

July 24, 1911.

DRAWING.

51,487

A careful search has been made this day for the original drawing or a photolithographic copy of the same, for the purpose of reproducing the said drawing to form a part of this book, but at this time nothing can be found from which a reproduction can be made.

Finis D. Morris,

Chief of Division E.

# UNITED STATES PATENT OFFICE.

ISAAC SIPES, OF BOSTON, NEW YORK.

## IMPROVED MACHINE FOR WASHING LEATHER.

Specification forming part of Letters Patent No. 51,487, dated December 12, 1865.

*To all whom it may concern:*

Be it known that I, ISAAC SIPES, of Boston, in the county of Erie and State of New York, have invented a new and Improved Machine for Washing Leather; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a transverse vertical section of the machine taken in the plane of the line *x x*, Fig. 2.

Fig. 2 is a plan or top view of the same with the cover removed to show the internal arrangement.

Similar letters of reference indicate like parts.

The object of my invention is to produce a machine for washing leather, after the same has been tanned, whereby the operation can be done in a more expeditious and thorough and less expensive manner than at present practiced.

My invention consists in the employment or use of two or more shafts, carrying a number of brooms or equivalents thereof, to which a rotary motion is to be given in any suitable way, and supplied with water in any proper manner, between which brooms the leather passes, whereby it is effectually washed.

To enable others to understand my invention, I will proceed to describe it.

A A' designate the longitudinal and transverse beams of the frame of the machine, which frame may be of any suitable construction, shape, or size. Upon this frame two shafts, B B', are mounted, which have their bearings in the beams A' of the frame. Each shaft carries a gear-wheel, C C', which wheels mesh with each other, and are arranged to revolve toward each other so as to cause the shaft B B' to rotate in like manner, and motion is imparted to either one or both in any suitable way. A pulley, *a*, for receiving a belt is shown in Fig. 2, but hand-power can be used if desired.

D D are a series of brooms or brushes, which are arranged along the shafts B B, and secured thereto in such a position that those on the one shaft can pass by those on the other without impeding the motion of the shafts.

E E represent the covers to the machine, which are placed upon the frame, as shown in Fig. 1. The opening between them is about

half-way between the two shafts, and at the edge of one a roller, *b*, is secured, over which the hides are fed to the brushes after being spread out flat upon the cover, as shown in red in Fig. 1. So soon as the leather reaches the brushes they will, of their own accord, draw it down between them, and after operating upon it deposit in the tank over which the machine is placed.

F F' are pipes through which water is carried to the brooms, the pipes F being parallel with the shafts B, and these are perforated so that the water will jet out upon the brooms in the desired quantity; and the pipes F' are for carrying the water to the opposite side to where the pump is placed.

I have shown a pump, G, located near one corner of the machine and worked by a rock shaft, *c*, which receives its motion from one of the cog-wheels, C, and thus it will be seen that the supply of water is kept up accordingly as the machine operates, and in the desired quantity.

It may be admissible here to remark that I have a machine of the above description now in operation, and that by its use two men can wash two hundred sides per hour perfectly clean, without injuring the grain or reducing the weight of the leather, and that by its use only one vat needs to be used, whereas by the old method two men can wash only two hundred and fifty sides per day, and in doing this a great deal of hard labor is necessary, and several vats are disturbed in order to do it.

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

1. The employment or use of two or more shafts, B B', carrying a number of brushes, D, or their equivalents, and rotated by suitable gearing, substantially as and for the purpose specified.

2. The pipes F F', in combination with the brushes D, arranged so as to supply the same with water, substantially as and for the purpose specified.

3. The covers E E and roller *b*, in combination with the shafts B, brushes D, arranged substantially as shown and described.

4. The combination of the frame A A', shafts B, gear-wheels C, brushes D, combined and arranged as shown and described.

ISAAC SIPES.

Witnesses:

D. O. DYER,

MARK WHITING.