No. 791,014. PATENTED MAY 30, 1905.

J. W. DECKERT.

MACHINE FOR STONING OUT LEATHER.

APPLICATION FILED MAY 20, 1904.

4 SHEETS—SHEET 1.

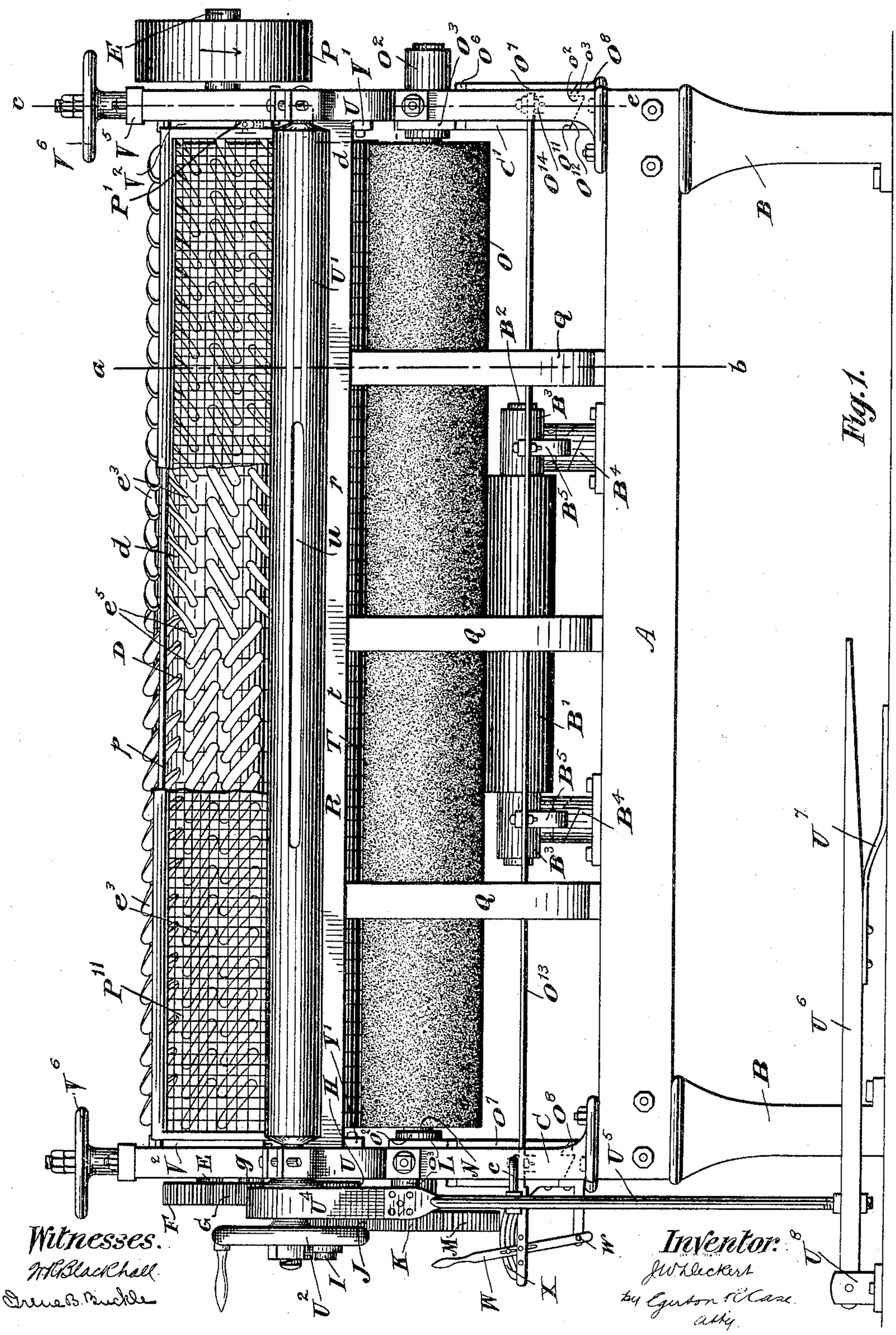

Fig. 1.

Witnesses.
H. B. Blackhall.
Irene B. Buckle

Inventor:
J. W. Deckert
by Egerton H. Case.
Atty.

No. 791,014. PATENTED MAY 30, 1905.

J. W. DECKERT.

MACHINE FOR STONING OUT LEATHER.

APPLICATION FILED MAY 20, 1904.

4 SHEETS—SHEET 2.

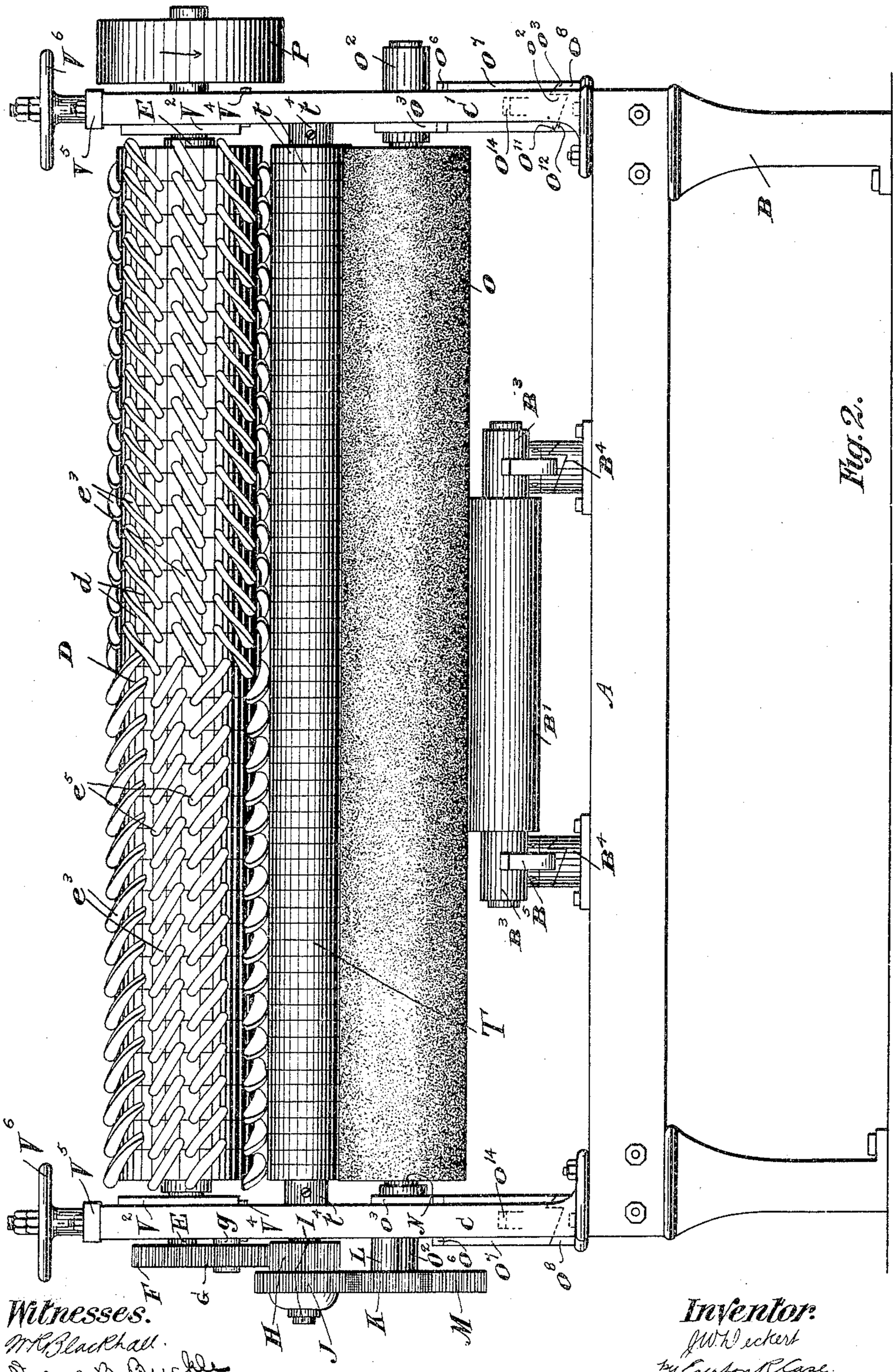

Fig. 2.

Witnesses.
W. R. Blackhall.
Irene B. Buckle

Inventor:
J. W. Deckert
by Egerton R. Case.
Atty.

No. 791,014. PATENTED MAY 30, 1905.

J. W. DECKERT.

MACHINE FOR STONING OUT LEATHER.

APPLICATION FILED MAY 20, 1904.

4 SHEETS—SHEET 3.

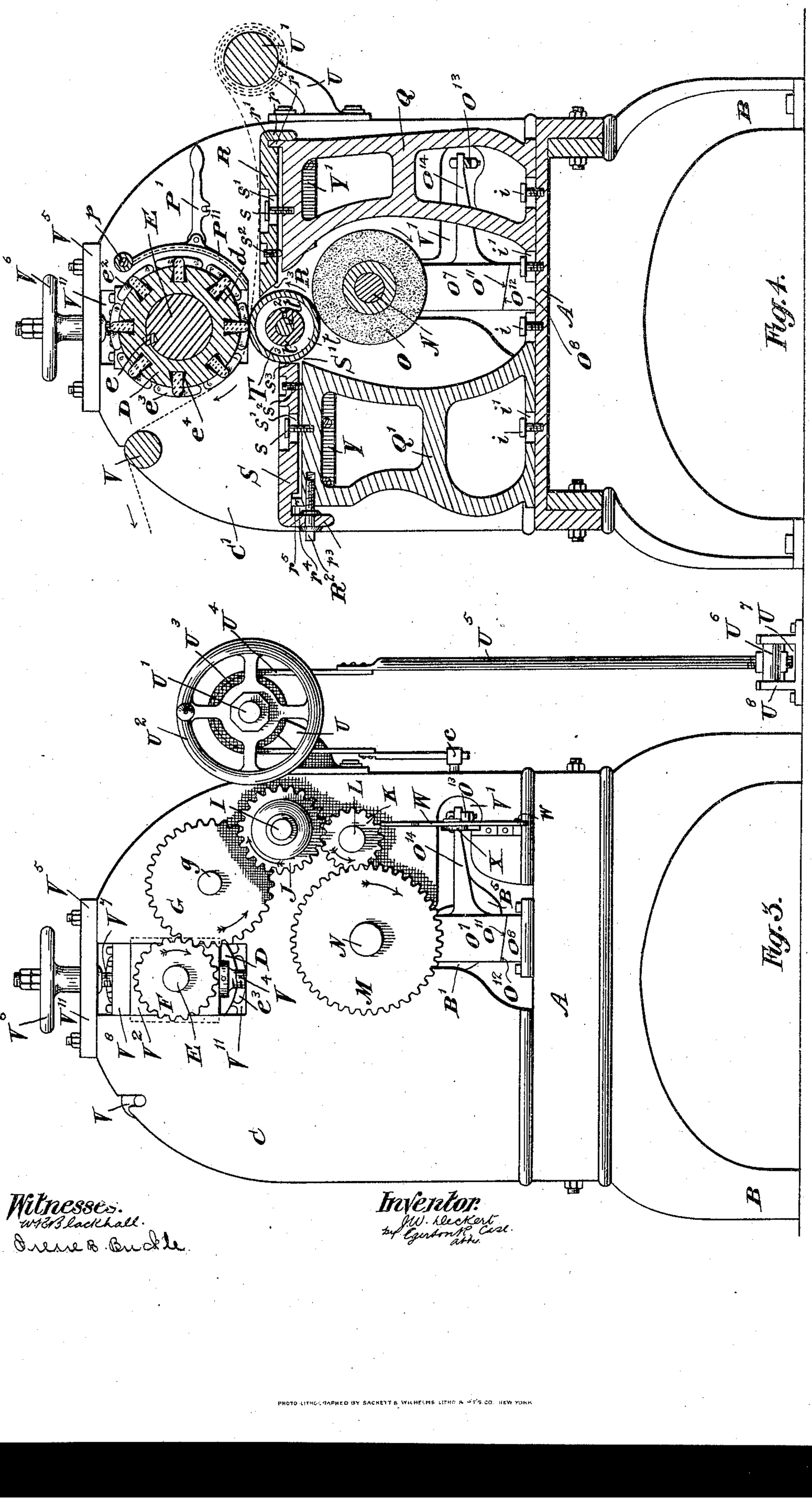

Fig. 4.

Fig. 5.

Witnesses.
W. H. B. Blackhall.
Irene B. Buckle.

Inventor.
J. W. Deckert
by Egerton P. Case.
Atty.

No. 791,014. PATENTED MAY 30, 1905.

J. W. DECKERT.

MACHINE FOR STONING OUT LEATHER.

APPLICATION FILED MAY 20, 1904.

4 SHEETS—SHEET 4.

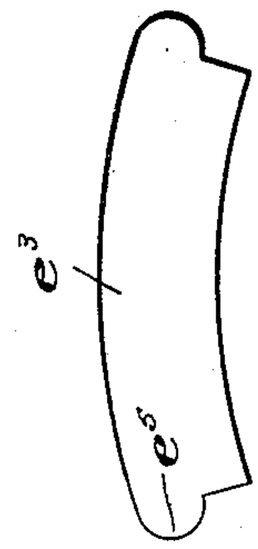

Fig. 8.

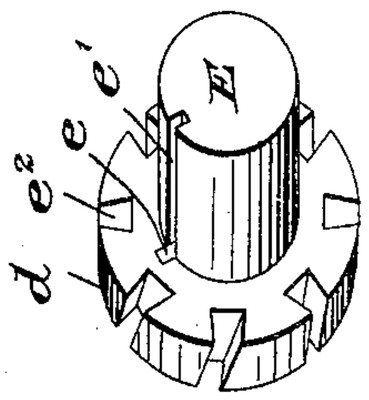

Fig. 9.

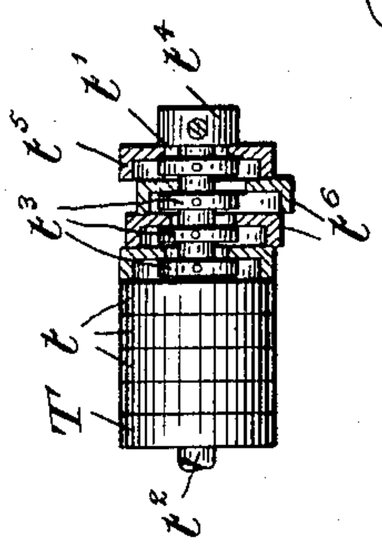

Fig. 6.

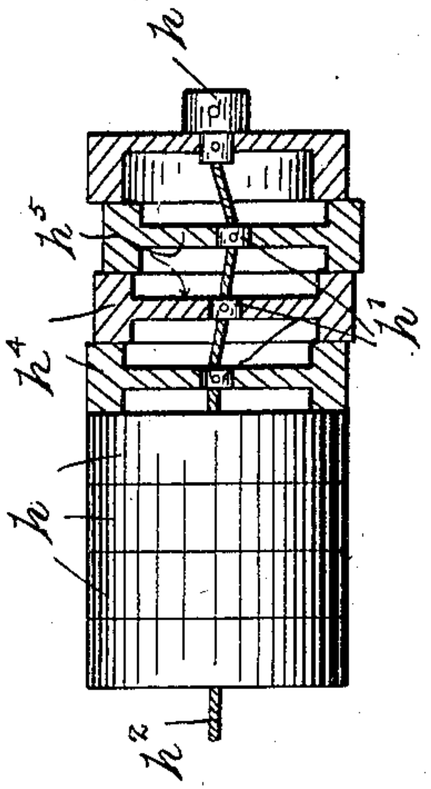

Fig. 7.

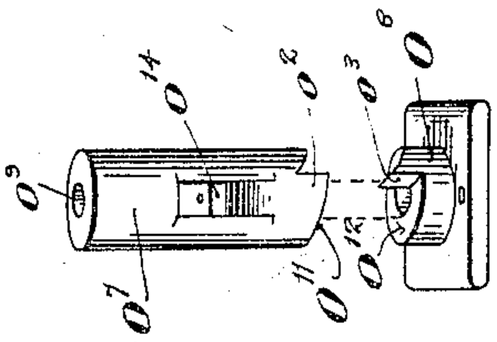

Fig. 10.

Fig. 5.

Witnesses.
M. B. Blackhall.
Steve B. Buckle

Inventor:
J. W. Deckert
by Egerton, Clark & Co.
Attys.

PHOTO-LITHOGRAPHED BY SACKETT & WILHELMS LITHO. & PT'G. CO. NEW YORK.

No. 791,014. Patented May 30, 1905.

UNITED STATES PATENT OFFICE.

JAMES WILLIAM DECKERT, OF OAKVILLE, CANADA.

MACHINE FOR STONING OUT LEATHER.

SPECIFICATION forming part of Letters Patent No. 791,014, dated May 30, 1905.

Application filed May 20, 1904. Serial No. 208,906.

To all whom it may concern:

Be it known that I, JAMES WILLIAM DECKERT, a citizen of the United States, residing in the town of Oakville, in the county of Halton, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Machines for Stoning Out Leather, of which the following is a specification.

My invention relates to improvements in machines for stoning out leather; and one object of my invention is to design a machine of this class that will adjust itself to the different thicknesses of the hide, so that it will be thoroughly stoned out.

A further object is to readily regulate the pressure of the hide against the stoning-cylinder.

A still further object of my invention is to keep part of the hide in contact with part of the periphery of the stoning-cylinder as long as possible after its initial stoning out; and it consists, essentially, of a suitable frame for the machine, the stoning-cylinder suitably mounted therein, and means underneath said stoning-cylinder adjustable to the varying pressure exerted thereagainst, so that it will adjust itself to the different thicknesses of the hide, so that thin as well as thick portions thereof will be held against the stoning-cylinder, and thus the whole hide be thoroughly stoned out.

The invention further consists in locating means—for instance, a roller—relative to the stoning-cylinder, so that part of the hide may be kept in contact with part of the periphery thereof as long as possible after its initial stoning out; and the invention still further consists in providing particular means for regulating the pressure of said means adjustable to the varying thicknesses of the hide against the stoning-cylinder, and thus regulate the pressure of the hide thereagainst.

The construction and operation of my machine will be hereinafter more particularly explained.

Figure 1 is a front side elevation of my machine. Fig. 2 is also a front side elevation of my machine, but with parts removed to show central parts more clearly. Fig. 3 is an elevation of the left-hand end of the machine. Fig. 4 is a vertical cross-section on the line *a b*, Fig. 1. Fig. 5 is, in part, a vertical cross-section on the line *c d e*, Fig. 1. Fig. 6 is a detail view, partly in section, of the preferred form of sectional ring-roller. Fig. 7 is a detail view, partly in section, of an alternative form of sectional ring-roller. Fig. 8 is an enlarged side elevation of the stones used in the stoning-cylinder. Fig. 9 is a perspective view of one of the rings of the stoning-cylinder. Fig. 10 is a perspective view of one of the cam-pillars, the parts being separated.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the bed of the machine, B the legs thereof, and C and C′ the head-blocks, suitably secured thereto. Mounted in the head-blocks, as hereinafter described, is the stoning-cylinder D. On the left-hand end of the shaft E of the stoning-cylinder is secured a pinion F, which meshes with the gear-wheel G, journaled on the stub-shaft *g*, which is secured in the head-block C. The gear-wheel G meshes with the pinion H, journaled on the stub-shaft I, also secured in the head-block C. Secured to or forming part of the pinion H is a gear-wheel J, which meshes with a pinion K, journaled on the stub-shaft L, held in the head-block C. The pinion K meshes with the gear-wheel M, which is keyed to the shaft N of the rubber roller O, which shaft is held in bearings in the head-blocks, to be hereinafter described. By means of the drive-pulley P, keyed on the right-hand end of the stoning-cylinder shaft E and operating in the direction indicated by arrow, said stoning-cylinder is operated, and also the rubber roller O, through the train of gearing before described.

Q and Q′ are the front and rear brackets, suitably supported to the bed A and upon which are respectively supported the feed-plate R and the back stop-plate S. These two plates, together with the stoning-cylinder D and the rubber roller O, form what I call a "ring-chamber" S′. In this ring-chamber and resting upon the rubber roller O and against the stoning-cylinder D and back stop-plate S is a sectional ring-roller T. By means of the back stop-plate S, as hereinafter described, the sectional ring-roller T will be held so that

its axis will always be parallel with the axes of the rubber roller O and the stoning-cylinder D.

Held in suitable brackets U, suitably secured to the front side of the head-blocks C and C′, is a reel U′. The neck of the hide is placed in a slot *u* in said reel and by means of the hand-wheel U², secured to one end of said reel, is wound therearound, as shown by dotted lines in Fig. 4. The stoning-cylinder D is revolved quite rapidly and the rubber roller is revolved at a very much lower rate of speed, and consequently the sectional ring-roller T revolves slowly. As will be seen from Fig. 4, the sectional ring-roller T is revolved by reason of its contact with the rubber roller O and the stoning-cylinder D. The hide is preferably fed from the roller U, as shown by dotted lines, over the feed-plate R and between the sectional ring-roller T and the stoning-cylinder D and thence is passed up over a roller V, having bearings in the head-blocks. The attendant may pull same taut in order to increase the pressure of same against the stoning-cylinder. If desired, the hide may simply be passed over the back feed-plate S instead of over the roller V.

The sectional ring-roller T is firmly yet yieldingly held by the rubber roller O against the stoning-cylinder D and is constructed so as to keep all parts of the hide close in contact with the stoning-cylinder after the manner now to be described. My preferred form of sectional ring-roller is made of a plurality of rings *t*, provided with a central hole *t′*, through which passes the spindle *t²* of the sectional ring-roller. As will be seen from Fig. 6, the rings *t* abut against each other, and by reason of this and the collars *t³*, keyed on the spindle *t²*, are held from longitudinal movement. *t⁴* represents the end collars removably secured to said spindle and capable of being adjusted in order to regulate the closeness of the operation of the rings to each other. The said rings are preferably provided with flanges *t⁵*, which overhang the collars *t³*. Sufficient space is left between the collars *t³* and the inner side of the flanges *t⁵* so as not to interfere with the movement of the rings *t*. By the construction just described it will be understood that when a hide is being stoned out if a thick portion thereof should pass between said stoning-cylinder D and, for instance, the rings *t⁶* the said rings will be moved down, as shown in Fig. 6, and thus be more deeply depressed into the rubber roller O, so as to permit of the passage of the thick portion of hide; but yet, by reason of the rubber cushion afforded by said roller, the said rings will keep the hide close in contact with the stoning-cylinder. In case a thin piece of hide should be passing between any of the rings and the stoning-cylinder, from the operation just described it will be understood that that portion of the rubber roller (underneath the rings between which and the stoning-cylinder the thin portion of the hide is passing) will move said rings upwardly, so as to keep the thin portion of the hide in close contact with the stoning-cylinder.

From the operation and construction just described it will be understood that my machine will adjust itself to the different thicknesses of the hide, so that it will be thoroughly stoned out.

It must be understood that the spindle of the sectional ring-roller T has no bearing in the head-blocks. When it is desired to place the said sectional ring-roller in the ring-chamber S′, either of the brackets Q and Q′ must, together with their plates, be removed for that purpose.

I may use any of the well-known stoning-cylinders in my machine; but I prefer to use the one I have invented and which I shall now describe.

The stoning-cylinder D is composed of a plurality of rings *d*, each provided with a key *e*, that fits into the keyway *e′* in the stoning-cylinder shaft E, so as to permit of the ready removal of said rings in case any stones should have to be removed, but yet permits axial movement of said rings. In the periphery of said rings and at the required angle I provide slots *e²*, preferably dovetailed, and therein place the stones *e³*. By means of any suitable material *e⁴*, Fig. 4, such as cement or lead, I secure the said stones in place. It must of course be understood that I do not confine myself to any particular way of securing the said stones in the said rings. As will be clearly seen from Figs. 1 and 2, the ends *e⁵* of the stones extend beyond the sides of said rings *d* and are rounded, as shown, so as to prevent the leather from being damaged. By thus extending the end of the stones it will be clearly understood from Figs. 1 and 2 that the stones in any one ring *d* will overlap part of the path of movement of the stones in the adjacent rings, and thus insure the whole surface of the hide being operated upon. This is a very important point in my invention. The tops of the stones *e³* are constructed as shown in Fig. 8; but the bottom of same need not necessarily be curved, as shown. As will be seen, I preferably construct the stoning-cylinder D so that one half will be provided with stones placed at an angle the opposite to that at which the stones in the other half are placed.

P¹¹ is any suitable guard swung on the rod *p*, held in the head-blocks C and C′. By means of the handle P′ the said guard may be thrown up or down.

It is necessary that the sectional roller T be held at all points against the stoning-cylinder D, and to this end I provide the means now to be described.

The rubber roller O may be of any suitable construction. As shown, there is a shaft N,

which is held in sleeves O^2, in turn held in the bearing-blocks O^3, which have vertical movement in the slots O^4, formed in the head-blocks. Secured to or forming part of the sleeves O^2 are threaded shanks O^5, which are provided with threaded collars O^6, which rest upon the top members O^7 of the cam-pillars.

O^8 represents the bases of the cam-pillars and are suitably secured to the bed A.

As shown, both members of the cam-pillars are provided with a common core O^9, in which is held the connecting-pin O^{10}, round which the top member O^7 turns. As will be seen from Fig. 5, the threaded shank O^5 rests in the upper part of the core O^9. As will be seen from the drawings, the lower end of the top member O^7 of the cam-pillars is constructed with a cam-surface O^{11}, which coacts with a similar cam-surface O^{12}, constructed in top of the bases O^8. By means of a rod O^{13}, suitably attached to the levers O^{14} of the top member O^7 of the cam-pillar, the said levers are moved, so as to raise or lower said top member O^7, and thus regulate the pressure of the rubber roller O against the sectional ring-roller T, for the purpose before described. When the shoulders o^2 of the top members O^7 abut against the shoulders o^3 of the bases, both members of the pillar-cam have reached the limit of the downward adjustment. The rod O^{13} operates through the slots V′ in the head-blocks and is controlled in its movement by the lever W, attached thereto and suitably pivoted to said head-block, as at *w*. By means of any suitable slotted arm X, suitably secured to the head-block C, the lever W is secured in position desired.

By means of the threaded collars O^6 it will be understood that I may raise or lower either end of the shaft O′ without having to move the cam-pillars.

When the rubber roller O may be quite long, I prefer to use a king-roller B′ and mount same on the bed A beneath the center portion of said rubber roller, so as to prevent a sag therein. The shaft B^2 of said king-roller is mounted at each end in a sleeve B^3, which is held in the cam-pillars B^4, constructed and operating identical to the cam-pillars before described, so it will be unnecessary for me to further describe same. By means of the levers B^5, secured to the cam-pillars B^4 and suitably attached to the rod O^{13}, it will be understood that when the said rod is operated to adjust the height of the rubber roller O at its ends the said king-roller B′ will be adjusted to keep the center portion of said rubber roller in alinement with its ends.

The back stop-plate S and the feeding-plate R extend from head-block C to head-block C′, and consequently the whole length of the sectional ring roller T. Both these plates are parallel to the stoning-cylinder D and the rubber roller O. The said plates are secured to their respective brackets Q′ and Q, and their respective end brackets Y and Y′, Figs. 4 and 5, suitably secured to the inner side of the head-blocks C and C′ by the set-screws *s*, and the said plates have in-and-out movement by means of the slots *s*′, through which the said set-screws pass. By means of the adjusting-screws s^2, bearing against the top of the brackets Q and Q′ and end brackets Y and Y′, the inner sides of the said plates are raised or lowered.

The front sides *r* of the feeding-plate R and the outer side r^3 of the back stop-plate S extend downward, and adjacent thereto and formed in the under side of said plates are slots *r*′ and r^4, in which fit the shoulders r^2 of the brackets Q and the shoulders r^5 of the brackets Q′. Formed in the end brackets Y and Y′ are shoulders r^6 and r^7, corresponding in size and height to the shoulders r^5 and r^2, and which rest in the slots r^4 and *r*′. It will be understood that when the inner sides of the feeding-plate R and back stop-plate S are raised or lowered the said plates will be tilted on the shoulders before described.

By reason of the set-screws *i* passing through the slots *i*′ in the base of the brackets Q and Q′ and extending into the bed A the said brackets are movable in and out, so as to adjust the distance of the inner edges of the plates R and S from the sectional roller T. In order to permit of this movement of the plate R, I construct the slots *r*′ of same, where the shoulders r^7 operate therein, wider than the rest of the slots, as the end brackets Y′ are not adjustable. I do not confine myself to this way of mounting the plates R and S.

By reason of the direction in which the sectional ring-roller T is revolved it normally operates against the inner side s^3 of the back stop-plate S, and it is by means of this plate that I keep said sectional ring-roller in alinement with the stoning-cylinder D and the rubber roller O. By means of the screws R^2, held in the outer side r^3 of the back stop-plate S and screwing into the brackets Q′ and end brackets Y, the said back stop-plate is adjusted for the purpose before set forth. The slot r^4 is of course made wide to allow for adjustment of said back stop-plate. When I use the screws R^2, it will be understood that I may dispense with the slots *i*′ in the brackets Q′.

The inner side R^3 of the feeding-plate R is preferably constructed in the shape shown, so as to leave as little space as possible between the sectional ring-roller T and said plate, and thus prevent any possibility of the hide from failing to pass between the sectional ring-roller T and the stoning-cylinder D.

Formed in each head-block is a slot V^{11}, in which have movement box-holders V^2, which contain the divided bearing-blocks V^3, in which has bearing the shaft E of the stoning-cylinder D. Screwing into the head-blocks and in the bottom of the slots V^{11} are adjust-

able threaded screws V^4, which give support to the under side of the box-holders V^2. V^5 represents head-block caps secured to said head-blocks and over the slots V^{11} and in which have movement the gage-wheels V^6, the threaded shanks V^7 of which operate in the caps V^8, secured to the box-holders V^2 by the screw v.

By means of the set-screws v', operating in the caps V^8, the upper members v^2 of the bearing-blocks V^3 are held down in place. By means of the gage-wheels V^6 and the construction just described it will be understood that the position of the stoning-cylinder shaft E can be adjusted. I of course do not confine myself to the construction just described for mounting the shaft E in the head-blocks.

The reel U′ is provided with any suitable drum U^3, over which passes a steel band U^4, one end of which is secured to the head-block C by the attachment c. The other end of the band U^4 is attached to the rod U^5, which is connected to a foot-treadle U^6, provided with a spring U^7, so as to release the brake when the operator's foot is removed. By means of the bracket U^8 the said treadle is pivoted to the floor. By means of this brake the operator can control the speed at which the hides are fed into the machine from the reel U′.

Upon referring to Fig. 7 will be seen an alternative form of sectional ring-roller. The rings h of same are centrally mounted on the bearing-blocks h', secured to the flexible wire or cable h^2. By means of the end block h^3, secured to said flexible wire or cable, the rings h are removably held thereon. These rings touch each other and are thus kept upon their bearing-blocks h'. The rim h^4 of said rings overhangs the central web h^5. This construction gives me the maximum distance from bearing to bearing of said rings, so as to afford sufficient cable or wire on each side of each ring that will permit of their up-and-down movement.

When the hide is passed over the roller V, part of same is held in contact with part of the periphery of the stoning-cylinder after its initial stoning-out for a much longer time than when it is merely allowed to pass on to the back stop-plate S. Increasing the time of operation of said stoning-cylinder upon the hide is an important point in my invention and one that will be appreciated by one skilled in this art. I do not confine myself to using the roller V, as I lay claim to any means for the purpose above described.

When desired, I may hold the sectional ring-roller T out of contact with the stoning-cylinder D by unloosening the set-screws s^2 of the feeding-plate R and screwing in the screws s. This operation will depress the inner side R^3 of said feeding-plate into contact with the sectional ring-roller T and depress same. By thus depressing the inner side of said feeding-plate the distance between same and the inner side s^3 of the back stop-plate S is less than the diameter of said sectional ring-roller, and thus same is prevented from coming in contact with the stoning-cylinder.

I do not confine myself to the construction herein shown and described, as same can be altered in many ways without departing from the spirit of my invention.

I claim—

1. In a machine of the class described, the combination with a machine-frame; a stoning-cylinder mounted therein, and means for operating said stoning-cylinder, of a sectional ring-roller composed of a plurality of rings, and a roller made of suitable resilient material, mounted in said machine-frame, the said roller designed to hold said sectional ring-roller firmly yet yieldingly against said stoning-cylinder.

2. In a machine of the class described, the combination with a machine-frame; a stoning-cylinder mounted therein, and means for operating said stoning-cylinder, of a sectional ring-roller composed of a plurality of rings, and a rubber roller mounted in said machine-frame, the said roller designed to hold said sectional ring-roller firmly yet yieldingly against said stoning-cylinder.

3. In a machine of the class described, the combination with a machine-frame; a stoning-cylinder mounted therein, and means for operating said stoning-cylinder, of a sectional ring-roller composed of a plurality of rings; a rubber roller mounted in said machine-frame, the said roller designed to hold said sectional ring-roller firmly yet yieldingly against said stoning-cylinder; and adjustable bearings for said rubber roller by means of which the pressure of said sectional ring-roller against said stoning-cylinder may be regulated.

4. In a machine of the class described, the combination with a machine-frame; a stoning-cylinder mounted therein, and means for operating said stoning-cylinder, of a sectional ring-roller composed of a plurality of rings; a rubber roller mounted in said machine-frame, the said roller designed to hold said sectional ring-roller firmly yet yieldingly against said stoning-cylinder; adjustable bearings for said rubber roller by means of which the pressure of said sectional ring-roller against said stoning-cylinder may be regulated; a feeding-plate suitably supported in said machine-frame, and a back stop-plate also suitably supported in said machine-frame and against which said sectional ring-roller operates.

5. In a machine of the class described, the combination with a machine-frame; a stoning-cylinder mounted therein, and means for operating said stoning-cylinder, of a sectional ring-roller composed of a plurality of rings; a rubber roller mounted in said machine-frame, the said roller designed to hold said sectional ring-roller firmly yet yieldingly against said stoning-cylinder; adjustable bearings for

said rubber roller by means of which the pressure of said sectional ring-roller against said stoning-cylinder may be regulated; a feeding-plate suitably supported in said machine-frame, and an adjustable back stop-plate also suitably supported in said machine-frame and against which said sectional ring-roller operates.

6. In a machine of the class described, the combination with a machine-frame; a stoning-cylinder mounted therein, and means for operating said stoning-cylinder, of a sectional ring-roller composed of a plurality of rings; a rubber roller mounted in said machine-frame, the said roller designed to hold said sectional ring-roller firmly yet yieldingly against said stoning-cylinder, and a reel suitably mounted on the front side of said machine from which the hide is fed thereinto.

7. In a machine of the class described, the combination with a machine-frame; a stoning-cylinder mounted therein, and means for operating said stoning-cylinder, of a sectional ring-roller composed of a plurality of rings; a rubber roller mounted in said machine-frame, the said roller designed to hold said sectional ring-roller firmly yet yieldingly against said stoning-cylinder; a reel suitably mounted on the front side of said machine from which the hide is fed thereinto, and means for regulating the speed of said reel.

8. In a machine of the class described, the combination with a machine-frame; a stoning-cylinder mounted therein; a sectional ring-roller composed of a plurality of rings, and means for holding said sectional ring-roller firmly yet yieldingly against said stoning-cylinder; of a plate, against which said sectional ring-roller operates, adjustable so as to keep the axis of said sectional ring-roller parallel with the axis of said stoning-cylinder.

9. In a machine of the class described, the combination with a machine-frame; a stoning-cylinder mounted therein; a sectional ring-roller composed of a plurality of rings, and a rubber roller for holding said sectional ring-roller firmly yet yieldingly against said stoning-cylinder; of a plate, against which said sectional ring-roller operates, adjustable so as to keep the axis of said sectional ring-roller parallel with the axis of said stoning-cylinder.

10. In a machine of the class described, the combination with a machine-frame, a stoning-cylinder mounted therein, and a rubber roller also mounted in said machine-frame, and below said stoning-cylinder, of means firmly yet yieldingly held against said stoning-cylinder by said rubber roller and constructed so as to adjust itself to the varying thicknesses of the hide passing between same and said stoning-cylinder.

11. In a machine of the class described, the combination with a machine-frame; a rubber roller and shaft for same mounted in said machine-frame, of a cam-pillar comprising a lower hollow member provided on its top edge with a cam-surface; a hollow upper member provided on its bottom edge with a cam-surface which coacts with the cam-surface of said lower member in order to raise or lower said rubber roller, and a pin held in said lower and upper members by which they are held together.

12. In a machine of the class described, the combination with a machine-frame; a rubber roller and shaft for same mounted in said machine-frame, of a cam-pillar comprising a lower hollow member provided on its top edge with a cam-surface; a hollow upper member provided on its bottom edge with a cam-surface which coacts with the cam-surface of said lower member in order to raise or lower said rubber roller; a pin held in said lower and upper members by which they are held together, and levers secured to said upper hollow members for the purpose of operating same.

13. In a machine of the class described, the combination with a machine-frame, a rubber roller, and shaft for same mounted in said machine-frame, of a cam-pillar comprising a lower hollow member provided on its top edge with a cam-surface; a hollow upper member provided on its bottom edge with a cam-surface which coacts with the cam-surface of said lower member in order to raise or lower said rubber roller; a pin held in said lower and upper members by which they are held together; levers secured to said upper hollow members for the purpose of operating same; sleeves held on each end of said shaft and provided with shanks extending into said hollow upper member, and bearing-blocks, in which said sleeves are held, operating in slots in said machine-frame.

14. In a machine of the class described, the combination with a machine-frame, a rubber roller, and shaft for same mounted in said machine-frame, of a cam-pillar comprising a lower hollow member provided on its top edge with a cam-surface; a hollow upper member provided on its bottom edge with a cam-surface which coacts with the cam-surface of said lower member in order to raise or lower said rubber roller; a pin held in said lower and upper members by which they are held together; levers secured to said upper hollow members for the purpose of operating same; sleeves held on each end of said shaft and provided with threaded shanks extending into said hollow upper member; threaded collars screwing onto said threaded shanks and resting upon the top of said upper hollow members, and bearing-blocks, in which said sleeves are held, operating in slots in said machine-frame.

15. In a machine of the class described, the combination with a machine-frame; a rubber roller and shaft for same mounted in said ma-

chine-frame, a cam-pillar comprising a lower hollow member provided on its top edge with a cam-surface; a hollow upper member provided on its bottom edge with a cam-surface which coacts with the cam-surface of said lower member in order to raise or lower said rubber roller, a pin held in said lower and upper members by which they are held together and levers secured to said upper hollow members, of a king-roller held against said rubber roller near its central portion; a cam-pillar comprising a lower hollow member suitably secured to said machine-frame and provided on its top edge with a cam-surface; a hollow upper member provided on its bottom edge with a cam-surface which coacts with the cam-surface of said lower hollow member, the said hollow upper member being connected to the ends of said king-roller; a pin held in the members of said cam-pillar to hold them together; levers secured to said upper hollow members, and a rod to which all of said levers are connected in order that the ends of said rubber roller and said king-roller may be simultaneously adjusted.

16. In a machine of the class described, the combination with a machine-frame; the sectional ring-roller; a rubber roller mounted in said frame and against which said sectional ring-roller rests; the stoning-cylinder mounted in said machine-frame, and means for operating said stoning-cylinder and said rubber roller, of means for keeping the axis of said sectional ring-roller in alinement with said rubber roller and said stoning-cylinder, and means for depressing said sectional ring-roller so that it will not come in contact with said stoning-cylinder.

17. In a machine of the class described, the combination with a machine-frame; the sectional ring-roller; a rubber roller mounted in said frame and against which said sectional ring-roller rests, and means for operating said rubber roller, of a back stop-plate against which said sectional ring-roller rests; a feeding-plate; both plates being suitably mounted in said machine-frame, and means for depressing said feeding-plate so as to bring same in contact with said sectional ring-roller and depress same.

18. In a machine of the class described, the combination with a machine-frame; the sectional ring-roller; a rubber roller mounted in said frame and against which said sectional ring-roller rests; the stoning-cylinder mounted in said machine-frame, and means for operating said rubber roller and said stoning-cylinder, of a back stop-plate against which said sectional ring-roller rests; a feeding-plate; both plates being suitably mounted in said machine-frame, and means for depressing said feeding-plate so that it will not come in contact with said stoning-cylinder.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES WILLIAM DECKERT.

Witnesses:

EGERTON R. CASE,

W. R. BLACKHALL.