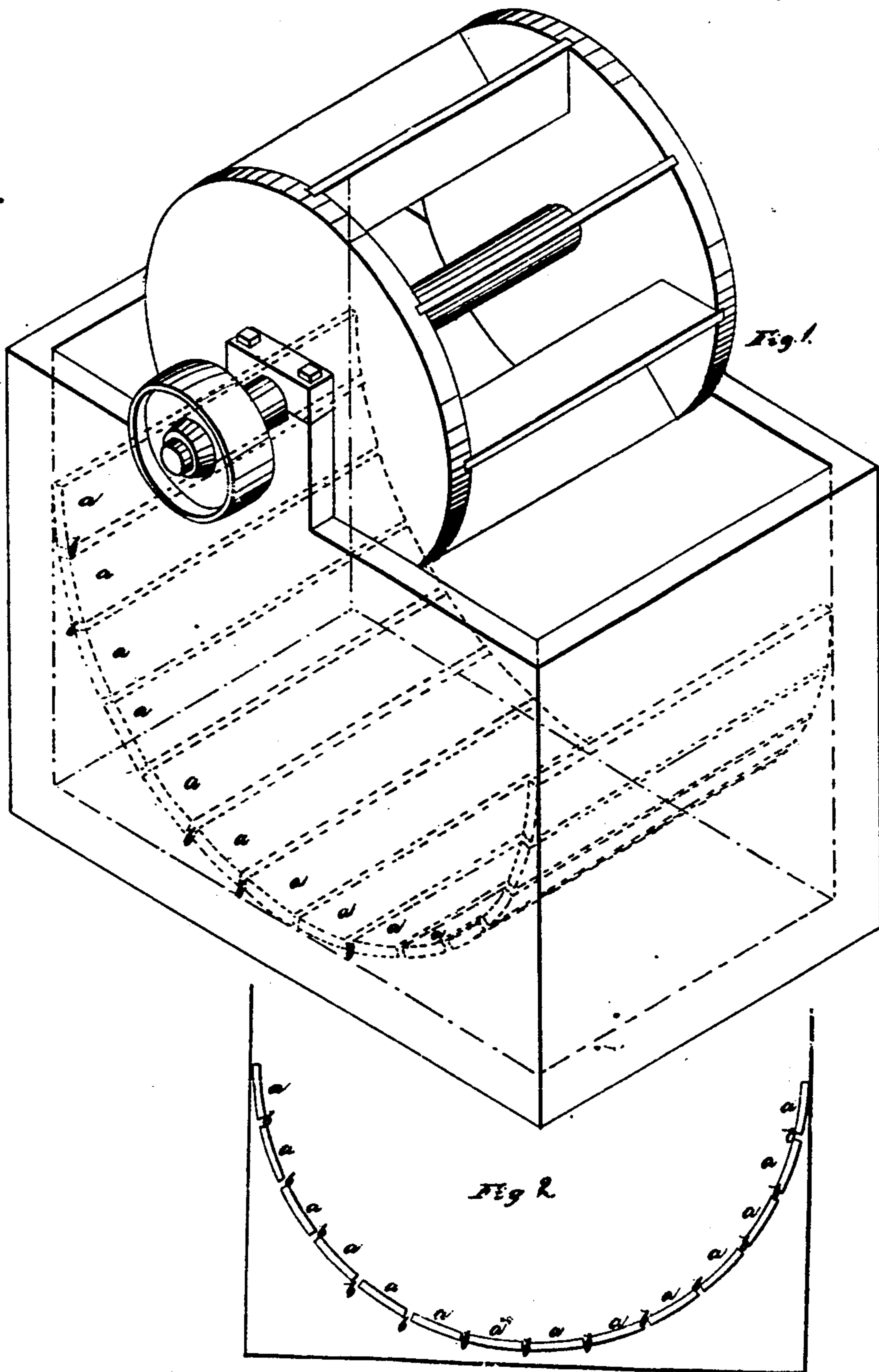


*L.C. England,*  
*Tan Vat,*  
*No. 7,854,* *Patented Dec. 24, 1850.*



# UNITED STATES PATENT OFFICE.

LEWIS C. ENGLAND, OF WILLIAMSBURGH, NEW YORK.

## VAT FOR TANNING HIDES.

Specification of Letters Patent No. 7,854, dated December 24, 1850.

*To all whom it may concern:*

Be it known that I, LEWIS C. ENGLAND, of Williamsburgh, in the county of Kings and State of New York, have invented a new and useful Improvement in Vats for Tanning and for other Purposes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure I is a view in perspective. Fig. II is a view in section of my vat and similar letters refer to similar parts throughout.

The nature of my invention consists in an improvement in such vats or tanks used in the various processes of preparing leather, as are fitted with revolving handlers. In vats of the usual make the skins or hides can not be kept in a state of agitation throughout the whole of the vat, as some will lodge in the lower corners &c. and the handling of the remainder then requires a greater expenditure of power in consequence of the increased resistance. By the construction in such vats of a semi-cylindrical bottom of slats I am enabled to effect the handling of the hides in the various processes of liming, baiting, scouring, washing, and tanning, far more rapidly and economically than in vats of the usual make.

I construct my improved vats generally in the manner and of the materials usually employed, but I arrange across the vat, in semicylindrical form a false bottom of slats as shown at (a); these are to be placed with small intervals (b) between so as to permit the free passage of the liquor employed in the process, that it may be drawn off when required in the usual manner, as well as to facilitate the agitation.

The vat may be made of any required shape but the proportions which I prefer as most advantageous, are that the radius of the semi-cylindrical bottom should be one half greater than that of the wheel or handler, and the lowest point should be at a depth equal to three fourths of the length of

the vat, the width of the vat should be only so much greater than the length of the wheel as will admit that to rotate freely.

The operation will be as follows: The skins or hides to be treated being put into the vat will rest on the bottom of slats; the proper liquor for the desired process will then be introduced and when the vat is filled the handler will be put in rotation, having a speed at the periphery of from two to three feet per second. The mass of hides floating in the liquor is kept constantly rolling over on the slats by the action of the floats of the handler, and a portion of the liquor urged by the motion against the slats at one end of the vat finds its way between them and rises again between the slats at the opposite end, thus maintaining a constant circulation of the liquor throughout the vat. In the process of washing, the impure water is drawn off below the false bottom and a supply of pure water is afforded at the surface, while the whole is kept in agitation by the handlers, the slats in this facilitating materially the drawing off the impure water.

It is evident that rollers may be used in the place of the slats or that other mechanical variations of my construction may be made which will produce the same result and therefore I do not confine myself to the precise forms set forth herein but vary the same as the circumstances may require.

I do not claim herein the use of the revolving handler as already secured to me by Letters Patent bearing date of June nineteenth 1847 but what I claim as of my own invention and which I desire to secure by Letters Patent is—

The slats as described, in combination with the vat and the handler substantially in the manner and for the purposes as herein set forth.

LEWIS C. ENGLAND

Witnesses:

S. H. MAYNARD,  
THOMAS H. WOOD.