

*Brewer & Wimer,*  
*Tanning Apparatus,*  
*No. 48361, Patented June 27, 1865.*

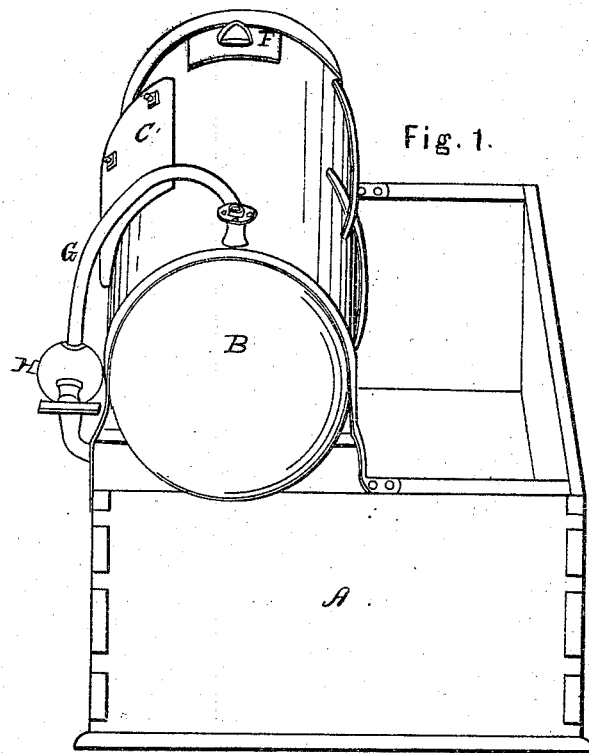


Fig. 1.

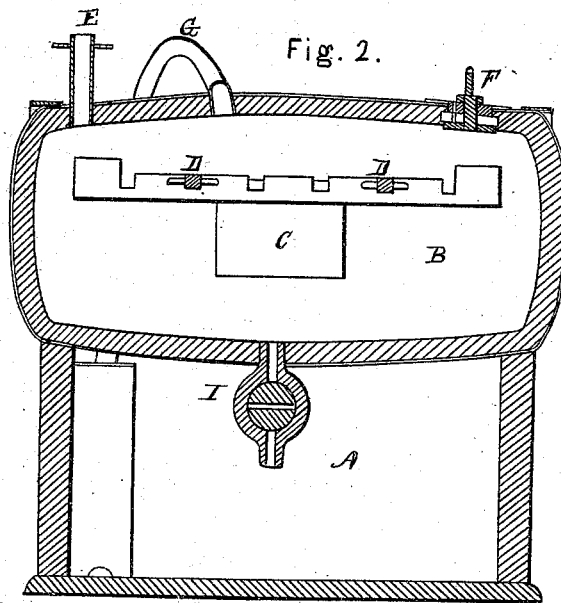


Fig. 2.

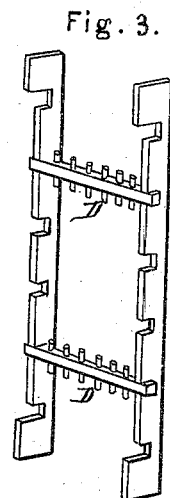


Fig. 3.

Witnesses:  
*W. H. Burdette*  
*A. W. McCalland*

Inventor:  
*O. H. Brewer*  
*W. Wimer*

# UNITED STATES PATENT OFFICE.

O. H. BREWER, OF SHANNON, AND WM. WIMER, OF FREEPORT, ILLINOIS,  
ASSIGNORS TO THEMSELVES AND ISAIAH BEST.

## IMPROVED APPARATUS FOR TANNING.

Specification forming part of Letters Patent No. **48,361**, dated June 27, 1865.

### *To all whom it may concern:*

Be it known that we, O. H. BREWER, of Shannon, Carroll county, and W. WIMER, of Freeport, in the county of Stephenson, and State of Illinois, have invented new and useful Improvements in Tanning; and we hereby declare that the following is a full and complete description of the construction and operation of the apparatus therefor, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an end view, and Fig. 2 is a longitudinal section.

Our invention consists in devices and apparatus for manipulating hides and skins, both in liming and tanning, by means of which they can be subjected to the action of liquids in a chamber to a greater or less extent exhausted of its atmosphere, thus facilitating the action of the liquid upon the hides and skins.

A represents a vat, of convenient capacity to hold the liquid to be used in the process, either for depilating or tanning. This may be constructed in the ordinary manner of constructing tan-vats. Immediately above, or in close proximity with, the said vat we place an air-tight chamber, B. This air-tight chamber is provided with an opening on one side (shown at C) for the introduction of the skins, which aperture can be closed with an air-tight door, C'. The interior is provided with a series of racks, D, upon which the skins are suspended during the operation.

E represents a pipe connecting with the interior of the chamber B, and to which an exhaust-pump can be attached for the purpose of exhausting the air from the chamber.

F represents a valve placed upon the inside of the chamber, and which is to be held in place by a graduated scale lifting upward, for the purpose of determining the degree of exhaustion the chamber is subjected to.

G represents a pipe connecting with the upper portion of the chamber B, and extending to the vat A. This pipe is provided with a stop-cock, H, which is closed while the cham-

ber is being exhausted and opened to allow the liquid from the vat to flow into the chamber by atmospheric pressure.

I represents a pipe placed in the lowest part of the chamber, and also provided with a stop-cock, which is closed while the chamber is being exhausted, and is only open to draw off the spent liquor from the chamber B.

The operation of this invention differs from others of a similar character in the following-named particulars: The skins are suspended in the chamber upon the racks, and instead of pumping in the liquid in which they are subsequently immersed, we exhaust the air from the chamber before the liquid is introduced; and in order to determine the degree to which this exhaustion is carried, we have provided the valve F, by means of which we can determine accurately the number of pounds pressure of the atmosphere. This operation opens the pores of the skins more perfectly than can be done when the exhaustion takes place after the skins are immersed; and, further, we can at any time during the immersion of the skins determine the degree of exhaustion in the chamber B. By exhausting the chamber after the skins are placed therein and before any liquid is introduced renders the skins more porous and more easily permeable to the liquid than when the exhaustion takes place after immersion. The degree of exhaustion of the chamber B should be carried up to about fourteen pounds to the inch, and kept so during the immersion of the skins.

What we claim as our invention, and desire to secure by Letters Patent, is—

The herein-described apparatus, consisting of the vat A, chamber B, pipes E G H, and valve F, when these several parts are combined, arranged, and operated as and for the purpose herein specified.

OLIVER H. BREWER.  
WILLIAM WIMER.

Witnesses:

JOHN FIGELEY,  
JOHN COATES.