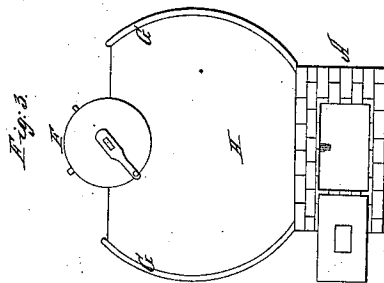
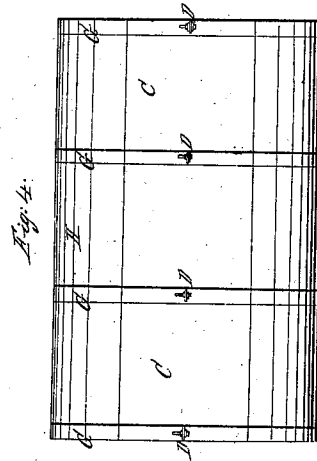
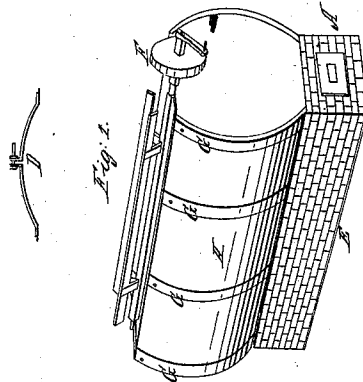
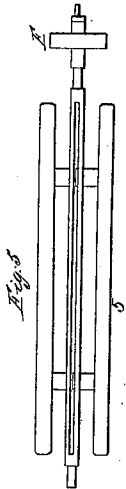
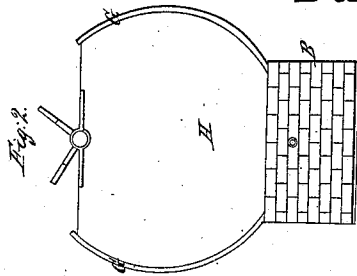


I. C. England,

Tanning Apparatus,

N^o 5,165.

Patented June 19/87.



UNITED STATES PATENT OFFICE.

LEWIS C. ENGLAND, OF NEW YORK, N. Y.

TANNING MOROCCO.

Specification of Letters Patent No. 5,165, dated June 19, 1847.

To all whom it may concern:

Be it known that I, LEWIS C. ENGLAND, of the city and State of New York, have invented a new and useful Improvement in the Art of Tanning; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in the continuous application of heat by fire or steam to a tanning tub of a certain construction hereinafter described and to the tanning liquor while in the tub so as to keep the tanning liquor at the necessary and proper temperature, while the hides or skins and liquor are together in the tub, and in applying to the tanning tub a dasher to keep the hides or skins in motion or circulation in the liquor while the heat is applied to the tub or liquor.

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

I construct my tanning tub with circular sides and bottom forming three fourths of a circle or thereabouts, with the top of it open and in width equal to the chord of the arc of one fourth of the circumference of the circle formed in part by the sides and bottom, with ends equare and perpendicular. I construct about two feet six inches in width of the circular bottom of the tub extending the whole length thereof, of copper as a heating surface for the application of heat by fire or steam. I construct a furnace or flue of the requisite dimensions for using fire or steam extending the length of the tub except six inches at each end to be filled or protected by some nonconductor to guard the ends of the tanning tub from the direct action of the fire or steam or the heat therefrom, one end of the furnace or flue is furnished with a proper aperture for introducing the fire or steam, the other end is also furnished with a proper aperture, or opening for the escape when necessary, of smoke, or steam; and I place the tanning tub directly over the furnace or flue. I apply a dasher to the tanning tub, the gudgeon of which rest on the ends of the tub, in the manner shown in the accompanying drawing. The buckets or levers of this dasher operate on the upper portion of the liquor contained in the tub while the larger portion of it will be

above the surface. The effect of causing this dasher to revolve will be to give a gentle circulating motion to the liquid that will keep the hides floating without causing them to double over, and to become entangled or injured in any way by the dasher.

The tanning liquor, which is prepared from sumac, or bark, in the usual manner is put, together with the skins to be tanned, into the tanning tub, and the necessary degree of heat continuously applied thereto; the dasher is then set, and kept in motion, and as evaporation takes place a portion of fresh liquor may be supplied according to the judgment of the operator.

In the accompanying drawing Figure 1, is a perspective view of the tub, with its appendages. Fig. 2 an elevation of its rear end, and Fig. 3, an elevation of the fore, and, Fig. 4, is a view of the copper bottom of the tanning tub, and Fig. 5, the dasher shown separately.

In these figures A, is the furnace, or stack; B, its rear end, E its side; F, a drum, or whirl, to receive a bolt for turning the dasher.

H, H, is the tub, and G, G bands of copper, or other metal, which may be fastened together and drawn tight by screws as shown at bottom of the tub Fig. 4.

C, C, is a view of the copper bottom.

I have in the foregoing description given the particular form of the respective parts, and have indicated the dimensions thereof; but I do not intend thereby to limit myself in these particulars while I construct my apparatus substantially as described; nor do I mean to limit myself in its use to the tanning of skins for the manufacturing of morocco leather, as it is equally applicable to the tanning of skins for other purposes.

What I claim as new in the above described apparatus, and desire to secure by Letters Patent, is

The manner of arranging and employing the dasher so as to operate on the surface of the tanning liquor, and thereby to keep up a gentle circulation thereof for the purpose set forth.

LEWIS C. ENGLAND.

Witnesses:

THOS. P. JONES,
W. J. DONOHOO.