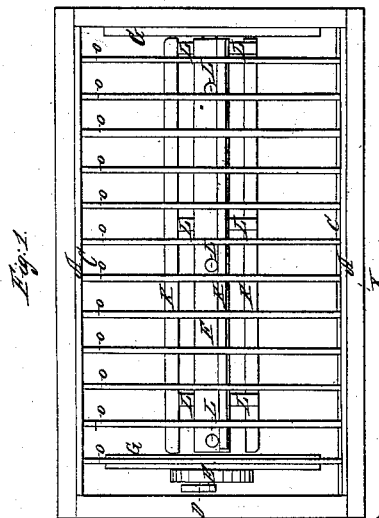
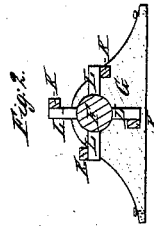
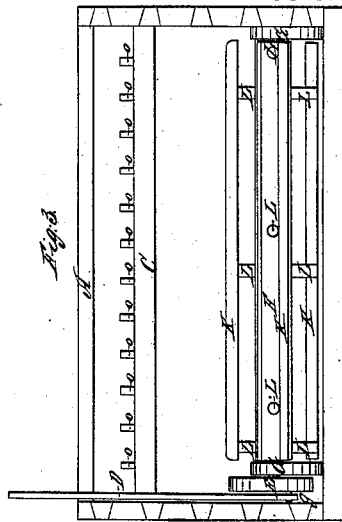


W. La Dew,

Tan Vat,

N<sup>o</sup> 54,647.

Patented May 8, 1866.



Witnesses:

Thomas Corcoran  
John J. Corcoran

Inventor:

William La Dew

# UNITED STATES PATENT OFFICE.

WILLIAM LA DEW, OF NORWAY, (GRAY P. O.,) ASSIGNOR TO HIMSELF AND HORACE U. SOPER, OF BATAVIA, NEW YORK.

## IMPROVEMENT IN ARRANGING VATS FOR TANNING.

Specification forming part of Letters Patent No. 54,647, dated May 8, 1866.

*To all whom it may concern:*

Be it known that I, WILLIAM LA DEW, of the town of Norway, (Gray P. O.,) in the county of Herkimer and State of New York, have invented a new and Improved Mode of Constructing and Arranging Vats for Tanning Leather; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in so constructing and arranging a vat for tanning leather that the tanning-liquor shall be equalized through the vat at all times as to strength, and the hides or leather shall be constantly and uniformly exposed to its influence.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct a vat in the usual form now common among tanners, about nine feet long, six feet deep, and five feet wide; but my invention can as well be applied to vats of larger or smaller dimensions. I make a wheel from eighteen inches to two feet in diameter, long enough to extend the whole length of the vat, leaving space enough at one end to place a wheel on the end of the axle of the main wheel. I make four or more buckets to the main wheel by attaching a narrow strip of board to arms inserted in mortises at right angles to each other through the axle of the main wheel, leaving a small space between the said axle and the said strip. The axle is lettered F and the said strips K K. This axle is longer than the buckets at one end to allow the attachment of a wheel, which I make two to four inches larger than the main wheel, and attach firmly a pin to it, near the circumference, on the outside, to which pin I attach one or more handles loosely, which extend above the vat, so that one or more persons can revolve said main wheel. This wheel to which the pin is attached is lettered E and the handle D and the pin by letter g. The main wheel, by means of its axle, is attached to standards fastened in the bottom of the vat, so that it shall revolve in gudgeons in said standards, and in its revolution will pass within about two inches of the bottom of the vat, and it may be oper-

ated by hand, or have its handle attached to some simple device connected in the machinery, and then may be operated by power. About one foot from the top of the vat I attach to its sides, one on each side, two cleats, upon which rest slats, (marked O,) upon which the leather is hung near the middle of a side or skin, so that the ends of the side will hang down in proximity with the wheel at the bottom; or hooks may be driven into the cleats and the leather hung upon the hooks.

By this arrangement the leather is allowed to remain in the liquor till it is sufficiently tanned without being constantly raised and exposing it to the air, which very much retards the process of tanning. The tanning-liquor is constantly equalized in strength through the entire vat by the revolution of the wheel at the bottom, which cannot be accomplished by the mere agitation of the top of the liquor. The frequent handling of the leather in the vat is obviated, and all the advantages of frequent handling without any of the disadvantages of great labor and exposure to the air are obtained by the motion given to the leather in the liquor by the agitation thereof by the main wheel, and by the exposure of every part of the leather to the tanning influence of the liquor.

The tanning-liquor may be strengthened from time to time, as may be required, without raising the leather, and the liquor is then equalized by the revolution of the main wheel.

The great advantages are obtained of saving labor, hastening the process of tanning, the saving of tanning material, and the superiority of stock produced. It is also evident that the leather is more readily plumped by being hung in the liquor, and will receive more readily a greater quantity of tan and be increased in weight.

Having thus described my invention and its operation, what I desire to secure by Letters Patent is as follows:

1. Constructing a tan-vat with the slats or hooks so that the leather may be hung in the tanning-liquor, in combination with a movable wheel or other movable machinery located in the bottom of the vat, to be operated either by hand or power, for the purpose of equalizing the strength of the tanning-liquor and

imparting a motion to the leather hanging therein, constructed and arranged as described, and for the purposes set forth.

2. Placing in the bottom of the vat a movable wheel with buckets or other movable machinery, so arranged as to be operated by hand or power for the purpose of plunging up and agitating the tanning-liquor, and also impart-

ing a motion to the leather hanging therein, thus saving labor both in handling and laying away, constructed and arranged as described, and for the purposes set forth.

WM. LA DEW.

In presence of—

H. U. SOPER,

GEO. HURLBURT.