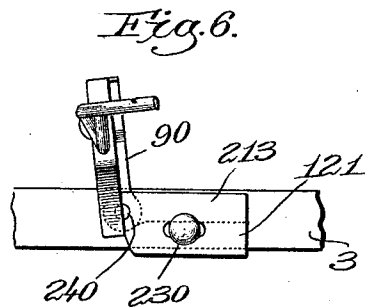
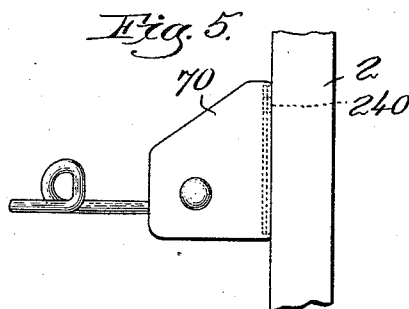
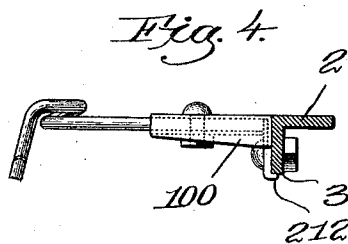
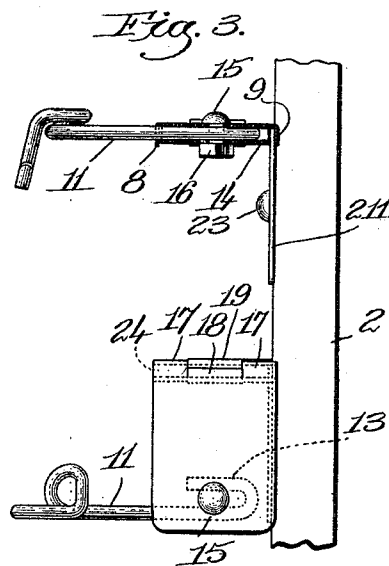
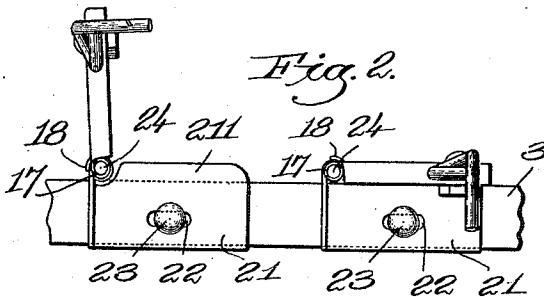
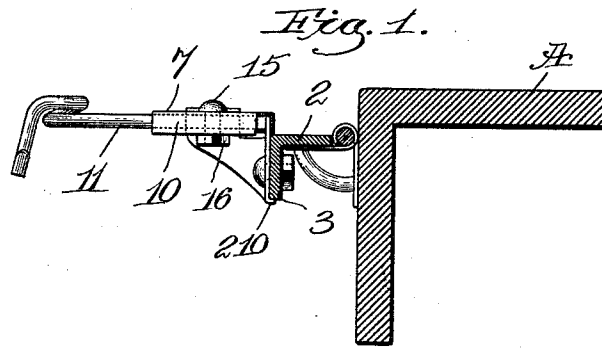


J. E. PREST.
 THREAD GUIDE FOR SPINNING OR TWISTING MACHINES.
 APPLICATION FILED MAY 31, 1911.

1,006,126.

Patented Oct. 17, 1911.



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UNITED STATES PATENT OFFICE.

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THREAD-GUIDE FOR SPINNING OR TWISTING MACHINES.

1,006,126.

Specification of Letters Patent.

Patented Oct. 17, 1911.

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To all whom it may concern:

Be it known that I, JOHN E. PREST, a citizen of the United States, and resident of Melrose, county of Middlesex, State of Massachusetts, have invented an Improvement in Thread-Guides for Spinning or Twisting Machines, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention has for its object the production of novel thread guiding means for spinning or twisting machines, so constructed and arranged that when the finger boards are swung into inoperative position there cannot be any injury to the drawing rolls by reason of engagement with the thread guides.

This invention in its broad features is made the subject of my prior patent No. 995,564 granted June 20, 1911, and the present invention is an improvement thereover in certain features whereby the device is constructed and arranged to withstand shocks and strains which would disturb its position, and whereby the device is simplified and reduced in cost without impairing, but rather increasing, its efficiency.

In the forms of the invention illustrated in my aforesaid patent the hinged connection with the thread board is relied upon to maintain the finger board from any deflection in the horizontal plane which it occupies when in operative position. In the present invention additional means are provided for retaining the finger-board in operative position so that if it be struck transversely or in the plane of its operative position, or be strained in such direction, it will be held firmly in place.

In the construction shown in my aforesaid patent the hinged member attached to the thread-board is extended forwardly, and hinge eyes are formed on it and on one of the lateral or side flanges of the finger-board, and a long pintle connects these hinge eyes. As one of the features of the present invention I eliminate this long hinged connection and pivot the rear flange of the finger-board at one end directly to the member secured to the thread-board, thus materially simplifying the device.

The nature of the invention will be more fully understood from the accompanying de-

scription and drawings, and will be particularly pointed out in the annexed claims.

The drawings show the preferred forms of the invention.

In the drawings, Figure 1 is a side elevation and part section of a thread-guide embodying one improved form of my present invention; Fig. 2 is a front elevation of the construction shown in Fig. 1, two finger-boards being shown, one in operative and one in inoperative position; Fig. 3 is a top plan view of the construction shown in Figs. 1 and 2; Fig. 4 is a side elevation and part section of another form of thread-guide, the roller beam not being shown; Fig. 5 is a top plan view of the construction shown in Fig. 4; and Fig. 6 is a front elevation of the construction shown in Figs. 4 and 5 with the finger-board and its thread guide in its inoperative position.

The construction illustrated in Figs. 1, 2 and 3, is similar in its main features to the construction shown in my aforesaid patent. A represents the usual roller beam to which is pivotally connected the thread-board 2. The finger-boards are shown as composed of two metallic members, one fitting within the downturned edges or flanges of the other, the upper member 7 having its edge downturned at the front and rear as at 8 and 9, and at one side 10, the front edge or flange having a hole therein for the shank 11 of the thread-guide proper. The thread-guide is of the usual form illustrated, and has the inner end of the shank bent into U-form as indicated at 13 to prevent rotative movement of the shank when clamped between the upper member and the lower or clamping member 14 of the finger-board. A headed clamping bolt 15 passes through said member 14 and at its lower end receives a nut 16 by which the two members are drawn together to clamp between them the shank of the thread-guide, and which when loosened allows the adjustment of the thread-guide. In the construction shown in Figs. 1, 2 and 3, the upper member 7 at the side opposite the downturned flange 10 is formed into hinge eyes 17, and a limiting stop 18. The other hinge member is a metal plate 21 adjustably secured to the front face of the flange 3 of the thread-board and bent to form the hinge eye 19. A pintle 24 extends through the aligned hinge eyes 17 and 19 whereby the

finger-board is pivotally connected to the hinge member transversely to the face of the flange 3, and so that the finger-board swings laterally into and out of operative position.

5 As shown at the left of Fig. 2, and at the upper end of Fig. 3, when in its inoperative position the finger-board is at one side of the yarn path and entirely clear of the same so that complete and unobstructed access can be

10 had for doffing, piecing up, etc. The plate 21 is provided with an elongated slot 22 for the reception of a fastening screw 23 which secures the bracket to the front face of the flange 3, and the hinge member is bent rear-

15 wardly at its lower edge as shown at 210 to fit against the lower edge of the said flange 3 of the thread-board and maintain the hinge member in position. In the present invention the member attached to the face of the

20 flange 3 of the thread-board and herein shown as a plate 21 is formed to present an upwardly extending or projecting flange 211, which in the form shown in Figs. 1, 2 and 3 extends above the upper surface of the

25 thread-board 2 so that this extended or projecting flange is out of contact with the thread-board 2. This extended or projecting flange passes in between the members 7 and 14 of the finger-board and fits against the

30 inside of the depending flange 9 of the upper member 7. It will thus be seen that when the finger-board is in its operative position as shown in Fig. 1, at the right hand side of Fig. 2 and at the bottom of Fig. 3, the flange 211 fitting in between the flange

35 9 and the member 14 holds the finger-board in fixed position and prevents its being bent or swung transversely or in its plane out of operative position. For any further details of construction other than as above set forth reference may be had to my aforesaid

40 patent. *

In Figs. 4, 5 and 6 another and similar form or device is shown embodying features of this invention. Therein the same thread-board 2 with its depending flange 3 is shown. The construction of the thread-guide proper, and its connection to the finger-board are the same as in the form already described.

50 The finger-board is also made of two similar members, that is, an upper member 70 and a lower member. In this case the upper member is bent downwardly to form a depending flange entirely around its periphery, thus

55 giving it rigidity. This periphery may be of any desired shape, and it is herein shown as somewhat trapezoidal. The depending flange 90 of the upper member 70 at the rear is somewhat deeper than other portions of the periphery, and at the left hand end as shown is still further enlarged and apertured to form a hinge eye while the depending flange connecting at the opposite end is tapered as shown at 100 toward the front of

60 the finger-board. The other hinge member

is a metal plate 121 adjustably secured to the front face of the flange 3 of the thread-board, and apertured to form a hinge eye at its left hand end. A pintle 240 extends through the alined hinge eyes whereby the

70 finger-board is pivotally connected to the hinge member transversely to the face of the flange 3, and so that the finger-board swings laterally into and out of operative position. The hinge member 121 is adjustably secured

75 in position by the set-screw 230 and is provided with the rearwardly projecting flange 212 as in the form previously described. In this form of the invention the member attached to the face of the flange 3 of the

80 thread-board and herein shown as a plate 121 is formed to present an upwardly extending or projecting flange 213, which in the form shown in Figs. 4, 5 and 6, extends in front of the flange 3 and spaced therefrom

85 to a point slightly below the upper surface of the thread-board, so that this extended or projecting flange is out of contact with the thread-board 2. This extended or projecting flange passes in between the two mem-

90 bers of the finger-board and fits against the inside of the depending flange 90 of the upper member. It will thus be seen that when the finger-board is in its operative position as shown in Figs. 4 and 5 the flange

95 213 fits against the inner side of the depending flange 90, and the flange 90 fits against the outer face of the depending flange 3 of the thread-board, (for the flange 213 is spaced just sufficiently far from the flange 3

100 to receive the flange 90) and the finger-board is held in fixed position and is prevented from being bent or swung transversely or in its plane out of operative position. In the construction of Figs. 4, 5 and 6, the top of

105 the flange 213 is so positioned with respect to the top of the thread-board that when the finger-board is in operative position it rests upon the top of the flange 213 with the top face of the finger-board in the same plane as the top face of the thread-board.

The particular construction of the finger-board and the means for clamping the thread guide thereon in adjacent position may be changed or modified in various ways without departing from my invention; and changes or modifications in different details of construction and arrangement may be made by those skilled in the art without departing from the spirit and scope of my invention as set forth in the claims annexed hereto.

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

1. The combination with a thread-board and a finger-board provided with a thread guide, of a pivotal connection between the finger-board and thread-board, and extended frontward from the latter to permit up-

ward and lateral swinging movement of the finger-board into inoperative position, and means located on the thread-board engaging a lateral portion of the finger-board when
5 in operative position.

2. The combination with a thread-board and a finger-board having a thread guide, of a hinge member mounted on the thread-board, a cooperating hinge member on the
10 finger-board, and a pintle connecting said hinge members and extending transversely to the front face of the thread-board, the finger-board being movable upwardly and laterally with respect to the thread-board,
15 the hinge member on the thread-board presenting an upwardly projecting portion engaging a lateral portion of the finger-board when in operative position.

3. The combination with a thread-board
20 and a finger-board having a thread-guide, of a hinge member mounted on the thread-board, a cooperating hinge member on the finger-board, and a pintle connecting said hinge members and extending transversely
25 to the front face of the thread-board, the finger-board being movable upwardly and laterally with respect to the thread-board, said finger-board having at its rear a downwardly depending flange and the hinge
30 member mounted on the thread-board having an upwardly projecting flange, the said flanges engaging when the finger-board is in operative position to prevent twisting of the finger-board in its plane.

35 4. In an apparatus of the class described, a thread-board, a member mounted on the thread-board and having a flange extended upwardly and out of contact with the thread-board, a finger-board having a
40 thread guide and a depending flange fitting behind and against said upwardly extended flange, and a pintle connecting said flanges near one end and transversely thereof,

whereby the finger-board may be swung laterally into and out of operative position, 45 and when in operative position may be held against twisting movement in its plane by the engagement of said flanges.

5. In an apparatus of the class described, a thread-board, a member mounted on the
50 thread-board and having a flange extended upwardly and out of contact with the thread-board, a finger-board having an upper member presenting at the rear a downwardly depending flange, and a lower member
55 separated at the rear from said flange to form a recess adapted to receive the flange of the member mounted on the thread-board, a pintle connecting said flanges near one end transversely thereof, 60 whereby the finger-board may be swung laterally into and out of operative position, and when in operative position may be held against twisting movement in its plane.

6. In an apparatus of the class described, 65 a thread-board, a member mounted on the front face of the thread-board and having its upper portion formed to present a flange separate from the front face of the thread-board and with its top edge slightly below
70 the top of the thread-board, a finger-board having a thread guide and at its rear a depending flange, a pintle connecting said flanges near one end and transversely thereof, whereby the finger-board may be swung 75 laterally into and out of operative position, and when in operative position will have its flange fitting between the thread-board and the flange of the member mounted thereon.

In testimony whereof, I have signed my 80 name to this specification, in the presence of two subscribing witnesses.

JOHN E. PREST.

Witnesses:

BESSIE G. MORRIS,

THOMAS J. DRUMMOND.