(12) **United States Patent**
Calvert

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(54) **WOOL OR FLAX, COMBER**

(76) Inventor: **William W. Calvert**

Wm. W. Calvert

Letters Patent, Dated July 2. 1836. —

The schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said William W. Calvert himself of his Improvement in the Interseting wool and flax comber.

To all to whom these presents shall come. Be it known that I, Wm. W. Calvert, of the town of Lowell, in the County of Middlesex and State of Massachusetts, have invented a new and useful improvement in the machine for combing wool and flax, called "Calvert's interseting wool and flax Comber" which is described as follows, reference being had to the annexed drawings of the same making part of this specification.

Fig. 1 represents a side elevation of the machine. A is the frame. B is a horizontal wheel with teeth set vertically around its outer edge. C is a solid cylinder with a concave surface having teeth inserted around its surface in regular rows and the points of every two rows of teeth lengthwise on the cylinder are made to incline towards each other at an angle of about 45°. as shown by teeth DE. F is another toothed cylinder with a convex surface having teeth fixed around its surface in rows and the teeth made to intersect or work between the rows of teeth on cylinder C. G. is a bevil wheel made fast on the shaft of cylinder C, which communicates motion to other bevil wheels on shafts H & I. J is a worm wheel made fast on the shaft of wheel B and made to revolve slowly by the worm O, on shaft I. Fig. 2. is a horizontal or top view of the machine shewing the form of the cylinders C and F which are in the same ratio as the diameters of wheel B. L and M are two pulleys to which motion is communicated to drive the cylinders C and F. There are parts belonging to this machine not shewn on the annexed drawing, such as the feed rollers &c. but as these parts are similar to others already known and many before referring to a specification of a machine patented by me on the 9th day of August 1835 and called a wool and flax brushing machine it is thought

unnecessary to describe them here – the difference between the principle of this machine and the one last referred to being solely in the arrangement of the cylinder C and E. with the teeth fixed on them. The operation of this machine is as follows. The wool is taken and picked through common wool pickers, it then passes through a pair of fluted rollers placed at the point P without being carded by wool carding machines as has been hitherto customary. After the wool passes through the rollers at P it is caught by all the teeth on cylinder C which incline in the manner of teeth E. the cylinder E being made to revolve about one fifth faster than cylinder C, and the teeth in cylinder E being made to intersect or work between the rows of teeth on cylinder C, it discharges the wool from the teeth which have caught it from the fluted rollers and change its position to the teeth which incline in an opposite direction and the same ways as the teeth D and by so doing it opens the wool and makes it more loose as the teeth D revolves in the direction of the arrow the wool is caught by the teeth on wheel B. and so continually follows the motion of the teeth on cylinder C and B. as the wool has been deposited into the teeth on wheel B by the above described method it leaves all the long fibres of wool to project out from the teeth on wheel B and they are drawn away by a pair of drawn rollers placed at K and the short wool which the drawn rollers placed at K leaves in the teeth of wheel B is taken out at another part before it gets around to cylinder C – What I claim as my invention is the points of the teeth on cylinder C. being made to incline towards each other as shown by the teeth D and E and particularly the principle of making the teeth on cylinder E to intersect or work between the rows of the teeth on cylinder C without coming in contact with each other in the manner before described and for the purposes herein set forth.

Witnesses
Wm. P. Elliot
A. Snyder

Wm. McCarter

Recorded June 31, 1836.

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W. W. Calvert.
Carrying Mach.

Patented Sep. 18, 1838.



