

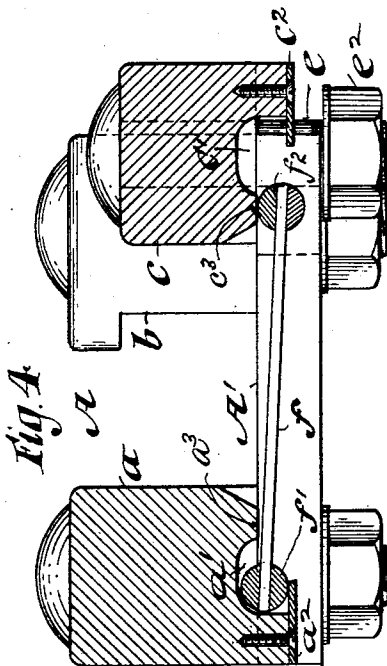
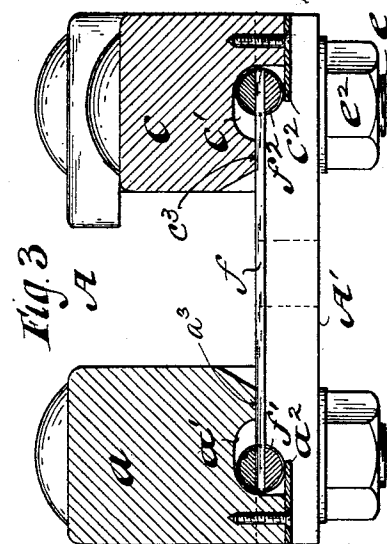
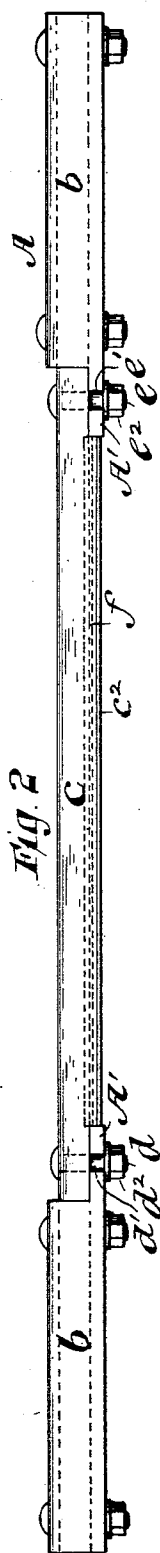
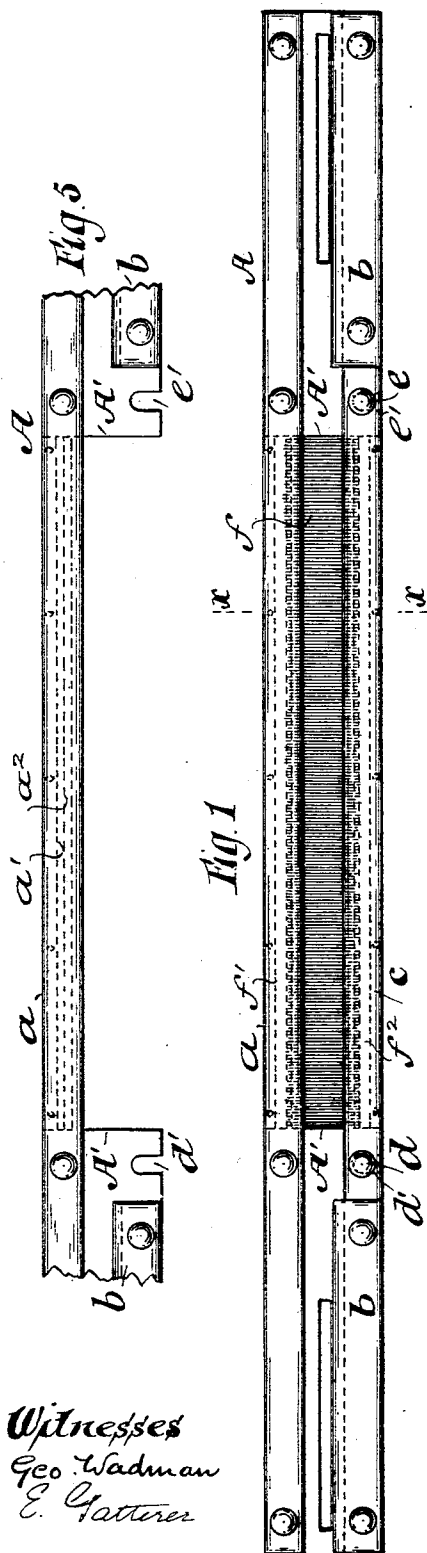
(No Model.)

A. D. EMERY.

DEVICE FOR SUPPORTING REEDS IN UPRIGHT LOOMS.

No. 580,182.

Patented Apr. 6, 1897.



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DEVICE FOR SUPPORTING REEDS IN UPRIGHT LOOMS.

SPECIFICATION forming part of Letters Patent No. 580,182, dated April 6, 1897.

Application filed December 16, 1895. Renewed October 10, 1896. Serial No. 608,509. (No model.)

To all whom it may concern:

Be it known that I, ABRAM D. EMERY, of Taunton, Massachusetts, have invented a certain Improvement in Devices for Supporting Reeds in Upright Looms, of which the following is a specification.

The object of this improvement is to facilitate the introduction of a reed into its place or the removal of the reed from its place in the lay of an upright loom.

The invention consists in supporting one side of the reed in a suitably-formed recess in the lower part of the race-rail on one side of the lay and in supporting the opposite side of the reed in a similar recess in the lower part of a section of the other race-rail, which section is adjustable and which when retracted allows the reed to be readily removed from or introduced into its place in the lay.

The accompanying drawings of a lay embodying the improvement are as follows:

Figure 1 is a top view of a lay intended to reciprocate vertically. Fig. 2 is a view of the side of the lay, containing the adjustable section of the race-rail. Fig. 3 is a transverse section taken through the plane indicated by the dotted line xx on Fig. 1, showing the reed secured in place. Fig. 4 is a transverse section similar to Fig. 3, except that it shows the adjustable section of the race-rail so far removed as to permit the extrication of the reed. Fig. 5 is a top view of the middle portion of the lay with the adjustable section of the race-rail and the reed entirely removed.

On reference to the drawings it will be seen that the lay A is composed of the usual parallel race-rails a and b , but that a section c of the race-rail slightly longer than the length of the reed on what, for convenience, may be termed the "front" side of the lay is adjustably fastened in place by means of the vertical screw-bolts d and e , the shanks of which extend through suitable notches d' and e' in the extensions $A' A'$ of the bottoms of the shuttle-boxes. The lower part of the race-rail a has formed in it the recess a' , which is partly closed by the narrow part of the plate a^2 . The lower part of the adjustable section c has formed in it a similar recess c' , which is partly closed by the plate c^2 , screwed to the under side of the adjustable section c .

The reed f is secured in the lay in the man-

ner illustrated in Fig. 3, which, as will be seen, shows the side bar f' of the reed retained in the recess a' by the plate a^2 and the side bar f^2 of the reed retained in the recess c' by the plate c^2 .

To extricate the reed, the nuts $d^2 e^2$ of the bolts d and e are loosened and the adjustable section c pulled forward approximately into the position in which it is represented in Fig. 4, in which position the plates a^2 and c^2 are so far separated as to allow the side bars of the reed to be slipped out through the mouths of the recesses a' and c' . Similarly when the section c is retracted the reeds may be introduced into the lay by first slipping the side bar f' of the reed into the recess a' , and then moving the adjustable section c back into its place, while at the same time slipping the side bar f^2 of the reed into the recess c' .

The portions of the bottoms of the race-rails to which the plates a^2 and c^2 are fixed are, as it were, offset, being on a plane which is lower than the plane of the portions a^3 and c^3 of the bottoms of the race-rails which are respectively between the recesses a' and c' and the sides of the rails which face each other. The distance between the two planes referred to is preferably such that the side bars f' and f^2 of the reed will be held down upon the lines of bearing afforded for them upon the plates a^2 and c^2 by the bearing upon the top of the reed of the portions a^3 and c^3 of the bottoms of the rails. Although this mode of staying the reed in a horizontal plane which is fixed with relation to the horizontal plane of the lay is preferred, it will of course be understood that without departing from the main features of the invention the recesses a' and c' may be so proportioned in depth as to subserve the purpose of staying the reed by affording lines of bearing for the tops of the side bars f' and f^2 .

What is claimed as the invention is—

1. In an upright loom a lay provided with a reed having side bars, a fixed race-rail and an opposite race-rail provided with a section adjustable toward and from the fixed race-rail and means for securing said section in position, the fixed race-rail and opposite adjustable section being provided with grooves in the bottom portions having open mouths facing downward and toward each other and

of a size larger than the cross-section of the side bars of the reed, whereby upon movement of said section away from the fixed rail the reed can be readily removed or replaced.

5 2. In an upright loom a lay provided with a reed having side bars, a fixed race-rail and an opposite race-rail provided with a section adjustable toward and from the fixed race-rail, said fixed rail and adjustable section being
10 ing provided with grooves in the bottom portions, plates partly covering said grooves and forming with the opposite wall of the grooves openings facing downward and toward each other and of a size larger than the cross-section of the side bars of the reed, whereby the
15 reed can be readily removed, substantially as described.

3. In an upright loom a lay provided with a fixed race-rail and an opposite race-rail having an adjustable section, said fixed rail and
20 adjustable section being grooved on the under side and having the wall forming the outer boundary of the groove offset or extending beyond the inner wall, plates secured

to the offset or outer wall and partly covering the grooves, and a reed having its side bars held within the grooves and the dents bearing against the inner walls of the race-rail and adjustable section.

4. In an upright loom a lay provided with a reed having side bars, a fixed race-rail and an opposite section extending approximately the length of the reed and constituting for such length the opposite race-rail, said section being adjustable toward and from the fixed race-rail, the fixed race-rail and adjustable section each being provided with a groove on its under side, plates partly covering said grooves and forming open mouths approximately facing each other, whereby upon movement of the adjustable section away from the fixed race-rail the reed will be freed, substantially as described.

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