A. WHITING & J. A. SMITH.

Machine for Raising Leather from Tan-Vats.

No. 205,596. Patented July 2, 1878

Fig. 1.

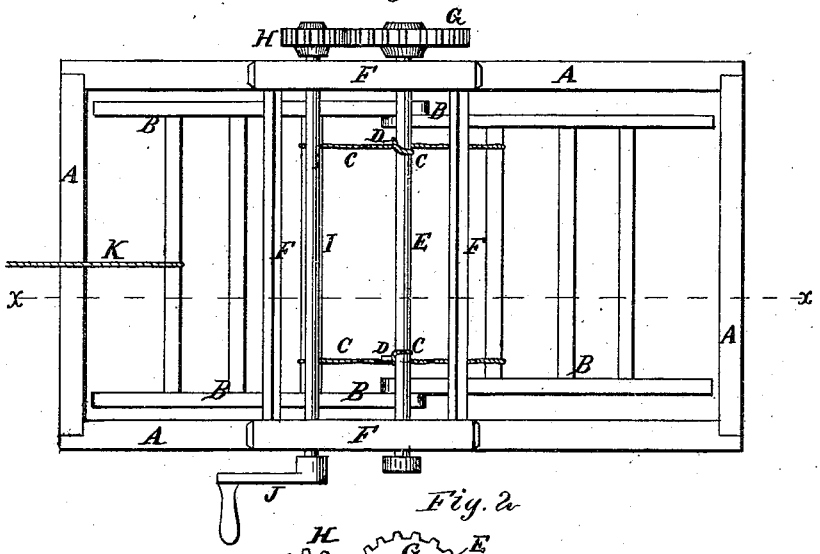
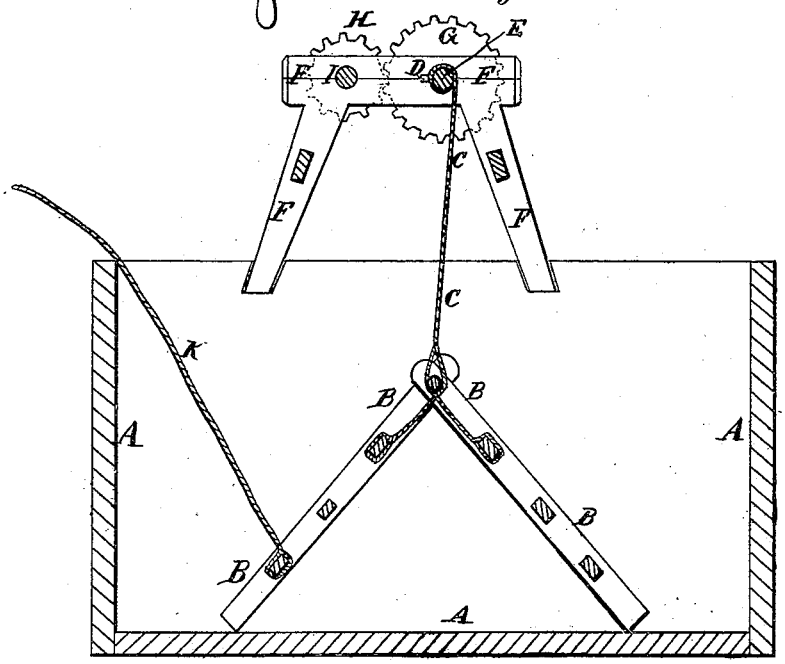


Fig. 2.



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ALBERT WHITING AND JOSEPH A. SMITH, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN MACHINES FOR RAISING LEATHER FROM TAN-VATS.

Specification forming part of Letters Patent No. **205,596**, dated July 2, 1878; application filed May 23, 1878.

To all whom it may concern:

Be it known that we, ALBERT WHITING and JOSEPH A. SMITH, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Machines for Raising Leather from the Bottom of Tan-Vats, of which the following is a specification:

Figure 1 is a top view of a vat to which our improvement has been applied. Fig. 2 is a vertical longitudinal section of the same, taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved device to enable leather to be easily and conveniently removed from the vats, and which at the same time shall be simple in construction and reliable in use.

The invention consists in the rack or false bottom, made in two parts or sections, hinged to each other at the center, to adapt it to be raised at the center into an angular position to raise and support the hides; in the combination of the two hoisting-ropes and the adjusting-rope with the hinged sections of the rack or false bottom; in the combination of the shaft, provided with the pins, with the two hoisting-ropes and the hinged sectional rack or false bottom; in the combination of the two gear-wheels, the shaft, the crank, and the movable frame with the shaft, the hoisting-ropes, the hinged sectional rack or false bottom, and the vat; and in the hoisting-ropes, having their lower ends branched to adapt them to be applied to the hinged sectional rack or false bottom in substantially the manner herein shown and described.

A represents a tan-vat, in which is placed a rack or false bottom, B, for the hides to rest upon while lying in said vat. The rack or bottom B is made in two parts, hinged to each other at the center of the vat, as shown in Fig. 2.

To the hinging-bar of the sections of the rack B are attached the lower ends of two hoisting-ropes, C, which have loops formed upon their upper ends, to be passed over pins D attached to the shaft E. The shaft E revolves in bearings in the ends of a frame, F, the posts of which rest in sockets, notches, or other supports in the upper edges of the sides of the vat A, as shown in Fig. 2, so that the said frame may be readily detached when desired.

To one end of the shaft E is attached a large gear-wheel, G, the teeth of which mesh into the teeth of a smaller gear-wheel, H, attached to the end of a shaft, I. The shaft I is placed parallel to the shaft E, revolves in bearings in the upper part of the frame F, and to its other end is attached a crank, J, by which it is operated to revolve the shaft E, winding the hoisting-ropes C upon it, and raising the middle part of the hinged sectional rack B, and the hides resting upon the said rack, the ends of the rack B sliding inward upon the bottom of the vat A.

When the middle part of the rack B has been raised to the desired height, the ropes C are detached from the pins D and the frame F and its attachments are removed, the rack A retaining its angular position, and supporting the hides until they have been taken out.

When the hides have been removed, by drawing upon the rope K, attached to one end of the rack B, the said rack will drop to the bottom of the vat A, ready to receive a new lot of hides.

If desired, the shaft E may revolve in permanent supports, and may be made of such a length as to extend across the whole series of vats, in which case the said shaft may be operated from any convenient driving-power.

The lower ends of the hoisting-ropes C are branched, which branches are passed down upon the opposite sides of the connecting or hinged bar of the rack-sections, cross each other below the said bar, and their ends are attached to the second cross-bars of the said rack-sections.

By this arrangement, as the ropes C are drawn upon to raise the rack B and the hides the tendency will be to draw the sections of the said rack toward each other, making the device operate a little better than when the ropes C are attached directly to the hinging-bar of the said rack-sections.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The rack or false bottom B, made in two parts or sections, hinged to each other at the

center to adapt it to be raised at the center into an angular position to raise and support the hides, substantially as herein shown and described.

2. The combination of the two hoisting-ropes C and the adjusting-rope K with the hinged sections of the rack or false bottom, substantially as herein shown and described.

3. The combination of the shaft E, provided with pins D, with the two hoisting-ropes C and the hinged sectional rack or false bottom B, substantially as herein shown and described.

4. The combination of the two gear-wheels G H, the shaft I, and the crank J in the movable frame F with the shaft E, the hoisting-ropes C, and the hinged sectional rack or false bottom B, all adapted to be used in connection with the vat A, substantially as herein shown and described.

5. The hoisting-ropes C, having their lower ends branched to adapt them to be applied to the hinged sectional rack or false bottom B in substantially the manner herein shown and described.

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Witnesses:
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