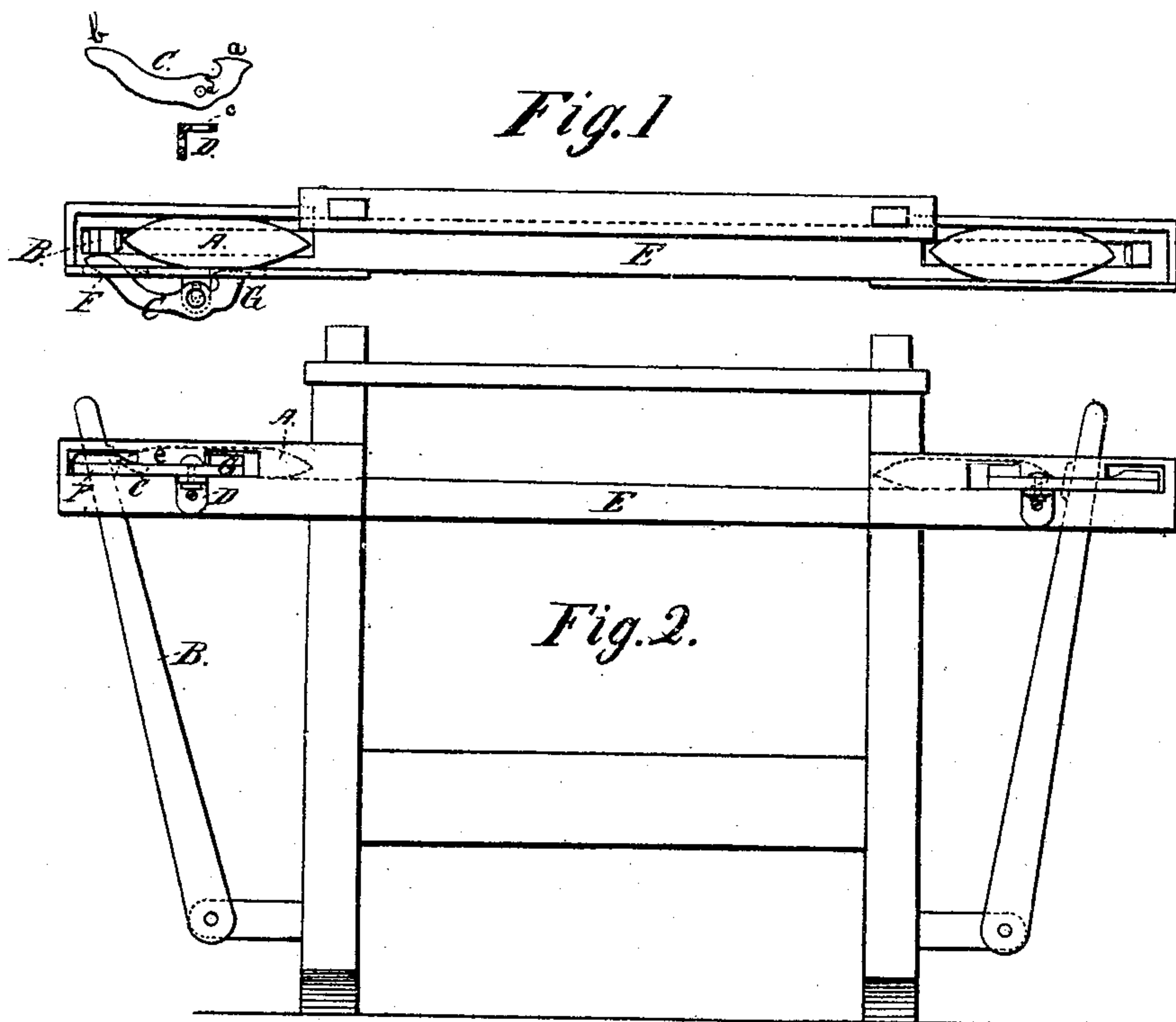


W. C. MACOMBER.

Improvement in Shuttle-Binders.

No. 132,164.

Patented Oct. 15, 1872.



Witnesses.

Inventor.

Fred. A. Holmes
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UNITED STATES PATENT OFFICE.

WILLIAM C. MACOMBER, OF GROTON, ASSIGNOR OF ONE-HALF HIS RIGHT TO
AMOS MALLORY, OF STONINGTON, CONNECTICUT.

IMPROVEMENT IN SHUTTLE-BINDERS.

Specification forming part of Letters Patent No. 132,164, dated October 15, 1872.

To all whom it may concern:

Be it known that I, WILLIAM C. MACOMBER, of Groton, in the county of New London and State of Connecticut, have invented certain new and useful Improvements in Checking and Holding Devices for Shuttles; and it consists in the peculiar construction, arrangement, and operation of the devices hereinafter more fully described; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing with letters of reference marked thereon, in which—

Figure 1 is a top plan of the batten of a loom, representing my invention attached; and Fig. 2 is a front view of the same.

A represents the shuttle, B the picker-staff, and E the lathe of a loom, which may be of any suitable or desired construction. C represents the lever, having a perforation, *d*, by which it is pivoted. One end of this lever is provided with a head, G, having a rounded bearing-surface, *a*, while the opposite end has a long arm, F, provided with the inclined surface *b*. D represents the stand or fulcrum to which the lever C is pivoted, said stand being secured to the outside of the shuttle-box, while the lever C is adjustable upon the stand so as to compensate for the wear of the shuttle or the lever, and also to allow a large or small shuttle to be used, as desired. By having the stand D attached to the outside of the shuttle-box, and having the shuttle-box provided with two perforations instead of being slotted the entire length of the lever, the lever C is prevented from swinging in the box further than is necessary for its successful operation, as its vibration is limited by the part *e* of the shuttle-box between the perforations or openings.

In use my invention is intended to work in unison with the swell now in common use, but is not intended to take the place of the swell, nor does it in any manner govern the stopping

of the loom, but simply checks, holds, and releases the shuttle as the loom is operated.

The operation of my invention is as follows: As the shuttle A enters the box, the rear end F of the lever C is thrown in position as the shuttle first comes in contact with the head G of the lever; then, as the picker-staff is forced back by the shuttle, it comes in contact with the inclined surface *b* of the lever C before the picker-staff is forced entirely back against the end of the shuttle-box, and as soon as the picker-staff commences to press out the end F of the lever the end G with its rounded surface commences to press against the end of the shuttle, serving to retard its motion; and when the picker-staff is driven against the end of the shuttle-box the end F of the lever is forced out to its furthest extent, which brings the end G with the rounded surface *a* firmly against the shuttle and binds the same firmly until the picker-staff commences its return stroke, which releases the end F of the lever, allowing the end G to fall back from the shuttle, leaving the same free to move forward.

By this means a simple and efficient device is furnished to check and hold the shuttle, consisting only of two parts, which may be adjusted to allow a large or small shuttle to be used, and to compensate for the wear of the shuttle and lever, and requiring no springs or equivalent devices to operate or hold the same in position.

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

The lever C, constructed with the rounded surface *a* and inclined surface *b*, adjustably attached to the shuttle-box by fulcrum D, and having its inward motion limited by the part *e* of the shuttle-box, and operating in connection with the picker-staff and shuttle, substantially as set forth.

Witnesses: WM. C. MACOMBER.
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