

(No Model.)

T. J. MAYALL, Dec'd.

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THREAD GUIDE FOR LOOM SHUTTLES.

No. 381,402

Patented Apr. 17, 1888.

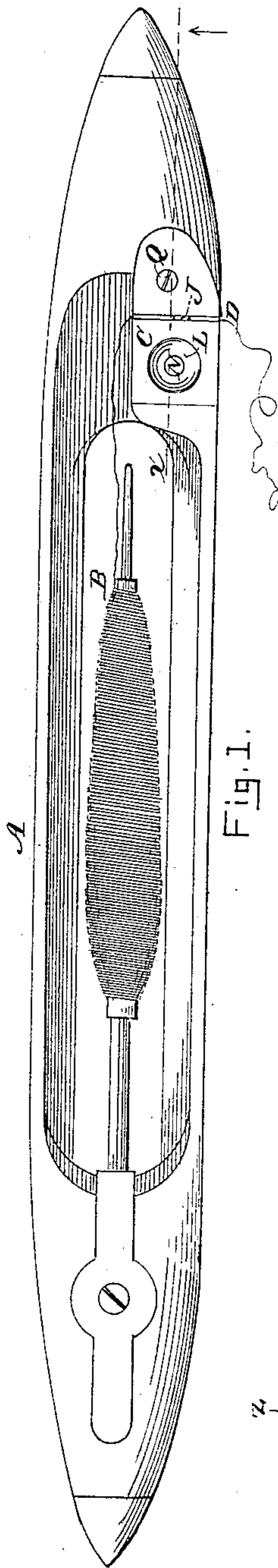


Fig. 1.

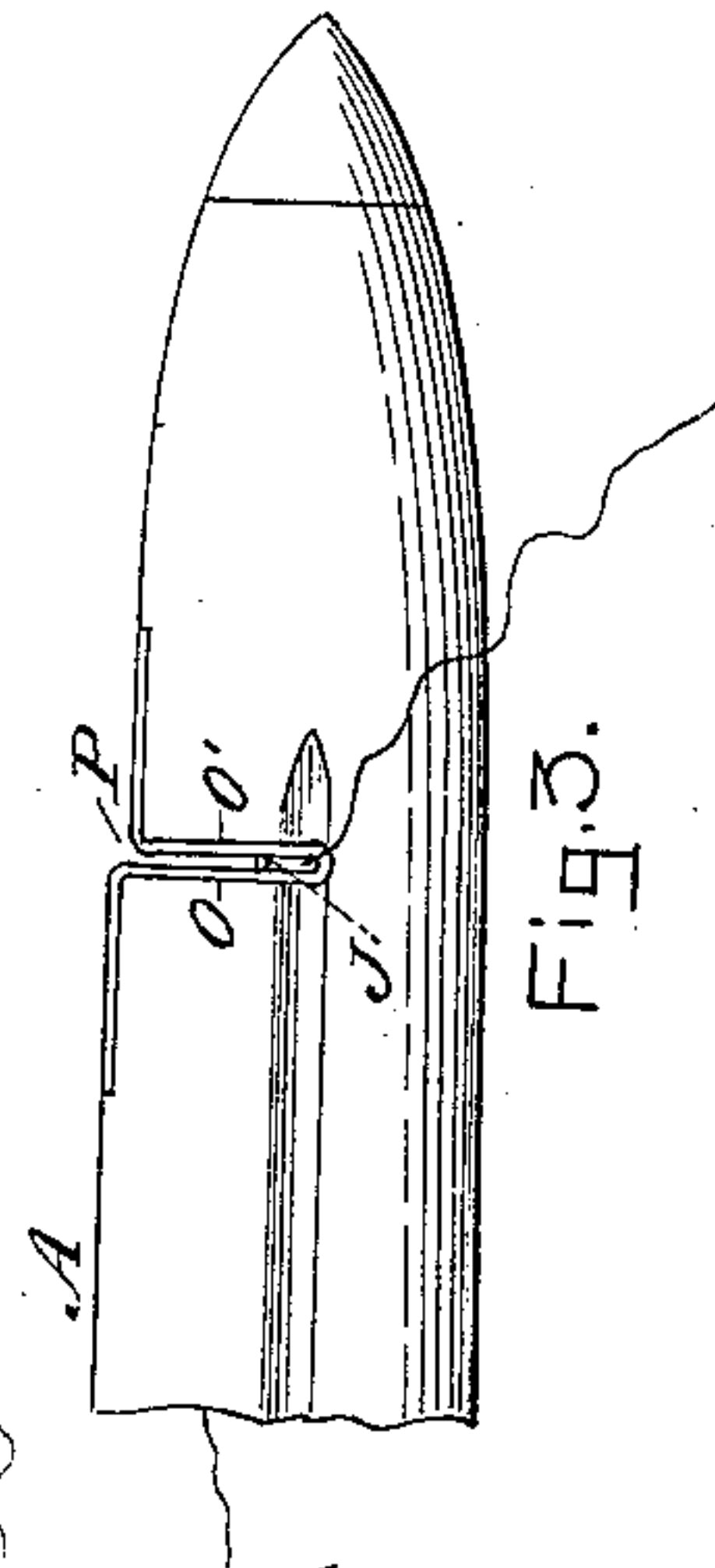


Fig. 3.

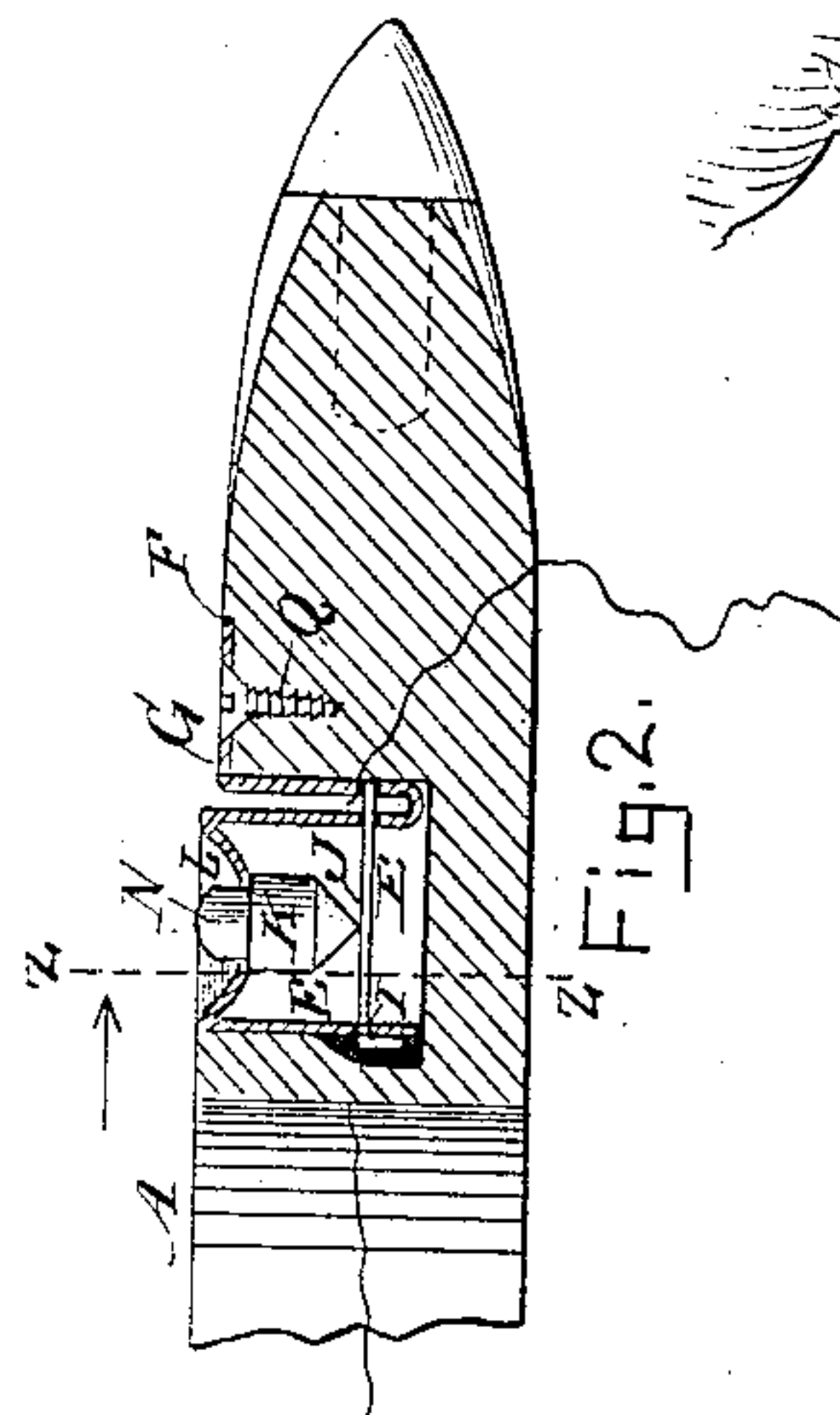


Fig. 2.

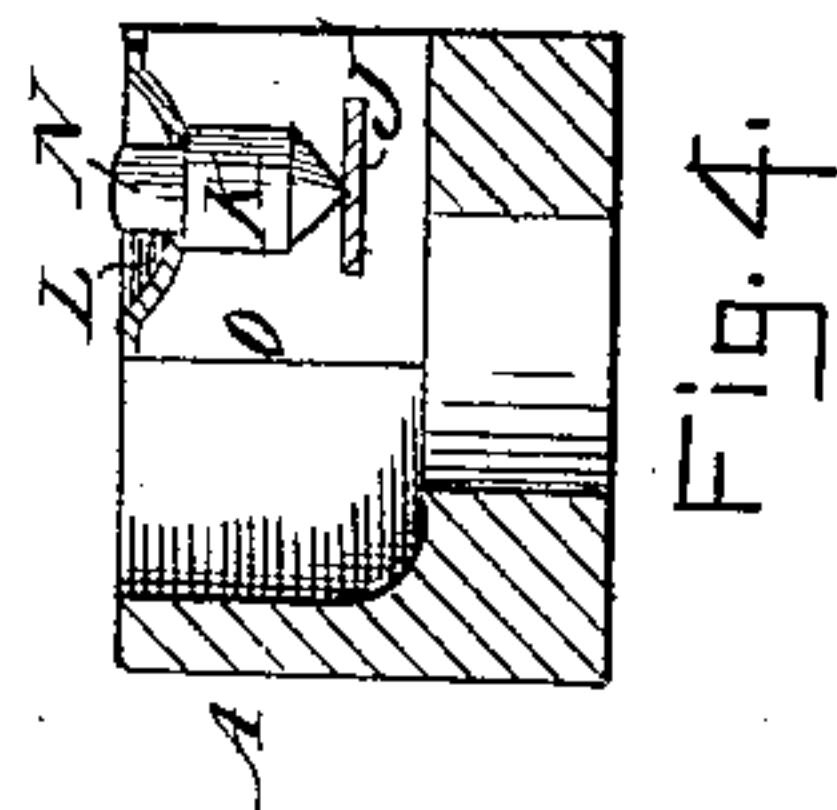


Fig. 4.

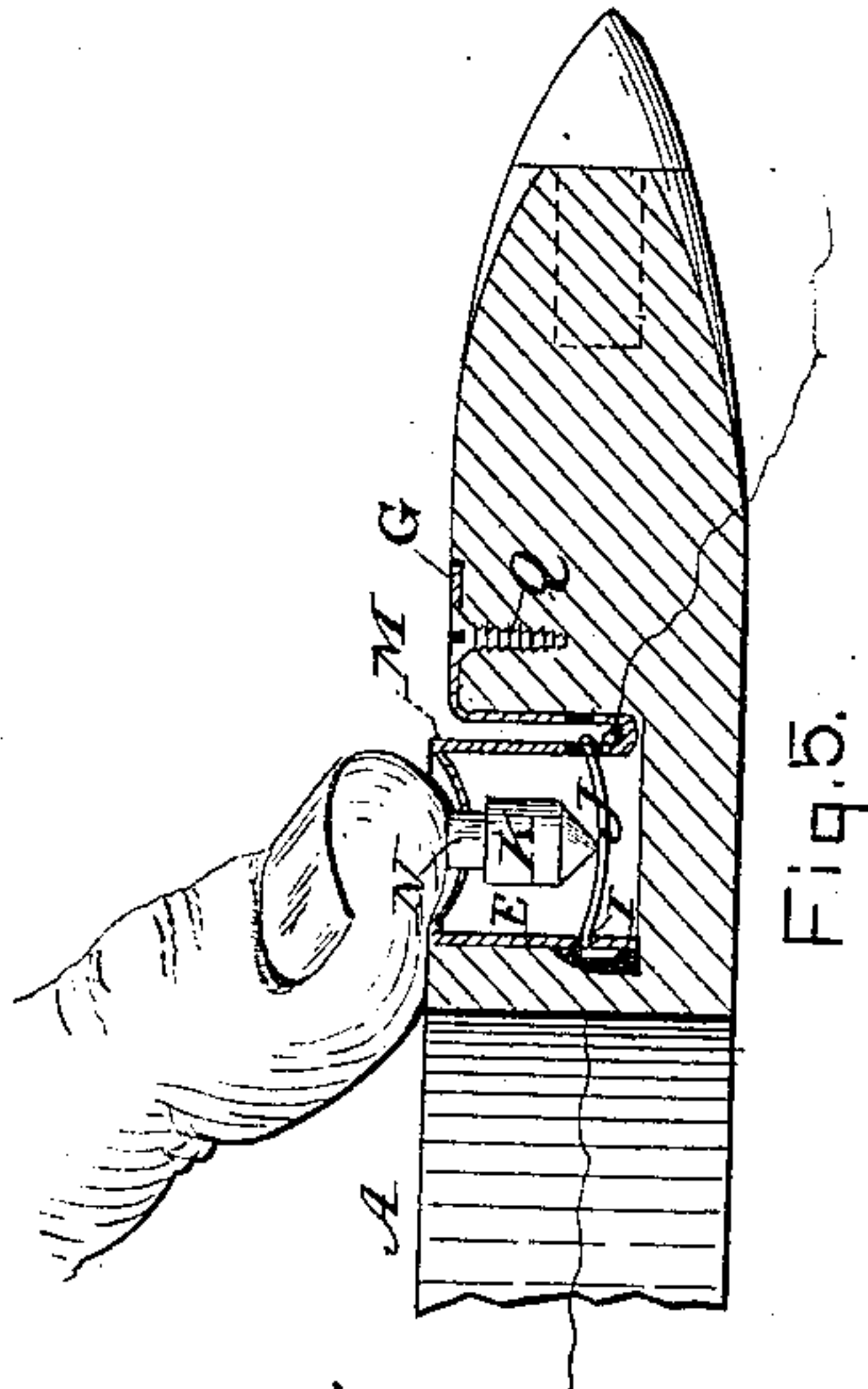


Fig. 5.

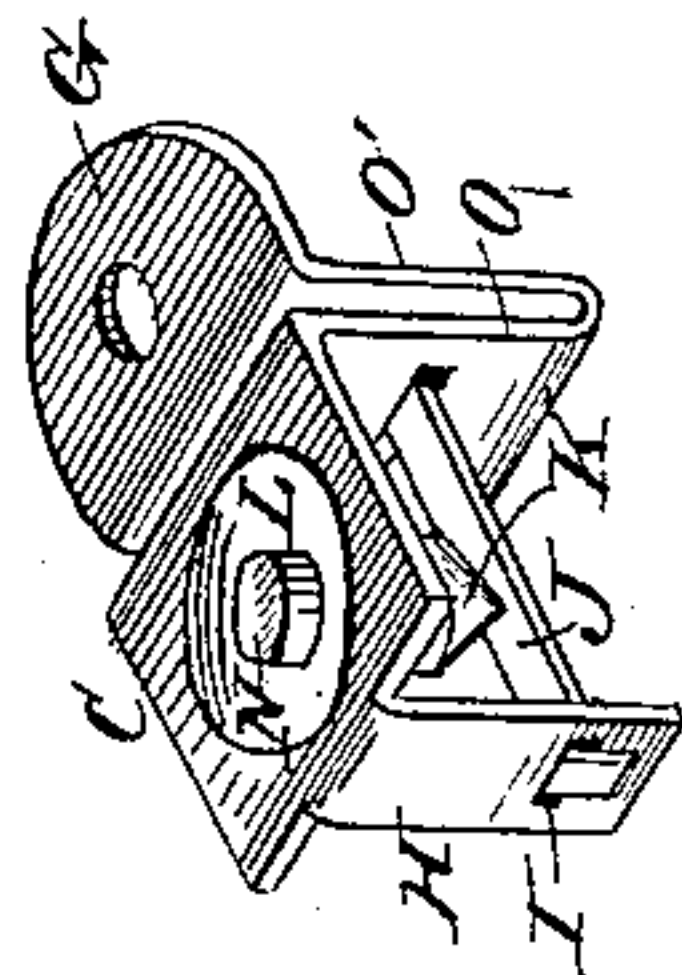


Fig. 6.

Witnesses.
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THREAD-GUIDE FOR LOOM-SHUTTLES.

SPECIFICATION forming part of Letters Patent No. 381,402, dated April 17, 1888.

Application filed June 10, 1887. Serial No. 240,934. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. MAYALL, of Reading, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Thread-Guides for Loom-Shuttles, which improvement is fully set forth in the following specification.

The object of my invention is to provide an ordinary loom-shuttle with an inexpensive device, whereby the bobbin-thread may be readily inserted and retained in its proper position in the shuttle, thereby doing away with the method of threading by inhalation, which is very detrimental to the health of the operatives. This object is accomplished by means of a device hereinafter described, and which is applicable to any form of shuttle employed in the manufacture of textile fabrics.

In the accompanying drawings, which form a part of this specification, Figure 1 is a plan view of a loom-shuttle having my improved thread-guide attached thereto. Fig. 2 is a partial vertical longitudinal section thereof on line *x x*, Fig. 1. Fig. 3 is a partial side elevation of the said shuttle and thread-guide. Fig. 4 is a transverse vertical section on line *z z*, Fig. 2. Fig. 5 is a view similar to Fig. 2, showing how the device is manipulated; and Fig. 6 is a perspective view of the thread-guide detached from the shuttle.

A represents a loom-shuttle with a thread-wound cop, B, therein, the ends of the thread resting within the thread-guide C, from which it protrudes, as at D. The form and construction of said thread-guide C is best exhibited in Fig. 6, and the manner of securing it to said shuttle is shown in Figs. 2 and 5. The shuttle is mortised at E a sufficient depth to receive the thread-guide C, while the upper surface is cut out at F to permit the metal lap G to rest flush with the same. The frame of the thread-guide C is made of one piece of sheet metal, and it may be stamped out in the shape shown by means of dies and pierced at one operation. The wall H is bent at right angles to the top and the metal strip is further folded back upon itself, forming the walls O O', with a space between them for insertion of the thread, the wall O projecting slightly above the wall O', as shown at P, Fig. 3, to catch the

thread and insure its entering the thread-space. The walls H and O O' are slotted for the admission of the ends of the thread-locking arm or device J, which is of spring metal, and is adapted to be depressed by the cone-shaped push-button or plunger K. The latter has an end, N, projecting through the concave top L of the frame. The shoulder on the plunger K limits its upward movement. The concave top of the frame permits the plunger K to be pushed down sufficiently to withdraw the end of the spring J from the thread-space without necessitating the end N to protrude beyond the surface of the shuttle.

The lap G of the thread-guide is secured to the shuttle by a holding-screw, Q.

To thread the shuttle by means of my invention, I hold the shuttle in the usual manner, the thumb of the left hand resting lightly upon the stem N. With the fingers of the right hand the thread is grasped, and with a quick movement carried to the right a little forward of the lap G, thence drawn rearwardly until it meets the obstructing shoulder P, and falls into the space between the walls O O'. Pressure upon the spring thread-lock J permits the thread to fall into the position shown in Fig. 5. When the pressure is relaxed, the end of spring J returns to its normal position across the thread-space and the thread is securely locked in place, as shown in Fig. 3.

It is obvious that modifications may be made in the forms of parts and other details of construction without departing from the spirit of the invention.

Having now fully described my said invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with a shuttle-body, of the thread-guide comprising two walls forming between them a thread-space, said walls being slotted, as set forth, a thread-locking strip extending through said walls and across said space, and a push-button or plunger for withdrawing the locking end of said strip when the thread is inserted, substantially as described.

2. The combination, with a shuttle-body, of the thread-guide comprising a sheet-metal strip folded upon itself to form a thread-space,

a flexible spring-locking device having its end extending across said space through slots in the walls thereof, and a plunger for depressing said spring at the middle and so withdrawing the locking end, substantially as described.

5 3. The combination, with a shuttle-body, of the thread-guide comprising a frame having a concave top and being provided with a thread-space, one of the walls of said space projecting above the other, a spring-locking device having its end extending across said
10 space to hold the thread therein, and a plunger

for depressing said spring at the middle to withdraw the locking end from said space, the end of said plunger projecting through the concave top of the frame, substantially as described. 15

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

THOS. J. MAYALL.

Witnesses:

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