

*A. Palmer.*  
*Weaving Temple.*

*N<sup>o</sup> 4,379.*

*Patented Feb. 10, 1846.*

Fig. 1.

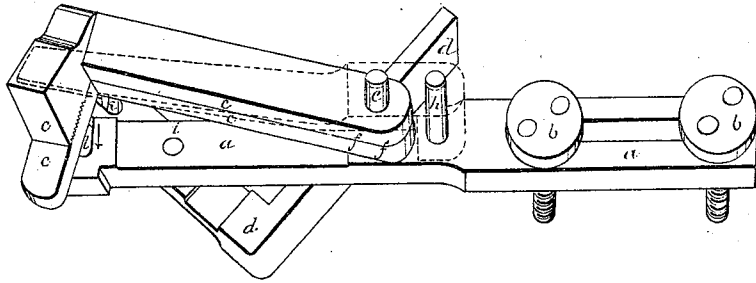


Fig. 2.

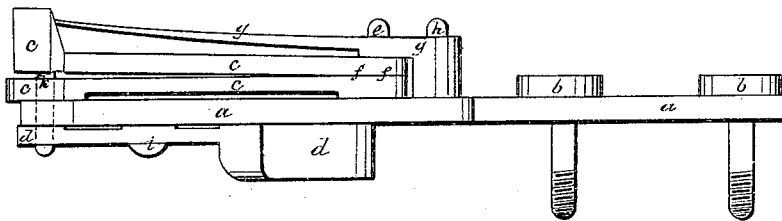
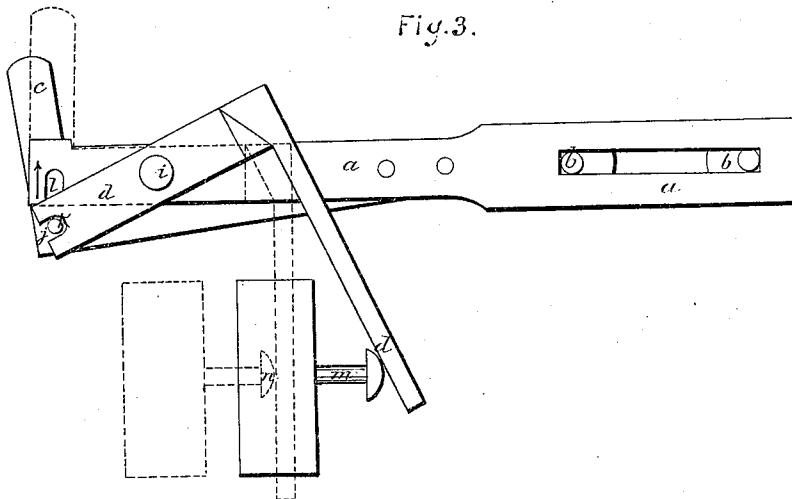


Fig. 3.



# UNITED STATES PATENT OFFICE.

ARNOLD PALMER, OF NEW LEBANON, NEW YORK.

## IMPROVEMENT IN WEAVERS' TEMPLES.

Specification forming part of Letters Patent No. 4,379, dated February 10, 1840.

*To all whom it may concern:*

Be it known that I, ARNOLD PALMER, of New Lebanon, in the county of Columbia and State of New York, have invented a new and improved self-acting temple to be adapted to power-loom for weaving cloth of various descriptions; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a perspective view; Fig. 2, a geometrical side elevation, and Fig. 3 a view of the under side of one of my temples.

The same letters refer to the same parts in all the figures.

*a a* is a bar of metal, which, being attached to the breast-beam of the loom by the screws *b b*, gives support to the working parts of the temple, consisting of the jaws *c c c c* and the bent lever *d d*. Both of the jaws *c c c c* move freely about the pin *e*, which passes through holes drilled near their inner ends, and is permanently fixed to the supporting-bar *a a*. The portion *f f*, Figs. 1 and 2, of the inner end of the upper jaw is a little chamfered, and, being pressed downward by the heel of the spring *g g*, Fig. 2, the outer ends of the jaws are caused to open to receive the selvage of the cloth. Those portions of the jaws which seize the cloth are roughened or serrated, like the jaws of the common vise, in order to take a stronger hold. To bring the jaws together, so as to pinch the cloth, the spring *g g* is used. This spring has at its heel two holes drilled in a direction parallel to its length to receive the pins *e* and *h*, which are permanently fixed to the supporting-bar *a a*, and consequently prevent the spring from having any lateral motion. The compression is produced by causing the inclined top of the upper jaw *c c* to slide beneath the outer end of the spring *g g*.

A temple is of course placed at each side of the web, and the supporting-bar *a a* is placed parallel to the selvage. To bring the jaws beneath the spring so that its pressure

upon the inclined top of the upper jaw shall produce the requisite pinch, as before mentioned, the bent lever *d d* is attached to the under side of the supporting-bar *a a*, having motion about the pin *i*. In the end of the lever immediately under the jaws is a slot *j*, Figs. 1 and 3, which embraces a pin *k*, firmly fixed in the upper jaw and working through a hole in the lower. This pin plays freely in the slot *l* in the supporting-bar, which limits its motion in the direction of the arrows. Motion is given to the tail of the bent lever *d d* by a stud *m*, screwed into the sword of the lathe. A section of one of the swords is given at *n*, Fig. 3.

Fig. 3 shows the position of the parts at the moment of "beating up," or when the reed is pressed against the filling. The bent lever, with the jaws, &c., is brought back to the position represented in the dotted lines by the pressure of the spring *g g* upon the inclined top of the upper jaw *c c* upon the return of the lathe. The spring is represented in Fig. 1 by dotted lines only to avoid obscuring other parts. The jaws seize the selvage while the lathe is advancing toward the filling, hold it firmly at the moment of beating up, and, unclosing, leave the cloth and warp free to vibrate while the shades are changing. A uniform and handsome selvage is thus obtained, and the chafing so injurious to the warp in weaving fine cloth is obviated.

What I claim as my invention, and desire to secure by Letters Patent, is—

The mode of combining and arranging the parts composing my self-acting temple, so that the jaws commence closing upon the selvage while the lathe is advancing toward the filling and after firmly holding the cloth at the moment of beating up open and leave it at liberty to vibrate while the shades are changing; the whole being constructed and operating as herein described and shown.

ARNOLD PALMER.

Witnesses:

WM. S. ELLISON,  
CHAS. H. HAZEN.