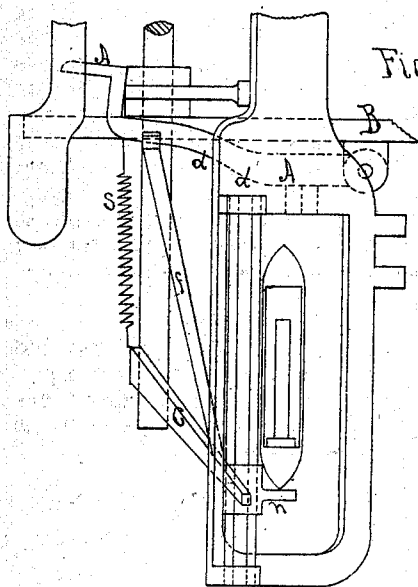
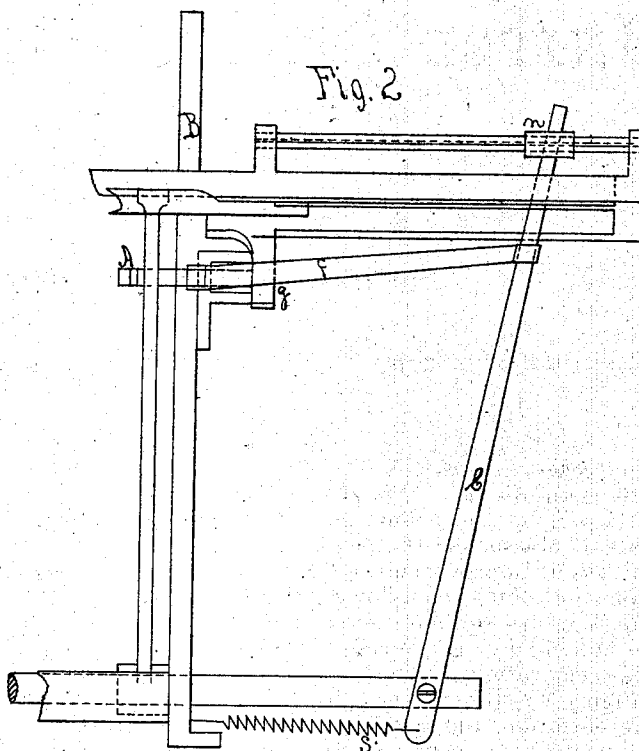
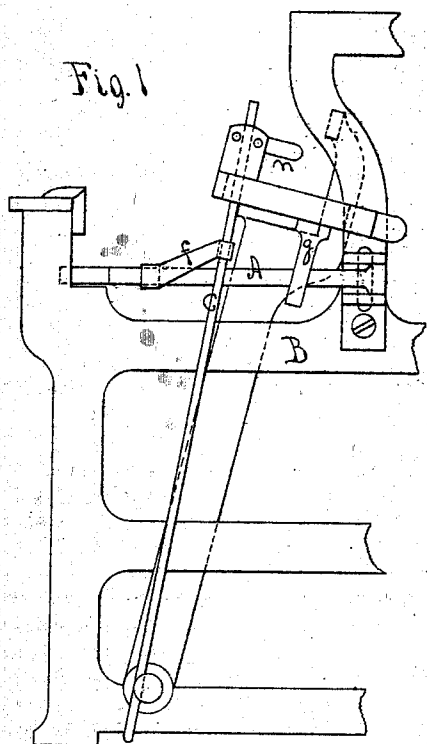


W. MURKLAND.
Loom-Shuttle Stops.

No. 146,545.

Patented Jan. 20, 1874.



Inventor.

William Murkland

Witnesses.

John E. Crane

William R. Crane

UNITED STATES PATENT OFFICE.

WILLIAM MURKLAND, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO JOSIAH GATES, OF SAME PLACE.

IMPROVEMENT IN LOOM SHUTTLE-STOPS.

Specification forming part of Letters Patent No. **146,545**, dated January 20, 1874; application filed November 17, 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 Shuttle-Stops for Looms, 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 an end, Fig. 2 a front side elevation, and Fig. 3 a plan or top view, of a portion of a loom embodying my improvement.

This invention relates to a new and useful improvement in the mechanism used in certain kinds of looms for stopping the shuttles in proper position in movable shuttle-boxes, thereby preventing the shuttle passing beyond the end of the boxes to obstruct the movement of the latter, whether vertically sliding or revolving.

This invention consists of a curved lever or cam, A, having an operating incline, *d*, and pivoted to or near the end frame B, in combination with, and by a cord or strap, *f*, connected to, the picker-staff C near its upper end, and with a spring, S, attached to the lower end of the staff, and to some fixed object about in line with the staff movement, the lever or cam being operated to move the staff by a stud or brace, *g*, which, in practice, and on some kinds of looms, may be the end of the back plate which carries the sliding shuttle-boxes or the guide for said plate at the inner ends of said boxes, either of these being an equivalent for the stud *g*.

I consider the cam-lever A a new element, and this, with the strap *f* and spring *s* and brace *g*, or equivalent, a new and very useful combination for the purpose described.

When the lay advances to beat up the filling, the connected brace *g* is carried forward clear of the incline *d*, and the strap is slackened, and the draft on the upper part of the staff is relieved, so that its top end is moved outward by the action of the spring S, carrying with it the picker to a point clear of the ends of the moving shuttle-boxes, where it remains until said boxes are moved, and one of them set to receive the shuttle from the opposite end of the loom. As the lay recedes the brace *g* engages with the face of the incline *d* of the cam-lever A, and moves its forward free end inward, and by means of the strap *f* draws the upper end of the staff and the picker *n* toward the shuttle-box, and ready to catch and stop the advancing shuttle, so as to prevent its end passing beyond the end of the shuttle-boxes to obstruct their movement.

I claim as my invention—

The cam-lever A, constructed and pivoted as described, in combination with the strap *f* and staff C, spring S, and the operating brace *g*, all arranged and operating substantially as and for the purpose specified.

WILLIAM MURKLAND.

Witnesses:

JOHN E. CRANE,
WILLIAM R. CRANE.