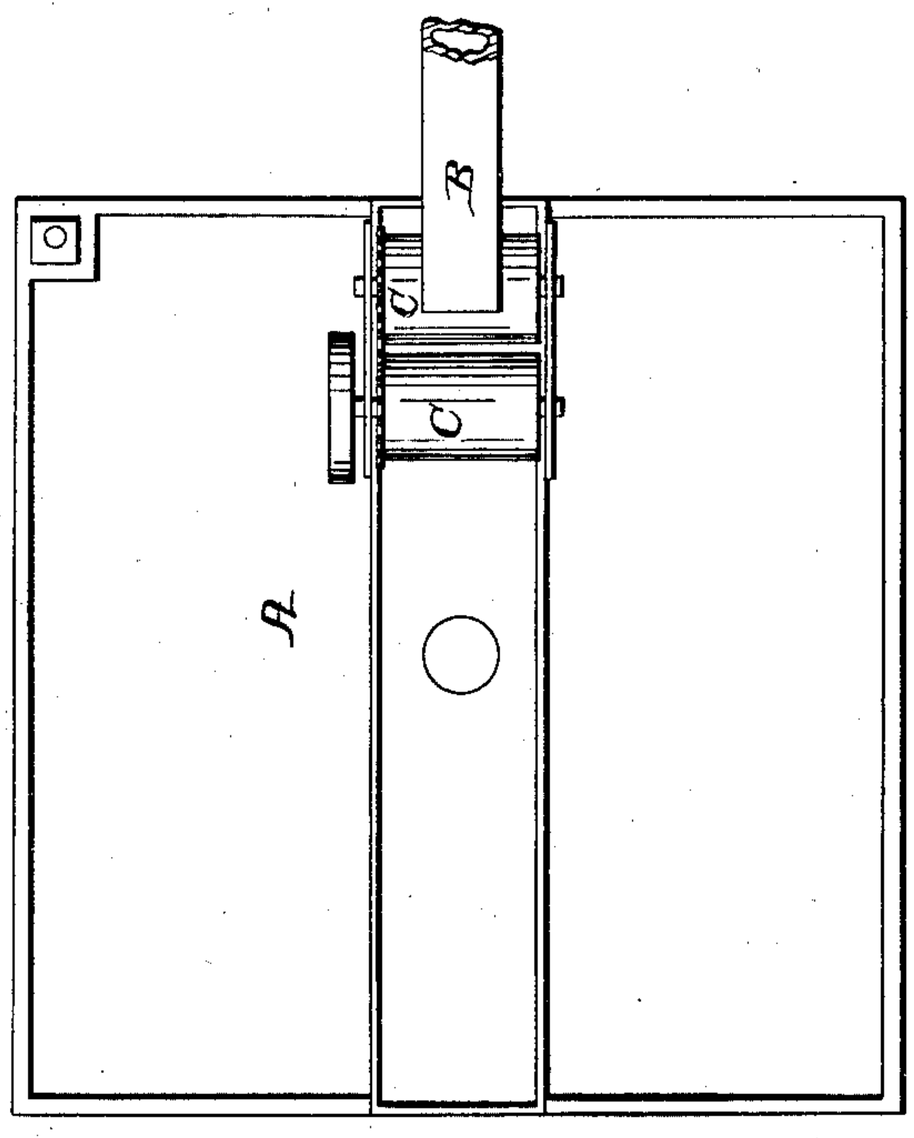
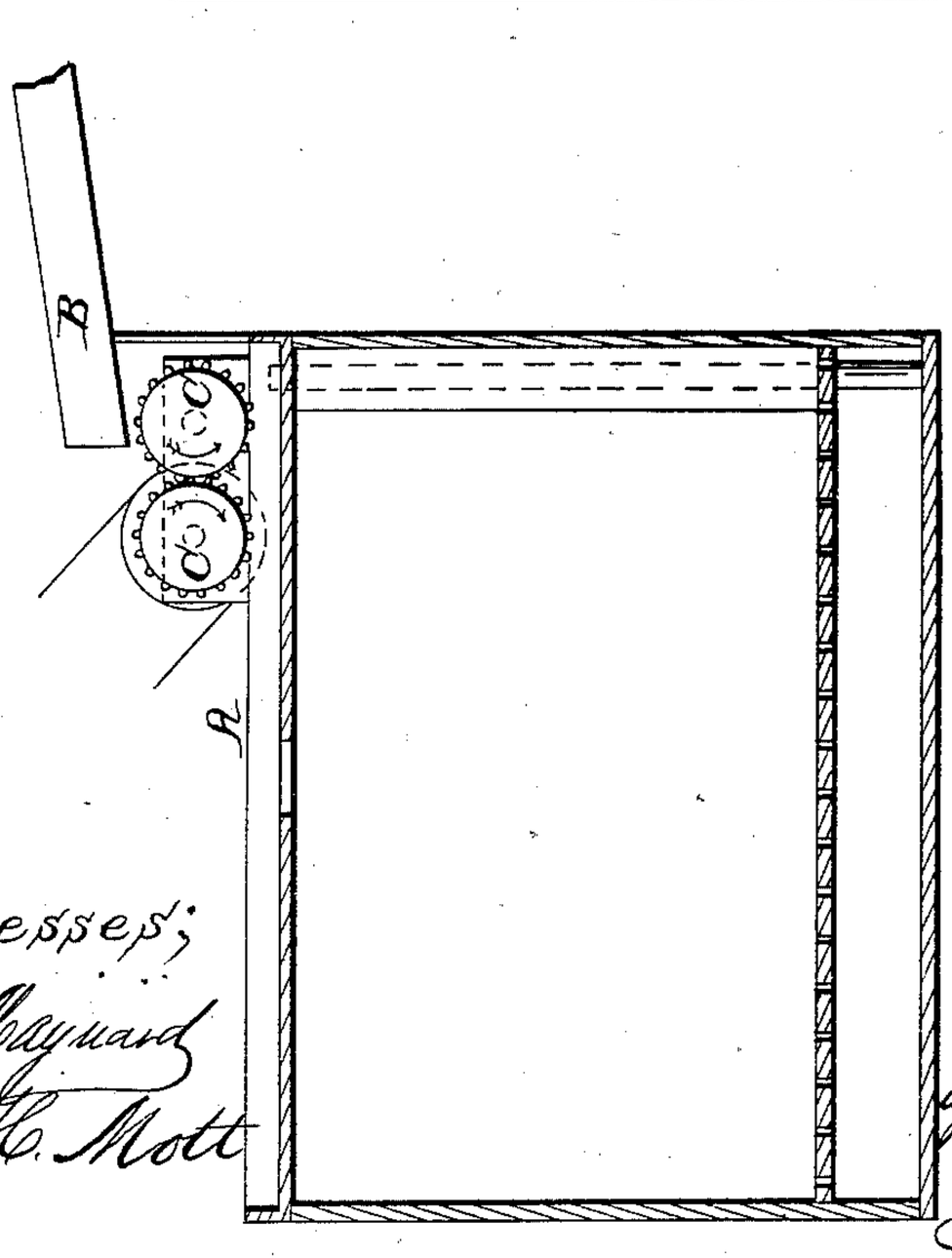
L. C. England,

Tanning Apparatus.

No. 24,727. Patented July 12, 1859.





Witnesses;
S. H. Maynard
George H. Mott

Inventor;
Lewis C. England
by his Attorney
L. P. Pinkham

UNITED STATES PATENT OFFICE.

LEWIS C. ENGLAND, OF OWEGO, NEW YORK.

APPARATUS FOR TANNING.

Specification of Letters Patent No. 24,727, dated July 12, 1859.

To all whom it may concern:

Be it known that I, LEWIS C. ENGLAND, of Owego, county of Tioga, and State of New York, have invented certain new and useful Improvements in Preparing and Treating Tanbark; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the annexed drawing, making a part of this specification, in which—

Figure I is a side view partly in section. Fig. II is a top or plan view, and similar letters indicate similar parts throughout the figures.

My invention lies in a method of treating the bark after it has been delivered from the usual bark mill, and before it is deposited in the leach-vat.

It is especially applicable as an improvement to that mode of preparing tan liquor wherein the ground bark is conveyed from the bark mill to the leach-vat by means of a current of water, as set forth in Letters Patent No. 22,717, issued to me bearing date of January 25th, 1859.

The bark, as it comes from the ordinary mills, has been simply broken into small pieces, and when wetted by the water employed to move it onward, as therein described, it is to some extent so softened, particularly if hot water has been employed, that it is capable of being advantageously operated upon by the action of crushing.

My improvement consists in interposing between the trough which conveys the wetted bark, and the leach-vat a pair of crushing rollers whereby the pieces may be so much reduced, at least in the direction of their thickness, that those hard ones which would otherwise have remained for a long time dry in the interior are rendered so thin that the liquor can act expeditiously upon them.

In the drawings annexed A represents the leach vat and B the conveyor trough through which the wetted bark is delivered from the ordinary bark mill, and terminating as usual over the leach vat. Here I interpose a pair of rollers C, which are geared together so as to revolve in opposite directions. The conveyor B discharges directly upon the line between the two rollers and those are to be set so near together that as they revolve the pieces of ground bark will be crushed as thin as is desired. Revolution is given to one of the rollers, in the direction indicated, by any suitable means, and being geared together the other is thus driven also in the direction required. The wet bark is by these rollers crushed so thin that the water it already contained is squeezed out, and as each piece will necessarily expand as soon as it passes the rollers and falls into the vat, it will at once be readily soaked again. Thus it will be seen that no piece can pass into the vat without being in a condition to be at once acted upon by the water throughout its entire substance, while it is well known that pieces of the bark as ordinarily employed are often found to be dry at the central portion a long time after they had been immersed in the water.

By my method of treating the bark a larger quantity of strong liquor can be obtained from a given weight of bark, while the leaching is also effected in a much shorter time.

I claim—

In combination with the leach vat and the conveyor trough, the pair of rollers to crush the wet bark before it is delivered into the leach vat, substantially as set forth.

In witness whereof I have hereunto set my hand.

LEWIS C. ENGLAND.

Witnesses:

J. P. PIRSSON,

S. H. MAYNARD.