(No Model.)

L. BRUNETTE & A. P. HORNE.

LOOM.

No. 574,187. Patented Dec. 29, 1896.

Fig. 1.

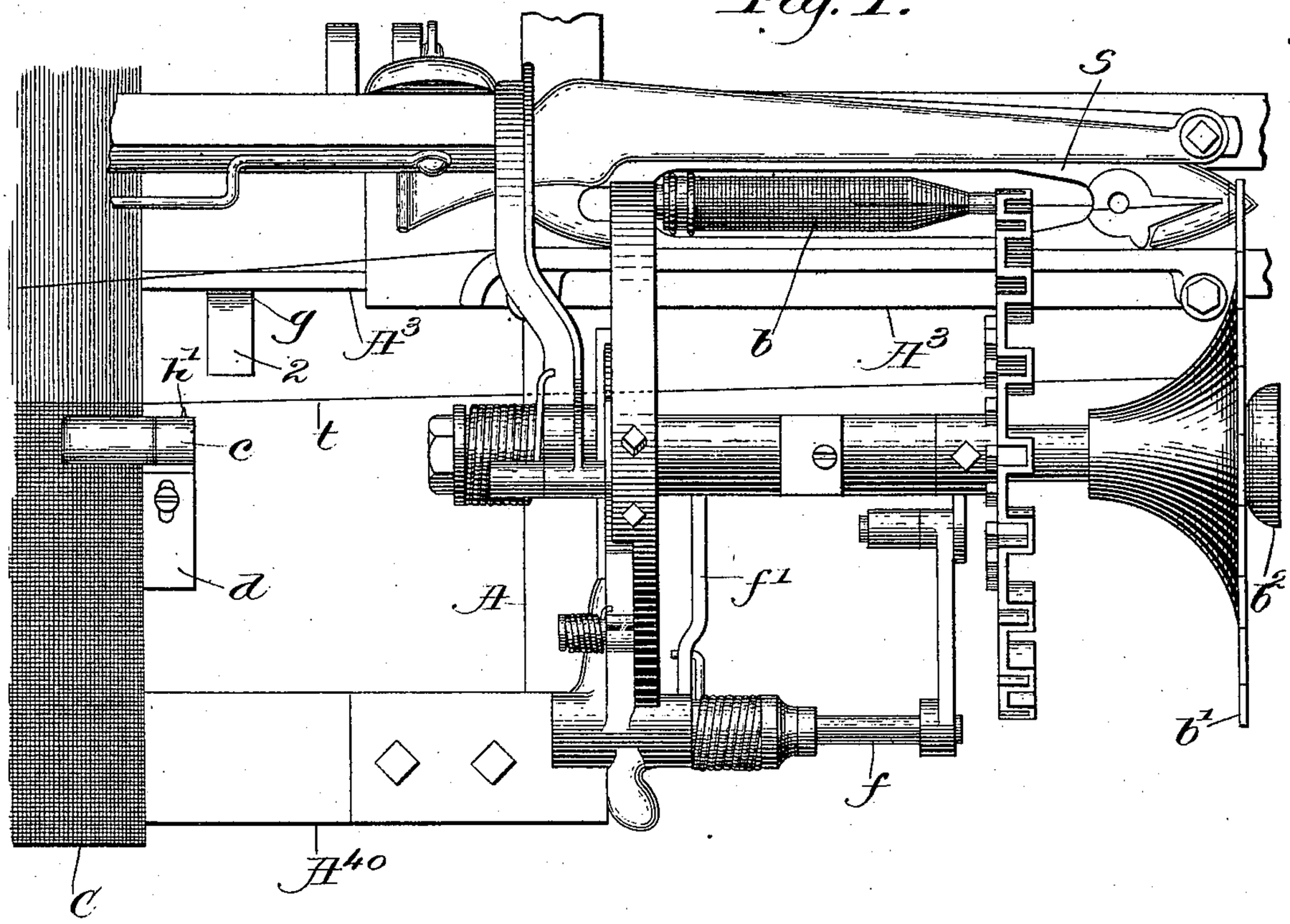


Fig. 2.

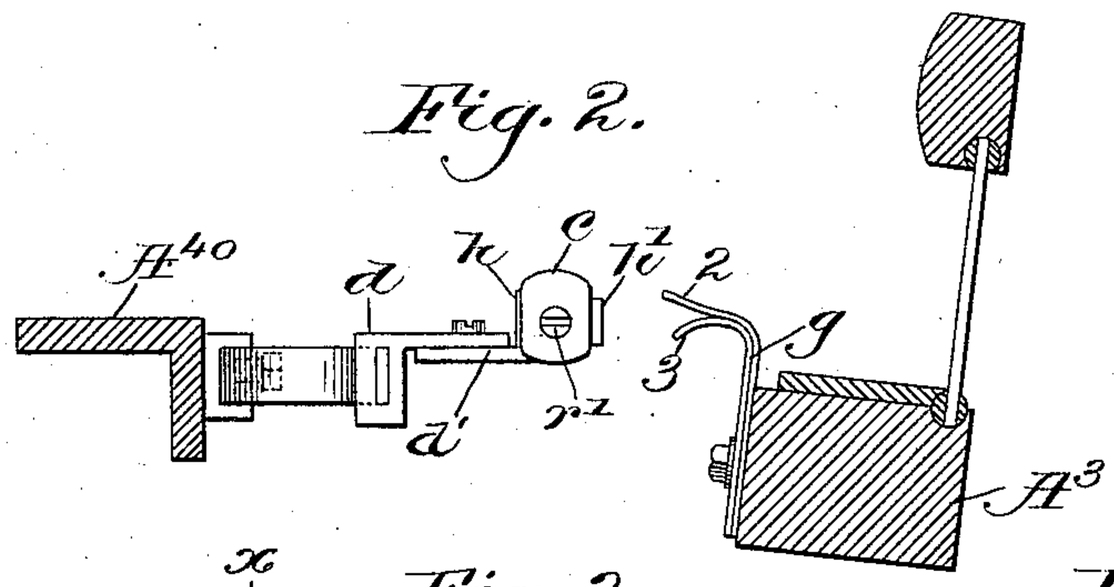


Fig. 5.

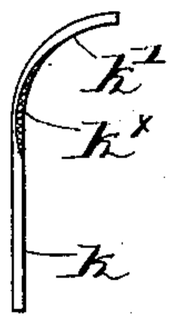


Fig. 3.

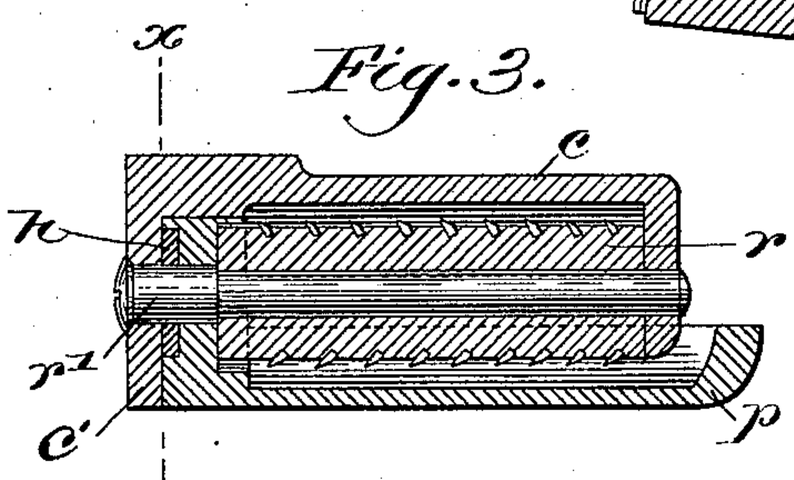
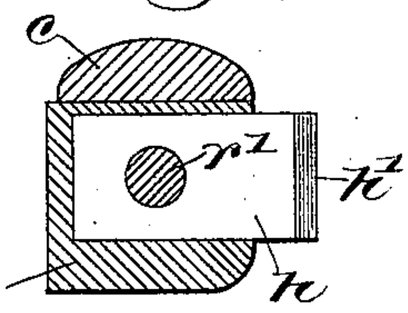


Fig. 4.



Witnesses:
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by Crosby & Gregory. Attys.

UNITED STATES PATENT OFFICE.

LEON BRUNETTE AND AUGUSTUS P. HORNE, OF MANCHESTER, NEW HAMPSHIRE, ASSIGNORS TO THE NORTHROP LOOM COMPANY, OF SACO, MAINE, AND HOPEDALE, MASSACHUSETTS.

LOOM.

SPECIFICATION forming part of Letters Patent No. 574,187, dated December 29, 1896.

Application filed July 21, 1896. Serial No. 600,074. (No model.)

To all whom it may concern:

Be it known that we, LEON BRUNETTE and AUGUSTUS P. HORNE, of Manchester, county of Hillsborough, State of New Hampshire, have invented an Improvement in Looms, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates particularly to looms provided with automatic filling-supplying mechanism, and has for its object the production of simple means for cutting the weft or filling thread at a predetermined point close to the selvage and between it and the point of attachment of the end of the filling.

Figure 1 is a plan view showing a sufficient portion of the loom-frame, lay, and filling-feeder to be understood with our invention applied thereto, the lay being shown as back. Fig. 2 is a view, partially in section, transversely to the lay, showing the filling cutter and guide. Fig. 3 is an enlarged sectional view of the temple-head, showing the manner of attaching the filling-cutter. Fig. 4 is a transverse section thereof on the line $x\,x$, Fig. 3; and Fig. 5 is a detail view of another form of filling-guide.

The loom-frame A, breast-beam A^{40}, the rotary filling-feeder, adapted to hold both ends of a filling-carrier b, the weft or filling end supporting-plate b', holder b^2 for the end, the stud f and pusher f' to transfer a filling-carrier from the feeder, the self-threading shuttle S, and the lay A^3, having the bottom of its shuttle-box cut through for the discharge of the spent filling-carrier from the shuttle, are and may be as in United States Patent No. 529,942, dated November 27, 1894, to which reference may be had. As in said patent, when a fresh filling-carrier is inserted in the shuttle the latter is thrown across the lay, the filling t leading from the end holder b^2 around the supporting-plate b' to the selvage of the cloth C, as in Fig. 1. Unless the end is severed positively it will be broken as the cloth is wound on the roll, leaving a long end, and we have herein provided a cutter to positively sever the filling end at a predetermined point close to the cloth-selvage, a guide or holder coöperating to bring the filling into proper position.

The breast-beam A^{40} has adjustably secured thereto a stand d, to which stand is connected the temple-shank d', its head having, as herein shown, attached to it a blade h, provided with a vertical cutting edge h'.

Referring to Fig. 1, it will be seen that the edge of the cutter is located adjacent the selvage and at one side of the filling end t, so that by bringing the latter against the cutter the said end will be severed close to the selvage.

In Figs. 3 and 4 we have shown a convenient means of securing the cutting-blade h to the temple-head, comprising the cap c and pod p, the upright wall of the latter at the outer end of the roll r being recessed transversely to receive the blade. The end c' of the cap extends over the side of the blade and the roll-stud r' is extended through a suitable hole in the blade.

In order to positively press the filling end against the edge of the blade, we have mounted on the lay a guide g, (shown in Fig. 2 as having its upper ends 2 3 diverging toward and to engage the filling on the side opposite the blade as the lay moves forward,) so that the filling end is pressed against the upright edge h' of the blade and severed.

Instead of making the guide as shown in Figs. 1 and 2 it may be made as shown in Fig. 5, wherein a bar k, curved at its upper end at k' toward the breast-beam, is secured to the lay opposite and just at one side of the blade h, the concave side of the guide being preferably roughened or milled, as at $k^{\times}$, to more surely engage the filling.

Should the filling end not be severed at the first engagement with the cutter, one or two successive engagements therewith will sever it without fail close to the selvage.

The temple makes the simplest and most effective holder or support for the cutter or blade h, as it is in the proper position as regards the point at which it is desired to cut the filling end.

We are aware that it is not new to sever a filling-thread by engaging it and pulling it until it breaks, nor is it new to press the fill-

ing-thread in opposite directions by two breaking members, the thread in each case being parted. With such constructions, however, the thread will break usually at its weakest point, which may be more or less near to the desired point; but by using a cutting-blade with which a guide coöperates to engage the thread and guide it up to the blade, pressing it against the latter, the thread will be cut at one point and not at the point of weakest section.

Having fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a loom provided with automatic filling-supplying mechanism, the lay, a temple, a cutting-blade rigidly held between the outer ends of the cap and pod and with its edge adjacent the selvage of the cloth, and a guide on the lay, upturned to engage the end of a fresh supply of filling and press it against the edge of the blade, to be severed thereby, substantially as described.

2. In a loom provided with automatic filling-supplying mechanism, the lay, a cutting-blade adjacent the selvage, a stationary support for and to rigidly hold said blade, with its edge toward the lay, and a guide having its upper end diverging toward said blade, to receive in its diverging end the end of a fresh supply of filling opposite said blade and press said filling against the blade to be severed thereat, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

LEON BRUNETTE.
AUGUSTUS P. HORNE.

Witnesses to signature of Leon Brunette:
E. S. HOBBS,
G. W. SPEAR.

Witnesses to signature of Augustus P. Horne:
EDWIN F. JONES,
ARTHUR W. MORGAN.