No. 621,750. Patented Mar. 21, 1899.

G. A. DRAPER.

LAY FOR LOOMS.

(Application filed Apr. 4, 1898.)

(No Model.)

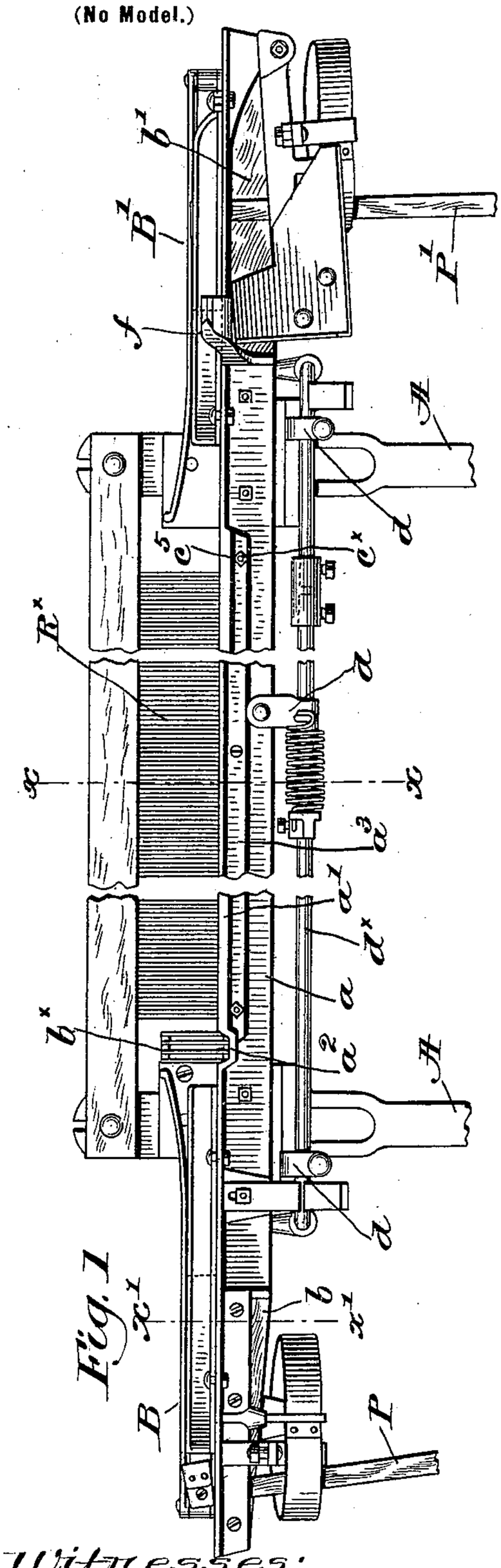

Fig. 1

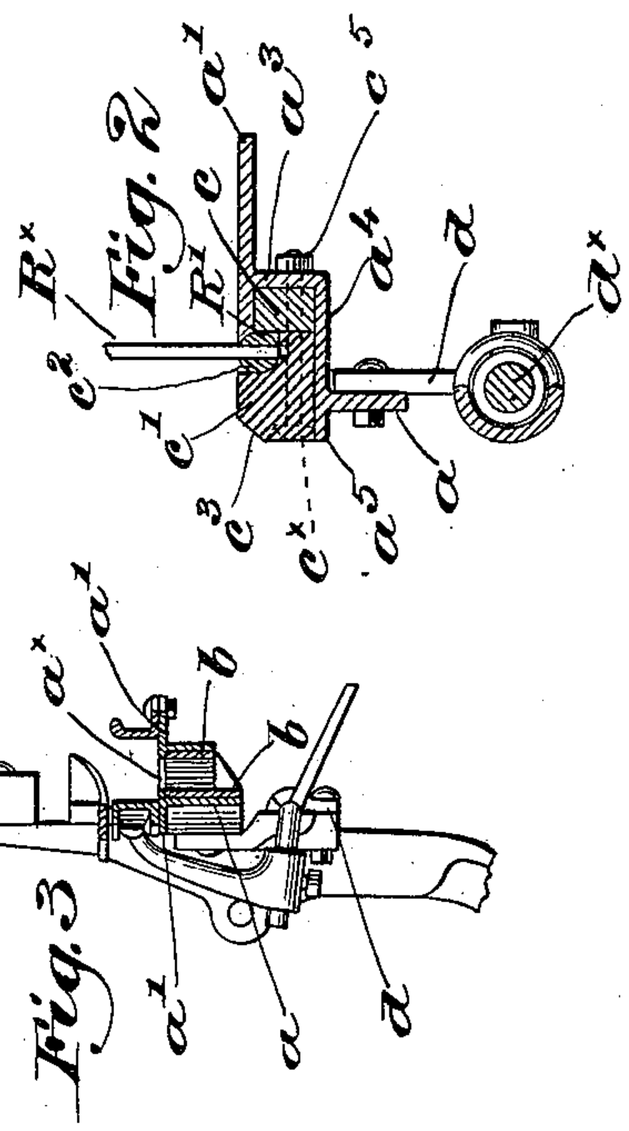

Fig. 2

Fig. 3

Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE A. DRAPER, OF HOPEDALE, MASSACHUSETTS, ASSIGNOR TO THE DRAPER COMPANY, OF SAME PLACE AND PORTLAND, MAINE.

LAY FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 621,750, dated March 21, 1899.

Application filed April 4, 1898. Serial No. 676,304. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. DRAPER, of Hopedale, county of Worcester, and State of Massachusetts, have invented an Improvement in Cast-Metal Lays for Looms, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of a cast-metal lay for looms for weaving, whereby a strong and rigid lay is obtained without undue weight and having a continuous integral shuttle-raceway.

Other features of my invention will be hereinafter described, and particularly pointed out in the claims.

Figure 1 is a front elevation of a lay embodying my invention. Fig. 2 is an enlarged transverse section thereof on the line $x\,x$, Fig. 1; and Fig. 3 is a like view on the line $x'\,x'$, Fig. 1.

The body of the lay comprises a casting having a longitudinal depending web a, extending from end to end, and a horizontal forwardly-extended flange a' at the top of the web, forming a continuous shuttle-raceway, said flange having a transverse depression a^2 at the point where the filling-fork grating $b^\times$ is attached. The surface of the flange is suitably milled to present a smooth path for the shuttle.

At the ends of the lay front and back plates are bolted to the flange to form the shuttle-boxes B B′, the flange being longitudinally slotted at $a^\times$, Fig. 3, for the picker-sticks P P′.

Non-metallic wear members b at one end and b' at the other end of the lay are bolted thereto beneath the flange and at the sides of the picker-stick slots to prevent the wear of the sticks by contact with the metal of the lay, said wear members being preferably made of wood.

Between the lay-swords A the lay is shaped in section as shown at Fig. 2, an auxiliary web a^3, offset from the main web a and connected thereto by a flange a^4, being joined to the under side of the flange a', forming a trough-like seat back of and below the raceway. In this seat are mounted two clamp members $c\,c'$, the former shown as held between the flanges a' and a^4 and abutting against the rear face of the auxiliary web a^3, while the latter rests on the flange a^4, extended backwardly beyond the main web a at a^5. The clamp member c' has a seat c^2 along its front upper corner for the bottom bar R′ of the reed R×, and the back upper corner of the member c' is beveled at c^3, on which the warp-threads in the lower plane of the shed rest.

Clamping-bolts $c^\times$ extend through the clamp members $c\,c'$ below the reed-bar and project through the auxiliary web a^3, the threaded ends of the bolts having suitable nuts c^5 thereon by which the member c' is drawn tightly against the fixed member c to clamp the reed-bar R′.

Suitable bearing-brackets d are bolted to the web a for the usual binder and protector rod $d^\times$, the lay herein shown having back binders.

This lay is adapted to be used in looms provided with filling-changing mechanism operated by or through a bunter on the lay, and I have shown the lay as having as an integral part thereof a bunter f, extending upward and forward from the front of the lay, near one end thereof.

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

1. A cast-metal lay having a longitudinal, horizontal flange forming a continuous raceway for the shuttle, a depending web, and an integral bunter extended forwardly from the web and flange, substantially as described.

2. A cast-metal lay having a main longitudinal depending web extended from one end to the other end, an integral lateral flange at the top thereof, forming a continuous shuttle-raceway and longitudinally slotted at the ends for the picker-sticks, an auxiliary web offset from the main web, and a flange connecting them, forming a trough-like seat back of and below the raceway, combined with longitudinal non-metallic wear members attached to the lay below the slots, substantially as described.

3. A cast-metal lay having a longitudinal depending web extended from one to the other end, a horizontal, forwardly-extended flange

integral with the web and forming a continuous shuttle-raceway, a second horizontal flange, and means mounted on said flange to clamp the lower reed-bar to the lay, substantially as described.

4. A cast-metal lay having an integral, continuous shuttle-raceway longitudinally slotted at its ends, and a projecting bunter forming an integral part of the lay, substantially as described.

5. A cast-metal lay having a longitudinal depending web extended from one to the other end, a horizontal, forwardly-extended flange integral with the web and forming a continuous shuttle-raceway, a second flange, and a web connecting said flanges, forming a trough-like seat at the rear of and below the raceway, clamping members mounted therein to engage the lower reed-bar, and means to adjust said clamping members, substantially as described.

6. A cast-metal lay having a longitudinal depending web and two connected horizontal flanges, the upper serving as a continuous shuttle-raceway, and the lower forming a shelf-like support to guide reed-bar-clamping devices, substantially as described.

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

GEORGE A. DRAPER.

Witnesses:
HERBERT S. MANLEY,
GEO. OTIS DRAPER.