

(Model.)

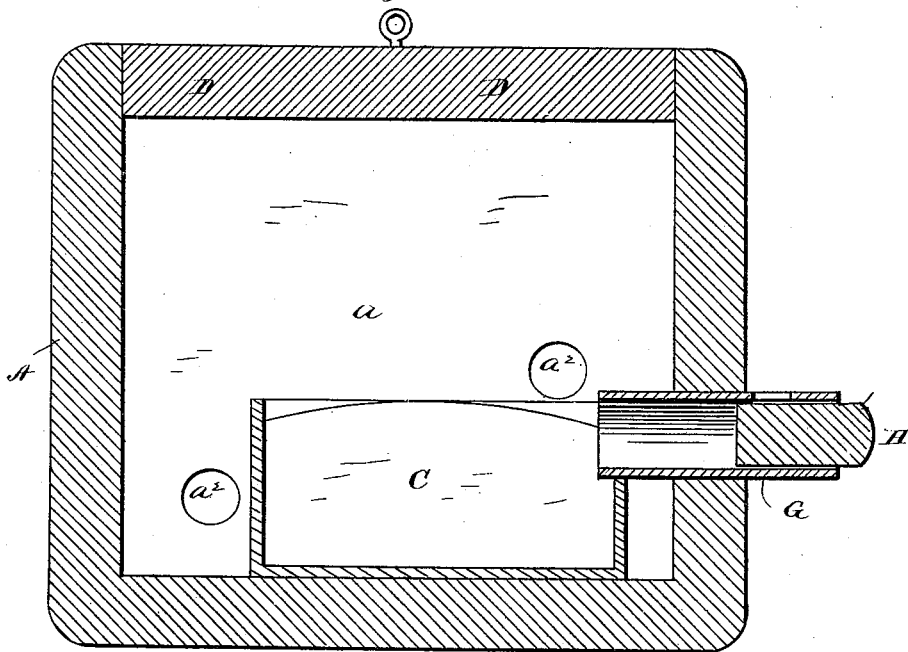
M. TURLEY.

PROCESS OF BATING AND TANNING HIDES.

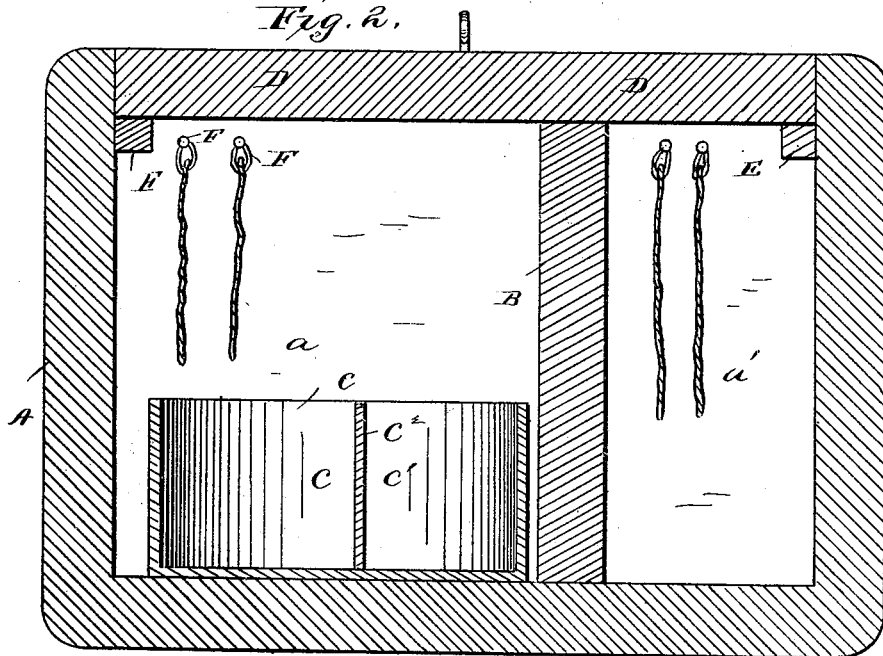
No. 262,516.

Patented Aug. 8, 1882.

*Fig. 1.*



*Fig. 2.*



Witnesses,  
Edmund L. Jewell.  
J. J. McCarthy.

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# UNITED STATES PATENT OFFICE.

MARSHALL TURLEY, OF COUNCIL BLUFFS, IOWA.

## PROCESS OF BATING AND TANNING HIDES.

SPECIFICATION forming part of Letters Patent No. 262,516, dated August 8, 1882.

Application filed November 1, 1881. (Model.)

*To all whom it may concern:*

Be it known that I, MARSHALL TURLEY, of Council Bluffs, in the county of Pottawattamie, and in the State of Iowa, have invented certain new and useful Improvements in Bating and Tanning Hides; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to an improved process or method of bating hides; and it has for its object to provide an improved means of neutralizing the lime employed in removing the hair therefrom. This object I accomplish by the process hereinafter specified. The apparatus which I prefer to use to carry out the invention is illustrated in the accompanying drawings, in which—

Figure 1 represents a transverse vertical sectional view of the apparatus employed in carrying out my invention, and Fig. 2 a longitudinal vertical section of the same.

The letter A indicates a chamber divided into two compartments by means of a partition, B. In the larger compartment, which is indicated by the letter *a*, is located a vessel, C, which is divided into two compartments, *c* and *c'*, by means of a partition, *c''*.

The apparatus is provided with a removable cover, D, which rests upon cleats E, secured to the interior of the chamber near its upper edge.

One of the compartments in the chamber C is designed to contain carbon or charcoal and the other to contain sulphur, which, when ignited, will generate carbonic-acid, and sulphurous-acid gases, which will permeate the hides and neutralize the lime. The hides, after being treated with lime in the usual manner, are suspended upon supports F on opposite sides of the compartment *a*, where they are thoroughly subjected to the action of the combined gases developed by the burning charcoal and sulphur. They are then removed and partially tanned, as usual, being subjected to the action of the tanning material for five or six days. They are then hung in the smaller

compartment *a'*, which communicates with the compartment *a* by means of apertures *a''* in the partition B, until they are thoroughly relaxed and softened by the gases passing from said compartment *a*, after which they are removed to the tanning-vats and the tanning process completed in the usual manner.

The air necessary to support the combustion of the burning materials is supplied through a tube, G, provided with a valve, H.

I am aware that a composition of carbon, sulphur, and nitrate of potash has been employed to generate acid gases for bating hides; but the gases generated by such are apt to be contaminated by free sulphuric acid. Hence I do not claim such compound, nor the treatment of hides by the gases produced from such.

I am also aware that carbonic-acid and sulphurous-acid gases have heretofore been produced conjointly by burning charcoal and sulphur together, and I do not therefore lay any claim to the production of the said combined gases, nor to the subjection of the hides and skins to the action of such, the essential feature of my invention consisting in the order of the steps by which the hides are treated, as set forth. Nor do I claim the apparatus described and shown for generating the combined gases, as the same forms no essential part of my invention.

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

The process herein described of bating and tanning hides, which consists in first subjecting the same to the combined action of carbonic and sulphurous acid gases, then partially tanning and afterward subjecting the partially-tanned hides to the action of the said combined gases, and finally tanning in the usual manner, substantially as specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 22d day of October, 1881.

MARSHALL TURLEY.

Witnesses:

J. J. MCCARTHY,  
CHAS. D. DAVIS.