J. A. SMITH.

Raising and Transferring Hides in Tan-Vats.

No. 219,537. Patented Sept. 9, 1879.

Fig. 1.

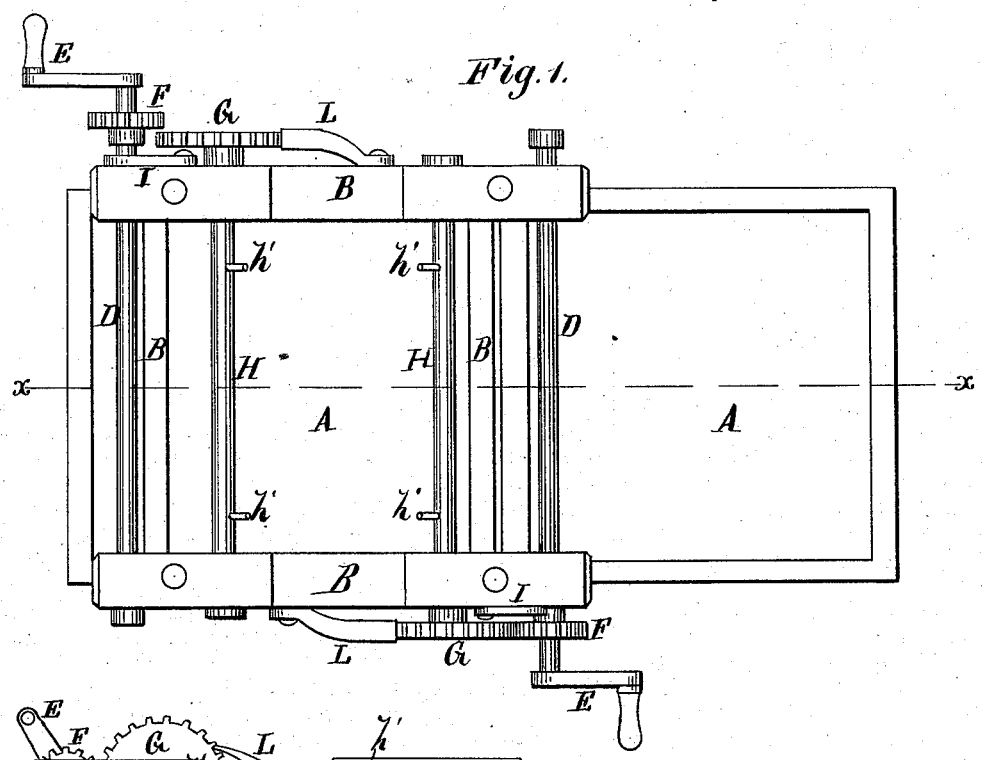
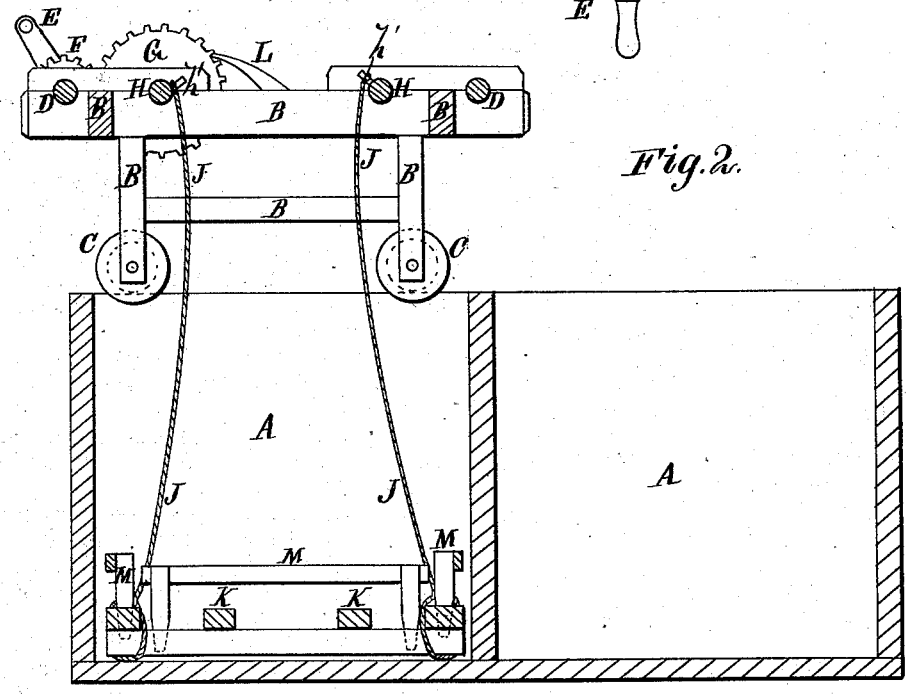


Fig. 2.



WITNESSES:

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JOSEPH A. SMITH, OF ROCHESTER, NEW YORK, ASSIGNOR TO HIMSELF AND ALBERT WHITING, OF SAME PLACE.

IMPROVEMENT IN RAISING AND TRANSFERRING HIDES IN TAN-VATS.

Specification forming part of Letters Patent No. **219,537**, dated September 9, 1879; application filed July 12, 1879.

To all whom it may concern:

Be it known that I, JOSEPH ALEXANDER SMITH, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Machines for Raising, Floating, and Transferring Hides in Tan-Vats, of which the following is a specification.

Figure 1 is a top view of my improved machine. Fig. 2 is a vertical longitudinal section of the same, taken through the line *x x*, Fig. 1.

The object of this invention is to improve the construction of the machine for which Letters Patent Nos. 205,596 and 214,220 were granted July 2, 1878, and April 8, 1879, so as to furnish an improved machine for use in tanneries, for raising and floating hides in tan-vats, and for transferring them from one vat to another, which shall be simple in construction and convenient in use.

The invention consists in the combination of the two sets of shafts, gear-wheels and cranks, and the four cords with the frame and the rack that receives the hides; and in the combination of the detachable side racks with the rack that receives the hides, as hereinafter fully described.

Similar letters of reference indicate corresponding parts.

A represents two tan-vats. B represents the frame to which the operating mechanism is applied.

To the lower ends of the legs of the frame B are pivoted flanged wheels C, to roll along the edges of the vats, or upon rails laid along the edges of the vats, and crossing the alleys between the vats.

To the end parts of the frame B are pivoted two shafts, D, to one end of which is attached a crank, E.

To each of the shafts D is attached a gear-wheel, F, the teeth of which mesh into the teeth of the gear-wheels G, attached to the shafts H.

The shafts D have a longitudinal movement in their bearings, to throw the gear-wheels F into and out of gear with the gear-wheels G.

To the frame B are pivoted pawls I, which engage with the shafts D, to hold them in place in either position.

The two shafts H revolve in bearings attached to the frame B, and to each of them are attached two pins, *h'*, to receive the loops formed upon the upper ends of the four cords J.

The lower ends of the cords J are attached to the four corners of the rectangular rack or frame K, upon which the hides are placed.

With this construction, by turning the two cranks E equally, the four cords J will be wound up equally, and the rack K and the hides placed upon it will be raised evenly, so that the hides will not be liable to fall off as the machine is being moved from one vat to another.

The rack and its contents are held in place when raised by the pawls L, which are pivoted to the frame B, and engage with the teeth of the gear-wheels G.

In the outer bars of the rack K are formed holes, or to them are attached sockets or keepers, to receive the lower ends of the side racks or frames, M, which racks M are designed for use when transferring green hides to keep them from slipping off the said rack K, and which may be readily detached when not required for use.

The side racks, M, may be connected at their corners by hooks to prevent them from being pressed outward.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of the two sets of shafts D H, gear-wheels F G and cranks E, and the four cords J with the frame B and the rack K, that receives the hides, substantially as herein shown and described.

2. The combination of the detachable side racks, M, with the rack K, that receives the hides, substantially as herein shown and described.

JOSEPH ALEXANDER SMITH.

Witnesses:

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H. H. MCPHAIL.