

(No Model.)

J. E. DOLBER.
SHUTTLE THREADER.

No. 546,006.

Patented Sept. 10, 1895.

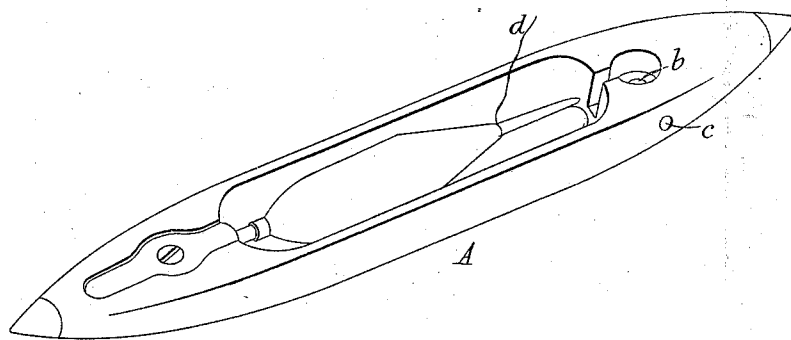


Fig. 1.

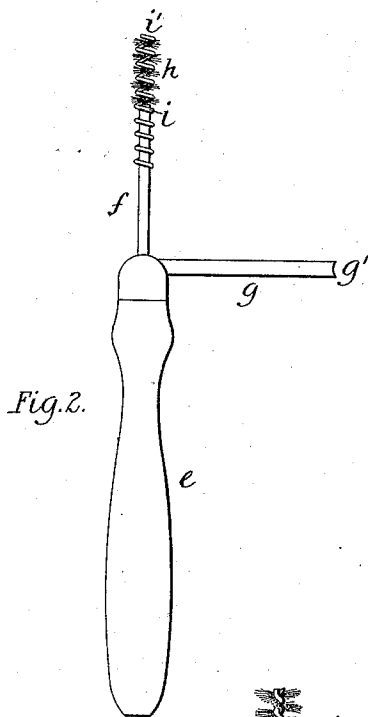


Fig. 2.

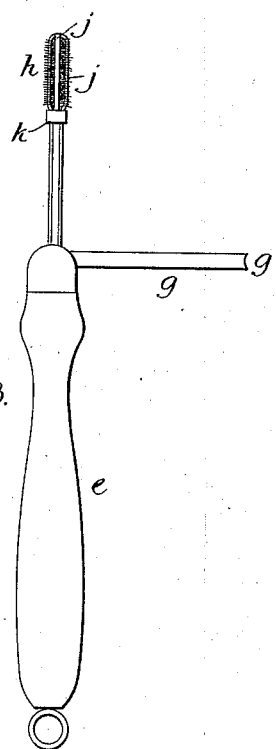


Fig. 3.



Fig. 4.

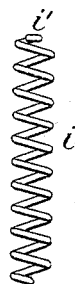


Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN E. DOLBER, OF MANCHESTER, NEW HAMPSHIRE.

SHUTTLE-THREADER.

SPECIFICATION forming part of Letters Patent No. 546,006, dated September 10, 1895.

Application filed November 15, 1894. Serial No. 528,846. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. DOLBER, a citizen of the United States, residing at Manchester, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Shuttle-Threaders; and I do 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 the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in threaders for loom-shuttles, and has for its object the production of a simple and efficient threader possessing advantages in point of precision in operation and durability.

The nature of my invention will appear from a reading of the following description, when taken in connection with the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of a loom-shuttle. Fig. 2 is an elevation of my improved threader. Fig. 3 is a similar view, but showing a modified form. Fig. 4 is a detail view of the removable brush portion, and Fig. 5 is a detail view of one of the arrangements for holding the removable brush portion.

Referring to the said drawings by letter, A denotes the shuttle which is provided with the usual pot-eye *b* and the side eye *c*, and *d* is the thread, which in practice is deposited in the pot-eye and is drawn through the side eye by the use of my improved threader. The threader comprises a handle *e*, in one end of which is inserted and held the shank *f* for the brush, and secured to and projecting laterally from said shank is a finger *g*, having a recessed or notched end *g'*, which in practice engages the thread and forces it to the bottom of the pot-eye.

The brush portion *h* (shown in detail in Fig. 4) is cylindrical in form and consists of bristles spirally arranged on a shank *h'*, formed of twisted wire, and this brush portion is adapted to be secured to the holder in a manner to permit its ready removal when worn and the substituting of a new brush.

I have shown in the drawings two arrange-

ments for removably securing said brush portion to the holder, one arrangement being a spiral coil *i* of stiff wire, having one end *i'* closed and the other end open and adapted to be turned in the shank *f* in the manner shown in Fig. 2. The brush portion being cylindrical in shape may be turned or screwed into the coil, the flexible bristles readily following the spiral turns, and when the brush is so inserted the bristles project beyond the coil sufficiently to engage the thread when the threader is inserted and partially rotated in the side eye.

Fig. 2 shows the threader when ready for operation, the brush portion being arranged within the coil and interposed between the closed end *i'* and the end of the shank *f*. When the brush from constant use becomes worn and useless, the coil is turned until disconnected from the shank *f*, the brush is withdrawn by rotating it in the reverse direction and a new brush is inserted.

Referring now to Fig. 3, the shank *f* is divided into four parts, each of which terminates in a jaw *j*, and these four jaws receive and hold the brush when the jaws are closed by a sleeve or ring *k*, which latter is slidable on the shank. The bristles of the brush project beyond the jaws, as shown, and when worn and useless the brush is removed and a new one inserted by sliding the ring downward and opening said jaws, as will be understood.

In practice, the thread being deposited by the finger in the base of the pot-eye, the brush is inserted to the depth of the side eye, and upon being slightly rotated the bristles engage and hold the thread, and as the brush is withdrawn the thread is drawn through the eye and the operation is completed.

The arrangements for securing the brush to the holder, aside from providing for the ready and rapid substitution of new for worn and useless brushes prolong the life of each brush by the protection which they afford, inasmuch as both the coil and the jaws are of a size to nearly fill the side eye, and consequently the liability of wear on the brushes is reduced.

I claim as my invention—

1. A shuttle threader comprising a holder and a shank secured thereto, said shank having an open-work receptacle at its free end, and a removable brush portion held within

said open-work and extending through and beyond the same, whereby said brush is adapted to be brought into frictional scraping contact with the end and side walls of the side eye of the shuttle and to engage and withdraw the thread therefrom, substantially as described.

2. A shuttle threader comprising a holder and a shank secured thereto, said shank being provided with a receptacle having a plurality of interstices, and a removable brush portion held within said receptacle, and having the bristles extending through and beyond said interstices for the purpose set forth.

3. In combination with a holder, a brush and a spiral coil adapted to receive said brush and removably secured to said holder.

4. A shuttle threader comprising a handle, a shank, a brush cylindrical in shape, and a spiral coil adapted to receive said brush and removably secured to said shank.

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

JOHN E. DOLBER.

Witnesses:

GEO. W. PRESCOTT,
JOHN O'NEILL.