G. W. D. UPTON & A. PARTRIDGE.

Yarn Guide for Spooling Machines.

No. 231,380. Patented Aug. 17, 1880.

Fig 3

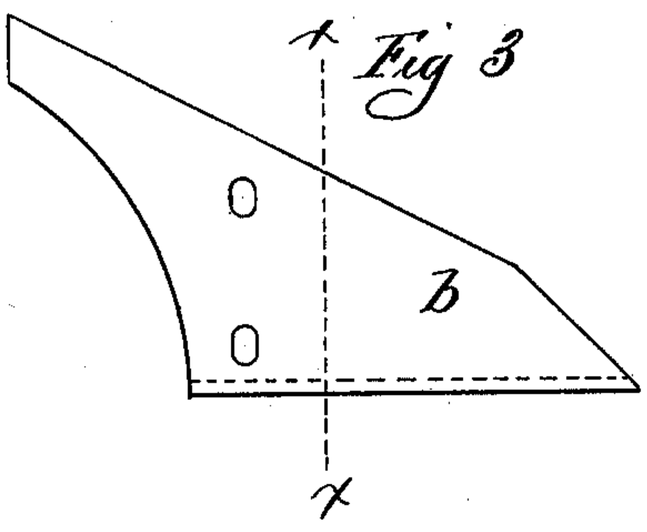


Fig 4

Fig 2

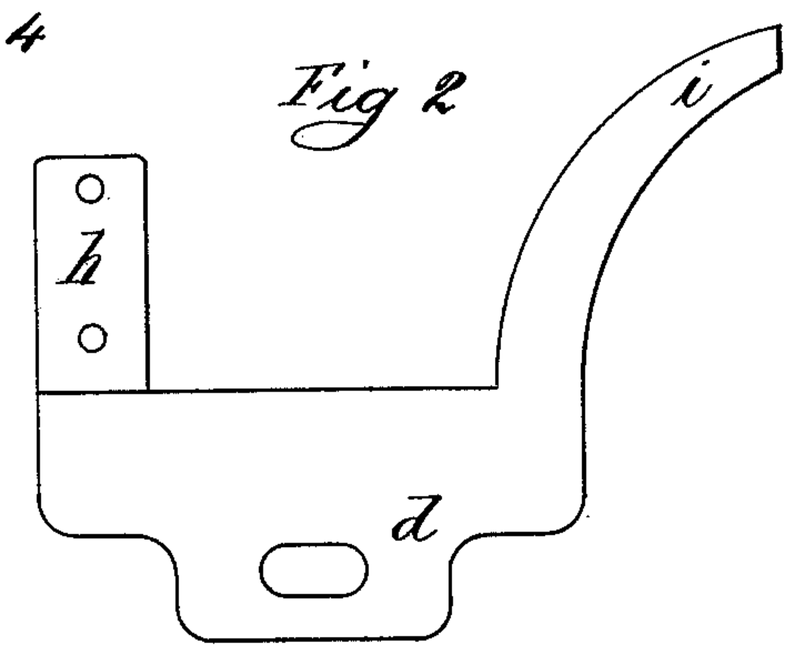


Fig 1

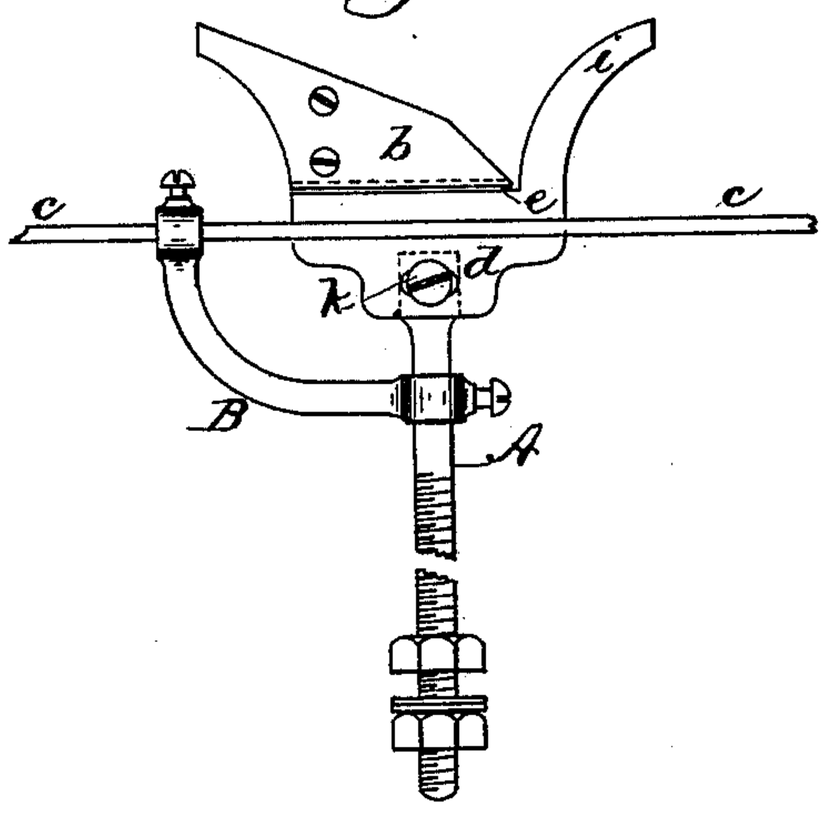
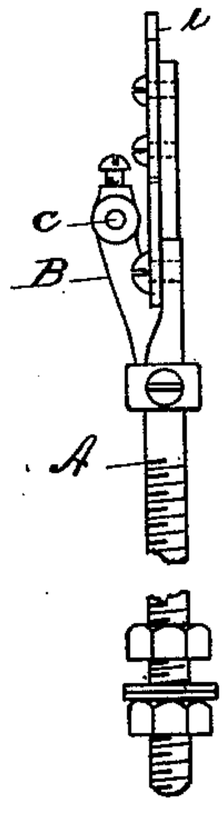


Fig 5



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UNITED STATES PATENT OFFICE.

GEORGE W. D. UPTON AND ANDREW PARTRIDGE, OF SPRINGFIELD, MASS.

YARN-GUIDE FOR SPOOLING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 231,380, dated August 17, 1880.

Application filed October 3, 1879.

To all whom it may concern:

Be it known that we, GEORGE W. D. UPTON and ANDREW PARTRIDGE, both citizens of the United States, residing at Springfield, county of Hampden, and State of Massachusetts, have invented new and useful Improvements in Yarn-Guides for Spooling-Machines, of which the following is a specification.

Our invention relates to that class of yarn-guides which are used on yarn-spooling frames; and the object thereof is to provide a guide of simple construction so mounted upon its supporting-post that it may be adjusted longitudinally thereon, and so that its yarn-slot shall stand level irrespective of the perpendicularity of the post, and into which the yarn is automatically conducted.

We attain the above-named objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of our yarn-guide. Figs. 2 and 3 are like views of the two guide-plates, and Fig. 4 is a vertical section of the plate shown in Fig. 3 through the line *x x*. Fig. 5 is a side elevation of the guide.

A is the supporting-post. B is a curved arm adapted to support the yarn-guide rod *c*. *d* is the main guide-plate, and *b* the auxiliary one. *h* is a vertical post on plate *d*, and *i* is a curved arm thereon.

Post A is provided, as shown, with suitable nuts on its lower end, by which it may be attached to the building-rail of a spooling-frame, or its lower screwed end may be screwed into tapped holes in said rail.

Arm B is secured by a set-screw to post A, and is adjustable vertically thereon. Its opposite end is carried up, as shown, and drilled to receive a guide-rod, *c*, running along in front of the spooler-guide, and the arm and the rod are secured one to the other by a set-screw through the end of the former, as seen in Fig. 1.

The main guide-plate *d* has an oblong screw-hole made in it near its bottom edge, as shown in Fig. 2, and rising upwardly and to the right in curved lines from its top edge is an arm, *i*, and on its opposite end, standing vertically, is a post, *h*, pierced with screw-holes.

The auxiliary plate *b* is of uniform thickness with plate *d*, and is of such length on its bottom edge as to nearly equal the distance between the base of arm *i* on plate *d* and the opposite end of said plate, and has its curved left-hand edge formed to correspond with the outer curved edge of arm *i*, its upper end extending, as shown, beyond the vertical line of post *h*.

The upper edge of plate *b* is formed on a double incline, as shown, and its lower edge is beveled off on its rear side, as shown in the sectional view of said plate in Fig. 4. Screw-holes oblong vertically are formed therein, as shown.

The said plates *b* and *d* are secured together and to post A, as seen in Fig. 1, in which, it will be observed, is shown a screw, *k*, inserted through the above-named oblong screw-hole in plate *d* into the side of post A, near its upper end. This feature of construction provides for conveniently moving the said plates bodily in a line at right angles to the vertical line of post A, for the purpose of adjusting them to such a fixed position on said post as may be demanded by the diameter of the bobbin upon which the yarn is being wound and of adjusting the contiguous ends of a series of guides on a frame one to the other, and, furthermore, for adjusting said plates so that the yarn-slot *e* between the edges of them shall stand level irrespective of the perpendicularity of the post A.

The plate *b* is adjustable vertically on post *h* on plate *d* by means of the oblong screw-holes therein, so as to provide such a width of yarn-slot as will adapt it to different numbers of yarn, the entrance to said slot being between the end of plate *b* and arm *i* on plate *d*.

In practice a series of guides is arranged along on the rail on one side of a spooling-frame, one for each bobbin, and rod *c* may run continuously in front of the series of guides through the perforated upper ends of the arms B of the guides. As shown, said rod *c* may be adjusted to such a height in front of the guide, relative to the yarn-slot, as to cause the yarn to run at a proper angle over the guide and through the slot.

It will be seen that the form of the combined upper edges of the plates *d* and *b* conduces to the placing of a yarn into slot *e*, when it is laid

across the guide, without the aid of the operator.

The operation of our yarn-guide will be easily understood from its description by persons skilled in the art to which it appertains.

The guide-rod *c*, instead of being held by arm B, may be supported in front of the spooler-guides upon standards set in the rail which carries the guides, and said standards may be arranged so that the height of said rod may be varied as occasion may require.

What we claim as our invention is—

1. In combination with post A, the plate *d*, provided with the obliquely-curved arm *i* and the post *h*, and having the oblong screw-hole through its lower portion, as shown, the plate *b*, having its upper end extending beyond the vertical line of post *h*, and screw *k*, substantially as and for the purpose set forth.

2. In combination, the post A, arm B, adapted to support a guide-rod, the plate *d*, provided with the obliquely-curved arm *i* and the post *h*, and having the oblong screw-hole through its lower portion, as shown, the plate *b*, having its upper end extending beyond the vertical line of post *h*, and screw *k*, substantially as and for the purpose set forth.

GEORGE W. D. UPTON.
ANDREW PARTRIDGE.

In presence of—
WM. H. CHAPIN,
H. A. CHAPIN.