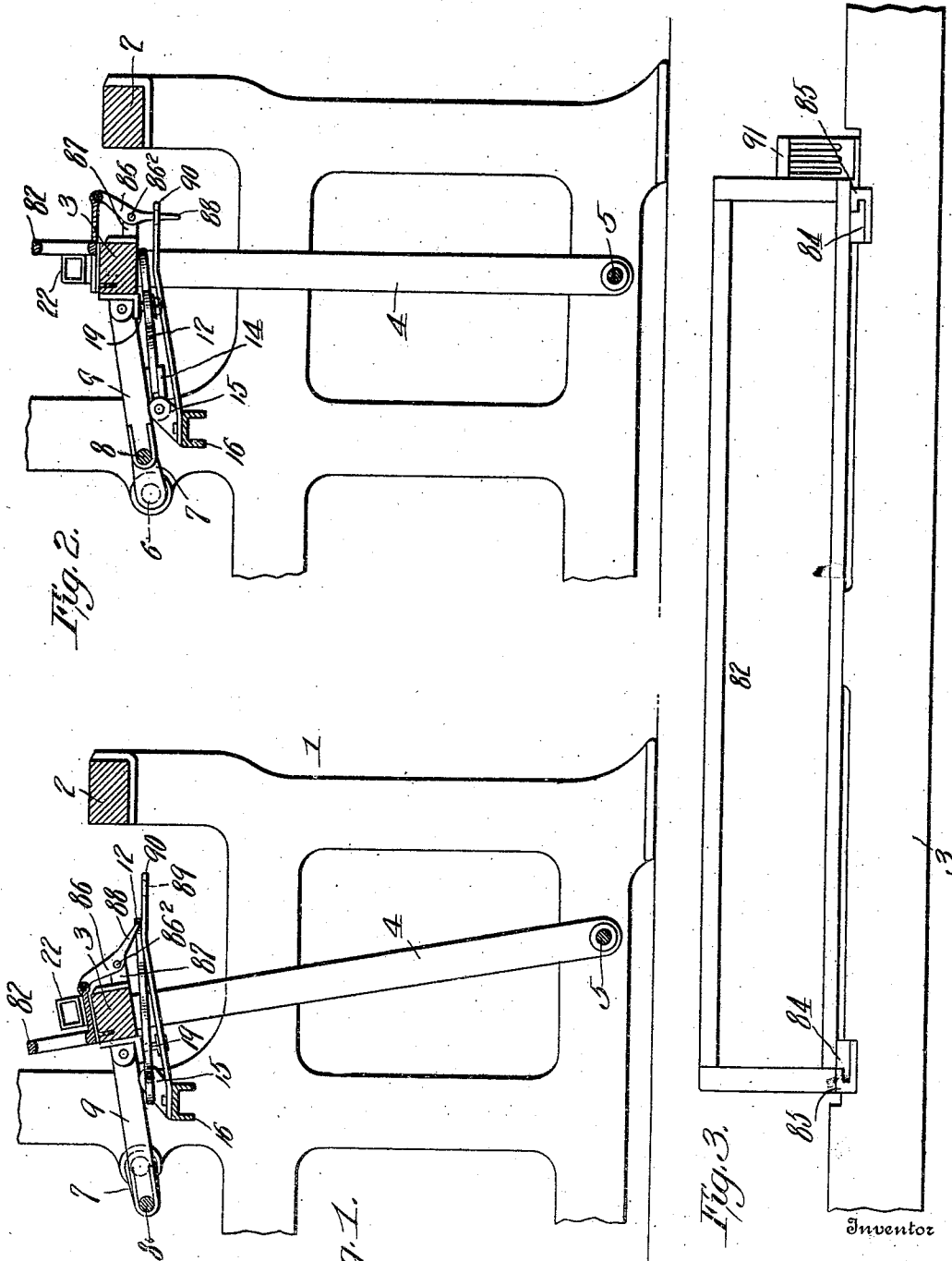


J. A. GENDRON.
 REED ACTUATING MECHANISM FOR LOOMS.
 APPLICATION FILED SEPT. 16, 1908.

928,911.

Patented July 20, 1909.



Witnesses

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Fig. 1.

Fig. 3.

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UNITED STATES PATENT OFFICE.

JOSEPH A. GENDRON, OF NASHUA, NEW HAMPSHIRE.

REED-ACTUATING MECHANISM FOR LOOMS.

No. 928,911.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed September 16, 1908. Serial No. 453,302.

To all whom it may concern:

Be it known that I, JOSEPH A. GENDRON, citizen of the United States, residing at Nashua, in the county of Hillsboro and State of New Hampshire, have invented new and useful Improvements in Reed - Actuating Mechanism for Looms, of which the following is a specification.

My invention pertains to looms and more particularly to the reeds thereof; and it has for its object to provide advantageous means for actuating the reed of a loom incidental to the movements of the lay thereof.

With the foregoing in mind, the invention will be fully understood from the following description and claims when the same are read in connection with the drawings, accompanying and forming part of this specification, in which:

Figures 1 and 2 are vertical sections showing a sufficient portion of a loom embodying my improvements and also showing the working parts comprised in the improvements in different positions. Fig. 3 is a detail elevation illustrative of the manner of mounting the reed on the lay.

Similar numerals designate corresponding parts in all of the views of the drawings, referring to which:

1 represents the forward portion of the frame of a loom; 2, the breast-beam, and 3, the lay, supported by swords 4 which swing about the rod 5.

6 represents the operating crank shaft, and 7 the cranks which are connected through pins 8 and links 9 with the lay for the purpose of oscillating the same toward and from the breast beam. On the lay are shown the shuttle-holders 22 comprised in the loom constituting the subject matter of my contemporary application of even date herewith, Serial Number 453,301.

On the top of the lay is supported a conventional or other suitable reed 82, of which the center is supported by a raised portion of the lay, clearly shown in Fig. 3, and the ends of the frame of the reed have on their under sides tongue plates 84 which enter grooves in the plates 85 mounted upon the lay. These tongues and grooves extend transversely of the lay and enable the reed to be moved back and forth in said direction. This movement takes place when the lay is near the end of its motion toward the breast-beam, and is

produced by a lever 86, fixed on a rock-shaft 86², journaled in a bracket 87 projecting from the front of the lay. Said lever 86 has a forwardly and downwardly extending arm 88. This arm passes into an aperture 89 in a plate or bar 90 which projects from the cross-bar 16, fixed to the frame. The walls of the aperture 89 act as abutments to arrest the lower arm of the lever, causing its upper arm to be advanced more rapidly than the lay, and thereby to draw the reed from the rear edge to the forward edge of the lay—i. e., from the rear side, Fig. 1, to the forward side, Fig. 2, of the path in which the shuttle moves. On the return movement, the rear edge of the aperture 89 arrests the lever arm 88 and retracts the reed to the rear side of the lay. The ends of the reed are acted upon by levers which are connected to the rock-shaft 86² and hence fixed with respect to the lever 86. The said levers for acting upon the ends of the reed are similar to the upper arm of the lever 86, and are similarly connected with the reed, and I have therefore deemed it unnecessary to illustrate the same. By means of the lever 86 the rock-shaft is oscillated, and thereby the levers for acting on the ends of the reed are given a motion precisely similar to the upper arm of lever 86. Thus the reed is acted upon at its ends and center, being thereby prevented from getting out of line and cramping in its guides. The radial movement of the lever 86 and the levers for acting upon the ends of the reed is preferably accommodated to the horizontal movement of the reed by loosely connecting said levers with the reed. At one end of the reed frame is secured a grid 91 for the weft-fork, which grid travels with the reed.

It will be noticed by reference to Figs. 1 and 2 that I show therein, one of the levers 12 for moving the shuttle-moving means included in the subject matter of my contemporary application aforesaid, and also show a holder 14 and a bracket 15 through which said lever is connected with the cross-bar 16.

In the practical operation of my improvements the lay carries the reed forward to beat up the thread left by the shuttle while the shuttle-moving means are retracted—i. e., are at the ends of the lay. As the lay nears the limit of its forward motion, the arm 88 of the lever 86 enters the aperture 89 in the bar 90 and causes the reed to be moved forward

with a sharp and sudden motion beating the last thread firmly into the web. Then on the backward movement of the lay, the reed is retracted by the lever 86 coöperating with the bar 90 so that the reed will rest back of the path of the shuttle-moving means before the latter are moved inwardly.

It will be gathered from the foregoing that my novel reed-actuating mechanism depends on the movement of the lay for its motion, and that it is at once simple, inexpensive and well adapted to withstand the rough usage to which loom mechanism is ordinarily subjected.

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

1. In a loom, in combination with the movable lay, a reed mounted on the lay and movable transversely thereof in opposite directions between points at opposite sides of the shuttle path, and means for so moving the reed during movements of the lay.

2. In a loom, in combination with the movable lay, a reed mounted thereon so as to move transversely thereof, and means for moving the reed in front of the shuttle path as the lay approaches the breast-beam, and to the rear of such path upon recession of the lay.

3. In a loom, the combination of a lay, a part with respect to which the lay is movable, a reed mounted on the lay so as to move transversely thereof, and coöperating means

on the lay and the said part for so moving the reed incidental to movements of the lay.

4. In a loom, in combination with the lay, a reed mounted on the lay to travel from one side to the other thereof, a lever pivoted to the lay and engaged with the reed, and means with respect to which the lay is movable for engaging said lever, whereby the reed is moved forward as the lay approaches the breast-beam and backward on the return of the lay, to clear the shuttle.

5. In a loom of the character described, in combination with the lay, a reed mounted on the lay to travel from one side to the other thereof, a lever pivoted to the lay and engaged with the reed, having an arm projecting outwardly from the pivot, and a stationary abutment engaged by said arm, whereby the reed is moved forward as the lay approaches the breast-beam and backward on the return of the lay.

6. In a loom, in combination with the movable lay, a reed mounted on the lay and movable transversely thereof in opposite directions between points at opposite sides of the shuttle path, and means actuatable by the movements of the lay for so moving the reed.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH A. GENDRON.

Witnesses:

MAUD I. DIONNE,

AGNES B. DUNCKLEE.