

(No Model.)

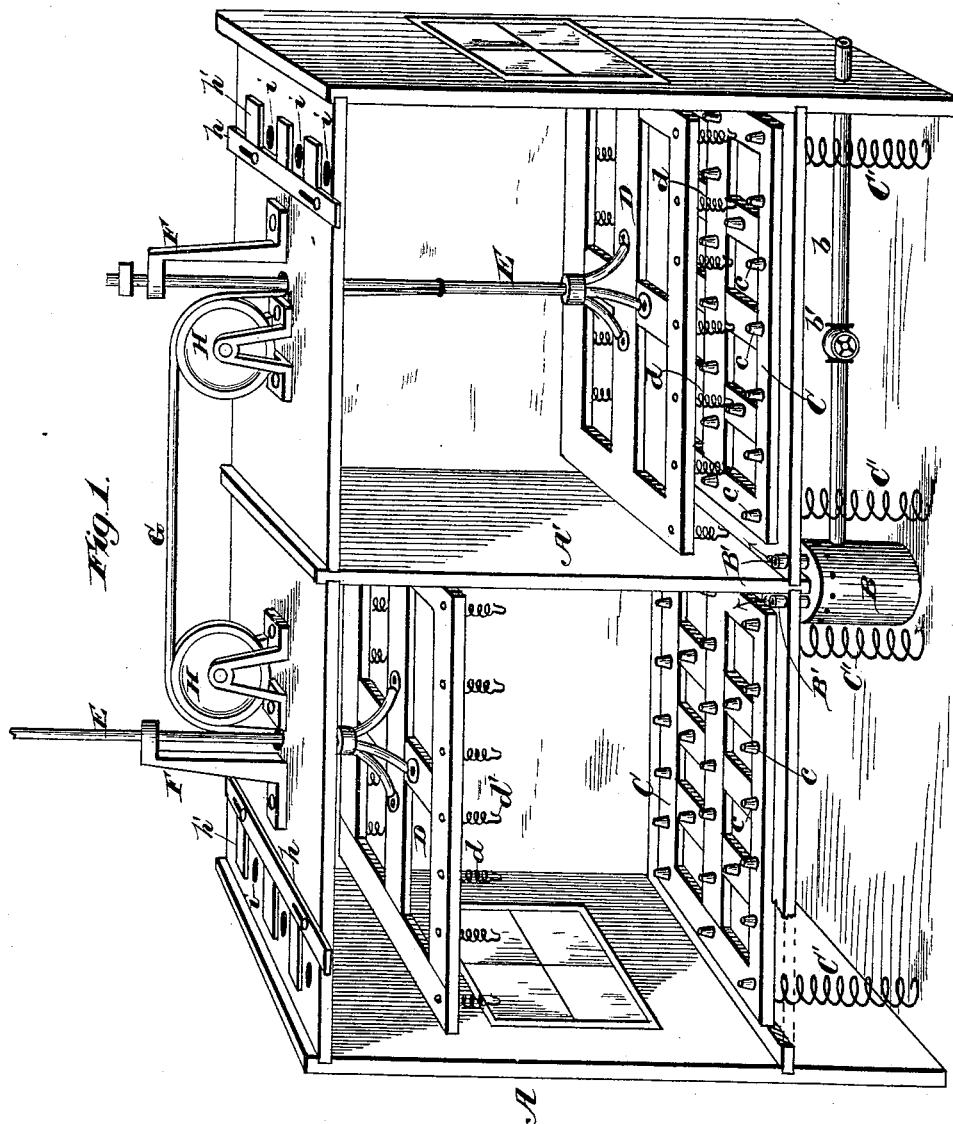
2 Sheets—Sheet 1.

A. ISKE & A. WETTER.

MACHINERY FOR TREATING LEATHER WITH HOT AIR.

No. 266,695.

Patented Oct. 31, 1882.



Witnesses.

Robert Everett.  
Edward J. Siggers.

Inventors.

Anthony Iske  
and Albert Wetter

By Wm H Babcock

Atty.

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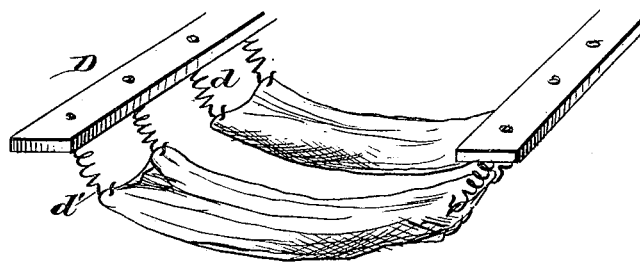
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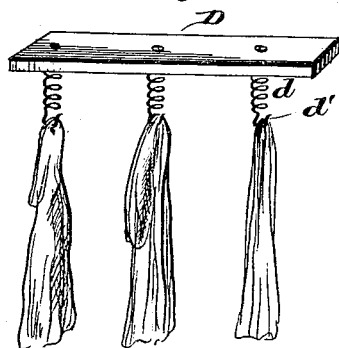
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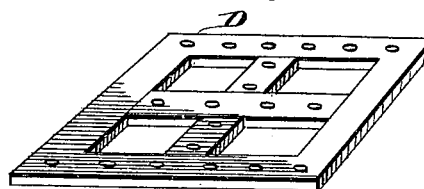
*Fig. 2.*



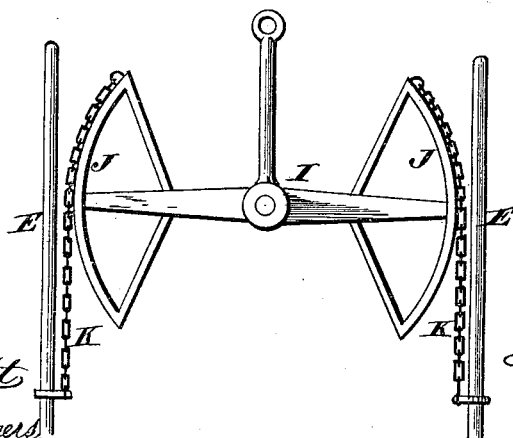
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



*Witnesses.*

*Robert Everett*  
*Edward G. Siggers*

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*Anthony Iske*  
*and Albert Wetter*

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# UNITED STATES PATENT OFFICE.

ANTHONY ISKE AND ALBERT WETTER, OF LANCASTER, PENNSYLVANIA.

## MACHINERY FOR TREATING LEATHER WITH HOT AIR.

SPECIFICATION forming part of Letters Patent No. 266,695, dated October 31, 1882.

Application filed September 15, 1882. (No model.)

*To all whom it may concern:*

Be it known that we, ANTHONY ISKE and ALBERT WETTER, citizens of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Treating Leather; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to tanning leather by means of hot air and without the use of tannin or similar substances. It consists in certain improvements, hereinafter set forth, in the apparatus for applying hot air thereto, and in the devices for working the hides during such application.

In the accompanying drawings, Figure 1 represents a perspective view of a casing divided into two compartments and of the devices for working the hides therein, one side of said casing having been removed. Fig. 2 represents an enlarged detail view of a part of one of the frames for hanging hides, illustrating one method of suspension. Fig. 3 represents an enlarged detail view of a part of one of said frames, illustrating another method of suspension. Fig. 4 represents a detail view of one of said frames. Fig. 5 represents in detail a modification of the devices for raising and lowering said frames.

A designates a casing of considerable size, which is centrally divided by a vertical partition, A', forming two compartments for treating hides.

B designates a hot-air drum, which is supplied from any suitable source through pipe b, provided with a cut-off cock, b'. This drum is provided with a series of tubular outlets, B', preferably in its top, and from these distributing-pipes extend to any desired parts of said compartments within casing A.

At or near the bottom of each compartment is a fixed frame, C, having a number of studs, c, arranged on its upper face. Above each frame C is a vertically-movable suspension-frame, D, which is similar in size and shape,

and provided with a number of depending springs, d, terminating in hooks d'. These frames D consist of bars arranged at right angles, so that several are necessarily parallel. As each bar is provided with a series of said hooks d', the hides may be hung at both ends from the corresponding hooks of two of these parallel bars, thus taking an approximately horizontal position, as shown in Fig. 2, or they may be hung by one end only, as shown in Fig. 3. Each frame D has a rod or stem, E, rising from it through the top of the casing and passing through a guide-bracket, F. A belt, G, is connected at each end to one of said stems and passes over two pulleys, H H. As one frame D descends the other rises. Power may be applied directly to one of the stems E.

Instead of the pulleys H and belt G, a pivoted bar, I, Fig. 5, may be employed, having a segment, J, at each end, and a chain, K, attached to each segment for the purpose of suspending the respective rods or stems E and their frames D.

The top of casing A, above each compartment, is provided with a series of holes, i, which are opened or closed at will by means of a slide, h, which is provided with a series of covers, h'. The draft is regulated by the opening or closing of these holes.

The operation of our apparatus is as follows: The hides, having been deprived of hair and flesh and slightly dried, are suspended from the frames D, either vertically or horizontally, as stated, and said frames are then given alternating reciprocating vertical motion, whereby they are rubbed and kneaded against the studs c on stationary frames C at the same time that the hot air from drum B dries them and cures them for preservation.

We are aware that it is not broadly new to work hides while subjected to the action of hot air for the purpose of curing them without tannin, and of keeping them pliable when cured or tanned; but our devices have special advantages not found in any of their predecessors. Very little power is employed, as the frames D counterbalance one another. The interior of each compartment is easily accessible to set right any little disarrangement of the hides or to clean and repair the devices

used. As the hides are hung separately and rise and fall in parallel lines, they cannot become entangled or balled.

5 The lower frames, C, have been described as fixed, and they are so, except when depressed by frames D; but said frames C are preferably mounted on springs C', which allow them to yield when frames D descend. This prevents jarring and preserves the hides from injury.

10 The rubbing of the hides against studs c not only keeps them pliable, but cleanses them of glutinous and fatty substances.

15 The operations of cleansing and curing are greatly expedited by the use of our apparatus above described.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

20 1. A compartment for treating hides with hot air, provided with a relatively-stationary studded frame, in combination with a reciprocating frame which carries the hides, substantially as set forth.

25 2. A compartment for treating hides with hot air, provided with a stationary frame, in combination with a vertically-movable hide-carrying frame and devices for supplying said compartment with hot air, substantially as set forth.

3. In a receptacle for treating hides with hot air, a vertically-movable frame provided with spring-hooks for suspending hides, in combination with a lower frame provided with studs against which said hides are plunged, substantially as set forth.

4. A lower frame, C, supported on springs C', and provided with studs c, in combination with an upper hide-hanging frame and devices for vertically reciprocating the latter to plunge the hides against said studs, substantially as set forth.

5. A pair of hide-suspending frames and suitable connecting devices, whereby one frame descends as the other rises, in combination with a pair of compartments for holding heated air within which they work, and lower frames provided with studs against which said hides are plunged, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

ANTHONY ISKE.  
ALBERT WETTER.

Witnesses:

H. R. McCONOMY,  
JOSEPH BAER.