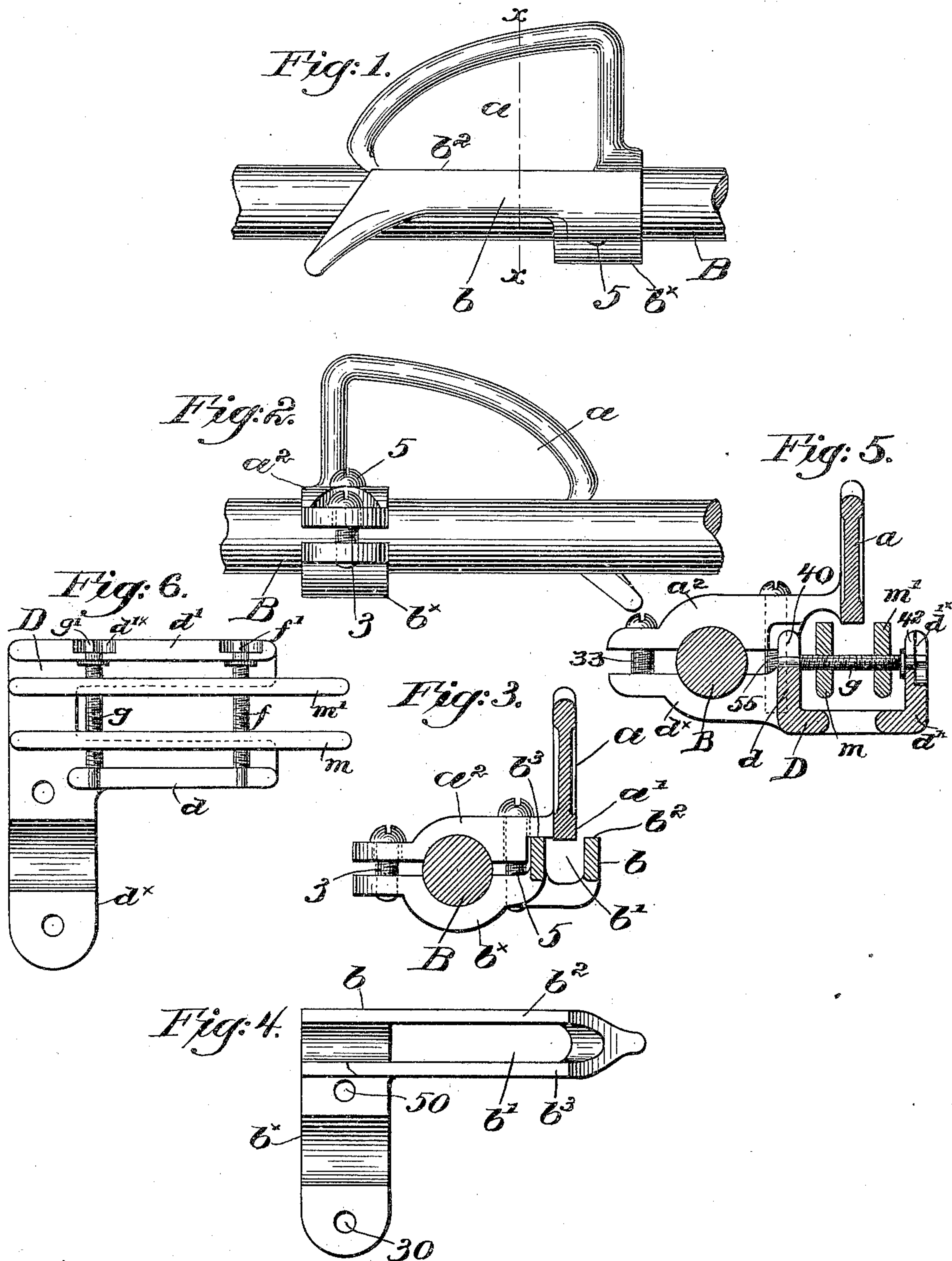


(No Model.)

H. W. BRACKEN.  
THREAD OR YARN GUIDE.

No. 604,599.

Patented May 24, 1898.



Witnesses:  
Thomas J. Drummond,  
Walter E. Lombard.

Inventor:  
Howard W. Bracken.  
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Attys.



# UNITED STATES PATENT OFFICE.

HOWARD W. BRACKEN, OF HOPEDALE, MASSACHUSETTS, ASSIGNOR TO THE  
DRAPER COMPANY, OF SAME PLACE AND PORTLAND, MAINE.

## THREAD OR YARN GUIDE.

SPECIFICATION forming part of Letters Patent No. 604,599, dated May 24, 1898.

Application filed December 31, 1897. Serial No. 664,810. (No model.)

*To all whom it may concern:*

Be it known that I, HOWARD W. BRACKEN, of Hopedale, county of Worcester, and State of Massachusetts, have invented an Improvement in Thread or Yarn Guides, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention has for its object the production of an improved thread or yarn guide so constructed that any lint or bunches scraped off the thread or yarn by the clearing-faces of the jaws will drop down from the device, thus preventing clogging or choking.

Figure 1 is a front elevation of a thread or yarn guide embodying my invention. Fig. 2 is a rear elevation thereof. Fig. 3 is a transverse sectional view of the guide on the line  $xx$  of Fig. 1, looking toward the right. Fig. 4 is a top or plan view of the open jaw detached. Fig. 5 is a transverse sectional view of a modified form of guide, to be described; and Fig. 6 is a top or plan view of the open jaw shown in Fig. 5.

The guide herein shown, Figs. 1 to 4, consists of an upper jaw  $a$ , having a substantially straight lower clearing-face  $a'$  and a lateral arm  $a^2$ , shaped to fit over the usual supporting-rod B, and an opposed lower jaw  $b$ . The lower jaw is shown as having a longitudinal slot or opening  $b'$  therein to leave two substantially straight clearing-faces  $b^2 b^3$ , while a lateral foot  $b^x$  is shaped to fit around the supporting-rod and cooperate with the arm  $a^2$  to clamp the guide in place.

Referring to Fig. 3, it will be seen that the face  $a'$  is located between the planes of the faces  $b^2 b^3$  of the lower jaw, and the path of the yarn or thread as it passes between the jaws will be more or less diverted, according to the distance the face of the upper jaw is extended between the faces of the lower jaw, so that the friction exerted upon the yarn can be thus varied. This upper jaw may be set above the level of the lower jaws or depressed below their level, as may be necessary. Clamping and adjusting screws 3 5 are extended loosely through holes in the arm  $a^2$  and into threaded holes 30 50 of the foot  $b^x$  to clamp the guide upon the supporting-rod

and also to vary the adjustment of the clearing-faces of the jaws.

In operation any lint or bunch scraped off the yarn will drop down free of the guide, as the faces of the jaws are not near enough to form a lodging-place.

In the construction shown in Fig. 5 the single jaw is substantially as hereinbefore described, having a lateral arm  $a^2$  to engage the supporting-rod B. The other jaw, however, comprises an open frame D, having a foot  $d^x$  to engage the rod B, and held thereon by suitable screws 33 and 55, extended through the arm  $a^2$ , the open portion of the frame having upturned longitudinal sides  $d d'$ , slotted from their upper edges, as at 40 42, Fig. 5, to form bearings for the reduced ends of right and left hand screws  $f g$ , extended across the frame transversely to the jaw  $a$ . One of the upturned sides, as  $d'$ , is recessed on its outer face, as at  $d'^x$ , adjacent the slots 42 to admit the entrance of a suitable wrench when engaging the squared ends  $f' g'$  of the screws  $f g$ , whereby the latter may be rotated. A plurality of clearing-blades  $m m'$  are mounted on the screws to cooperate with the acting face of the jaw  $a$ , and by rotating the screws in one or the other direction the blades will be adjusted laterally to vary the distance between them.

By my invention the clearing effect of the guide upon the yarn is greatly increased, while the construction possesses great simplicity.

It is of course obvious that this guide could be used in other than a longitudinal position, and the upper member could have a double edge instead of the lower, as shown.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A thread or yarn guide comprising a jaw having two separated parallel clearing-faces, an opposed jaw having its clearing-face between the planes of the said separated faces, and means to vary the distance laterally between the parallel faces.

2. A thread or yarn guide comprising an open jaw having a plurality of separated parallel clearing-faces, means to vary the distance laterally between said clearing-faces,

and an opposed jaw having a cooperating clearing-face.

3. A yarn or thread guide comprising a jaw having a plurality of independent, adjustable clearing portions and provided with an  
5 attaching-foot, means to adjust said clearing portions toward and away from each other, an opposed jaw having an arm to cooperate with said foot, and means to secure said arm

and foot together and to vary the space between the acting faces of the jaws.

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

HOWARD W. BRACKEN.

Witnesses:

J. W. YEOMANS,  
GEO. OTIS DRAPER.