N. CHAPMAN.

Loom Temples.

No. 138,004. Patented April 22, 1873.

Fig 1.

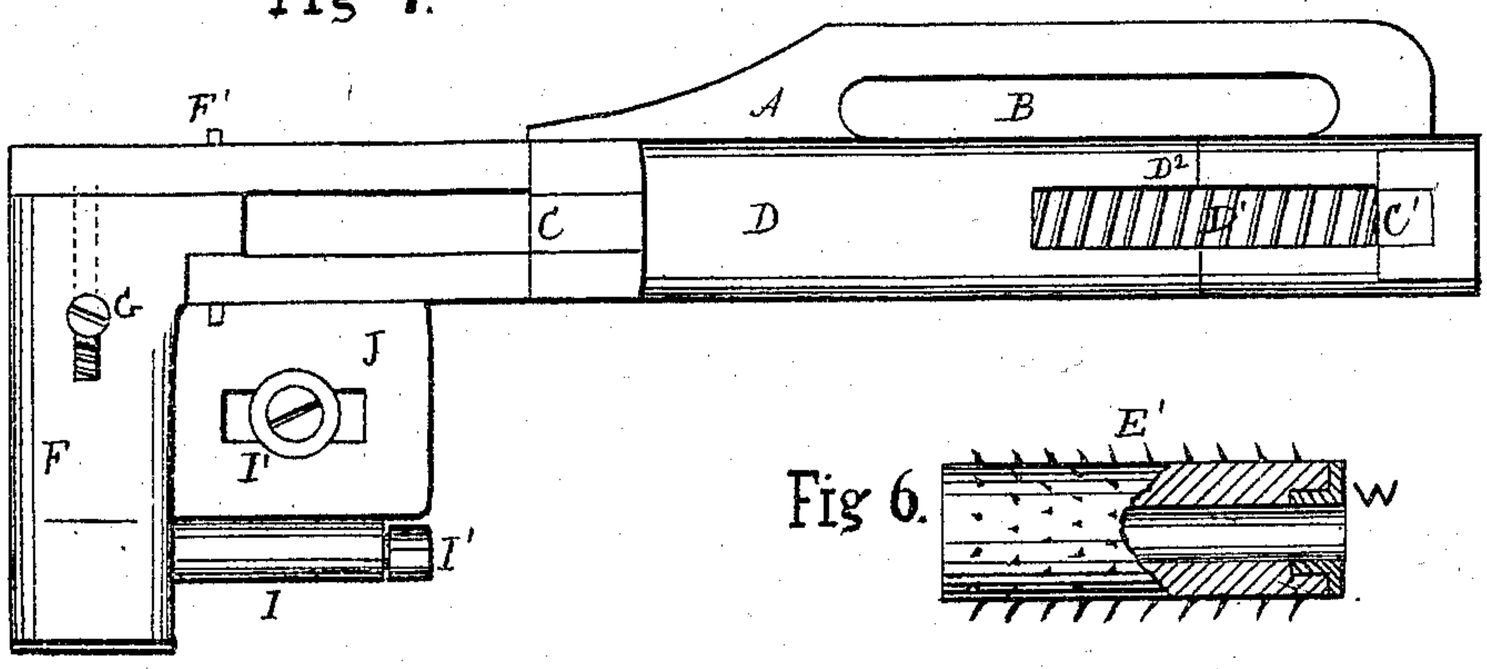


Fig 6.

Fig 2.

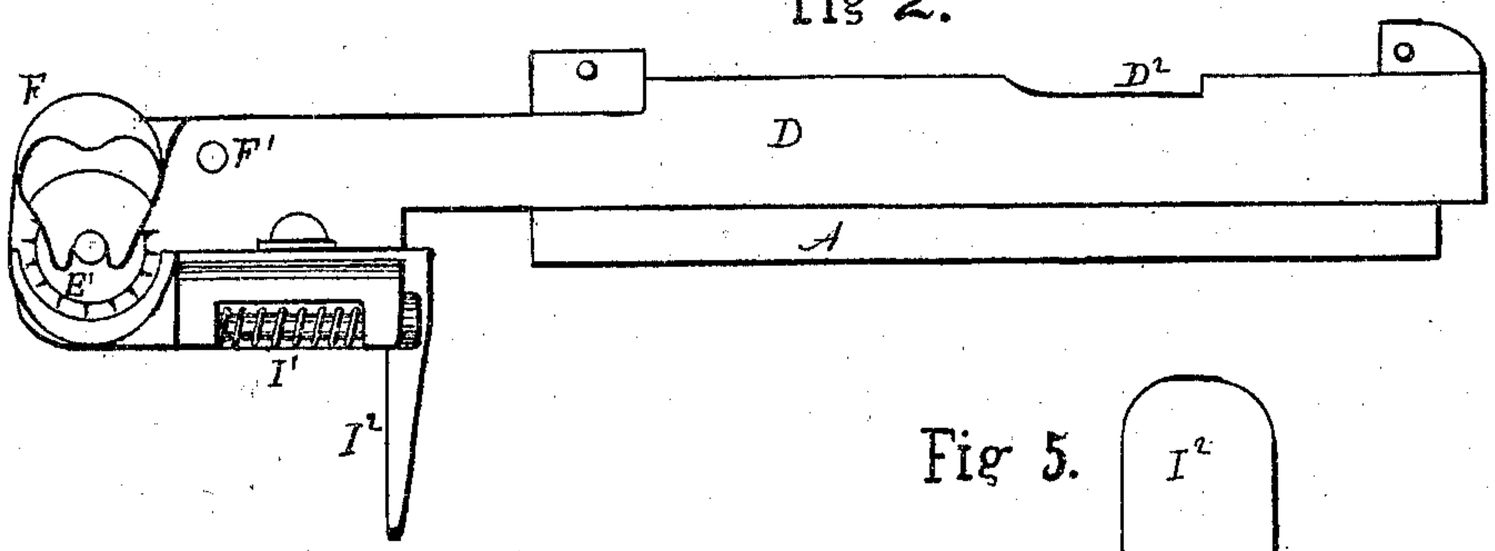


Fig 5.

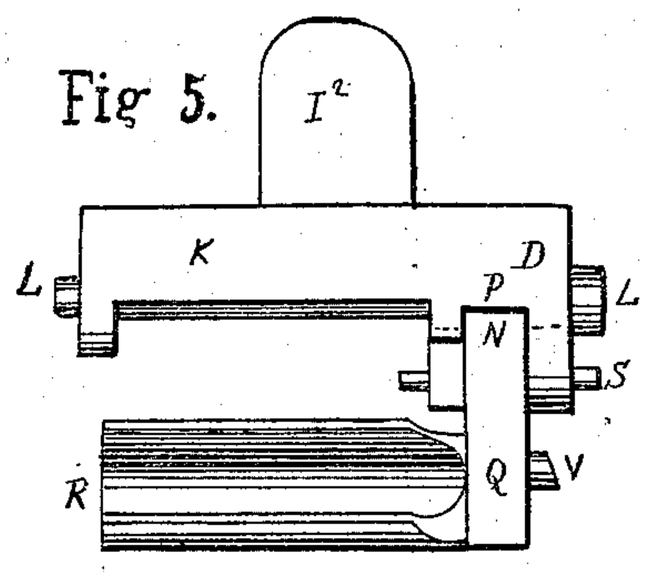


Fig 3.

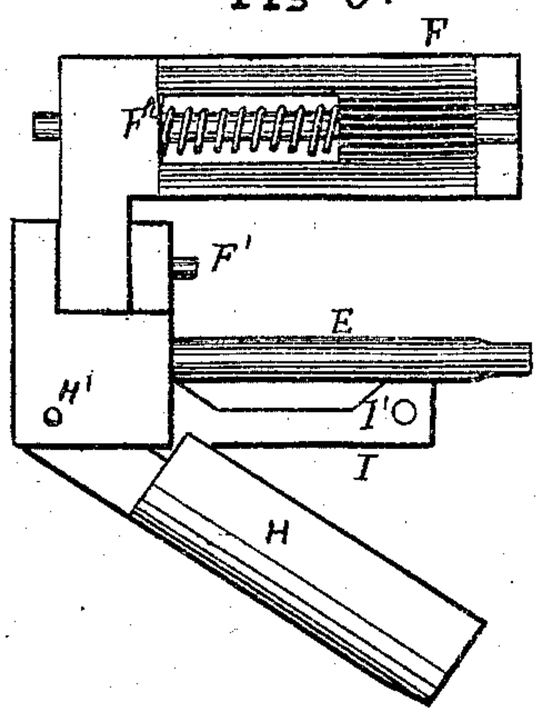
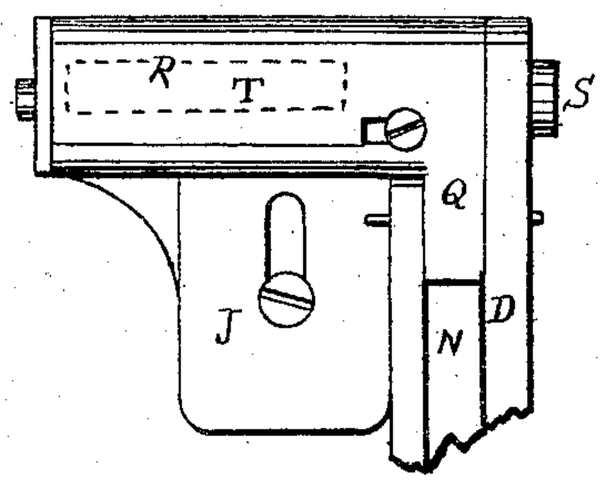


Fig 4.



WITNESSES.

Emmet L. Prince

Mark M. Leggett

Nathan Chapman

By his Atty. J. Dennis Jr.

UNITED STATES PATENT OFFICE.

NATHAN CHAPMAN, OF HOPEDALE, MASSACHUSETTS.

IMPROVEMENT IN LOOM-TEMPLES.

Specification forming part of Letters Patent No. **138,004**, dated April 22, 1873; application filed March 31, 1873.

To all whom it may concern:

Be it known that I, NATHAN CHAPMAN, of Hopedale, Worcester county, in the State of Massachusetts, have invented certain new and useful Improvements in Temples for Looms; and I hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawing forming part of this specification.

The nature or essence of my invention consists in the particular construction, combinations, and arrangement of devices forming the improvements in temples described in the following specification and represented in the accompanying drawing.

In the drawing, Figure 1 is a plan of a temple with my improvements; Fig. 2, an elevation of one side; Fig. 3, an elevation of the front end, with the cap turned up and the trough dropped down. Fig. 4 is a plan of a modified form of the temple. Fig. 5 is a front view of the same with the cap opened; Fig. 6, the toothed roller.

In the accompanying drawing, A is a stand to be fastened to the breast-beam of the loom by one or more bolts in the slot B. This stand has two vertical studs, C and C′, to which the stock D is fitted and on which it is arranged to traverse, the stock being slotted for the studs to pass through, which studs are provided with caps fastened by pins to hold the stock on the studs. The rear portion of the stock D is grooved on the under side to receive the spiral spring D^1, which presses the temple forward, but allows it to be pressed back by the lay in the process of weaving. The top of the stock is notched down at D^2, so that when it is pushed back the spring D^1 forces the notches up onto the cap of the rear stud C′ and holds the temple back until the rear end is pressed down, when the spring pushes the stock forward again. The fore end of the stock D may be made in the form shown in the drawing, or in such other form as will answer the purpose, and is provided with a stud-pin, E, fastened in the stock for the toothed roller E′ to turn on, shown in Fig. 3. The cap F is fitted over the toothed roller E′, and is hinged in the groove of the stock on the pin F^1 and provided with a lug at the outer end, which projects down by the end of the roller E′ and holds it on the stud against the contraction of the cloth, which tends to draw it off. There is a cavity in the top of the cap for the spring-bolt F^2, which enters a hole in the vertical flange of the stock D and fastens the cap down during the process of weaving. The bolt F^2 may be pushed back by the screw G and the cap raised up, so that the roller may be taken off and cleaned and the stud oiled. The guide or trough H is fitted to the under side of the toothed roller, to press the cloth onto the teeth of the roller during the process of weaving. This trough H is hinged on the pin H′, so as to drop down whenever the cloth is to be applied to or removed from the toothed roller. There is a horizontal projection, I, on the side of the stock parallel to the trough H, with a spring-bolt, I^1, which catches into the side of the trough H and holds it up, as shown in Fig. 2. By slipping the bolt back the trough may be dropped whenever it is desired. The slide J, which is fastened to the top of the projection I by the screw I^1 and is provided with a perpendicular arm, I^2, is adjustable to regulate the position of the temple in relation to the lay.

This temple, as above described, is arranged for the cloth to pass under the toothed roller, and I will now describe one modification of it in which the cloth passes over the toothed roller, (see Figs. 4 and 5 of the drawing,) in which D is the end of the stock provided with a slotted projection or arm, K, with its outer end turned up and perforated for the end of the pin L, on which the toothed roller E′ turns, the outer end of the pin L passing through the end of the stock D, which has a groove, N, in it and a score, P, in the pin corresponding with the groove N, into which score the vertical flange Q of the hinged cap or guide R latches, to hold the pin in place, so that, by raising the cap the pin may be drawn out and the roller released, so that it may be cleaned and the pin oiled and the roller and pin replaced. The cap or guide R is hollowed out on its under side to press the cloth onto the toothed roller E′ as it is woven. The cap R has a vertical flange, Q, extending back into the groove N of the stock, in which it is hinged by the pin S, so as to vibrate freely, and may be raised up whenever the cloth is put in or taken out, or for the purpose of taking out the toothed roller. The

projection on the arm K has a slot, T, in it, shown by dotted lines in Fig. 4, for the waste and dirt to escape from the roller. There is a spring-bolt, V, in the cap R, which catches into the vertical flange on the stock D, to hold the cap down and press the cloth onto the top of the roller. This modification is also provided with a slide, J, and vertical arm I^2, to adjust the temple to the lay.

The toothed roller E′ may be made of wood or metal, but I prefer to make them of hard wood with steel-pointed teeth, set with their points inclined toward the stock of the temple; and the front end of the roller may be armed with a metal flanged bushing, W, so as to serve both as washer and bushing at the same time, and protect the end of the roller.

Having described my improvements in temples for looms, I claim—

1. The hinged trough H, in combination with the horizontal arm I and spring-bolt I^1, for locking the trough at its free end.

2. The stud E fastened in the stock D, in combination with the roller E′ and the hinged cap F, provided with a lug for holding the roller on the stud and allowing it to be removed to clean and oil it.

3. The spring D^1, in combination with the stock D, when arranged to raise the rear end of the stock when it is pushed back and bring the notches D^2 against the cap of the rear stud, and lock the stock back.

NATHAN CHAPMAN.

Witnesses:
J. DENNIS, Jr.,
THOMAS C. CONNOLLY.