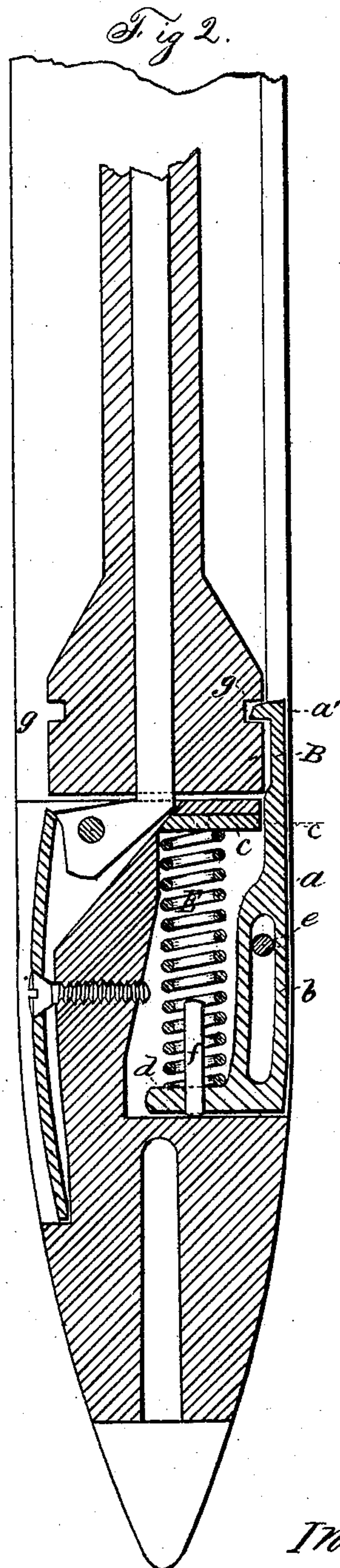
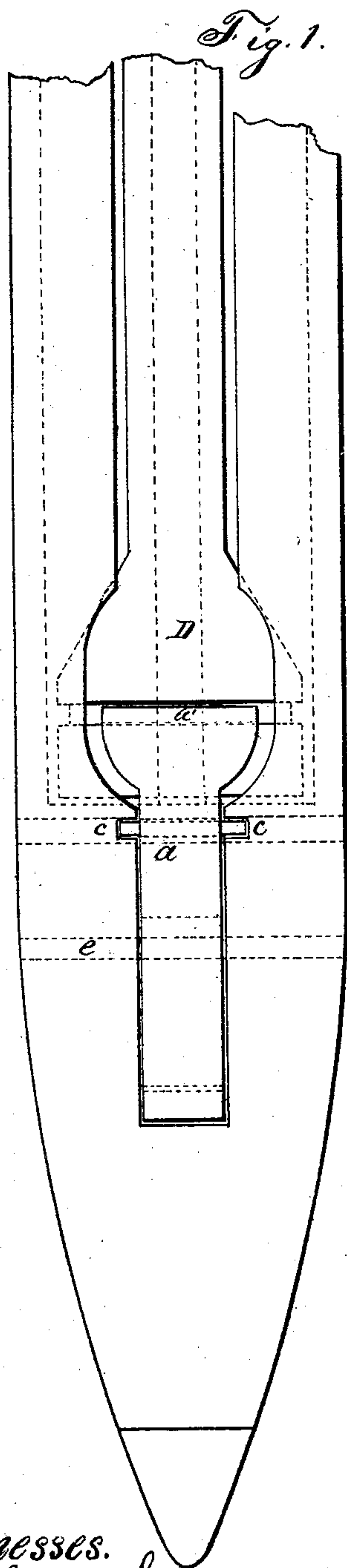


W. MURKLAND.
Loom-Shuttles.

No. 147,062.

Patented Feb. 3, 1874.



Witnesses.
John E. Crane
James B. Murkland

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William Murkland

UNITED STATES PATENT OFFICE.

WILLIAM MURKLAND, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND PRESCOTT C. GATES, OF SAME PLACE.

IMPROVEMENT IN LOOM-SHUTTLES.

Specification forming part of Letters Patent No. **147,062**, dated February 3, 1874; application filed October 22, 1873.

To all whom it may concern:

Be it known that I, WILLIAM MURKLAND, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Weavers' Shuttles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 represents a bottom side view, and Fig. 2 a central section of the rear or spindle-carrying end, of a weavers' shuttle embodying my improvement.

This invention relates to, and consists of, a new and useful improvement in that part of a shuttle called the bobbin-catch, and to that kind known as the pivoted and rocking or oscillating bobbin-catch, and which is caused to catch or engage with the groove in the head of the bobbin by rocking on a pin or pivot passing through the substance of the shuttle, and not by any spring action of the plate.

This invention has for its object to make the common pivoted and rocking bobbin-catch a yielding catch also, and thereby to allow the bobbin of filling to move forward at each blow of the forward end of the shuttle, and to recede or be drawn back as soon as the shuttle ceases its forward motion, thereby saving much filling, which, in the use of the unyielding bobbin-catch, is separated or loosened, or has its unwinding capacity so impaired as to be unfit for filling, and, besides this, saving many filling bobbins, the heads of which are split or broken by the action of the suddenly-stopping shuttle and the rigid or unyielding bobbin-catch.

In my said invention *a* represents the bobbin-catch, constructed with a longitudinal slot, *b*, and a rising rear end, *d*, and furnished with a spiral spring, *E*, and a retaining-pin, *f*, while the shuttle is supplied near the forward end of the bobbin-catch mortise with a stop or bar, *c*, as a bearing for the forward end of the spring. The usual fulcrum-pin *e* passes through the slot *b*, and this allows the bobbin-catch and the bobbin to move forward or to

yield to the action of the blow of the shuttle when its forward end strikes, and this yielding action prevents injury to the filling or to the bobbin, as before stated. The spring *E* instantly returns the bobbin and catch, or draws them back after each blow of the forward end of the shuttle, said spring acting between the bar *c* secured to the substance of the shuttle and the ear *d* rising from the rear end of the bobbin-catch plate, while the pin *f*, projecting forward from the ear, holds this end of the spring in position, not only when in action, as before described, but also when the rear end of the bobbin-catch is pressed upward to release the catch end *a'* from the groove *g* in the head *B* of the bobbin. To accommodate the forward end of the movable bobbin-catch, the wider end *D* of the slot in the under side of the shuttle is made longer, as seen in Fig. 1, but a narrower catch would obviate the necessity of changing the slot. The spring *E* performs the double duty of returning the catch and the bobbin when thrown forward, and also of returning the rear end of the plate into position when pressed upward or inward to disengage the forward or catch end *a'* from the groove in the bobbin.

Instead of the pin *f* a recess may be made in the face of the ear *d*, and the rear end of the spring *E* seated and held in such recess.

I claim as my invention—

1. A pivoted rocking bobbin-catch, constructed as described, with a slot, *b*, a rear end, *d*, a retaining device, *f*, and a spring, *E*, in combination with a stop or bar, *c*, and a pivot pin, *e*, and with the shuttle, all arranged and operating in the manner and for the purpose specified.

2. In combination with the stop *c* and the pivoted, slotted, and rocking bobbin-catch, as described, the spring *E*, performing double duty, in the manner and for the purpose set forth.

WILLIAM MURKLAND.

Witnesses:

JOHN E. CRANE,
JAMES B. MURKLAND.