

UNITED STATES PATENT OFFICE.

JOSEPH B. EMSLEY, OF PHILADELPHIA, PENNSYLVANIA.

PROCESS OF MAKING LUMPY YARN.

SPECIFICATION forming part of Letters Patent No. 451,115, dated April 28, 1891.

Application filed November 14, 1890. Serial No. 371,385. (No specimens.)

To all whom it may concern:

Be it known that I, JOSEPH B. EMSLEY, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in the Process of Making Lumpy Yarn; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in processes of making yarn, and has for its object the provision of a novel manner of producing a yarn having lumps or enlargements in it of the same or of a different color, whereby when woven a cloth is produced having a rough and shaggy character.

To carry my invention into practice I take the wool which is to form the rough and shaggy surface, and which may be of any color, but preferably of some color forming a contrast with the color of the body of the yarn, and feed it into a carding-machine, first having removed from said machine the comb which combs or removes the fleece from the doffer after the wool is carded. By reason of the removal of this comb the wool is retained in the carding-machine until it is rolled up into a number of small balls or lumps, which will drop out from beneath the machine. These lumps or balls are then taken and subjected to a treatment by which they are made practically insusceptible to the action of subsequent carding. This treatment may consist either of running them through a felting or fulling machine until each ball is so tightly felted as to resist the subsequent carding, or the result may be attained by sizing the lumps sufficiently to prevent them from being carded out. In practice it will be found more desirable to treat them in a felting or fulling machine, for the reason that no sizing or other foreign matter need then be used, and the goods produced will be softer

and finer. After being thus treated the lumps are mixed in the desired quantity with uncarded wool of the required color and the whole then put through a carding-machine of the ordinary form in the regular way, wherein the uncarded wool will be carded; but the lumps or balls, owing to the treatment above described, will remain unaffected, or practically so, by the carding-machine. After coming from the carding-machine the material is spun into yarn in the ordinary manner, the lumps appearing in the yarn at intervals.

It will be seen that by the treatment in the carding-machine without the comb and then in the felting or fulling machine (or by sizing, if preferred) wool of any color is made into these uncardable lumps, and when intermingled with other wool and carded a yarn having the rough or shaggy character required for making the quality of cloth desired is cheaply and effectually made.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The herein-described process of making lumpy yarn, consisting in carding the portion of the wool which is to form the lumps, forming it into lumps or balls, rendering said lumps or balls insusceptible to the action of the carding-machine, as set forth, mixing them with uncarded wool, carding the whole together, and finally spinning it into yarn.

2. The herein-described process of treating wool for forming lumpy yarn, consisting in first carding and making it into lumps or balls, then felting or fulling it, as described, then mixing it with uncarded wool, and carding the whole together, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH B. EMSLEY.

Witnesses:

CHARLES E. LEX,
FREDK. J. LAMBERT.