UNITED STATES PATENT OFFICE.

CÉCILE PUECH, (NÉE LAURE,) OF MAZAMET, TARN, FRANCE.

PROCESS OF SEPARATING FUR, &c., FROM THE SKIN.

SPECIFICATION forming part of Letters Patent No. 422,627, dated March 4, 1890.

Application filed October 1, 1889. Serial No. 325,684. (No specimens.) Patented in France February 22, 1889, No. 196,243, and in Belgium June 18, 1889, No. 86,686.

To all whom it may concern:

Be it known that I, CÉCILE PUECH, (*née* Laure,) of Mazamet, Tarn, France, have invented new and useful Improvements in the Process of Separating Fur, &c., from the Skins of Rabbits and other Animals, of which the following is a specification.

This invention is the subject of Letters Patent in France, No. 196,243, dated February 22, 1889, and of certificate of addition thereto, dated April 17, 1889, and of Letters Patent in Belgium, No. 86,686, dated June 18, 1889.

My invention relates to a process for the removal of the fur from waste (or other) pieces of rabbit-skins and other skins of a similar kind, such process consisting, essentially, of the following operations: first, boiling the pieces of skin while the fur is still on; then, after the completion of the boiling, desiccating the same, so that the skin is deprived of its gelatine and moisture, and, lastly, crushing the dried pieces, so as to reduce the pieces of skin to powder.

For carrying out this process in the most favorable manner, so as to effect the perfect separation of the skin and fur without deteriorating the latter, the following mode of operating is employed: The waste pieces of rabbit-skins, &c., are generally derived from the skins that have been tanned, and hence it is impossible to swell them in order to open the pores, and thus enable the fur to be removed. The known process of heating in heaps by fermentation or by means of steam is entirely without affect on these tanned pieces, and for this reason I have invented the process of destroying the skin or leather for the purpose of separating the fur therefrom. This is done by effectually boiling the pieces in water, whereby the albumen and gelatine constituents are entirely removed from the leather, in consequence of which it shrinks and hardens, but is deprived of its cohesive strength. After the boiling process is completed the pieces are washed, if necessary, to cleanse the wool, and they are then desiccated, whereby the leather becomes brittle and falls into powder under pressure. The desiccation of the pieces should be effected at a sufficiently low temperature—say from 70° to 85° centigrade—in order that the wool may not be deteriorated. The drying may be effected in a great variety of known ways—such as, for instance, by placing the pieces upon a traveling web of wire-gauze heated by steam or hot air, the material being turned over from time to time by means of rakes in order that the drying may be uniform and thorough. The dried leather having thus become brittle, a simple crushing operation, effected by means of stamps or crushing-cylinders, will be sufficient to reduce it to powder, thereby liberating the whole of the wool. In order that the crushing may be effected under the most favorable circumstances, it is expedient to carry it out as soon as the material issues from the desiccating apparatus and while it is still very hot. The leather is then very brittle and is easily reduced to powder. If, however, the leather is allowed to cool, it absorbs moisture from the atmosphere and, becoming thereby softened. is less easily pulverized.

The material as it is delivered from the crushing apparatus is sifted or bolted, thereby separating the dust from the wool, which assumes a silky appearance. The leather powder may be used for agricultural purposes

I am aware that prior to my invention it has been proposed to treat waste pieces of fur in order to save the fur, hair, or woolly fibers, in an alkaline or acid bath in order to weaken the union between the skin and the fur, hair, or woolly fiber, then to remove the latter by subjecting thewaste pieces to the action of crushing or reducing rolls, which reduces the waste pieces to small fragments, and finally to pass these small fragments through a machine which removes the fibers from the skin. My improved process is materially different from this prior method, in that a hot-water bath is employed, which brings the skin to a pulverizable condition, no acid or alkali being employed, in that the skin with the fibers still on is then heated and dried, (desiccated,) in that the skin while hot and dry is then subjected to crushing, and in that the final separation is effected by sifting. My entire method is thus directed to the skin, and it separates the skin from the wool or hair rather than

the wool or hair from the skin. The wool or hair is thus obtained of full length, and it is in no wise weakened or torn.

I claim as my invention—

1. The herein-described process of separating wool from skins, which consists in first boiling the skins in water; second, desiccating the boiled skins; third, reducing the boiled and dried skins to a powder, and, finally, sifting the powdered skin from the wool.

2. The herein-described process of separating wool from skins, which consists in first boiling the skins in water; second, desiccating the boiled skins in the presence of heat; third, reducing the boiled and dried skins while yet hot to a powder, and, finally, sifting the powdered skin from the wool.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CÉCILE PUECH, (NÉE LAURE.)

Witnesses:

B. LORENZ,

LÉON MONODY.