

(No Model.)

A. E. BRAY.
TUG STRAP HOLDER FOR LOOMS.

No. 413,018.

Patented Oct. 15, 1889.

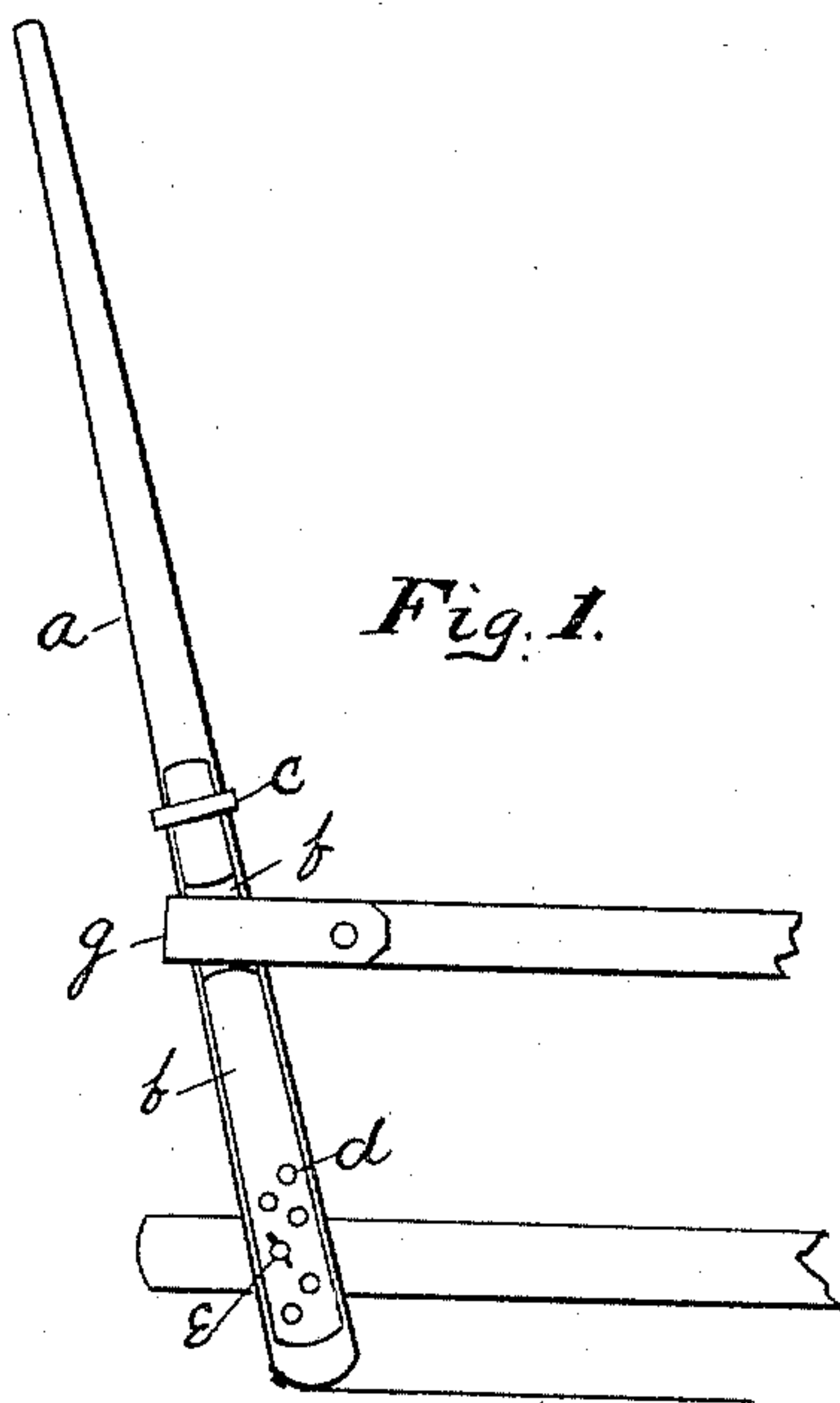


Fig. 1.

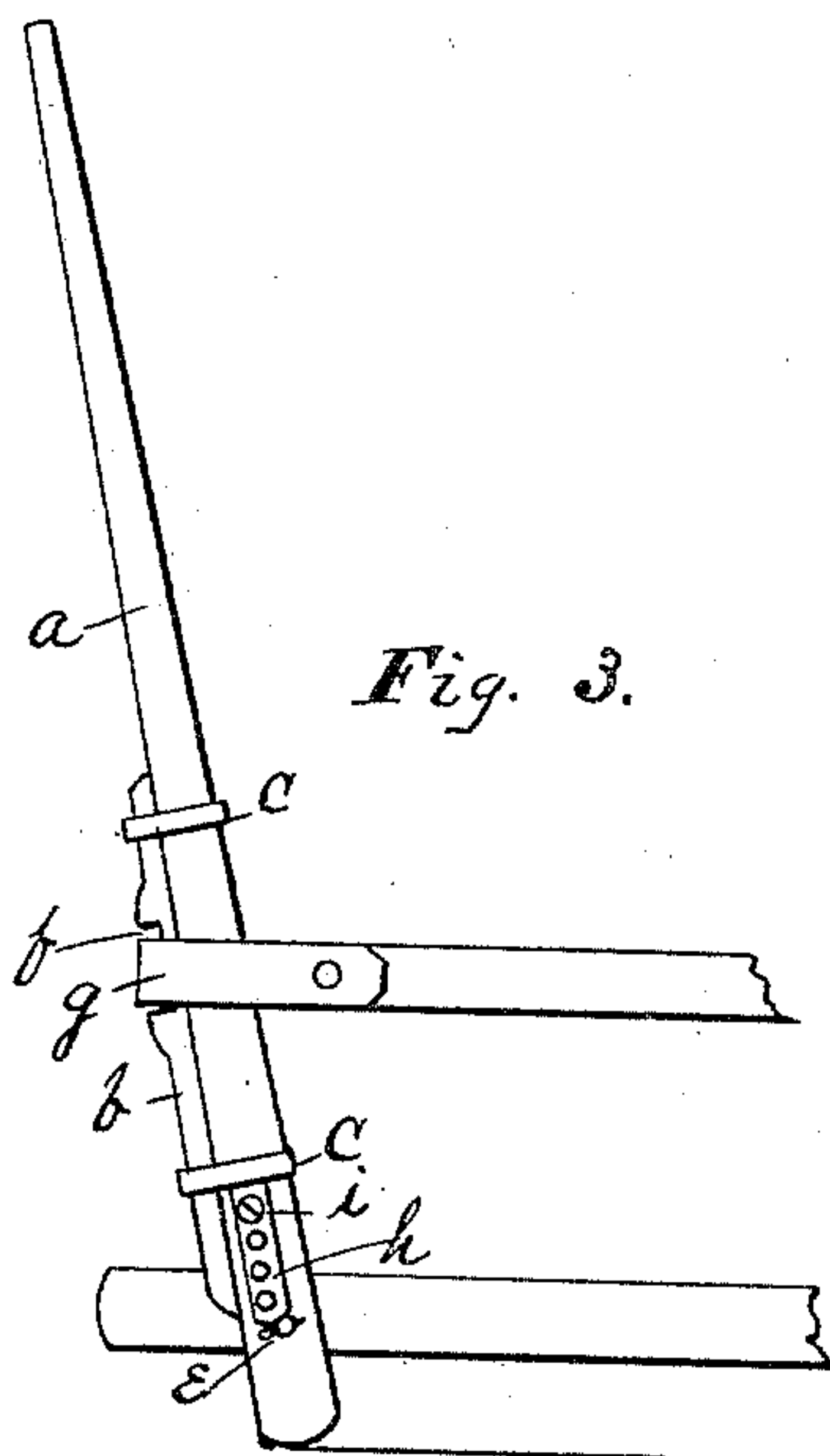


Fig. 3.

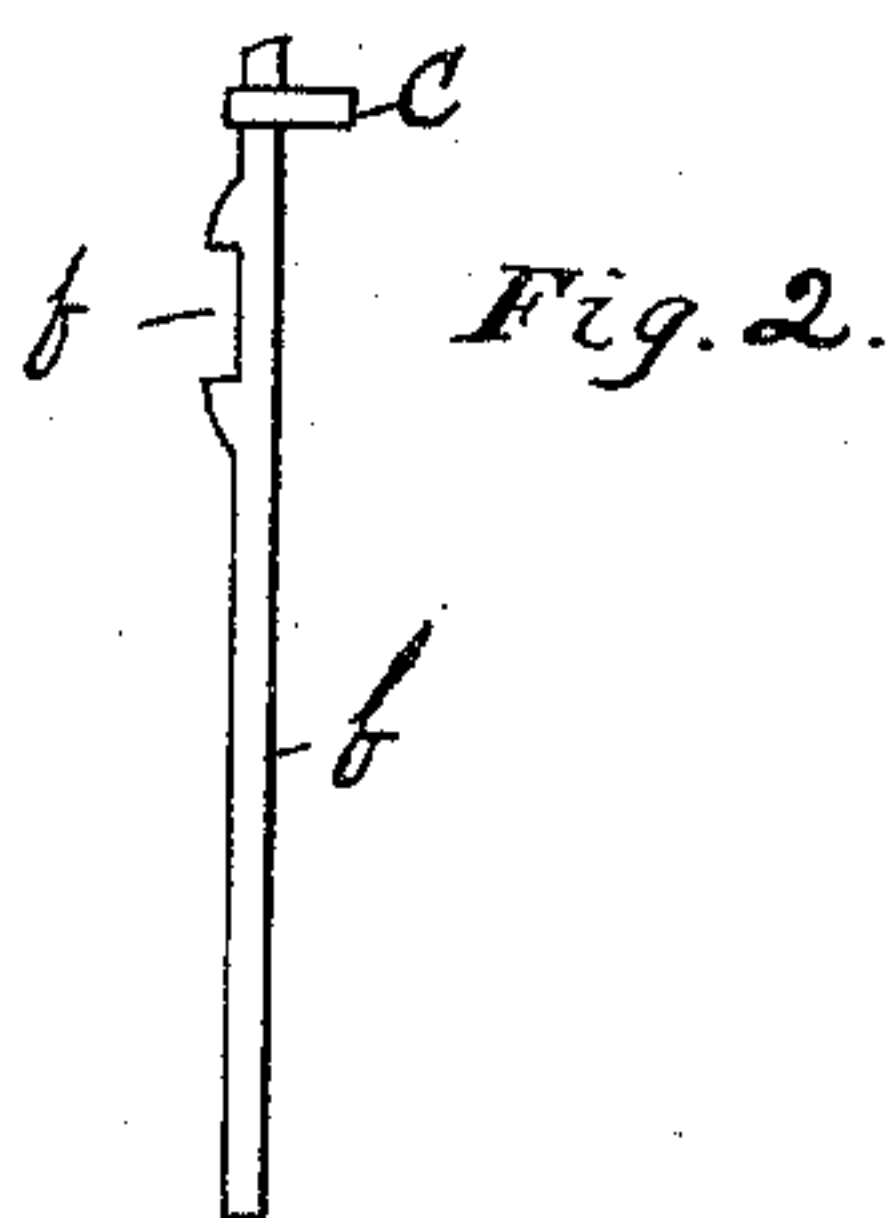


Fig. 2.

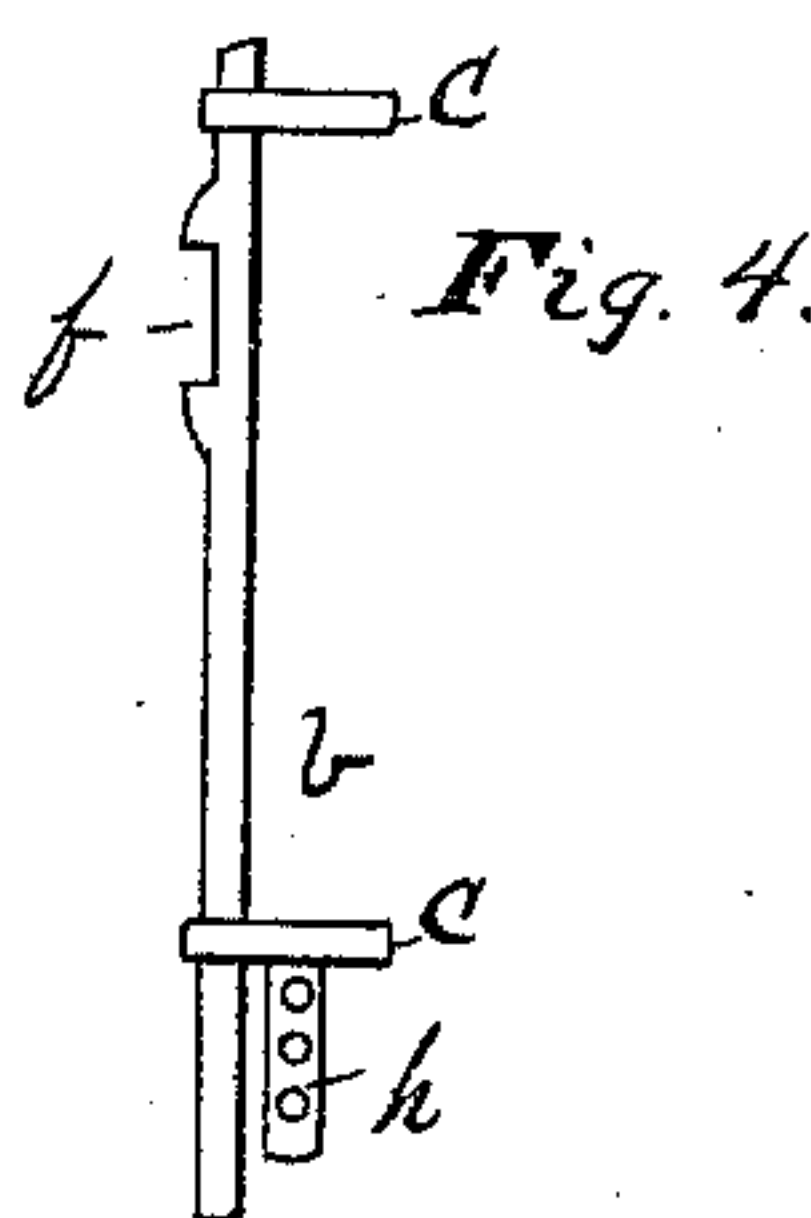


Fig. 4.

Witness
Fred A. Mason
C. O. Mason

Inventor
Andrew E. Bray
J. H. Mason
att'y.

UNITED STATES PATENT OFFICE.

ANDREW E. BRAY, OF NEW BEDFORD, MASSACHUSETTS.

TUG-STRAP HOLDER FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 413,018, dated October 15, 1889.

Application filed July 9, 1889. Serial No. 316,904. (No model.)

To all whom it may concern:

Be it known that I, ANDREW E. BRAY, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Adjustable Tug-Strap Holders for Looms, of which the following is a specification.

In the accompanying drawings, Figure 1 is a side view of a picker-staff having my improved tug-strap holder adjusted thereon. Fig. 2 is an edge view of the tug-strap holder when removed from the picker-staff. Fig. 3 is a side view of a picker-staff, showing a modification of my improved tug-strap holder adapted to go on the edge of the picker-staff; and Fig. 4 is an edge view of the same.

Similar letters refer to similar parts throughout the several views.

In Fig. 1, *a* represents a picker-staff of a loom, and *b* is the tug-strap holder.

c is a leather thimble secured to the upper end of the holder and inclosing the picker-staff.

f is an offset in the holder, a depression or recess in which rests the tug-strap *g*.

d d are holes in the lower end of the tug-strap holder, of a size to fit the stud *e*, on which the lower end of the picker-staff is pivoted.

In Fig. 3, *b* represents the tug-strap holder, which is secured to the picker-staff *a* by means of the leather thimbles *c c*, which are made fast to the holder. The lower thimble *c* is provided with the projection *h*, having a number of holes in it, as fully shown in Fig. 4.

In order to adjust the tug-strap holder shown in Fig. 1, so as to give a greater or less

“throw” to the picker-staff, the retaining-pin in the stud *e* is removed, and the lower end of the tug-strap holder removed from the stud *e* and adjusted to the desired height by means of the holes *d d*.

In order to adjust the tug-strap holder shown in Fig. 3, the screw *i* is removed from the picker-staff and the tug-strap holder moved up or down, as desired, when the screw *i* is adjusted in another hole of the projection *h*.

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

1. A tug-strap holder for looms, consisting of the bar *b*, having offset *f*, formed with a depression or recess adapted to receive and hold the tug-strap, and provided with a thimble *c*, adapted for inclosing the picker-staff, and having a series of holes for the reception of a device for holding it in place upon the picker-staff, as and for the purposes shown and described.

2. A tug-strap holder for looms, consisting of the bar *b*, having offset *f*, formed with a depression or recess to receive and hold the tug-strap, the thimbles *c c*, and the projection *h*, secured to the lower thimble *c*, and provided with a series of holes for the reception of a fastening-screw for securing the tug-strap holder in place upon the picker-staff, substantially as shown and described.

ANDREW E. BRAY.

Witnesses:

J. L. GILLINGHAM,
HENRY W. MASON.