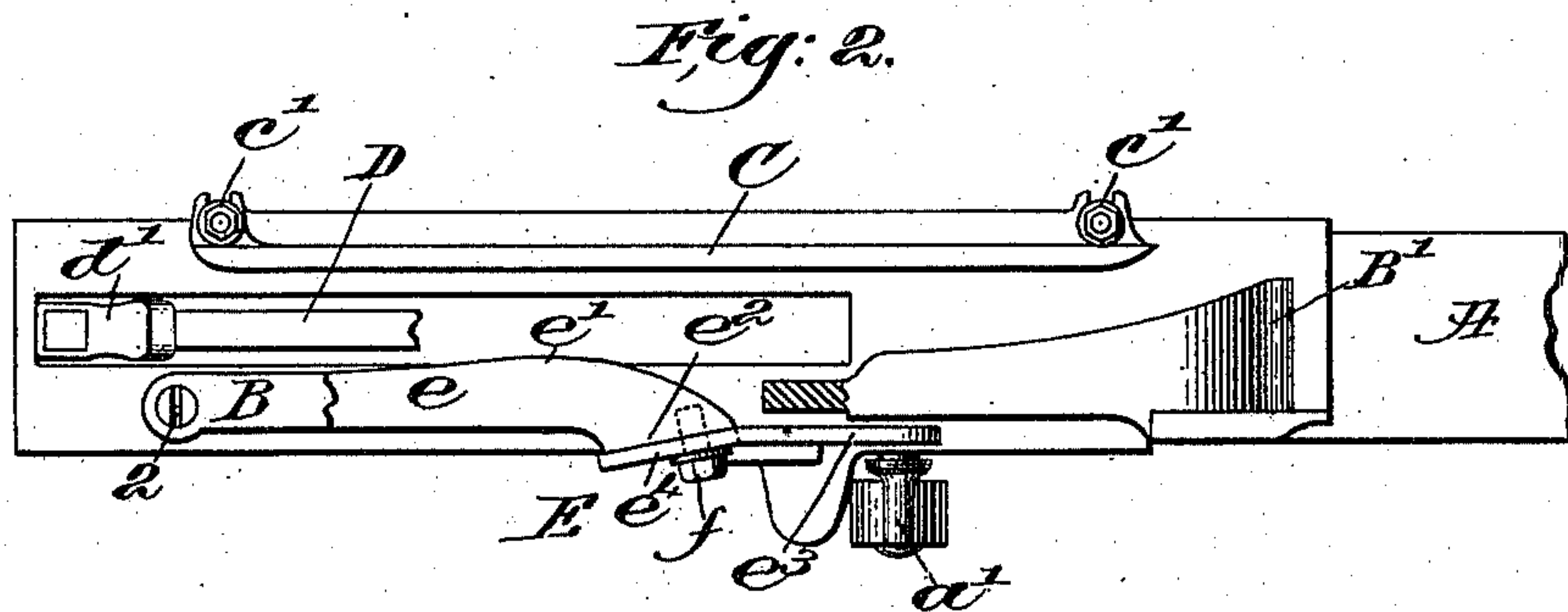
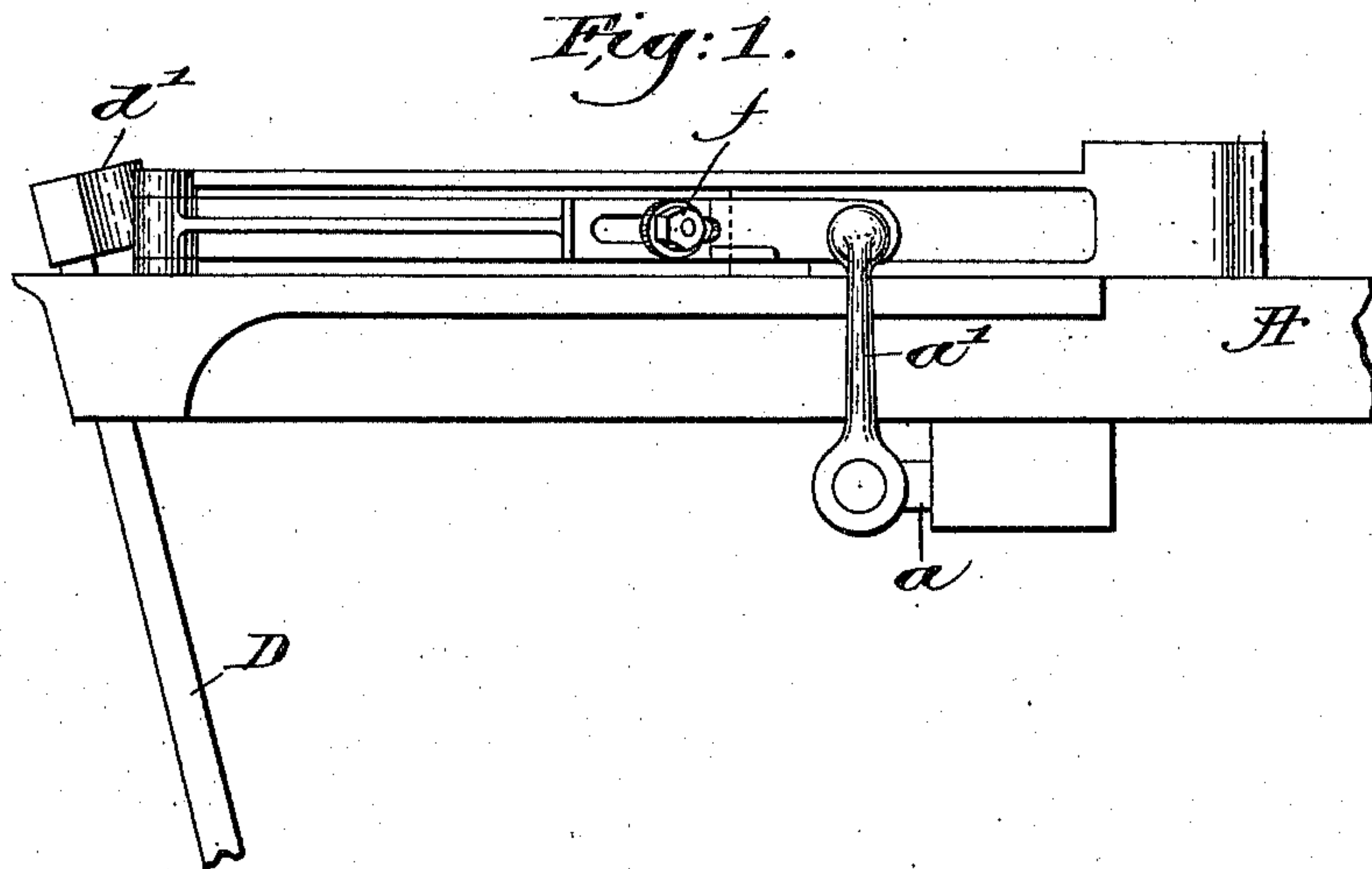


(No Model.)

J. H. NORTHROP.  
SHUTTLE CHECK FOR LOOMS.

No. 575,308.

Patented Jan. 12, 1897.



Witnesses:

Edward H. Allen.

Walter E. Lomsted

Inventor:

James H. Northrop.

by Leraby Sugory,

attys.

# UNITED STATES PATENT OFFICE.

JAMES H. NORTHROP, OF HOPEDALE, MASSACHUSETTS, ASSIGNOR TO THE  
NORTHROP LOOM COMPANY, OF SAME PLACE AND SACO, MAINE.

## SHUTTLE-CHECK FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 575,308, dated January 12, 1897.

Application filed October 26, 1896. Serial No. 610,054. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES H. NORTHROP, of Hopedale, county of Worcester, State of Massachusetts, have invented an Improvement in Shuttle-Checks for Looms, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention in looms relates more especially to the binder used in connection with the shuttle-box; and the object of the invention is a novel construction of binder whereby it may be adjusted in such manner as to present more or less of its swell in the box to check the shuttle or raise the dagger higher.

The free end of the usual binder used in looms is commonly acted upon by the protector-rod finger, and in this my invention I have made the binder in two parts, one part being adjustable on the other part, as will be described, whereby by a greater or less adjustment of one part on the other a greater or less projection of the swell of the binder into the shuttle-box may be effected, as desired.

Figure 1, in side elevation, represents part of one end of a lay and part of a picker and its stick and my improved binder; and Fig. 2 is a top or plan view of Fig. 1 with the part of the back plate of the shuttle-box broken out to better show my improved binder.

The lay A, its back plate B, having an overhanging lip B', the adjustable front plate C, connected by screws c', the picker-stick D, and the picker d', the stop-rod a and its finger a' are and may be all as usual in looms.

The binder E, pivoted at 2, is shown as made of two parts, the part e, having the swell e' and at its back an inclined seat e<sup>2</sup>, and a part e<sup>3</sup>, having an angular end e<sup>4</sup>, said end bearing on said seat, the part e<sup>4</sup> being slotted to receive a threaded stud on which is placed a clamping-nut f. With the parts in the position shown in the drawings the swell of the binder projects its greatest amount into the shuttle-box; but to secure a less projection of said swell into the shuttle-box the nut f may be loosened and the end e<sup>3</sup> be adjusted on the stud to the right, such adjustment putting the fore end of the part e<sup>3</sup> in a different vertical plane with relation to the acting face of said swell, and when in the desired or proper position the nut will be again set to hold the parts firmly.

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

A lay having a shuttle-box presenting a front plate and a slotted back plate, and a stop-rod having a finger, combined with a binder composed of a pivoted part having a swell and an inclined seat, and an end piece having a straight and an inclined part, the latter resting on said seat, and means to effect the adjustment of one part of said binder on the other part, substantially as described.

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

JAMES H. NORTHROP.

Witnesses:

GEO. OTIS DRAPER,  
HERBERT S. MANLEY.