

(No Model.)

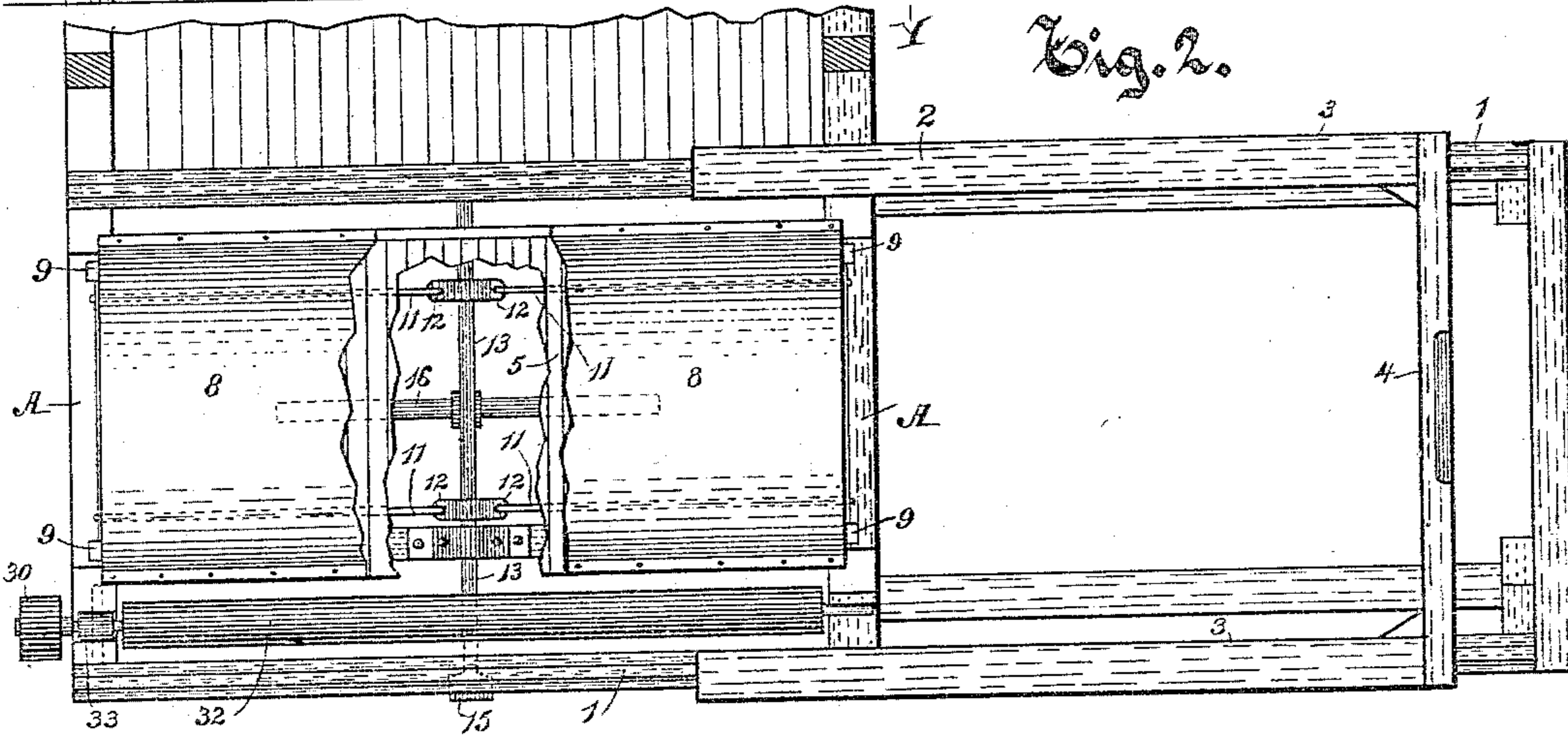
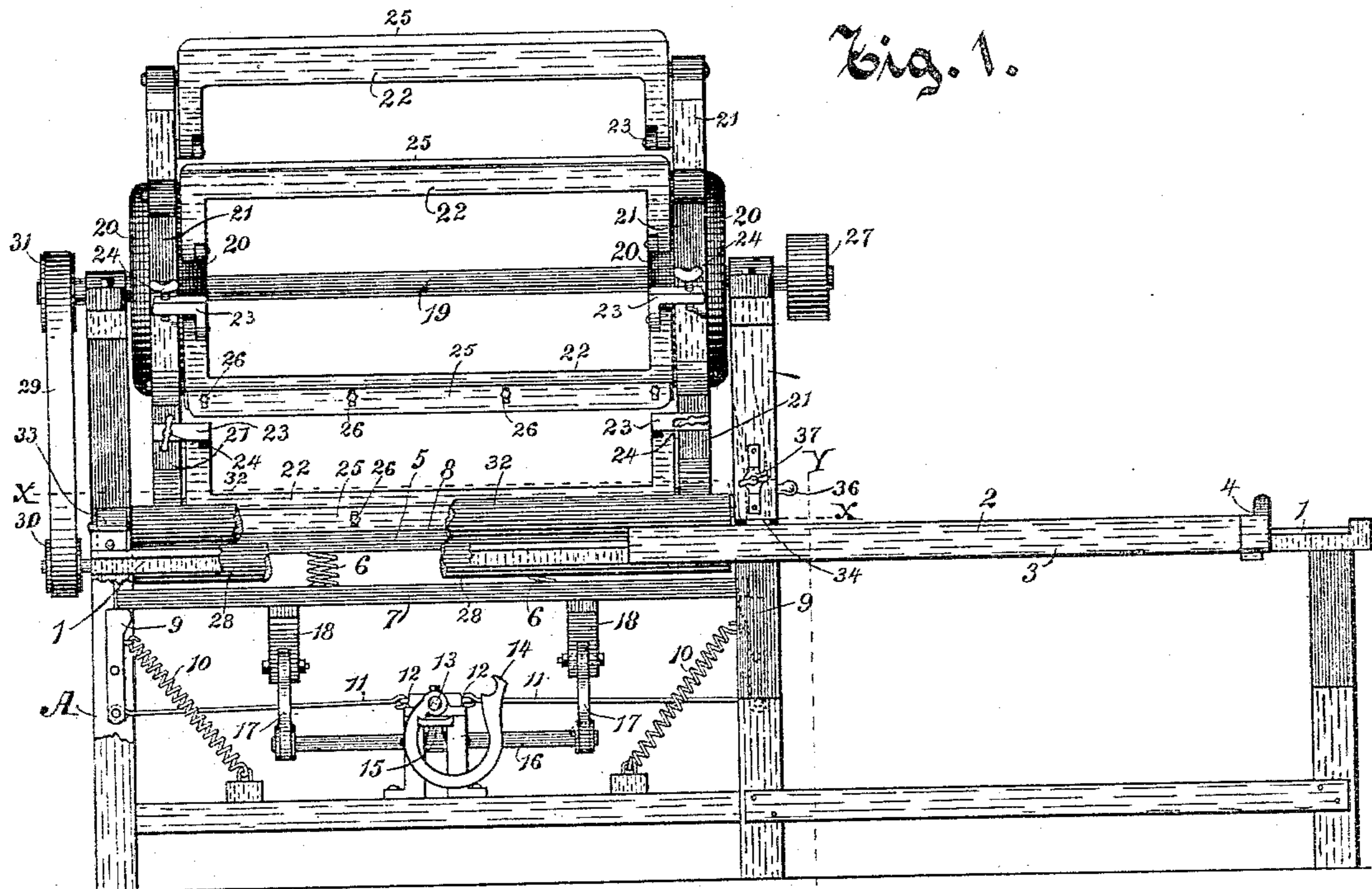
2 Sheets—Sheet 1.

A. OTT.

HIDE SCRAPING MACHINE.

No. 387,903.

Patented Aug. 14, 1888.



Witnesses.

A. H. Kerner
Anna Faust

Inventor.

August Ott.
By Erwin Benedict
Attorneys.

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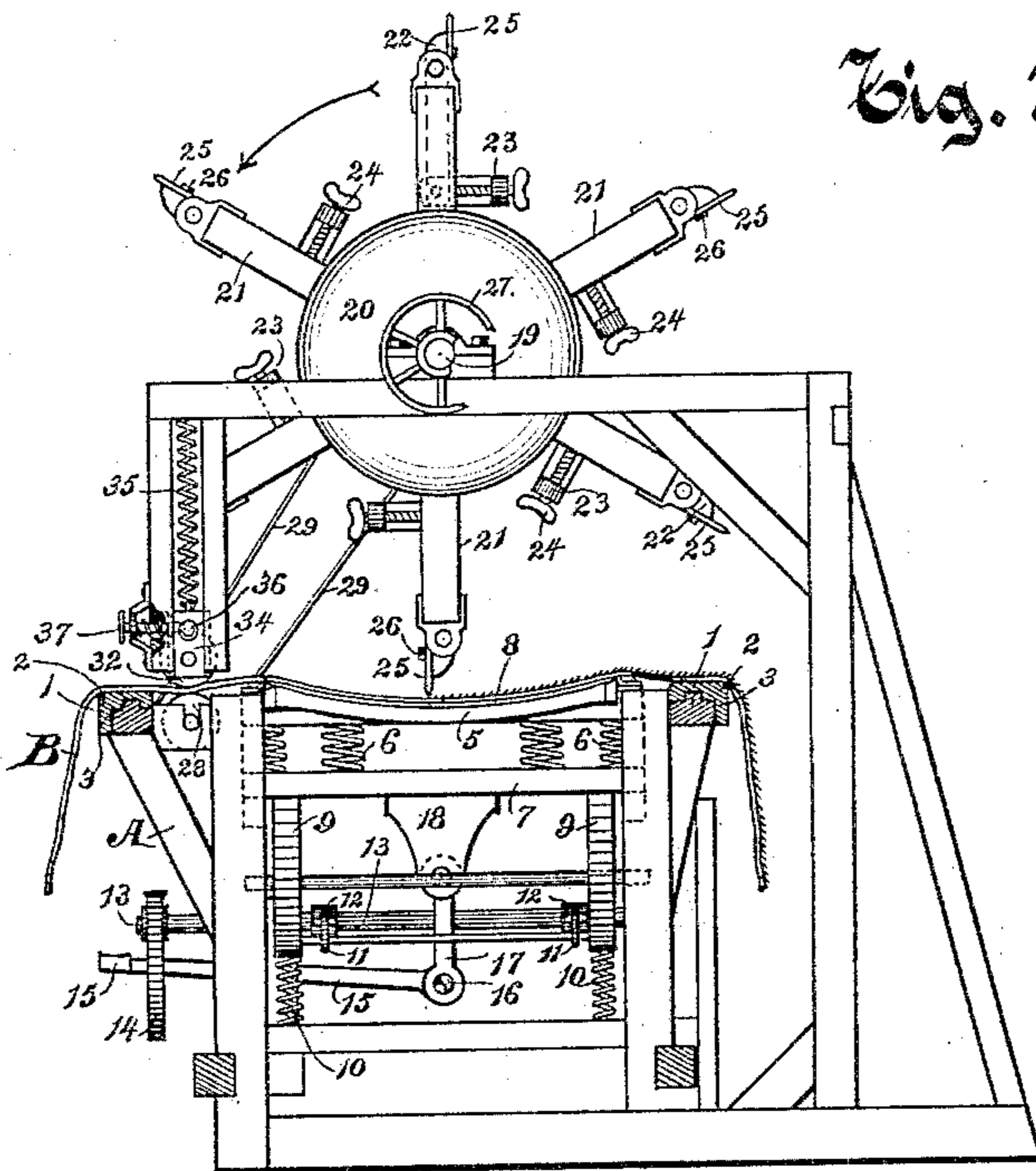


Fig. 3.

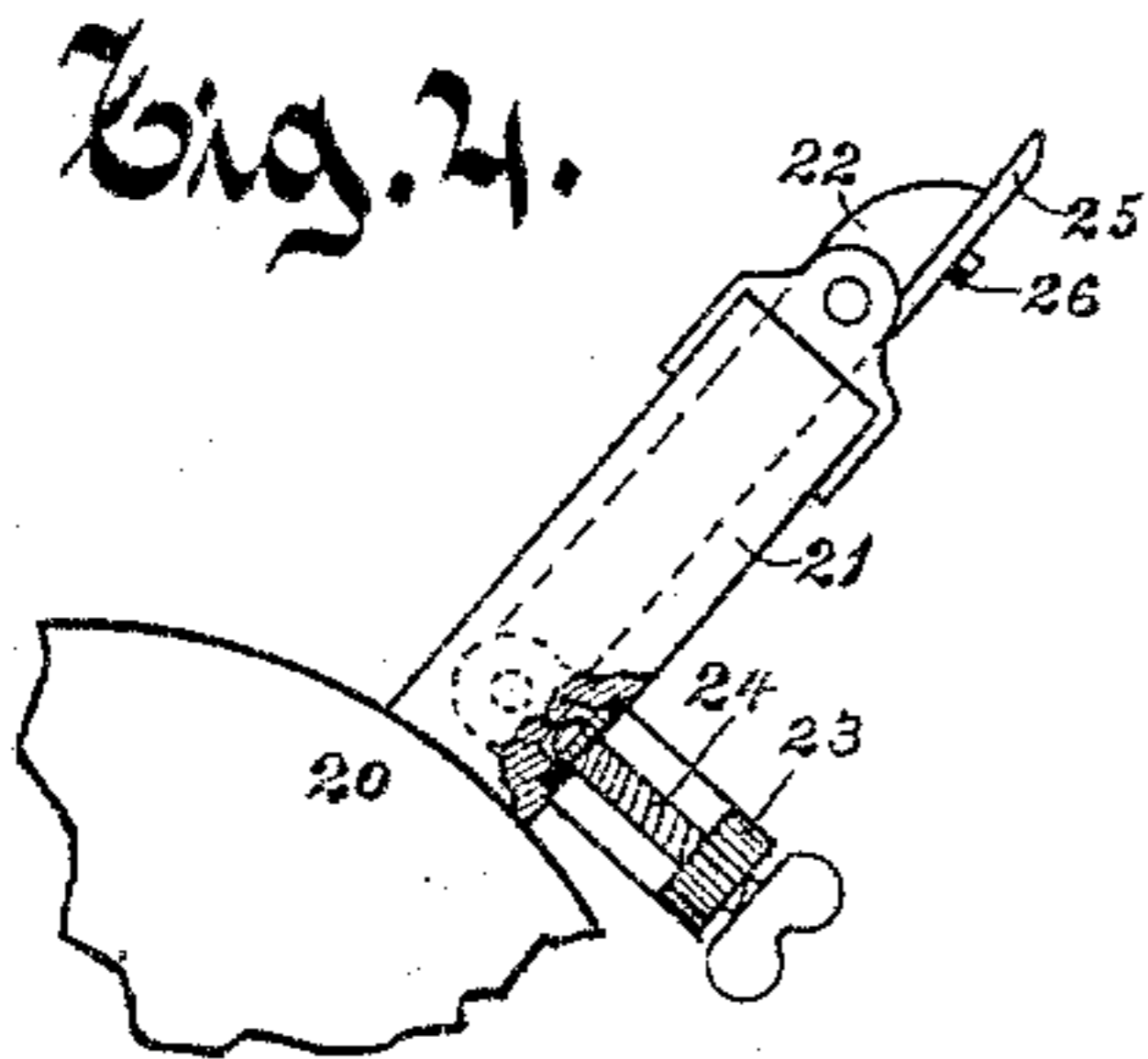


Fig. 4.

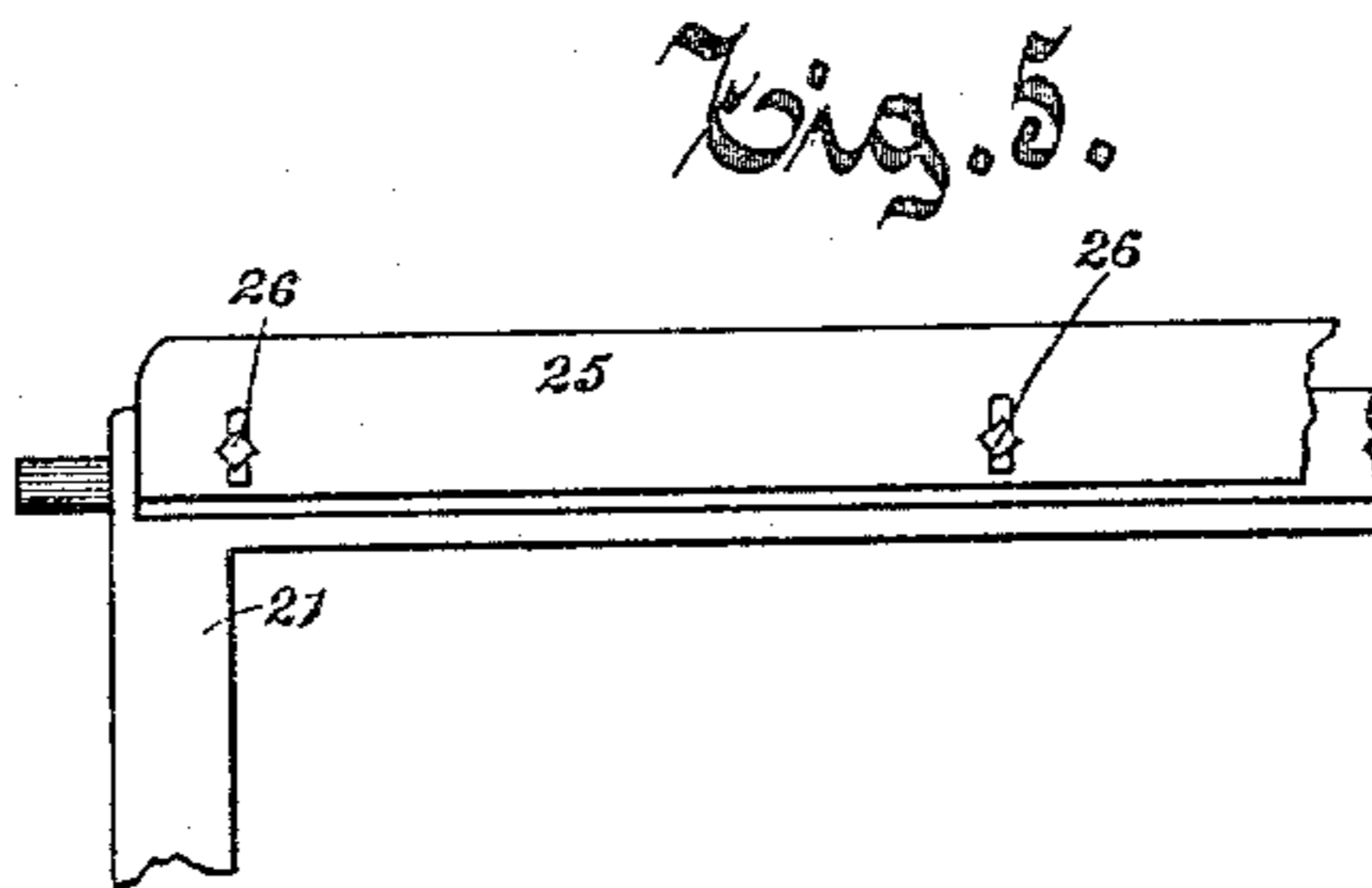


Fig. 5.

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UNITED STATES PATENT OFFICE.

AUGUST OTT, OF MILWAUKEE, WISCONSIN.

HIDE-SCRAPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 387,903, dated August 14, 1888.

Application filed May 9, 1888. Serial No. 273,335. (No model.)

To all whom it may concern:

Be it known that I, AUGUST OTT, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful
5 Improvements in Hide-Scraping Machines; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this
10 specification.

The object of my invention is to provide a device by which, in the process of tanning, the hair may be removed from the hides more rapidly and at less expense than has heretofore
15 been accomplished.

In the drawings, Figure 1 is a front view of my complete machine, parts being broken away to show other parts more fully. Fig. 2
20 is a plan of the lower part of my machine on line X X of Fig. 1, parts being broken away to show other parts more clearly. Fig. 3 is an end view of the upper portion of my machine and of the lower portion in vertical
25 transverse section on line Y Y of Fig. 1. Figs. 4 and 5 are details.

The same reference-figures refer to like parts in all the views.

A is the frame on which all the parts of the
30 operative mechanism are supported.

1 1 are parallel longitudinal rails or ways on which the movable carriage 2 is adapted to travel forward and back. The carriage 2 consists of the two side sills, 3 3, and the cross-
35 beam 4, secured rigidly to the sills 3 3 at one end. This carriage is adapted to be drawn out toward the right, as shown in Figs. 1 and 2, and when in that position the hide is thrown over this carriage, with the head to the front,
40 and the carriage is thereafter pushed under the scrapers, for the purposes to be hereinafter fully described. A bed-plate, 5, is supported yieldingly by the springs 6 6 on the movable frame 7. This bed-plate 5 is slightly concave
45 laterally in its upper surface, and is covered with a rubber blanket or pad, 8. This bed-plate is slightly narrower than the distance between the sills 3 3, so that when the carriage is pushed in to that part of the machine below the scrapers the bed-plate occupies most
50 of the space between the sills 3 3, and the hide

lies on the rubber-covered bed-plate. The movable frame 7 also has a slight vertical movement, being supported in its highest position, as shown in Fig. 1, on the stops or
55 latches 9 9, which stops or latches are pivoted about centrally vertically to the frame A, and are held yieldingly in their vertical position by the springs 10 10, which springs are attached at one end to the upper arm of the
60 latches and at the other end to the frame, and at the lower ends the latches are provided with rods 11 11, which rods at their inner ends are secured in the outer ends of short tilting levers 12 12, which levers 12 12 are rigid on
65 the rock-shaft 13, which rock-shaft is provided with the bent pedal 14, adapted to receive at its free end the downward pressure of the foot of the operator, whereby the rock-shaft 13 and levers 12 12 are tilted and the latches 9 9 are
70 thrown out of engagement with the frame 7, whereby the frame is permitted to drop down several inches, thus letting the bed-plate or table 5 down somewhat, for conveniently moving the hide on the carriage 2 into position
75 over the bed-plate and under the scrapers. A lever, 15, is pivoted about centrally to the frame A, and at its inner end is pivoted to the horizontal bar 16, which has at its ends two upright arms, 17 17, which at their upper ends
80 are pivoted to brackets 18 18, rigid to the frame 7. This lever 15, through its attachment with the frame 7, is adapted by downward pressure on its outer arm to raise the frame 7 above the latches 9 9, which latches
85 are thereupon by the action of the springs 10 10 brought underneath and support the frame 7 in position, as shown in Fig. 1. The horizontal shaft 19, having its bearings in the upper part of the frame, supports and carries two
90 sets of rigid circular head-pieces, 20 20, at a distance apart, to which are secured rigidly a series of radial arms, 21 21. These radial arms are in pairs opposite to each other, one secured to each set of head-pieces, and each
95 pair of radial arms carries a yoke, 22, pivoted at each end to said radial arms, whereby said yoke may be tilted forward or back relative to the line of motion of the radial arms of the rotating shaft 19. To accomplish the tilt-
100 ing of these yokes, a short bent arm, 23, is pivoted at its inner end to the inner end of the

arm of the yoke 22, and a set-screw, 24, turns through the outer end of the arm 23, which set-screw has its inner end secured in the radial arm 21 and held there against any movement, except only its rotary movement, whereby upon turning the set-screws 24 24 the yoke may be tilted forward or back, as desired. A knife or scraper, 25, is secured to the front edge of each of the yokes 22 22 by means of set-screws 26 26, turning through slots in the scrapers into the yoke, whereby these scrapers are adapted to be adjusted in or out with reference to the shaft 19. It will be understood that these scrapers, by means of the rotation of the shaft 19, are adapted to remove the hair from the hide as it lies upon the bed-plate 5, as shown in Fig. 3. The shaft 19 is provided with a pulley, 27, for receiving thereon the belt from the power-supplying mechanism.

A roller, 28, having its bearings in the frame, having its upper surface slightly below the surface of the bed-plate 5 when in the position shown in Fig. 3, is caused to rotate by means of a belt, 29, running on a pulley, 30, rigid on the outer end of the roller 28 and on a pulley, 31, rigid on the outer end of the shaft 19.

A pressure or friction roller, 32, has its bearings at one end in a block, 33, pivoted in the frame, and at the other end has its bearings in the movable block 34. The block 34, carrying therein the end of the pressure-roller 32, is suspended on the spring 35, whereby that end of the roller is adapted to be raised somewhat away from the roller 28, whereby the hide carried on the carriage 2 is readily taken between the rollers 28 and 32. When the hide has been carried beneath the roller 32, the roller is forced down, by means of the knob 36 on block 34, against the resistance of the spring 35, firmly onto the hide, and is secured in that position by the spring-bolt 37, which is supported and slides in the frame A, entering a socket therefor in the block 34.

It should be understood that in operation the hide B is thrown upon the carriage 2 when the carriage is drawn out in the position shown in Figs. 1 and 2, and the hide is then carried over the bed-plate 5, the bed-plate being properly depressed therefor, and beneath the scrapers, and at the same time is taken between the rollers 28 and 32, and that as the scrapers are rotated, removing the hair from the hide, the hide is drawn to the front by the rotation of the rollers, and when the hair has been removed from so much of the hide as would come beneath the scrapers by this first process the hide is carried out again on the carriage, and is then turned around end for end on the carriage and again submitted to the operation of the scrapers, whereby the hair is removed from that portion of the hide which before was underneath the rollers, or at the front, and was not passed beneath the scrapers.

It will be seen that the rotation of the scrapers in the direction indicated by the arrow in Fig. 3 will cause the rollers to rotate in such direction as to carry the hide out at the front of the machine.

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

1. In a hide scraping or unhairing machine, one or more rotating knives or scrapers, 25, in combination with a laterally-moving hide-supporting carriage, 2, and a vertically-moving bed-plate, 5, substantially as described.

2. In a hide scraping or unhairing machine, a hide-supporting carriage, 2, adapted to travel laterally on ways therefor, in combination with an independent vertically-moving bed-plate, 5, for supporting the hide centrally while on the carriage 2, substantially as described.

3. In a hide scraping or unhairing machine, a series of rotating knives or scrapers, in combination with a carriage, 2, for supporting the hide, which carriage travels laterally on ways at right angles to the line of motion of the rotating knives, substantially as described.

4. In a hide-scraping machine, a movable frame, 7, in combination with latches 9 9, the springs 10 10, and means for tilting the latches against the resistance of the springs 10 10, substantially as described.

5. In a hide-scraping machine, the combination of a series of rotating knives and a hide-supporting bed-plate with the horizontal pressure-rollers 28 and 32, the roller 32 having its bearing at one end in a pivoted block, 33, and at the other end in a vertically-moving and adjustable block, 34, whereby said roller may be tilted and adjusted, substantially as described.

6. In an unhairing-machine, a series of radial arms, 21 21, in pairs on a rotating shaft, and the yokes 22 22, one yoke being secured adjustably to each pair of arms, substantially as described.

7. In a hide scraping or unhairing machine, the scraper-carrying yokes 22 22, pivoted to the radial arms of a shaft and secured adjustably thereto by the bent arms 23 23 and set-screws 24 24, substantially as described.

8. In a hide scraping or unhairing machine, the frame 7 and lever 15, the inner end of which is connected to the bed-plate, in combination with the latches 9 9, springs 10 10, rods 11 11, tilting levers 12 12, rock-shaft 13, and pedal 14, all substantially as described.

9. In a hide scraping or unhairing machine, the combination of the bed-plate 5, springs 6 6, movable frame 7, and latches 9 9, substantially as described.

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

AUGUST OTT.

Witnesses:

C. T. BENEDICT,
JAS. B. ERWIN.