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PATENTED MAY 30, 1905.

J. O'SULLIVAN.

YARN CONTROLLER FOR SPINNING MACHINES.

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2 SHEETS—SHEET 1.

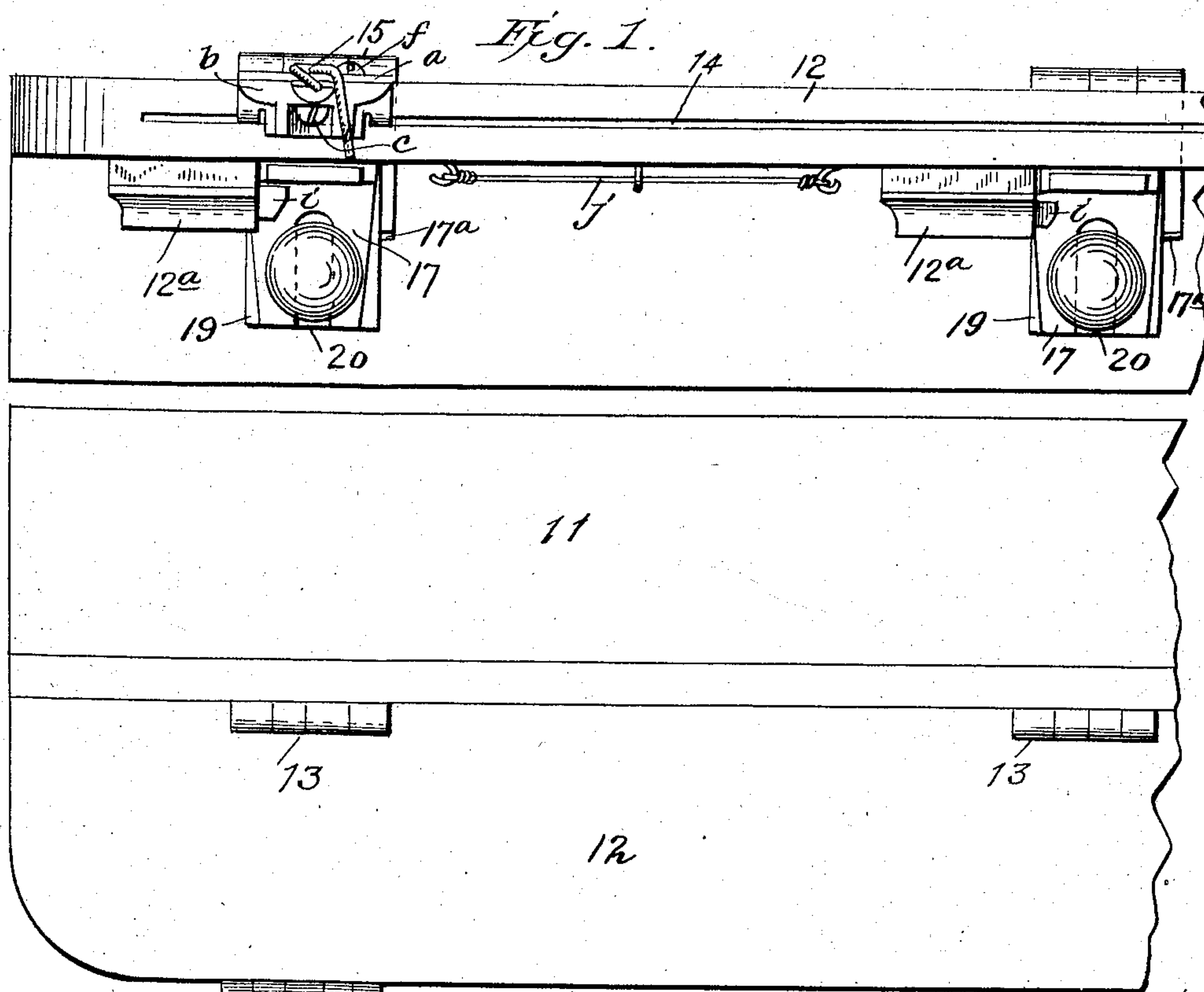
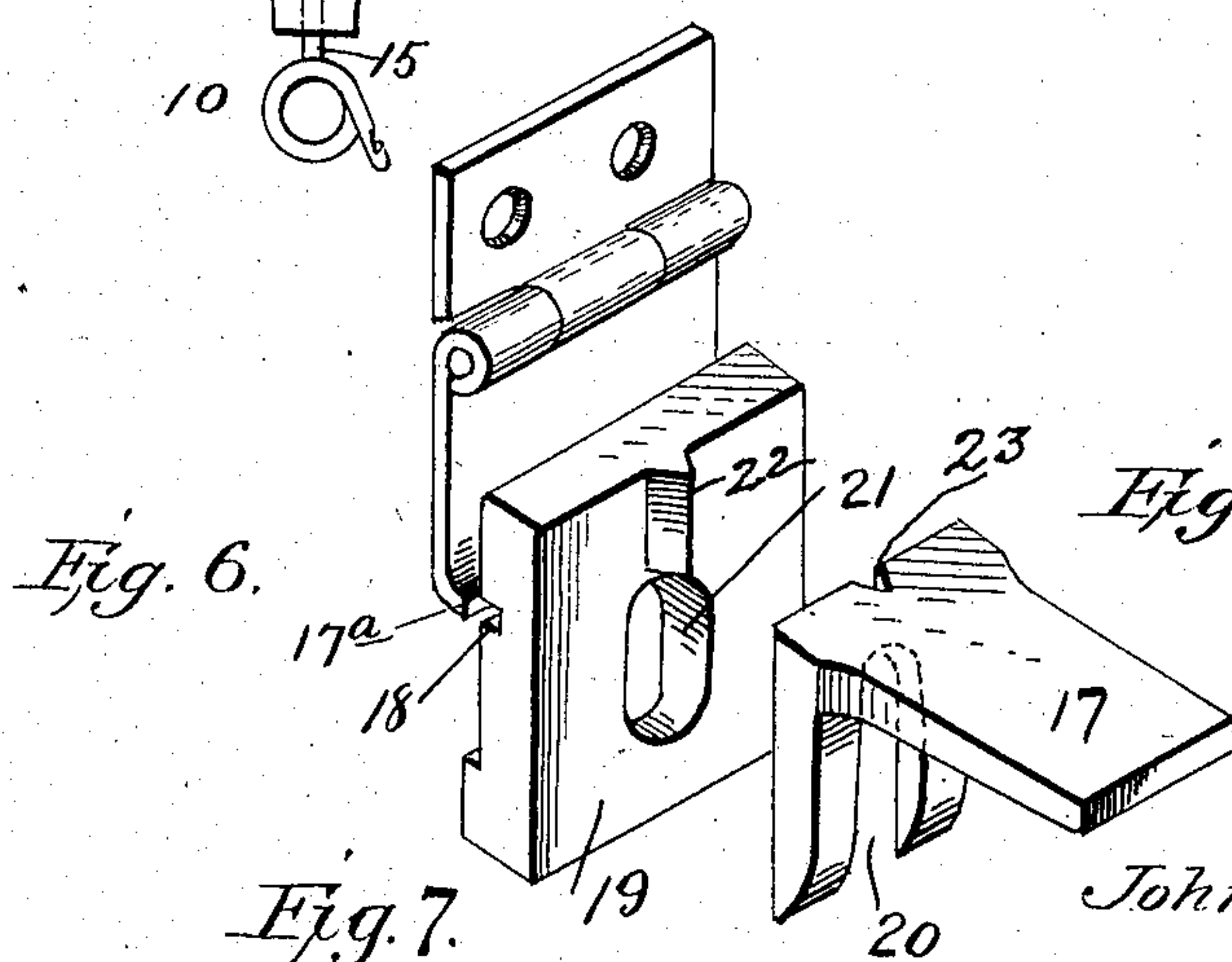


Fig. 2.



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JOHN O'SULLIVAN, OF TAUNTON, MASSACHUSETTS.

YARN-CONTROLLER FOR SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 791,361, dated May 30, 1905.

Application filed October 15, 1904. Serial No. 228,601.

To all whom it may concern:

Be it known that I, JOHN O'SULLIVAN, a citizen of the United States, residing at Taunton, in the county of Bristol and State of Massachusetts, have invented new and useful Improvements in Yarn-Controllers for Spinning-Machines, of which the following is a specification.

This invention has respect to yarn-controlling means for spinning-frames; and it consists of various improvements relating to the yarn-guides and the adjustment and controlling of the thread-board, all of which will clearly appear from the following description, reference being had to the annexed drawings, forming a part of this specification, the symbols of reference designating the same parts or features, as the case may be, wherever they occur.

Of the drawings, Figure 1 is a front view of my improvements shown as adjusted in operative position. Fig. 2 is a plan of the thread-guide in place on the thread-board. Fig. 3 is a bottom view of the same. Fig. 4 is a vertical sectional view taken on the line 4 4 of Fig. 3. Fig. 5 is a detail view of the thread-guide, the parts being separated. Fig. 6 is a perspective view of the thread-board hinge. Fig. 7 is a perspective view of the block between the thread-board hinge and bracket. Fig. 8 is a perspective view of the bracket.

In the drawings, 10 designates the yarn-guide; 12, the thread-board; 11, the board to which the thread-board is hinged; 13, the hinges for the thread-board, and 17 the adjustable brackets for supporting the thread-board in place.

The shank 15 of yarn-guide instead of being screw-threaded, as has commonly been done heretofore, is in this instance frictionally held between two plates *a b*, the latter being the base-plate of relatively heavy structure and the former being a smooth nickel-plated means constituting one leaf of a hinge by which the yarn-guide is connected to the thread-board. The other leaf *c* of said hinge is flanged at its lower edge, as at *d*.

The parts thus far described may be properly termed a "thread-guide supporter," since

it is the principal office of said parts aside from the thread-guide to support the latter.

The flange *d* sits in a groove 14, formed in the front edge of the thread-board, and the part *c* of the thread-guide supporters provided with a hole, through which passes the shank of a screw which is tapped into the thread-board to secure the thread-guide supporter in place, it being clear that the latter may be set or adjusted at any point or place along the groove 14.

The lower or base plate *b* is chambered out, as at *e*, to allow the shank of the thread-guide to be shifted about and adjusted as desired, when it may be fixed in place by clamping the two plates together through the medium of the screw *f* and the nut *g*, into which it is tapped, as shown and as will be clearly understood from the drawings. By the means described the yarn-guide may be adjusted as desired, and the plate *a*, while serving as a leaf of a spring, presents a smooth surface that does not chafe the yarn nor present anything for the latter to be caught upon.

The latching means 12^a for holding the thread-board down consist of a housing *h*, secured to the under side of the thread-board and inclosing a spring-pressed bolt *i*, longitudinally arranged, so that it will when closed catch over the horizontal part of the bracket 17. The bolt *i* has a wire *j* attached to it, whereby it may be pulled and which connects it with the bolt of each latching device in the series employed to fasten the thread-board down. The lower face of the thread-board is provided with a groove 16^a, extending longitudinally, in which the connecting-wire *j* between the bolts rests and operates. By the means stated the thread-board-fastening device may be operated in unison, secured efficiently, and be handily controlled. The thread-board is hinged to its support by two leaf-hinges 13, one of which is set into the adjacent edge of the thread-board and the other is screwed to the lower face of the thread-board support. The last-mentioned leaf is slightly modified by having its inner edge flanged, as at 17^a, said flange extending into a groove 18 of a block 19, upon which

the slotted vertical portion 20 of the bracket is bolted. The block 19 has a large elongated slot 21 formed on it, and this with slot in the vertical portion 20 of bracket permits of the adjustment of the bracket 14 with the utmost nicety to hold the shelf level or for any other reason. The block 19 is provided with a vertical rib 22, having sloping sides above the slot 21, which rib fits a corresponding groove 23 in the bracket 17, this means keeping the bracket from moving sidewise or from being displaced by torsional strain thereon. The arrangement described of the locking means for holding the thread-board down is one which economizes space and is free from interference with the arrangement and operation of other devices.

While I have shown a desirable form of means in the drawings in which I have embodied my invention, it is to be understood that changes may be made in form and arrangement of parts without making any variation in the invention.

I claim—

1. The combination, with the thread-board provided with a groove in its front edge, of a yarn-guide supporter flanged at its inner edge, as described, the said flange extending into the said groove, whereby the adjustment of the yarn-guide supporter and the means of fastening it in place are facilitated and rendered more secure.

2. The combination, with the thread-board provided with a groove in its front edge, of a yarn-guide consisting of the yarn-guide proper embracing a guide-eye and shank, two plates between which the shank is held and adjusted one of said plates forming the leaf of a hinge, the other leaf being flanged at its

edge with the said flange extending into the said groove on the front edge of the guide-board, and the other plate being provided with a recess or chamber to receive the shank and permit it to be moved from one position to another, and a screw having a nut for clamping the plates upon the said shank.

3. The thread-board and its support, in combination with a hinge connecting the same, one of the leaves of said hinge being flanged at its edge, a block provided with an elongated hole and a groove, a supporting-bracket having an enlarged opening in one of its members adapted to rest upon the said block with the said flange of the said leaf of the hinge in the groove of the block, and a bolt for securing the bracket in place upon the block and leaf of the hinge.

4. The thread-board and its support, in combination with a hinge connecting the said board and its support, one of the leaves of said hinge being flanged at its edge; a block provided with an elongated hole, a vertical rib having inclined sides above said hole, and a groove; a supporting-bracket having a slot in its vertical portion and a notch corresponding to said rib in the block for the reception of the latter, the flange of the hinge being arranged in the groove; and a bolt adapted to be passed through said slot in the bracket and hole in the block for securing the parts in place.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

JOHN O'SULLIVAN.

Witnesses:

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