N. I. ALLEN.

LOOM TEMPLE.

APPLICATION FILED APR. 2, 1909.

940,776. Patented Nov. 23, 1909.

Fig: 1.

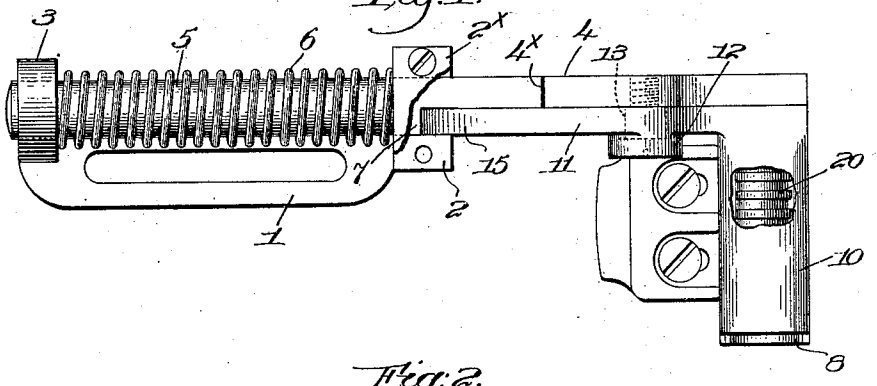


Fig: 2.

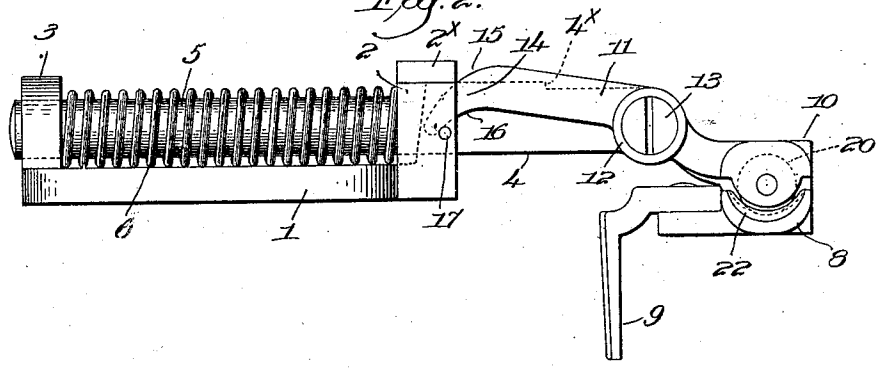
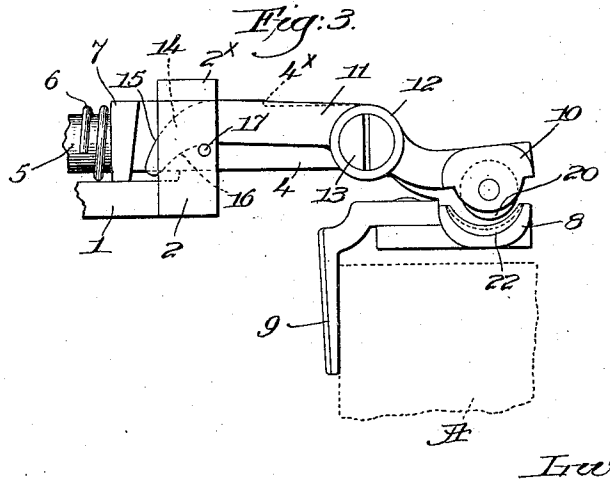


Fig: 3.



Witnesses,
Edward F. Allen.
Joseph M. Ward.

Inventor:
Nicholas I. Allere,
by Crosby Gregory.
Attys.

UNITED STATES PATENT OFFICE.

NICHOLAS I. ALLEN, OF EVERETT, MASSACHUSETTS, ASSIGNOR TO DRAPER COMPANY, OF HOPEDALE, MASSACHUSETTS, A CORPORATION OF MAINE.

LOOM-TEMPLE.

940,776. Specification of Letters Patent. Patented Nov. 23, 1909.

Application filed April 2, 1909. Serial No. 487,535.

To all whom it may concern:

Be it known that I, NICHOLAS I. ALLEN, a citizen of the United States, and resident of Everett, county of Middlesex, State of Massachusetts, have invented an Improvement in Loom-Temples, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to loom temples and it has for its object the production of a temple so constructed and arranged that it will not mar or otherwise injure the cloth, and provided with means to release automatically the hold on the cloth at the time of beat-up, so that the temple takes a fresh hold on the cloth at each pick. In weaving certain kinds of fine goods it is not desirable to use temples provided with rolls having cloth-engaging pins, inasmuch as the pins tend to make slight holes adjacent the selvages.

In my present invention I provide holding jaws which engage and hold between them the cloth, and I have so arranged the temple mechanism that said jaws are opened sufficiently to release the cloth on the beat-up, so that as the cloth is taken up the jaws in closing take a fresh hold upon the cloth, closure of the jaws being effected in a positive manner.

The various novel features of my invention will be fully described in the subjoined specification and particularly pointed out in the following claims, one practical embodiment of my invention being illustrated and described.

Figure 1 is a top plan view partly broken out, of a loom temple embodying one form of my invention, the cloth-engaging portions of the temple being in operative position; Fig. 2 is a side elevation of the temple shown in Fig. 1; Fig. 3 is a detail of a portion of the temple, in side elevation, and showing the cloth-engaging portions thereof as having released the cloth.

Referring to the drawings, the stand 1 adapted to be secured to the breast-beam of the loom in any suitable manner, has bearings 2, 3 for the temple shank 4 and its cylindrical extension 5, a coiled spring 6 coiled around said extension between the bearing 3 and the shoulder 7 of the shank normally acting to project the temple into the position shown in Figs. 1 and 2.

The shank 4 is reduced in thickness beyond the shoulder, for the greater part of its length, as shown clearly in Fig. 1, and at its extremity is provided with a laterally extended and rigidly connected pod or jaw member 8, having a depending heel 9 adapted to be struck by the lay on the beat-up.

A cap or movable jaw member 10 extends above the pod and has a rigidly attached arm 11 provided with a hub 12 to receive a fulcrum or pivot-stud 13 fixed in the shank 4, as shown, said arm lying against the adjacent upright face of the shank and having its forward or free end shaped to present a cam 14, which normally projects slightly into the bearing 2.

It will be understood from the drawings that the opening in the bearing is the full width of the shouldered end of the temple shank, so that a clearance for the end of the cam 14 is provided within said bearing, adjacent the shoulder 7.

The upper convex face 15 of the cam cooperates with the cover-plate 2^{x} of the bearing, and the lower, concave face 16 of the cam coöperates with a transverse stud or pin 17 held fixedly in the bearing 2.

When the temple is projected by the spring 6 in the position shown in Figs. 1 and 2 the coöperation of the cam face 16 and the pin 17 maintains the jaw members 8 and 10 closed upon the cloth, but when the lay A, see dotted lines Fig. 3, beats up and engages the heel 9 the temple is moved forward, its shank sliding in the stand against the stress of spring 6, and the cam face 15 wipes under the cover-plate 2^{x}. The effect thereof is illustrated in Fig. 3, the cam end 14 of the arm 11 being depressed to thereby raise the cap or jaw member 10, and as the two jaw members 8 and 10 are thus separated the hold upon the cloth is released so that the cloth can move forward freely as it is taken up. As the lay recedes the spring 6 operates to project the temple, as will be manifest, and at such time the edge or face 16 rides over the pin 17 and positively depresses the upper jaw member 10, closing the jaw members upon the cloth, so that the latter is properly held.

Any suitable devices may be mounted on the jaw members to directly contact with

the cloth, as for instance an annularly ribbed roll 20, Fig. 1, may be mounted in the member 10 and a correspondingly corrugated seat 22 may be mounted in the member 8, to thereby effect a better and firmer hold upon the cloth and keep it stretched without injuring it.

The particular character of these devices may be changed, however, and in themselves form no part of my present invention, it being understood that the opposed and relatively movable jaw members may be provided with any suitable form of contact devices.

Should the weaver desire to push the temple forward and retain it in that position while attending to other matters, he pushes the temple shank to the left, Figs. 1 and 2, until the transverse shoulder $4^{\times}$ on the shank can be made to catch against the front edge of the cover-plate $2^{\times}$.

Changes in details of construction may be made by those skilled in the art without departing from the spirit and scope of my invention as set forth in the annexed claims.

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

1. In a reciprocating loom temple, relatively-movable cloth-engaging members adapted to be moved forward bodily by the lay on the beat-up, and positively acting devices operating, respectively, to separate said members and release the cloth on the beat-up and to thereafter positively act upon and close said members upon the cloth.

2. In a loom temple, a longitudinally movable shank, a fixed jaw member thereon and a coöperating jaw member pivotally mounted on the shank, to receive between them and hold the cloth, a cam connected with the pivotally mounted member, and having convex and concave faces, and separate stationary means to coöperate with said cam faces and effect, respectively, separation of the jaw members on the forward stroke of the shank and positive closure of said members on the return stroke of the shank.

3. In a loom temple, a stand having bearings, a shank longitudinally movable in said bearings and provided with a rigidly connected cloth-engaging member having a heel to be engaged and moved forward by the lay, a spring to project the shank rearwardly a cloth-engaging member pivoted on the shank and having an attached arm provided with a cam, and devices on the stand one device being arranged to coöperate with the cam and rock said arm positively on each stroke of the shank, to open the cloth-engaging members on the forward stroke of the shank and the other device acting to close them positively on the return stroke.

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

NICHOLAS I. ALLEN.

Witnesses:
JOHN C. EDWARDS,
THOMAS J. DRUMMOND.