

(No Model.)

J. H. NASON.
SELF THREADING SHUTTLE FOR LOOMS.

No. 432,167.

Patented July 15, 1890.

Fig. 1.

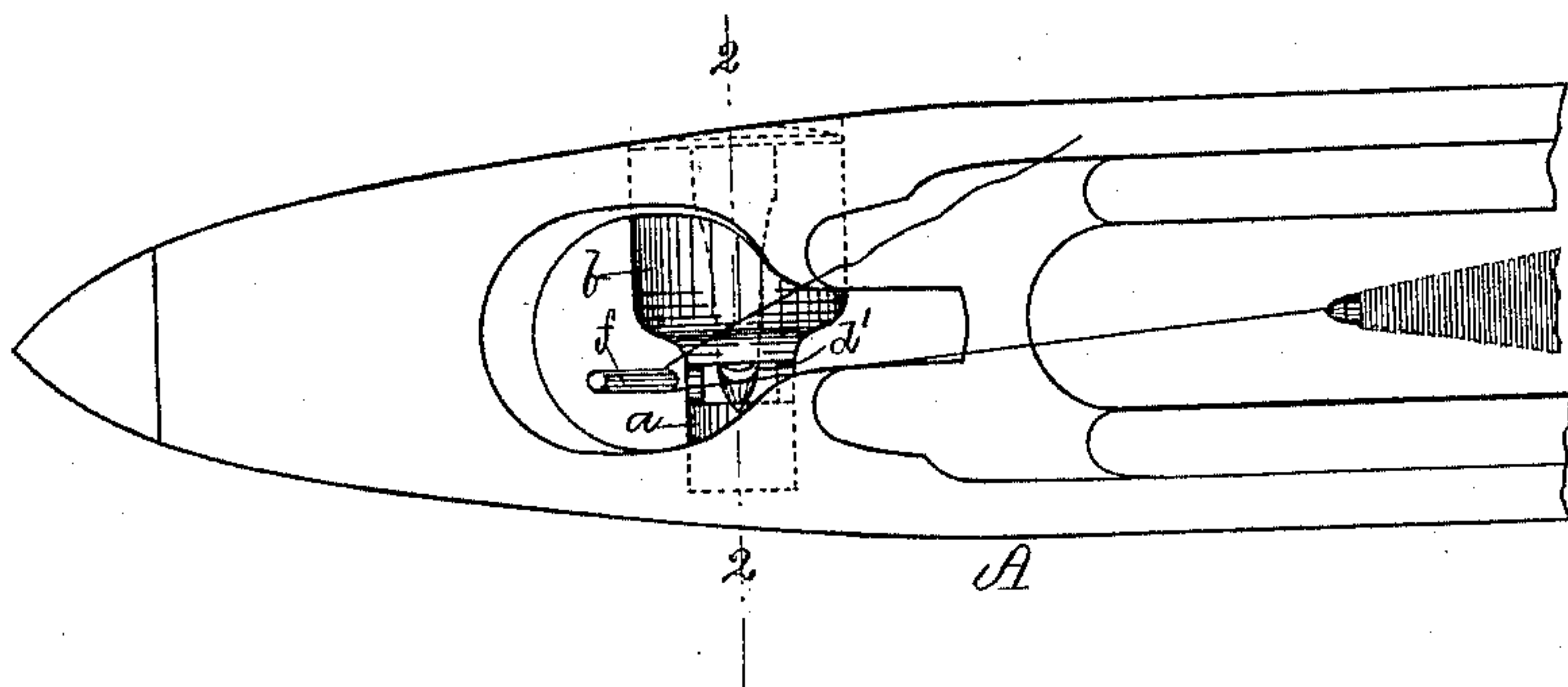


Fig. 4.

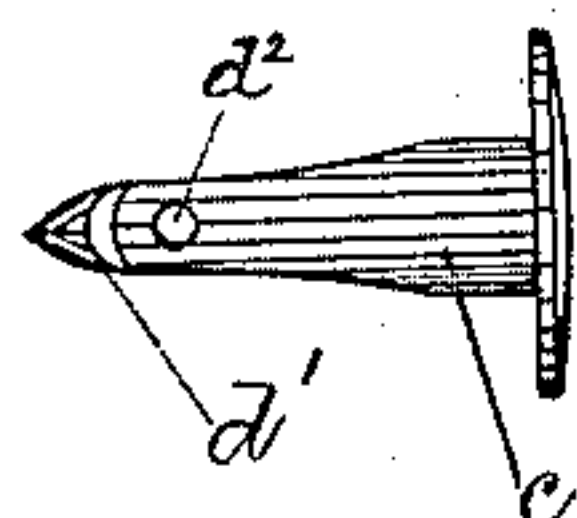


Fig. 2.

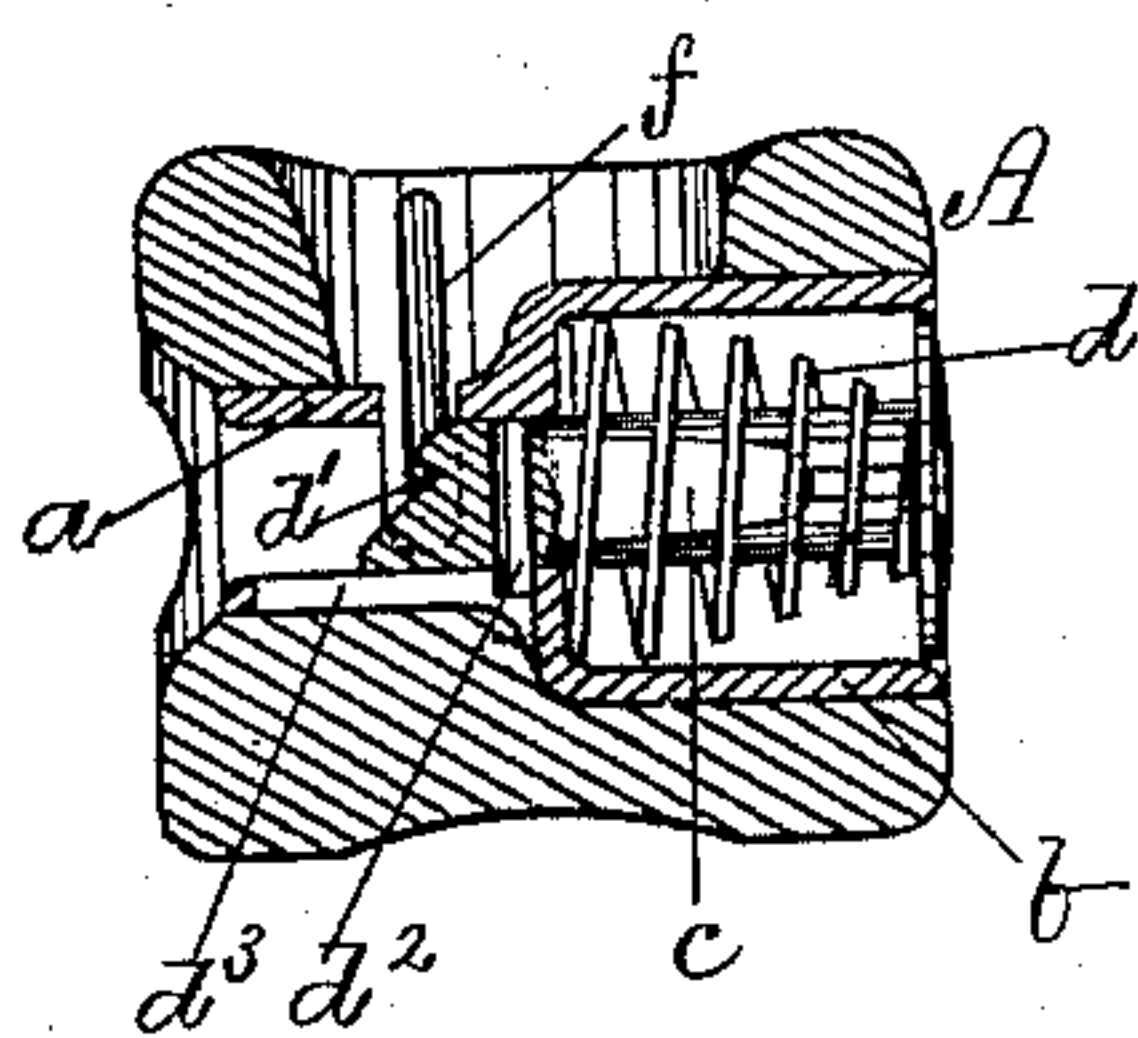


Fig. 3.

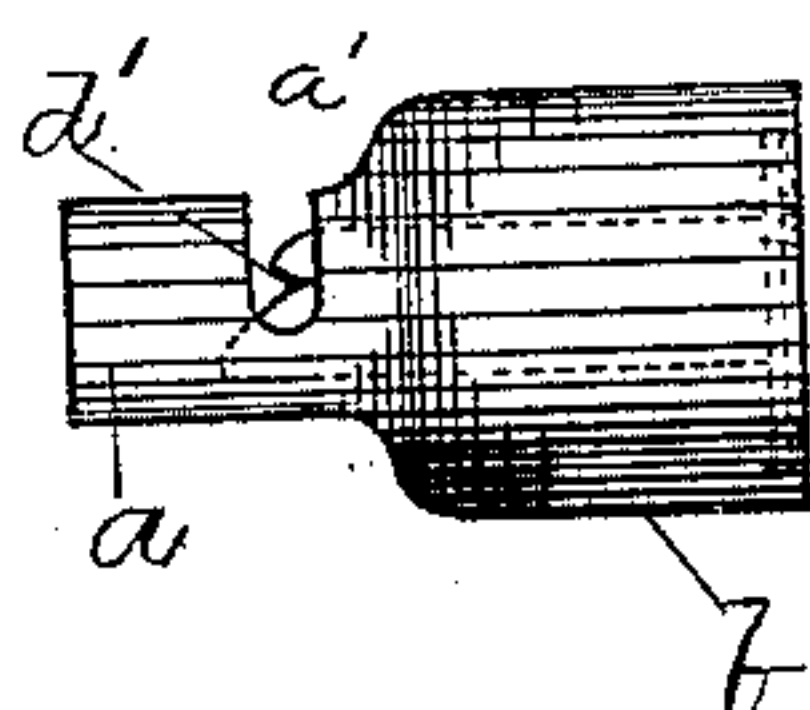
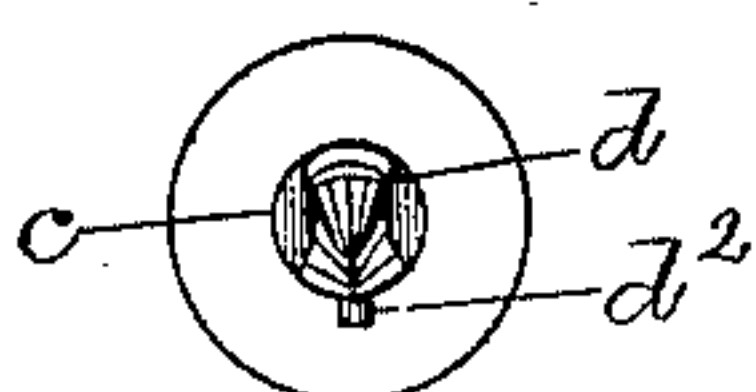


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOSEPH HERBERT NASON, OF SOMERVILLE, ASSIGNOR OF ONE-HALF TO
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SELF-THREADING SHUTTLE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 432,167, dated July 15, 1890.

Application filed November 16, 1889. Serial No. 330,543. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH HERBERT NASON, of Somerville, in the county of Middlesex and State of Massachusetts, have invented a new and useful Self-Threading Shuttle for Looms, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which—

Figure 1 is a plan of a portion of a shuttle having my invention applied thereto. Fig. 2 is a section on line 2 2 of Fig. 1, part of the plunger and the retracting-spring being shown in elevation. Fig. 3 is an elevation of one form of my attachment. Figs. 4 and 5 are two views of the plunger detached.

A variety of self-threading shuttles have heretofore been made; but in all of them known to me the eye and that part of the body of the shuttle adjacent to it were slitted. This has been found objectionable; and the object of my invention is to make a self-threading shuttle in which the eye and the shuttle-body adjacent are whole, as in the ordinary shuttle.

My invention consists in the combination, with the eye to be threaded, of a plunger, whose forward end is shaped to carry a thread when laid across it, the plunger being suitably mounted and adapted to have the thread readily laid across its thread-carrying end, and to be then readily passed through the eye, after which the plunger will be withdrawn, leaving the thread through the eye.

In the preferred form of my invention the eye *a* is formed in one piece with the plunger-case *b*, this being in order that my device may be more readily applied to the shuttle-body A, and also that my device may be made as an article adapted for sale to shuttle makers or users.

The eye to be threaded is shown as a sheet-

metal tube *a*, in one piece with the plunger-case *b*, and both inserted in the shuttle-body A. The plunger *c* is mounted in case *b*, and is movable endwise in case *b* against the force of the spring *d*. The front end of the plunger has a groove *d'* across it, into which the thread is readily guided, and there is an open space *a'* between the inner end of the eye *a* and the outer end of plunger *c* to allow the thread to be readily brought to a place where the forward motion of the plunger *c* will compel the thread to lie in groove *d'*, so that as the plunger passes through the eye the thread will be compelled to go with it, as shown in the drawings.

It will be obvious, of course, that both the eye *a* and plunger-case *b* may theoretically be formed in the body A of the shuttle; but while this would be one embodiment of my invention it is scarcely practical where the shuttle-body A is of wood, as is the practice. When the plunger is circular in cross-section, the pin *d*², fast to the plunger *c* and working in a slot *d*³, is necessary for the best results.

The guide-pin *f* serves as a convenient stop around which the thread may be bent, thereby causing the thread to extend between the cop and the pin *f* directly in the path of the groove *d'* of plunger *c*, as shown in Fig. 1.

What I claim as my invention is—

1. In combination with shuttle A and its eye *a*, thread-carrying plunger *c* and its retracting-spring *d*, substantially as described.
2. The attachment for shuttles above described, made up of eye *a*, plunger-case *b*, plunger *c*, and its spring *d*, constructed and arranged together substantially as described.

J. HERBERT NASON.

Witnesses:

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