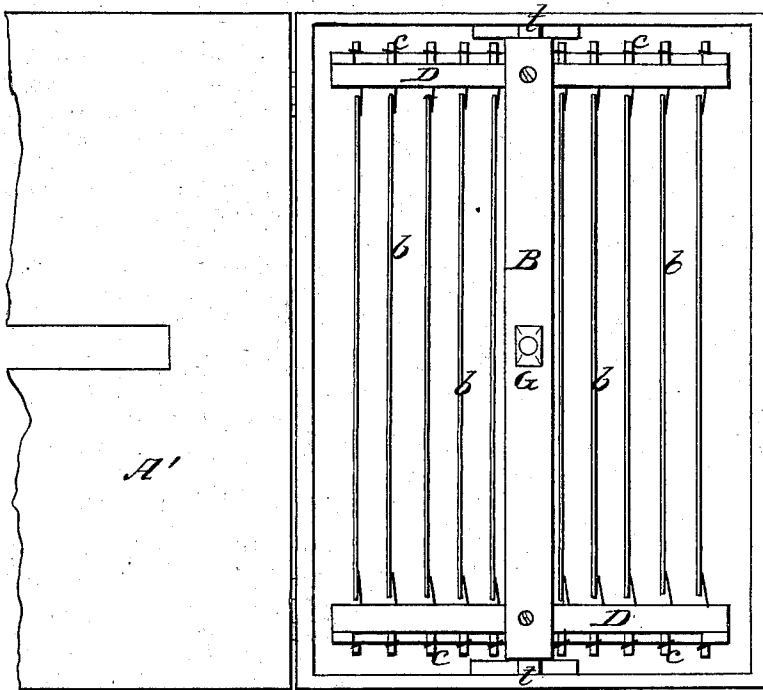
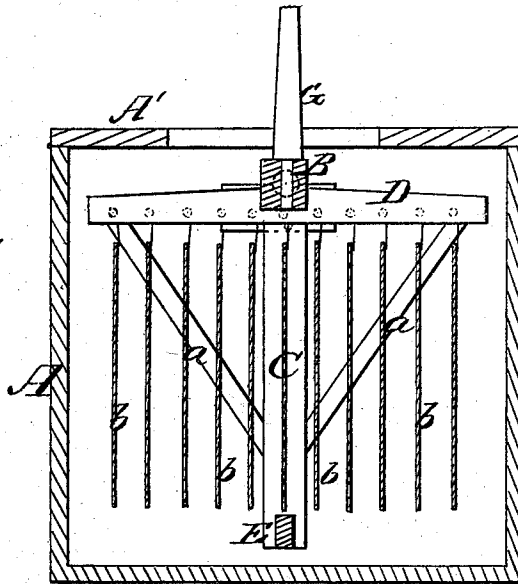


S. H. HALL.
Tan-Vats.

No. 150,657.

Patented May 5, 1874.

Fig. 1



WITNESSES
E. H. Bates
George C. Upham.

By

INVENTOR
Samuel H. Hall,
Chipman & Hornum & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

SAMUEL H. HALL, OF BELLE PLAINE, IOWA.

IMPROVEMENT IN TAN-VATS.

Specification forming part of Letters Patent No. **150,657**, dated May 5, 1874; application filed March 14, 1874.

To all whom it may concern:

Be it known that I, SAMUEL H. HALL, of Belle Plaine, in the county of Benton and State of Iowa, have invented a new and valuable Improvement in Tan-Vats; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a sectional view of my tan-vat, and Fig. 2 is a plan view of the same.

This invention has relation to racks which are applied inside of tan-vats, and intended for hanging the hides to be treated in the tan-liquor. The nature of my invention consists in the application of stirrers to an oscillating rack, for the purpose of stirring the solid substances about in the liquor, and keeping them suspended in it, as will be hereinafter explained.

In the annexed drawings, A designates a tan-vat, and A' the hinged cover thereof. Inside of this vat, and supported by trunnions *t t*, is a horizontal oscillating shaft, B, which is provided with a lever, G, by which it is oscillated. To this shaft B racks D D are rigidly secured, so as to extend out at right angles on each side of it, in which racks rows

of pins *c* are fixed, to which the hides, represented by the letter *b*, are attached. The lower ends of the hides are free to swing when shaft B is oscillated. C C are two pendants, which are rigidly secured to the shaft B near its ends, and sustained by means of inclined braces *a a*. The lower ends of these pendants are connected together by a broad flat board, E, which is located near the bottom of the vat.

When the hides *b* are hung on the pins *c*, and adjusted in the tanning-liquor in the vat, oscillating motion is given to the frame, which causes the hides to swing about in the liquor, at the same time the board E and pendants C C will agitate the liquor, and keep the solid particles of the tan in solution, thus equalizing the strength of the fluid in the vat.

What I claim as new, and desire to secure by Letters Patent, is—

The dash-board E and pendants C C, applied to an oscillating bar, B, in combination with the racks D D, substantially as shown and described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SAMUEL H. HALL.

Witnesses:

H. H. HILDENBRAND,
J. F. ROBERTS.