UNITED STATES PATENT OFFICE.

S. H. ADAMS AND JOHN A. WOOD, OF COHOES, NEW YORK.

IMPROVEMENT IN CARDING AND MIXING WOOL AND COTTON.

Specification forming part of Letters Patent No. 7,421, dated June 11, 1850.

To all whom it may concern:

Be it known that we, STEPHEN H. ADAMS and JOHN A. WOOD, of the village of Cohoes, in the county of Albany and State of New York, have invented a new and Improved Mode of Carding and Mixing Wool and Cotton Together; and we do hereby declare that the following is a full and exact description thereof.

To properly describe the nature of our invention it is necessary first to state the present best mode of carding and mixing wool and cotton together. This is to have one picker for cotton and another picker for wool. The cotton is passed through its picker for the purpose of cleansing it from seed, &c. The wool is passed through its picker. The wool is then oiled. It is then passed again through the picker. Then the cotton is added to the wool, and they are then passed together through the picker twice. The wool and cotton thus mixed are now ready for the first carding-machine. They are received from the first carding-machine in the form of long rolls. They next are passed through the second carding-machine, and are thence received also in the form of long rolls. They then are passed through the finishing or condensing card, whence they are delivered in the form of roping ready for spinning. One of the evils of this method arises from the fact that the oil from the wool is communicated to the cotton before the cotton is carded. Now, it is a well-known fact that cotton cannot be carded clear when there is any oil in it. The oil causes it to knot up.

Now, the nature of our invention consists in mixing the wool and cotton together after they have been passed through separate pickers and through two carding-machines separately.

To enable others skilled in the art to use our invention, we will proceed to describe our method.

We have a picker for the wool and another picker for the cotton. We pass the wool through its picker and then oil it. Then we pass it through its picker twice more. We pass the cotton once through its picker. They are each now ready for their first carding-machine or breakers, of which we have one exclusively for the cotton and another exclusively for the wool. The wool and the cotton are then passed through their respective first carding-machines or breakers, whence they are each received in the form of long rolls. The wool and the cotton are now ready for the second carding-machine. If we desire to mix the wool and the cotton in equal proportions, we take twenty rolls of each for a forty-inch cylinder and dispose them alternately on the creel or rack which stands before the second carding-machine—that is to say, we put first a roll of the wool, then a roll of the cotton, and so on, so that they are recieved into the machine in a regular alternation. From this creel the wool and the cotton are passed separately into the machine by means of guides made of large wire or cast-iron fingers, and which keep the wool and cotton separate, and in consequence of their—that is, the wool and the cotton—being thus kept separate when received into the machine they pass separately through the machine without being mixed, and are drawn off together by a side draw into one long roll. They are now ready for the finishing or condensing card, which completely mixes their fibers and delivers them in the form of roping, ready for spinning.

By this method the cotton is kept free from oil, and is thoroughly carded and straightened out before there is any possibility of any oil being communicated to it from the wool.

What we claim as our invention, and desire to secure by Letters Patent, is—

The picking and carding of the wool and the cotton separate from each other, and the drawing them off together from the second carding-machine and then mixing their fibers with each other by means of the finishing or condensing card.

STEPHEN H. ADAMS.
JOHN A. WOOD.

Witnesses:
DENNIS GOFF,
ELIJAH T. DIXON.