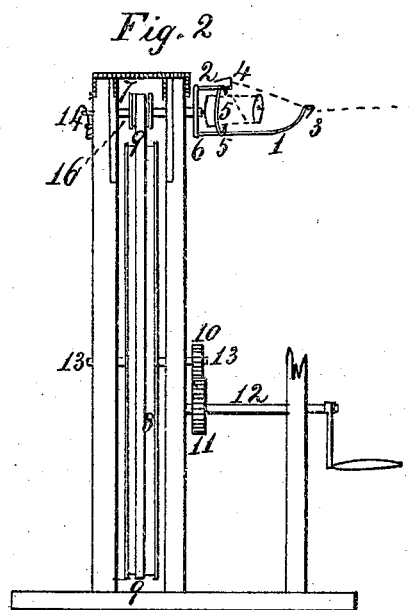
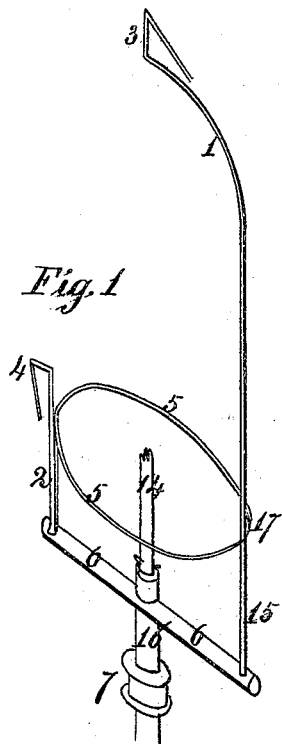


E. L. Young.
Spinning Flyer.

N^o 1,806.

Patented Oct. 8, 1840.



UNITED STATES PATENT OFFICE.

EDWARD L. YOUNG, OF NORFOLK, VIRGINIA.

FLIER FOR TWISTING SILK, &c.

Specification of Letters Patent No. 1,806, dated October 8, 1840.

To all whom it may concern:

Be it known that I, EDWARD L. YOUNG, of Norfolk borough, in the county of Norfolk and State of Virginia, have invented
5 new and useful Improvements in Twisting-Spindles; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed
10 drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the improvements made on the spindle. Fig. 2 is a longitudinal elevation of the same.

15 *Description of the construction and operation of my invention.*—My first invention consists in an improvement I have made on the flier of the twisting spindle: whereby the end-guide attached to it for receiving
20 or delivering the thread, is extended to such a distance from the side guide, that a bobbin can easily be put on, or removed from the axle of the spindle without disturbing the flier or end guide, which I thus effect,
25 after the cross head of the spindle has been strongly united to the cylindric pipe of the customary spindle, viz: Near one end of the said cross-head marked 6, Fig. 1, of the spindle I affix a wire supporter marked 2,
30 Fig. 1, say about one inch and three quarters in length; and run the same parallel to the axis of the spindle; the detached end of which wire I turn up in the form of the figure one, standing erect, and represented
35 by No. 4 in Fig. 1, the turned up portion I term the side guide. I then take another piece of wire of about one foot in length; and at about one quarter of an inch from one of its extremities bend its end, so as to
40 make an acute angle and represented by No. 3, in Fig. 1. This portion I term the end guide. At about one quarter of an inch from the angular point of said guide inward I again bend the said wire by giving it a
45 curvilinear form, such as is customary in most fliers and from said curve I straighten the residue of the said wire. The curve with the residue of the wire first stated I term a supporter or flier of the end guide. The
50 straightened end of this flier, marked 15 in Fig. 1, I strongly affix near to the unoccupied or remaining end of the aforesaid cross-head, marked 6 in Fig. 1, and when so doing I keep the straightened or second part of
55 the said end guide marked 3 in line with

the axis of the spindle, and at the same time place the inner part of said end guide at such an extended distance from the cross-head of the spindle, that a bobbin can be easily passed to or from the axle wire of
60 the spindle without coming in contact with the flier of the end guide.

Now what I claim on this subject as my invention, and desire to secure by Letters
Patent, is— 65

Extending the guide which receives or delivers the thread in a line with the axis of the spindle sufficiently far beyond the end of the spindle to enable the operator to remove the bobbin without removing the flier
70 as described.

I do not claim as my invention merely making the flier so that the bobbin can be removed from the axis of the spindle without removing or displacing the flier as this
75 has long since been done for spinning cotton wool, &c., but in these cases the guides were of equal length and at equal distances from the cross-head of the spindle.

Now the guides being firmly affixed; I next
80 proceed to my method of bracing the flier, and counteracting the centrifugal tendency of the improved flier, when in active operation; which I effect by means of a wire ring brace, which has its end or ends secured
85 to the supporter of the side guide, which I thus effect. I take a piece of wire say about one foot in length and secure one end of about one inch and a half in length to a side of the wire supporter of the side guide
90 marked 2 in Fig. 1, the detached portion I bent in the form of a circle or ring placing its plane at right angles to the axis of the spindle, at the same time making a part of the circle pass outside of, and precisely touch
95 the improved flier's exterior surface marked 17 in Fig. 1. I then secure the other end portion of the ring, to that portion of the ring, to that portion of the latter, it comes in contact with; or if more desirable, turn
100 this just stated portion in line with the nearest side of the aforesaid side supporter marked 2 in Fig. 1, and firmly secure them together; by which method the flier of the end guide will be well braced to the sup-
105 porter of the side guide, and its centrifugal tendency will be effectually overcome.

For this my method of counteracting the centrifugal tendency of the flier, at the same time bracing the fliers or supporters of the
110

side and end guides, I claim as my invention and desire to secure the same by Letters Patent.

5 Having accomplished thus far, I then proceed to the completion of the spindle by passing through the cylinder pipe, marked 16 in Fig. 1, an axle wire for receiving a bobbin marked 14 in Fig. 1, also to the cylindric

pipe marked 16, affix a flanged roller for a band marked 7 in Figs. 1 and 2.

September 19th 1840.

EDWARD L. YOUNG.

Witnesses:

JOHN TANIS,

JOHN WHITEHURST.