## United States Patent Office.

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## PROCESS OF FINISHING LEATHER.

SPECIFICATION forming part of Letters Patent No. 482,199, dated September 6, 1892.

Application filed May 7, 1892. Serial No. 432,182. (No specimens.)

To all whom it may concern:

Be it known that I, John Sanzenbacher, acitizen of the United States, residing at Canfield, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Processes of Finishing Leather; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable those skilled in the art to which it appertains to make and use the same.

Heretofore in processes used for finishing leather it has been common to place the leather designed to be finished in what is 15 known as a "stuffing-wheel," and the ingredients used for putting the leather into proper condition for finishing by the action of the stuffing-wheel have been placed in the stuffing-wheel with the leather. The ingredient 20 commonly used is tallow, which is placed in the stuffing-wheel while melted and hot and the stuffing-wheel rotated a sufficient length of time for the leather to absorb its full capacity of the tallow or other oily substance. 25 After the stuffing-wheel, together with its contents, has been rotated a sufficient length of time to thoroughly saturate the leather the leather is removed from the stuffing-wheel and cooled, after which the leather is placed 30 upon the table or other plane surface, and while the leather is cold tallow or other oily substance while cold is worked into the flesh of the leather; or, in other words, the oily substance is placed upon the flesh side of the 35 hide, the oily substance being put upon the leather while cold and the leather wet, after which the leather is finished in the usual way.

The object of my invention is to finish leather for harness, pads, and leather for other purposes, and form a finish upon the leather that will cause the finished leather to be firm and possess the desired amount of stiffness and rigidity without causing the flesh to become broken or cracked more than the ordinary harness-leather.

To carry my invention into effect, I first place the desired amount of tanned leather in an ordinary stuffing-wheel which has been heated to a heat varying from 120° to 150° 50 Fahrenheit, which heating is preferably done by steam. After the leather has been placed in the wheel and heated from 120° to 150°

Fahrenheit, at which time paraffine-wax and oleo-stearine are placed in the stuffing-wheel with the leather therein contained, the par- 55 affine-wax and oleo-stearine placed in the stuffing-wheel are heated to from 120° to 150° Fahrenheit, the proportion of oleo-stearine and paraffine-wax being about as follows: from one and one-fourth to one and one-half 60 pounds oleo-stearine to one pound of wax, the same proportion being carried out to increase the quantity of the mixture of oleostearine and paraffine-wax. After the melted stearine and paraffine-wax have been placed 65 in the stuffing-wheel the wheel is rotated for about one hour, or a sufficient length of time for the leather to absorb the mixture of paraffine-wax and oleo-stearine. After the leather has become thoroughly saturated it is re- 70 moved from the stuffing-wheel and stoned while warm. After the leather has been stoned in the ordinary manner it is placed upon tables or other level surfaces and permitted to cool. When the leather has become 75 thoroughly cooled, it is smoothed out in the ordinary manner, and paraffine-wax and oleostearine in about the same quantity above mentioned are applied to the leather while it is heated from 180° to 250° Fahrenheit. By 80 applying the oleo-stearine and paraffine-wax while heated to a high degree it enters the pores of the leather, and after it has become cool the leather becomes more rigid and firm than it is when treated under the old process. 85

It will be understood that by stoning the leather while warm and upon the grain side of the hide the paraffine-wax and oleo-stearine will be forced and pounded into the pores, and at the same time the stoning process has 90 a tendency to close the mouths of the pores, thereby leaving the pores filled with the mingled paraffine-wax and oleo-stearine, and as the wax and stearine become hardened by cooling it leaves the leather in a condition to 95 be bent without injuring it, and at the same time stiffens the leather. After the stuffingwheel has been heated to a heat varying from 120° to 150° Fahrenheit and the leather placed in the wheel, and also heated to from 120° to 100 150° Fahrenheit and the ingredients applied as above set forth, the wheel is rotated. No additional heat is applied after the stuffingwheel has been set in motion.

I claim as new, and desire to secure by Letters Patent, is—

The process for finishing leather, consisting 5 of heating the same in a stuffing-wheel, adding the above-described heated stuffing compound, rotating the stuffing-wheel containing the leather and heated compound, removing the leather and stoning the leather while warm, 10 cooling the leather, and finally applying a

Having fully described my invention, what | heated stuffing compound, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

## JOHN SANZENBACHER.

Witnesses: F. W. Bond, LAURA SHAEFFER.