

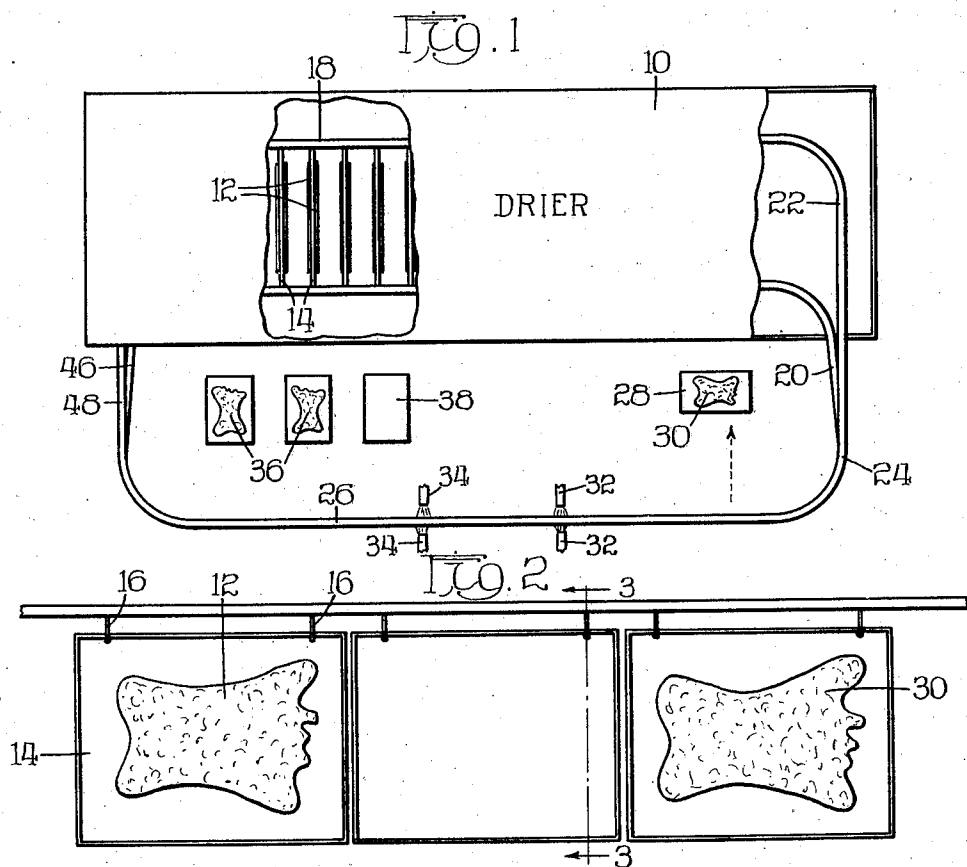
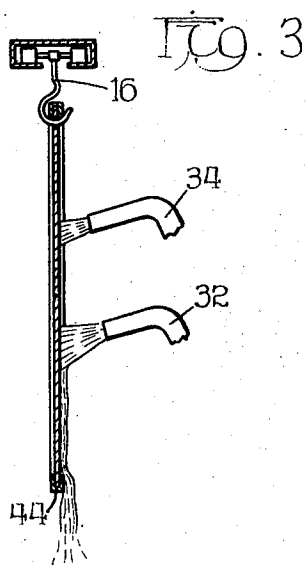
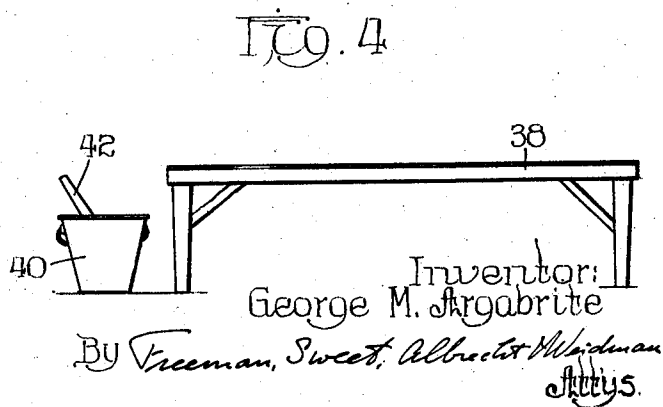
Dec. 21, 1937.

G. M. ARGABRITE

2,102,667

LEATHER PROCESSING

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UNITED STATES PATENT OFFICE

2,102,667

LEATHER PROCESSING

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6 Claims. (Cl. 149—5)

My invention relates to the processing of leather, and includes among its objects and advantages an improvement in the conditioning of the moisture content of the leather after the tanning operation proper has been completed.

After leather is tanned and before it can be properly staked, it is necessary to condition the leather to a uniform and rather low moisture content. The precise percentage of moisture in the skin varies with different skins and different final products, but for each type of skin and product it needs to be accurately controlled. It is customary in the art to subject the wet skin to a drying action until the moisture in it is materially below the desired moisture content for staking. Thereafter a pile of skins is moistened and let stand in a pile for a considerable length of time until the moisture in the pile can become practically uniform on account of capillary action.

The practice of moistening after drying, to get the best condition for staking, makes it possible to force the previous drying of the skins much more rapidly than would otherwise be the case.

In the accompanying drawing:

Figure 1 is a plan view of a drier and accessories;

Figure 2 is a side elevation of the outer section of the track of Figure 1;

Figure 3 is a diagrammatic section as on line 3—3 of Figure 2; and

Figure 4 is an enlarged detail of a pasting table.

In the embodiment of apparatus selected for indicating an illustrative method according to the invention, a drier is indicated at 10. The details of the heating and air circulating means for the drier may be according to the prior art, and as such details are well known, the disclosure has not been encumbered therewith. The wet skins 12 in the drier are mounted on plates 14, each plate supported by a pair of hangers 16 from a system of tracks including the widely spaced parallel tracks 18 inside the drier along which the plates move in closely spaced parallel relationship subject to the action of the drying means or medium. At the discharge end of the drier one of the hangers 16 is carried along the track section 20, and the other hanger for the same plate comes around the curved track section 22. These sections join at 24 so that the plates move across the long track section 26 in the condition illustrated in Figure 2.

At 28 I have diagrammatically indicated receiving means in the nature of a table or wheeled truck on which the dried skins 30 can be piled.

As each plate comes opposite the truck 28, workmen strip the dried skins from both sides of the plate and pile them on the truck. As soon as the skins are stripped from the plates, workmen with spray guns 32, or the equivalent thereof, splash water on the naked plate and rub and swab both sides of it to remove any traces of dried paste still adhering to the plate. As soon as the plates are rinsed, workmen with spray guns 34, or the equivalent thereof, apply a coating of fresh paste to the clean plate.

Thereafter, a new wet skin from the piles at 36 may be picked up by a workman and laid against the plate and smoothed out in contact with the plate much as a paper hanger applies paper to a wall. An alternative procedure is to separate one of the wet skins on the work table 38 and apply paste from a bucket 40 to one surface of the skin by means of the paste brush 42, after which the paste-covered skin is laid against the naked plate and smoothed into contact therewith in the same way as before.

By leaving the plates in vertical position on the track, a great deal of labor in handling the plates is avoided, as well as occasional injury to the plates. The plates illustrated carry edge reinforcement at 44 all around their edges to increase their stiffness so that they can stand the mechanical stresses incident to stripping and applying the new skin, while the plate is suspended on edge from the hangers 16.

After the plates are reloaded with skins they pass along the track sections 46 and 48 and return to the drier.

I have illustrated all the plates in the drier carrying skins on both sides, but it is not essential to have every plate surface carry a skin. Under certain conditions as to speed of drying, part or all of the plates may be put in with a single skin only; and at other times, particularly in starting or stopping a long series of operations, it may be advantageous to pass a considerable number of naked plates through the drier to assist in controlling the conditions of drying therein.

Without further elaboration, the foregoing will so fully explain my invention that others may, by applying knowledge current at the time of application, readily adapt the same for use under various conditions of service.

I claim:

1. The method of drying tanned skins, or the like, which comprises: moving a series of plates in a closed circuit; over a predetermined first portion of said circuit positioning said plates in

closely spaced parallel relationship and exposing said plates and such skins as may be thereon to forced drying action with the plates in a vertical position; in a subsequent second portion of said circuit positioning said plates in end to end relationship and removing the dried skins from said plates with the plates in a vertical position; in a subsequent third portion of said circuit retaining said plates in end to end relationship and rubbing and swabbing said plates to remove therefrom traces of dried paste remaining thereon, with the plates in a vertical position; in a subsequent fourth portion of said circuit retaining said plates in end to end relationship and applying fresh undried skins and adhesive to said pasted plates and with the plates in vertical position swabbing and smoothing said skins against the plates to cause the skins to adhere to the plates over the entire area of the skins; and returning the plates and wet skins to said first, or drying, portion of the circuit in closely spaced parallel relationship.

2. The method of drying tanned skins, or the like, which comprises: moving a series of plates in a closed circuit; over a predetermined first portion of said circuit exposing said plates and such skins as may be thereon to forced drying action with the plates in a vertical position; in a subsequent second portion of said circuit removing the dried skins from said plates with the plates in a vertical position; in a subsequent third portion of said circuit rubbing and swabbing said plates to remove therefrom traces of dried paste remaining thereon, with the plates in a vertical position; in a subsequent fourth portion of said circuit applying fresh undried skins and adhesive to both sides of said plates, and with the plates in vertical position swabbing and smoothing said skins against the plates to cause the skins to adhere to the plates over the entire area of the skins; and returning the plates and wet skins to said first, or drying, portion of the circuit.

3. The method of drying tanned skins, or the like, which comprises: moving a series of plates in a closed circuit; over a predetermined first portion of said circuit exposing said plates and such skins as may be thereon to forced drying action with the plates in a vertical position; in a subsequent second portion of said circuit removing the dried skins from said plates with the plates in a vertical position; in a subsequent third portion of said circuit rubbing and swabbing said plates to remove therefrom traces of dried paste remaining thereon, with the plates in a vertical position; in a subsequent fourth portion of said circuit ap-

plying fresh undried skins and adhesive to the plates with the plates in vertical position and swabbing and smoothing said skins against the plates to cause the skins to adhere to the plates over the entire area of the skins; and returning the plates and wet skins to said first, or drying, portion of the circuit.

4. The method of drying tanned skins, or the like, which comprises: moving a series of plates in a closed circuit; over a predetermined first portion of said circuit exposing said plates and such skins as may be thereon to forced drying action with the plates in a vertical position; in a subsequent second portion of said circuit removing the dried skins from said plates with the plates in a vertical position; in a subsequent third portion of said circuit rubbing and swabbing said plates to remove therefrom traces of dried paste remaining thereon, with the plates in a vertical position; in a subsequent fourth portion of said circuit painting said plates with fresh wet paste with the plates in a vertical position; in a subsequent fifth portion of said circuit laying wet skins against the pasted plates and with the plates in vertical position swabbing and smoothing said skins against the plates to cause the skins to adhere to the plates over the entire area of the skins; and returning the plates and the wet skins to said first, or drying, portion of the circuit.

5. The method of drying a material having the characteristics of wet leather, which comprises: suspending a plate in a vertical plane; while the plate remains vertical, affixing a piece of wet material to one side of the plate with sufficient adhesive to hold the leather from shrinking or cleaving off by its own weight during and after drying; drying the leather on the plate by steps including the application of heat; stripping the dried leather off of the vertical plate; washing excess adhesive off the vertical plate; affixing another piece of wet material to one side of the washed plate; and repeating the cycle of operations.

6. The method of drying a material having the characteristics of wet leather, which comprises: suspending a plate in a vertical plane; while the plate remains vertical, affixing a piece of wet material to one side of the plate with sufficient adhesive to hold the leather from shrinking or cleaving off by its own weight during and after drying; drying the leather on the plate by steps including the application of heat; stripping the dried leather off the vertical plate; affixing another piece of wet material to one side of the plate; and repeating the cycle of operations.

GEORGE M. ARGABRITE.

Disclaimer

2,102,667.—*George M. Argabrite*, Chicago, Ill. LEATHER PROCESSING. Patent dated Dec. 21, 1937. Disclaimer filed Mar. 27, 1951, by the trustee, *William L. Barie*.

Hereby enters this disclaimer to claims 5 and 6 of said patent.
[*Official Gazette May 15, 1951.*]