

W. O. ALDRICH.
 THREAD GUIDE.
 APPLICATION FILED NOV. 29, 1907.

1,001,119.

Patented Aug. 22, 1911.

Fig. 1.

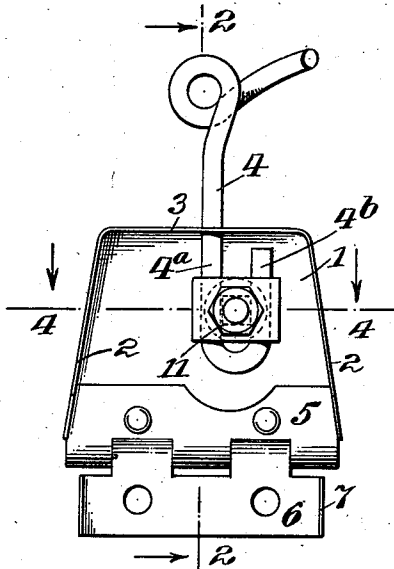


Fig. 2.

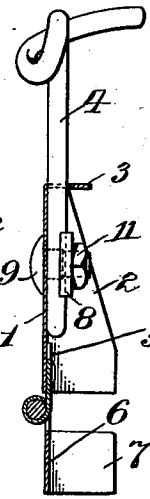


Fig. 3.

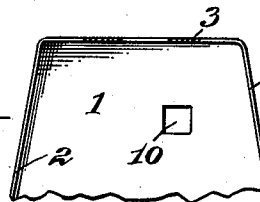


Fig. 5.

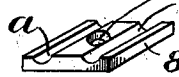


Fig. 4.

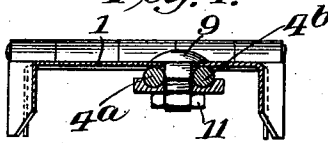


Fig. 7.

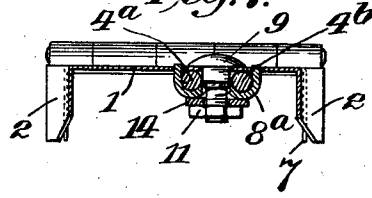


Fig. 6.

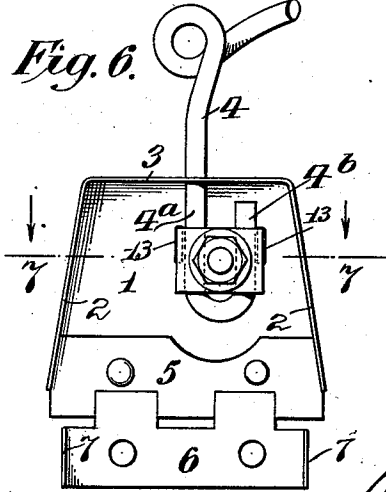


Fig. 8.

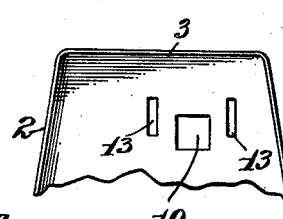


Fig. 9.



Attest:
Jerome B. Gleason
H. Kimball

William O. Aldrich Inventor:
 by *McIntyre & Jones* Attys.

UNITED STATES PATENT OFFICE.

WILLIAM O. ALDRICH, OF WHITINSVILLE, MASSACHUSETTS, ASSIGNOR TO THE WHITIN MACHINE WORKS, OF WHITINSVILLE, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

THREAD-GUIDE.

1,001,119.

Specification of Letters Patent. Patented Aug. 22, 1911.

Application filed November 29, 1907. Serial No. 404,249.

To all whom it may concern:

Be it known that I, WILLIAM O. ALDRICH, a citizen of the United States, residing at Whitinsville, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Thread-Guides, of which the following is a full, true, and concise specification.

My invention relates to improvements in thread-guides for spinning-frames, and aims to produce a simple means of clamping the thread-guide shank to the finger-head in such manner that it will be held rigidly against lateral displacement, but will be at the same time adjustable in a longitudinal direction. In devices of this kind it is of great importance that the thread-guide proper, when once adjusted to its correct position with respect to the spindle, shall remain fixed in such adjustment, and to this end I have provided the non-pivotal thread-guide hereinbelow fully described and more particularly pointed out in the appended claim.

Referring to the one sheet of drawings filed herewith, and constituting an integral portion of this specification, Figure 1 is a front elevation of a device constructed in accordance with my invention, with the finger-head and guide raised to a vertical position for exposing the under side thereof; Fig. 2 is a section on line 2—2 of Fig. 1; Fig. 3 is a detail of the finger-head illustrating the angular bolt-head slot; Fig. 4 is a cross-section on line 4—4 of Fig. 1; Fig. 5 is a detail illustrating the construction of the holder; Fig. 6 is a front elevation similar to Fig. 1, of a modified form; Fig. 7 is a cross-section on line 7—7 of Fig. 6; and Figs. 8 and 9 are details of the finger-head and holder.

The finger-head, designated 1, is formed of stamped sheet metal with downturned side flanges 2 and a reinforcing front flange 3, the latter flange being centrally perforated with an oblong slot in the plane of the body of the finger-head, as shown in Figs. 2 and 3, for the reception of the shank of the thread-guide 4. The rear of the finger-head is adapted to be connected to the thread-board rail, not herein shown, by means of a special hinge, one leaf 5 of which is riveted to the body of the finger-head, as shown, and the other of which is adapted to

be secured to the front face of the thread-board rail. This latter leaf, designated 6, is provided with out-turned ends or ears 7 forming lateral stops by means of which the leaf 5 and the finger-head are held firmly in horizontal position when the device is in use. The thread-guide wire 4 is formed of the usual pig-tail shape, and its shank is bent backwardly and parallel to itself, as shown, so as to form an open loop or hook with straight side members, marked 4^a and 4^b, respectively. With this hook formation of the guide-wire loop it is possible to insert the shank end first through the hole in the front flange 3, when assembling, which hole is considerably larger than the shank, as shown in the drawings. The members 4^a and 4^b are clamped directly upon the flat body of the finger-head by means of a holder 8 (Fig. 5), which has two grooves *a*, *a*, adapted to fit snugly over each of the two side members.

The bolt 9 has a square or rectangular boss beneath its head which fits snugly in a similarly shaped slot 10 in the body of the finger-head (Fig. 3) so as to be held thereby against rotation as well as lateral movement, and the said boss projects beyond the slot 10 into the space between the side members 4^a and 4^b, which it also fits more or less snugly, so as to hold the loop from turning. A round hole *b* in the holder 8 fits over the threaded portion of the bolt, and by tightening the nut 11 of said bolt, the holder and finger-head may be drawn together, thus clamping the loop of the thread guide firmly between them, with its shank projected through the oblong opening in the front flange. The coöperation of the grooves of the holder and the square boss of the clamping bolt serves to secure the loop against angular movement, although the thread-guide may be longitudinally extended or retracted by loosening the nut and sliding the side-members 4^a and 4^b through the two parallel grooves. By this arrangement the entire length of the thread-guide shank is available as a bendable support for the thread guide eye or pigtail, which may be bent with pliers in the usual way to give the eye its correct lateral position, and the natural elasticity of the length of the shank between the eye and the loop allows it to spring or yield under such ordinary or

casual shocks as these devices are sometimes subjected to, without receiving any permanent distortion or displacement.

In the modified form of Figs. 6-9, the construction of the finger-head and thread-guide is the same as in the form just described, but the holder has special provision for holding the loop against pivotal or lateral movement. The means to this end consists of one or more lugs or projections 12 formed on the holder 8^a and adapted to enter corresponding recesses 13 in the finger-head body. In Fig. 9 I have shown such a holder, as formed of sheet metal and stamped with grooves to fit the side-members of the loop and with its ends shouldered to form the lugs 12, but it is obvious that the lugs can be formed on the body and the recesses in the holder, if so desired. The said lugs are long enough to play in and out of the apertures as the nut is tightened or loosened, and being some distance from the bolt, thus serve to prevent pivotal movement of the holder, although the guide-wire may be adjusted longitudinally through it as before when the nut is loosened.

In the modified form just described, a washer 14 may be used if desired, between the nut and holder. In both forms the forward margin of the hinge leaf 5 is cut away to provide clearance for the loop.

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

In a non-pivotal thread-guide, a metallic finger-head body and a thread-guide having a loop-form shank, in combination with a holder for said shank, said holder being shaped to fit the side members of said loop, provided with a lug or projection engaging a recess in said body and adapted to secure the holder against pivotal movement thereon, and means for clamping the shank between said holder and body.

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

WILLIAM O. ALDRICH.

Witnesses:

OSCAR L. OWEN,
ROBERT L. METCALF.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."