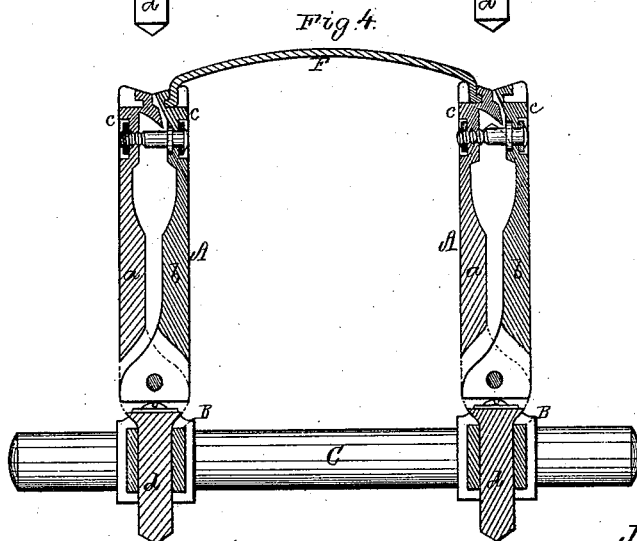
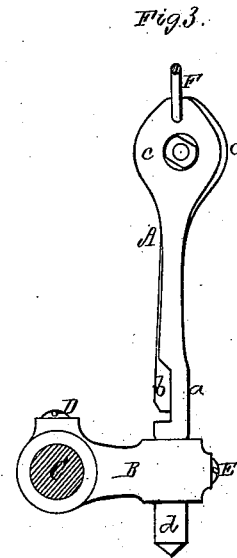
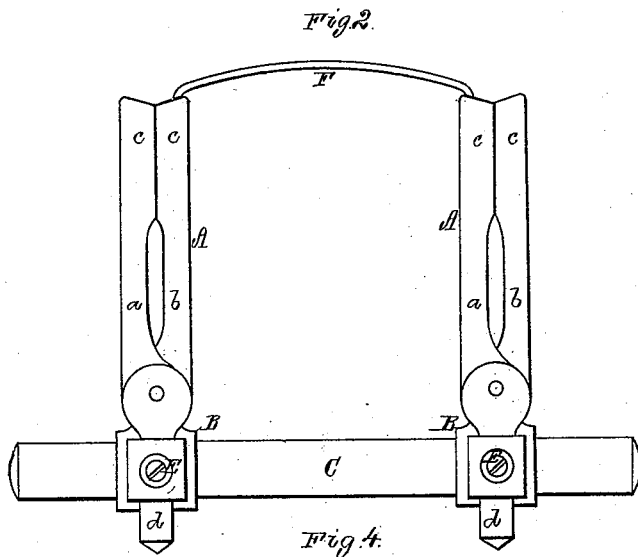
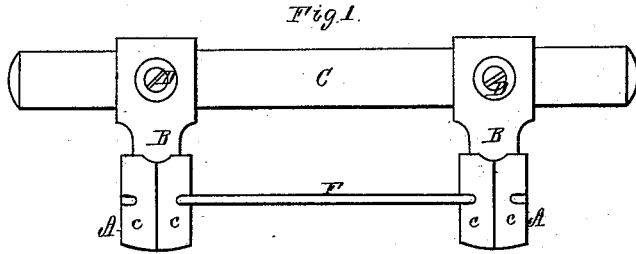


J. B. BANCROFT.

YARN-GUIDE SUPPORTERS FOR SPOOLING-MACHINES.

No. 181,394.

Patented Aug. 22, 1876.



Witnesses.
S. N. Piper.
L. M. Moore.

Joseph B. Bancroft.
by his attorney.
R. H. Eddy

UNITED STATES PATENT OFFICE.

JOSEPH B. BANCROFT, OF HOPEDALE, MASSACHUSETTS.

IMPROVEMENT IN YARN-GUIDE SUPPORTERS FOR SPOOLING-MACHINES.

Specification forming part of Letters Patent No. 181,394, dated August 22, 1876; application filed July 31, 1876.

To all whom it may concern:

Be it known that I, JOSEPH B. BANCROFT, of Hopedale, of the county of Worcester and State of Massachusetts, have made a new and useful Improvement in Thread or Yarn Guide Supporters of Yarn-Spooling Machines; and do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a front elevation, and Fig. 3 a transverse section, of two yarn-spooling-machine thread-guides provided with my invention. Fig. 4 is a vertical section of such guides, and the intervening wire extending from one to the other of them, and arranged in sockets made in such guides.

My invention consists, first, in an improved jawed yarn-guide, having the main shanks of its jaws jointed together, and provided with an auxiliary shank, extended from one of the said main shanks; second, in the combination of a support bar or rod, and adjustable arms provided with clamp-screws, with thread or yarn guides applied to the said arms, such guide being adjustable on the arms, and held there by clamp-screws, as shown; third, in the combination of the bar or rod and the adjustable arms with the yarn-guides and a bowed conductor or wire extending from one to the other of the said guides, and made and applied thereto substantially as specified.

Each of the jawed yarn-guides (represented at A A) is of a kind in common use, except that, instead of the shanks *a b* of its jaws *c c* being inserted in and pivoted to the notched head of a supporting-screw, they are pivoted together, and from one of them there projects down in one piece with and from it an auxiliary shank, *d*, to extend into and through an adjustable arm, B, arranged upon a rod or bar, C, as shown.

The bar C, as represented, is a round or cylindrical rod, and has each of the arms so applied to it as to be capable of being moved or slid upon it lengthwise of it. Such arm is furnished with two clamp-screws, D E, one of which screws into it and against the rod. The other screws into the arm, and against the auxiliary shank *d*, all being as represented.

From the above it will be seen that each arm B can turn as well as slide on the rod C, whereby the arm becomes adjustable in four directions on such rod—that is, it can be moved either toward or away from the next adjacent arm, or it can be turned more or less either way transversely of the rod.

The rod may be prismatic instead of being cylindrical, in which case the arms would be adjustable on it lengthwise of it only, provided they be fitted to it.

Each of the guides A is adjustable vertically in and relatively to its supporting-arm.

The two guides A A are represented as provided with a bowed wire or conductor, F, extending from one to the other, and inserted in sockets or pockets, each of said pockets being composed of one vertical and one horizontal recess or notch, the conductor being shaped as shown.

The mode of constructing the conductor and its receiving-pockets I do not claim as my invention, it, as I have been informed, having been invented by Mr. George Draper, of Hopedale aforesaid.

The combination of the said conductor, the yarn-guides, and the supporting-rod and adjustable arms, as described, enables the yarn-guides to be adjusted to conductors of different lengths, and so as to closely fit to and support them.

By having the yarn-guides supported by means of the rod and arms, as explained, such guides may be simultaneously moved nearer to or farther from the spindles, or be separately adjusted nearer to or farther from each other, or be moved into higher or lower positions, whereas, as ordinarily applied to a support-bar, each guide can only be adjusted vertically, or moved up or down relatively to the bar.

The great advantages of my improvement will be easily seen by persons skilled in the art to which it appertains.

I claim as my invention as follows, viz:

1. The improved jawed yarn-guide, having the main shanks *a b* of its jaws *c c* pivoted together, and provided with the auxiliary shank *d*, extending from one of them, in one piece therewith, all being substantially as set forth.

2. The combination of the support-rod C and the adjustable arms B, and the clamp-screws D applied thereto, as set forth, with thread or yarn guides applied to said arms, so as to be supported by or adjustable in or relatively to them, as set forth.

3. The combination of the bar C, adjustable arms B, thread or yarn guides A, and the con-

ductor or intervening arched guide-wire F, all being arranged and applied substantially as set forth.

JOSEPH B. BANCROFT.

Witnesses:

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