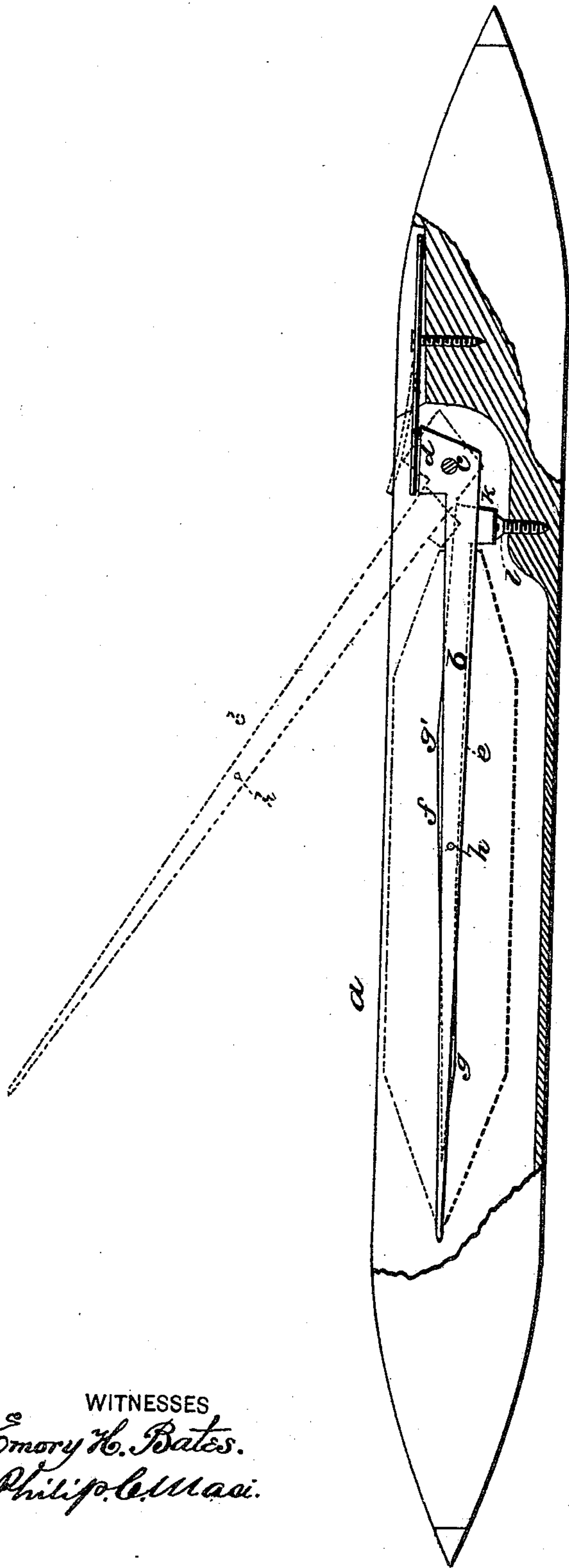


(No Model.)

G. W. DOE.  
LOOM SHUTTLE.

No. 271,433.

Patented Jan. 30, 1883.



WITNESSES

*Emory H. Bates.*  
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INVENTOR

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*his* ATTORNEYS

# UNITED STATES PATENT OFFICE.

GEORGE W. DOE, OF FAIRHAVEN, MASSACHUSETTS.

## LOOM-SHUTTLE.

SPECIFICATION forming part of Letters Patent No. 271,433, dated January 30, 1883.

Application filed May 20, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. DOE, a citizen of the United States, residing at Fairhaven, in the county of Bristol and State of Massachusetts, have invented a new and valuable Improvement in Loom-Shuttles; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

The drawing is a vertical sectional view of a shuttle showing my improvement.

This invention has relation to loom-shuttles; and it consists in the combination, with the shuttle-body, the centrally-slotted spindle, and its ridged and centrally-pivoted lever, of the adjustable screw-bearing under the heel of said lever, as will be hereinafter more fully described and claimed.

In the accompanying drawing, the letter *a* designates the body of the shuttle; and *b*, the spindle thereof, which is pivoted at *c*, and provided with a spring, *d*, bearing upon the heel, in the ordinary manner. The spindle is slotted longitudinally at *e*, and in this slot is located a long lever, *f*, which is provided with a rise, ridge, or convexity, *g* or *g'*, near each end, and somewhat removed from the pivot *h*, whereby the lever is connected to the central portion of the spindle. The lever is provided with two ridge-like protuberances, *g g'*, on opposite edges, one being in front or near the free end of the lever and the other between the heel of

the lever and the pivot thereof. In this construction the ridge *g* is on the lower edge and the ridge *g'* on the upper edge. The shape of the lever, although ridged, conforms somewhat to that of the spindle, and when the latter is raised and in position to receive the cop the lever affords no obstruction to its adjustment thereon. When the spindle is laid down in working position in the shuttle the heel *k* of the lever *f* engages with the head of a screw, *l*, in the shuttle, which forces the heel end of the lever, with its rise or ridge *g'*, upward and the front end, with its ridge *g*, downward, out from the spindle into the cop, in such a manner as to hold the same securely in position. The heel of the lever is designed to be provided with a downward projection, and the screw-bearing *l*, which it engages, is adjustable, in order that the throw of the lever may be adjusted to suit the cop.

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

The combination, with the shuttle-body *a*, the centrally-slotted spindle *b*, and its ridged and centrally-pivoted lever *f*, of the adjustable screw-bearing *l*, under the heel of said lever, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE W. DOE.

Witnesses:

CHARLES H. MORTON,  
JOSEPH R. PARK.