

(No Model.)

R. C. YOUNG.

LAY MOTION FOR LOOMS FOR WEAVING LOOPED PILE FABRICS.

No. 501,585.

Patented July 18, 1893.

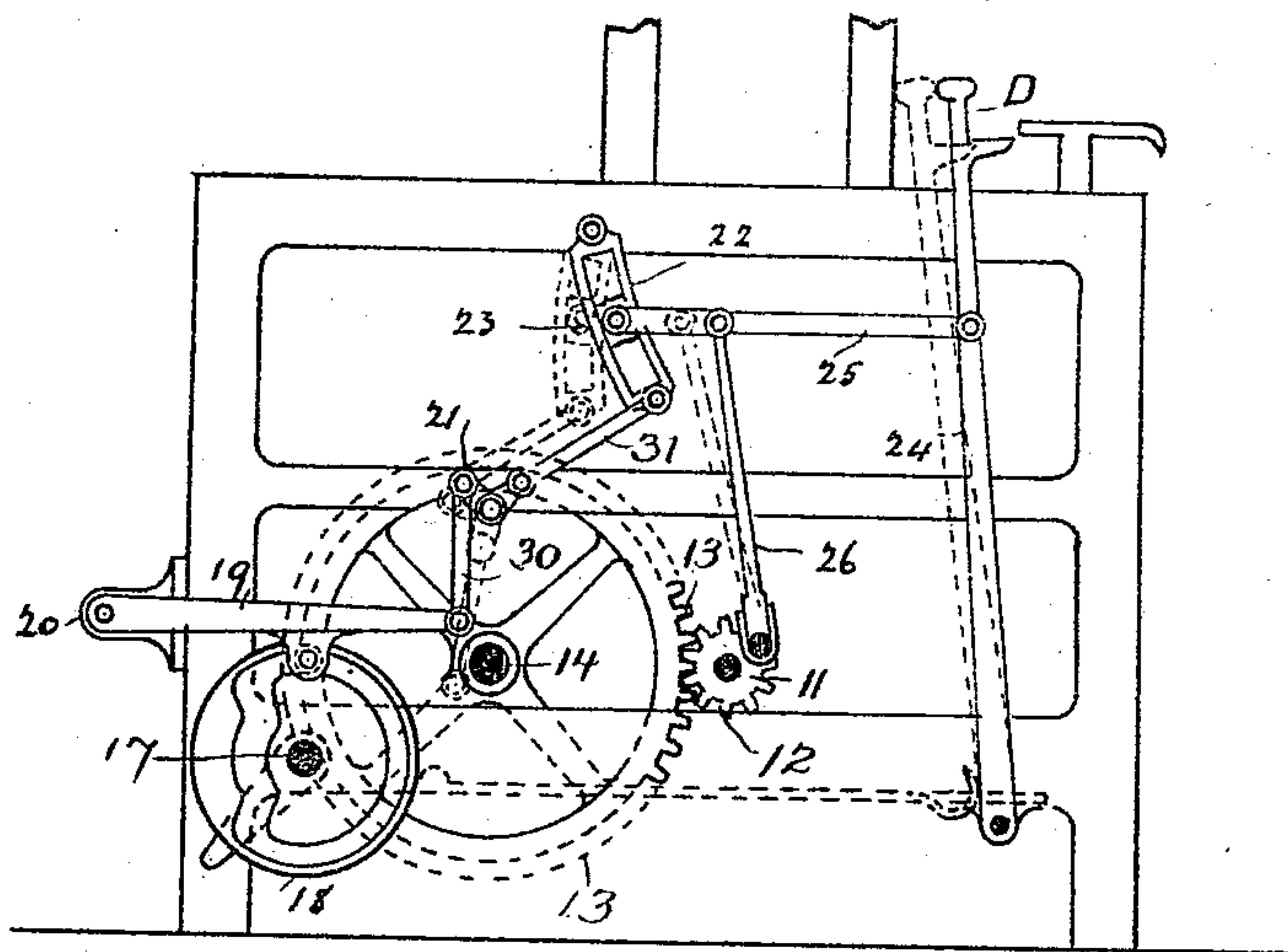
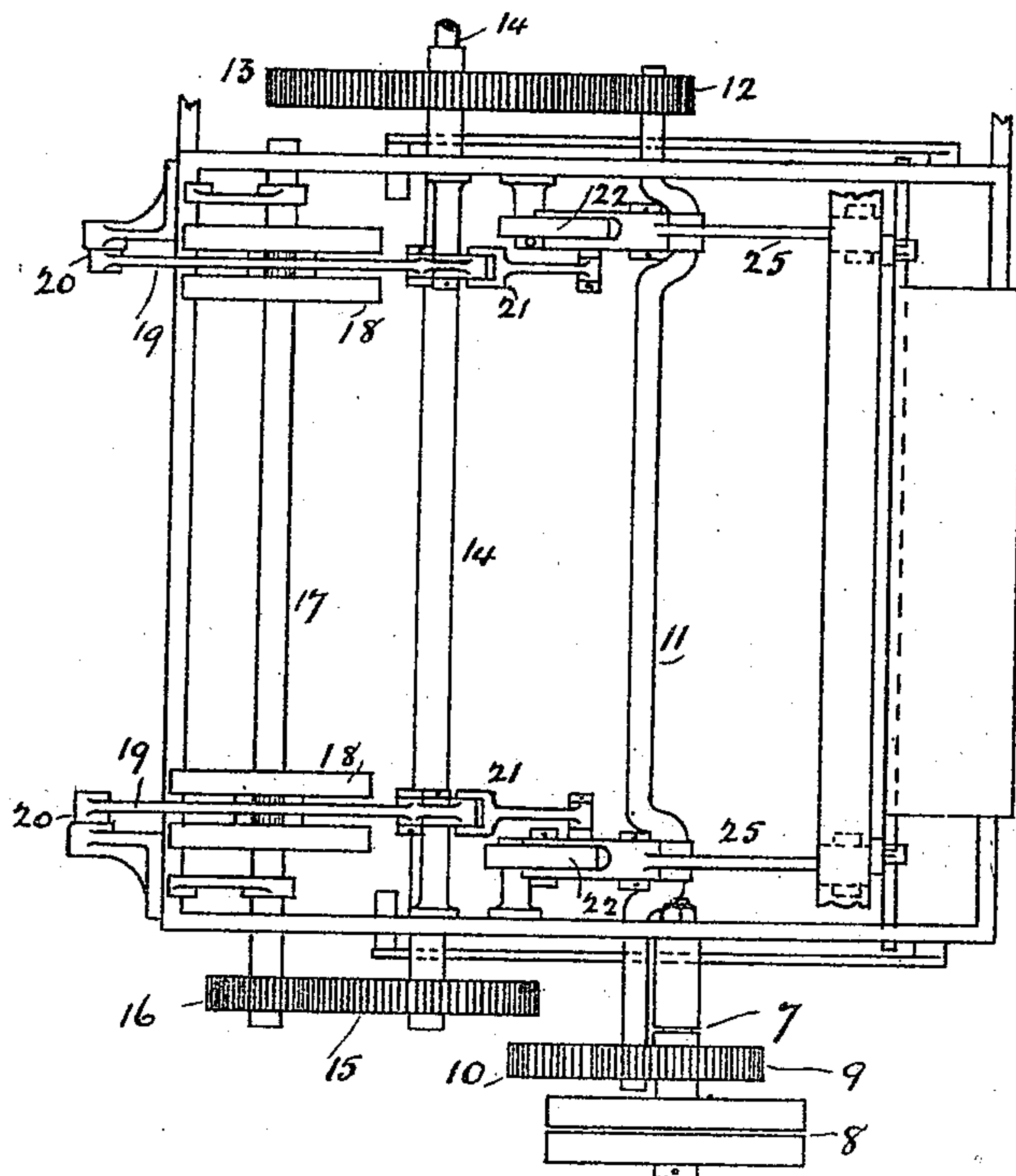


FIG. 1.



UNITED STATES PATENT OFFICE.

ROBERT C. YOUNG, OF MANNINGHAM, ENGLAND.

LAY-MOTION FOR LOOMS FOR WEAVING LOOPED PILE FABRICS.

SPECIFICATION forming part of Letters Patent No. 501,585, dated July 18, 1893.

Application filed August 10, 1892. Serial No. 442,730. (No model.) Patented in England July 4, 1892, No. 12,342; in France July 19, 1892, No. 223,093, and in Belgium July 19, 1892, No. 100,355.

To all whom it may concern:

Be it known that I, ROBERT CAMPBELL YOUNG, a subject of the Queen of Great Britain and Ireland, residing at Manningham, in the county of York, England, have invented certain Improvements in Lay-Motions for Looms for Weaving Looped Pile Fabrics, of which the following is a specification.

The invention has been patented in the following foreign countries:—England, July 4, 1892, No. 12,342; France, July 19, 1892, No. 223,093; Belgium, July 19, 1892, No. 100,355.

This invention relates to certain improvements in looms for weaving looped or pile fabrics such as Brussels carpets, imitation seal skins, Ulrich velvet, and the like, by the operation of the lathe of the loom in such a manner that the production of the loom is increased.

The object of this invention is to increase the speed of the lathe of the loom during the picks for beating up the weft and to operate the lathe at a slower rate or to cause a dwell of the lathe of such duration as to be equal to that at which the lathe is now run for giving the necessary time for the insertion of the wires across the warp threads and thus by increasing the speed of the lathe during the shuttle picks and the beating up of the weft into the ground or backing cloth, to increase the production of the loom in proportion thereto.

In the accompanying drawings, Figure 1, represents a cross sectional elevation of a portion of a loom. The parts not shown or described are of the ordinary description. Fig. 2, is a plan thereof.

On the main driving shaft or stud 7, are mounted the fast and loose driving pulleys 8, and on the said shaft or stud is secured a spur wheel 9, gearing into another spur wheel 10, mounted on a crank shaft 11, on one end of which is a spur pinion 12, gearing into a spur wheel 13, mounted on the heald tappet shaft 14, the healds being mounted and operated therefrom in the usual manner. On the heald tappet shaft 14, is another spur wheel 15, gearing into a spur wheel 16, secured on a shaft 17, upon which is also secured two pairs of internal grooved tappets or cams 18, secured with the grooves opposite each other

for the reception of a cross bar having small pulleys thereon. The tappets or cams 18, and mechanism connected therewith are placed at each end of the loom and the before mentioned cross bar in each pair of tappets is attached to a lever 19, mounted at one end on a fixed stud 20, the other end of the lever being coupled by the rods 30—31 and lever 21, to the links 22, the sliding block in each link being coupled to the lathe frame 24, by means of rods 25.

The links 22, are pivoted on studs and when in the position as shown by full lines the lathe D, is operated by means of the cranks on shaft 11, actuating the connecting rods 26, thereby causing the blocks 23, to slide up and down in the said links 22, thus giving a reciprocating motion to the lathe D, the bottom end of the links being held rigid by the levers and rods 21, so long as the small pulleys and cross bars are engaged in the circular and concentric paths of the tappets or cams 18, but when the said tappets or cams arrive in the position by which the levers and rods 21, are moved into the position shown by dotted lines, the movement of the sliding blocks 23 up and down the links, has no effect on the lathe. Therefore it remains stationary until the small pulleys and cross bars are in the circular path, thus affording longer time for the insertion of the wires across the warp threads thereby enabling the speed of the other portions of the loom to be increased during the picking of the shuttle and beating up of the weft.

What I claim as my invention is—

1. In combination, the lay, the rod 25 connected thereto, said rod having its rear end movable vertically, the slotted link 22, pivoted on the frame for engaging and controlling said movable end, the rod 26, connected to the rod 25, and operating vertically to move said rod 25, so that its rear end will slide in the slotted link the means for operating the rod 26 and the means for swinging the link on its pivot to alter the path in which the rear end of the rod 25, moves, substantially as described.

2. In combination, the lay, the rod 25, having a vertically movable rear end the slotted link pivoted to the frame and connected with

the rear end of the link to control the movement thereof, the rod 26, for moving the rod 25, up and down, the means for operating the rod the lever 21, pivoted to the frame the connection therefrom to the slotted link, the cam 18, the lever 19, pivoted to the frame and the connection therefrom to the lever 21, substantially as described.

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

ROBT. C. YOUNG.

Witnesses:

JNO. GILL,
G. B. WAUGH.