

# J. F. Flanders, Dressing Leather,

N<sup>o</sup> 10,067.

Patented Oct. 4, 1853.

Fig. 2.

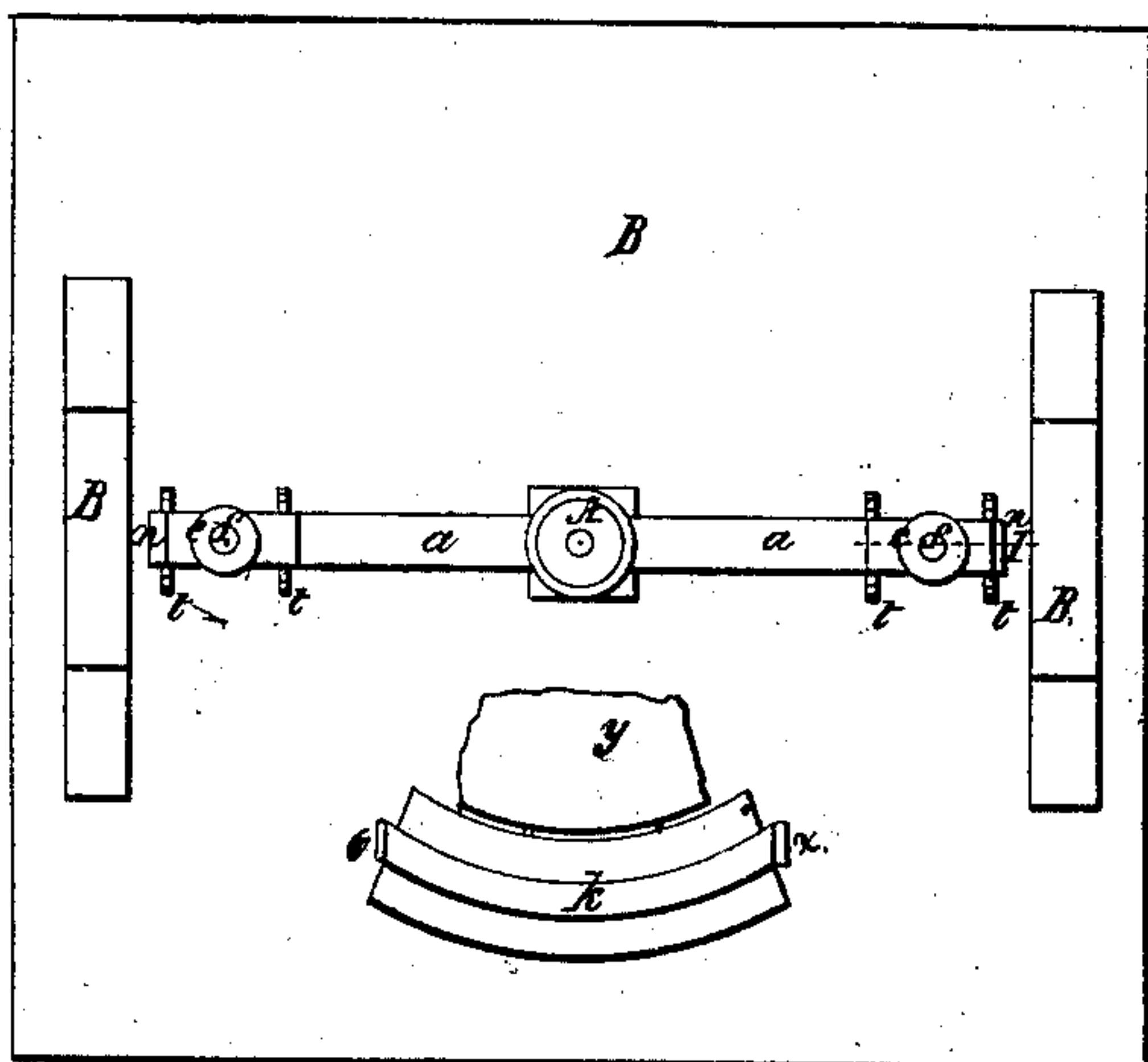


Fig. 1.

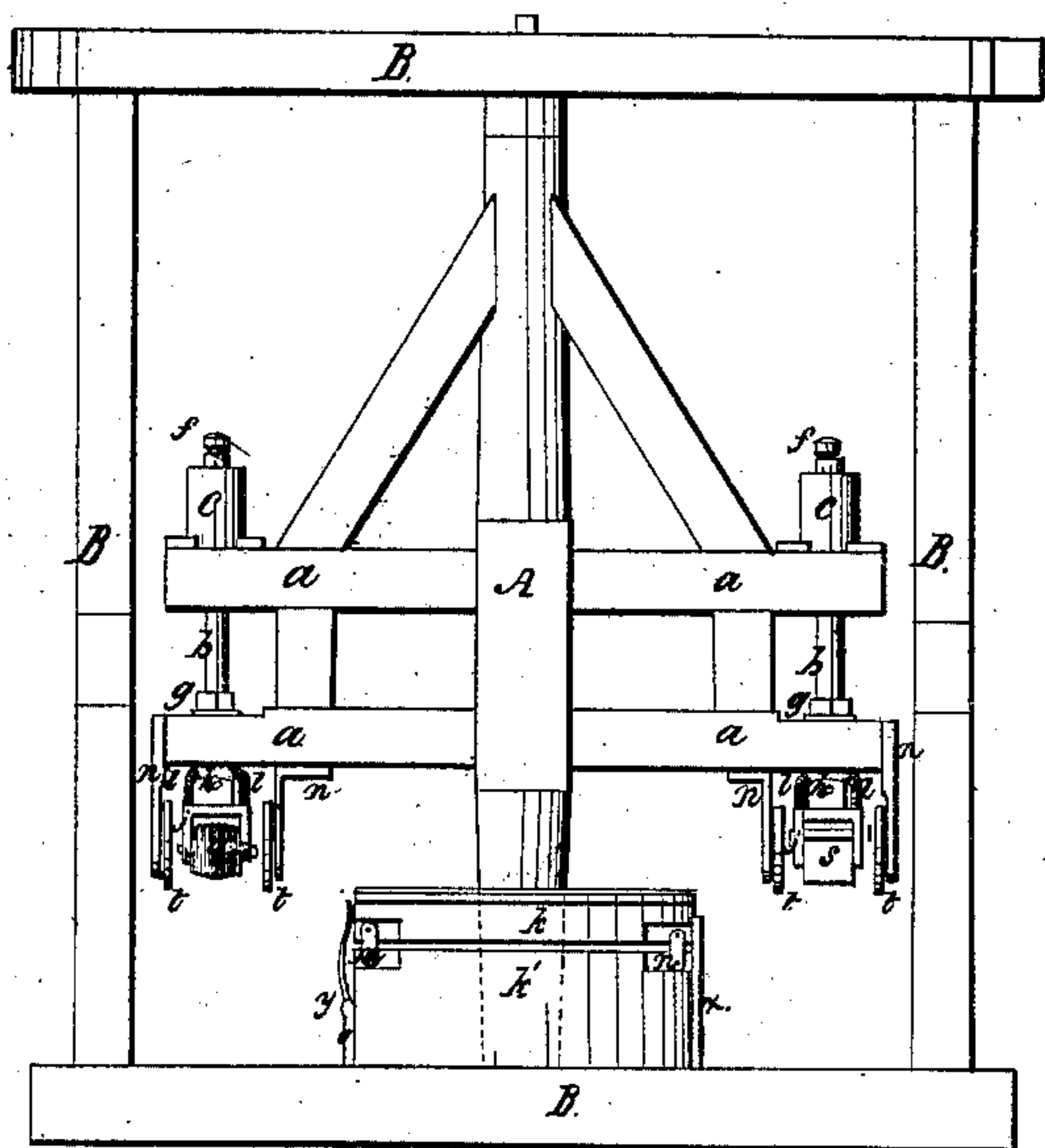


Fig. 6.

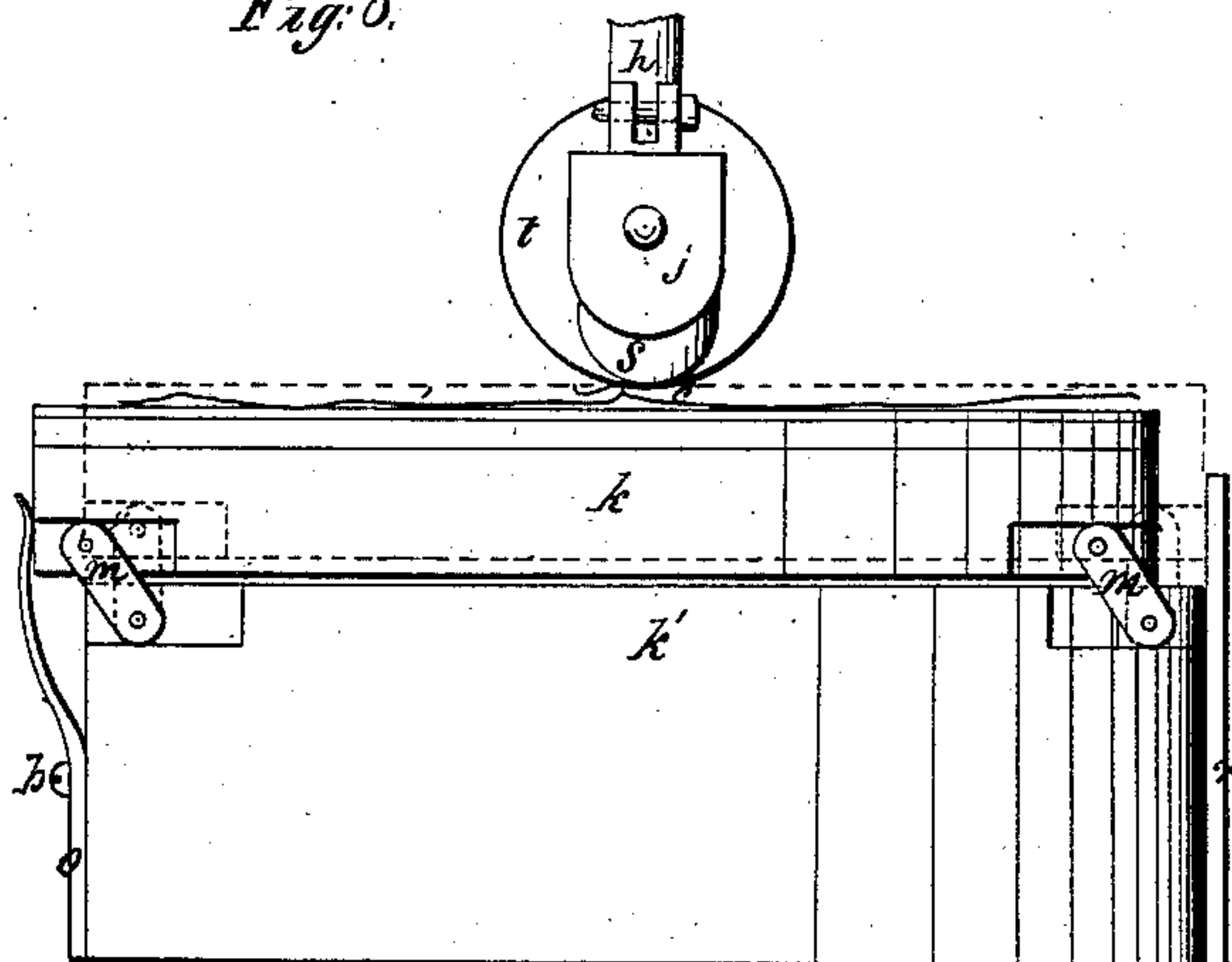


Fig. 4.



Fig. 3.

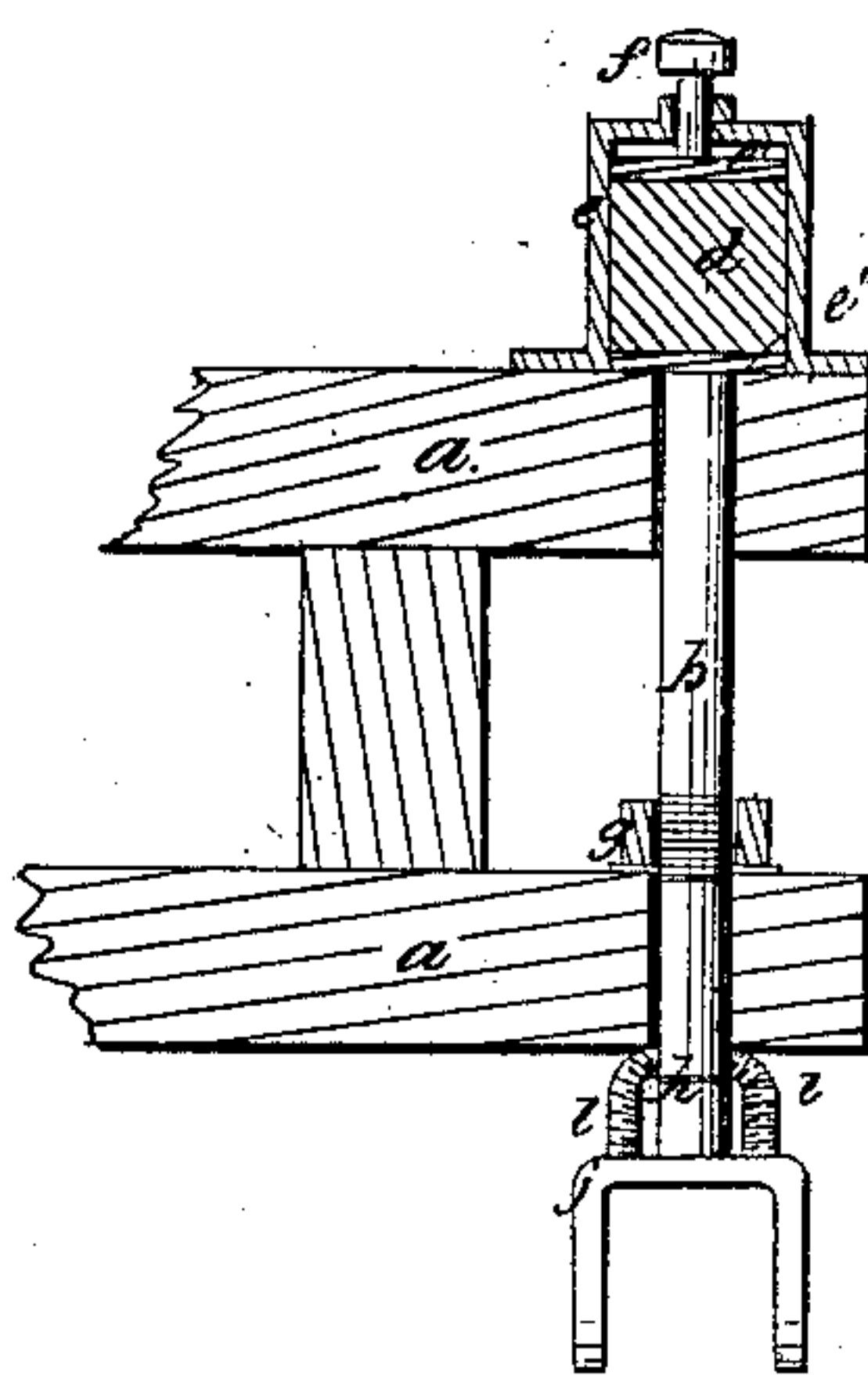
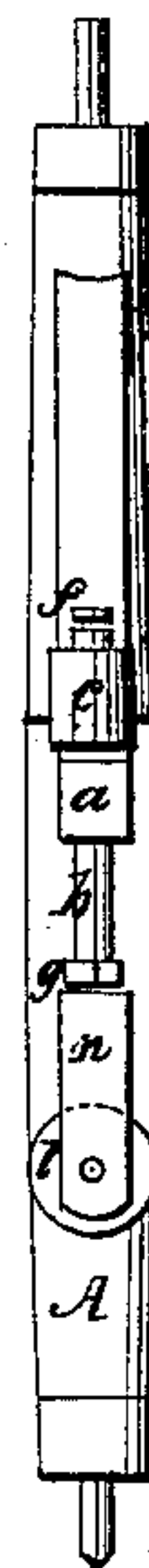


Fig. 5.





# UNITED STATES PATENT OFFICE.

JOS. F. FLANDERS, OF NEWBURYPORT, MASSACHUSETTS.

MACHINE FOR RUBBING AND POLISHING LEATHER.

Specification of Letters Patent No. 10,067, dated October 4, 1853.

*To all whom it may concern:*

Be it known that I, JOSEPH F. FLANDERS, of Newburyport, in the county of Essex, State of Massachusetts, have invented a new and useful Improvement in Machines for Dressing Leather; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a front elevation, Fig. 2 is a top plan with the top piece of the framing removed, Fig. 3 is a section through the line 1, (Fig. 2,) of the mechanism for holding and governing the operation of the tools, drawn on an enlarged scale, Fig. 4 is another view of the tool holder, also on an enlarged scale, Fig. 5 is an elevation of the shaft A with the mechanism thereon. Fig. 6 is a front elevation of a movable table, showing its position under the action of the tool meeting with an unusual obstruction; (by full lines) the dotted lines its original position.

The principal novelty of my invention consists, in employing an upright or vertical shaft, with arms extending from its sides for the purpose of carrying the tools; in the peculiar construction of the tool holder, and the horizontal table.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Similar letters refer to similar parts.

A is a vertical shaft revolving in bearings at top and bottom, firmly supported in framing B B; extending from the sides of the vertical shaft and firmly secured to it, are arms *a, a*, carrying near their ends the vertical sliding shafts or bolts *b b*, with their accompanying mechanism; on the upper of the arms *a*, and over the top of the sliding bolts, are placed caps or hollow cylinders *c, c*, in which are placed india-rubber springs *d*, (seen in section Fig. 3.) The object of these springs is to pass the tools attached to the sliding bolts down on the leather; at top and bottom of these springs are disks *e', e''*, the top disk *e'*, for the reception of the end of the adjusting screw *f*, by which the force of the springs are regulated; the other disk *e''* is placed between the india-rubber springs, and the top of the sliding bolts *b*. These disks are free to move in the cylinders with the springs;

suitable bearings are made in the arms *a, a*, for the sliding bolts *b, b*, which are constructed so as to permit of a vertical or endwise movement, but not a rotary, this being accomplished by making the section of the bolt square or any well known means; *g* is an adjusting nut fitting on a thread cut on the bolt *b*, for the purpose of regulating the distance it may be required to allow between the face of the tool, and the top of the table K, (according to the thickness of the leather) and to prevent its coming any nearer; to the lower end of the sliding bolts *b, b*, attached by means of a joint *h*, and working in a vertical plane toward the center of the shaft A, is a clamp or tool holder *j*, in which the tools to be used are fastened; the object of the joint *h*, is to allow the face of the tool to accommodate itself to any lack of uniformity in the thickness of the leather or imperfect adjustment of the table in the direction of the motion of said joint; from the tool holder to some permanent part (as to the bolt *b*, as shown in the drawings) are fixed springs *l*, which serve to insure the return of the tools to their proper position, when they have been put out of that position from either of the above named causes; *t t* are rollers with their faces covered with india-rubber or other elastic material and suitably supported from the arms *a, a*, by stands *n, n'*, the object of these rollers is, to confine the leather, flat on the table, and they are covered with india-rubber, that they may yield to the inequalities in the leather; *k, k'*, is a table with a table leaf *y*, attached thereto over which the leather is guided, its plan is the segment of a circle, described from the center of the vertical shaft A, a portion of the table is a little raised from the rest, of such width as to support so much of the leather, as may be desirable to present to the action of the tools, and may be faced with metal; the rest of the table is to receive the pressure of the rollers, by which the leather is held flat on the table, the table is also made in two parts, the lower being firmly fastened to the floor or bed of the machine, the upper is supported a little distance from the lower, by means of the links *m, m*, or their equivalent, which permit of an endwise and downward movement, of the upper part of the table; attached to one end of the permanent part of the table, is a spring O, pressing the mov-



able part against a stop  $x$ , at the opposite end; the object in constructing the table in this manner is, to prevent the tools as they pass over and press on the leather, from tearing it when they meet with any unusual obstruction, as bunches, ridges, or holes, which sometimes occur; the hold which the tools get on such obstructions, together with the pressure on the table; causing the upper part to move endwise, against the spring, and by its connections with the permanent part by means of the links, downward, thereby relieving the table from the pressure, permitting the tools to pass without doing injury (illustrated by Fig. 6).

The tools commonly used for the purpose for which this machine is designed, are a burnisher of glass, flint, or other material, known to the trade, (seen at  $s$  Fig. 1) a die, or figuring tool, (seen at  $q$  Fig. 1) and a brush. It is obvious that as many tables may be used as there may be room to operate, in a circle, through which the arms move, also that more arms with their accompanying mechanism may be used.

The operation of the machine is as follows: Having adjusted the spring  $d$ , by the screw  $f$  to the required pressure, and the distance of the face of the tool from the table, by the nut  $g$ , and the spring  $o$ , regulated to such a degree of stiffness by a screw  $v$ , that in the ordinary resistance with which the tools meet, it shall hold the upper part of the table against the stop  $x$ , rotary motion may then be given to the vertical shaft by any convenient method; the leather is placed on the table and fed by the operator or by mechanism; the tools at each successive revolution perform their functions, on so much of the leather as is presented to their action, and the other parts performing their respective operations as has been described.

The utility of my invention consists in the

employment of a vertical shaft with arms extending from its sides, carrying the tools operating on horizontal tables by which arrangements more persons than one can operate the same machine, thus accomplishing more than can be done in any other known way; in its adaptations to the different operations of burnishing, figuring, and bushing; in the perfection of the work obtained in the use of the jointed tool holder; in avoiding injury to the leather by the arrangement of the table constructed substantially as herein described.

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

1. The employment of a vertical shaft with arms extending from its sides, for the purpose of carrying the tools and their accompanying mechanism, in combination with a plane surface horizontal table; for the purpose herein described.

2. I claim the jointed tool holder either with, or without, the springs  $l, l$ , constructed substantially as herein described.

3. I claim the arrangement of a movable table, permitting of an endwise and at the same time downward motion, constructed in the manner described or the equivalent thereof, for the purpose here described.

I do not claim to be the inventor of a rotating shaft with arms extending from its sides, carrying tools for the purpose of dressing leather, only when used in a vertical position and in combination with a plane surface horizontal table, nor do I claim the springs  $d$ , operating to produce the pressure on the leather, nor do I claim to be the inventor of the sliding bolts.

JOSEPH F. FLANDERS.

Witnesses:

ROBT. B. CUMMINGS,  
CLIDUS G. COBB.