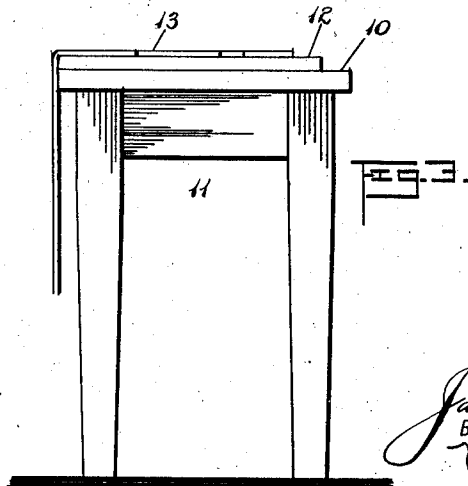
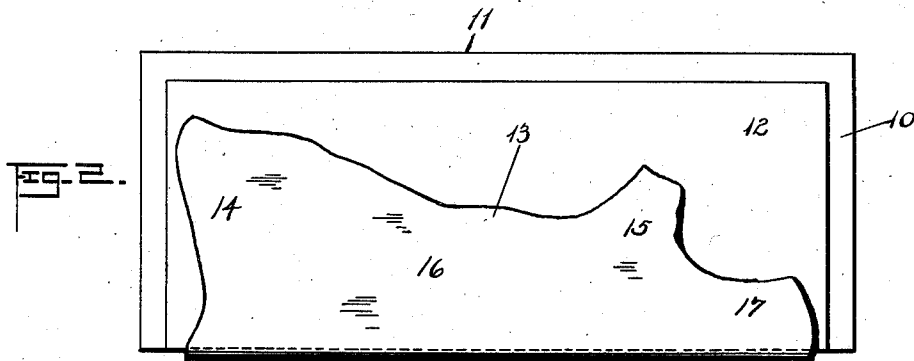
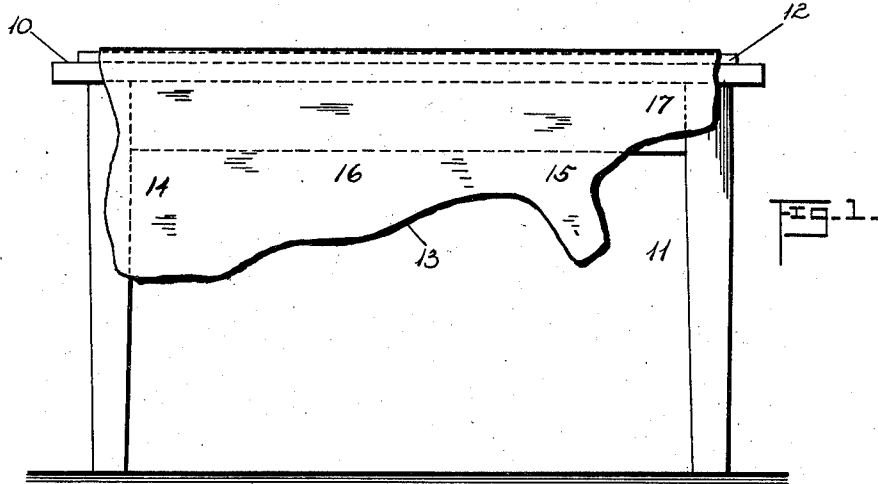


J. T. SMITH.
ART OF MANUFACTURING LEATHER.
APPLICATION FILED AUG. 11, 1909.

967,986.

Patented Aug. 23, 1910.

2 SHEETS—SHEET 1.



WITNESSES
Frederick Germain
Francis E. Blodgett.

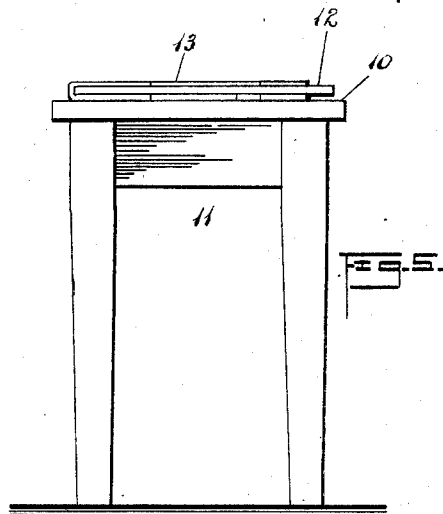
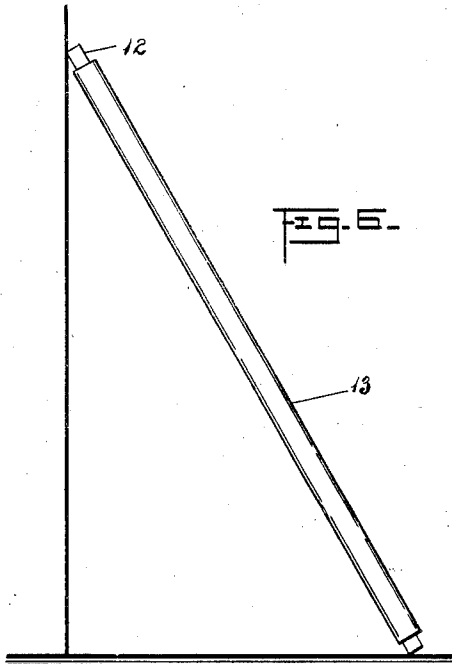
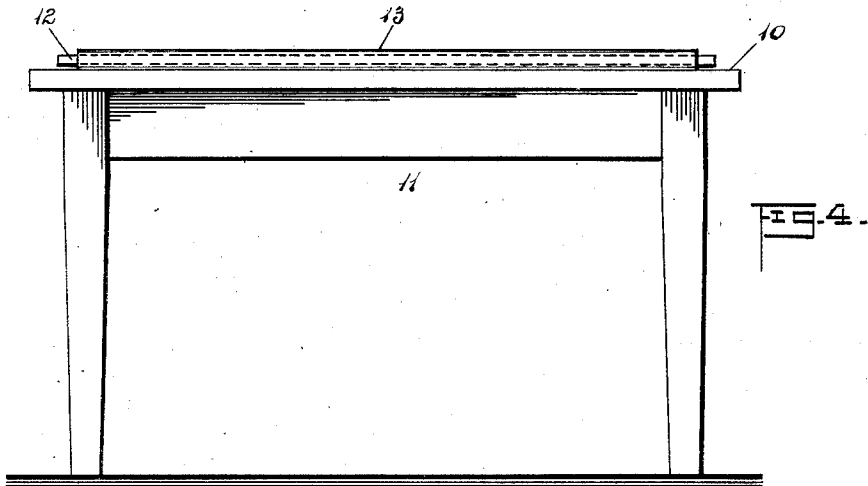
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ART OF MANUFACTURING LEATHER.

967,986.

Specification of Letters Patent. Patented Aug. 23, 1910.

Application filed August 11, 1909. Serial No. 512,312.

To all whom it may concern:

Be it known that I, JAMES T. SMITH, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain Improvements in the Art of Manufacturing Leather, of which the following is a specification.

This invention relates to the setting-out and stretching of leather in the course of its manufacture, said setting-out consisting in smoothing and setting the leather upon a table or bed, while wet, by means of a hand tool known as a "slicker." Heretofore, it has been common to smooth and set out the leather upon such a table or bed while wet, and then remove it from said table or bed and tack it onto a stretching frame for drying. By following this method of treatment of the leather, much of the stretching and smoothing out effect of the setting-out upon the table or bed is lost when the leather is removed therefrom and transferred to a frame for drying, for the following reasons. It will be understood by those skilled in the art that some parts of a hide or piece of leather are harder and less elastic than others, as for instance across the shoulders, which is a muscular part of the animal, the hide is stronger and harder than upon the sides and belly of the animal, where the skin is soft and elastic. The setting-out of the leather is the most perfect stretching to which it can be subjected, and stretches every part of the hide individually to its fullest capacity. Such setting-out also causes the leather to adhere to the table by suction and because of the great pressure exerted in setting-out, as is well known, so that on the setting-out table the leather is retained in its perfectly stretched condition. But heretofore the leather as soon as set out has been immediately pulled off the table, folded loosely up and sent to the drying lofts where it is tacked onto a stretching frame to dry. The leather is hung over the frame as on a clothes line, and obviously its lower edges cannot be brought farther down by the rigid bar to which they are tacked than the tough shoulder portions will allow, even though the intermediate softer parts of the leather might stretch more. Consequently only the tough shoulder portions are fully and properly stretched, and the less elastic intermediate portions shrink and

wrinkle. Much of the work done in setting out is, therefore, undone or lost by not holding the whole piece of leather stretched as it was on the setting-out table until dry.

The objects of the present invention are to retain the greatest possible area of leather in its manufacture; to prevent the leather from shrinking or wrinkling after it has been set out; to do this by drying the leather while adhering to the same surface and in the same position where it is left by the setting out; to secure a smoother and improved leather, as well as a larger output; to save labor and expense, and to obtain other advantages and results as may be brought out in the following description.

Referring to the accompanying drawings, in which like numerals of reference indicate corresponding parts in each of the several figures, Figure 1 is a front elevation, from the view point of the operator, of a table or support upon which a piece of leather is being set-out according to my invention; Fig. 2 is a plan of the same; Fig. 3 is an end view, all of said figures illustrating the setting-out of the first half of the piece of leather; Fig. 4 is a front elevation of the table or support showing the second or last half of the piece of leather being set-out; Fig. 5 is an end view of the same; and Fig. 6 shows the setting-out board removed from the table with the leather still upon it and stood up for drying.

In said drawings, 10 indicates a flat smooth bed of suitable hardness to serve as a support for the leather and its setting-out board hereinafter described. In the drawings, I have shown said bed 10 as the top of a strong heavy table 11, but this is only for purposes of illustration, and I desire it to be understood that said bed 10 may be supported or formed in any convenient manner which is suitable for the purposes herein set forth.

In the beginning of the setting-out operation, a board 12 is laid upon the bed 10, as shown in Figs. 1, 2 and 3, with one of its edges substantially coinciding with the front edge of said bed, as shown. This board may be made of any hard strong material which will provide opposite smooth faces and give sufficient rigidity or stiffness without being unduly thick. In practice, I have found wire glass, combining great smoothness and hardness with the

necessary strength, to be very suitable for the purpose, but wood, the material of which scouring tables have heretofore commonly been made, can also be used here if desired.

5 After the board 12 is laid upon the table, as shown in Figs. 1, 2 and 3, the leather 13 is so placed that half of it lies upon said board 12, while the other half hangs down over the front of the table next the operator as is common and clearly shown in 10 the drawing. That portion of the hide lying upon the board 12 is then set-out, and obviously such setting-out may be done by hand with a "slicker," or it may be done by machinery, or in any other suitable manner 15 known to the art.

After the first part of the piece of leather has been finished, the board 12 is turned over, so that said finished part of the leather lies next the bed 10, and the other half of 20 the leather 13 is then turned up and spread out on the exposed surface of the board 12, as shown in Figs. 4 and 5. The leather is thus wrapped around one edge of the setting-out board 12 and laid against its two 25 opposite faces. The second half of the leather is thus set-out upon the board 12 similar to the first half, and then the entire board with the leather adhering to it, is removed from the table or bed 10 and either 30 directly or after any usual treatments, such as stuffing with oils, is placed in suitable position for the leather to dry or set, as for instance as shown in Fig. 6. Another setting-out board is taken for use in connection 35 with bed 10 and another piece of leather, in just the same manner which has been already described, and thus each piece of leather is dried upon the same surface 40 on which it was set-out and while the adhesion to said surface from the setting-out is still retaining it in such set-out condition. This obviates the shrinking or wrinkling of the leather which is certain to take place in 45 certain parts when it is removed from the setting out surface wet and stretched upon a frame to dry.

In the drawings, reference numerals 14 and 15 indicate the tough least-elastic shoulder portions of a piece of leather the full 50 shape of a hide, and 16, 17 the more elastic or softer portions which by my improved method I perfectly stretch. In practice I gain in area of such pieces of leather, one 55 or two square feet each, by the use of my method.

By my improved process, therefore, I have as many setting-out boards 12 as pieces 60 of leather to be done at once or before the first ones are dry enough to remove, but this small addition of expense is more than made up for by doing away with the necessity for frames and the labor of stretching the leather thereon. Furthermore, the finished 65 product has a greater area of leather, and is

much smoother and of better quality. My process also does away with the tack holes along the margins which in the old methods of stretching and tacking cause large waste when trimmed off, as they must be when the 70 leather is enameled or finished. Although to avoid such tacking is one of the objects of my invention, it would obviously involve no departure from the invention to use a board of wood or other suitable material 75 and tack the margins of the leather thereto after the whole is removed from the table for drying or the like. The leather is left upon the setting out board until it is dry enough for the usual operations subsequent 80 to stretching and then is readily peeled off of the board.

Having thus described the invention, what I claim is:

1. The herein described method of treating leather, which consists in setting-out the leather upon a setting-out surface while wet, thereby causing adhesion of the leather to said surface in a stretched condition, and drying said leather while thus set out on 90 and adhering to said surface until it will retain said stretched condition when removed from the surface.

2. The herein described method of treating leather, which consists in setting-out the whole of a piece of leather at once upon a 95 setting-out surface while wet, thereby causing adhesion of the leather to said surface in a stretched condition, and drying said leather while thus set out on and adhering 100 to said surface until it will retain said stretched condition when removed from the surface.

3. The herein described method of treating leather, which consists in placing a thin 105 flat board flatwise upon a supporting surface, setting-out the leather upon said board while wet, thereby causing adhesion of the leather to said board in a stretched condition; removing said board from said supporting surface with the leather still set-out 110 thereon, and drying said leather while thus set out on and adhering to said board until it will retain said stretched condition when removed from the board. 115

4. The herein described method of treating leather, which consists in setting-out the leather upon both the opposite sides or faces of a thin flat setting out board while wet, thereby causing adhesion of the leather to 120 said sides or faces in a stretched condition, and drying said leather while thus set out on and adhering to said sides or faces until it will retain said stretched condition when removed from the board. 125

5. The herein described method of treating leather, consisting in setting-out a portion of a wet piece of leather upon one side or face of a setting-out board, turning said board over and setting-out the rest of the 130

piece of leather on the other or opposite
face of said board, thereby causing adhe-
sion of the leather to said board in a
stretched condition, the leather being bent
5 over the edge of the board, and drying said
leather while thus set out on and adhering
to said board until it will retain said

stretched condition when removed from the
board.

JAMES T. SMITH.

In the presence of—

RUSSELL M. EVERETT,
FRANCES E. BLODGETT.