

United States Patent Office.

MICHAEL HODGE SIMPSON, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 112,391, dated March 7, 1871.

IMPROVEMENT IN UTILIZING THE SILKY DOWN OF THE WILD COTTON.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, MICHAEL HODGE SIMPSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented or discovered a new and useful manufacture or mode of utilizing the silky down of the seeds of the *Asclepias lyncea* "wild cotton," "silk-weed," or "swallow-wort," as usually termed; and I do hereby declare the same to be fully described, as follows:

When heretofore attempts have been made to spin the vegetable fiber or silky down above mentioned, it has been found difficult if not impracticable to make a useful or strong product from it on account of its gloss and smoothness, and the consequent difficulty of causing the fibers to hold together.

I have discovered that by combining or mixing with cotton, wool, or flax, or a fibrous material of like nature, a quantity of the said silky down in or about in the proportion of one pound of the down to one pound of the cotton, wool, or flax, and running the mixture through a common cotton or wool-picker and afterward subjecting it (the mixture) to the operations of a carding-machine or engine, as wool or cotton is carded, thereby I can so intermix the two materials as to produce a combination or compound fibrous substance or article of great value and use for being manufactured into thread or yarn and cloth. The admixture of the said seed-down with the base or additional fibrous matter, whether the latter be either wool or flax, imparts to the fabric a peculiarly silken luster, the base fabric serving to bind and hold in union those of the seed-down.

The operations of the picking and carding-engines prepare the fibers of the seed-down for being held to advantage by and in connection with those of the cotton or wool when all are twisted together from the state of roving or sliver.

The seed-down in its normal condition, or when first mixed with cotton or wool, has more or less of the seeds in connection with it. These are removed by the operations of the picker, which also thoroughly intermingles the down with the fibers of the cotton or wool.

Subsequently the carding-engine straightens out the fibers of the down and cotton or wool and prepares them for being drawn and spun.

By intermixing the smooth fibers of the seed-down with the rough fibers of the cotton or wool the former are held from escaping with the seeds and dirt expelled from the fibers by the blast of the picker.

The above mode of utilizing the seed-down of the silk-weed is calculated, from present appearances, to develop in this country a highly important branch of industry, especially the cultivation of the plant for manufacturing purposes, and its use in the arts to a great extent in making various fabrics, in many of which it may advantageously take the place of silk.

Although I have mentioned that the mixture of the down and binding material may be in the proportion of one pound of each, I do not intend to limit my invention to such proportions, as they may be varied more or less, as circumstances may require.

I make no claim to any composition of fibrous materials or mode of compounding, such as set forth in the United States Patent No. 69,752, or in the rejected applications for patents of A. C. Carey, filed May 26, 1867, and Neill and Burnett, filed February 7, 1870.

There are important differences between my method of procedure and any described in either of the above-recited references.

In neither of them is there found the said down containing the seeds mixed with a fibrous material, and together subjected to the action of a picker and afterward to a carding-engine, all of which is productive of highly useful effects in the preparation of the down for being converted into a yarn or a fabric.

I therefore claim as my invention—

1. The hereinbefore-described method of treating the *Asclepias* fiber or seed-down, as explained, such being for combining it, under circumstances as stated, with one or more other fibrous matters, as mentioned, and subsequently subjecting the mixture to the operations of a picker and a carding-engine.

2. The improved article or fibrous composition, made of the materials and in the manner as set forth.

M. H. SIMPSON.

Witnesses:

R. H. EDDY,
S. N. PIPER.