

No. 849,809.

PATENTED APR. 9, 1907.

I. E. PALMER.
THREAD GUIDE.

APPLICATION FILED AUG. 12, 1905.

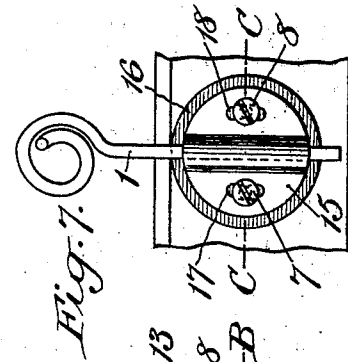


Fig. 1.

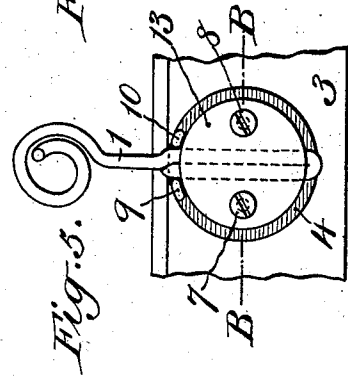


Fig. 2.

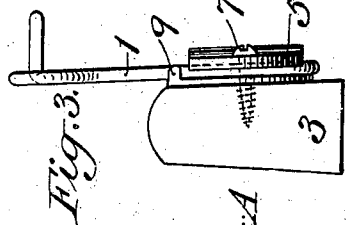


Fig. 3.

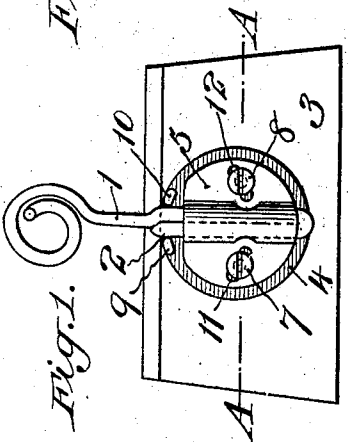


Fig. 4.

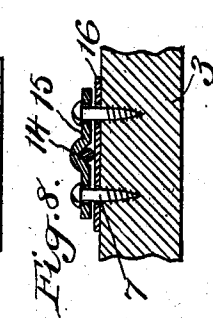


Fig. 5.

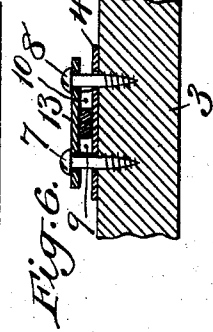


Fig. 6.

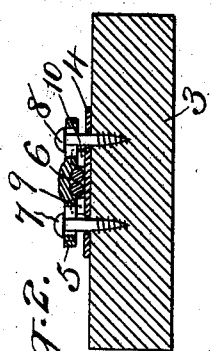


Fig. 7.

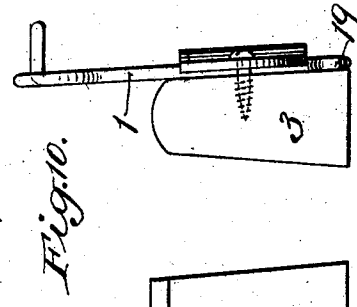


Fig. 8.

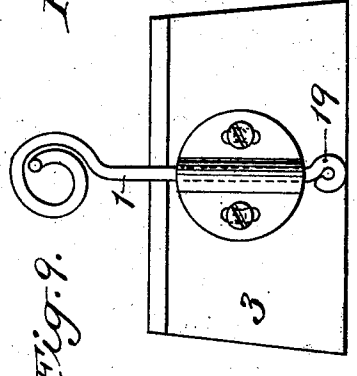


Fig. 9.

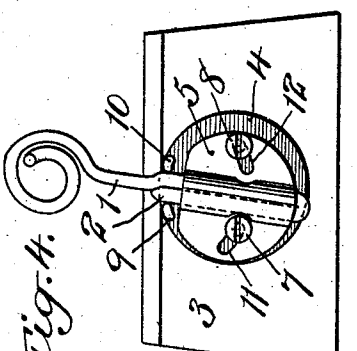


Fig. 10.

Witnesses:
J. George Barry,
Henry Thieme.

Inventor:
Isaac E. Palmer
By Brown & Howard
his Attorneys

UNITED STATES PATENT OFFICE.

ISAAC E. PALMER, OF MIDDLETOWN, CONNECTICUT.

THREAD-GUIDE.

No. 849,809.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed August 12, 1905. Serial No. 273,916.

To all whom it may concern:

Be it known that I, ISAAC E. PALMER, a citizen of the United States, and a resident of Middletown, in the county of Middlesex and State of Connecticut, have invented new and useful Improvements in Thread-Guides, of which the following is a specification.

My invention relates to thread-guides, and more particularly to thread-guides for use in connection with spinning or twisting machines, the object being to provide a simple and inexpensive guide which may be adjusted universally in a horizontal plane to bring its eye in exact alinement with the axis of the spindle with which it is intended to cooperate.

In the accompanying drawings, Figure 1 represents the thread-guide attached to the under side of a finger-board. Fig. 2 is a section of the same in the plane of the line A A of Fig. 1. Fig. 3 is a view of the same in edge elevation. Fig. 4 is a view of the same, showing the thread-guide tilted laterally. Fig. 5 is a bottom plan view of a thread-guide in position on the finger-board, showing modified means for securing the thread-guide to the finger-board. Fig. 6 is a section of the same in the plane of the line B B of Fig. 5. Fig. 7 is a bottom plan view of a modified form of guide and means for securing it to the finger-board. Fig. 8 is a section of the same in the plane of the line C C of Fig. 7. Fig. 9 shows a further modified form of guide and means for securing it to the finger-board, and Fig. 10 is an edge view of the same.

In each of the forms represented the thread-guide consists of a wire or narrow strip of material having a guide-eye formed in one end by giving the said wire or strip of material a turn or more, as is usual.

In Figs. 1 to 6, inclusive, the guide is shown as formed of wire, the shank 1 being given a return-bend, so that its returned end 2 shall lie along in juxtaposition to the shank 1, thereby producing, in effect, a laterally-flattened shank in a plane transverse to the axis of the spindle with which the guide is intended to cooperate. The object of this laterally-extended or flattened shank is to produce a broad bearing on the finger-board 3, so that the guide may be held securely in position against any liability of rocking or tilting.

As represented in Figs. 1, 2, and 3, the shank rests on a washer or bearing-plate 4, placed against the side of the finger-board 3, and

is held in position thereon by means of a clamping-plate 5, the latter being provided with a groove 6 in its face for the reception of the shank of the thread-guide. The clamping-plate 5 is brought into clamping engagement with the shank of the thread-guide by means of two screws 7 and 8, which pass through the clamping-plate 5 on opposite sides of the shank-holding groove 6 and also through the bearing-plate 4 into the finger-board 3. The bearing-plate 4 is further provided with lips 9 and 10, projecting from its face at the edge of the plate and in close proximity to the shank of the thread-guide, so that the latter is held positively against lateral displacement at that point by the lips. To provide for rocking the thread-guide laterally, the clamping-plate 5 is provided with elongated slots 11 and 12 for the reception of the screws 7 and 8, respectively, these slots 11 and 12 being struck from a center midway between the lips 9 and 10, so that the plate 5 may be swung as a whole and carry the shank of the thread-guide along with it to a limited extent in either direction from its normal position (shown in Fig. 1, for example) into the position shown in Fig. 4 to accommodate it to any adjustment which will be liable to be required of it in practice.

In Figs. 5 and 6 the clamping-plate 13 is made flat, no groove being provided for the reception of the shank of the thread-guide, and the screws 7 and 8 pass through it and the bearing-plate 4; but the openings in the plate 13 for the screws are just sufficiently large to receive the screws, the shank being free to swing laterally into the desired adjustment, limited only by its contact with the screws 7 and 8. In this instance, as in the first instance, the shank of the thread-guide is held by the lips 9 and 10 against any possible lateral displacement when the parts are assembled.

In the form shown in Figs. 7 and 8 the thread-guide is provided with a shank formed by a simple extension of the wire without returning it on itself, and this shank is held securely in position by means of a V-groove 14, formed in the clamping-plate 15, the screws 7 and 8 passing through the plate 15 and the bearing-plate 16 into the finger-board. The bearing-plate 16 is in this instance free from lips 9 and 10, and the screws pass through the elongated slots 17 18, formed in the guard-plate 15 concentric with the center of the plate, thus permitting the thread-guide to be

swung laterally, together with the rocking of the clamping-plate 16, to adjust it properly.

In Figs. 9 and 10 the shank of the thread-guide is given a return-bend 19 at its extreme end in order to give it an extended lateral bearing on the face of the finger-board 3, and with this exception the structure is quite like that shown in Figs. 7 and 8, hereinabove described.

10 What I claim is—

1. A thread-guide consisting of a piece of wire or narrow strip of material having a return-bend in its shank, in combination with a plate constructed to embrace the face and sides of the shank and means for locking the said plate and hence the shank to the finger-board in different lateral adjustments.

2. A thread-guide in combination with a clamping-plate and screws for locking the clamping-plate in engagement with the shank of the guide, the said clamping-plate being provided with elongated slots for the reception of the screws and with a groove for the reception of the shank of the thread-guide for adjusting the guide in different swinging adjustments.

3. A thread-guide in combination with a bearing-plate provided with lips for retaining the guide against displacement laterally, a clamping-plate and screws for locking the clamping-plate, shank of the thread-guide and bearing-plate to the finger-board, the said clamping-plate being provided with elongated slots for the screws to permit a swinging adjustment of the thread-guide.

4. The combination with the thread-guide and finger-board to which the guide is to be attached, of a bearing-plate adapted to engage the face of the finger-board and provided with lips at its edge for holding the shank of the thread-guide against lateral displacement and means for locking the shank in different swinging adjustments.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 4th day of August, 1905.

ISAAC E. PALMER.

Witnesses:

C. S. SUNDGREN,
HENRY THIEME.