C. W. MEGGINSON.

THREAD CUTTING TEMPLE FOR LOOMS.

APPLICATION FILED FEB. 15, 1911.

1,011,220. Patented Dec. 12, 1911.

Fig: 1.

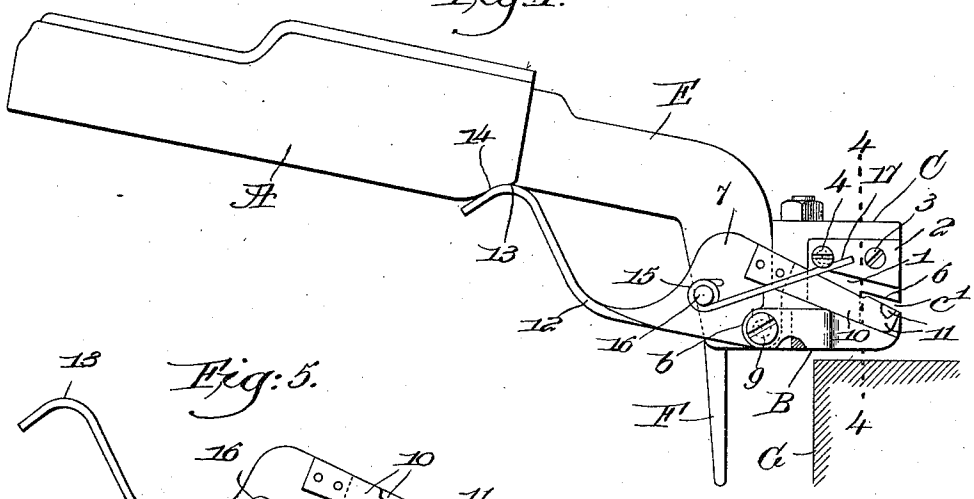


Fig: 5.

Fig: 2.

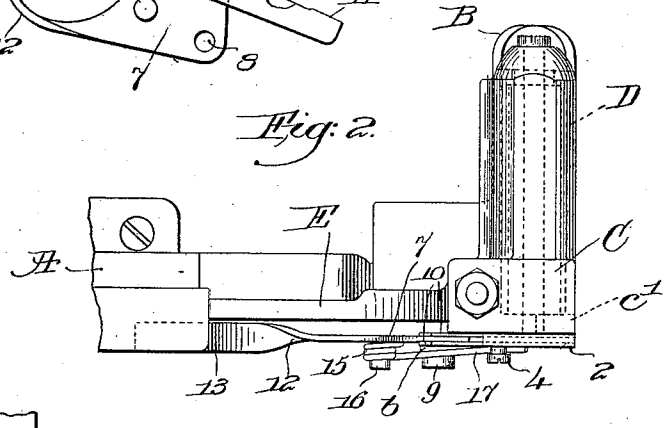


Fig: 3.

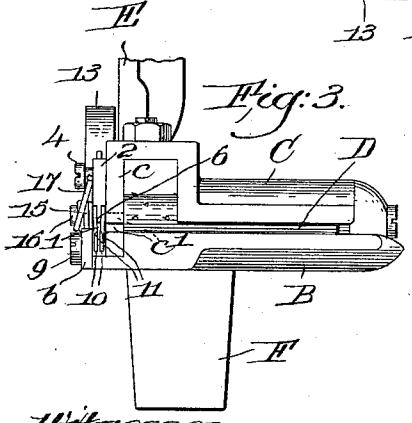


Fig: 4.

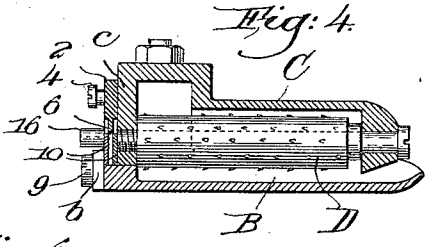
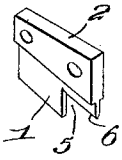


Fig: 6.



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

Inventor,
Cabell W. Megginson,
by Edwards, Hand & Smith.
Attys.

UNITED STATES PATENT OFFICE.

CABELL W. MEGGINSON, OF DANVILLE, VIRGINIA, ASSIGNOR TO DRAPER COMPANY, OF HOPEDALE, MASSACHUSETTS, A CORPORATION OF MAINE.

THREAD-CUTTING TEMPLE FOR LOOMS.

1,011,220. Specification of Letters Patent. Patented Dec. 12, 1911.

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To all whom it may concern:

Be it known that I, CABELL W. MEGGINSON, a citizen of the United States, and resident of Danville, county of Pittsylvania, State of Virginia, have invented an Improvement in Thread-Cutting Temples for Looms, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawing representing like parts.

This invention has for its object the production of a loom-temple equipped with novel and efficient means for cutting the filling adjacent the selvage of the cloth, to thereby eliminate loose ends of filling which might otherwise be woven into the cloth, such devices being very desirable to cut the filling end extending from the selvage to the replenishing mechanism in looms wherein the working shuttle is replenished automatically with filling.

Various forms of thread-cutting devices have been applied to loom-temples, the movable blade in some cases being actuated by coöperation of an attached heel with the lay, as in United States Patent No. 585,465 granted June 29, 1897 to Draper and Stimpson, while in other cases the movable blade is pivoted on the temple-head and actuated by the forward movement of the temple on the beat-up of the lay. Such structure is shown in United States Patent No. 591,857 granted October 19, 1897 to Ludlam and Claus, the movable blade having an upturned arm pivotally connected by a link with the fixed temple-stand, the forward movement of the temple causing the said blade to be rocked on its pivot.

My present invention is of the general type disclosed in the last-mentioned patent, but I have provided different means for effecting the operation of the movable cutting blade, as will be fully described in the subjoined specification and particularly pointed out in the following claims.

Figure 1 is a side elevation, partly broken out, of a loom-temple with thread cutting means applied thereto embodying my present invention, in inoperative position; Fig. 2 is a top plan view of the temple-head and its adjuncts, and a part of the temple-stand; Fig. 3 is a view of the temple-head and cutting means looking toward the left, Fig. 1; Fig. 4 is a longitudinal sectional detail through the temple-head, on the line 4—4, Fig. 1; Fig. 5 is a side view, partly broken out, of the movable cutting member and its carrier; Fig. 6 is a perspective view of the fixed cutting member or blade.

Referring to Figs. 1 and 2 the temple-stand A adapted to be secured to the breast-beam of the loom, the temple-head comprising the pod B and cap C, the toothed roll D, Figs. 3 and 4, located between the pod and cap and turning on pivots carried by the cap at its inner and outer ends, the slide-bar or shank E longitudinally reciprocable in the stand and forming a part of the pod, and the downturned heel F depending from the back of the pod, are in their general features of construction all substantially well known and common in loom-temples. In practice the shank E is projected by the usual spring (not shown) within the stand A, and forward movement of the temple-head and shank is effected by engagement of the lay G, Fig. 1, with the heel F on the beat-up.

In accordance with the present embodiment of my invention the fixed blade of the thread-cutter is attached to the outer end of the cap, said blade 1 having a thickened portion or head 2 which is attached to the end wall *c* of the cap by screws 3, 4, the blade being notched at 5 to present an overhanging, beveled cutting edge 6 slightly inclined downward toward the back of the loom, see Fig. 1. The end wall *c* is notched at *c'* to permit the thread of filling to pass under the edge 6 of the fixed blade when the filling is to be cut. The shank of the screw 4 is long enough to leave a space between the head 2 of the fixed blade and the screw-head when said screw is set up, for a purpose to be referred to.

Herein I have shown the outer end of the pod B as provided with a laterally offset and frontwardly extended ear *b* to leave a clearance between the ear and the adjacent part of the pod, said clearance receiving the heel of a carrier 7 having a hole 8, Fig. 5, for the reception of the shank of a pivot-screw 9 passed horizontally through the ear and screwed into the end of the pod. Said carrier is a flat metal plate and it has fixedly attached to its opposite faces rearwardly extended, preferably spring blades 10 which pass on opposite sides of the depending blade 1 and at their free ends the blades are beveled and sharpened at 11 to form up-

turned cutting edges. The resiliency of the blades normally acts to press them toward each other, so that when the carrier 7 is rocked on its pivot 9 to elevate the beveled cutting portions 11 the latter will wipe over the opposite faces of the cutting portion of the fixed blade 1, in a manner similar to the action of shear blades, to make a clean cut of a thread of filling interposed between the fixed cutting edge 6 and the movable cutting edge 11, as will be apparent.

The front end of the carrier 7 is elongated, twisted and bent to form a narrow heel 12 curved over at its free end to form a cam portion 13, yieldingly held against a cam face 14 on the stand A, Fig. 1. A piece of spring wire is coiled at 15 around a lateral stud 16 on the blade-carrier 7 and attached at one end thereto, the elongated free end 17 of the spring passing under the screw 4 between its head and the head 2 of the fixed blade 1, the spring normally acting to depress the cutting edges of the blades 10, see Fig. 1, and hold the cam portion 13 of the carrier tail against the stationary cam face 14.

In Fig. 4 the spring is omitted, but it is clearly shown in Figs. 1, 2 and 3, and by reference to Fig. 1 it will be seen that prior to the frontward movement of the temple-head, a V-shaped space is left between the cutting edges of the blades, contiguous to the notch c', for the ready entrance of the filling thread to be cut.

When the lay beats up and strikes the heel F, moving the temple forward in usual manner, the bend 13 of the carrier heel will slide along the stationary cam face 14, and as the heel is depressed the carrier 7 will be rocked on its fulcrum 9 to elevate the blades 10. Thereby the cutting portions of said blades are caused to coöperate with the cutting edge 6 of the fixed blade, and a filling thread interposed between the blades will be promptly and cleanly severed. As the lay moves back the temple moves back and the spring 15, flexed by the operative movement of the blade-carrier 7, now operates to return the carrier and blades 10 to the position shown in Figs. 1 and 3 as the bend or cam portion 13 slides over the cam face 14. Thus the cutting blades are open for the entrance of a thread, or threads, until the frontward movement of the temple is effected on the beat-up, and the stationary and movable cam surfaces 14, 13 cooperate during the movement of the temple, first to close the blades, and then permitting the spring 15 to open them.

The operation is quick and positive, a clean cut is made, and the co-action of the fixed blade with the movable duplex blade insures the certain and accurate severance of the thread when occasion demands.

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

1. The combination with a stationary stand having a cam face, and a temple-head having a shank slidable in the stand, of a thread-cutting blade fulcrumed on the temple-head and having a tail coöperating with said cam face, a coöperating blade fixed on the temple-head, forward movement of the temple-head operating through the cam face and coöperating tail to close the blades on the beat-up and cut a filling thread between them, and a spring coöperating with the pivoted blade to open said blades on the return movement of the temple-head.

2. In a thread-cutting temple for looms, a stationary stand having a cam face, a temple-head having a shank reciprocable therein, a blade pivoted on said head and having an upturned cutting edge, a coöperating blade fixed on the head and having a downturned cutting edge, a spring to rock the pivoted blade away from the fixed blade upon rearward movement of the temple-head, and means fixedly connected with the pivoted blade and coöperating directly with the cam face on said stand, to rock said blade toward the fixed blade by frontward movement of the temple-head on the beat-up.

3. A reciprocating loom-temple having a cutting blade fixed thereon, a coöperating cutting blade pivotally mounted on the temple, a stationary cam, an extension in slidable engagement therewith and fixedly connected with the pivoted blade, to actuate it when the temple is moved forward on the beat-up and cut a thread between the blades, and a spring to open the blades when the temple is moved rearward.

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

CABELL W. MEGGINSON.

Witnesses:
GEO. W. ROBERTSON,
W. HOWARD DODSON.