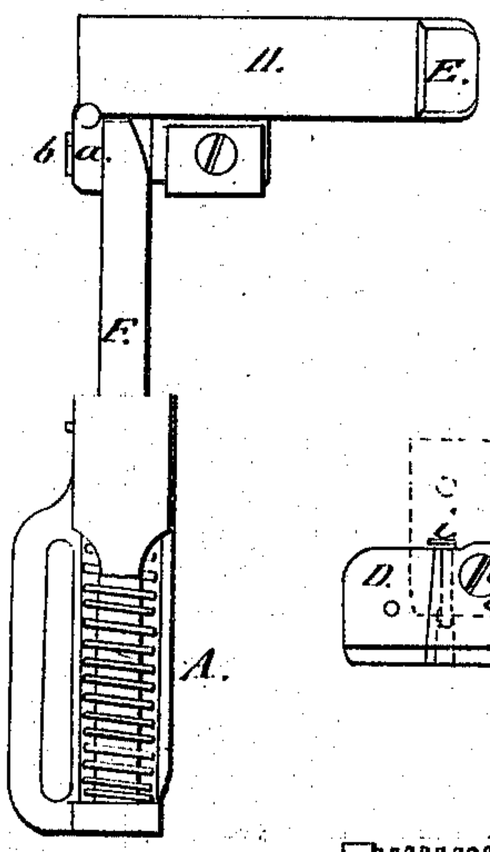
W. W. Dutcher,

Loom Temple.

No. 106,038. Patented Aug. 2. 1870.

Fig. 1.



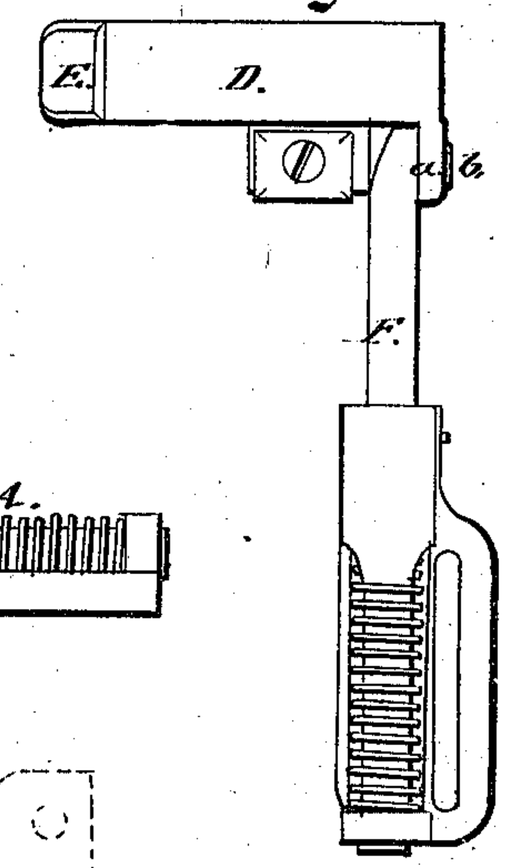


Fig. 2.

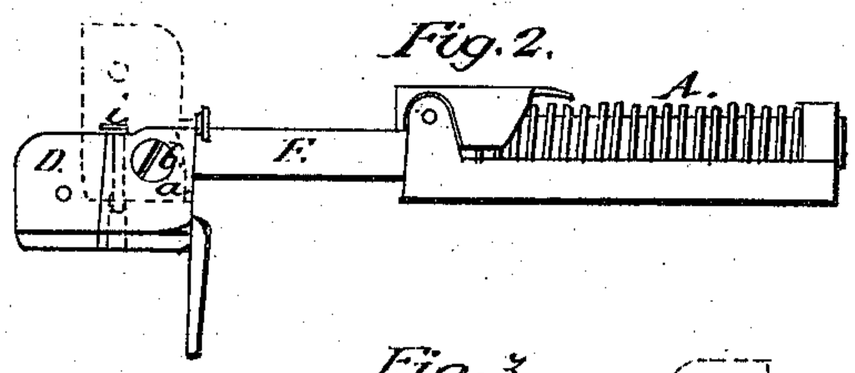


Fig. 3.

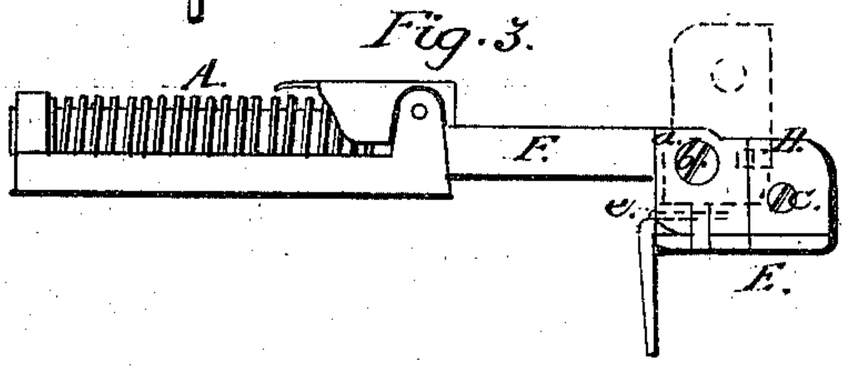
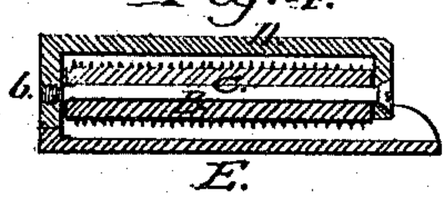


Fig. 4.



B Fig. 5.

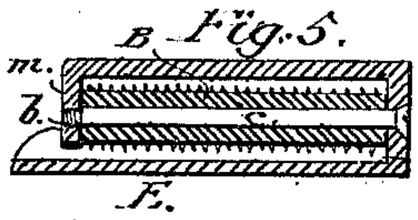


Fig. 6.

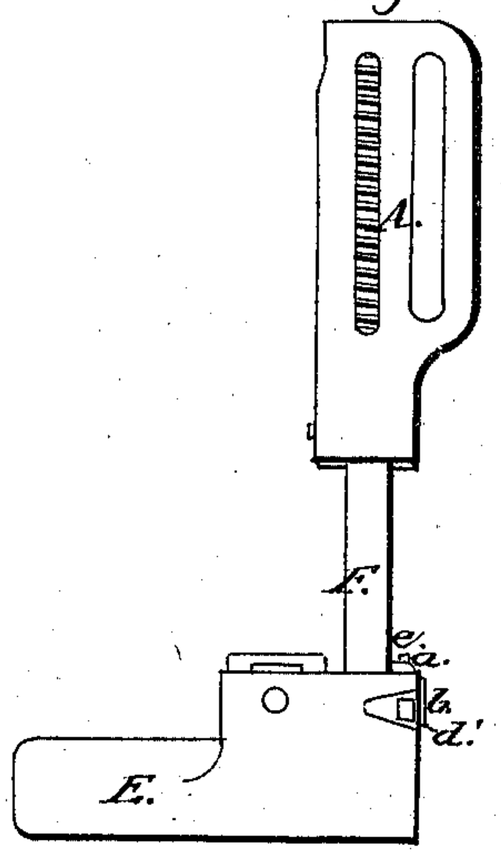


Fig. 7.

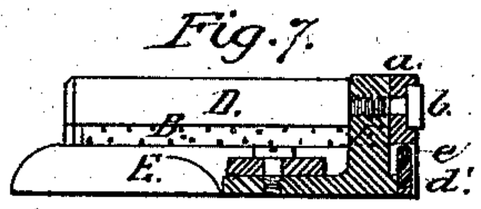
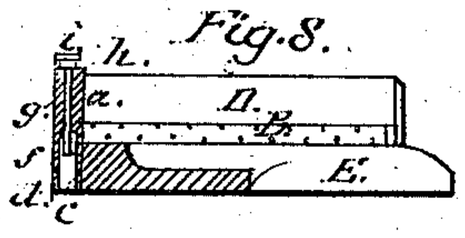


Fig. 8.



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WARREN WHITNEY DUTCHER, OF HOPEDALE, MASSACHUSETTS.

Letters Patent No. 106,038, *dated August* 2, 1870.

IMPROVEMENT IN LOOM-TEMPLE.

The Schedule referred to in these Letters Patent and making part of the same

To all persons to whom these presents may come:

Be it known that I, WARREN WHITNEY DUTCHER, of Hopedale, of the county of Worcester and State of Massachusetts, have made a new and useful invention having reference to Loom-Temples; and do hereby declare the same to be fully described as follows, reference being had to the accompanying drawing, of which—

Figure 1 is a top view of a pair of loom-temples provided with my invention, one being a right and the other a left temple.

Figures 2 and 3 are outer edge views of them.

Figure 4 is a vertical section of one temple, taken in range of the axis of its spindle.

Figure 5 is a similar section of the other temple.

Figure 6 is an under-side view of the "right temple" of the pair.

Figure 7 is a cross-section of it, taken through its bolt or latch.

Figure 8 is a section of the "left temple," taken through its bolt.

The temple so exhibited in the drawing is a reciprocating temple, that is, one which, when struck by the lay, will fall or be driven back thereby, and subsequently be advanced to its normal position by the spring A, as represented.

In the drawing—

Each of the temples is represented as having a toothed cylinder, B, arranged on its spindle C, the said spindle being fixed to the cover D, which, in this instance, is hinged to the supporting-bar F of the trough E.

The cover is furnished at its outer end with an arm or projection, *a*, extended from it, in manner as represented, and arranged against the outer side of the bar F.

A pivot or connection-screw, *b*, goes through a round hole in the ear, and is screwed into the support-bar.

The application of the spindle to the cover, and the latter to the support-bar, enables the cover, the roller, and the spindle, to be simultaneously raised or turned up, relatively to the trough, into the position as shown by dotted lines in figs. 2 and 3.

In order, under ordinary circumstances, to hold the cover down, I employ a bolt, *c*, and hole or recess, *d*, to receive the bolt. The latter I arrange in the trough, or a supporter thereof, and the former in the cover, in manner as represented in the drawing.

In the "right" of the two or twin temples, the bolt is shown as a latch, to turn on a pivot, *e*, into and out of the notch or recess *d'*.

In the "left" temple the bolt is exhibited as arranged vertically in a cylindrical socket, *f*, disposed directly over the bolt-receiving recess *d*.

The socket is longer than the bolt, and there extends upward from such socket a passage, *g*, to receive the shank *h* of the bolt, such shank being at its upper end provided with a knob or head, *i*.

When the bolt is within the recess in the trough, the two, that is, the bolt and recess, will prevent the cover from being raised off the trough, for, as the cover, in order to rise, must turn in a circle, the bolt—while in the recess, and an attempt may be made to raise the cover by force applied directly to it—will be pressed laterally against the side of the recess, and will thereby stop the cover from being lifted. Before the cover can be elevated the bolt must be drawn out of the recess.

The bolt, provided with the shank and knob, also serves, after being extracted from the recess, as a means of enabling a person to raise the cover without danger of injury to his fingers from the spurs or dents of toothed cylinders.

By grasping the cover and pulling it upward, the fingers are liable to be pinched by the teeth of the roller or rollers.

By one upward pull of the bolt, one can release or unlock the cover, and raise it and the rollers off the cloth, while the latter may be extended across the trough.

By having the hinge-arm *a* arranged against the outer side of the bar F, such arm is out of the way of the cloth, or presents no impediment to its being stretched upon the roller, as would be the case were such arm arranged on the inner side of such bar.

The screw-spindle C of the "right" temple has its head arranged against the outer end of its cover D, the screw *l* being screwed into the inner end or part *m* of such cover, but with the other or "left" temple the head of the spindle is against the inner end of the cover, and the screw is screwed into the opposite end of it, the screws, while being serewed into their sockets, being turned in the direction of the movement of the cloth while it is in the act of being woven.

This arrangement of the heads and screws of the spindles admits of the spindles being made exactly alike, that is, with what are termed right-threaded screws; otherwise, were the heads of the two spindles at the outer ends of their covers, the screw of one would have to be a right-threaded and that of the other a left-threaded screw, in order to prevent one of the screws from being liable to be unscrewed by the roller while being revolved by the cloth while it may be passing through the temple.

My arrangement of the screw and heads of the spindles of the two temples prevents the screws from being turned by the cloth.

With the roller and cover movable on a hinge relatively to the trough, as described, either the application of the cloth to the temple or its removal there-

from can be greatly facilitated in comparison to what would be the case were the cover rigidly fixed to the trough, so as to be incapable of being raised therefrom otherwise than by first unscrewing one or more fastening-screws used to confine the cover to the trough.

I am aware of the United States patents No. 61,050 and 71,541, which exhibit temples having two rollers or wheels, one placed above the other, whereas the temple as improved by me has a trough and a roller arranged to operate within it. With the trough there exists a necessity of raising the roller out of the trough, in order to properly and quickly apply the cloth to the temple, while with the temple having the two rollers the cloth is readily run between the rollers, and no necessity exists to lift one away from the other. The trough operates differently from a lower roller, as it serves to bend the cloth and to hold it bent up against the periphery of the roller, so as to increase the hold of the latter upon it in comparison to what results when a roller is substituted for the trough.

It will be seen, therefore, that my invention has reference exclusively to troughed temples.

In the above-described temple, I claim as of my invention the following, that is to say—

The temple, as provided with the trough and toothed roller, and the cover to the roller, as described, and with the projection *a* of the cover-hinge, arranged against the outer side of the supporting-bar F, and with the toothed roller-spindle, supported by the cover, and the latter hinged to the said bar, as explained.

Also, the temple as having the roller-spindle supported by the cover, and the latter hinged to the trough or its support-bar, as described, and provided with the bolt and recess, arranged in connection with the cover and trough, and with respect to the hinge of the two, in manner as specified.

Also, the bolt, substantially as described, arranged with the cover and trough, so as to answer the double purpose of a bolt to and a lifter of the cover.

Also, the arrangement, as described, of the screws and heads of the spindles of the twin temples, as respects the inner and outer ends of their covers, the head of one spindle under such arrangement being at the outer end of its cover, and the head of the other spindle being at the inner end of its cover, and the screws of the two spindles being arranged in the other ends of their covers, the whole being as described and represented.

WARREN WHITNEY DUTCHER.

Witnesses:
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S. N. PIPER.