

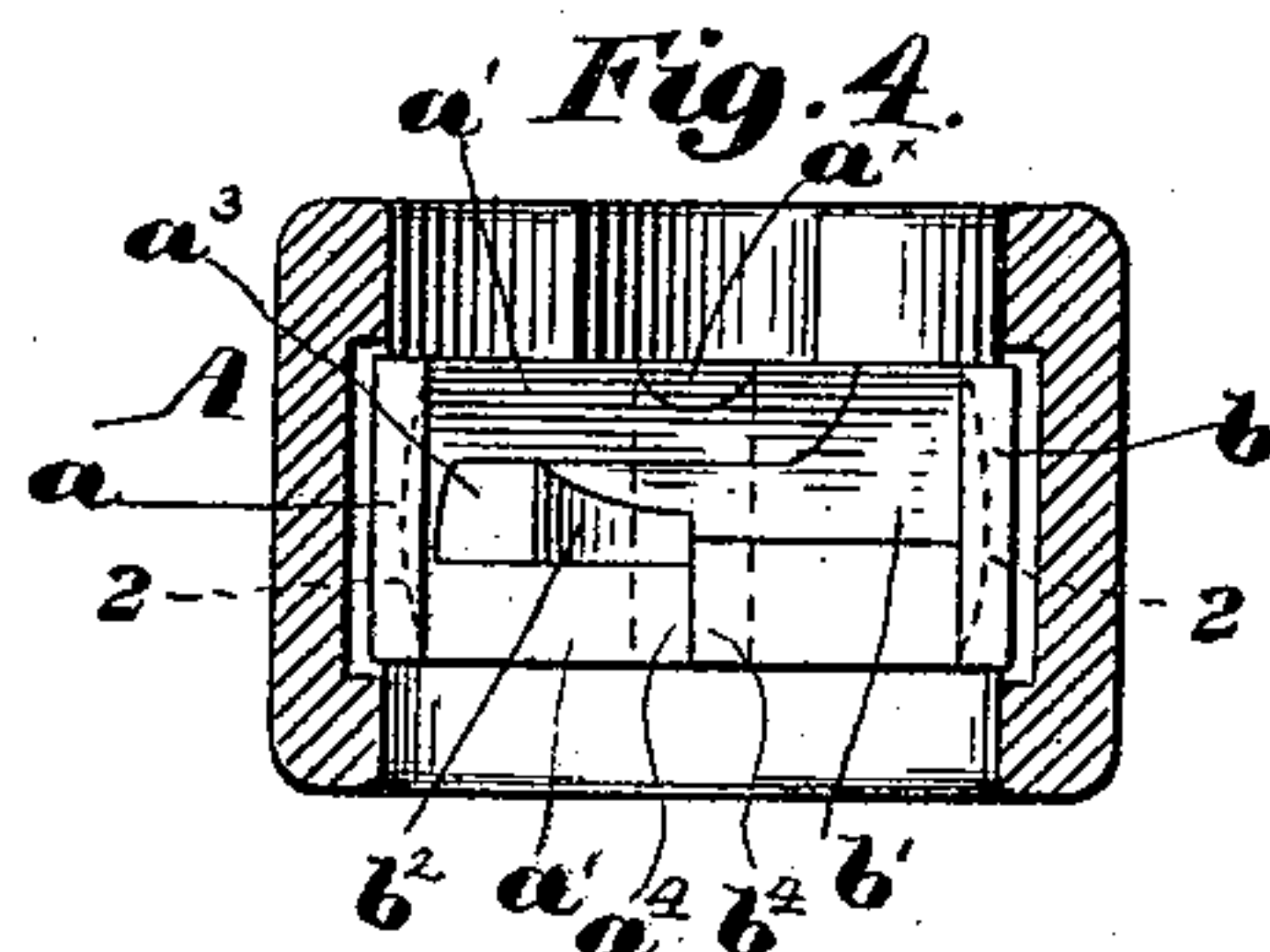
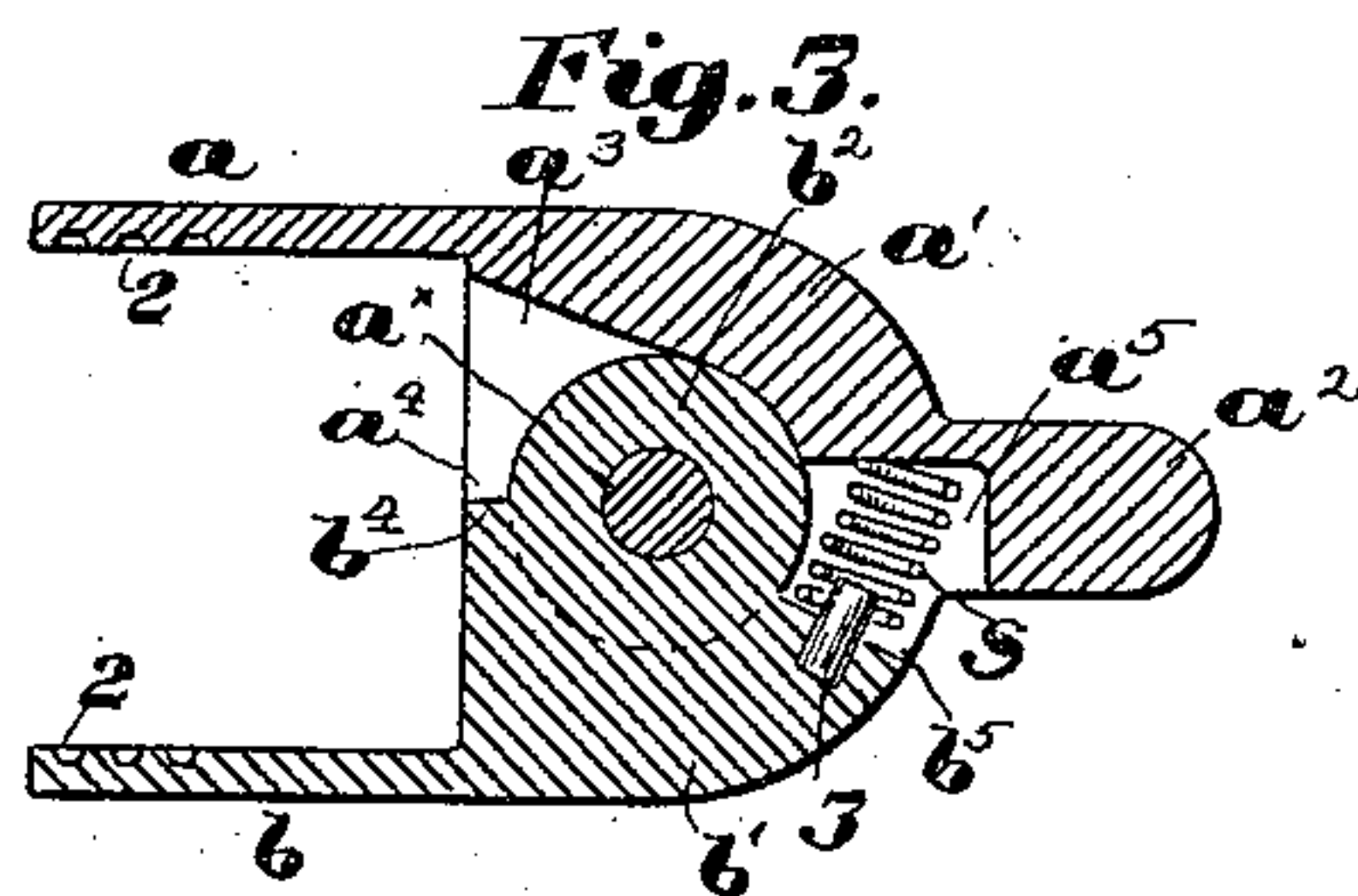
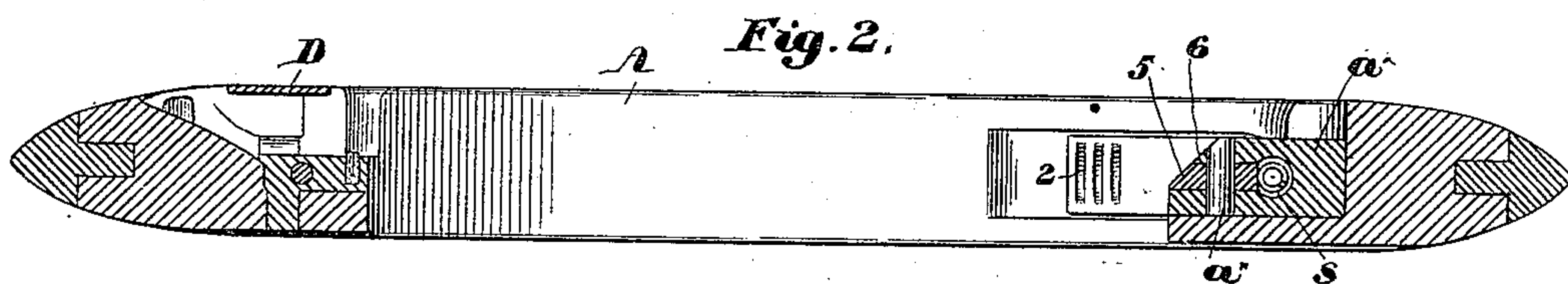
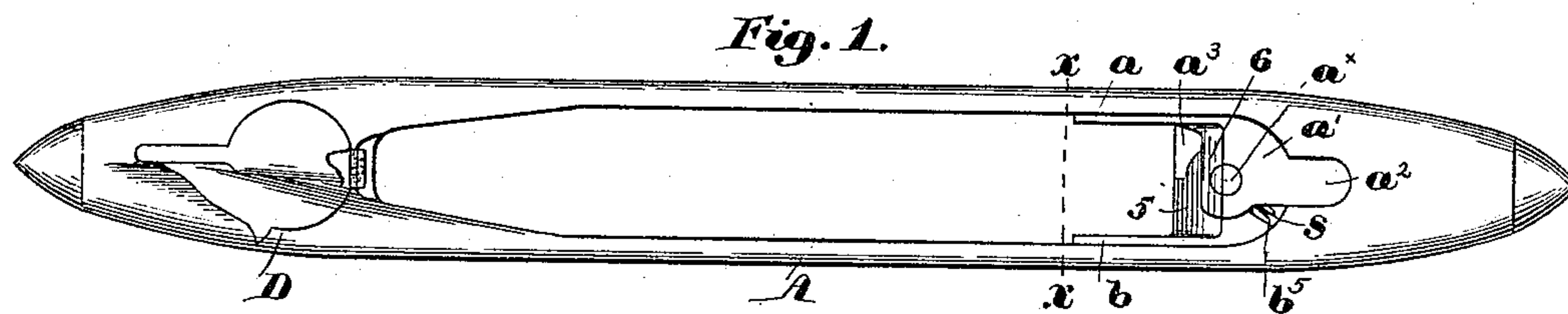
No. 616,297.

Patented Dec. 20, 1898.

W. F. DRAPER.
LOOM SHUTTLE.

(Application filed July 25, 1898.)

(No Model.)



Witnesses:
Walter S. Loutland
Thomas Drummond

Inventor:
William F. Draper,
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UNITED STATES PATENT OFFICE.

WILLIAM F. DRAPER, OF HOPEDALE, MASSACHUSETTS, ASSIGNOR TO THE
DRAPER COMPANY, OF SAME PLACE AND PORTLAND, MAINE.

LOOM-SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 616,297, dated December 20, 1898.

Application filed July 25, 1898. Serial No. 686,774. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. DRAPER, of Hopedale, in the county of Worcester and State of Massachusetts, have invented an Improvement in Loom-Shuttles, of which the following description, in connection with the accompanying drawings, is a specification, like letters and numerals on the drawings representing like parts.

10 This improvement relates to that class of loom-shuttles wherein the head of a filling-carrier or bobbin is held between the separable jaws of a holder, the bottom of the shuttle being made open for the passage of a spent
15 filling-carrier through it, the delivery end of the shuttle having an automatically-threading slot, into which the filling-thread is threaded during the movement of the shuttle through the shed, substantially as in United
20 States Patent No. 574,864 granted to me January 5, 1897. In such patent the jaws of the holder spread or yield laterally by virtue of their inherent resiliency, and the inclined directing-plate for the filling-carrier is formed
25 of a separate piece of metal secured to the shuttle-body.

In my present invention the jaws are controlled as to their movement by a separate spring, and the directing-incline for the filling-carrier forms a part of the holder itself.

30 Figure 1, in top or plan view, shows a shuttle embodying my invention. Fig. 2 is a longitudinal sectional view thereof. Fig. 3, on a larger scale, is a horizontal sectional view
35 of the holder for the filling-carrier; and Fig. 4 is an enlarged transverse sectional view on the line $x x$, Fig. 1, looking toward the right.

The shuttle-body A and the automatic threading device D are and may be as in said
40 Patent No. 574,864 referred to.

The holder for the filling-carrier or bobbin comprises two jaws $a b$, one of which is enlarged at a' and rearwardly extended to form a retaining projection a^2 , adapted to be
45 tightly fitted into a suitable recess in the shuttle-body. The body a' is recessed in front at a^3 , Figs. 1, 3, and 4, between the top and bottom thereof to receive the rounded hinge
50 portion b^2 of the other jaw, mounted to swing laterally on a pin or stud a^x in the body a' .

The jaw-bases are shouldered at their inner sides, as at $a^4 b^4$, serving as stops to limit the inward movement of the jaws.

A suitable spring s , resting in a recess a^5 of the body a' , bears at its free end on the shoulder b^5 of the jaw b back of its fulcrum a^x , a
55 pin 3 preventing accidental displacement of the spring.

On their upper faces the two body portions are cut concentric to the fulcrum, so that the
60 jaw b may be swung laterally relatively to the jaw a , the latter being rigidly held in the shuttle-body.

Between the inner faces of the jaws the holder is inclined or beveled at 5 6, Figs. 1
65 and 2, to form a directing-surface for the filling-carrier or bobbin when it is inserted in the shuttle, the jaws having grooves 2 therein to receive and hold the usual projections or
70 ribs on the base of the filling-carrier.

The form of holder herein shown is strong and durable, the opening movement of the jaws being controlled by a spring which can be replaced when broken or worn, and the inclined guide forms an integral part of the
75 holder, simplifying the construction and reducing the number of separate parts to be fitted and secured to the shuttle-body.

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

1. A filling-carrier holder for loom-shuttles, said holder comprising separable jaws to engage and hold the filling-carrier between them, and a separate spring to normally re-
85 tain the jaws in operative, compressed position, substantially as described.

2. A filling-carrier holder for loom-shuttles, said holder comprising separable jaws to engage and hold the filling-carrier between
90 them, and an inclined guide for the filling-carrier, forming a part of the holder and located between the jaws thereof, substantially as described.

3. A filling-carrier holder for loom-shuttles, said holder comprising a fixed jaw, a jaw movable relatively thereto, to engage and hold a filling-carrier, and a spring to normally hold the movable jaw pressed
95 toward its fellow jaw, the holder being in-

clined between and at the bases of the jaws, to present a directing or guide surface for the filling-carrier, substantially as described.

4. A filling-carrier holder for loom-shuttles, said holder comprising separable jaws to engage and hold the filling-carrier between them, a spring to normally press the jaws toward each other, and stops on the jaws, to limit such inward movement, substantially
10 as described.

5. A filling-carrier holder for loom-shuttles, said holder comprising a fixed and a relatively movable jaw, adapted to engage and

hold between them the filling-carrier, combined with a spring to act upon and retain 15 the jaws in operative, compressed position, and to permit separation of the jaws upon insertion of a filling-carrier into the shuttle, substantially as described.

In testimony whereof I have signed my 20 name to this specification in the presence of two subscribing witnesses.

WILLIAM F. DRAPER.

Witnesses:

GEO. OTIS DRAPER,
H. F. SEARLES.