

(No Model.)

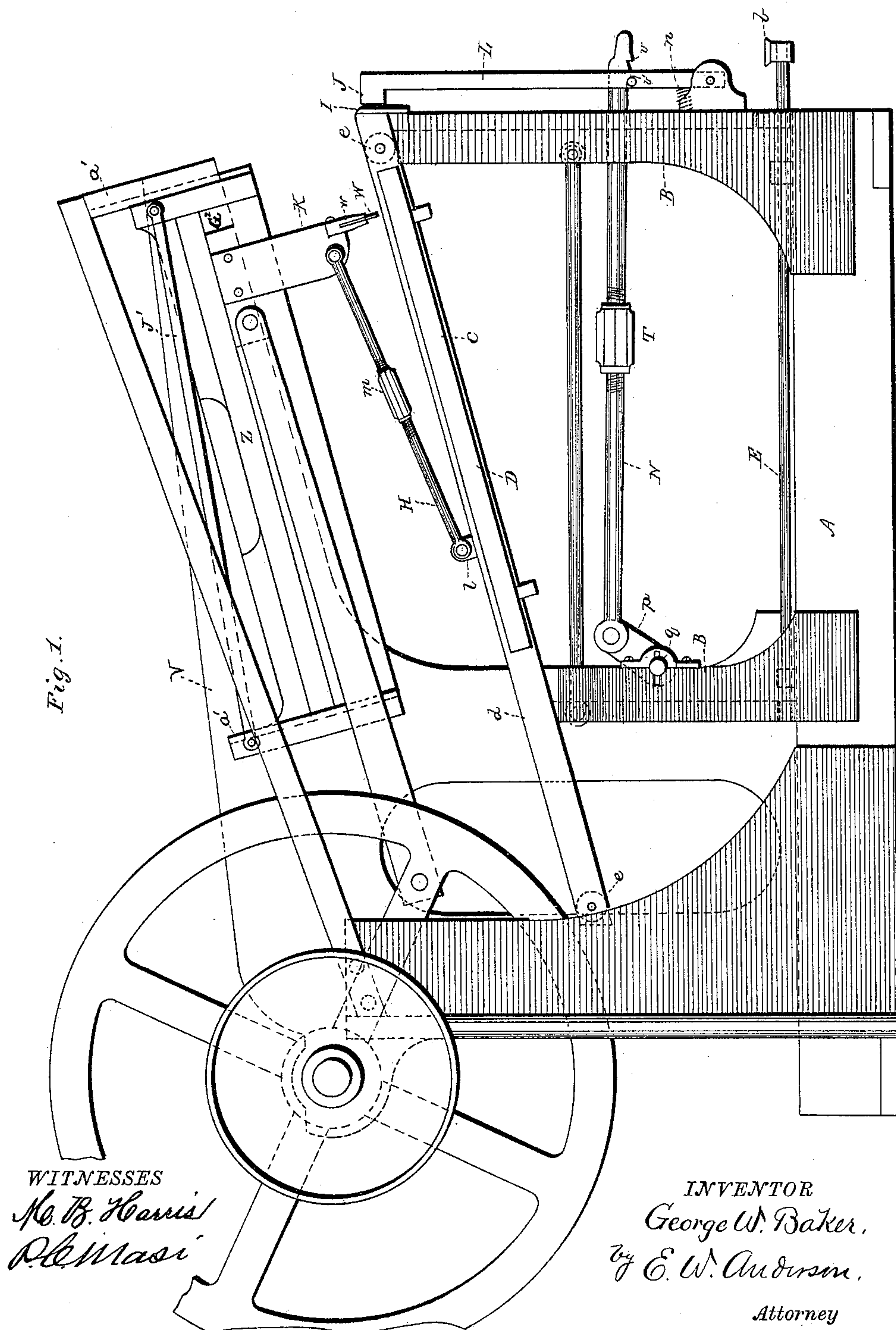
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G. W. BAKER.

LEATHER STAKING MACHINE.

No. 372,507.

Patented Nov. 1, 1887.



(No Model.)

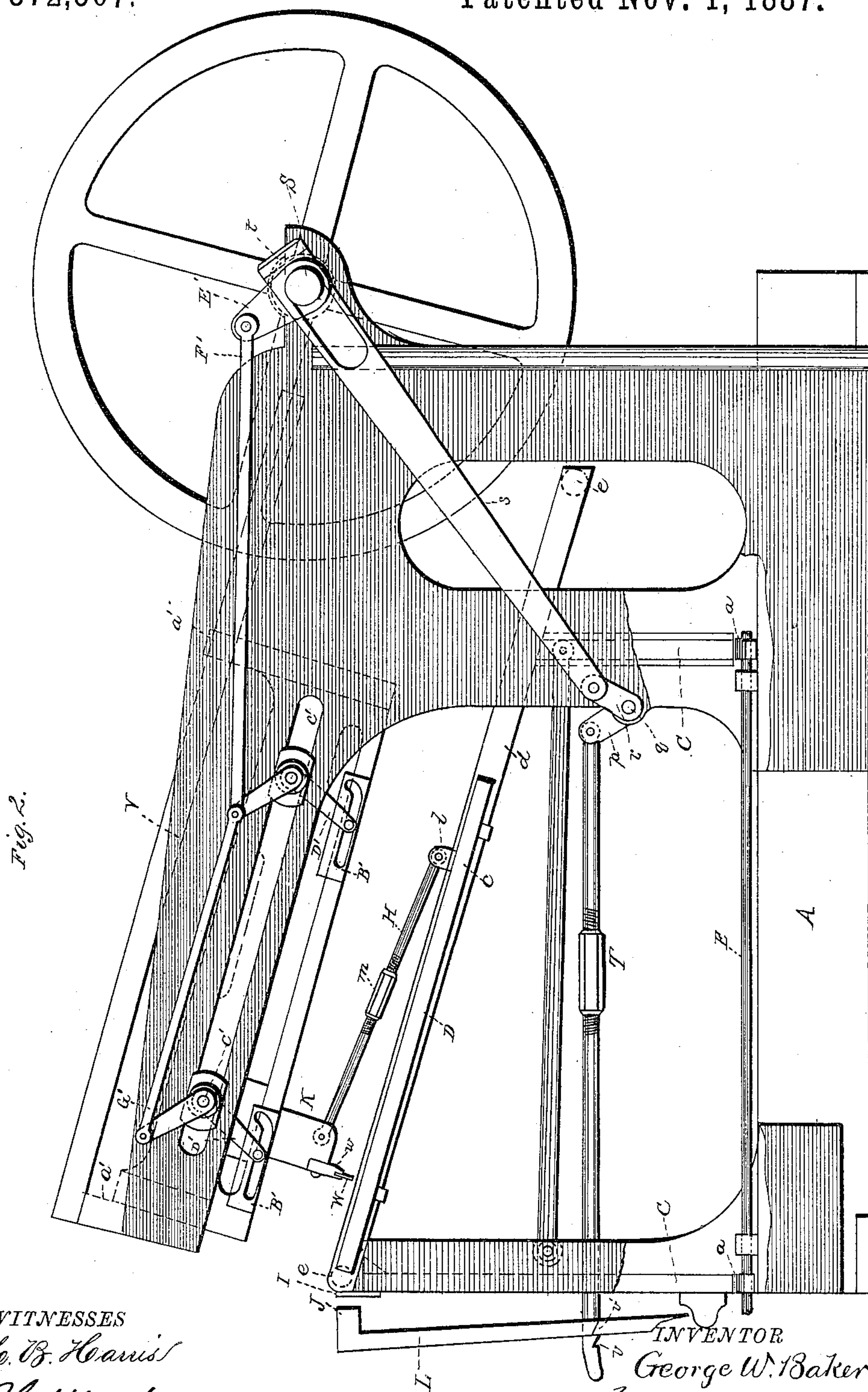
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WITNESSES
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INVENTOR
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Attorney

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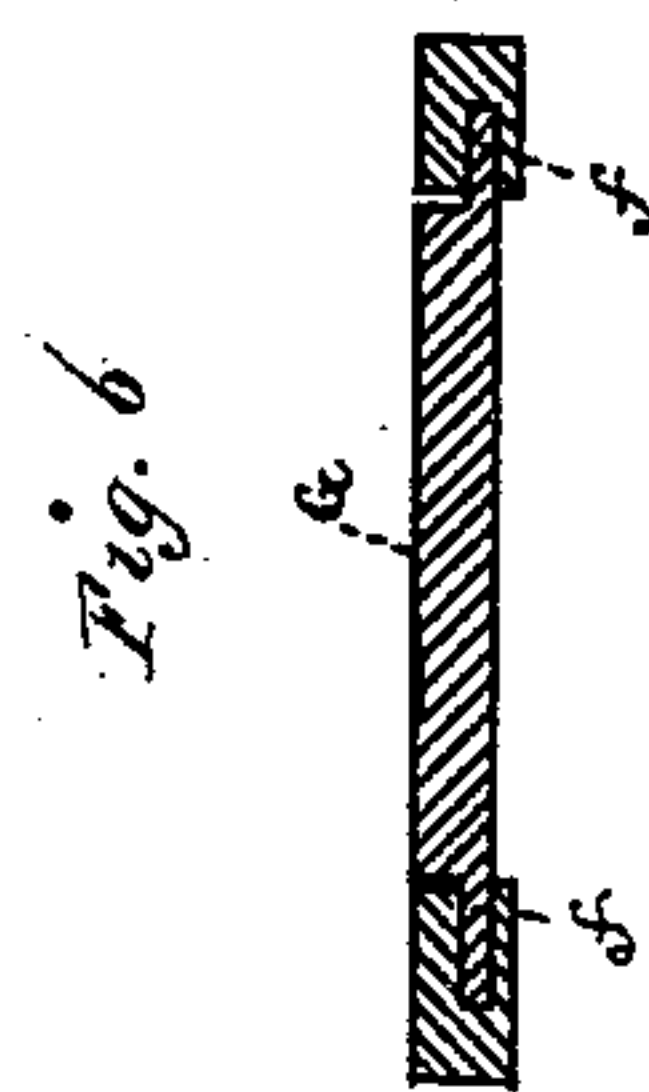
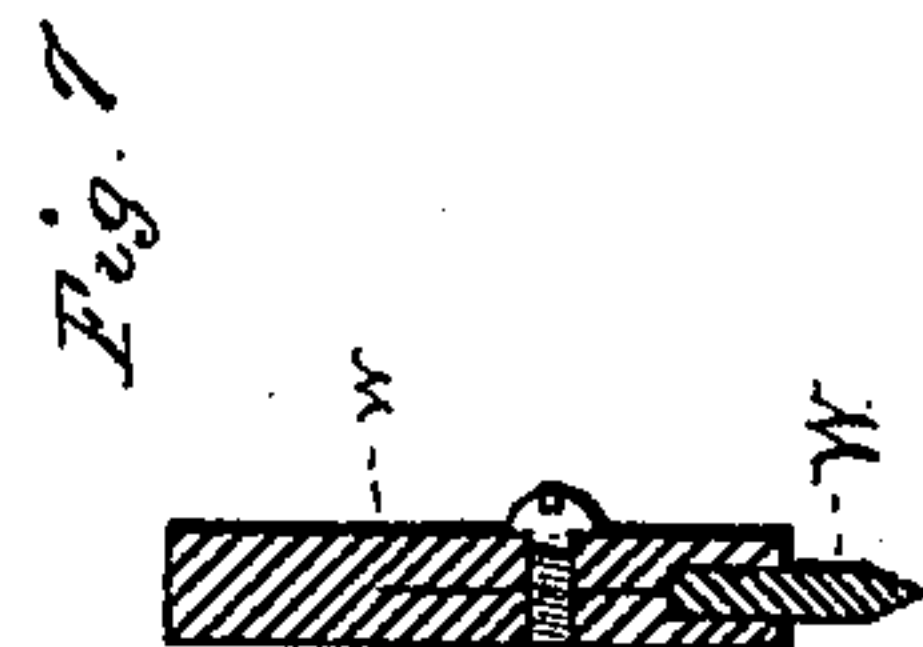
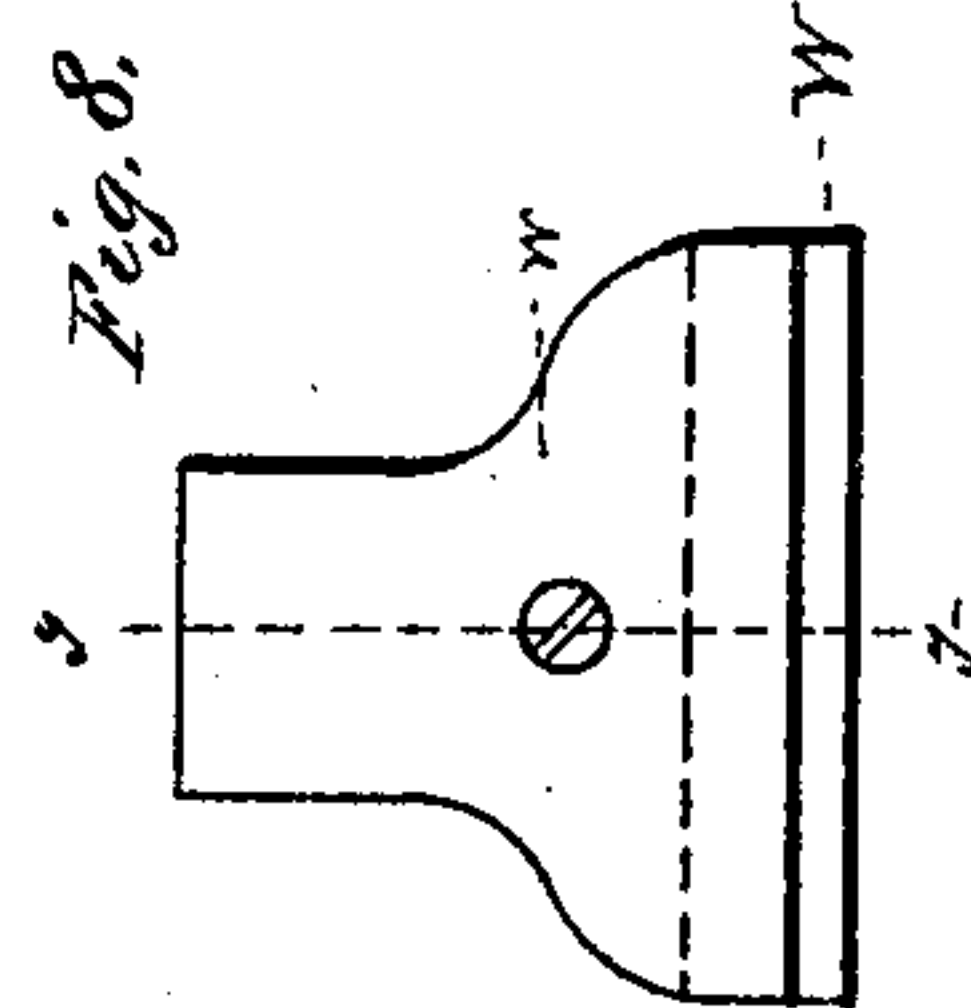
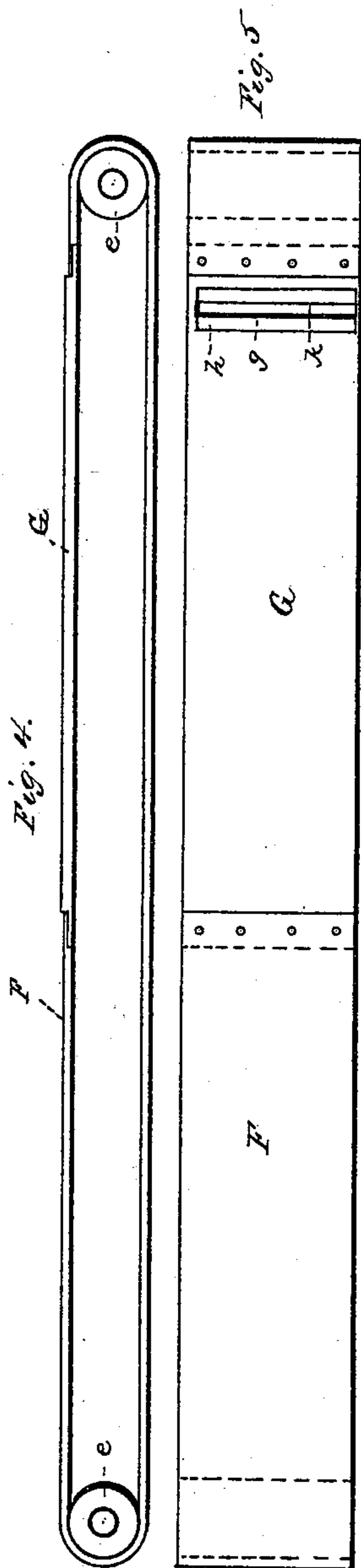
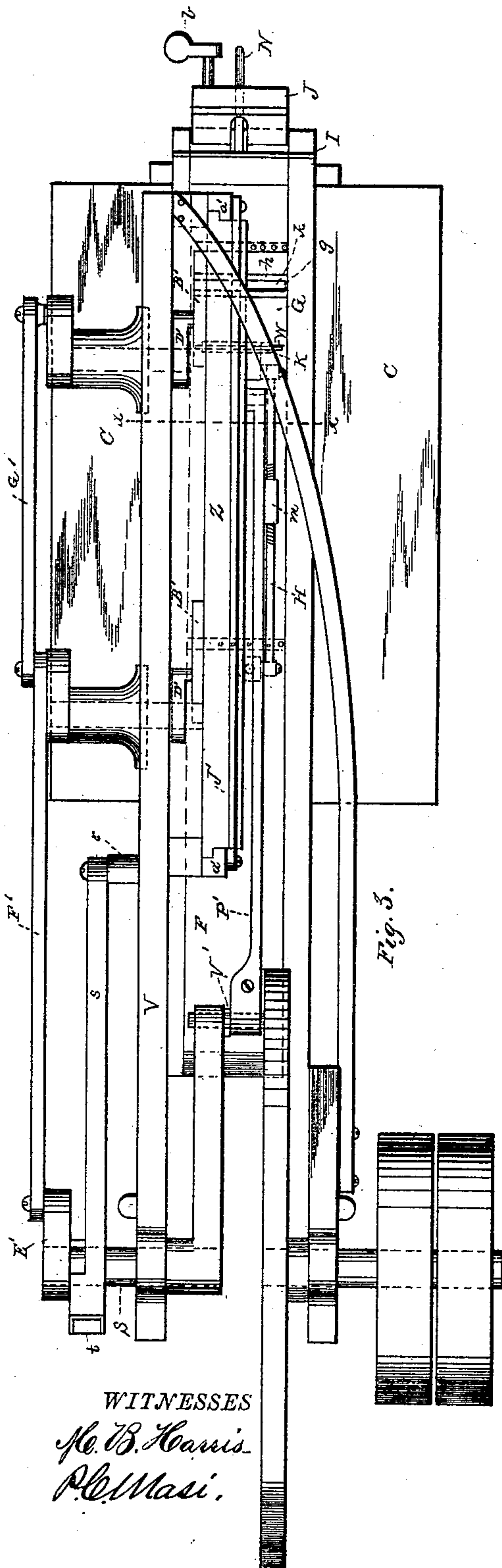
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UNITED STATES PATENT OFFICE.

GEORGE W. BAKER, OF WILMINGTON, DELAWARE.

LEATHER-STAKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 372,507, dated November 1, 1887.

Application filed August 13, 1887. Serial No. 246,878. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. BAKER, a citizen of the United States, and a resident of Wilmington, in the county of New Castle and State of Delaware, have invented certain new and useful Improvements in Machines for Staking and Perching Leather; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side elevation of my improved staking-machine. Fig. 2 is a side elevation of my improved staking-machine. Fig. 3 is a plan view. Fig. 4 is a detail side view of belt F. Fig. 5 is a top view of same. Fig. 6 is a transverse section of slide G, line x x , Fig. 3. Fig. 7 is a section of knife and jaws, line y y , Fig. 8. Fig. 8 is a detail front view of jaws and knife.

This invention has relation to machines for staking and perching leather; and it consists in the novel construction and combination of parts, all as hereinafter set forth.

In the accompanying drawings, the letter A designates the frame of the machine, which is preferably made of iron, and is formed with uprights or bearing portions to support the mechanism.

B B are upright guides in front and rear of the frame, and C C are the movable supports or pedestals of the table D, said supports or pedestals having a vertical reciprocating motion between the guides when operated, as hereinafter set forth.

E is a shaft extending along the bed plate or sill of the frame in suitable bearings, and having upon it the cams a a , which engage the lower ends of the supports C. A pedal, b , connected to the end of the shaft, enables the operator to turn the shaft and raise the entire table, according to requirement.

The table D is preferably inclined downward from front to rear, and is provided with the lateral wings or supports C C, which are arranged at the sides of the central way, d , which extends longitudinally, and is provided at its ends with the rollers e e , over which passes the belt or apron F, which carries the slide G,

which moves on bearings f f in the sides of the central way. The slide is provided at its front end with a slot, g , or bearing, in which is seated the piece h , which has a transverse slot, k . This piece or block h is removable, and several such blocks having slots of different width are provided in connection with the machine to be used with staking-tools of different thickness. The rear end of the slide has a lug, l , to which is connected the rear end of the adjustable pitman H, the front end of which is connected to the staking-tool carrier K. In order that the pitman may be readily and exactly adjusted to the stroke, it is made in two sections having right and left threaded ends, which are connected by a union-nut, m , by turning which the pitman may be lengthened or shortened, according to requirement. The belt or apron F fills the interval between the edges of the central way and supports the skin when the slide has moved back. Pivoted to the front portion of the table is the clamp L, the upper end or jaw, J, of which closes toward the edge I of the table to hold the skin of leather at the point desired. A spring, n , serves to automatically open the clamp when the hook or catch is disengaged. This hook or catch consists, preferably, of a long arm, N, which is pivoted to a crank-arm, p , on a transverse shaft, q , which is seated in bearings of the rear portion of the main frame. To the shaft q is connected a crank-arm, r , which is operated by a cam on the main driving-shaft S, which engages the head of the pitman l , which is connected to said crank-arm r . At a certain time in each revolution of the main shaft the clamp is opened and closed, sufficient time being given between the opening and closing of the clamp to allow the operator to shift the skin, so that it will be held at a fresh portion.

The catch rod or arm N is usually made adjustable, and preferably consists of two sections having right and left threaded ends, which are connected by a union nut or coupling, T, by turning which the rod can be lengthened or shortened to regulate the pressure of the clamping-jaw. The catch-rod is provided with a second catch, v' , in front of the first catch, v , so that the clamp can be quickly and readily opened widely, to enable the operator to insert the skin of leather between the jaws when commencing work thereon.

Extending forward above the table is an overhanging portion, V, of the main frame, which is provided with guides $a' a'$, which are in direction normal to the plane of the table below. Between these guides is the reciprocating frame Z, which carries the front and rear cams, B' B', which are engaged by pins of the crank-arms D' of the shafts C', which are operated from a crank-arm, E', on the main driving-shaft by means of pitmen F' and G'. The cams B' are preferably slots circularly curved at their rear ends to correspond with the radial sweep of the crank-arms D', so that when the pins of said crank-arms are moving in the curved portion of the cam slots the reciprocating frame Z will be stationary, and during this time the stroke of the staking-tool is made.

In the frame Z is provided the longitudinal guideway G², in which travels the staking-tool carrier K, to which is secured the staking-tool W, suitable jaws, w, being provided to hold the staking-tool firmly. Several staking-tools of different thickness are provided with each machine, thin leather requiring a staking-tool with a sharper edge than is required in operating upon thick leather.

The staking-tool carrier is reciprocated by means of the main crank V' on the driving-shaft, motion being communicated to the staking-tool carrier by the pitman P'.

J' is a stay or brace rod pivotally connected at the forward end to the reciprocating frame Z, and having its rear end pivotally connected to the upper outer end of the guide a' . The stay-rod J', being so connected, acts as a brace to the frame Z in its upward and downward movement.

The operation is as follows: The skin of leather being laid upon the table is held at one point by the clamp, which closes automatically thereon. At the same time the slotted slide and the staking-tool are moved forward, the former under the skin and the latter above it. At the close of the forward movement the reciprocating frame Z descends, bringing down the staking-tool, which engages the leather and presses it into the transverse slot at the same time that both staking-tool and slotted slide move to the rear, so that the leather is staked and perched throughout the extent of the stroke of the staking-tool. The pressure of the staking-tool upon the leather as it presses it into the transverse staking-slot is regulated by the operator by means of the pedal, which enables him to lift the table to obtain the exact pressure required. Upon the return of the staking-tool and slotted slide the clamp opens automatically and remains open long enough to enable the operator to shift the skin of leather to obtain a fresh purchase for the next stroke.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. In a machine for staking leather, the combination, with the reciprocating slotted slide having the apron connected thereto, of a reciprocating staking-tool adapted to press the leather into the slot of the slide during the reciprocation of the slotted slide and the staking-tool, substantially as specified.

2. The combination, with the reciprocating staking-tool and the reciprocating slotted slide, of the adjustable table provided at its ends with the apron and the rollers $e e$, substantially as specified.

3. The combination, with the reciprocating staking-tool and the reciprocating slotted slide, of the automatically opening and closing clamp pivoted to the front portion of the table, substantially as specified.

4. The combination, with the reciprocating staking-tool and the reciprocating slotted slide and the movable table carrying said slide, of the cam-shaft and its pedal, substantially as specified.

5. The combination, with the reciprocating staking-tool, of the adjustable table having a central way, the bearing rollers thereof, the slotted slide, and the belt or apron connected to said slotted slide, substantially as specified.

6. In a leather staking machine, the combination, with the table and the clamp pivoted thereto, of the catch-rod connected to a crank-shaft and operated by a cam on the main driving-shaft, substantially as specified.

7. In a leather staking machine, the combination, with the reciprocating slide and its belt, the reciprocating staking-tool carrier, and mechanism to operate the latter, of the adjustable pitman connecting the slide to the staking-tool carrier, substantially as specified.

8. A leather staking and perching machine having an inclined table and a reciprocating slide connected thereto, a reciprocating staking-tool-carrying frame moving in slides normal to the plane of the table, a reciprocating staking-tool-carrier moving in a way of said frame, a pitman connecting the staking-tool carrier and slide, and cam mechanism to regulate the rise, fall, and pause of the reciprocating frame, substantially as specified.

9. A machine for staking leather, having a reciprocating slide and a flexible supporting-apron connected thereto, in combination with a staking-tool, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. BAKER.

Witnesses:

PHILIP C. MASI,
M. P. CALLAN.