G. DRAPER.

YARN-GUIDES FOR SPOOLING-MACHINE.

No. 181,321. Patented Aug. 22, 1876.

Fig. 1.

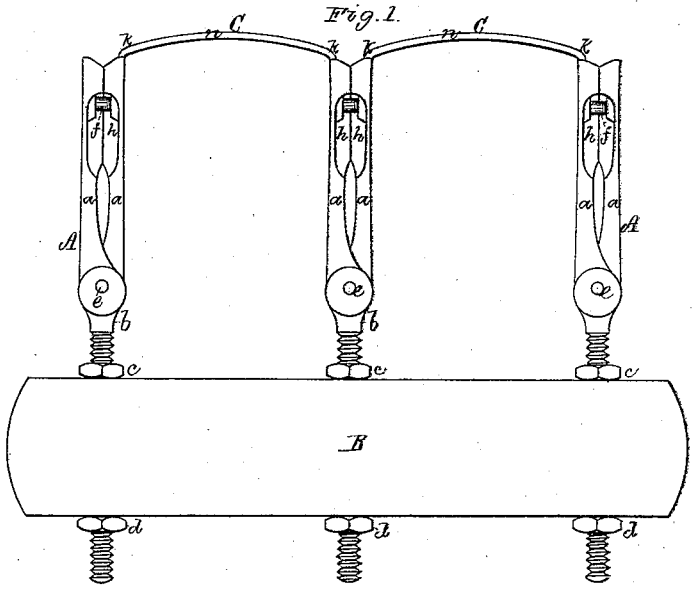


Fig. 2.

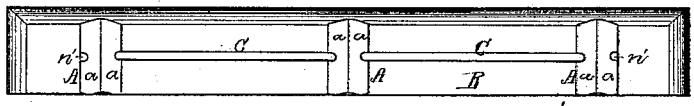


Fig. 3.

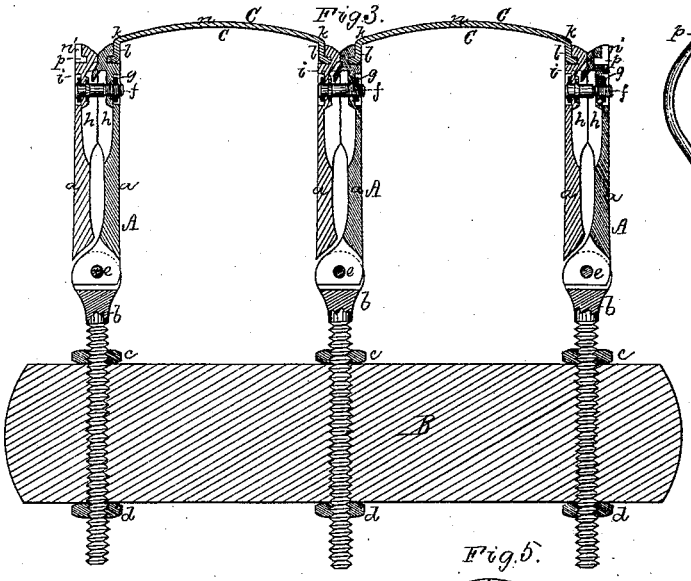


Fig. 6.

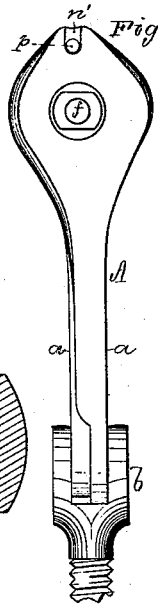


Fig. 7.

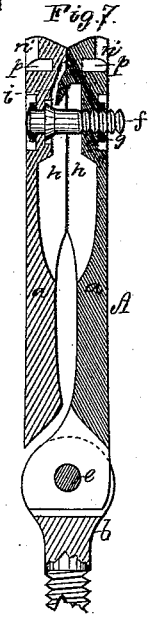


Fig. 5.

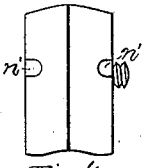
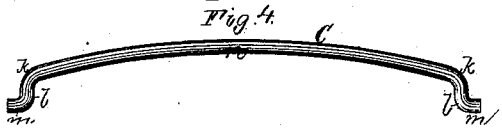


Fig. 4.



Witnesses.

S. N. Piper.

R. S. Turner

George Draper

by his attorney

R. H. Eddy

UNITED STATES PATENT OFFICE

GEORGE DRAPER, OF HOPEDALE, MASSACHUSETTS.

IMPROVEMENT IN YARN-GUIDES FOR SPOOLING-MACHINES.

Specification forming part of Letters Patent No. **181,321**, dated August 22, 1876; application filed June 28, 1876.

To all whom it may concern:

Be it known that I, GEORGE DRAPER, of Hopedale, of the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in mechanism having reference to the Yarn-Guides of Spooling-Machines; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a rear elevation, Fig. 2 a top view, and Fig. 3 a longitudinal section, of a series of adjustable jawed guides and their detachable, flexile, or elastic conductors, all made and arranged in accordance with my invention.

The jawed guides represented at A A A, with the exception of their compound sockets hereinafter described, are of a kind in common use, they being applied to a support-bar, B, so as to be adjustable vertically therein and relatively thereto. Each guide has a pair of recessed jaws, *a a*, that are hinged together at their lower parts and to the head of a sustaining-screw, *b*, which goes through the support-bar, and is held thereto by clamp-nuts *c d*, arranged as shown. One of the jaws only of each pair is to turn on their pivot or joint pin *e*, such pair having their heads chambered, as shown at *h h*, and furnished with an adjusting-screw, *f*, and a clamp or set-nut, *g*, thereto, all being as represented. By revolving the adjusting-screw one way one jaw will be caused to recede from the other. So, by turning the screw the opposite way the movable jaw will be made to approach the stationary jaw. A small hook or arm, *i*, extending from the movable jaw, and arranged in its chamber, serves to catch the yarn and hold it from being drawn upward and from between the jaws.

In carrying out my invention I provide the series of jawed guides A A A with a series of detachable, flexile, or elastic arched conductors or bridges, C C, extending from one to the other, as represented.

Fig. 4 is a side view of one of the said conductors, which is a piece of wire, bowed, as shown at *k n k*, and bent near each extremity twice, in manner as represented at *k* and *l* in said Fig. 4.

To receive two of the conductors, the jaws *a a* are provided with suitable sockets, each being composed of a vertical recess or notch, *n'*, and a horizontal recess or notch, P, leading therefrom, all being arranged in the jaws in manner as shown in Fig. 5, which is a top view, and in Fig. 6, which is a side view, and in Fig. 7, which is a vertical section, of a pair of the jaws, without the conductors. The part *k l m* of the conductor, by entering the compound socket *n p*, serves therewith not only to keep the conductor in its normal position, but from being accidentally thrown upward out of the socket.

From the above it will be seen that each of the conductors can be easily sprung out of or into its sockets in order to admit of either of the guides being removed from their support-bar without disturbing the rest, or of being turned in said bar for convenience of getting ready access to the adjusting-screw and clamp-nut.

The elasticity or flexibility of the conductors allow of their easy adaptation to the jaws, as well as of the adjusting of each pair of the latter to different distances asunder, as occasion may require.

I do not claim the combination of a notched and grooved glass guide with the wire conductors, extending through its notches and rivited to an adjustable plate, fixed by screws to a traverse bar, all being as shown in the specification and drawings of United States Patent No. 134,888.

Instead of said glass plate I have jaws in which one is adjustable with reference to the other; and, besides, I have no adjustable plate to which the conductors are fastened, and by which they and a glass guide are supported and adjusted.

The object of each conductor is to support the yarn and guide it to and between the pair of jaws.

With spooler-guides, having adjustable jaws and adjusting mechanism thereto, as described, the great advantage of having them socketed, and also of having the conductors separately movable, will be readily seen.

I claim—

1. The combination of the series of adjustable-jawed spooling-guides A with the series

of removable arched wire-conductors C, arranged with and applied to such guides, substantially as specified.

2. The jawed guide A, having to each or either of its jaws, a compound socket, *n p*, as described, for the reception of a conductor, as explained.

3. The arched conductors C, bent near their ends, as shown at *k l*, in combination with the jawed guides A, substantially as specified.

GEORGE DRAPER.

Witnesses:
E. D. BANCROFT,
FRANK J. DUTCHER.