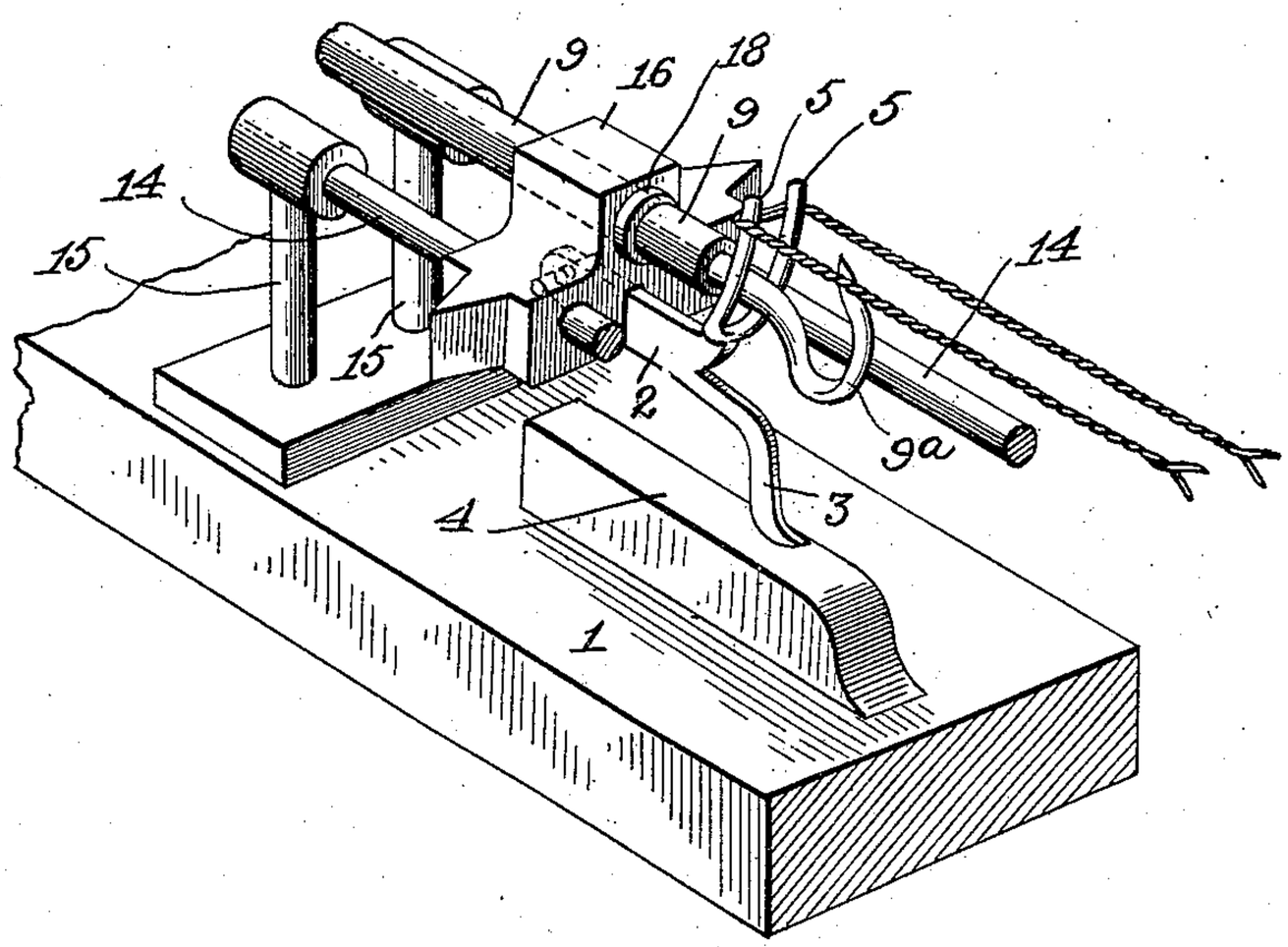
No. 855,351. PATENTED MAY 28, 1907.

T. A. SIZEMORE.

BANDING MACHINE.

APPLICATION FILED APR. 16, 1906.



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UNITED STATES PATENT OFFICE.

THOMAS A. SIZEMORE, OF GREENVILLE, SOUTH CAROLINA.

BANDING-MACHINE.

No. 855,351. Specification of Letters Patent. Patented May 28, 1907.

Application filed April 16, 1906. Serial No. 312,003.

To all whom it may concern:

Be it known that I, THOMAS A. SIZEMORE, a citizen of the United States of America, and a resident of Greenville, county of Greenville, State of South Carolina, have invented certain new and useful Improvements in Banding-Machines, of which the following is a full and clear specification, reference being had to the accompanying drawing, in which is represented a perspective view of a portion of a banding-machine, showing my improvement thereon.

This improvement has relation especially to that type of banding machine covered by my patent dated Dec. 20, 1904, No. 778,150, in which means are provided for twisting two strands of the band separately and then twisting said two strands together to form a complete band, a final twister shaft being employed to accomplish this last-named operation. A defect in this class of machines arises from the fact that at the point where the two strands are engaged over the final twister hook the strands at that point are prevented from being twisted by reason of the tautness with which they are held against the hook, so that at that point there is a slight looseness in the twist in the completed band making it slightly weaker at that point.

The object of the present improvement is to provide an extremely simple expedient for avoiding this defect, so that the completed band will be twisted hard throughout its length, as more fully hereinafter set forth.

Referring to the drawing annexed by reference-characters, 1 designates the bed of the machine upon which are mounted the stationary guide rods 14 which are supported on suitable standards 15. On the rods slides a head 16 which carries the final twister shaft 9 on the forward end of which the final twister hook 9^a is formed or attached. Said shaft 9 is journaled rotatively in the head 16 but is prevented from sliding therein by collars 18, only one of which is shown in the present drawing. All the foregoing parts are constructed substantially as in my former patent aforesaid, means of course being provided to normally draw back the head 16 and with it the twister shaft.

Pivoted to the head and extending forwardly therefrom is an arm 2 which tends to swing downward but is limited in its downward swing by having its forward end 3 bent downward so as to ride upon a cam 4 (affixed to the bed) or upon the bed. Extending upwardly and straddling the twister shaft is a fork whose two upward extending fingers 5 terminate, when the arm 3 is riding on the cam, a little above the top of the twister hook.

In operation, the end of each pair of untwisted strands is looped over one of the initial twister hooks at the forward end of the machine and midway the length of the folded strands they are looped over the prongs 5, as shown. Then the initial twists are simultaneously given to the separate pairs of strands in the usual way; while this twisting operation is proceeding the sliding head 16 is drawn forward, the depending foot 3 of the fork arm riding along on the upper straight surface of the cam 4 and thus supporting the fork in its uppermost position. When this initial twisting operation is nearly finished foot 3 drops off the forward end of the cam and thus causes the forward end of the twister shaft to throw off the strands from the fork prongs just before the completion of this portion of the twisting operation. The looped end of the strands is thus delivered into the final twister hook and during this transfer, that is while the strands are passing from the fork into the hook, the continued twisting of the strands causes the part that has been prevented from being twisted while on the fork to be twisted tightly before it strikes against the inner face of the hook, so that after the final twisting is done by the rotation of the hook 9^a in the usual manner there will be no appreciable looseness of twist at the point where the band engaged the final twister hook. When the head is drawn back again for another operation the sliding of the foot 3 up on the cam raises the fork into position to receive another band. It will thus be observed that the fork performs the function of an auxiliary hook for the final twisting devices.

It will be apparent to those skilled in the art that various mechanical embodiments of the invention are possible and I, therefore, do not wish to be limited to the exact arrangement and construction shown.

What I claim and desire to secure by Letters Patent is:—

1. In combination with a machine of the type set forth, carrying a sliding head and a final twister shaft journaled therein, of a supplemental hook adapted to hold the strands while being preliminarily twisted,

and means whereby the strands are delivered therefrom into the final twister hook immediately before the final twisting action begins.

2. In combination with a banding machine of the class set forth, embodying a final twister hook, means for supporting the band adjacent to the final twister hook during part of the initial twisting operation and for transferring it to the final twister hook while the initial twisting operation is going on, for the purpose set forth.

3. In combination with a machine of the class set forth, embodying a sliding head carrying a final twister shaft and hook, an auxiliary hook carried by said head, and means whereby the partially twisted band is transferred from this auxiliary hook to the final twister hook during the twisting operation.

4. In combination with a machine of the class set forth, embodying a sliding head carrying a twister shaft and hook, an auxiliary hook pivoted to the head underneath the twister shaft and carrying a prong-like hook straddling the twister shaft and extending above the same, a stationary cam supported on the bed in the line of travel of the head, and a foot carried by the auxiliary hook, said cam adapted to actuate said foot to raise and lower the auxiliary hook, for the purpose set forth.

In testimony whereof I hereunto affix my signature in the presence of two witnesses this 10th day of April 1906.

THOMAS A. SIZEMORE.

Witnesses:
R. H. STEWART,
H. M. PICKETT.