E. S. STIMPSON.

THREAD CUTTING TEMPLE FOR LOOMS.

APPLICATION FILED OCT. 5, 1910.

990,505. Patented Apr. 25, 1911.

Fig: 1.

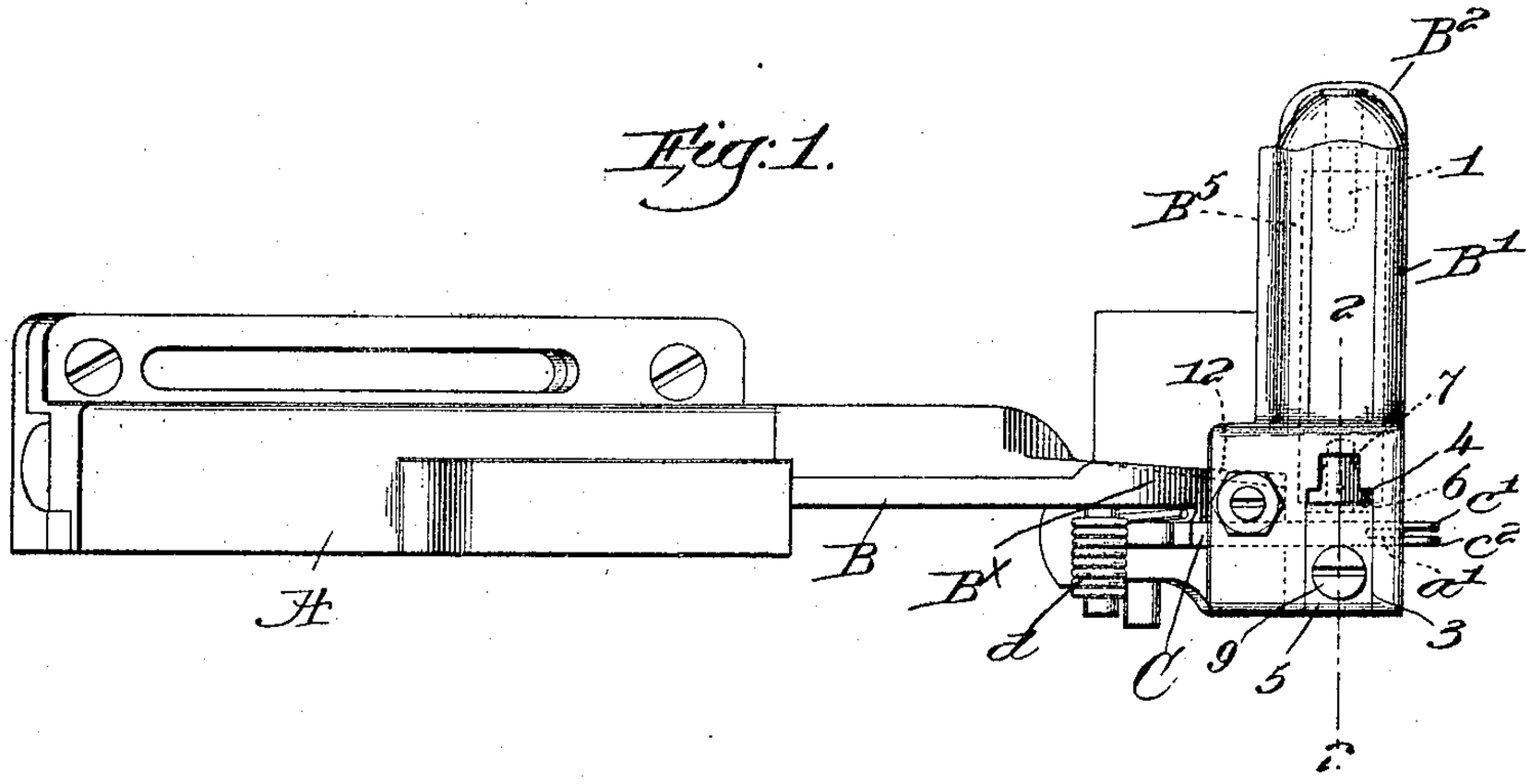


Fig: 2.

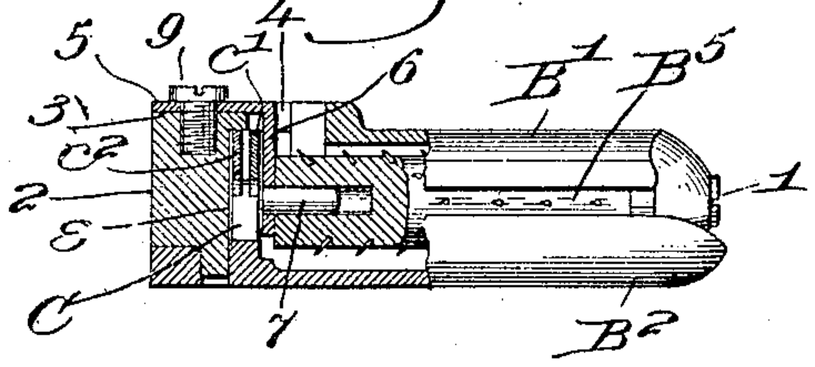


Fig: 3.

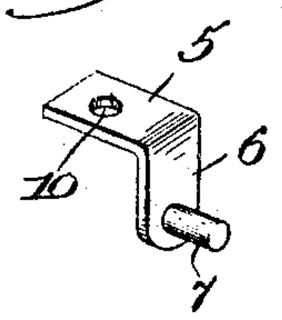
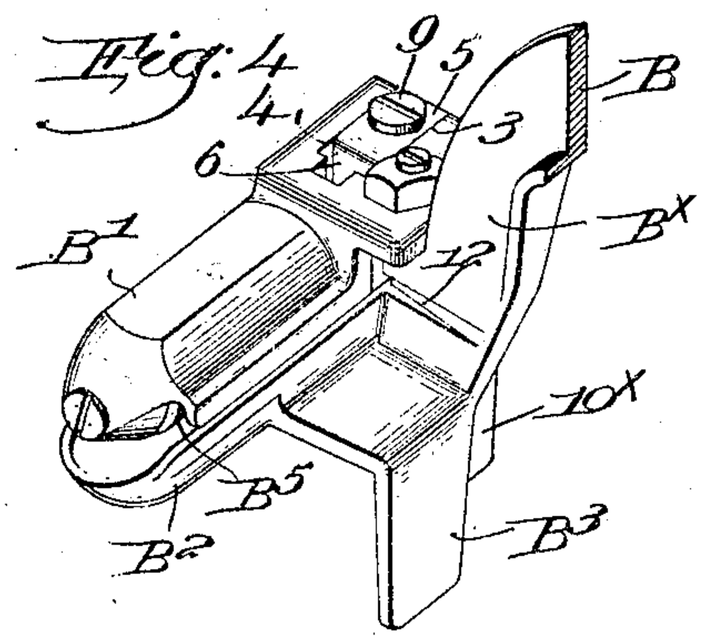


Fig: 4.



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

Inventor:
Edward S. Stimpson,
by Mosby Gregory.
Attys.

ETERS, INC., LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE

EDWARD S. STIMPSON, OF HOPEDALE, MASSACHUSETTS, ASSIGNOR TO DRAPER COMPANY, OF HOPEDALE, MASSACHUSETTS, A CORPORATION OF MAINE.

THREAD-CUTTING TEMPLE FOR LOOMS.

990,505. Specification of Letters Patent. **Patented Apr. 25, 1911.**

Application filed October 5, 1910. Serial No. 585,354.

To all whom it may concern:

Be it known that I, EDWARD S. STIMPSON, a citizen of the United States, and resident of Hopedale, county of Worcester, State of Massachusetts, 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 characters on the drawing representing like parts.

In United States Patent No. 765,687, granted to me July 26, 1904, the construction is particularly designed to prevent injury to the roll-pivot or to the movable thread-cutting blade, and to that end the outer end of the cap is provided with a transverse slot in which the fixed and movable cutting blades are located.

The inner wall of the slot is made thick in order that a threaded hole may be formed in it for the reception of a roll-pivot, the latter being screwed into the hole and being supported by the wall, the head of the pivot seating in the counter sunk outer end of the hole. The outer end of the temple-roll is adjacent the inner face of the pivot-supporting wall, and is quite a distance from the blades, so that the latter cannot cut the filling-end as close to the edge of the cloth as could be done by earlier forms of thread-cutting temples. While this greater distance of the blades from the edge of the cloth was not desirable the tendency of the movable blade and the adjacent roll-pivot to be damaged was still less desirable, and hence the structure embodied in my patent aforesaid has gone into extensive use and has proved completely successful in every way except that the cutting action of the blades is not as near the selvage of the cloth as is desirable in many cases.

In my present invention I have provided novel and simple means for overcoming this objection while retaining the desirable features present in my previously patented structure. This I attain by eliminating the thick wall which supports the roll-pivot, which wall heretofore has formed an integral part of the cap of the temple, and instead I mount the roll-pivot on a depending portion of a thin metallic hanger detachably secured to the cap. Such depending portion extends into the cap between the cutting blades and the adjacent end of the roll, and can be made so thin that said roll approaches very closely to the blades, so that the cutting action is effected immediately adjacent the selvage of the cloth.

The roll-pivot is a stud which is riveted fixedly to the depending portion of the hanger, so that the latter can be made very thin without detriment, and should the pivot or the hanger break new parts can be substituted quickly without detriment to the rest of the temple head. In the patented structure hereinbefore referred to if the pivot-supporting wall breaks the cap of the temple is rendered worthless, as such wall forms an integral part of the cap casting.

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

Figure 1 is a top plan view of a thread-cutting temple and its stand embodying my present invention; Fig. 2 is a partial longitudinal section and elevation of the temple-head, the section being taken on the line 2—2, Fig. 1, looking toward the left; Fig. 3 is a perspective view of the outer roll-pivot and its hanger, detached from the temple-head; Fig. 4 is a perspective view of the temple-head to show more clearly a clearance for the edge of the cloth adjacent the outer end of the roll, to be referred to.

The temple-stand A, the temple-head comprising the pod B′, cap B^2, and heel B^3 attached to the pod, and the toothed roll B^5 between the pod and cap and turning on pivots, and the slide-bar or shank B, are in general substantially as shown in my patent hereinbefore referred to except as to such novel features as will be pointed out hereinafter. The pivotal support 1 for the inner end of the roll B^5 is of usual construction. The thickened outer end 2 of the cap has in its top a longitudinal, shallow seat 3 terminating at its inner end in an opening 4, and in said seat is inserted the head 5 of an L-shaped hanger, shown separately in Fig. 3, and made of relatively thin but stiff plate metal, the depending portion or foot 6 of the hanger extending through the opening 4 and downward within the cap and pod toward the bottom of the latter.

As best shown in Fig. 2 the foot 6 of the hanger is parallel to the inner, upright face of the thickened end 2 of the cap, leaving an upright space or clearance 8 in which are located the fixed cutting blade *a′* and

the movable cutting blade C, the latter being bifurcated at c', c^2 to accommodate blade a', as in my patent.

As the construction of the cutting blades and their operation herein is the same as in my patent and involves no novel features any further description is deemed unnecessary in this application.

The depending foot 6 of the hanger has fixedly secured to it, as by riveting, a stud 7 extended inward at right angles thereto and forming the roll-pivot for the outer end of the toothed roll B^5, as clearly shown in Fig. 2. A screw 9 passed through a hole 10 in the hanger head and into the end 2 of the cap serves to maintain the hanger securely in position. As the stud 7 can be securely fixed to the hanger foot the hanger can be made quite thin, so that the distance between the cutting blades and the outer end of the roll B^5 is very short, thereby enabling the blades to cut the filling-end very close to the selvage of the cloth, which is highly desirable in weaving many kinds of cloth. It is not possible to reduce this distance in my patented temple, because the wall, (marked 4 in the patent) must be quite thick to enable the threaded hole to be made therein for the reception of the roll-pivot, and as it is a part of the casting forming the cap the pivot cannot be securely riveted to it. It is much easier, also, to cast the cap without any intervening wall between the outer end of the cap and the roll-receiving portion thereof, and to provide the removable hanger and its fixed roll-pivot, as herein, and there is very little liability of breaking the hanger, while the wall in the patented structure, being a part of the casting, will sometimes break when subjected to heavy strain.

The temple roll stretches the cloth while in engagement therewith, and between the outer end of the roll and the point where the cloth contracts to its normal width there is usually a tendency to curl up the selvage against the part B^x of the shank B adjacent the pod. To obviate this curling or turning over of the selvage I have made a clearance groove 12 in the upright face of the part B^x of the shank, the groove decreasing in depth from its rear end, nearest the roll, to its forward end, see Figs. 1 and 4. As the cloth leaves the roll the selvage travels freely and smoothly in the clearance groove and the curling or turning over of the selvage is obviated. The spring d for projecting the movable blade C is shown in Fig. 1, and the heel 10^x of said blade C is partly shown in Fig. 4, the heel being struck by the lay to retract the blade and effect the cutting of the filling-end as the lay beats up, in well known manner.

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

1. A temple-head comprising a pod and a cap, a roll carried by the cap, the latter having a longitudinal seat in the top of its outer end and an opening at the inner end of the seat, a hanger detachably held in said seat and provided with a depending leg extended through the opening into the cap, a roll-pivot fixedly secured to the leg, and fixed and movable cutting blades located in the clearance between the outer end of the cap and the leg of the hanger.

2. A temple-head comprising a pod and a cap, the latter having a thickened outer end and an adjacent opening in its top, a hanger attached to the cap and having a depending portion extended through said opening into the interior of the cap, a roll-pivot carried by such depending portion of the hanger, and fixed and movable cutting blades within the clearance between said portion of the hanger and the inner face of the thickened end of the cap.

3. A temple-head comprising a pod and a cap, the latter having a closed outer end and an adjacent opening in its top, a substantially L-shaped hanger detachably secured to the exterior of the cap and having its leg depending into the cap through the opening, a roll-pivot fixed on the leg, and fixed and movable cutting blades within the clearance between the closed end of the cap and the leg of the hanger.

4. A temple-head comprising a pod and a cap, the latter having an opening in its top near its outer end, a hanger made of thin plate metal detachably mounted on the cap and having a depending leg extended through said opening into the cap, a roll-pivot fixedly attached to the leg, and cutting blades within the clearance between the leg of the hanger and the outer end of the cap.

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

EDWARD S. STIMPSON.

Witnesses:
GARDINIR ALLEN,
E. D. OSGOOD.