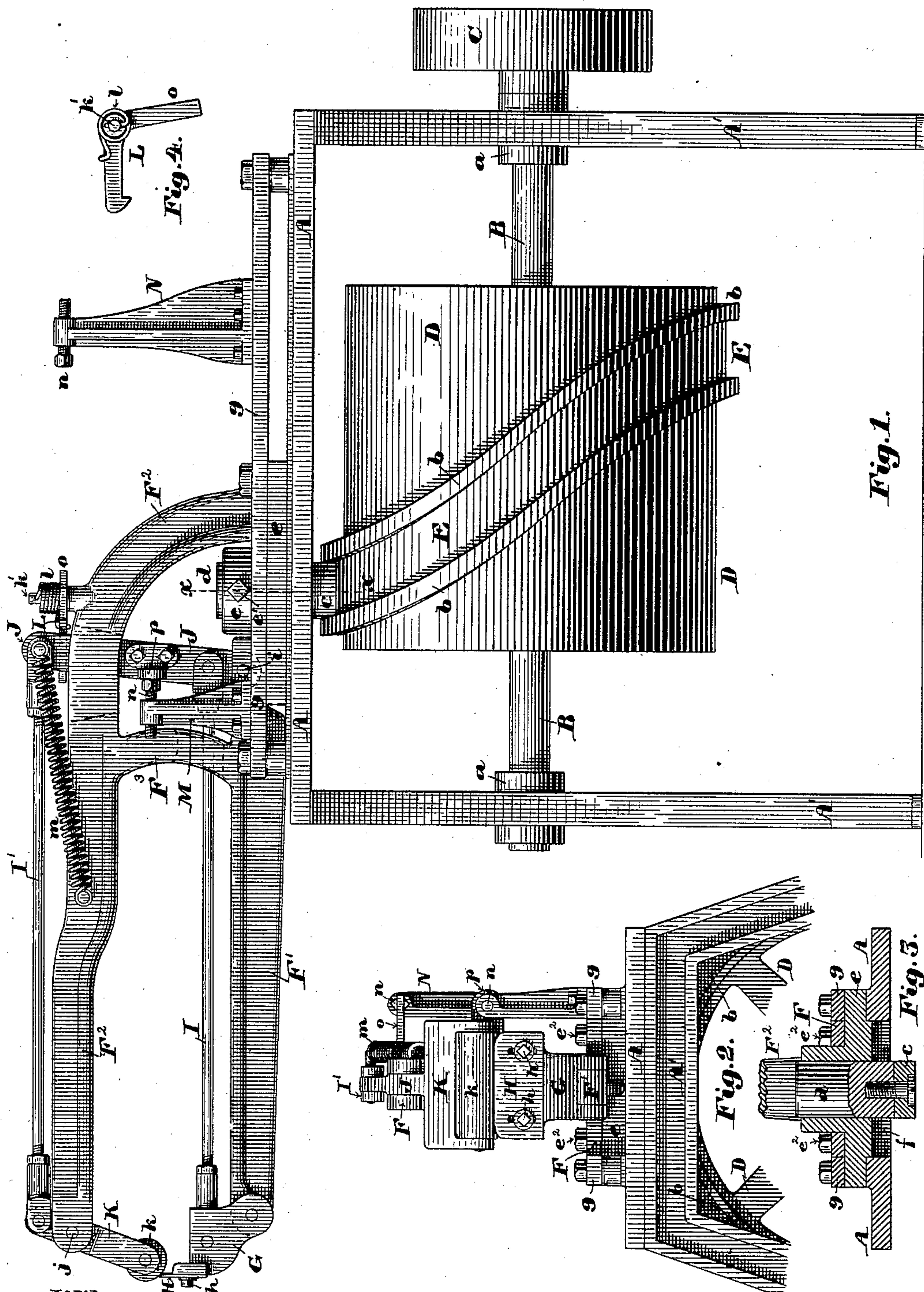


(No Model.)

G. E. DANFORTH.
MACHINE FOR STRETCHING HIDES.

No. 387,402.

Patented Aug. 7, 1888.



Witnesses:

Robert B. Cades.
Frank C. Gray.

Inventor:
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by Walter E. Lombard,
Attorney.

UNITED STATES PATENT OFFICE.

GEORGE E. DANFORTH, OF LYNN, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO ANTON B. HOFFMAN, OF SAME PLACE.

MACHINE FOR STRETCHING HIDES.

SPECIFICATION forming part of Letters Patent No. 387,402, dated August 7, 1888.

Application filed April 21, 1888. Serial No. 271,391. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. DANFORTH, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Machines for Rubbing and Stretching Hides or Skins, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to machines for rubbing and stretching hides or skins; and it consists in certain novel features of construction, arrangement, and combination of parts, which will readily be understood by reference to the description of the drawings and to the claims to be hereinafter given.

Of the drawings, Figure 1 represents a side elevation of a machine for rubbing and stretching hides or skins constructed after the principles of my invention. Fig. 2 represents a front elevation of the upper portion of the same. Fig. 3 represents a section of a portion of the same, the cutting-plane being on line *x x* on Fig. 1; and Fig. 4 represents a plan of the catch-lever.

In the drawings, A is the table of the machine, which is supported upon the end frames, A' A', each of which is provided with a bearing, *a a*, in which is mounted the shaft B, to which motion is imparted by means of the pulley C, secured to its rear end.

Between the end frames, A' A', upon the shaft B is mounted the drum D, which is provided with the ribs *b b*, forming a cam path, E, into which projects the truck or roll *c*, secured to the under side of the block *d*, which in turn is firmly secured in position in the sliding block *e* by the set-screw *e'*.

The table A is provided with a central opening, *f*, extending nearly the whole length thereof, and upon either side of this opening *f* are secured the bars *g g* in such a manner and such a distance from the upper surface of said table A as to readily admit and form guides for the sliding block *e*.

It is obvious that as the drum D is revolved the ribs *b b*, forming the walls of the cam-path E, will act upon the truck *c* and reciprocate the block *e* toward or from the front of the machine, this reciprocating motion being continuous as long as the shaft B, with its cam-drum D, continues to revolve.

To the upper surface of the block *e* is firmly secured by the bolts *e² e²* the plate F, from the front side of which projects the long arm F', and from the upper surface of which projects the long curved arm F², extending toward the front of the machine, or in the direction of the operator immediately above the arm F', to which it is connected by the cross-bar F³.

To the forward end of the arm F' is pivoted the knife-block G, to the front side of which is adjustably secured by the screws *h h* the knife or scraper H. The block G is connected by the rod I with the lever J, pivoted at *i* to the plate F and extending upwardly through a slot in the arm F², to the upper end of which lever is pivoted the rod I', the opposite end of which is pivoted to the upper end of the lever K, which is pivoted at *j*, and is provided at its lower end with a rubber roll, *k*, between which and the scraper H the material passes as it is being operated upon.

The lever J is retained in its rearmost position by the catch-lever L, which is mounted upon the vertical stud *k'* and pressed by the spiral spring *l* into position to engage with said lever J, which lever when disengaged from said catch-lever L is moved about its pivot *i* toward the front of the machine by the spring *m*.

Near the forward end of one of the bars *g* is secured the standard M, while near the rear end of the same bar *g* is secured another standard, N, each of which standards is provided with a screw, *n*, the outer end of which lies in the path of an arm of a lever which it is desired to operate by contact therewith, as will be more fully described, the time of contact being regulated by adjusting the screw *n* in its bearing in an obvious manner.

The screw *n*, which is mounted in the standard N, is of such a height that when the block *e* and the frame F are moved toward the rear of the machine the arm *o* of the lever L will come in contact therewith, and said lever will be moved about the stud *k'* against the tension of the spring *l* and disengage the lever J, which will be immediately moved about its pivot *i* toward the front of the machine, which movement of the said lever J will act through the rods I I' upon the knife-block G to throw it forward and the roll-holding lever K to

throw said roll *k* backward, thus moving said scraper or knife *H* and roll *k* some little distance apart, so that the hide or skin just acted upon may be moved to a new position or replaced by another hide or skin while the frame *e* *F* is moving toward the front of the machine, said roll *k* and knife *H* being kept apart until said frame nearly reaches the end of its forward movement, when the screw *n* in the stand-
 10 ard *M* will come in contact with the arm *p* of the lever *J* and move said lever backward about its pivot *i* until it engages again with the catch-lever *L*, when the operation will be repeated.

15 The operation of my invention is so obvious and simple that it will be readily understood without any repetition, as will, also, the advantages of this construction of a machine for rubbing and stretching hides or skins.

20 What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In the herein-described machine for rubbing and stretching hides or skins, the combination of a sliding frame, means having provision for reciprocating said frame toward and
 25 from the front of the machine, a knife or scraper holder pivoted to an arm of said sliding frame, a forked lever pivoted to another arm of said frame, a roller mounted in the forked end of said lever, a nearly-vertical
 30 lever pivoted to said sliding frame near its rear end, rods connecting said vertical lever with said roller-holding lever and said knife or scraper holder, a spring-operated latch lever for locking said vertical lever in its rear-
 35 most position while said sliding frame is traveling toward the rear of the machine, a spring for moving said vertical lever toward the front of the machine, a stop secured to the frame of
 40 the machine in the path of an arm of said latch-lever to unlock said vertical lever when said sliding frame is at or near its rearmost position and allow it to move toward the front of the machine, thereby forcing said knife-
 45 holder and roller away from each other, an arm projecting from said vertical lever, and a stop secured to the frame of the machine in the path of said arm, so as to engage therewith when said sliding frame is near the front of
 50 the machine and move said vertical lever to its rearmost position, so that it may again be locked by said latch-lever and retained in that position while the sliding frame is moving to the rear.

55 2. In a machine for rubbing and stretching hides or skins, the combination of a sliding frame, means having provision for reciprocating said frame toward or from the front of the machine, a knife or scraper holder pivoted
 60 to an arm of said sliding frame, a forked lever pivoted to another arm of said frame, a roller mounted in the forked end of said lever, a nearly-vertical lever pivoted to said frame near its rear end, rods connecting said lever

with said forked lever and said knife or
 65 scraper holder, means having provision for locking said vertical lever in its rearmost position when said frame is at or near the front end of the machine, a spring for moving the
 70 end of said vertical lever toward the front of the machine, and means having provision for unlocking said lever when the said sliding frame is at or near the rear end of the machine.

3. In a machine for rubbing and stretching
 75 hides or skins, the combination of a sliding frame, means having provision for reciprocating said frame toward or from the front of the machine, a knife or scraper holder pivoted to an arm of said sliding frame, a forked lever
 80 pivoted to another arm of said frame, a roller mounted in the forked end of said lever, means having provision for locking said lever and knife-holder in position with the edge of said knife in close proximity with the periphery of
 85 said roller during the rearward movement of said reciprocating frame, means having provision for unlocking said lever and said knife-holder when said frame is at or near its rear-
 90 most point and moving said knife farther to the front and said roller farther to the rear, thus making a more convenient space or opening between said roller and knife for the admission or removal of the material being op-
 95 erated upon, and means having provision for locking said lever and knife-holder in their original positions when said frame is at or near the front end of the machine preparatory to again moving to the rear and operating upon the material seized between said roller and
 100 said knife or scraper.

4. In a machine for rubbing and stretching hides or skins, the combination of a sliding frame, a knife-holder pivoted to an arm of said
 105 frame, a roller-holding lever pivoted to another arm of said frame, means having provision for locking said knife-holder and said roller-holding lever when said frame is at or near the front end of the machine, so that the edge of the knife will be in close proximity to
 110 the said roller during the rearward movement of said frame, means having provision for unlocking said lever and said knife-holder when said frame is near the rear end of the machine and moving said roller and knife away from
 115 each other, a truck or roll secured to said frame, and a cam-wheel so situated and constructed as to engage with said truck and reciprocate said frame toward and from the front of the machine.
 120

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 19th day of April, A. D. 1888.

GEORGE E. DANFORTH.

Witnesses:

WALTER E. LOMBARD,
 FRANK E. BRAY.