

Roberts & Lennox,

Preparing Hides,

No 70,268,

Patented Oct. 29, 1867.

Fig. 3.

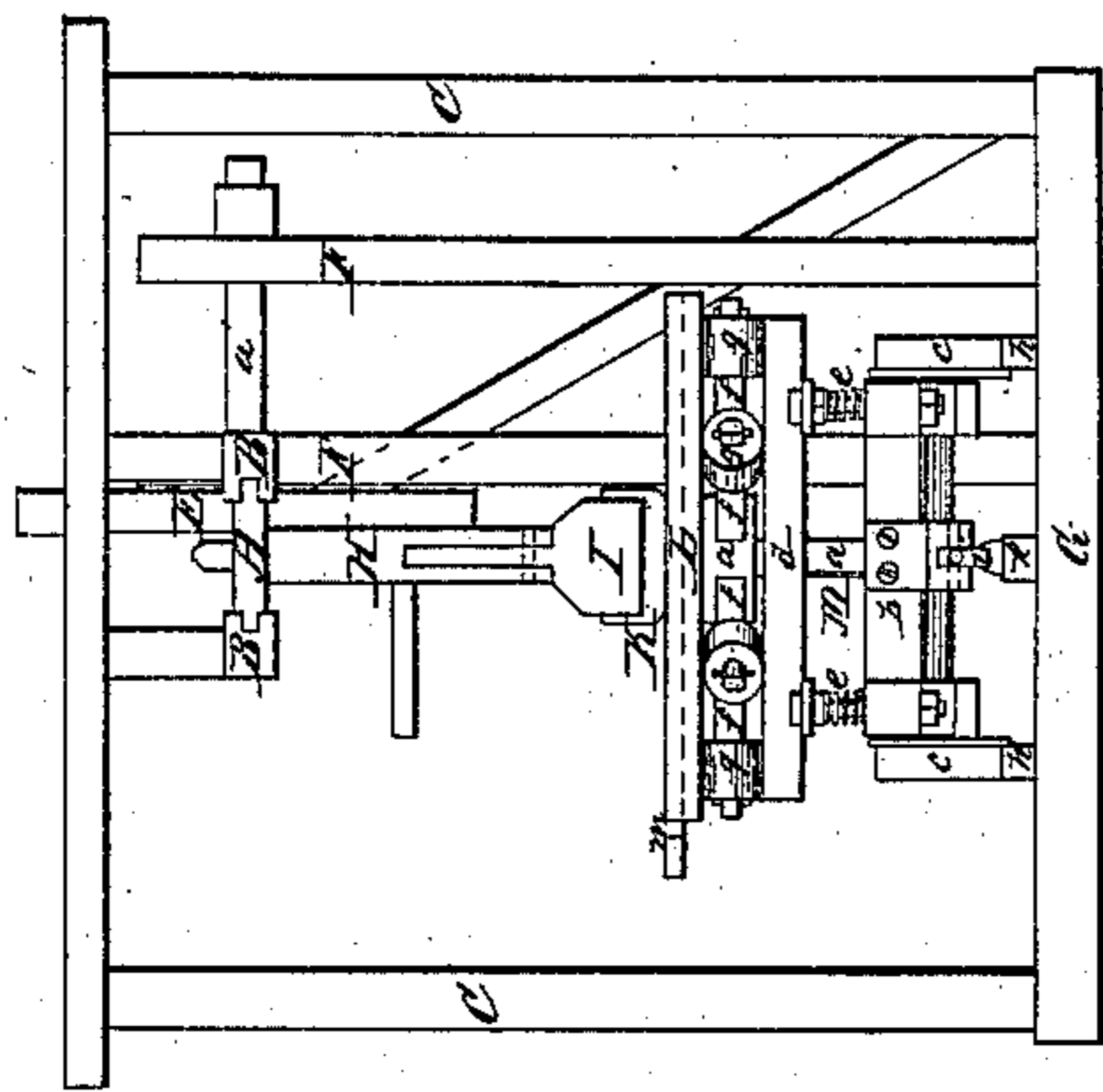


Fig. 4.

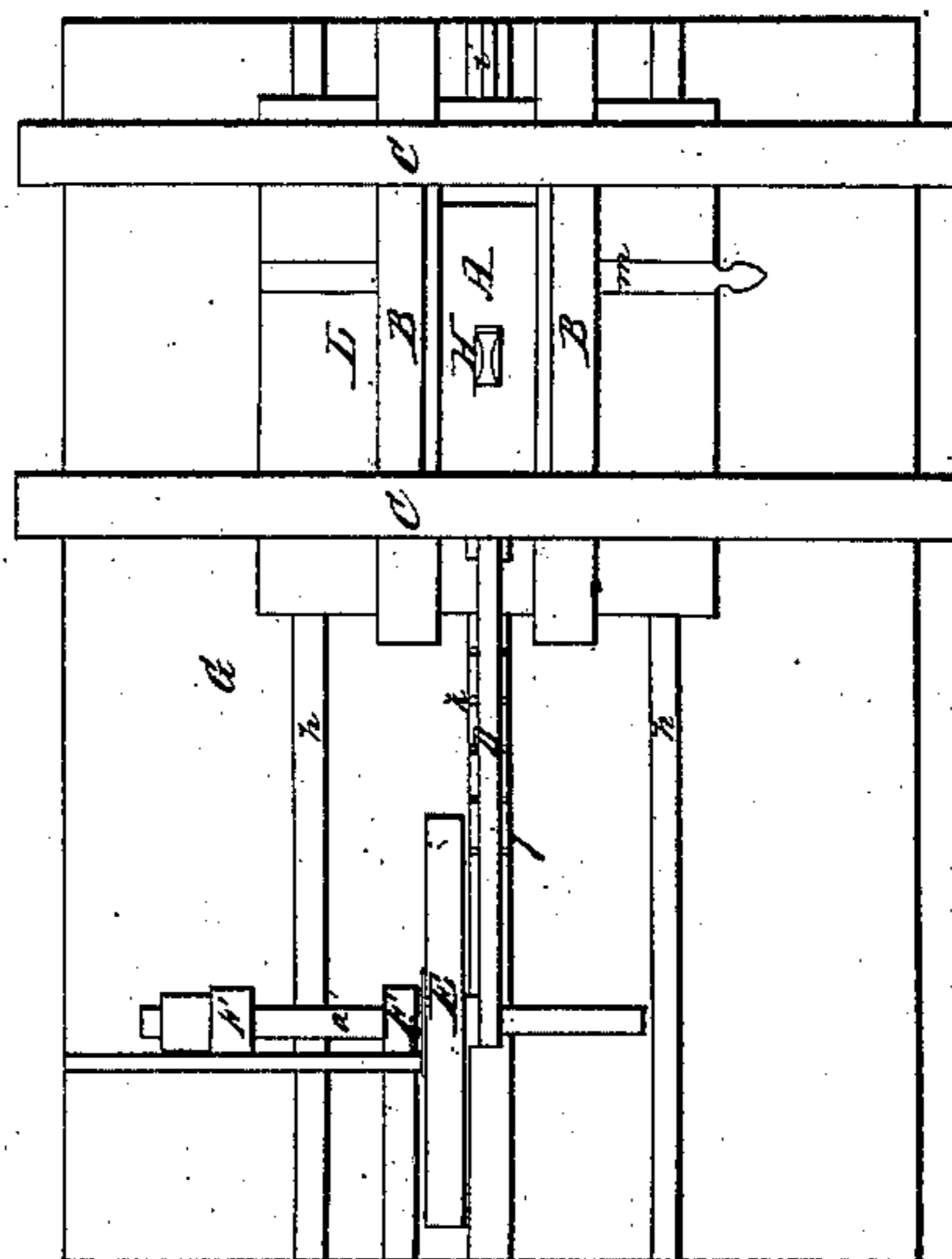


Fig. 1.

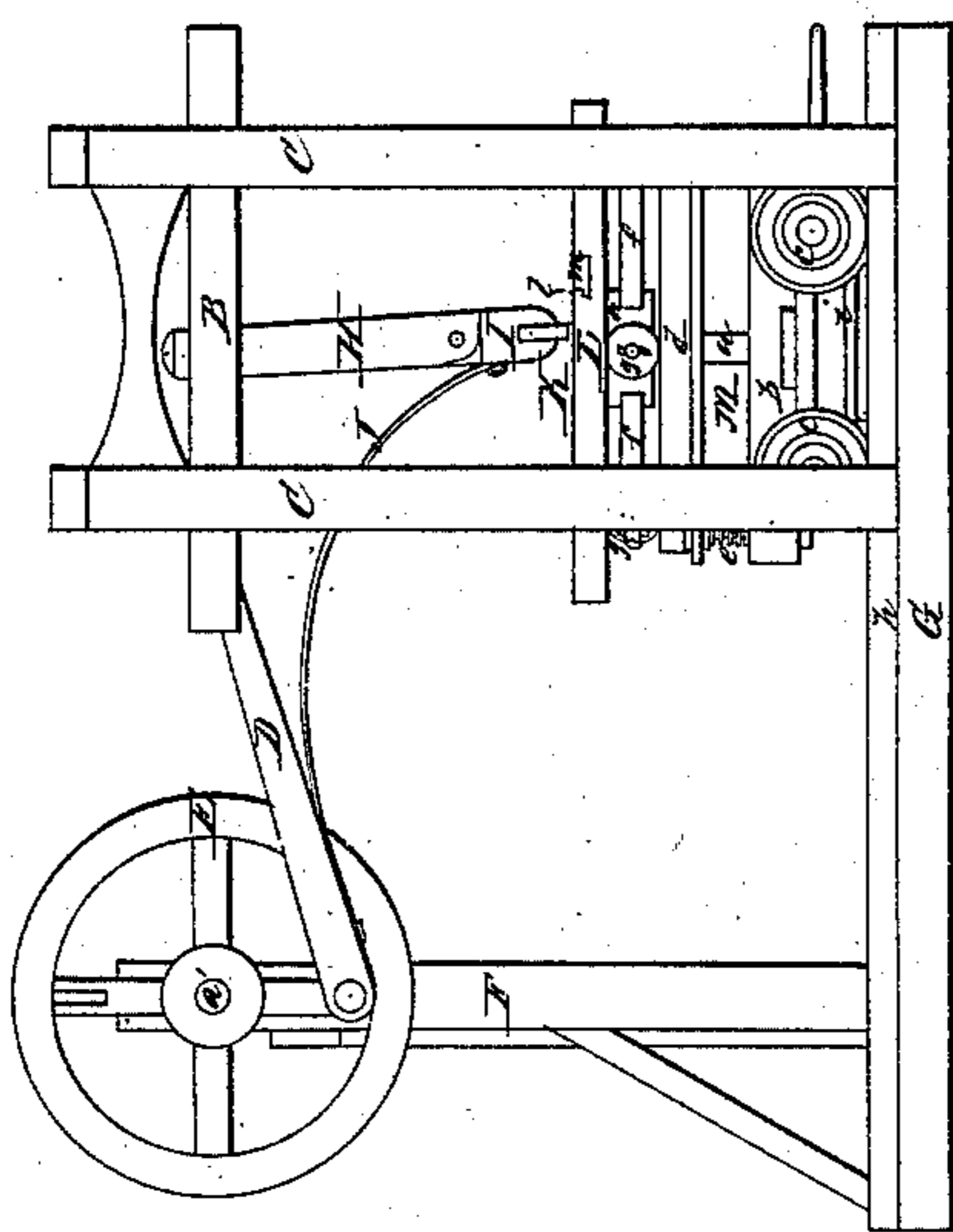
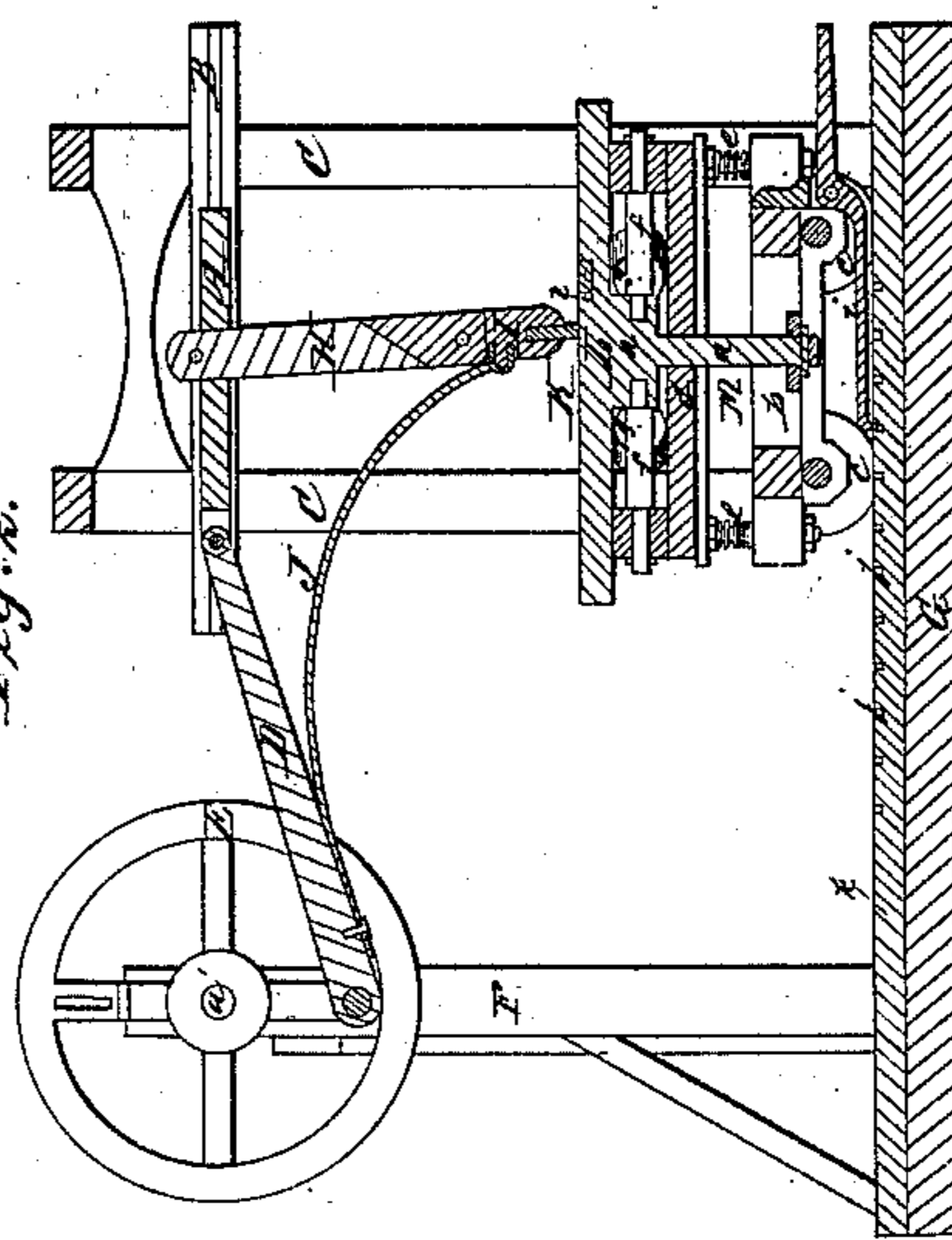


Fig. 2.



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THOMAS ROBERTS AND PATRICK LENNOX, OF LYNN, MASSACHUSETTS.

Letters Patent No. 70,268, dated October 29, 1867.

IMPROVED MACHINE FOR BEAMING HIDES OR SKINS.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that we, THOMAS ROBERTS and PATRICK LENNOX, of Lynn, in the county of Essex, and State of Massachusetts, have invented an Improved Machine for Beaming Hides or Skins, as well as for scouring and sleeking leather; and do hereby declare the following to be a full, clear, and exact description thereof, due reference being had to the accompanying drawings, making part of this specification, and in which—

Figure 1 is a side view,

Figure 2 a vertical and longitudinal section,

Figure 3 a front end view, and

Figure 4 a plan of the said machine.

The operation of beaming skins, as at present practised is well known, the skins, after undergoing the softening process, being manipulated upon a horizontal beam by means of a tool held in the hands of a workman. This operation is very laborious, and requires much time for its accomplishment.

The object of this invention is to produce a practical, simple, and effective machine for performing this operation, and consists in the employment of a sliding carriage, properly suspended by suitable ways, and carrying a beaming or sleeking-tool, the necessary reciprocating movements being imparted to the carriage by the agency of a crank, or an equivalent motor; the machine being further provided with a movable car for supporting the skins and introducing them to the action of the beaming-tool.

To enable others skilled in the craft to which our invention appertains to understand and use the invention, we will describe its construction and operation.

As illustrated in the drawings above referred to, A denotes a sliding carriage, properly supported by guides or ways BB, upheld by a proper framework, C. The necessary reciprocating rectilinear movements are imparted to this carriage by the agency of a connecting-rod, D, one end of which is pivoted to the carriage, and the other to the wrist of a crank, applied to the side, or making part of a fly-wheel, E, duly supported by posts F F rising upward from the flooring G, forming part of the machine, or of the apartment in which the machine may be situated, the wheel being supported by a horizontal shaft, *a'*, revolving within the posts. A perpendicular bar, H, is fixed to and depends from the sliding carriage A, and has a beaming-tool, I, pivoted to its lower end, a spring-bar, J, being hinged to the rear side of this tool, and having its other extremity fixed to the rear extremity of the connecting-rod D, as represented. This spring-bar serves the purpose, during the forward movement of the sleeking-tool, to elevate it above the surface of the skin, and during the rearward movement of the tool to press it down upon and keep it in contact with the skin as the said tool is being drawn over it by the action of the crank or fly-wheel. The movable car for supporting the skin is shown at K as composed of a flat, rectangular tablet, L, upheld by an upright post, *a*, which is supported within a truck, M, and so as to revolve freely therein. The truck M is composed of a rectangular frame, *b*, carrying four or any other suitable number of wheels *c c c c*, etc., and being further provided with a circular platform, *d*, surmounting its truck-frame, and sustained in position by spiral springs *e e*, etc., suitably applied, the object of these springs being to form an elastic bed for the tablet L. For the purpose of reducing friction upon the tablet L, we apply to the post *a* a series of radial arms, *f f f*, etc., to the outer ends of which we apply (and so as to revolve freely thereon) a friction-roller, *g*, the disposition or arrangement of these arms and rollers being such as to support the tablet upon the platform *d*, and to allow it to revolve freely thereon. Two parallel rails, *h h*, are applied to the flooring of the machine, and in alignment with the carriage A, which they support and guide. Furthermore, the car K may be provided with a brake, to stop and maintain it in any desired position with respect to the beaming-tool, the device to accomplish this object, as shown in the drawings, being a catch-bar, *i*, hinged to the front end of the car, and having a tooth formed upon its inner end or arm to take into a series of notches, *j j j*, formed in a central rail, *k*, applied to the floor of the machine, and midway between the two rails *h h*, as before mentioned. The forward or outer arm of the catch-bar *i* projects beyond the car-truck a sufficient distance to enable it to be readily grasped by the attendant of the machine.

In the operation of the above-described machine the brake is removed from the rack-bar, and the car K run forward beyond the sliding carriage A, and into a convenient position to receive the skin to be manipulated, which, after being softened by the usual process, is to be placed upon the top of the tablet, or upon a "bolster," made in the usual manner, and applied to it, the skin being secured at about its middle to the tablet by any

proper device, that shown in the accompanying drawings being a groove or channel, *l*, cut transversely across the tablet and towards its forward end, into which a clamp-bar, *m*, is inserted, thus securely fastening this part of the skin to the tablet. The machine is intended to manipulate one-half of the skin at a time, and the object of securing the skin to the tablet in the manner above described is to leave one-half of it exposed to the action of the beaming or sleeking-tool. The car, with the skin fixed upon it in manner as described, is to be run back into a position beneath the sleeking-tool to receive the proper actions of the tool, and there locked in position by means of the brake. By the backward and forward movements of the carriage *A* the beaming-tool *I* will press upon the skin from its centre outwards, the tablet *L* being revolved about under and during the action of the tool *I*, in order to subject all parts of it to its action. When the skin may have been thoroughly manipulated the car is run forward, the skin reversed so as to expose its opposite half to the action of the machine, after undergoing which it is removed, and a fresh skin substituted.

By the employment of the above-described machine a great amount of time and manual labor is saved. The skins are reduced to a uniform and even thickness, and the whole work performed in a more thorough and perfect manner. Other advantages incident to its use will manifest themselves to persons conversant with the business. By the employment of the movable car the skins may be applied to and removed from it, and subjected to the action of the machine without stopping its movements—a great advantage, which would not accrue from the employment of a fixed table. By the employment of the revolving tablet the necessary movements of the skin are perfectly guided and controlled.

We would remark here that the joint between the perpendicular bar *H* and beaming-tool *I* should be such as to allow the latter to be turned upward in one direction, but rigid or unyielding in the opposite direction, as shown in fig. 2.

We claim the combination, with the sliding carriage, and mechanism for imparting a reciprocating motion to the same, of the hinged or pivoted beaming-tool and spring, or equivalent mechanism for actuating the same during the movements of the said carriage, in the manner herein shown and specified.

We claim the employment of the spring-bar *J* for the purpose of raising the tool *I* from off the skin during one movement of the tool, and pressing it down in contact with the skin during the opposite movement of it, essentially in manner as set forth and explained.

We also claim, in combination with the above-described arrangement of parts, the movable car *K*, in manner and to operate as before described.

We also claim the peculiar construction of the car *K*, as composed of the truck-frame *b*, circular platform *d*, and revolving tablet *L*, supported by the friction-rollers *g g*, etc., substantially as before described.

We also claim, in combination with the car *K*, the device for locking it in position, consisting of the catch-bar *i* and notched rail *k*, as and for the purposes set forth.

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