

C. MARTIN.
 TWISTING AND CONDENSING TUBES IN SPINNING MACHINERY.
 No. 177,861. Patented May 23, 1876.

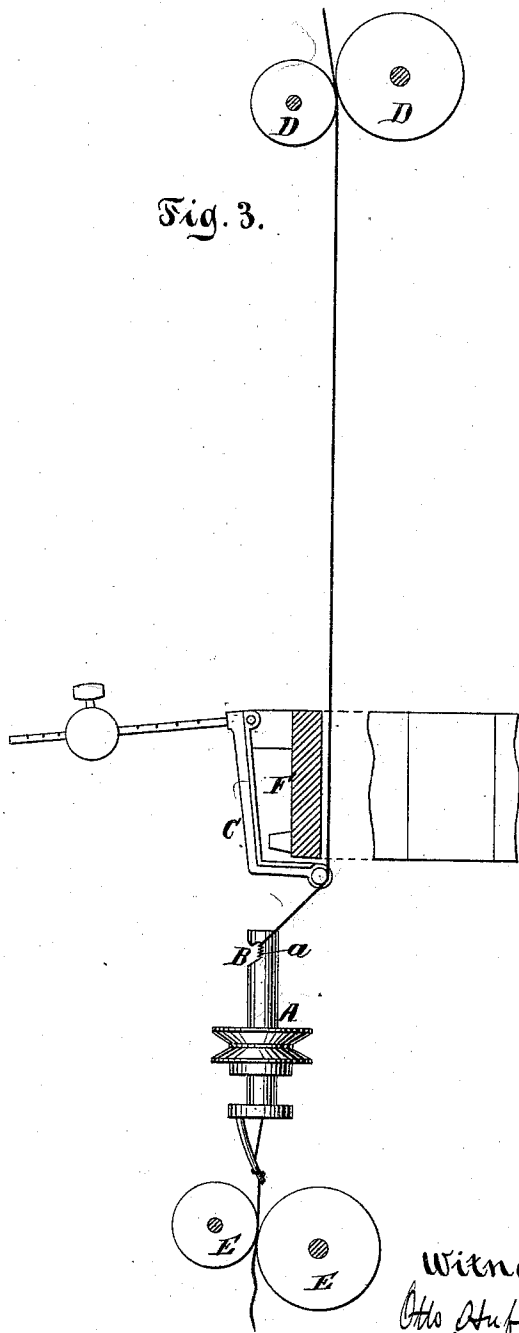


Fig. 3.

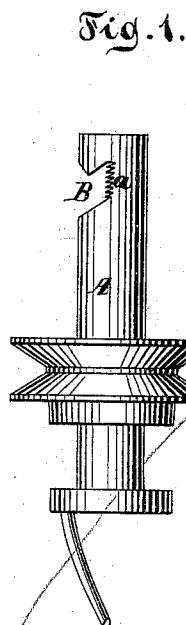


Fig. 1.

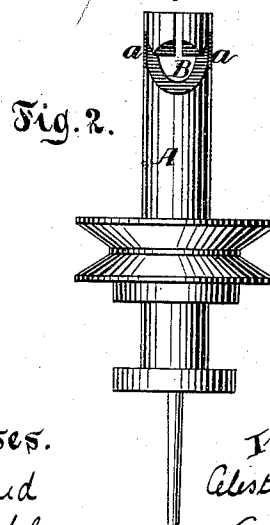


Fig. 2.

Witnesses.
 Otto Hufeland
 Chas. Kahlers.

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 per
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UNITED STATES PATENT OFFICE.

CÉLESTIN MARTIN, OF VERVIERS, BELGIUM.

IMPROVEMENT IN TWISTING AND CONDENSING TUBES IN SPINNING MACHINERY.

Specification forming part of Letters Patent No. **177,861**, dated May 23, 1876; application filed January 4, 1876.

To all whom it may concern:

Be it known that I, CÉLESTIN MARTIN, of Verviers, in the Kingdom of Belgium, have invented a new and useful Improvement in Twisting and Condensing Tubes in Spinning Machinery, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a side view of my improvement. Fig. 2 is a front view of the same. Fig. 3 is a side view, showing the manner of its application to use.

Similar letters indicate corresponding parts.

My invention relates to certain improvements in spinning machinery; and consists in a twisting-tube which is provided with a lateral recess for the admission of the roving, the edges of which recess are provided with notches which are adapted to seize and hold the roving, in such a manner as to prevent jerking on that part of the roving which is situated between the twisting-tube and the drawing-rolls of a spinning-machine.

In the drawing, the letter A designates my improved twisting or condensing tube, near the upper end of which is formed a recess, B, whose edges are provided with notches *a*. In applying this tube to a working machine I place it between the rolls D, which deliver the roving, and the drawing-rolls E. It is the greater speed given to the rolls last named than to the delivery-rolls D that determines the degree of drawing to which the roving is subjected. A balance-lever, C, regulates the twist of the roving during the process of drawing, as follows: When the twist is too strong the tension of the roving increases, and thereby the outer end of the lever C is depressed till the roving comes in contact with a break, F, placed contiguous to it, and by this means the twisting is stopped or moder-

ated. The twisting is accomplished by the revolution of the tube A, through the recess B of which the roving is admitted to the interior of the tube, and the whole is so arranged that, at each revolution of the tube, the roving receives a jerk, by means of which the drawing is brought about.

It is common, in spinning machinery, to use a twisting-tube which is provided with a plain recess for the admission of the roving; but with this form of tube it frequently happens that, when short substances are being spun, the jerk caused by the rotation of the tube has the effect of breaking the roving which is situated between the twisting-tube and the drawing-rolls E, owing to the fact that the roving is no longer twisted between these two points, and is subjected to too great and untimely a tension. This disadvantage is overcome by the action of the notches *a* in the recess of the tube A. By these notches the roving is seized and held fast at each revolution of the tube A, and just at the time the jerk is about to take place; hence the jerk is felt only between the notched recess B and the delivery-rolls D, and the shock hitherto taking place throughout the entire length of the roving between the delivery and drawing rolls is now obviated.

What I claim as new, and desire to secure by Letters Patent, is—

A twisting or condensing tube, A, for spinning, provided with the recess B, having toothed or roughened edges, for the purpose of diminishing or obviating the tension of the roving between the tube and the drawing-rolls, substantially as described.

CÉLESTIN MARTIN.

Witnesses:

JULES GONAY,
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