

No. 847,354.

PATENTED MAR. 19, 1907.

J. A. METZLER.

MACHINE FOR TREATING HIDES AND SKINS..

APPLICATION FILED DEC. 29, 1906.

3 SHEETS—SHEET 1.

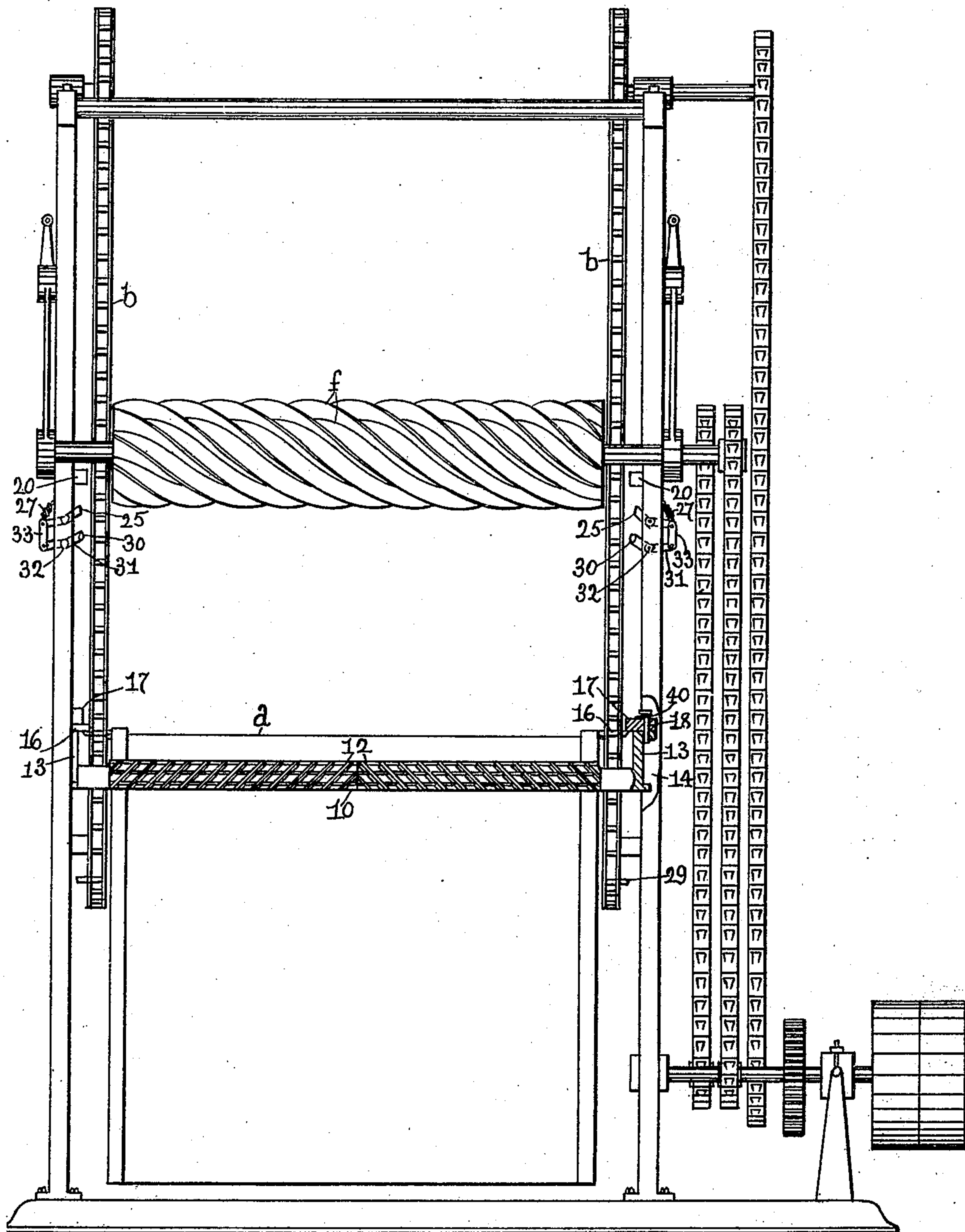


Fig. 1.

Witnesses.

C. H. Barnett

J. Murphy

Inventor.

John A. Metzler

by Jas. H. Churchill
att'y.

No. 847,354.

PATENTED MAR. 19, 1907.

J. A. METZLER.

MACHINE FOR TREATING HIDES AND SKINS.

APPLICATION FILED DEC. 29, 1906.

3 SHEETS—SHEET 2.

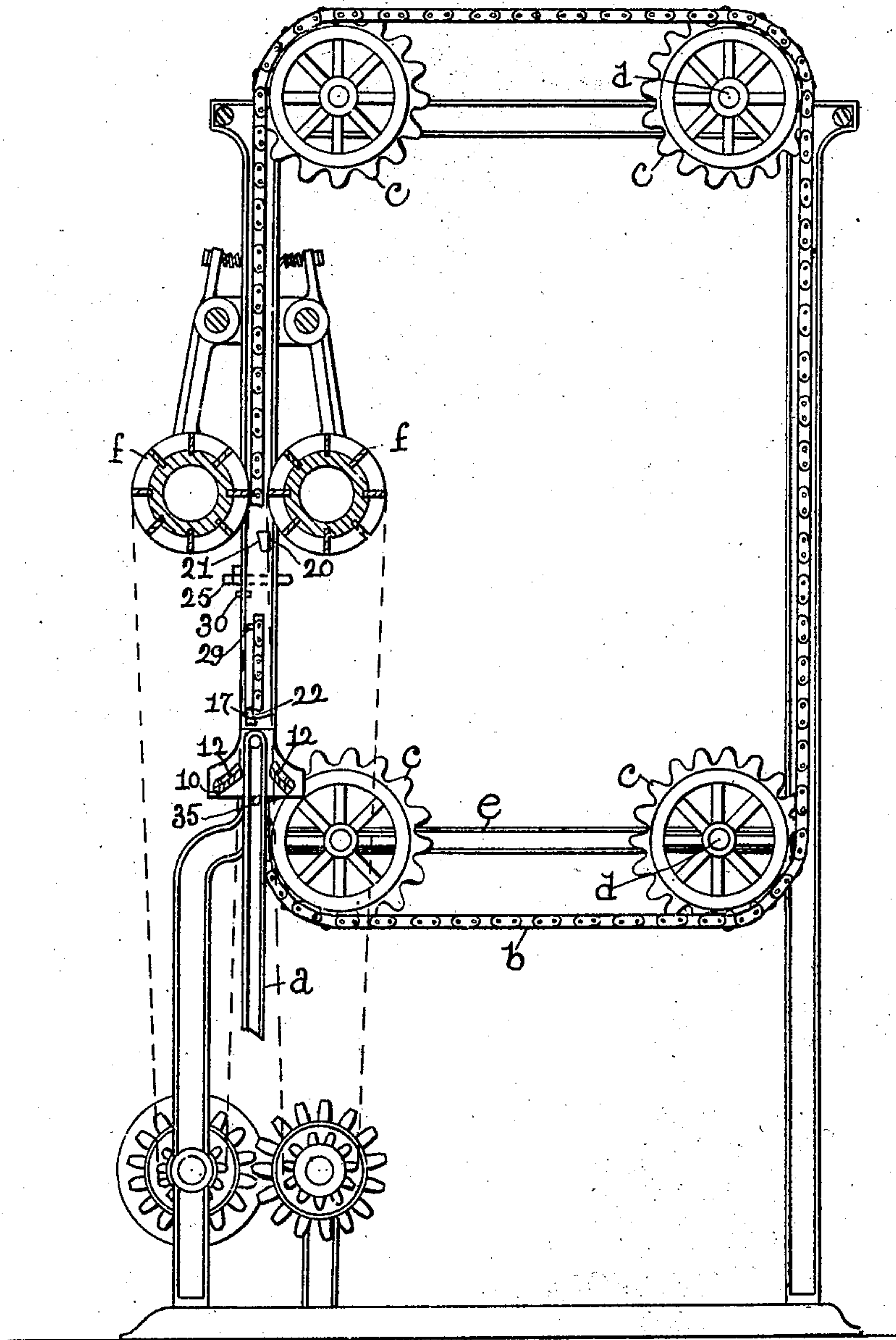


Fig. 2.

Witnesses.
C. H. Gannett
J. Murphy

Inventor.
John A. Metzler
by Jas. H. Churchill
att'y.

No. 847,354.

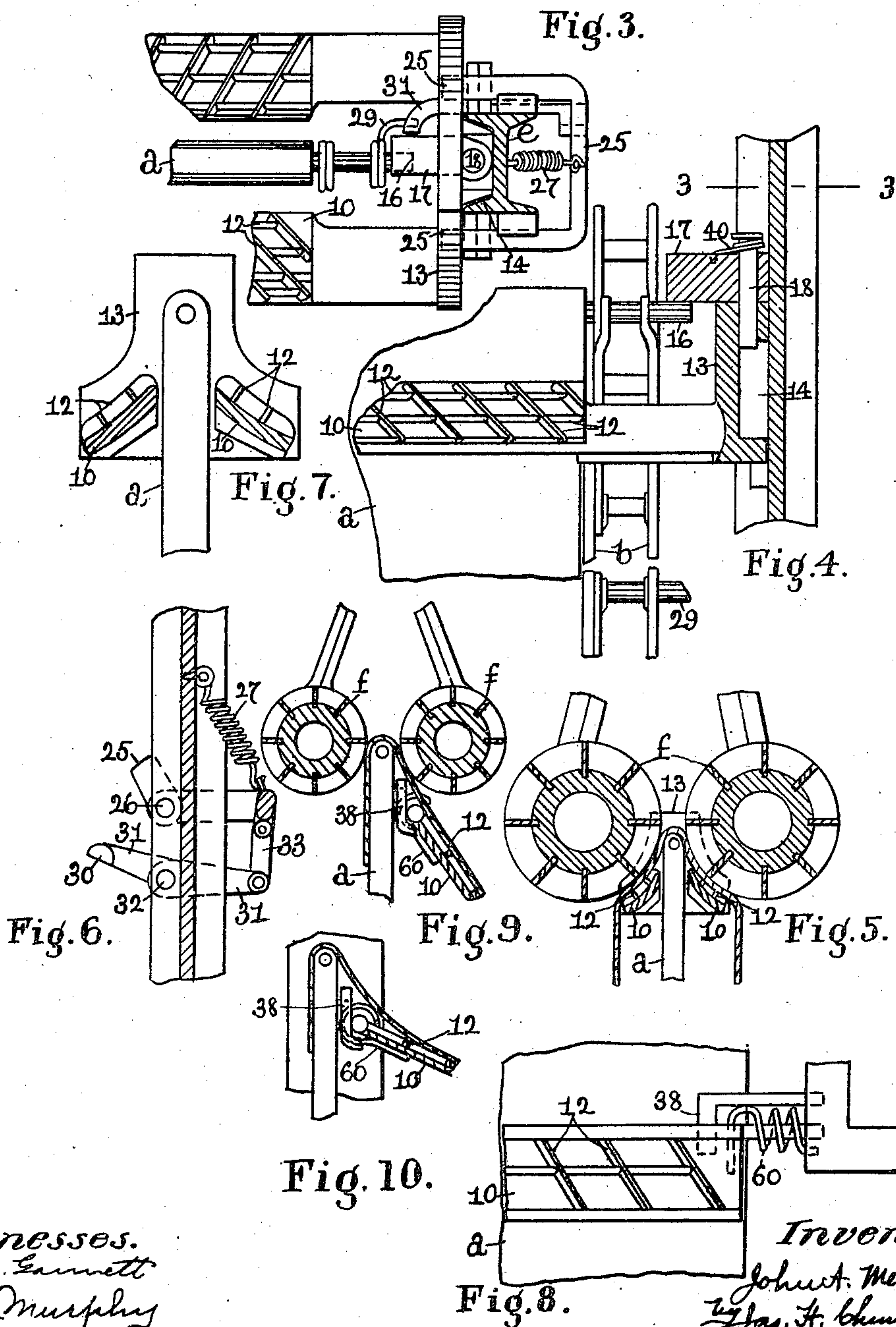
PATENTED MAR. 19, 1907.

J. A. METZLER.

MACHINE FOR TREATING HIDES AND SKINS.

APPLICATION FILED DEC. 29, 1906.

3 SHEETS—SHEET 3.



Witnesses.
C. H. Emmett
J. Murphy

Inventor:
John A. Metzler
By Jas. H. Humphill
att'y.

UNITED STATES PATENT OFFICE.

JOHN A. METZLER, OF NEWARK, NEW JERSEY.

MACHINE FOR TREATING HIDES AND SKINS.

No. 847,354.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed December 29, 1906. Serial No. 349,961.

To all whom it may concern:

Be it known that I, JOHN A. METZLER, a citizen of the United States, residing in Newark, in the county of Essex and State of New Jersey, have invented an Improvement in Machines for Treating Hides and Skins, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to a machine for treating hides, skins, and leather, and has for its object to provide machines of the class described with means whereby the hides, skins, or leather may be presented to the working tools in such manner as to enable them to be more effectively treated or worked out without danger of injuring the hides or skins.

In the present instance the invention is shown as embodied in a machine for putting out hides and skins in which a substantially flat table or work-support is moved between working tools or rolls.

In accordance with this invention the machine is provided with a device located on one or both sides of the path of movement of the table and bodily movable toward and from the working tools or rolls, said device being extended at an angle to the path of movement of said table and provided with working edges, ribs, or vanes, in contact with which the hide or skin is drawn by the table, so as to spread or smooth out the said hide or skin preparatory to its being worked out or treated by the operating tools or rolls.

Provision is made for automatically moving the spreading device toward the working tools, for retaining the same in its operative position, and for releasing the same from its operative position after the hide or skin has been removed from engagement therewith.

These and other features of this invention will be pointed out in the claims at the end of this specification.

Figure 1 is a front elevation of a machine embodying this invention; Fig. 2, a vertical section of the machine shown in Fig. 1; Fig. 3, an enlarged detail in plan to be referred to; Fig. 4, an enlarged detail in vertical section and elevation to be referred to; Fig. 5, a detail in cross-section, showing the machine in operation; Fig. 6, an enlarged detail of the holding and releasing devices to be referred to; Fig. 7, an enlarged detail of the spread-

ers, and Figs. 8, 9, and 10 modifications to be referred to.

In the present instance the invention is shown as embodied in a putting-out machine provided, as herein shown, with a work-support or table *a*, pivotally attached to an endless carrier comprising link chains *b*, passed about sprocket-wheels *c*, mounted on shafts *d*, supported by the upright sides *e* of the framework. The machine is further provided with operating-tools or bladed rolls *f*, located on opposite sides of the upward path of movement of the table *a*. The machine as thus far described may be of any suitable or usual construction.

In accordance with this invention the machine is provided with means for spreading or smoothing out the hide or skin prior to its being treated or operated upon by the working tools or rolls *f*, which spreading means is movable bodily toward and from the working tools or rolls. The spreading means may be made as herein shown, and consists of a bar or plate 10, provided with ribs, vanes, or working edges 12 and located on the back or rear side of the upward path of movement of the table *a*. A second spreading bar or plate 10 may be located on the front side of the path of movement of the table *a*, as represented in Fig. 5. The spreading-bars 10 are attached at their ends to blocks or pieces 13, which slide in guideways 14 in the side frames *e*. (See Figs. 3 and 4.)

Provision is made for bodily moving the spreading-bars 10 from their lowered position (shown in Fig. 1) toward and into substantially close proximity to the operating tools or rolls *f*, as shown in Fig. 5, and this result may be accomplished, as herein shown, by means of lifting studs or projections 16 on the opposite ends or edges of the table *a* engaging latches or levers 17, pivoted at 18 to the sliding blocks 13 and extended into the path of movement of the lifting-studs 16. Provision is also made for limiting the movement of the spreader toward the operating-rolls, which may be accomplished, as herein shown, by lugs or projections 20, attached to the side frames *e* and each provided with an inclined or cam-shaped side or face 21, (see Fig. 2,) which is adapted to be engaged by an inclined face or side 22 of the latch or lever 17, so that when the spreader-bar 10 has been moved into its operative position with relation to the operating tool or roll the sta-

tionary cam or lug 20 will turn the lifting-latch on its pivot and disengage it from the lifting pin or projection 16 on the table, thereby releasing the spreader-bar from the

5 table. Provision is made for retaining the spreader-bar in its elevated or operative position, and this result may be accomplished, as herein shown, by means of holding dogs or
10 levers 25, pivoted at 26 to the side frame *e* and normally projected into the path of movement of the slide-blocks 13 by a spring 27. (See Fig. 6.) The holding-dogs 25 are adapted to be engaged by the slide-blocks 13
15 and turned back into a substantially vertical position, so as to permit the slide-blocks to pass upward, and as soon as the slide-blocks have cleared the holding-dogs the latter are turned forward into the path of movement of
20 the slide-blocks, which position is represented in Fig. 6, so that when the spreader-bar is released from the lifting-lugs 16 it is engaged by and retained in its elevated position by the holding-dogs 25, which engage the under
25 side of the sliding blocks 13. The spreader-bar is now in its operative position, and preferably is in such close proximity to the operating-roll *f* as to cooperate with said roll for the effective spreading or smoothing out
30 of the skin preparatory to its being worked out or treated by the operating-tool while the hide or skin lies against the table *a*, which in its upward movement drags the hide or skin over the ribbed or vaned surface
35 of the spreading-bar, with which surface the said hide or skin is maintained in contact by the operating-roll, as clearly shown in Fig. 5. In this manner substantially the whole of the portion of the hide or skin lying on the inner
40 side of the table *a* is spread and smoothed out, and the same result may be obtained on the portion of the hide or skin on the outer side of the table by providing a spreader-bar on that side of the path of movement of the
45 table as shown in Figs. 2 and 5; but inasmuch as the portion of the hide or skin on the outer side of the table is accessible to the operator the spreader-bar on the outer side of the machine may be omitted and the
50 spreader-bar on the inner side alone used, as represented in Fig. 9, if so desired. It may be preferred to use both spreader-bars, as represented in Fig. 5, as by so doing the operator is relieved from the necessity of hold-
55 ing the skin away from the table.

Provision is made for releasing the spreader-bar from the holding dog or device 25, and this may be accomplished, as herein shown, by lugs or pins 29 on the endless
60 chain, (see Fig. 4,) which are adapted to engage an arm 30 on a lever 31, pivoted at 32 to the frame and having its rear arm connected by a link 33 with the rear arm of the holding lever or dog 25. (See Fig. 6.)

65 At or about the time the table *a* has passed

through the operating-rolls *f* the lug or pin 29 engages the arm 30 and turns the lever 31 so as to draw down the rear arm of the holding dog or lever 25 and move the said lever into its inoperative position, thereby withdraw- 70
ing the same from engagement with the sliding block 13 and permitting the spreader-bar to descend by gravity into its lowered or inoperative position, (represented in Figs. 1 and 2,) which position may be determined by 75
stops 35 on the framework upon which the sliding blocks rest. The descent of the spreader-bar may be regulated or controlled by suitable counterbalancing-weights, (not shown, as they are well understood,) or the 80
descent may be controlled by suitable cushions or buffers.

When the spreader-bar is in its lowered or normal position, (represented in Figs. 1 and 2,) ample space is afforded for the operator to 85
place the hide or skin over the spreader. The spreader-bar may be curved to substantially conform to the curvature of the operating-roll, as shown in Figs. 2 and 5, or it may be made substantially straight, as repre- 90
sented in Figs. 9 and 10, and when made straight it may be pivoted at its end to the slide-blocks and normally held in a substantially horizontal position by suitable springs 60 (see Figs. 8 and 10) and adapted to be 95
brought into an inclined position against a back-stop 38 (see Fig. 9) when the hide or skin is engaged with the operating-roll. The springs 60 may encircle the pivots for the spreader-bar and have one end bear against 100
the under side of the same, as represented in Figs. 8, 9, and 10, or the springs may be otherwise arranged, so as to lift the spreader-bar into a substantially horizontal position under 105
normal conditions. When the lifting-latch 17 is turned on its pivot, so as to disengage it from the lifting-stud 16, it may be returned into its normal position when disengaged from the cam-stud 20 by a spring 40.

I have herein shown one construction of 110
machine embodying this invention; but I do not desire to limit the invention to the particular construction shown.

I claim—

1. In a machine of the class described, in 115
combination, a table or work-support, an endless carrier therefor, operating-tools cooperating with said table or work-support to treat a hide or skin thereon, a spreader located on one side of the path of movement of 120
said table and upon which the hide or skin is placed and from which it is removed by the said table, means movable with the table to bodily move said spreader toward the operating-tools, means to retain said spreader in its 125
operative position, and means to release said spreader from its operative position, substantially as described.

2. In a machine of the class described, in 130
combination, a table or work-support, an

endless carrier therefor, operating-tools co-operating with said table or work-support to treat a hide or skin thereon, spreaders located on opposite sides of the path of movement of said table and upon which the hide or skin is placed, means to bodily move said spreaders toward said operating-tools, means to retain said spreaders in their operative position, and means to release said spreaders, substantially as described.

3. In a machine of the class described, in combination, a table or work-support, an endless carrier therefor, operating-tools co-operating with said table or work-support to treat a hide or skin thereon, a spreader extended transversely of the table and provided with vanes or ribs on its upper surface, upon which the hide or skin is placed, and means to move said spreader toward the operating-tools to bring the hide or skin into engagement with an operating-tool, substantially as described.

4. In a machine of the class described, in combination, a table or work-support, an endless carrier therefor, operating-tools co-operating with said table or work-support to treat a hide or skin thereon, a spreader located on one side of the path of movement of the table, slide blocks or pieces to which said spreader is secured, movable latches secured

to said slide-blocks, lifting-pins movable with the table to engage said latches, cams to disengage said lifting-latches from said pins when said spreader has reached its operative position, retaining devices to engage said slide-blocks and retain the spreader in its operative position, and means to disengage said retaining devices from said slide-blocks, substantially as described.

5. In a machine of the class described, a table or work-support for the hide or skin to be treated movable in a substantially vertical plane, an operating-tool to treat the hide or skin while on the table, means to move said table, a spreader upon which the hide or skin is placed and from which it is removed by said table, said spreader being bodily movable in a plane substantially parallel with said table and toward said operating-tool, and means to bodily move said spreader toward said operating-tool, substantially as described.

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

JOHN A. METZLER.

Witnesses:

EDWARD P. SMART,
HUGO WOERNER.