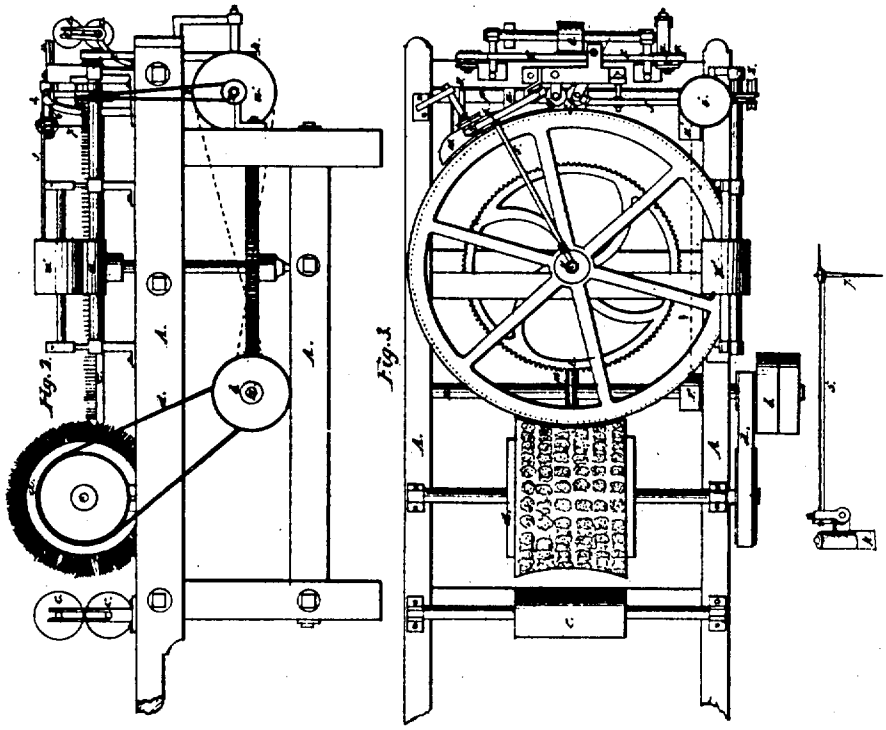
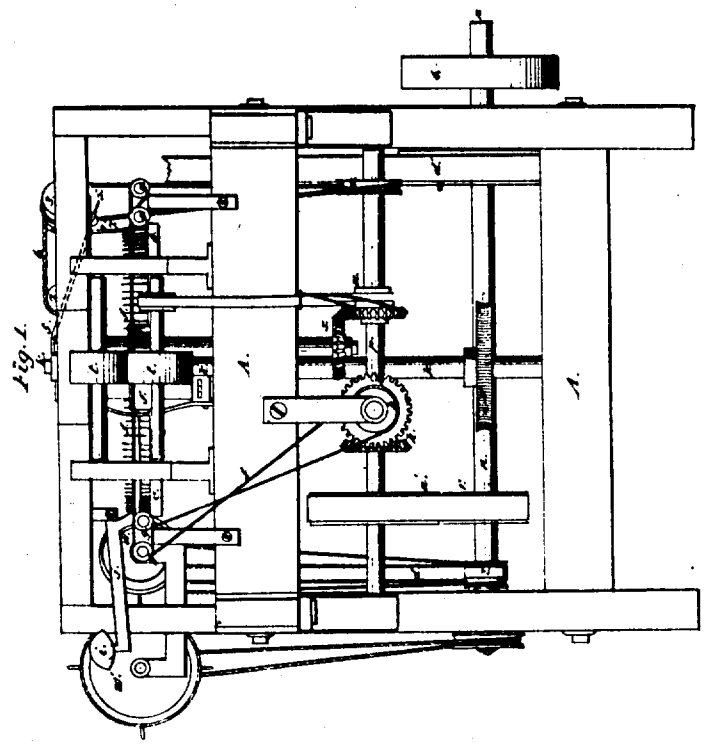
W. W. Calvert.
Combing Mach.

9098 X

Patented Sep. 18, 1835.





Sept. 18, 1835

9098X 97

Letters Patent of.

William W. Calvert. dated the eighteenth day of September 1835.

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 to brush Wool or Flax into teeth set in a cylinder or otherwise.

To all whom these presents shall come.

Be it Known, that I William W. Calvert of Lowell of the County of Middlesex and State of Massachusetts Machinist, have invented a new and useful improvement to brush wool or flax into teeth set in a cylinder or otherwise as may be convenient and also of combining the parts of the universal swift-called a "wool & flax-brusher for separating long fibres from short fibres," and that the following is a full and exact description of the construction and operation of said machine as is invented or improved by me, reference being had to the drawings, herewith, A is the frame, B the main driving pulley which puts the machine in motion, C C, are two fixed rollers thro which the wool or flax first enters on the machine D, is a bristle or wire brush about nine inches diameter & six inches long and made curving as shown on the top view, E, is a cylinder about eighteen inches diameter with teeth set round its outer edge, the teeth are about one eighth of an inch in diameter and project perpendicular up from the cylinder one & three eighths of an inch and set about two eighths of an inch apart, F F are two small draw rollers, H. H. H. H, are small pulleys for a twis-

ting

ting belt to run over and driven by the pulley F. F. F. are two carrying rollers. H, is an upright shaft on which the tooth cylinder, E, is fixed, this shaft is made to revolve slowly by means of the worm gear, G, which is driven by a worm being placed on the cross shaft M, as shewn on front view. N is a pulley to drive the brush D, O is a small pulley to drive the front cross shaft P. R. R, are two bevel gears to drive the two perpendicular draw rollers K. K. - S is a small shaft attached at one end of the upright shaft, H, and works on it by means of a universal joint the other end is made fast to a small leather belt which passes over two small pulleys T. T. and at this end a short prong projects downward as far as the bottom of the teeth in the cylinder E, one of the small pulleys T, is driven by the pulleys, U, on the front shaft P, the small shaft, S, with the prong on one end and universal joint on the other end together with the pulley T. T. and the belt that passes over them I call a universal sweeper. V is a small cylinder covered with cards and driven from the shaft M. W is a cylinder fitted with teeth so as to represent a small picker & it is also driven from the shaft M. The manner of using this machine is thus — The wool being carded on a common carding machine passes thro the feed rollers C, C, and is taken from them by the bristles or wire brush D the outward surface of the brush D. is set so as to come slightly in contact with the point of the teeth set in cylinder E, by this operation the fine short fibres of wool are all collected into the teeth so as to leave a continual fringe of long fibres. As the teeth of the cylinder E, revolve slowly round the long fibres which project from the teeth are caught by the prong that projects from the

universal Swiper this prong makes all the fibres which project out from the teeth in cylinder C, to point directly to the draw rollers F. F. so that it catches the fibres of wool by their ends and draws them out from the teeth, when the above rollers F. F. has drawn the long wool from the teeth it passes thro the friction bell that runs over the pulleys H. H, it is then taken by the converging rollers I. I. and delivered into drawing cans or boxes in a state of continued roping ready for other spinning machines in common use. after the rollers F. F. have taken the long wool from the teeth in cylinder C, the short wool being left in the teeth is taken out as it passes round on the cylinder by the same cylinder V, which is covered with wool cards it is then taken from cylinder V, by the small picker W and thrown into boxes, as the empty teeth on the cylinder C, are continually presenting themselves before the bristle or wire brush D, again they are loaded and discharged as already described, the process with flax is the same, it not being previously carded on wool carding machines, The principle by which this is distinguished from all other inventions to the breaking of wool or flax by a bristle or wire brush into teeth set in a cylinder or otherwise as may be convenient and also the combination of the parts of the universal Swiper for which I claim a Patent

Witnesses
John L. Sheaf
Geo Motley

Wm W. Calvert

Exd. M.96.

(Drawing)

(1044 words)