W. McVILLA.

Spinning-Machine for Spotting and Covering Yarn.

No. 208,622. Patented Oct. 1, 1878.

Fig. 1.

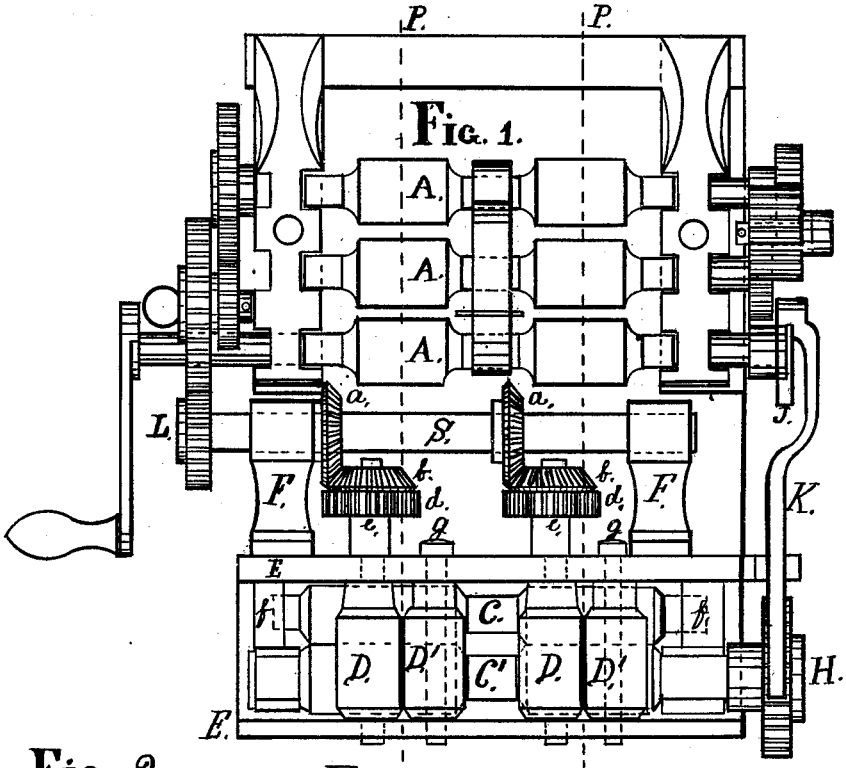

Fig. 2.

Fig. 4.

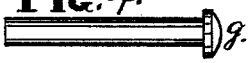

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Fig. 3.

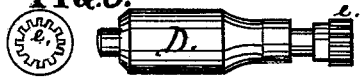


Fig. 5.

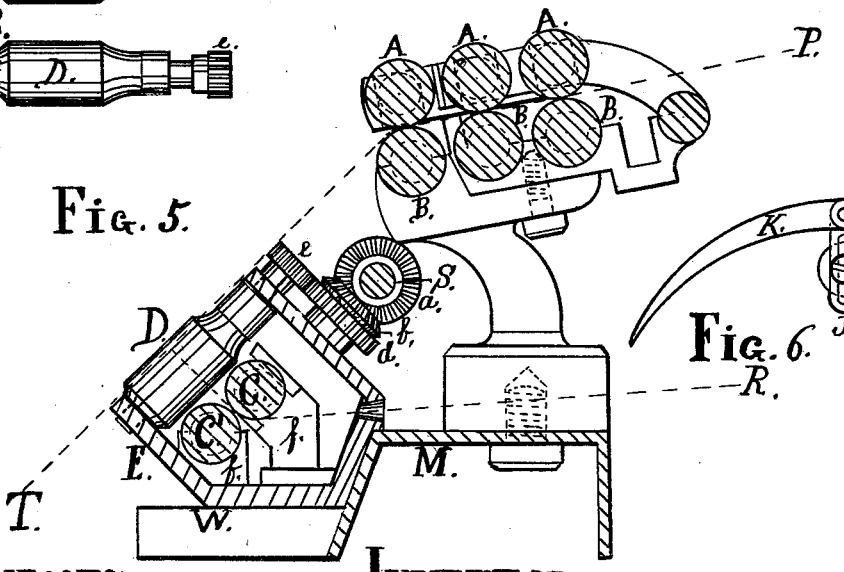
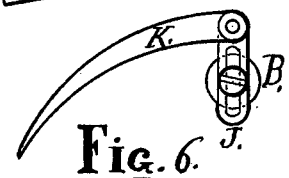


Fig. 6.



WITNESSES.

James D. Fraz

Oliver Fagley

INVENTOR.

Walter McVilla.

By his Attorney John Shinn.

UNITED STATES PATENT OFFICE.

WALTER McVILLA, OF MANAYUNK, PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN SPINNING-MACHINES FOR SPOTTING AND COVERING YARN.

Specification forming part of Letters Patent No. **208,622,** dated October 1, 1878; application filed June 10, 1878.

To all whom it may concern:

Be it known that I, WALTER McVILLA, of Manayunk, in the city of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Spinning-Machines for Spinning Spotted and Covered Yarns, of which the following is a specification:

The invention relates to improvements in spinning-machines in which the spotting or covering fibers are applied to the body-yarn as it is being spun; and the invention consists in the combination and arrangement of a series of rollers for delivering the spotting-fibers with the rollers that draw and deliver the fibers from which the body-yarn is spun, all as will be hereinafter described, referring to the drawings, in which—

Figure 1 is a top view of my improved machine. Figs. 2 and 3 are views of the rollers used to deliver the spotting-fibers to the body-yarn. Fig. 4 is a view of the pin on which the roller D′ revolves. Fig. 5 is an end view of Fig. 1. The rollers and roller-beams are shown in section, taken on one of the dotted lines of Fig. 1. Fig. 6 is an end view of crank and pawl for operating the rollers C and C′.

Similar letters in the drawings refer to like parts.

The construction of my improvement is as follows: A A A represent the top, and B B B the bottom, rollers; M, the roller-beam, and W the wire board of the ordinary cotton-spinning frame. These parts are constructed and operated as is usual in cotton-spinning machines.

Resting on the wire board W, and fastened to the beam M, is a roller-beam, E. To this beam E are fastened two pillars, F F, in which is supported the shaft S. On this shaft are two bevel-wheels, *a a*, which gear into the bevel-wheels *b b*, connected to the spur-wheels *d d*, and working on studs fastened to beam E. In the roller-beam E are two stands or journal-steps, *f f*, (see Fig. 5,) in which work rollers C C′. On the end of roller C′, to the right, is a ratchet-wheel, H.

Above the rollers C C′, and placed at right angles to them, are the rollers D D′. On one end of roller D is a small pinion-wheel, *e*. The roller D′ is fitted to revolve on the pin *g*.

The rollers A A A, C, and D′ are covered with leather. The rollers B B B, C′, and D are fluted.

On the end of the front roller, B, to the right, is an adjustable crank, J, to which is connected a pawl, K.

The operation of my improvement is as follows: Motion is communicated to front roller, B, which operates the crank J, pawl K, and wheel H, which latter, in turn, communicates an intermitting rotary motion to rollers C C′, and the front roller, B, by the wheel L, drives the shaft S, and this, by the bevel-wheels *a* and *b* and spur-wheels *d* and *e*, drives the rollers D D′, imparting a continuous rotary motion thereto.

P represents a white roving, which is fed through the frame in the usual manner, and is twisted into yarn as it leaves the front rollers.

R represents a black roving, which passes through a hole in the roller-beam E, and between the rollers C C′ and D D′, which rollers C C′, as before described, have an intermitting motion imparted to them, and the rollers D D′ a continuous motion, thus causing the black fibers to be broken from the roving R at regular intervals.

The yarn T receives a revolving motion as it is being twisted, and the black fibers from the roving R are lapped around the white yarn, showing well-defined spots at regular intervals, which may be regulated by the crank J, pawl K, and wheel H.

As the yarn is formed, it is wound on a bobbin in the usual manner.

It is understood that, in practice, the gears are covered by a tin or cast-iron box.

I am aware that spotted yarn has been spun on a spinning-machine, in which machine the spotting-fibers were delivered to the body-yarn by a pair of rollers having an intermitting motion imparted to them. This I do not claim; but,

As my improvement, I claim—

1. The rollers D D′, arranged at right angles to the main delivery-rollers and transversely above the auxiliary set of delivery-rollers, in combination with the rollers C C′, as shown and described, and for the purpose specified.

2. The combination of rollers D D′ and C C′ with the delivery-rollers A B of a spinning-machine, as shown and described, and for the purpose specified.

WALTER McVILLA.

Witnesses:

CHARLES H. SILVERWOOD,
JOHN SHINN.