

E. W. BRAY.

Shuttle-Checks for Looms.

No. 133,624.

Patented Dec. 3, 1872.

Fig. 1.

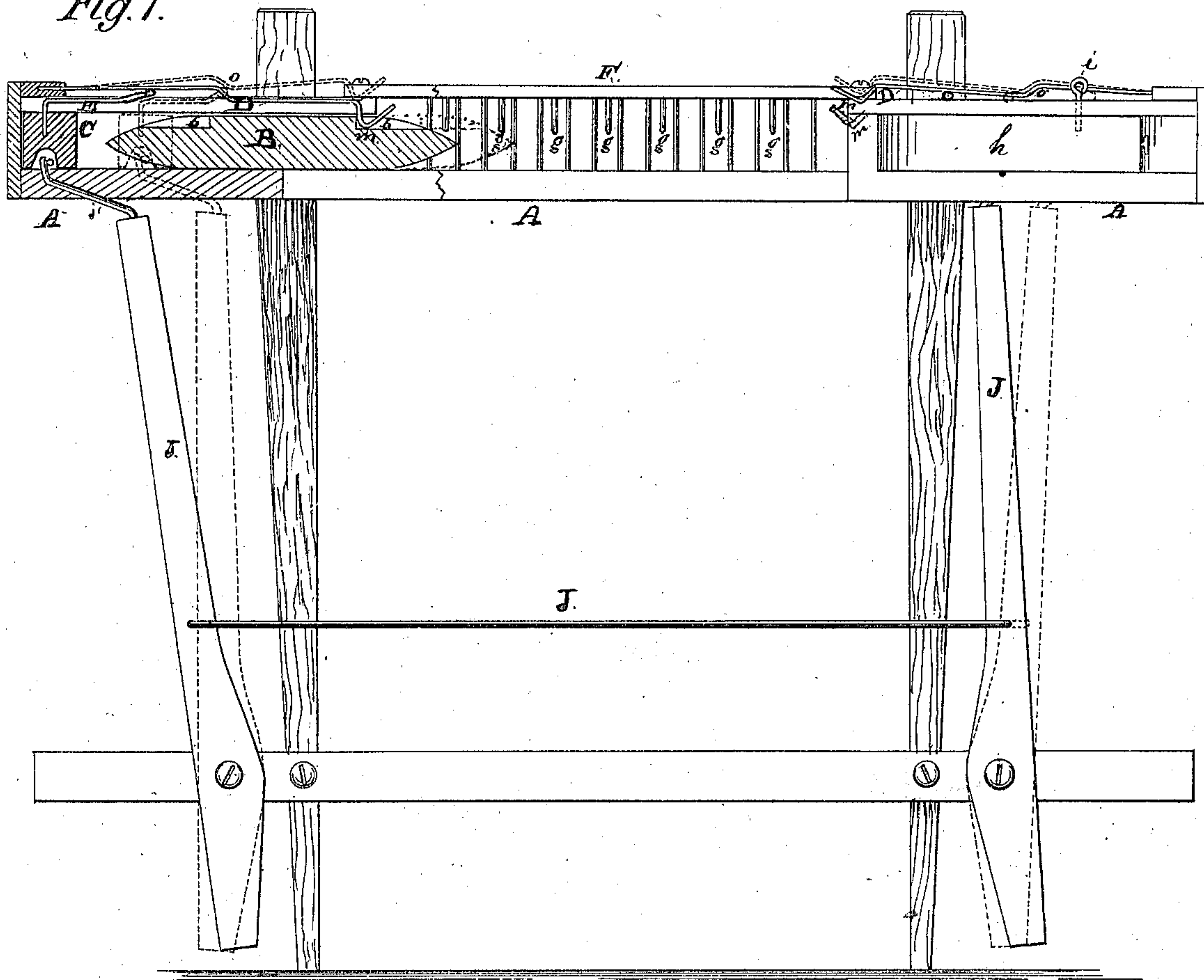
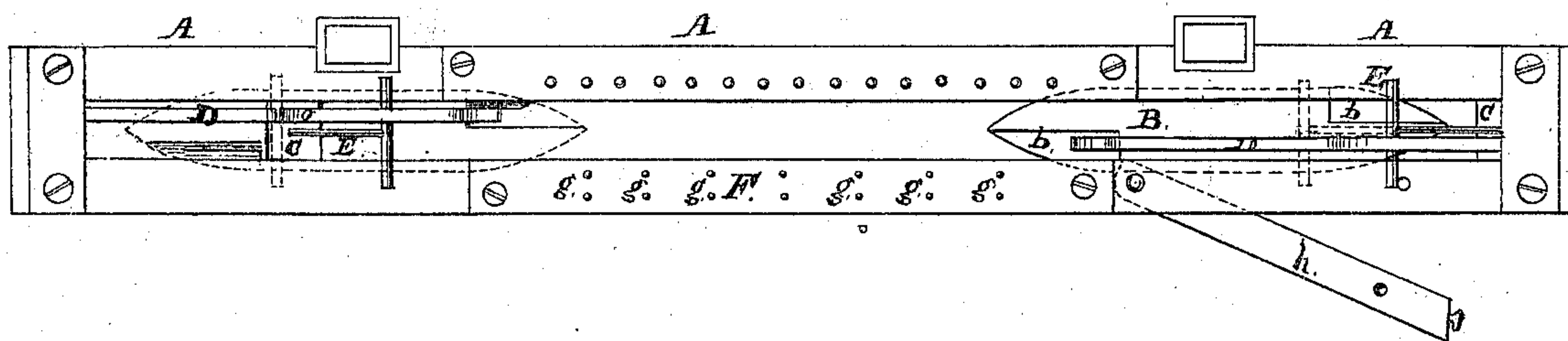


Fig. 2.



Witnesses:

Geo. A. Artos

Joseph Vock

Inventor:

Edward William Bray

By D. C. Colby & Son

Attorneys



# UNITED STATES PATENT OFFICE.

EDWARD W. BRAY, OF MOORESVILLE, INDIANA.

## IMPROVEMENT IN SHUTTLE-CHECKS FOR LOOMS.

Specification forming part of Letters Patent No. 133,624, dated December 3, 1872.

*To all whom it may concern:*

Be it known that I, EDWARD WM. BRAY, of Mooresville, in the county of Morgan and State of Indiana, have, as I believe, invented new and useful Improvements in Shuttle-Guide and Stop for Looms; and I do hereby declare the following to be a full and exact description of the same, reference being had to the drawing that accompanies and forms a part of this specification.

The object of my invention is to provide an improved method of preventing the shuttle from rebounding too far when it has reached the terminus of its line of travel, and so as to produce no friction or hindrance to prevent the shuttle from moving off freely and promptly on its return the instant the propelling force is applied to it. My invention consists in the application of springs with catches upon them to drop into slots or notches in the top of the shuttle, as and for the purposes hereinafter specified.

In the drawing, Figure 1 is a front view with a portion of the outer parts on the left removed, exhibiting the shuttle and other parts; and Fig. 2, top view, in which the shuttle is represented as at the other or right-hand end of the batten.

Letter A, the batten, consisting of the ordinary parts and such as I have added; B, the shuttle with notches *b b*, one at each end; C, picker-block which propels the shuttle; D, a spring lying above the shuttle, attached to the end block of the batten, and provided with catch *m* and bend *o*, operating as hereinafter described; E, a small rod attached to block C, extending forward and turning across at right angles and passing under the spring D, (see Fig. 2;) F, a bar extending across the batten from right to left, as may be seen in Figs. 1 and 2; *g*, small staples reaching down in front of the passing shuttle, and operating to prevent it from flying out in front; *h*, a piece at one end of the batten which swings

out, as in Fig. 2, to allow the introduction and removal of the shuttle; *i*, a pin to retain the piece *h* in position, (see Fig. 1;) J, the vibrating frame which moves the block C back and forth, and thus propels the shuttle.

Supposing the shuttle situated as shown in Fig. 1, the frame J is now moved, and when it reaches the position shown in dotted lines the rod E on block C will raise the spring D, and the block will strike the shuttle and send it on its way, guided in front by the staples *g*, while the cross-bar F prevents its rising upward; and it enters the opposite box just as the pin E of the opposite block reaches the bend *o* in the spring D on that side, allowing this spring to fall and bring the catch *m* into one of the slots *b* on the shuttle, to prevent its rebounding too far. These springs at each end will thus rise and fall, engage the shuttle when in its box, and release it when the propelling force is applied. The wires *g* are used in the form of staples in order to have sufficient stability. The wires are very small so as to offer no resistance to the warp passing between them.

By observing Fig. 2 it will appear that the notch *b* at one end is on one side of the shuttle and at the other end on the opposite side. This is so that the springs may not catch against the shoulder of the notch when entering the box and passing under said spring.

What I claim as my invention is—

A recessed shuttle, B *b b*, in combination with the springs D, actuating-rods E, and propelling-blocks C, constructed and arranged substantially as and for the purpose specified.

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

EDWARD WM. BRAY.

Witnesses:

D. C. COLBY,  
J. F. COLBY.