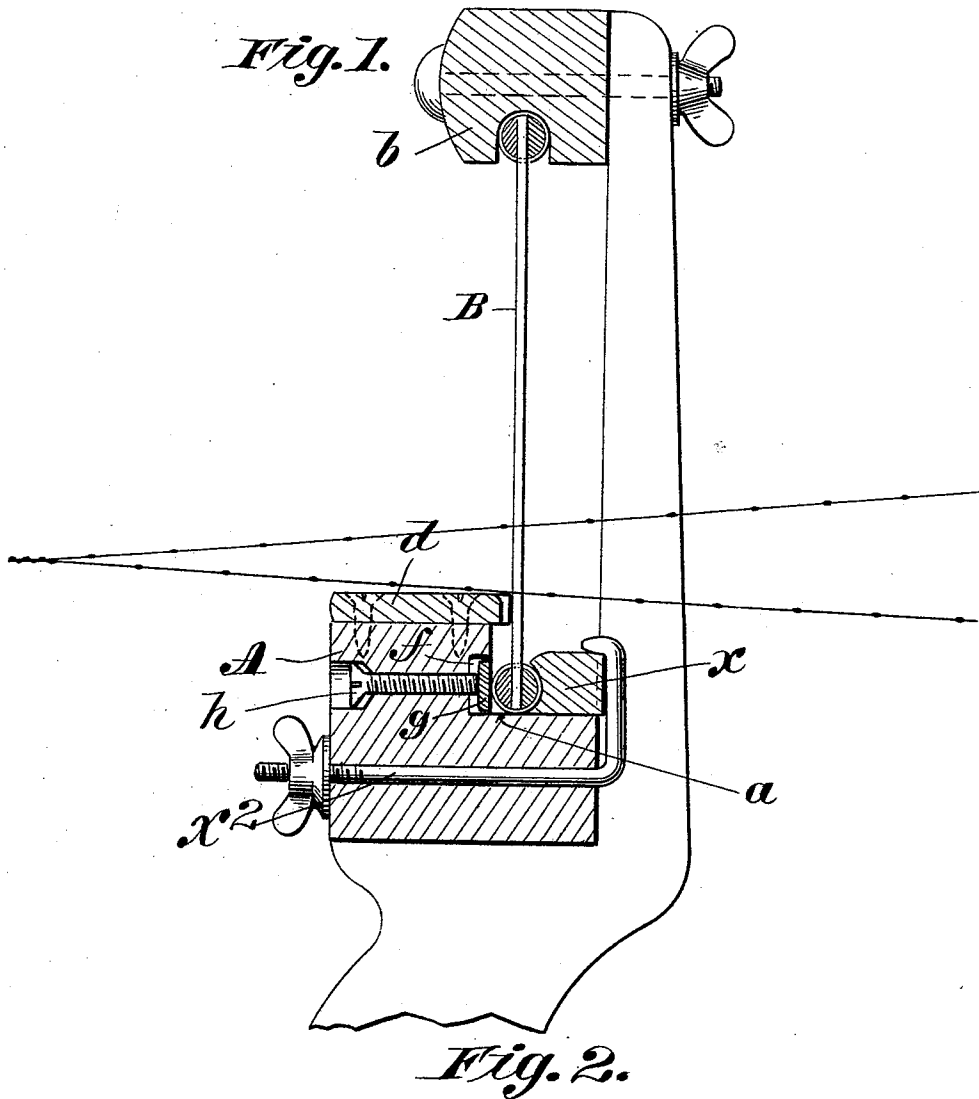


(No Model.)

J. W. CHENEY.
REED SUPPORTING DEVICE FOR LOOMS.

No. 499,870.

Patented June 20, 1893.



Witnesses:

J. D. Laffey
H. J. Clemons

Inventor,

Joseph W. Cheney.

by Chapman & Co. Attys.

UNITED STATES PATENT OFFICE.

JOSEPH W. CHENEY, OF THREE RIVERS, MASSACHUSETTS.

REED-SUPPORTING DEVICE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 499,870, dated June 20, 1893.

Application filed February 16, 1893. Serial No. 462,574. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. CHENEY, a citizen of the United States, residing at Three Rivers, in the town of Palmer, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Reed-Supporting Devices for Looms, of which the following is a specification.

This invention relates to improvements in the construction and arrangement of the lay-beam and reed of a loom.

The object of the invention is to provide a reed which shall be as efficient as heretofore for battening, and which shall, moreover, be unusually desirable by reason of the greater elasticity or yielding capability of the reed-dents whereby they may be free to spread, one from the other, opposite the edge of the race board, to permit the free passage (and without liability of breakage) of lumpy or knotted warp yarns through the reed.

To this end the invention consists in the combination with the lay-beam, of the reed having its lower rib supported thereby, and supporting the dents thereof separated from the edge of the race board of the lay-beam which ranges along the side of the reed at a plane intermediately of the reed-ribs, and all as will hereinafter fully appear and be set forth in the claims.

In the drawings, Figure 1 is a vertical cross sectional view through the lay-beam and reed. Fig. 2 is a plan view of the same below the reed-cap.

In the drawings, A represents the lay-beam which is understood as mounted to have reciprocatory movements, as usual, and B represents the reed which comprises the usual dents and border-ribs. The lay-beam is step-formed at its rear upper portion, as seen at *a*, and upon the base of this step the lower rib of the reed is supported, being there held in place by the clamp devices indicated by the strip, *x*, and bolt, *x*²; and the reed-cap, *b*, as usual, overlies the reed.

d represents the race-board which is screwed upon the top of the lay-beam, just forward of the reed, and its rear edge is cut away so that this board will be free from frictional contact with the adjacent dents, or the latter are adjusted by the below described devices, so that they are held normally away from the

adjoining edge of the race-board, *d*. It will be here observed that the upper part of the lay-beam is to be regarded as the race-board, or race-surface, whether it be a board separately formed and attached, as indicated, or whether integrally formed with the body of the lay-beam. This race-board, or upper lay-beam surface, is, in practice, to be about an inch and one-half, more or less, above the lower extremities of the reed-dents, so that the warp yarns are supported to pass through the reed at a plane above the bottom of the reed, at which plane a very desirable and important degree of yielding or elastic capability is present. As shown in Fig. 1, the edge of the race-board, *d*, adjoining the reed extends beyond the plane of the vertical wall of the lay-beam beneath it, overhanging the rear side of the lower reed-rib. In this improved arrangement great advantage is gained by the increased facility with which knotted or lumpy warp yarns,—designedly, or accidentally so formed,—may pass between the free dents of the reed and be incorporated into the fabric by the loom, without liability of breakage in transit through the reed. It will be perceived in Fig. 1 that the vertical wall of the step of the lay-beam has a longitudinal groove or depression *f* into which is let a strip, *g*, of iron or other suitable material and which strip is adjustable transversely toward and from the lower reed-rib by the one or more screws, *h*, and a corresponding adjustment of the strip, *x*, is provided for. Thus the lay-beam is adapted for the reception of reeds having the lower rib thereof of varying thicknesses. For a thin rib the screws are forwardly moved to move the strip, *g*, against the lower rib within the groove, while if the rib is of greater diameter or thickness the strip enters the groove farther, and all to the end of having the reed with the battening edge of its dents always in a plane parallel to the shuttle track. This arrangement also permits the adjustment of the reed so that it may be exactly in the plane at right angles to the run of the warp.

What I claim as my invention is—

1. In a loom, the lay-beam having a depression at its rear, a transversely adjustable strip in the vertical face of said depression engaging one side of the lower rib of the reed,

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and clamping devices, substantially as described, engaging the opposite side of said rib and securing the same to the lay-beam, combined and operating substantially as set forth.

2. In a loom, in combination, the reed, the lay-beam having a depression at its rear, reed-rib clamping devices, as x and x^2 , securing the lower rib of the reed to the lay, and an adjustable rear bearing for said rib in the vertical wall of said depression whereby the dents of the reed are adjusted and maintained in a position away from the edge of the race-board of the lay, combined and operating substantially as set forth.

3. In a loom, the step-formed lay-beam having the groove, f , the strip, g , within said groove, one or more adjusting screws therefor, the reed, and clamping devices, substantially as described, securing the lower rib of the reed to the beam, combined and operating substantially as set forth.

4. In a loom, the lay-beam having a depression at its rear, a longitudinal bearing for the lower reed-rib on the vertical face of said

depression, and clamping devices, substantially as described, engaging the opposite side of said rib and securing the same to the lay-beam, combined and operating substantially as set forth.

5. In a loom, the lay-beam having a depression at its rear, a longitudinal bearing for the lower reed-rib on the vertical face of said depression, the race-board having its edge opposite the reed-dents, projecting beyond the vertical face of said depression, and clamping devices, substantially as described, engaging the opposite side of said rib and securing the same to the lay-beam, combined and operating substantially as set forth.

6. In a loom, the combination of the lay beam, the reed extending down past the top of said beam, and means for adjusting the lower end of said reed toward or away from the race board on the beam, substantially as described.

JOSEPH W. CHENEY.

Witnesses:

WM. S. BELLOWES,
K. I. CLEMONS.