(No Model.)

J. F. KIESWETTER.

WARP CLAMP FOR LOOMS.

No. 493,405. Patented Mar. 14, 1893.

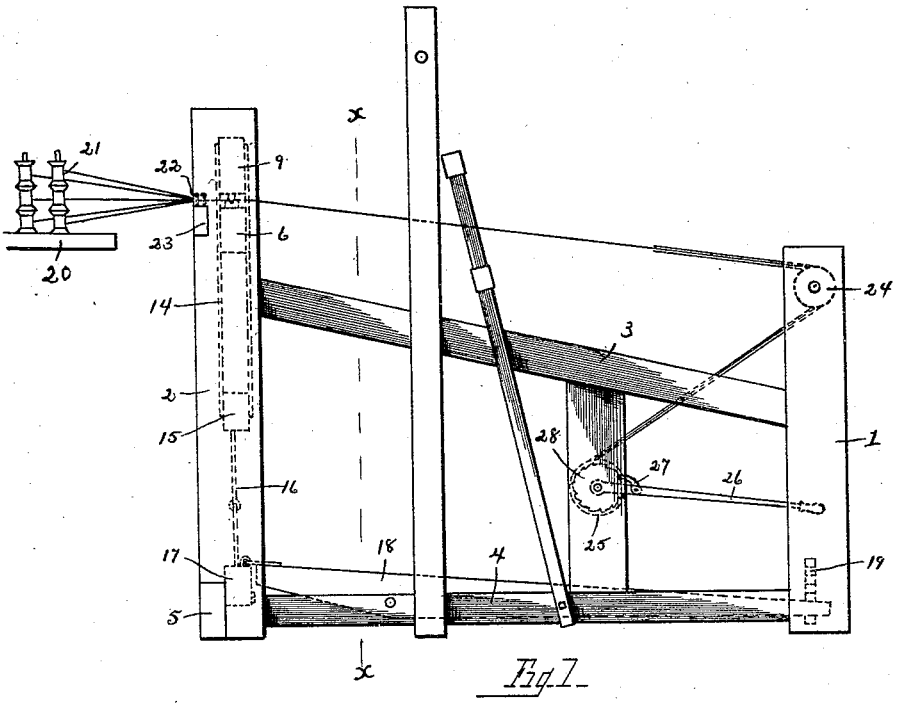

Fig. 1.

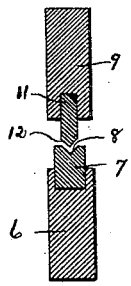

Fig. 3.

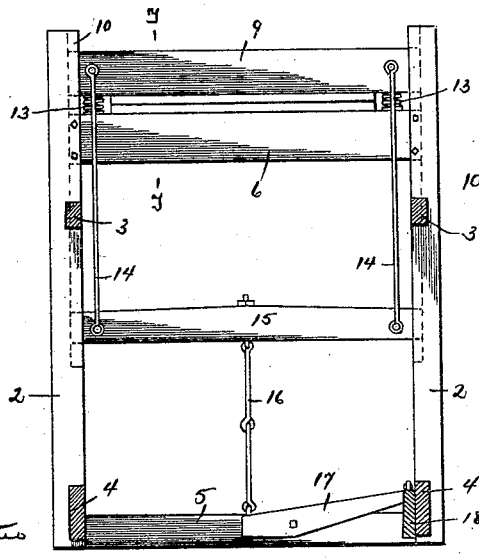

Fig. 2.

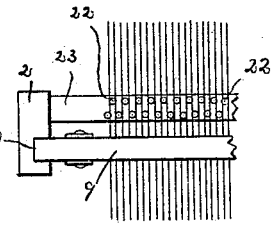

Fig. 4.

WITNESSES.

Carrole J. Webster

Grace E. Lehaney

INVENTOR.

Joseph F. Kieswetter

By Myers & Webster

Attys.

UNITED STATES PATENT OFFICE.

JOSEPH F. KIESWETTER, OF TOLEDO, OHIO.

WARP-CLAMP FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 493,405, dated March 14, 1893.

Application filed September 8, 1890. Serial No. 364,367. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH F. KIESWETTER, of Toledo, county of Lucas, and State of Ohio, have invented certain new and useful Improvements in Warp-Clamps for Looms; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to an improvement in looms, and more particularly that class employed for weaving rag carpets, rugs, silk curtains, &c.

The object of the invention is to provide a loom which shall be very cheap, and simple in construction, efficient and durable in operation.

With these objects in view the invention consists in providing a device for positively clamping the warp, and means whereby the said clamping device may be raised or lowered as desired.

The invention further consists in the various novel details of construction, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming part of this specification, and in which like numerals of reference indicate corresponding parts, Figure 1, is a side elevation of a loom embodying my invention. Fig. 2, is a transverse sectional view taken on the line *x*—*x*, of Fig. 1. Fig. 3, is a vertical, sectional view taken on the line *y*—*y*, of Fig. 2, showing more particularly my improved warp-clamp, and, Fig. 4, is a top plan view of a small part of the rear portion of the loom, showing the pins or projections for separating the warp.

Referring to the drawings, 1, and 2, designate the front and the rear vertical beams of the frame, 3 and 4, the longitudinal beams connecting with the said vertical beams, and 5, a transverse beam, the whole forming the frame of the loom. At a point near the top of the vertical beam 2, is secured a transverse beam 6, in the upper edge of which is arranged a metallic strip 7, formed with a V-shaped or angular groove 8 in its upper edge, extending throughout its entire length. Immediately above the beam 6, is arranged another beam 9, which moves vertically in grooves 10, formed in the beams 2, and carries a metallic strip 11 in its lower edge, which is formed with an angular edge 12 upon its lower side, adapted to fit within the groove in the strip 7. Between the beams 6 and 9, are mounted spiral springs 13, the tendency of which is to keep the two beams separate. Connecting with the upper beam 9, are two rods 14, which extend to and connect with a movable cross-piece 15, which in turn through the medium of a chain or link 16, connects with a lever 17, and the latter with a foot-lever 18, which extends to the front of the loom, and is designed to engage a rack-plate 19, secured to one of the beams 1. As the harnesses, lathe-arms, head and breast-roller form no part of the present invention, a detailed description of them is not necessary herein. At a point adjacent to the rear part of the machine is located a series of arms 20, (one only being shown in this instance) carrying spools 21, upon which is wound the warp.

The foot-lever 18, is first thrown out of engagement with the rack-plate 19, so as to admit of the two members of the warp-clamp being separated. The warp is then drawn from the spools, each one passing between two vertical pins 22, carried by a transverse beam 23, secured to the beams 2, and through the harness and reeds and over the breast-roller 24, to the carpet-beam 25, which latter is turned by means of a hand lever 26, carrying a pawl 27, adapted to engage a ratchet-wheel 28, carried by the said beam. As soon as all the warp threads have been secured to the carpet-beam, the foot-lever 18, is then pressed down thereby bringing the two members of the warp-clamp firmly together, and holding the warp securely in place against movement. When a given length of carpet or rug has been woven, the foot-lever is again raised, the hand-lever 26, actuated to roll the woven carpet upon the carpet-beam, when the foot-lever is again forced down thus locking the warp securely in place.

From the foregoing description, the advantages of my improved loom will be apparent. It will be seen that varying widths of carpets

or rugs may be woven, and that the warp-clamp holds the warp securely in place against any slipping. Moreover, during the process of weaving should one of the warp threads break, it will be only necessary to raise the foot-lever, re-unite the broken thread and then proceed as before.

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

In a loom, the combination with a frame, of a transverse rigid beam having a V shaped groove in its upper side, a movable transverse beam having a tongue extending throughout its length and adapted to engage the said groove, springs interposed between the two beams, a movable transverse beam located below the rigid beam, rods connecting the two movable beams, a transverse lever pivoted to the frame of the machine, links connecting the lever with the lower movable beam, a foot lever engaging the transverse lever, and means for holding the foot-lever at any desired adjustment.

In testimony that I claim the foregoing as my own I hereby affix my signature in the presence of two witnesses.

JOSEPH F. KIESWETTER.

Witnesses:
R. M. ELLIOTT,
CARROLL J. WEBSTER.