Gavette
Albat W. Gurnee

Inventor.
T. F. Weston

UNITED STATES PATENT OFFICE.

T. F. WESTON, OF SALEM, MASSACHUSETTS.

MACHINE FOR FINISHING LEATHER.

Specification of Letters Patent No. 24,344, dated June 7, 1859.

To all whom it may concern:

Be it known that I, T. F. WESTON, of Salem, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Machines for Finishing Leather, and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements by which my invention may be distinguished from all others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The figures of the accompanying plate of drawings represent my improvements.

Figure 1 is a side elevation of my improved machine for finishing leather. Fig. 2, is a central, longitudinal, vertical section of the same.

In the operation of finishing leather by hand a peculiar surface is given to the leather by the workman who uses either two tools successively one sharp and the other dull or a single tool having a sharp and dull edge. This effect has never heretofore been produced in machines for polishing leather, the only attempted approximation to it being secured by increasing and diminishing the pressure with which the tool was brought to bear upon the leather by adjusting the bed, up or down, but this means instead of producing the surface desired, injured the fibers of the leather causing them to be separated as it were.

My improvements in machines for finishing leather, consist, first, in producing the peculiar surface to the leather which has heretofore only been imparted to it by hand, by changing the angle of the tool while it is in motion over the bed, so that it can operate first with a sharp edge on the leather and afterward with a dull one; second, in giving the required motions of bringing the tool upon the bed as soon as it commences its forward and rubbing motion, and of lifting it and holding it up from the same as soon as it commences its retrograde mo-

tion, by an arrangement of positive mechanical devices the operation of which will be hereinafter fully described.

a a in the drawings represent a table or platform upon which the leather to be finished is placed.

b b is the bed made adjustable by a nut *c* working upon a screw *d* around which is coiled a spiral spring *e*, thereby rendering the bed elastic and permitting it to yield a little.

f is the finishing tool turning upon a pivot *g* in the lower end of an arm or pendulum *h* that turns on a center at *i*. The tool *f* receives a traversing motion across the bed *b b*, describing the arc of a circle to which arc the bed *b b* conforms, by means of a connecting rod *j j* attached to a revolving wheel *k*.

To the tool-stock *l* is attached by a pivot *m* a sliding-bar *n* traversing in a friction-box *o* secured to the connecting rod by a pivot *p*.

From this description it will be seen that the tool, as in similar machines heretofore invented, is brought to bear upon the leather during its forward motion and lifted from the same during its backward motion; but these motions by the arrangement of devices described of the sliding bar and friction box, are positive motions instead of depending upon the momentum of the tool for bringing it to bear upon the leather at the proper moment and lifting it from the same, and a cord or other device for holding it during its backward movement which has been the mode heretofore practiced and which has failed to render the operation of the tool positive and sure, which is the result of the improvement described.

It will be observed that the tool will be lifted after it has been passed forward over the bed, when there is no pressure upon it, by the friction of the sliding box *o* on the bar *n* which will cause the tool to lift. It will also be seen that by making a yielding instead of an inflexible connection between the tool *f* and connecting rod *j j*, that the tool is allowed to keep the same relative angle to the bed during the whole of its forward stroke, which is highly desirable.

The leather is first operated upon by the tool placed in such a position as to operate with a sharp edge, as shown in Fig. 2, so as to reduce and take out the larger inequalities of the leather and afterward by the tool placed at a more acute angle to the bed, so as to operate with a dull edge, these two separate motions producing the desired surface or finish to the leather. The angle of the tool can be changed at pleasure, so, as above stated, to present a sharp or a blunt edge to the leather, and while the machine is in motion, by means of a sliding rack-bar *q*, the teeth of which engage with a toothed-wheel *r*, to which is pivoted a connecting rod *s*, to the lower end of which is secured a wedge-shaped projection *t*, that is thus, by sliding the rack-bar *q*, raised or lowered, so that the tool will receive a different angle according to the position in which the wedge *t* may be placed as a projection *u* of the tool-stock *v* bears at every forward movement of the arm or pendulum *h* against the wedge *t* and sets the angle of the tool-stock accordingly. The advantage of this result will be apparent as a finish is given to the leather equal to that imparted by hand, at the speed

with which these machines are usually worked.

Having thus described my improvements, I shall state my claim as follows:

What I claim as my invention and desire to have secured to me by Letters Patent is—

1. The combination and arrangement of the devices herein described, or their mechanical equivalents, for changing the angle of the tool while the machine is in motion, so as to cause it to operate upon the leather, first with a sharp edge to take out its inequalities and then with a dull or blunt edge to smooth the leather, the successive operations producing the peculiar effect desired for the purposes as set forth.

2. The arrangement of devices herein described for giving positive motions to the tool, for lifting it from and holding it down upon the bed, the same consisting of the sliding bar and friction box operating as set forth.

T. F. WESTON.

Witnesses:

JOSEPH GAVETT,
ALBERT W. BROWN.