No. 855,349. PATENTED MAY 28, 1907.

G. SINGLETON.

THREAD GUIDE.

APPLICATION FILED MAY 31, 1906.

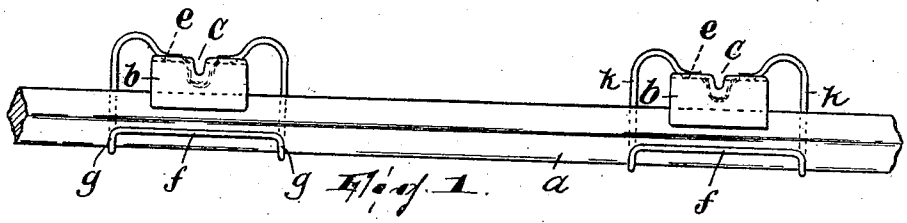


Fig. 1.

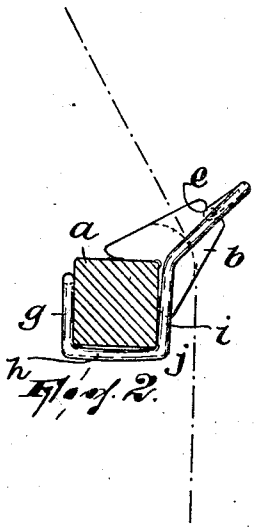


Fig. 2.

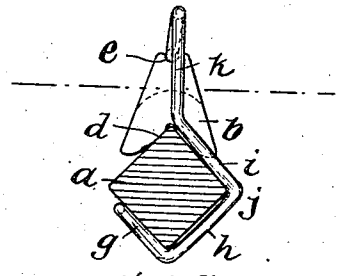


Fig. 3.

WITNESSES:

Wm. D. Bell.

A. Glatt.

INVENTOR,

George Singleton

BY

Parker & Burton,

ATTORNEYS.

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE SINGLETON, OF DOVER, NEW JERSEY.

THREAD-GUIDE.

No. 855,349. Specification of Letters Patent. Patented May 28, 1907.

Application filed May 31, 1906. Serial No. 319,467.

To all whom it may concern:

Be it known that I, GEORGE SINGLETON, a citizen of the United States, residing in Dover, county of Morris, State of New Jersey, have invented certain new and useful Improvements in Thread-Guides; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to thread guides of the type in which the guide proper consists of a porcelain or other block having a notch therein for the reception of a thread and adapted to be secured as one of a series of thread guides against a thread guide carrying rail. The means for securing such thread guides in place on the rail at present in use usually comprises a clip or clips which have to be secured to the rail by screws or similar attaching means. The result is that by the time the screws are set in order to secure the clip or clips to the rail the intended spacing of the guides as previously calculated is destroyed, so that the guides do not really stand in the final adjustment of the parts properly spaced from each other.

My invention has for its object to provide means for attaching the thread guides to the rails which will do away with the necessity of using auxiliary attaching means, such as screws, and which will make it possible to set and maintain each thread guide in proper position with the nicest accuracy.

To this end my invention consists, broadly, in the combination of a thread guide rail, a thread guide resting against the same and a clamp having a part thereof receiving the rail and bearing against the same at opposite sides and another part thereof bearing against the thread guide and pressing the same against the rail, so that the parts are not only capable of being assembled with the greatest facility but of being nicely adjusted.

My invention will be found fully illustrated in the accompanying drawing, wherein,

Figure 1 is a view in elevation showing the thread guide rail, thread guides and the improved clips securing the thread guides to the rail; Figs. 2 and 3 are transverse sectional views of what is shown in Fig. 1, these two figures being substantially alike except that they show the rail in both of the two positions in which it is commonly arranged.

In the drawings *a* designates the rail which may have a square or other outline in cross section; the rail is shown square in the drawings, since that is the form most commonly used.

b designates the thread guide which may be a porcelain or other block having a transverse notch *c* for the thread formed in its top and a longitudinal recess *d* in the bottom, the latter having a substantially right angular formation in cross section; in the top of said thread guide is also formed a longitudinal groove *e* which is intercepted midway by the notch *c*.

In the adaptation shown, the clip for securing each thread guide to the rail consists of a wire having a substantially straight middle portion *f* of appreciable length, and its ends bent first at right angles to extend in the same direction, as at *g*, then, as at *h*, bent at right angles to the portions *g*, the portions *h* again projecting in the same direction, and then at right angles again, as at *i*, and in the same direction, whereby to form of the body portion of the wire a rebend or socket *j*. Such rebend is of such shape and size that two opposite sides of the bar *a* will be firmly impinged by the portions *g* and *i* of the rebend when the clip is placed on the rail in the manner shown in the drawings, the clip thus clamping the rail and holding itself securely thereon. From the rebend *j* the ends of the wire extend first upwardly in the plane of a diagonal of the rail, as at *k*, whereupon they are turned toward each other and downwardly, their extremities lying in the groove *e* of the thread guide and bearing firmly against the latter.

The wire has preferably some elasticity so as to retain its shape under the manipulations necessary to assemble the parts.

By my construction, I not only avoid the use of screws and other similar attaching means but am capable of adjusting not only the clips with reference to each other on the rail but each guide in its clip, the extremities of the wire in this instance sliding in the groove *e;* it will thus appear that an accurate adjustment of the parts is possible with the least inconvenience.

I do not wish to be limited to the particular form of thread guide, or of the rail, or to the relative arrangement of these parts herein shown and described, what I claim being:

1. The combination of a thread-guide rail, a thread-guide resting against the same, and a clamp having a part thereof rebent in the form of a socket receiving the rail and another part thereof bearing against the thread guide and pressing the same against the rail, substantially as described.

2. The combination of a thread-guide rail, a thread-guide resting against the same, and a clamp having a part thereof rebent in the form of a socket receiving the rail and bearing against opposite sides thereof, and another part thereof bearing against the thread guide and pressing the same against the rail, substantially as described.

3. The combination of a thread-guide rail, a thread-guide resting against the same, and an elastic clamp having a part thereof rebent in the form of a socket receiving the rail and bearing against opposite sides thereof and another part thereof bearing against the thread-guide and pressing the same against the rail, substantially as described.

4. The combination of a thread-guide rail, a thread-guide resting against the same, and a wire clamp bent to form a rebend receiving the rail and bearing against opposite sides thereof and having its extremities bearing against the thread-guide and pressing the same against the rail, substantially as described.

5. The combination of a thread-guide rail, a thread-guide resting against the same and grooved on its top side, and a wire clamp bent to form a rebend receiving and bearing against opposite sides of the rail and having its extremities bearing against the thread-guide in the groove thereof and pressing the same against the rail, substantially as described.

In testimony, that I claim the foregoing, I have hereunto set my hand this 25th day of May, 1906.

GEORGE SINGLETON.

Witnesses:
JOHN W. STEWARD,
WM. D. BELL.