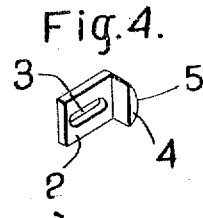
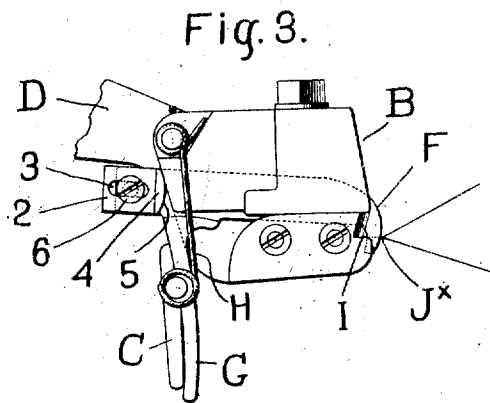
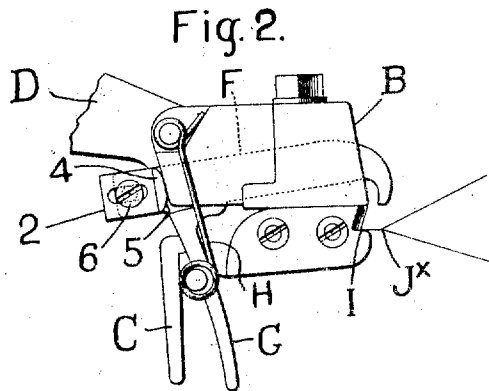
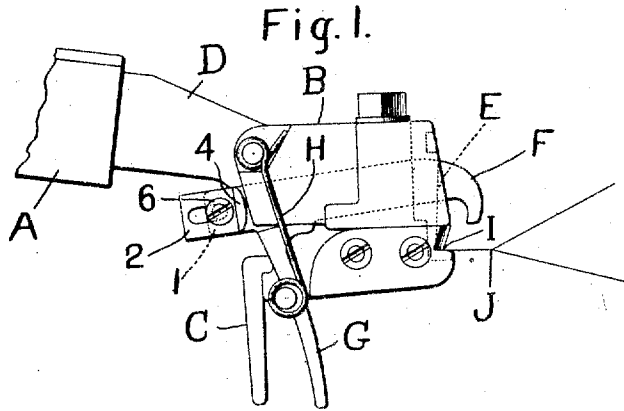


E. A. CUNNIFF.
 THREAD CUTTING LOOM TEMPLE.
 APPLICATION FILED AUG. 10, 1912.

Patented Jan. 7, 1913.

1,049,458.



Witnesses.

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UNITED STATES PATENT OFFICE.

EDWARD A. CUNNIFF, OF NEW BEDFORD, MASSACHUSETTS, ASSIGNOR TO DRAPER COMPANY, OF HOPEDALE, MASSACHUSETTS, A CORPORATION OF MAINE.

THREAD-CUTTING LOOM-TEMPLE.

1,049,458.

Specification of Letters Patent.

Patented Jan. 7, 1913.

Application filed August 10, 1912. Serial No. 714,335.

To all whom it may concern:

Be it known that I, EDWARD A. CUNNIFF, a citizen of the United States, and resident of New Bedford, county of Bristol, State of Massachusetts, have invented an Improvement in Thread-Cutting Loom-Temples, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to loom temples provided with means to cut the filling thread in a loom provided with mechanism to replenish the filling automatically, the cutting device being arranged to cut the filling close to the selvage of the cloth after replenishment of filling has been effected. A typical temple of this class forms the subject-matter of United States Patent No. 585,465 granted June 29, 1897 to Draper and Stimpson, the severing of the thread being effected by the cooperation of relatively fixed and movable blades mounted on the temple head, the movable blade normally projecting beyond the temple head. When the lay beats up a depending heel on said blade is struck, and the blade is first rocked to thread-engaging position and then it is moved bodily adjacent the fixed blade, to sever the thread with a shear cut. In certain cases trouble has been experienced with such temples, resulting in breakage of the cutting device, and in other cases the reed may be injured or the thread may be cut at the wrong time. In my efforts to overcome these troubles I have found that they can be obviated altogether by the provision of means to regulate the distance to which the movable blade projects, and my present invention has for its object the production of a thread cutting temple having provision for adjusting or regulating the position of the movable cutting blade when the latter is projected.

The various novel features of my invention will be fully described in the subjoined specification and particularly pointed out in the following claims.

Figure 1 is an outer side elevation of a thread cutting loom temple embodying my present invention, with the movable blade projected its full distance, but showing the regulating or adjusting means therefor; Fig. 2 is a similar view, but showing the movable blade adjusted for weaving heavy

pick goods, when the temple is set as near as possible to the fell of the cloth; Fig. 3 is a view similar to Fig. 2, but the movable blade is shown as depressed and just about to be moved bodily toward the front of the loom; Fig. 4 is a perspective view of the adjustable stop for the movable blade.

The stand A, the temple head B comprising the usual pod and cap, and containing the toothed roll, (not shown) the heel C depending from the pod, the shank D of the temple mounted slidably in the stand, the upright cutting blade E fixedly mounted in the temple head, see dotted lines, Fig. 1, and the cooperating movable cutting blade F, having the depending heel G and mounted to rock and also to be moved bodily, and the projecting spring H, may be and are in general all substantially of well known and usual construction, the pod having the usual notch I for the reception of the thread of filling to be cut. Ordinarily the end of the blade F adjacent the depending heel has a lateral ear thereon to constitute a stop, the stop engaging the face of the temple head toward the front of the loom when the said blade is projected, to thus limit the spring induced movement of the blade. Such arrangement permits the blade to be positioned substantially as shown in Fig. 1 when projected, the hooked end thereof being in readiness to descend and engage a thread of filling at some little distance beyond the notch I, and then to draw such thread against the fixed blade E. In ordinary weaving the projection of the blade shown in Fig. 1 is not objectionable, for the fell of the cloth, indicated at J, is some distance beyond the temple, and the cutting blades cannot operate too soon. When, however, heavy pick goods are being woven, it is necessary to move the temple as near as possible to the fell, to keep the selvage threads from breaking, and the projected blade is very near the reed on the beat up. If the blade strikes the reed the latter is spoiled and the blade will almost invariably be moved to cut the filling thread at the same time. Again, if a warp thread fails and the shuttle is at the replenishing side of the loom when the weaver moves the lay forward to even the harnesses the filling thread is beneath the movable cutting blade, (because of the close setting of the temple relatively to the fell) so that when the loom is started,

the thread will be caught and cut by the operation of the blades. The filling hanging out of the shuttle-eye is long enough, however, to tilt the usual fork, and the loom will continue to run and will make one or more faulty picks until the trouble is noticed. I overcome these objectionable features by providing a stop for the movable blade which can be regulated or adjusted to vary the extent to which the blade can be projected. To this end I lengthen the forward end of the blade F, at 1, and mount thereon a stop, shown separately in Fig. 4 as comprising a flat base 2 having a longitudinal slot 3 and a lateral lug 4 having a convex face 5. The stop is secured to the extension 1 of the blade by a suitable screw 6, the shank of which passes through the slot 3 and into a threaded hole in the extension of the blade. As shown in the drawing the face 5 of the stop lug is turned toward the adjacent face of the temple head, and when the heel G is struck by the lay the blade F first rocks as the face 5 turns on the adjacent part of the temple, and then the blade is moved frontward bodily.

Referring now to Fig. 1 I have shown the stop as set to permit the full projection of the blade F by the spring H, but in Figs. 2 and 3 I have shown the stop set so that when the blade is controlled thereby several picks must be made before the blade can engage or cut the filling thread. In Fig. 2 the temple is shown as adjusted very close to the fell J* of the cloth, as would be the case if heavy pick goods were being woven, and accordingly the blade stop is adjusted toward the hooked end of the blade F, so that the latter cannot project so far beyond the temple head. This is made clear by a comparison of Figs. 1 and 2, and it will be obvious that if the blade were positioned as in Fig. 1 and the temple set up close to the fell the filling would inevitably be cut when starting the loom after a warp fault, as hereinbefore set forth. Now when the temple is set close to the fell, as in Fig. 2, and the blade stop is adjusted as therein shown, the downward movement of the blade into the position shown in Fig. 3 will cause the blade to clear the filling thread, and the latter will not be cut. In fact, when the stop is so adjusted, the filling thread cannot come within the control of and be severed by the cutting blades until two or three picks have been made. The range of adjustment is between the positions shown in Figs. 1 and 2, and is sufficient for practically any setting of the temple with relation to the fell of the cloth, and the adjustment can be made very quickly and readily. This adjustment of the movable blade obviates injury to the reed, for by diminishing the projection of the blade beyond the temple head the bodily retracting movement of said blade will be-

gin before it can strike the reed. By the adjustment of the movable blade I am enabled practically to maintain the latter in a certain relationship to a given fixed point whether the temple itself be adjusted forward or backward, as will be apparent. There is another advantage resulting from the adjustability of the movable blade. Usually the front of the lay has attached to it a piece of leather so located that the heels G and C will be hit successively by the leather on the beat up, but sometimes a lateral setting of the temple will result in moving the blade heel G beyond the leather, or the latter wears unevenly. Then on the beat up the heel G will be engaged, so that when it is struck it not only retracts the blade F but the said blade and its heel must take the entire strain or the major part of it, of moving the entire temple head, and as a result the blade heel is broken off. By the adjustment of the blade herein provided for this objection is avoided, for if the leather wears unevenly, or the lateral setting of the temple takes the blade heel beyond the leather on the lay, the fault can be compensated for by adjustment of the movable blade, and thereby its heel is set forward, or toward the front of the loom.

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

1. A loom temple having a head provided with relatively fixed and movable blades to part the filling, a spring to project the movable blade, a stop on the latter to cooperate with a part of the temple head and thereby limit spring-induced movement of the blade, and means to hold the stop in different positions on the blade.

2. A loom temple having a head provided with relatively fixed and movable blades to part the filling, a spring to project the movable blade, an extension on the forward end of the blade, a stop mounted adjustably on the extension, to cooperate with an adjacent part of the temple head and limit the spring-induced movement of the blade, and means to hold the stop in adjusted position upon said blade extension.

3. The combination in a loom temple having a head provided with a fixed blade, and a cooperating movable blade, to cut the filling thread, said movable blade having a heel adapted to be struck to effect rocking and bodily retractive movement of the blade, and a spring to project the latter, of means to vary the extent to which the blade can be projected by the spring.

4. A loom temple having a head provided with relatively fixed and movable blades to part the filling, a spring to project the movable blade, the movable blade having its forward end extended, a stop mounted on said extension and comprising

a flat, slotted base and a lateral ear to cooperate with a part of the temple head and thereby limit spring-induced movement of the blade, and a connecting screw extended through the slotted base of the stop into the blade extension, to retain the stop in adjusted position on said extension.

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

EDWARD A. CUNNIFF.

Witnesses:

MANUEL S. RYLAND,
FARNHAM DUNHAM.

Correction in Letters Patent No. 1,049,458.

It is hereby certified that in Letters Patent No. 1,049,458, granted January 7, 1913, upon the application of Edward A. Cuniff, of New Bedford, Massachusetts, for an improvement in "Thread-Cutting Loom-Temples," an error appears in the printed specification requiring correction as follows: Page 2, line 104, for the word "menas" read *means*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 28th day of January, A. D., 1913.

[SEAL.]

C. C. BILLINGS,

Acting Commissioner of Patents.

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

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