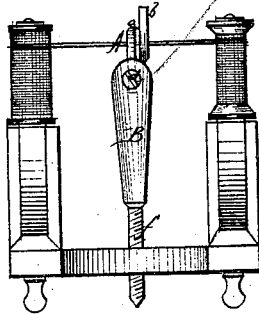


*I. M. Church,*

*Thread Guide.*

*No. 112,901.*

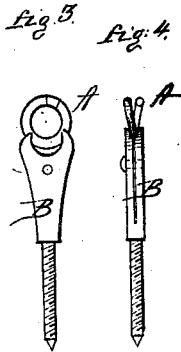
*Patented Mar. 21. 1871.*



*Fig. 1.*



*Fig. 2.*



*Fig. 3.*

*Fig. 4.*

**Witnesses.**

*Chas. L. Evers*  
*Jas. C. Hutchinson*

**Inventor.**

*Dwight M. Church*  
*per*  
*Alexander Mason*  
*Att'y.*

# United States Patent Office.

DWIGHT MADISON CHURCH, OF HOLYOKE, MASSACHUSETTS.

Letters Patent No. 112,901, dated March 21, 1871.

## IMPROVEMENT IN THREAD-GUIDES FOR WINDING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

### *To all whom it may concern :*

Be it known that I, DWIGHT MADISON CHURCH, of Holyoke, in the county of Hampden and in the State of Massachusetts, have invented certain new and useful Improvements in Thread-Carrier for Machines for Spinning, Twisting, and Dressing Cotton, Silk, and Flax Thread; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in a "detachable wire and clamp," for forming a thread-guide or thread-carrier on any machine where cotton, silk, flax, or other thread is to be guided to or from spools, bobbins, cops, &c., as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side view of my thread-guide;

Figure 2 is a view of the detachable wire forming a part of the same; and

Figures 3 and 4 are views showing a modification or variation of the same.

A represents a piece of round wire bent, as shown in fig. 2, so as to form a round ring, *a*, and the ends *b b* pointing in opposite directions.

One of these ends is inserted in a hole made in a post, B, and fastened by means of a set-screw, *d*.

The post B is provided with a screw, *f*, at its lower end, so as to be attached wherever needed.

When the detachable wire A has been worn by the thread passing through it so much that it is unfit for use, it can be taken out and turned end for end, when there will be another fresh place to wear, thus gaining double the wearing - surface over the old - fashioned guide, which, as soon as it is worn in one position, is entirely useless.

With my guide, on the contrary, the body part or clamp is good for any number of wires.

In figs. 2 and 3 I have shown one modification of my guide, and others will readily suggest themselves; all, however, containing a clamp of some kind, with a detachable wire.

Having thus fully described my invention,

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

A thread-guide or thread-carrier, composed of a detachable wire and a clamp, for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 8th day of February, 1871.

DWIGHT MADISON CHURCH. [L. S.]

Witnesses :

W. B. C. PEARSONS,  
H. S. WALKER.