

I. C. England.

Leaching Tan Bark.

N^o 95,009.

Fig. 1

Patented Sep. 21, 1869.

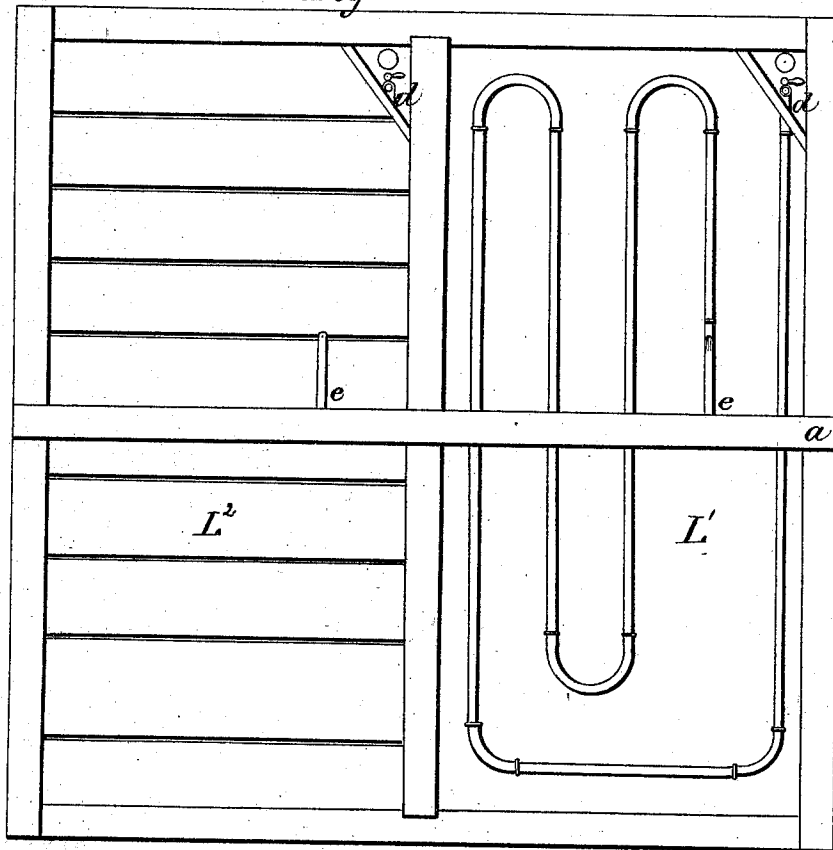
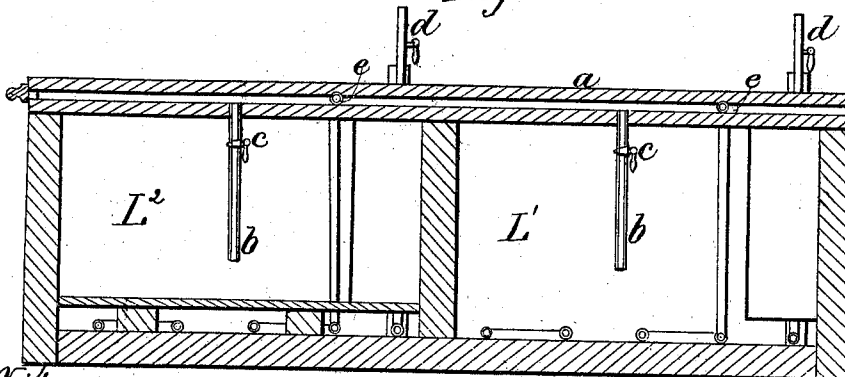


Fig 2



Witnesses
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LEWIS C. ENGLAND, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 95,009, dated September 21, 1869.

IMPROVED METHOD OF HEATING TAN-BARK LEACHES BY STEAM.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, LEWIS C. ENGLAND, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and improved Method of Heating Tan-Bark Liquors by Steam; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is a plan view of two leach-vats, L¹, with false bottom removed, L², leach-vat with false bottom in place.

Figure 2 is a cross-section.

The nature of my invention consists in an improved method of heating by steam tan-bark leaches and liquors for extracting the tanning-properties from bark in a more concentrated form than can be done by any method heretofore employed, of heating of them by steam. Heretofore the steam has been discharged directly into the leaches, or into the liquors in the junk, (which is to be pumped on to the bark in the leaches after it is thus heated,) and there condensed, thus adding more water to the liquor that is being concentrated, for which purpose, mainly, the heating is done. One important endeavor of tanners, and also of manufacturers of concentrated extract of bark, is to make the liquors as strong as possible before it is drawn off from the bark; therefore, it is important that the bark-liquors should be heated without allowing the heating steam to be discharged into the stronger liquors, by furnishing my leaches, and also my junk, with coils or strands of suitable steam-pipe, and the steam passing through a sufficient length of pipe, it is then discharged, in a partially condensed form, into another and larger pipe or hollow log, placed

over or near the top of the leaches. I am enabled to heat the stronger liquors effectually, without the disadvantage of discharging and condensing the steam into them. Steam, either direct or exhaust, is admitted at *d* and after passing through the coil or strands of pipe, passes into the tube or hollow log *a* at *e*, and then passes through the discharge-pipes *b b*, into the oldest and weakest leaches, where hot water is particularly required, or to any other desired place. There are other disadvantages resulting from discharging the steam directly into the leaches. The jarring produced thereby is injurious to the leaches. The leach being filled with bark and liquor, will not heat evenly all over alike, but will remain unheated a few feet from the point where the steam is discharged, thus making it necessary to draw the liquor to the junk, and to pump it back again, to equalize the temperature throughout the whole of the leach-vat.

Having herein described my invention, its construction and operation,

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. Large tube or hollow log, *a*, placed over, or near the top of the leach-vats.
2. Discharge-pipes *b b*, with stop-cocks *c c*, through which the condensed or partially condensed steam is admitted into the desired leach, or their equivalents.
3. Conveying the condensed or partially condensed steam through the large tube *a*, and discharge-pipes *b b*, as herein set forth.

LEWIS C. ENGLAND.

Witnesses:

W. W. DOUGHERTY,
I. B. TEVIS.