

# UNITED STATES PATENT OFFICE.

PIERRE PUECH, OF PARIS, FRANCE.

## IMPROVEMENT IN PREPARING AND CLEANSING WOOL ON THE PELT.

Specification forming part of Letters Patent No. 207,774, dated September 3, 1878; application filed May 16, 1878.

*To all whom it may concern:*

Be it known that I, PIERRE PUECH, of Paris, France, of the firm of Puech Brothers, manufacturers, of Mazamet-on-Tarn, France, have invented an improved mode of washing, scouring, and bleaching wool on sheep-skins, for obtaining flocky, half-combed, and fleecy wool, of which the following is a specification:

The object of the invention is to manufacture flocky, fleecy, and partly-combed wool from sheep-skins without affecting the length, consistence, and regularity of the staple, and at the same time producing a washing and scouring complete and perfect in its effect, with exclusion of bleaching, which is optional according to the nature of employment of the wool.

The successive operations at present employed in treating dry skins, or American skins, as imported, to which the invention more especially relates, are as follows:

First. The skins are steeped for about forty-eight hours in cold water, either before or after.

Second. The skins are then hung up in a drying-room or hot-house till they attain a certain heat and fermentation, which renders them more fit for removing the wool. This fermentation generally occupies from twenty-four to forty-eight hours in summer and four or five days, and sometimes longer, in winter.

Third. On leaving the hot-house the skins are stripped.

Fourth. After stripping, the wool is washed, which each one treats in his own fashion, some in warm and some in cold water. This operation requires a washing-machine, from which the wool is removed broken, the staple confused and tangled, so that the result of the successive operations enumerated, and which occupy at least a week's labor, is that the wool leaves the washing-machine with the staple injured and the skin impaired by the hot-house.

Our improved process differs entirely from the known methods both in the operations necessitated and in the remarkable results produced. In less than two hours the most troublesome skins are treated, and a wool obtained therefrom that is either fleecy, half-combed, or flocky, the staple never broken, and

the skin uninjured. The same process applied to ordinary skins requires a few minutes only.

The following is the *modus operandi* of the improved method:

First. An ordinary hot-water bath being prepared at from 45° to 50° centigrade, to this is added some grease-removing substance, such as soda, salt, soap, or an equivalent, and the dry skins, as imported, are steeped therein from eight to ten minutes. For fresher skins—for example, those recently slaughtered—from three to five minutes suffices.

Second. Immediately on withdrawing them from the bath they are passed under a pressing-roller sufficiently powerful to express the grease, dirty wool, and impurities, which are thus detached from the wool.

Third. They are then at once, and while still warm, submitted to a mechanical beater, such as Chaudet's of Rouen. This operation has the effect of beating the skin, and frees it from foreign matters, and at the same time thoroughly washes it with either cold, tepid, or hot water, which falls abundantly between the drum of the machine and the apron supporting the skin.

Fourth. The skins are then steeped for about ten minutes in a bath of tepid water, which thoroughly cleanses them of impurities, being well washed therein. This operation softens the skins, and prepares them for stripping.

Fifth. They are then forcibly dried by means of a pressing-roller, and by the application of a beater to the press, which energetically agitates the skins, and on leaving the roller, and before falling, the staple rises and is sufficiently flocky.

Sixth. While the skins are still tepid a depilatory of some sort is passed, with a brush or otherwise, over the skin side.

Seventh. Finally the skins are stripped by hand or mechanically, and are then directly dried. The wool thus produced is flocky.

If, in stripping off the wool, care is taken to keep it wet, it may then, without further operation, be submitted to the combing or carding machine.

The scouring and washing being conducted on the skins themselves, all the operations usually employed in preparing the wool for

combing are done away with, the staple is well preserved and not tangled, and, the combing being effected directly after stripping, the waste is comparatively *nil*, and the undried wool is of a superior quality and eminently fit for combing, since as soon as separated from the skin it is, so to speak, partly combed.

What I desire to claim is—

The process herein described of preparing wool, the same consisting in scouring the skins with the wool on in a hot alkaline solution,

for the purpose of scouring, afterward pressing them to extract grease and impurities, then simultaneously beating and washing them, afterward bleaching them, and finally removing the wool and drying it, substantially as specified.

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Witnesses:

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