B. H. JENKS.

Improvement in Counter-Twist Tubes for Spinning.

No. 132,582. Patented Oct. 29, 1872.

Fig. 1

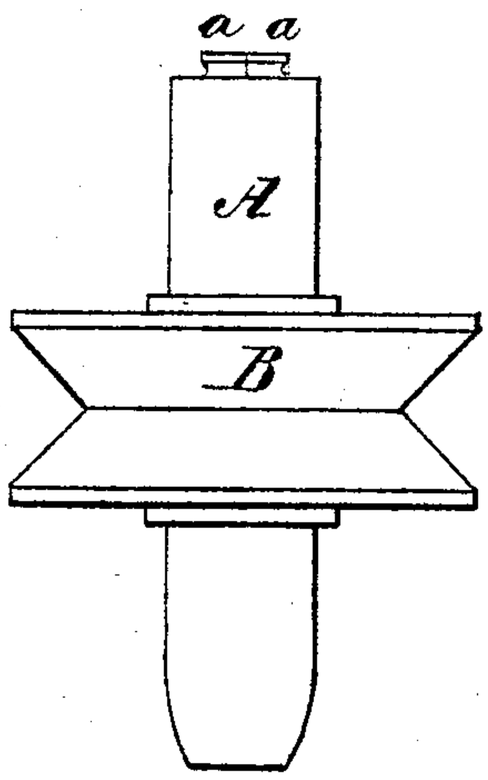


Fig. 2

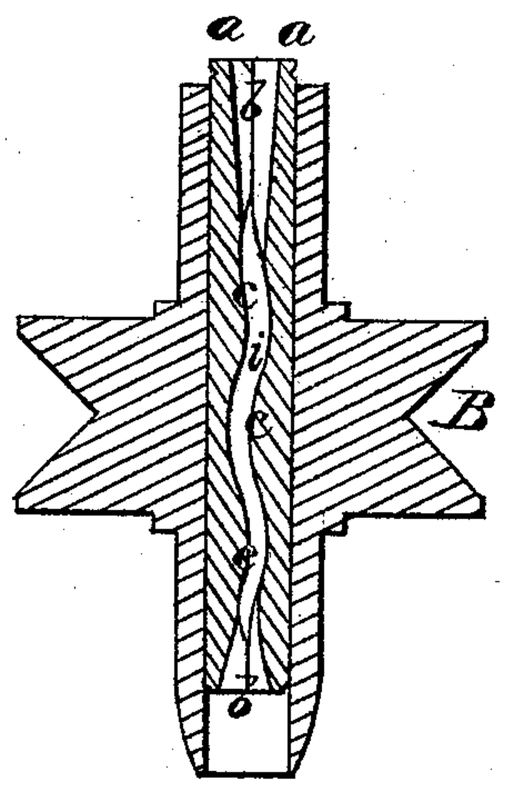
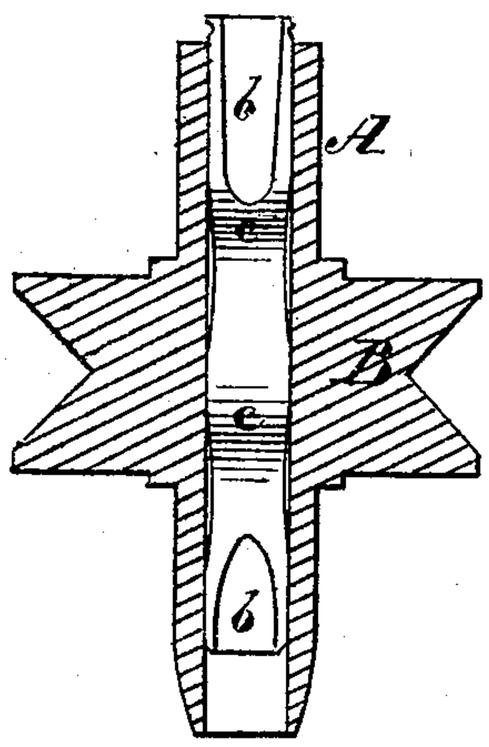


Fig. 3



Witnesses.
R. Campbell.
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UNITED STATES PATENT OFFICE.

BARTON H. JENKS, OF BRIDESBURG, PENNSYLVANIA.

IMPROVEMENT IN COUNTER-TWIST TUBES FOR SPINNING.

Specification forming part of Letters Patent No. **132,582**, dated October 29, 1872.

To all whom it may concern:

Be it known that I, BARTON H. JENKS, of Bridesburg, in the county of Philadelphia and State of Pennsylvania, have invented an Improved Counter-Twist Tube for Spinning-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is an external view of the improved tube. Figs. 2 and 3 are diametrical sections through the same.

Similar letters of reference indicate corresponding parts in the several figures.

The object of my invention is to improve counter-twist tubes, which are used for condensing or spinning wool, cotton, and other fibrous materials. The nature of my invention consists in a counter-twist tube with a removable and changeable core, which is inclosed within the tube, and presents a continuous waved or serpentine surface for the material to pass over in its passage through the tube, thus readily adapting the same tube for the different kinds of twisting required.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawing, A represents the tube through which the roving passes, and B a pulley, around which an endless cord passes that rotates the tube. Inside of this tube is a removable core, which consists of two pieces, *a a*, which, when they are inserted into the tube, present a waved or serpentine channel, *i*. Between them, terminating at each end, is an outward-flaring circular hole for the free entrance and exit of the roving. The number and depth of the waves *c* may be increased or diminished, as is found desirable.

It will be seen that when the roving is passed through the serpentine channel *i*, and rotary motion given to the tube A, such roving will be twisted, and, at the same time, allowed to be drawn or fed to the vertical spindle. This allows the roving to be drawn or elongated, and thus to be reduced in fineness; and when thus drawn, by twisting it, it becomes yarn.

I am aware that tubes for this purpose have been used before my improvement; for instance, such tubes have been made with spiral grooves in their bores; and I do not claim such as my invention.

The improved tube herein described is useful for all kinds of machinery where drawing of the roving is done by counter-twist.

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

A counter-twist tube with a removable and changeable core, which is inclosed within the tube, and is made with a waved or serpentine surface, substantially as and for the purpose set forth.

BARTON H. JENKS.

Witnesses:
JAMES W. BURKE,
W. D. BRITTAIN.