(No Model.)

M. J. ARMSTEAD.

LOOM TEMPLE.

No. 564,136. Patented July 14, 1896.

Fig. 1.

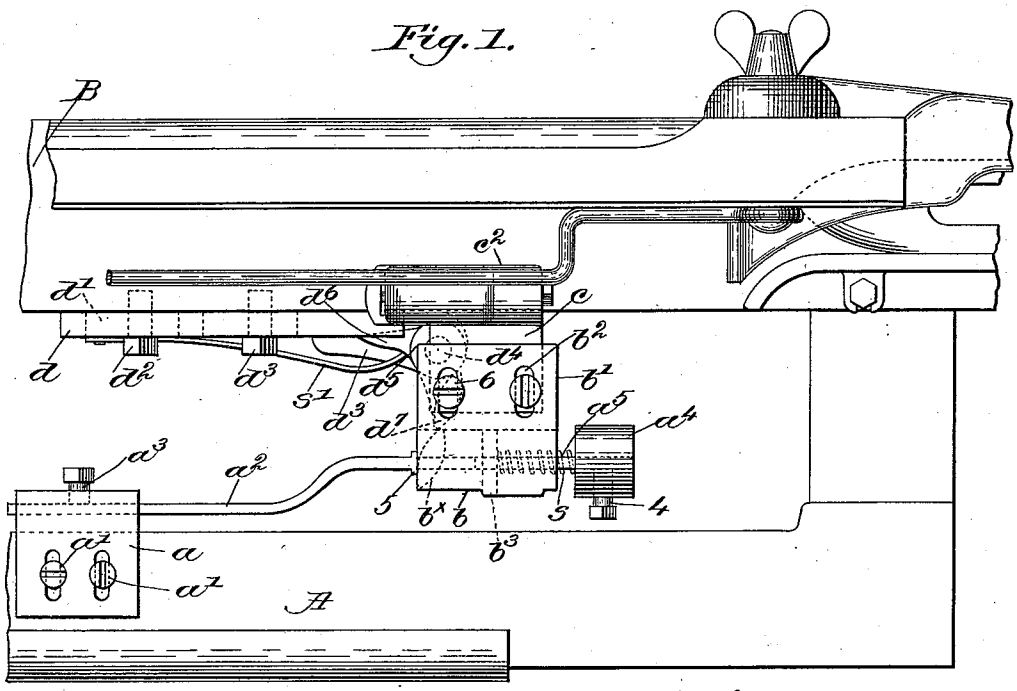


Fig. 2.

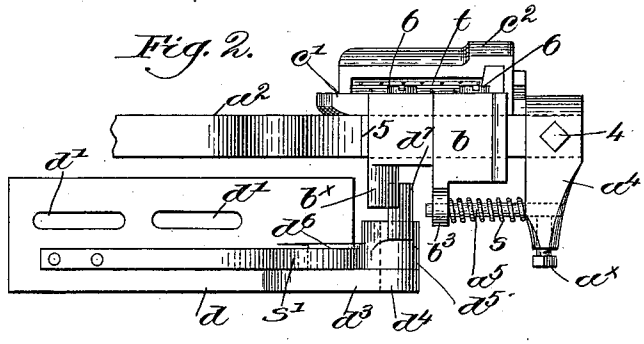


Fig. 3.

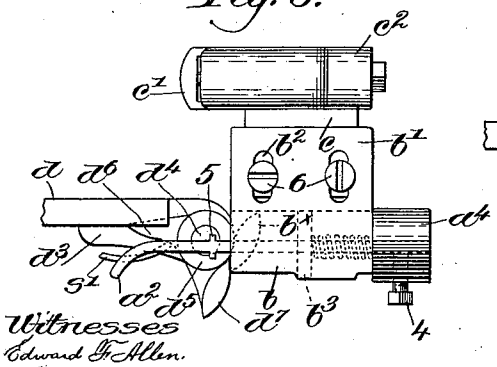
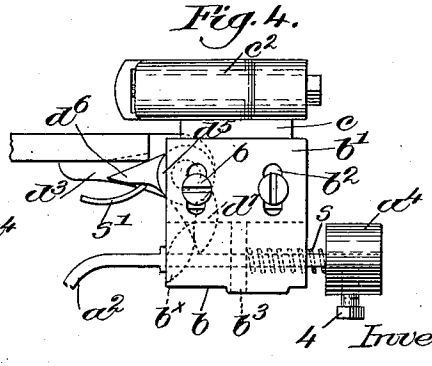


Fig. 4.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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LOOM-TEMPLE.

SPECIFICATION forming part of Letters Patent No. 564,136, dated July 14, 1896.

Application filed April 1, 1896. Serial No. 585,715. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL J. ARMSTEAD, of Lowell, county of Middlesex, State of Massachusetts, have invented an Improvement in Loom-Temples, 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 means for preventing breakage of selvage-threads of a web of cloth during the weaving operation, wherein the filling-threads are driven or beaten up so close together that the web of cloth contracts to a less width than that of the reed. To accomplish this object, I provide means for imparting to the temple, first, a lateral outward movement, which stretches the cloth as the lay beats up the filling to the cloth-line, and, secondly, and the more important, an inward jump or quick-return movement of the temple while the lay is all the way forward with the reed against the cloth. This motion of the temple is necessary in order that the temple-roll may retain a continuous hold on the cloth.

A loom-temple embodying my invention is adapted for use with all classes of work wherein the cloth tends to strongly contract in width as it is woven, and my invention is very effective in preventing breakage or bending of reed-dents on heavy work.

Figure 1 is a top or plan view of a part of the breast-beam and lay of a loom with my invention applied thereto. Fig. 2 is a front elevation of the temple and its controlling means in the position shown in Fig. 1 with the lay and breast-beam omitted. Fig. 3 is a plan view of the temple and its controlling means, the temple having completed its outward lateral movement and just about to be released, the lay being almost forward; and Fig. 4 is a like view of the parts shown in Fig. 3, the temple, however, having returned to normal position and the lay being on its back stroke.

Referring to Fig. 1, the breast-beam A and the lay B are and may be of any well-known construction, the breast-beam having adjustably attached thereto a slotted plate a, held in position by set-screws a', and recessed parallel to the breast-beam to receive a temple spring-support a^2, longitudinally adjustable in the plate a and held in position by a set-screw a^3.

By the screws a' the temple can be adjusted toward and from the breast-beam, and toward or away from the center thereof by the set-screw a^3.

A slotted arm a^4 is held on the outer end of the spring-support a^2 by a suitable set-screw 4, and between this arm and a stop or projection 5 on the support a^2 is mounted a carrier b, having an inwardly-extended shelf on top b', the carrier being adapted to slide back and forth on the spring-support a^2.

Set-screws 6 are extended through slots b^2 in the shelf b' into a flange c of the pod c', which has mounted therein a temple-roll t, covered by a cap c^2 in usual manner, the screws 6 holding the roll t in adjusted position, the temple-roll, pod, and cap being of any desired construction.

As best shown in Fig. 2, the carrier b has a depending ear b^3, through which loosely passes a stud or pin a^5, adjustably held by a screw $a^\times$ in the arm a^4, said pin being surrounded by a spring s, between the arm and ear, normally tending to move the temple-carrier b to the left, Fig. 1, or toward the center of the loom.

The carrier-body b is cut away underneath to leave a depending cam-lug $b^\times$, the longer dimension of said lug in cross-section being shown as inclined relative to the front of the breast-beam.

The temple-controlling device is mounted on the front of the lay A, and, as shown, consists of a plate d, slotted at d' to receive bolts d^2, by which it is adjustably held in place. (See Fig. 1.) A bracket-like foot d^3 projects at right angles from the plate d, having an upright stud d^4, on which is pivotally mounted the hub d^5 of an upturned, offset cam-shaped dog d^7, said hub having a tail d^6, which is normally held against the plate d by a spring s', thus limiting movement of the hub d^5 in that direction, but said hub can be turned in the opposite direction against pressure of the spring s'.

The temple and its controlling means are so adjusted on the breast-beam and lay, respectively, that when the lay B is nearly forward the dog d^7 will engage the lug $b^\times$ of the

temple-carrier b, as shown in Figs. 1 and 2, and as the lay completes its movement the carrier will be moved to the right against the spring s. This movement of the carrier moves the temple laterally away from the center of the loom just before the reed fully beats up the filling to the cloth-line, so that the cloth will have been gradually stretched laterally, bringing the warps opposite their respective spaces in the reed. At the instant the reed reaches its extreme forward position the inner edge of the dog d^7 passes the outer edge of and releases the lug $b^\times$, so that the temple, under strain of the cloth and stress of spring s, quickly jumps back into normal position, enabling the temple-roll t to retain its hold on the cloth. The lay now moves back and the dog d^7 will have to pass over the outer side of the lug $b^\times$, as shown in Fig. 4, the hub d^5 turning on its stud d^4 to permit it, and as soon as the dog is fully disengaged from the lug the spring s', acting on the tail d^6, returns the dog to normal position ready for the next beat of the lay.

While I have herein shown but one temple and its controlling means, it will be, of course, obvious that two temples will be used in practice, one at each side of the cloth, and movable in opposite directions to stretch the cloth.

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

1. In a loom, a fixed temple-support, a temple laterally movable thereon and provided with a lug, the lay, and a pivoted spring-controlled dog thereon, to engage the lug of and positively move the temple outwardly as the lay beats up the filling, final movement of the lay carrying the dog beyond and releasing the lug, whereby the temple quickly returns to normal position, the dog passing behind the lug as the lay goes back, substantially as described.

2. In a loom, a laterally-movable temple, a retracting-spring therefor, and a cam-lug on said temple, combined with the lay, a swinging dog thereon, and a stop to limit its movement in one direction, engagement of said lug and dog as the lay approaches the cloth line gradually moving the temple outwardly, final movement of the lay disengaging the dog and lug to permit return of the temple, substantially as described.

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

MICHAEL J. ARMSTEAD.

Witnesses:

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