

C. MILLER.
 DEVICE FOR THREADING SHUTTLES.
 APPLICATION FILED APR. 4, 1912.

1,038,777.

Patented Sept. 17, 1912.

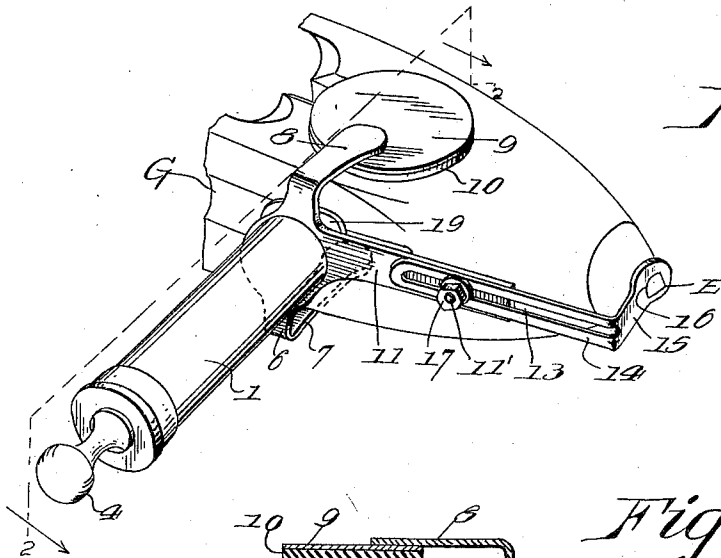


Fig. 1.

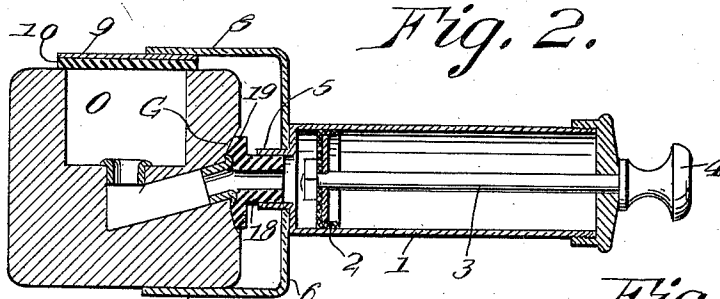


Fig. 2.

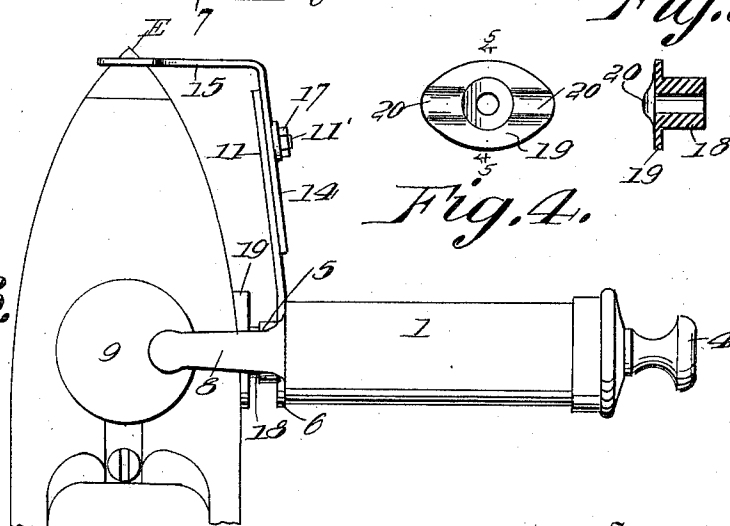


Fig. 3.

Fig. 4.

Fig. 5.

Witnesses
Ada C. Wazerty
Annie J. Miller

Inventor
Cornelius Miller
Joseph A. Miller
 Attorney

UNITED STATES PATENT OFFICE

CORNELIUS MILLER, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO MICHAEL
LENAHAN, OF PROVIDENCE, RHODE ISLAND.

DEVICE FOR THREADING SHUTTLES.

1,038,777.

Specification of Letters Patent.

Patented Sept. 17, 1912.

Application filed April 4, 1912. Serial No. 688,397.

To all whom it may concern:

Be it known that I, CORNELIUS MILLER, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Devices for Threading Shuttles, of which the following is a specification.

This invention pertains to certain new and useful improvements in devices for threading shuttles, and relates more particularly to a device of this type which has pneumatic means for effecting threading of the shuttle.

The object of the invention is to provide a simple and economical device of this type which can be easily and quickly applied to the shuttle, and which will effect threading by a single exhausting stroke of the pneumatic means.

In the drawings—Figure 1 is a perspective view of the present invention showing same applied to a shuttle in position for threading thereof. Fig. 2 is a sectional view on the line 2—2 of Fig. 1. Fig. 3 is a top plan view. Fig. 4 is a front elevation of the rubber mouth of the air exhausting means, and Fig. 5 is a section on the line 5—5 of Fig. 4.

The present invention embodies a cylinder 1 in which a piston head 2 mounted on a rod 3 operates, the outer end of the rod 3 having a finger gripping head 4 thereon. The inner end of the cylinder 1 is contracted as indicated at 5, and is passed through an opening provided therefor in a U-shaped arm 6 and is secured to the latter by soldering or otherwise. The bottom member 7 of the arm 6 engages on the under side or bottom of the shuttle, and the top member 8 thereof overlies the top of the shuttle and has a disk 9 suitably secured thereto, the latter in turn having a rubber washer 10 affixed to its under face, the washer seating on top of the shuttle so as to form an air tight connection therewith. A right angular or horizontal member 11 projects outwardly from the outer side of the arm 6 and has a bolt 11' rigidly secured to its free end, which bolt passes through the slot 13, of an arm 14. The arm 14 has its outer end turned outwardly at right angles as indicated at 15 and is formed with an opening 16 to receive the pointed tip end E of the shuttle. A nut 17 engages over the bolt and acts to hold the arm 14 in any position to

which it may be capable of being adjusted to accommodate shuttles of varying types. The contracted end 5 of the cylinder 1 has a rubber mouth formed with a tubular shank 18 which frictionally engages on the interior of the contracted end 5 of cylinder 1, the outer end of the mouth having a head 19 formed with raised portions or ribs 20, which are adapted to project in the usual side groove G formed in the shuttle body.

In operation a bunch of thread is gathered in the opening O of the shuttle, after which the device is positioned on the shuttle as depicted in the drawings, in which the disk 9 closes the top of the opening O, and the rubber mouth of the cylinder effects an air tight connection with that part of the shuttle which surrounds the threading eye. The piston is then moved from the position shown in Fig. 2 to the extreme of its outward movement, causing the air to be exhausted from the passage leading to the opening O whereby the thread will be drawn through the delivery eye.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a shuttle threading device, a vertical U-shaped arm, a disk carried by the upper end of said arm and having a rubber washer on its under face to close the top end of the shuttle opening, the lower end of said arm engaging the shuttle bottom, said arm having an opening, a cylinder having a piston therein formed with a contracted inner end which extends through said opening, a rubber mouth for the cylinder having a tubular shank which is received in said contracted end of the cylinder, a head on said shank formed with raised ribs which are for engagement in the side groove of the shuttle, a right angular member carried by said arm and having a bolt rigidly secured to its free end, an arm having a right angular end which is perforated to receive the shuttle tip and being slotted to receive said bolt, and a nut on the bolt to secure said last named arm to the right angular member of the first named arm.

2. In a shuttle threading device, a U-shaped arm having its free ends adapted to engage on opposite sides of the shuttle, means carried by one of said free ends of the arm to close and seal the shuttle opening, the connecting portion of the said ends of

said arm being formed with an opening, a cylinder having a piston therein, said cylinder having an end thereof projecting in said opening, a right angular member carried by said connecting portion of the arm, and adjustable means carried by said member for engaging the tip end of the shuttle.

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

CORNELIUS MILLER.

Witnesses:

ADA E. HAGERTY,
J. A. MILLER.

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