

United States Patent Office.

ALBIN WARTH, OF STAPLETON, NEW YORK.

Letters Patent No. 108,072, dated October 4, 1870.

IMPROVEMENT IN RENDERING LEATHER IMPERVIOUS TO HYDROCARBON LIQUIDS.

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, ALBIN WARTH, of Stapleton, in the county of Richmond, and State of New York, have invented a new and improved Process for Rendering Leather Impervious to Hydrocarbon Liquids; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same.

This invention consists in immersing leather in melted beeswax, at a temperature of from 200° to 250°, for a sufficiently long time to allow the wax to penetrate the entire body of the leather, whereby the same is rendered impervious to petroleum, or other hydrocarbon liquids, while it remains perfectly pliable, and not liable to become rancid or rotten, as it does when saturated with fat.

In carrying out my invention, I take a quantity of beeswax, and melt it in a kettle, of convenient size, over a slow fire.

When the mass has become thoroughly fluid, and its temperature has been raised to from 200° to 250° Fahrenheit, I introduce therein the leather, which is to be rendered impervious to hydrocarbon liquids, allowing the same to remain in the melted wax for such a period that its entire body becomes thoroughly and uniformly saturated with the wax.

After removing the leather from the wax, I expose it to pressure by passing it through between rollers, or otherwise, so as to remove all surplus wax, and then it is ready for use, or it may be used without being pressed.

My principal object in treating leather in the manner above described is to obtain a suitable packing for valves of petroleum-cans. Ordinary leather is useless for this purpose, since the petroleum penetrates through the same and the valve cannot be made to

close tight. India rubber cannot be used, because it is destroyed by the petroleum. But by saturating the leather with beeswax a packing is obtained which is impervious to petroleum, or other hydrocarbon liquids, and I am enabled to produce a cheap and tight valve.

Leather prepared according to my invention can, however, be also used with advantage for manufacturing shoes, particularly for persons working in the oil regions, where shoes made of common leather soon become saturated with the oil, and can hardly be considered a protection for the feet.

By the action of the wax the durability of the leather is materially increased, and leather prepared according to my process can be used for belting for hose, and, in fact, for every article usually made of common leather.

When the leather is kept in melted wax for a certain length of time, the astringent materials contained in the leather form a compound with the wax, which is insoluble in kerosene; and leather treated according to my method forms a reliable packing for valves of petroleum packages, and it can also be used with advantage where it is desirable that leather should resist the action of petroleum.

I do not claim broadly as my invention the application of beeswax in a melted state to leather; but

What I claim is—

The within-described process for rendering leather impervious to hydrocarbon liquids, by boiling the same in melted beeswax until its entire body is permeated by the wax, as herein set forth.

ALBIN WARTH.

Witnesses:

W. HAUFF,
C. WAHLERS.