

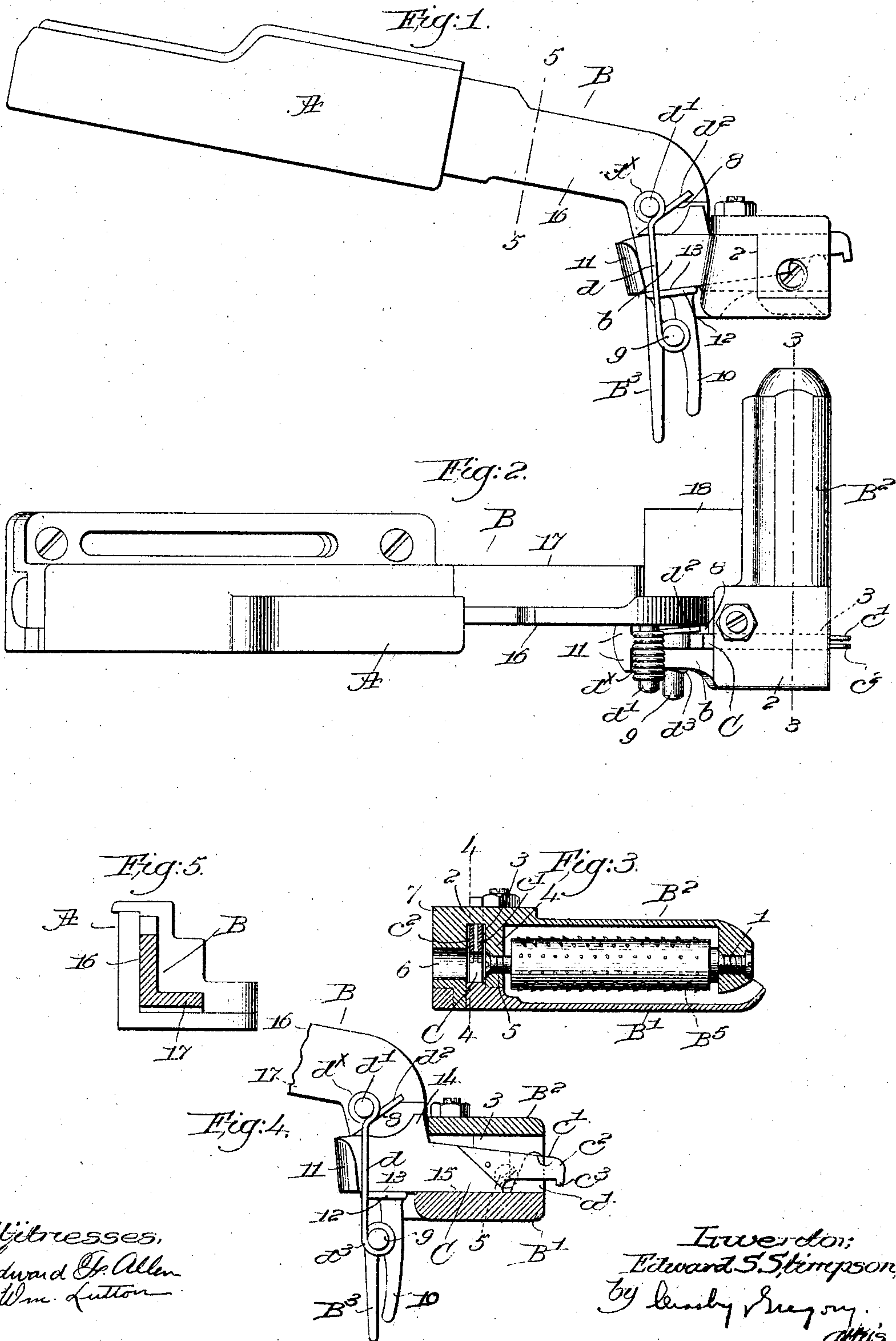
No. 765,687

PATENTED JULY 26, 1904.

E. S. STIMPSON.
THREAD CUTTING TEMPLE FOR LOOMS.

APPLICATION FILED MAR. 30, 1904.

NO MODEL.



UNITED STATES PATENT OFFICE.

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OF MAINE.

THREAD-CUTTING TEMPLE FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 765,687, dated July 26, 1904.

Application filed March 30, 1904. Serial No. 200,684. (No model.)

To all whom it may concern:

Be it known that I, EDWARD S. STIMPSON, a citizen of the United States, residing at Hopedale, in the county of Worcester and State of Massachusetts, have invented an Improvement in Thread-Cutting Temples for Looms, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates more particularly to the type of loom-temple forming the subject-matter of United States Patent No. 585,465, dated June 29, 1897, wherein the temple-head is provided with means to cut the filling end extending from the selvage of the cloth to the automatic filling-replenishing mechanism after such mechanism has been operated to supply the shuttle with fresh filling. In the temple shown in said patent the temple-head is slotted transversely at its outer end to receive cooperating fixed and movable blades which are arranged to engage and cut the filling end, the pivot for the outer end of the temple-roll extending across the slot. The movable blade is notched at its under edge to clear the pivot and permit the rocking and sliding movement of the blade when operated. In practice it sometimes happens that owing to wear or looseness of the parts the blade will in its movement engage the pivot, and both it and the blade are damaged, so that the blade may be broken or the pivot cut through.

One of the objects of my present invention is the improvement in the construction of the temple described in the patent referred to whereby injury to the roll-pivot or the movable blade, as hereinbefore set forth, is made impossible.

Another object of my invention is the production of a more extended bearing for the movable blade, whereby its movement is steadied and wear reduced.

I have also provided means herein to prevent any twisting or distortion of the temple-head out of its proper operative position.

These and other novel features of my invention will be fully described in the follow-

ing specification and particularly pointed out in the appended claims.

Figure 1 is an outer end elevation of a thread-cutting temple and its stand of the type hereinbefore referred to and having one form of my present invention embodied therein. Fig. 2 is a top or plan view thereof. Fig. 3 is a longitudinal sectional detail through the temple-head on the line 3 3, Fig. 2, the roll and its pivots being shown in elevation. Fig. 4 is a transverse sectional detail taken through the blade-receiving slot on the line 4 4, Fig. 3, just after the movable blade has been rocked and is about to be retracted; and Fig. 5 is a cross-section of the slide-bar or shank on which the temple-head is mounted, taken on the line 5 5, Fig. 1.

The temple-stand A, adapted to be secured to the breast-beam of the loom, the temple-head comprising the pod B', cap B², the heel B³, attached to the pod, and the toothed roll B⁵ between the pod and cap and turning on pivots carried by the cap, may be and are in their general construction substantially as in Patent No. 585,465, referred to. The inner pivotal support 1 for the roll B⁵ is of usual construction.

At its outer end the cap is longitudinally extended at 2, and a transverse slot 3 is formed therein, the inner wall 4 of the slot having a threaded hole to receive a roll-pivot 5 screwed thereinto, the hole being countersunk to receive the head of the pivot, as shown in Fig. 3. It will be seen that said pivot is sustained wholly by the wall 4 and its head lies flush with the face of said wall, a hole 6 being made in the outer wall 7 of the slot opposite the pivot and large enough to admit the blade of a screw-driver or similar tool, by which the pivot is inserted and removed.

An upright steel cutting-blade *a'* is secured to the pod and projects upward into the slot midway between its side walls, substantially as in the patent aforesaid.

The slide-bar or shank B, to be hereinafter referred to, has a lateral enlargement *b* adjacent the extension 2 of the cap and slotted in continuation of the slot 3, and the movable

cutting-blade C is inserted in the slots, the outer end of the blade being longitudinally bifurcated to present two separated sides c' c'' , each downturned to form a hook c^3 , the
 5 fixed blade a' passing up between the two sides $c' c''$, this construction being practically the same as in Patent No. 585,465.

The wire spring d , spirally coiled at d^x to fit over a stud d' on the bar B, has one end d^2
 10 bearing against a shoulder 8 on the bar, the opposite end of the spring being downturned and bent into a loop d^3 , fitted over a lateral lug 9 on the heel 10 of the blade C, the spring normally acting to project the outer end of
 15 said blade through the slot 3 in elevated position, as shown in Fig. 1.

At its inner end the blade is laterally enlarged to form stop-lugs 11, which limit its spring-induced movement, and a shoe 12 on
 20 the blade slides on the beveled under side 13 of ear b (see Fig. 1) to permit the shoe to slide and rock when the blade C is operated, substantially as in the patent referred to.

A lug 14 on the upper edge of the blade
 25 acts as a stop to prevent withdrawal of the blade accidentally, the lug bringing up against the spring-coil d^x if the retractive movement of the blade should for any reason be improperly prolonged.

30 In order to remove the blade C, the spring must first be removed and then the blade can be tipped and withdrawn from the temple-head.

By mounting the roll-pivot 5 as herein described and leaving a perfectly-clear path
 35 for the movement of the blade C, I not only obviate absolutely any chance of damage to either of said parts, but I am enabled to very materially increase the bearing-surface for
 40 the sliding movement of the blade.

Referring more particularly to Fig. 4, it will be seen that this flat bearing-surface 15
 45 extends from the shoe 12 substantially to the bifurcated end of the blade, such surface riding upon the bottom of the slot 3 and by its extent decreasing wear and also steadying the movement of the blade. In order to prevent the temple-head from twisting out of its proper relation with regard to the cloth, I
 50 have made the slide-bar B L-shaped in cross-section and comprising a main upright web 16 and a lateral flange 17 at its lower edge, the flange connecting with the shelf 18, forming a part of the pod, the heel B^3 of the temple being made integral with said shelf.
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As shown in Fig. 5, the stand A is recessed appropriately to receive the L-shaped bar B, the web and flange construction thereof not only preventing any twisting or distortion of
 60 the temple-head, but greatly strengthening the bar itself without undue increase in weight.

In the operation of the temple the movable blade normally stands with its hooked end elevated and projecting beyond the face
 65 of the temple-head, as shown in Figs. 1 and 2.

As the lay beats up it first strikes the heel 10 of the blade C and immediately rocks the blade, depressing the hooked end into the position shown in Fig. 4, and as the lay completes its movement the blade is drawn into the
 70 temple-head, and if there is a filling end between the selvage and filling-replenishing mechanism such filling end will be caught by the hooked end of the movable blade and drawn across the edge of the fixed blade a' ,
 75 the filling end being severed at that point. This operation is the same as in the patented temple previously referred to, as will be manifest from an inspection thereof.

In the present embodiment of my invention the stand A will be provided with the
 80 usual spring (not shown) to push the temple-head toward the back of the loom, the lay when beating up forcing the temple-head toward the breast-beam, as is common in re-
 85 ciprocating temples.

The novel features of my present invention, however, are not restricted to this particular form of temple, as the same may be employed with equal facility on temples of different
 90 construction.

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

1. A temple-head provided with a toothed
 95 roll and having a transverse slot at its outer end, a roll-pivot sustained by the inner wall of the slot, cooperating fixed and movable cutter-blades located in the slot, and means to operate said movable blade, the path of move-
 100 ment of the latter being wholly beyond the outer end of said roll-pivot.

2. A temple-head provided with a toothed roll and having a transverse slot at its outer
 105 end, a roll-pivot sustained by the inner wall of the slot, the outer wall having an opening opposite the pivot to permit its insertion or removal, an upright fixed blade within the slot, a cooperating movable blade therein, and
 110 means to operate said movable blade, the path of movement of the latter being wholly beyond the outer end of the roll-pivot.

3. A temple-head comprising a pod and a cap, a roll carried by the cap, the latter hav-
 115 ing a transverse slot in its outer end, a roll-pivot sustained by the inner wall of the slot, a fixed blade and a cooperating movable blade, both located in the slot beyond the outer end of the roll-pivot, and means to operate the
 120 movable blade.

4. A temple-head having a transverse slot at its outer end, a fixed and a cooperating movable blade located within the slot, a spring to project the movable blade, and a stop on the
 125 latter to prevent its removal from the slot while the spring is in position.

5. A temple-head having a transverse slot at its outer end, a fixed and a cooperating movable blade located within the slot, a spring to project the movable blade, an upturned lug
 130

on the movable blade to prevent its accidental withdrawal from the slot, and an elongated bearing on the lower edge of said blade, to steady the same and reduce wear in its sliding movement.

5 6. In a loom-temple, a pod, a cap having a transverse slot at its outer end, a roll, pivots to sustain it, the outer one of said pivots being supported wholly at one side of the slot, 10 a fixed, upright cutting-blade therein, a cooperating movable blade adapted to rock and slide within the slot, and means to operate said movable blade.

15 7. A temple-head, an attached slide-bar comprising an upright web and a lateral flange, and a stand in which said slide-bar is movably mounted and recessed to receive the same.

8. A temple-head, an attached slide-bar L-

shaped in cross-section, and a stand in which said slide-bar is mounted. 20

9. A temple-head provided with a rotatable roll and having a transverse slot at its outer end, a removable roll-pivot sustained wholly by the inner wall of the slot, cooperating fixed and movable cutter-blades located within the 25 slot, and means to operate the movable blade, the path of movement of the latter being beyond the outer end of the roll-pivot.

In testimony whereof I have signed my name to this specification in the presence of two sub- 30 scribing witnesses.

EDWARD S. STIMPSON.

Witnesses:

FRANK J. DUTCHER,
J. L. REMINGTON, Jr.