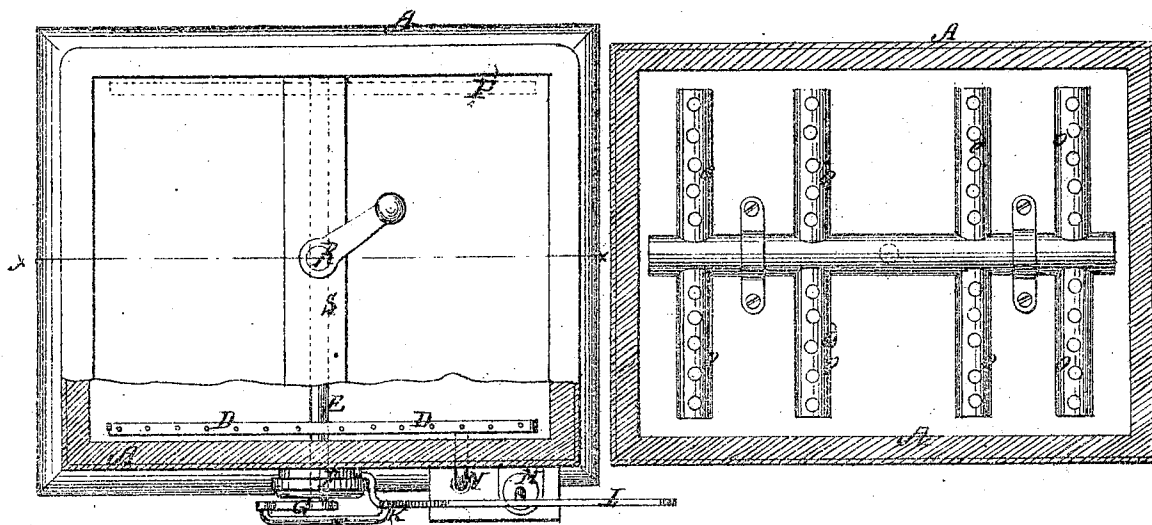
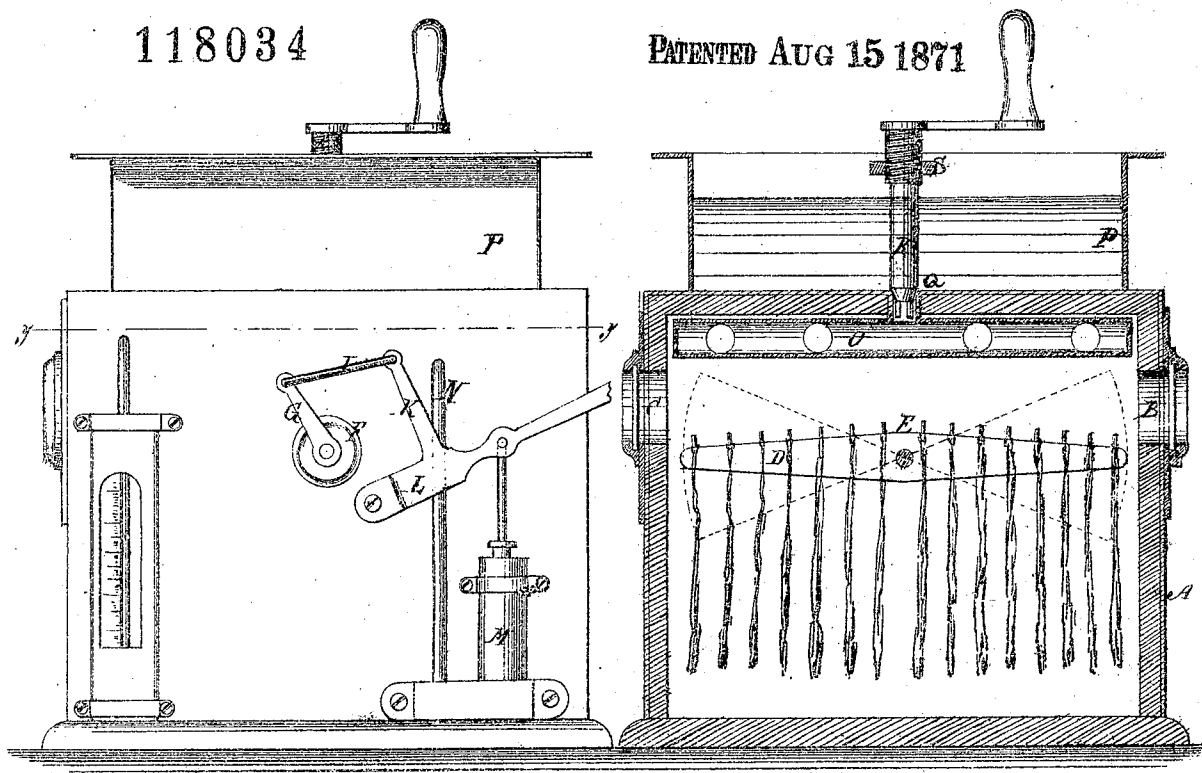


W. Masek's Tanning Apparatus.

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PATENTED AUG 15 1871



Witnesses

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UNITED STATES PATENT OFFICE.

WENZEL MASEK, OF NASHVILLE, TENNESSEE.

IMPROVEMENT IN APPARATUS FOR TANNING IN VACUO.

Specification forming part of Letters Patent No. 118,034, dated August 15, 1871.

To all whom it may concern:

Be it known that I, WENZEL MASEK, of Nashville, in the county of Davidson and State of Tennessee, have invented a new and Improved Tanning Apparatus; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in apparatus for tanning in vacuo; and it consists in an improved mode of operation by means of an oscillating rack in an air-tight tanning-box having a pump for withdrawing the air, a vat for supplying the liquid on the top by opening a valve, and a liquid-distributing apparatus inside. The box is also provided with openings, closed air-tight by glass, for watching the progress, and a vacuum-gauge for indicating the vacuum, all as hereinafter described.

Figure 1 is a side elevation of my improved apparatus. Fig. 2 is a sectional elevation taken on the line *x x* of Fig. 3. Fig. 3 is a top view with a part broken out, and Fig. 4 is a horizontal section taken on the line *y y* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is a large strong box, inclosed air-tight on all sides; it is preferably made of wood covered with some non-corrosive sheet metal. It has one or more large openings, B, through the sides near the top, closed air-tight by glass covers. Said openings are for introducing and removing the hides and admitting light for observing the progress of the work. D represents a rack of four or more arms mounted on a shaft, E, traversing the case near the top and projecting through it at one end in an air-tight stuffing-box, F. This end is provided with a crank, G, for oscillating it. In this case the crank is connected by a link, I, with an arm, K, of the lever L, which works the air-pump M, arranged for pumping the air out of the box through a pipe, N, entering the box near the top. Above the

rack is a system of perforated distributing-pipes, O, for receiving the tanning liquid from the vat P above and distributing it over the hides which are suspended from the arms D, which have hooks or other suitable means for the purpose. Q is a passage through the top of the box A and bottom of vat P for admitting the tanning liquid, and R is a valve for closing and opening, by turning the stem, which extends up through the bar S, and is, together with the bar, screw-threaded for raising and lowering it by the said turning, for which it is provided with a crank.

The air being pumped out of the box opens the pores of the skins, whereby they are prepared to be most thoroughly saturated with the liquid, which, being let in upon the hides in this condition in a distributed way, is, together with the agitation of the hides in the liquid by the oscillating frame, calculated to very greatly accelerate the work. This I have demonstrated by practical tests, by which I find sheep-skins may be completely tanned in six hours; calf-skins, twenty-four hours; cow-hides, thirty-six, and ox-hides in sixty hours. Moreover, the quick saturation of the hides with the liquid makes the leather more even in quality inside and out. The quality is also improved; for the fibers on the outside are not damaged by the too great action of the tanning liquid, as in the old and slow process, in which it is necessary to expose the outside too long in order that the liquid may penetrate to the interior.

The pump and oscillating rack may be worked by hand or other power, either together or independently of each other.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A vat, P, containing the tanning liquor, agitating-rack D E, and vacuum-chamber A, combined and arranged with sprinklers O, as and for the purpose specified.

WENZEL MASEK.

Witnesses:

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