

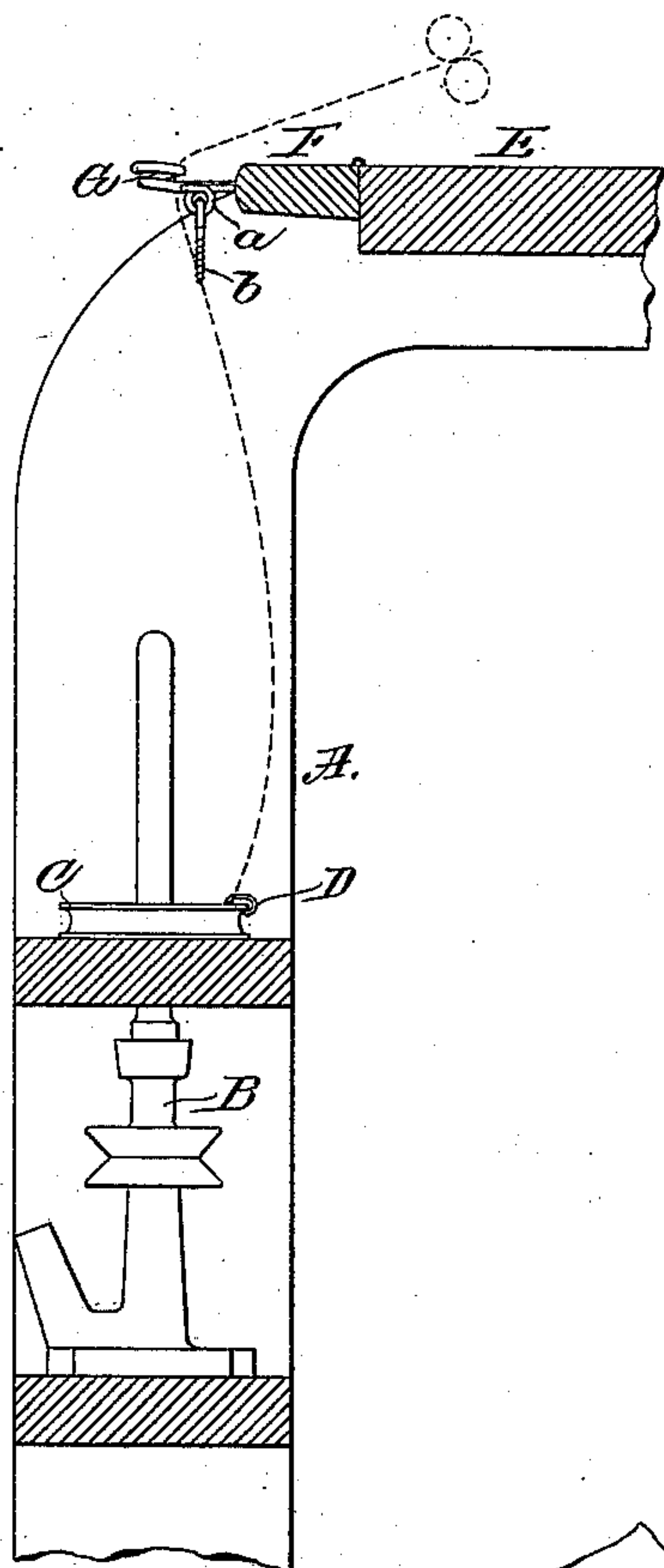
(Model.)

T. D. WILMARTH.  
KINK ARRESTER FOR SPINNING FRAMES.

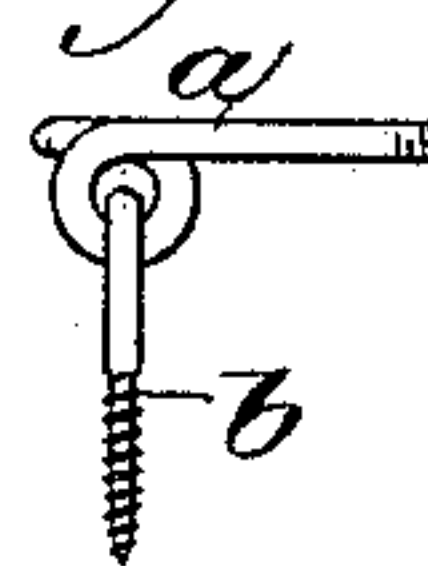
No. 413,746.

Patented Oct. 29, 1889.

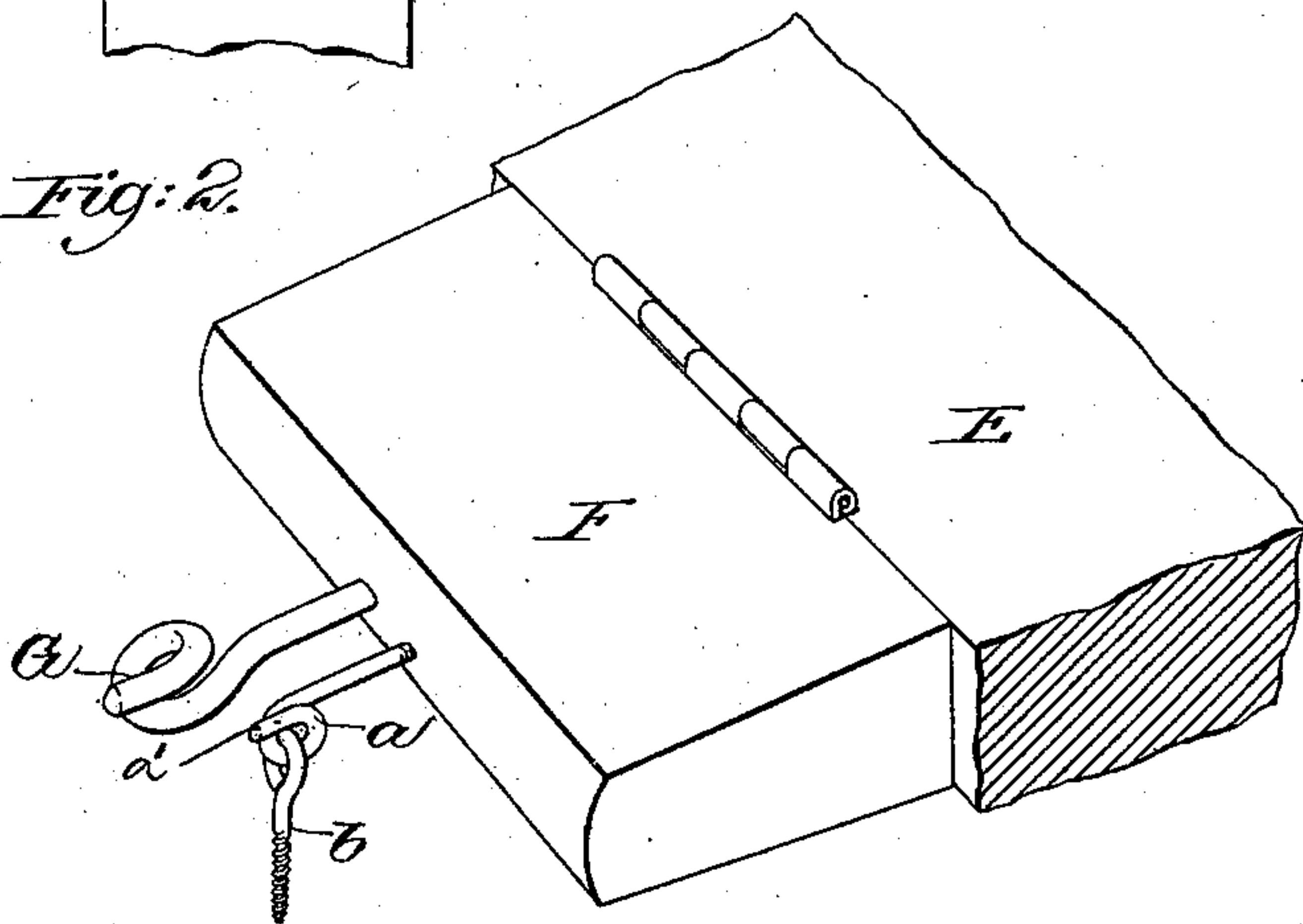
*Fig. 1.*



*Fig. 3.*



*Fig. 2.*



Witnesses.

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# UNITED STATES PATENT OFFICE.

THOMAS D. WILMARTH, OF SAUNDERSVILLE, MASSACHUSETTS.

## KINK-ARRESTER FOR SPINNING-FRAMES.

SPECIFICATION forming part of Letters Patent No. 413,746, dated October 29, 1889.

Application filed July 28, 1888. Serial No. 281,298. (Model.)

*To all whom it may concern:*

Be it known that I, THOMAS D. WILMARTH, of Saundersville, county of Worcester, State of Massachusetts, have invented an Improvement in Kink-Arresters for Spinning-Frames, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention has for its object to provide a ring spinning and twisting frame with improved means for preventing kinks in the yarn in case the traveler leaves the ring or becomes clogged, so as not to hold the yarn  
15 going to the bobbin at the proper tension. If the yarn between the guide-eye and bobbin is not subjected to proper tension, it will kink, and as it travels about the bobbin will break and strike against other yarns or  
20 threads and break them.

In my invention I have combined with the guide-board and usual guide-eye an independent kink-arrester, which is suspended from an adjustable support attached to the guide-  
25 board near the usual guide-eye, the said kink-arrester hanging in and occupying a position near the path in which the yarn, when under proper tension, travels about the bobbin between the guide-eye and the trav-  
30 eler, the support for the kink-arrester being so shaped that the kink-arrester cannot swing over the top of the supporter and remain up out of operative position. In operation, should the traveler leave the ring, or the yarn or  
35 thread become slack by reason of the traveler becoming clogged, then the yarn or thread, owing to its slack, bows out and meets the kink-arrester and is instantly broken, thus preventing the yarn which is not prop-  
40 erly held from striking and breaking adjacent yarns or threads, which results in very considerable loss.

My invention consists, essentially, in the combination, with the guide-board and usual  
45 guide-eye, of a kink-arrester and an independent support therefor located near the guide-eye, and having a stop to limit the extent of upward swing of the kink-arrester, whereby it cannot be turned up into vertical position  
50 and stop, but will always hang down from the said support, substantially as will be described.

Figure 1 in partial section shows a sufficient portion of a well-known ring-spinning frame to enable my invention to be under-  
stood; Fig. 2, a perspective showing the guide-  
board, guide-eye, and kink-arrester; and Fig. 3, a modification.

The frame-work A, sleeve-whirl spindle B, ring C, traveler D, top board E, guide-board F, 60 hinged to the top board, and the guide-eye G, are all as common in ring spinning and twisting frames. I have added to the guide-board a support *a*, shown as a piece of coiled wire having its loop arranged to stand vertically, and  
65 having a portion thereof bent or carried forward of the part thereof on which the kink-arrester hangs to form a stop, as *a'*, to prevent the kink-arrester from swinging up over and lodging on the upper side of the support *a*. The  
70 eye of the support *a* receives on it the kink-arrester *b*, which is preferably of threaded wire of sufficient length to hang in the path of movement of the bowing yarn, so that when the yarn is unduly slack, as described,  
75 between the guide-eye G and bobbin the yarn will strike against the kink-arrester. The yarn, striking the kink-arrester, becomes wound about the kink-arrester, and thereafter on the rotation of the spindle and bob-  
80 bin the yarn breaks off near the bobbin. By reason of the stop *a'* standing across the path in which the kink-arrester is enabled to vibrate or move when struck by the yarn it is impossible for the kink-arrester to be swung  
85 up into vertical position and be caught or lodged in such position so as to be inoperative.

I do not claim, broadly, a wire eye or pin to support a kink-arrester, and by the employment of a wire eye having the loop arranged  
90 in a horizontal rather than in a vertical plane the kink-arrester can easily become lodged out of operative position.

The stop end *a'* of the wire-support *a* may be turned across at either side of the eye or  
95 main body of the support, it being shown in Figs. 2 and 3 as at different sides. I prefer the plan shown in Fig. 2.

The support is shown as made adjustable by means of its screw-threaded shank, so that  
100 the kink-arrester may be adjusted to different speeds, weight of traveler, or numbers of yarn or thread being spun or twisted.

The body of the kink-arrester is preferably

notched, scored, or threaded to enable it to better hold the yarn or thread when the bobbin is thrown against it.

In spinning on a ring-frame the spindles  
5 are run at different speeds, according to the work being done, and the faster the speed of rotation of the spindle the greater the bowing out of the yarn, and vice versa, and herein, to enable a kink-arrester to be of any practical value, it has to be supported independently of the usual guide-eye, or so that it may be readily adjusted to correspond with the speed of the spindle.

I claim—

The combination, with the kink-arrester, of 15 a support having an eye shaped to suspend the kink-arrester and enable it to swing, and having a forwardly-extended stop portion to prevent the kink-arrester turning over and above the top of the support, to operate substantially as described. 20

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS D. WILMARTH.

Witnesses:

G. W. GREGORY,

B. DEWAR.