

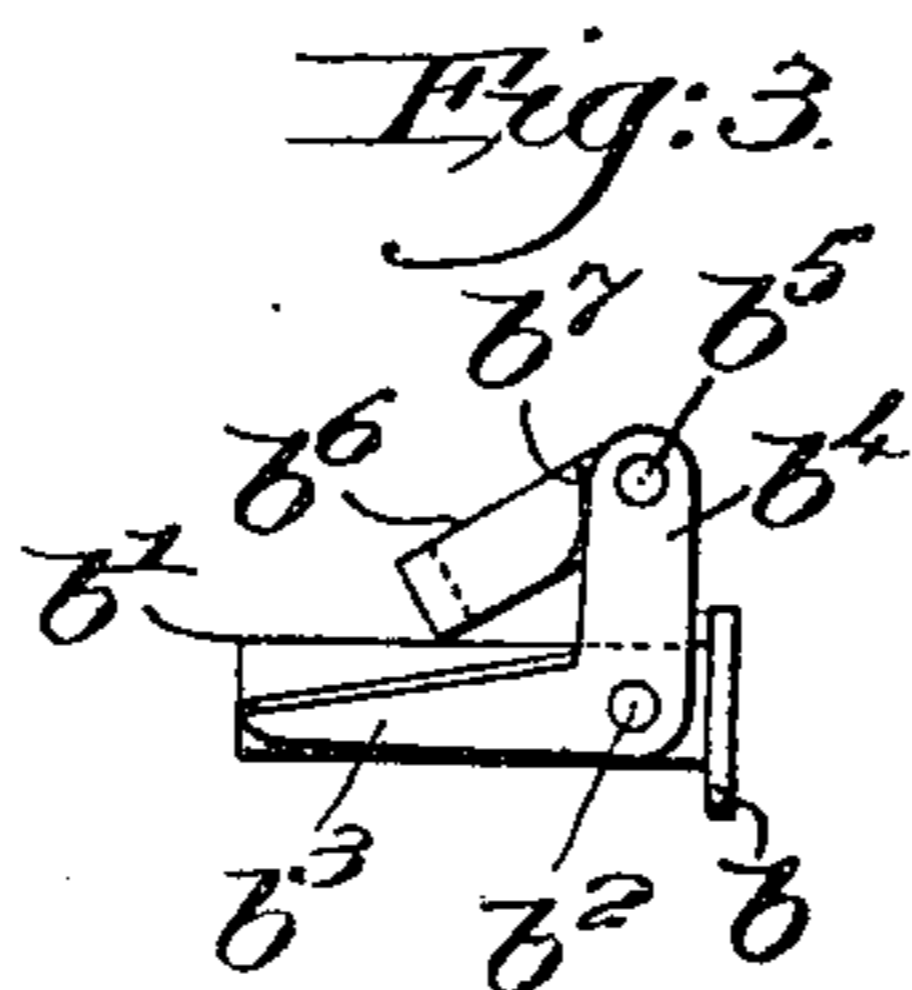
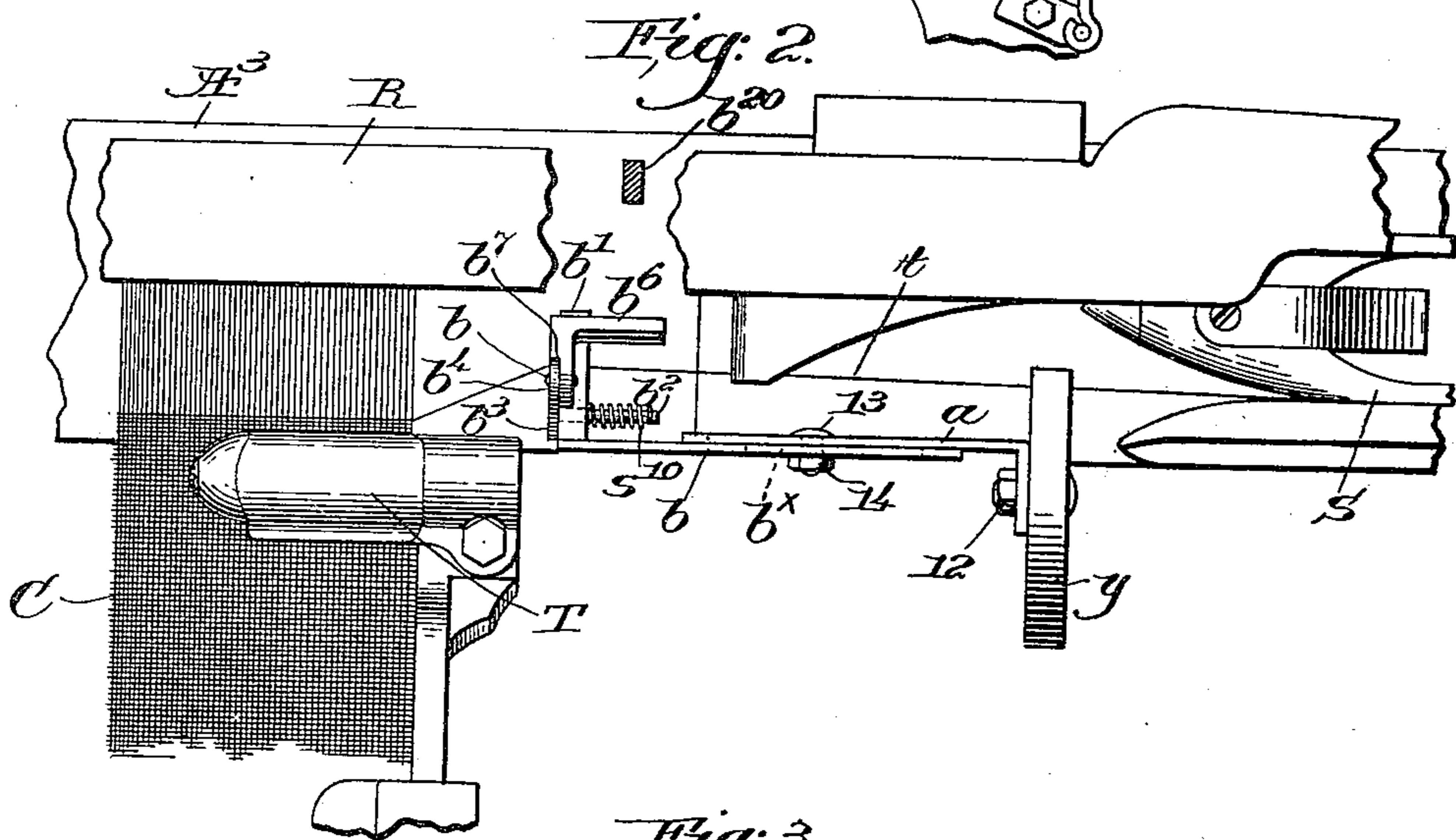
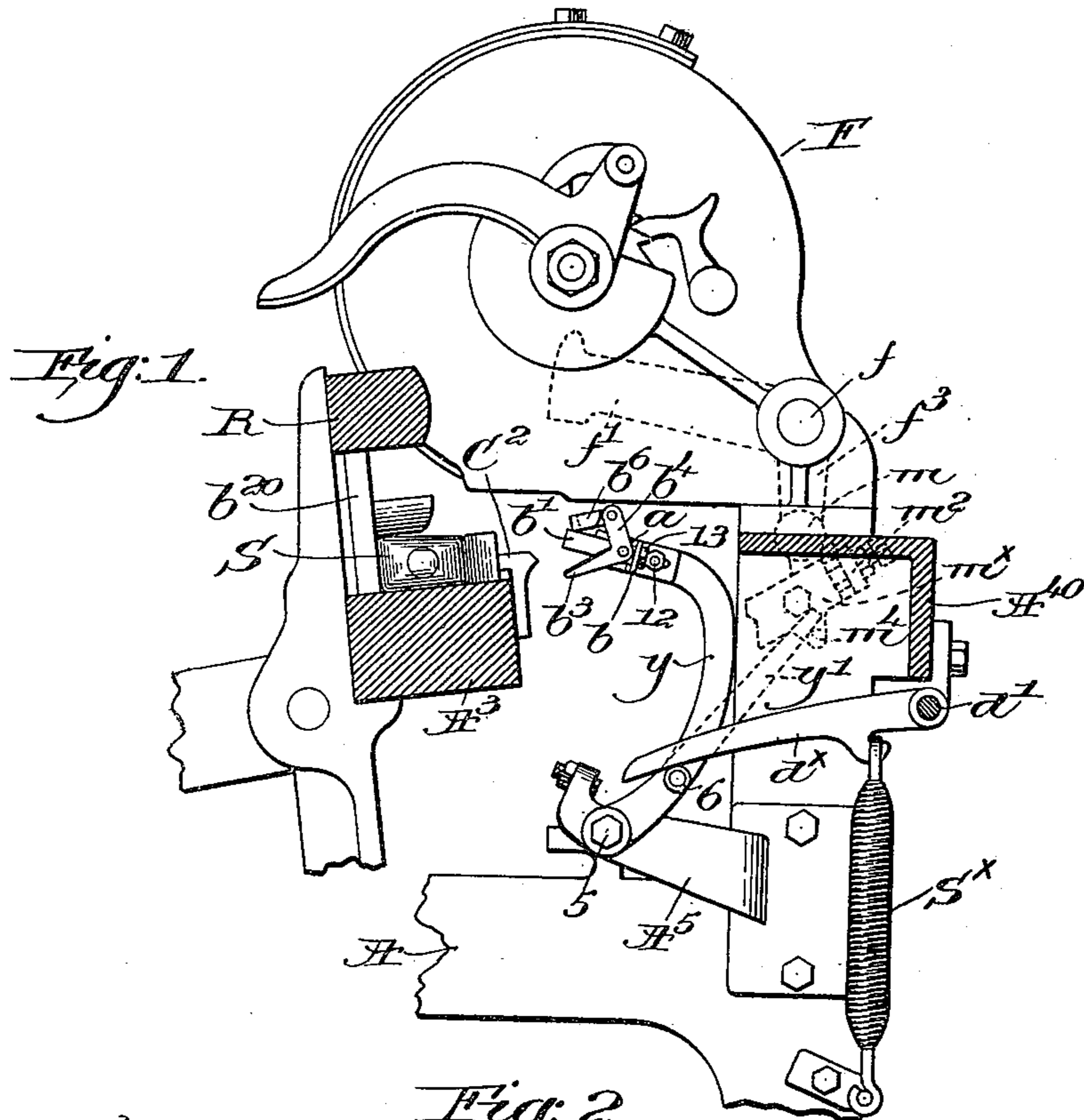
No. 667,661.

Patented Feb. 5, 1901.

J. NORTHROP.
 THREAD PARTER FOR WEFT REPLENISHING LOOMS.

(Application filed May 24, 1900.)

(No Model.)



Witnesses,
 Edward H. Allen.
 Thomas Drummond.

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UNITED STATES PATENT OFFICE.

JONAS NORTROP, OF HOPEDALE, MASSACHUSETTS, ASSIGNOR TO THE
DRAPER COMPANY, OF SAME PLACE AND PORTLAND, MAINE.

THREAD-PARTER FOR WEFT-REPLENISHING LOOMS.

SPECIFICATION forming part of Letters Patent No. 667,661, dated February 5, 1901.

Application filed May 24, 1900. Serial No. 17,798. (No model.)

To all whom it may concern:

Be it known that I, JONAS NORTROP, a citizen of the United States, residing at Hopedale, in the county of Worcester and State of Massachusetts, have invented an Improvement in Thread-Parters for Weft-Replenishing 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 has for its object the production of novel thread cutting or parting means for looms and more particularly applicable to looms provided with automatic filling-supplying mechanism, whereby the length of thread extending from the selvage of the cloth to the filling-carrier ejected upon change of filling can be parted.

I have provided novel means for making the thread-parter laterally adjustable to accommodate cloth of different widths, it being desirable, manifestly, to sever the thread adjacent the selvage.

In the practical embodiment of my invention herein shown the thread-parter is mounted on a shuttle-feeler, and when the shuttle is properly positioned the shuttle-feeler brings the thread-parter into operative position, the actuation of the latter to part the thread being effected as the lay beats up.

Various novel features of my invention will be hereinafter described, and particularly pointed out in the following claims.

Figure 1 is a cross-sectional view of a portion of a loom provided with automatic filling-supplying mechanism with one embodiment of my present invention applied thereto. Fig. 2 is an enlarged detail in plan of a portion of the lay, the shuttle-feeler, and thread-parter, the lay being supposed to be moving forward to complete its stroke; and Fig. 3 is an enlarged detail, in side elevation, of the thread-parter, the jaws being shown closed.

Referring to Fig. 1, the frame A, breast-beam A⁴⁰, the lay A³, the self-threading shuttle S, the hopper or feeder F and transferrer f', mounted on the stud f, forming a part of the automatic filling-supplying mechanism, and the shaft d', adapted to be rocked by or through the action of the feeler (not shown)

upon exhaustion of the filling in the shuttle to a predetermined extent, are and may be all substantially as in United States Patent No. 641,792, dated January 23, 1900, the end f³ of the transferrer having mounted upon it a headed rocker-stud m, provided with an attached arm m², on which is mounted a notched dog m^x, provided with a lateral lug m⁴, a bunter C² on the lay engaging the dog when moved into position prior to a change of filling. As in said patent, a bracket A⁵ is mounted on the frame and has pivoted thereon at 5 an upturned rearwardly-bent arm y, forming a shuttle-feeler, said shuttle-feeler having a lateral stud or roll 6, normally engaged by a detent-finger d^x, fast on the rock-shaft d', maintained in the position shown in Fig. 1 by the strong spring S^x, a branch y', (see dotted lines, Fig. 1,) rigidly secured to the shuttle-feeler, engaging the lug m⁴ on the dog m^x, the parts herein described operating as set forth in the patent referred to.

As best shown in Fig. 2, the shuttle-feeler y has bolted securely thereto, as at 12, a lateral arm a, extended inward toward the cloth, said arm having a bolt 13 extended there-through to enter a longitudinal slot b^x (see dotted lines, Fig. 2) in a long arm b, rigidly secured to the thread-parter, a nut 14 on the bolt 13 holding the two arms together in adjusted position.

The thread-parter is shown as comprising a strong fixed jaw b', secured to the arm b and extended toward the lay and having fulcrumed thereon at b² the movable jaw b³, a spring s¹⁰, Fig. 2, coiled around the fulcrum-stud b² and secured at one end thereto, normally maintaining the jaws open, the other end of the spring being held by the fixed jaw b'. The jaw b³ has an upright b⁴, on which is pivoted at b⁵ an L-shaped finger b⁶, the lateral extension of which normally rests on the top of the jaw b', as in Fig. 1, a stop-shoulder b⁷ on the finger (see Fig. 3) cooperating with the upright b⁴ to limit the opening of the jaws. By the laterally-extensible connection between the shuttle-feeler y and the thread-parter the latter can be adjusted toward the edge of the cloth C, Fig. 2, according to the width of the latter, space being left between

the thread-parter and the selvage for the temple T. Now when the shuttle-feeler is moved toward the lay it can complete its movement if the shuttle is properly boxed, as in Fig. 2, 5 and the thread-parter is moved into operative position, the thread *t* of filling, extending from the selvage to the shuttle, passing between the jaws *b' b³*. If the shuttle is not properly boxed, the thread-parter will not be 10 moved into operative position, and consequently operation of the same will be prevented.

Any suitably-located projection on the lay can be arranged to strike the finger *b⁶* as the 15 lay beats up to close the jaws and part the thread, and such projection may be a portion of the reed, enough dents being removed to prevent interference with the jaws; or I may insert an upright projection or bar *b²⁰*, Figs. 20 1 and 2, at the end of the reed, between the lay and the reed-cap R, the projection being located in either event back of the shuttle-race, as will be manifest. The lateral extension of the finger *b⁶* permits considerable lateral 25 adjustment of the thread-parter for any given position of the actuating device *b²⁰*, and it will be noted that the finger *b⁶* is located above the point at which the thread is engaged and parted by the jaws, thus obviating 30 any interference with the thread. After the thread-parter has been actuated the spring *s¹⁰* opens the jaws in readiness for the next operation.

The construction shown herein may be 35 changed or modified without departing from the spirit and scope of my invention.

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

1. In a loom, a shuttle adapted to carry a 40 supply of filling, a shuttle-feeler, having a laterally-extended arm, and a thread-parter adjustably mounted on said arm.

2. In a loom, a shuttle adapted to carry a supply of filling, a shuttle-feeler, a thread- 45 parter, and a longitudinally-extensible connection between it and the feeler and extended laterally from the latter.

3. In a loom provided with filling-supplying mechanism, the lay, a shuttle adapted to carry 50 a supply of filling, a shuttle-feeler operatively connected with said mechanism, a thread-parter movable with the shuttle-feeler, to part the thread of the filling-carrier to be ejected upon change of filling, said thread-parter in- 55 cluding a finger located above the plane of the cloth, and a device on the lay to engage the finger and actuate the thread-parter.

4. In a loom, the lay, a shuttle-feeler having a lateral arm, a thread-parter comprising 60 normally open parting-jaws and a finger to close them, adjustable means to connect said thread-parter with the arm on the shuttle-feeler, and a device on the lay to engage the 65 finger and effect closing of the jaws.

5. In a loom, a shuttle-feeler, a laterally-adjustable thread-parter carried thereby including a movable jaw having an upturned extension, and means to engage said extension above the thread to be parted, to actuate 70 the jaw.

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

JONAS NORTROP.

Witnesses:

GEORGE OTIS DRAPER,
ERNEST W. WOOD.