

UNITED STATES PATENT OFFICE.

CHARLES L. HARDING, OF WINOOSKI FALLS, VERMONT.

IMPROVEMENT IN FACILITATING THE REMOVAL OF BURRS FROM WOOL.

Specification forming part of Letters Patent No. 28,476, dated May 29, 1860.

To all whom it may concern:

Be it known that I, CHARLES L. HARDING, of Winooski Falls, in the county of Chittenden and State of Vermont, have invented a new and Improved Process of Facilitating the Removal of Burrs from Wool; and I do hereby declare that the following is a full, clear, and exact description of the same.

In the wool obtained from South America, variously known as "Buenos Ayres" and "South American," there is almost invariably a burr of a peculiar character, all attempts at whose entire removal by machinery have hitherto resulted unsuccessfully; and the consequence has been that this wool, though otherwise of excellent quality, has only been used in the textile manufactures for goods greatly inferior to what would be made from wool of similar quality grown in the United States. The difficulty of removing the burr has arisen from its being composed of a rather brittle spirally-arranged bearded fiber; and when the wool has been subjected to the action of ordinary burring, picking, carding, or combing machinery without previous preparation this fiber has been liable to be unwound and broken and distributed among the wool, to which its beard then clings with such tenacity that no picking or carding operation will remove it.

My invention is more especially directed to the removal of the peculiar kind of burr above mentioned; and to this end the nature thereof consists in subjecting the wool to a sufficient pressure, by passing it between loaded rollers or by any other suitable means, to so compress the burrs as to destroy their fibrous structure. This being done, the ordinary processes of picking, combing, and carding, or either of them, subsequently performed on the wool, will

either throw the burrs out entire or cause them to crumble and fall out in dust or small pieces. As the machinery necessary for performing this process is so simple and possesses in itself no novelty, I have not thought it necessary to represent it by drawings. The machine which I consider best adapted to the purpose, and which I have successfully used, consists simply of a pair of horizontal rollers, the upper one of which is heavily loaded, and in front of which is arranged a board or apron on which to spread the raw wool in a layer or sheet, and from which to feed it between the rollers. By passing between the rollers the burrs are flattened into hard compact masses, in which there is scarcely a trace of any fiber remaining, and which, if not thrown out whole from the wool when it is subjected to the picking or carding process, will crumble and be thrown out as dust or in small pieces. As pressure is the agency by which the fibrous character of the burrs is destroyed, and they are brought to the favorable condition for removal by the subsequent picking, combing, or carding operations, it is obvious that it would be possible to substitute some other compressing apparatus for the rollers; but I consider the pair of rollers to be the most practical contrivance that can be employed.

What I claim as my invention, and desire to secure by Letters Patent, is—

Flattening or compressing the burrs so that they cannot unwind, substantially as and for the purpose herein set forth.

C. L. HARDING.

Witnesses:

F. C. KENNEDY,
GEO. W. HARDING.