No. 869,571. PATENTED OCT. 29, 1907.

L. T. HOUGHTON.

TRAVELING GUIDE FOR TOP ROLLS OF SPINNING OR TWISTING FRAMES.

APPLICATION FILED DEC. 2, 1903.

Fig. 1

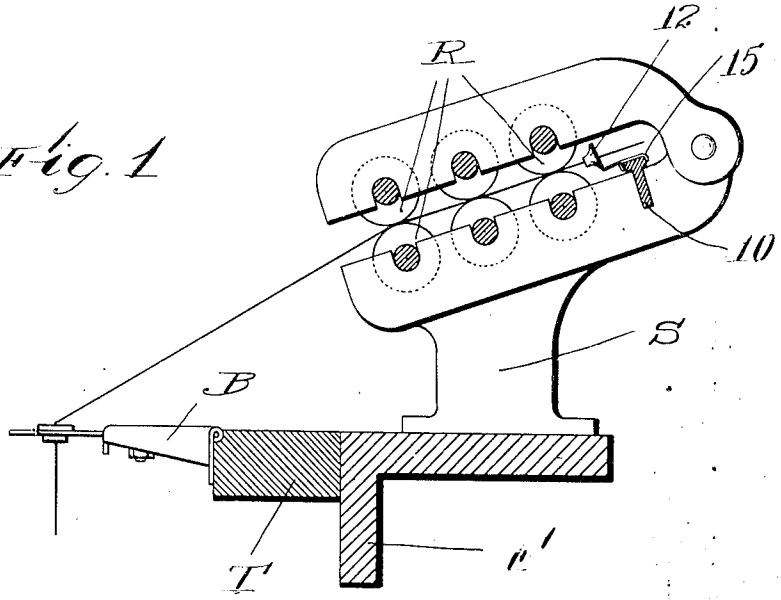


Fig. 2.

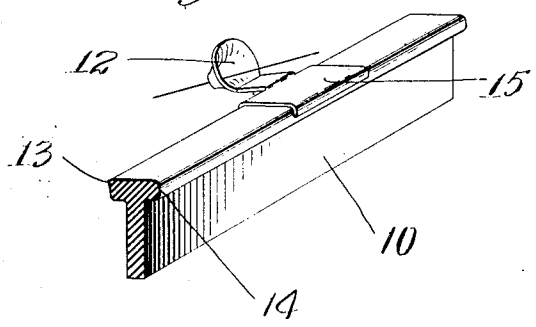


Fig. 3.

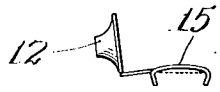
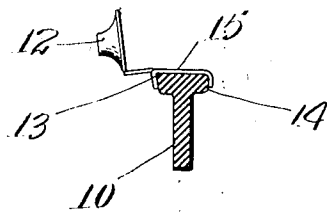


Fig. 4



Witnesses
C. F. Wesson.
M. E. Egan.

Inventor:
L. T. Houghton
By his Attorneys,
Southgate & Southgate

UNITED STATES PATENT OFFICE.

LEWIS T. HOUGHTON, OF WORCESTER, MASSACHUSETTS.

TRAVELING GUIDE FOR TOP ROLLS OF SPINNING OR TWISTING FRAMES.

No. 869,571. Specification of Letters Patent. Patented Oct. 29, 1907.

Application filed December 2, 1903. Serial No. 183,475.

To all whom it may concern:

Be it known that I, LEWIS T. HOUGHTON, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Traveling Guide for Top Rolls of Spinning or Twisting Frames, of which the following is a specification.

This invention relates to a guide and a supporting rail therefor for use in connection with the top rolls of spinning frames.

The especial object of this invention is to provide practicable means whereby the reciprocating wooden strips which have heretofore been employed for supporting the trumpets or guides through which the yarn or other material acted upon is directed to the top rolls of a spinning frame may be replaced by a metallic rail or support which will be stronger and less liable to become warped and twisted, and to fasten the guides to the metallic support by means of spring clips.

To these ends, this invention consists of the metallic clip as an article of manufacture, and of the combination of its support therewith as hereinafter described and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawing, Figure 1 is a sectional view of sufficient parts of a spinning frame to illustrate the application of this invention thereto. Fig. 2 is a perspective view of a piece of the supporting rail with a guide fastened thereon. Fig. 3 is a detail view showing the shape of the clip before it is applied to its support, and Fig. 4 is a sectional view showing the clip in place on its support.

In the ordinary spinning or twisting frames, the guides which direct the material between the top rolls have heretofore been carried upon wooden rails. Each of these guides has heretofore been made in the shape of a small trumpet, and these trumpets have been secured to the wooden rails either by a shank which is driven into place, or by means of a slot and screw. In practice I have found that the use of a wooden support for the guides of a spinning frame is objectionable on account of its liability to become warped or twisted, so that the guides or trumpets are liable to be turned or moved out of place, and in some cases, I have found that the twisting or turning of the parts may even bring the trumpets or guides into contact with the rolls themselves, so as to scratch and mar the coverings thereof. To overcome this objection in a spinning frame equipped according to my invention, I employ an iron rail or rod to which the guides are applied by spring clips. The rail or support is preferably substantially T-shaped in cross section having one sharp edge and one rounding edge over which the clips can be snapped. Each of the spring clips has a body portion which is made on a slight curve or arc to give the necessary spring for holding the clips securely in place on its support. The thread guide or trumpet may be formed integrally with or otherwise connected with the body portion of the clip.

Referring to the accompanying drawing and in detail, F designates part of the frame-work of an ordinary spinning or twisting machine. Extending from the frame F is a thread-board rail T, and hinged to the thread-board rail T are the thread boards B, each of which carries a thread guide through which the thread passes to the spindle. Secured on the frame F are the supporting brackets S, and mounted in the supporting brackets S are the usual top rolls R. These parts may be of any of the ordinary or usual constructions and need not be herein described at length.

Movable transversely in the supporting brackets S is the rail or support 10. This rail or support 10 preferably runs through the notches which may be formed to receive the ordinary wooden rail. The rail 10 as illustrated most clearly in Figs. 2 and 4 is substantially T-shaped in cross-section. At its front edge the rail 10 is provided with a sharp or V-shaped corner 13, while the rear edge 14 of the rail is preferably somewhat rounded. Each of the clips which are secured upon the rail 10 consists of an arc-shaped or curved body portion 15 having depending ears which may be snapped down to engage the T-head of the rail, the ears at one side of the clip being straight to correspond with the sharp corner of the rail, and the other ears being curved to correspond with the other edge of the rail. Extending from the body portion of the clip and preferably formed integrally therewith is an arm carrying the trumpet or guide 12 of ordinary shape.

In equipping a spinning or twisting frame according to this invention the reciprocating rail or support may first be put in place and the clips may afterwards be snapped thereon to occupy the desired position. By means of this construction furthermore, the guides may be renewed or re-adjusted as frequently as desired without taking the supporting rail out of place; whereas, in the use of an ordinary spinning or twisting frame, it has heretofore been customary to dismantle the entire set of top rolls and to take out the wooden support whenever the back guides required renewal or re-adjustment. Furthermore, the spring clips are preferably stamped out of sheet steel, and are afterwards hardened so that it is substantially impossible to wear out the guides after they have been once properly secured in position.

I am aware that changes may be made in practicing my invention and in applying the same to different forms of spinning or twisting frames. I do not wish, therefore, to be limited to the construction I have herein shown and described, but

What I do claim and desire to secure by Letters Patent of the United States is:—

1. As an article of manufacture, a sheet-metal clip for supporting a trumpet guide for a spinning frame, said clip having a resilient bow-shaped body provided with inwardly turned ears, one being curved and the other straight, said ears being located at the edges of the body and on one side thereof, and an integral guide trumpet extending outwardly from the body near the straight ear.

2. The combination of a metal rail of substantially T shaped section, a sheet metal trumpet guide for directing a thread between the top rolls of a spinning or twisting machine and a bow-shaped spring sheet metal clip sprung over the top rib of the rail and holding the trumpet guide in place thereon.

3. The combination with a supporting rail, of a sheet-metal clip having a resilient body and depending ears at two opposite edges thereof, whereby the body may be sprung to separate the ears so that they may be applied to the rail, the natural resiliency of the body holding the clip on the rail, and a trumpet guide mounted on the clip.

4. The combination with a supporting rail, of a sheet-metal clip having a resilient body and depending ears at opposite edges thereof, whereby the body may be sprung to separate the ears so that the same may be applied to the top of the rail, and a trumpet guide mounted on the clip and extending from the top of one of said ears outwardly so as to constitute means whereby the body of the clip may be sprung to separate the ears.

5. The combination with a metal T-shaped supporting rail having a substantially flat top provided with a rounded edge and an inwardly slanting edge, of a sheet-metal clip having depending ears substantially fitting said edges of the rail and adapted to be snapped into place thereon, said clip having an integral trumpet guide extending outwardly from the body thereof and adjacent to one of the ears.

6. The combination with a supporting rail having two lateral edges, one of them being rounded and the other forming a V with the top of the rail, of a resilient clip having depending ears substantially fitting said edges of the rail and adapted to be snapped into place thereon by the bending of the body of the clip and the separation of the ears, said clip having a trumpet guide extending from the body thereof adjacent to one of said ears.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

LEWIS T. HOUGHTON.

Witnesses:
H. E. HILL,
P. W. SOUTHGATE.