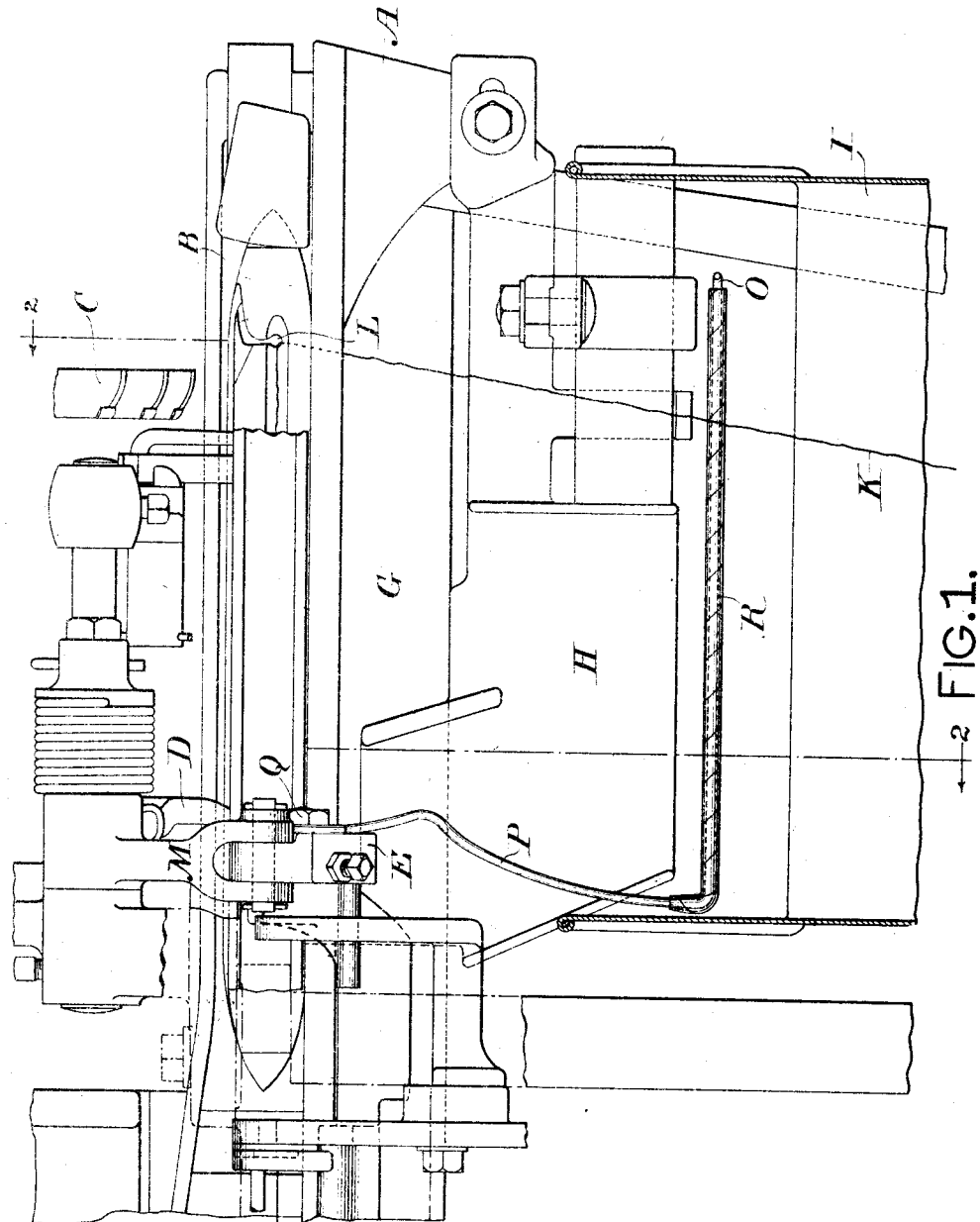


P. HUNT.
 THREAD STRIPPER FOR LOOM SHUTTLES.
 APPLICATION FILED JAN. 4, 1912.

1,048,538.

Patented Dec. 31, 1912.
 2 SHEETS—SHEET 1.



Witnesses:
J. W. D. Latimer
Eugene W. Bond

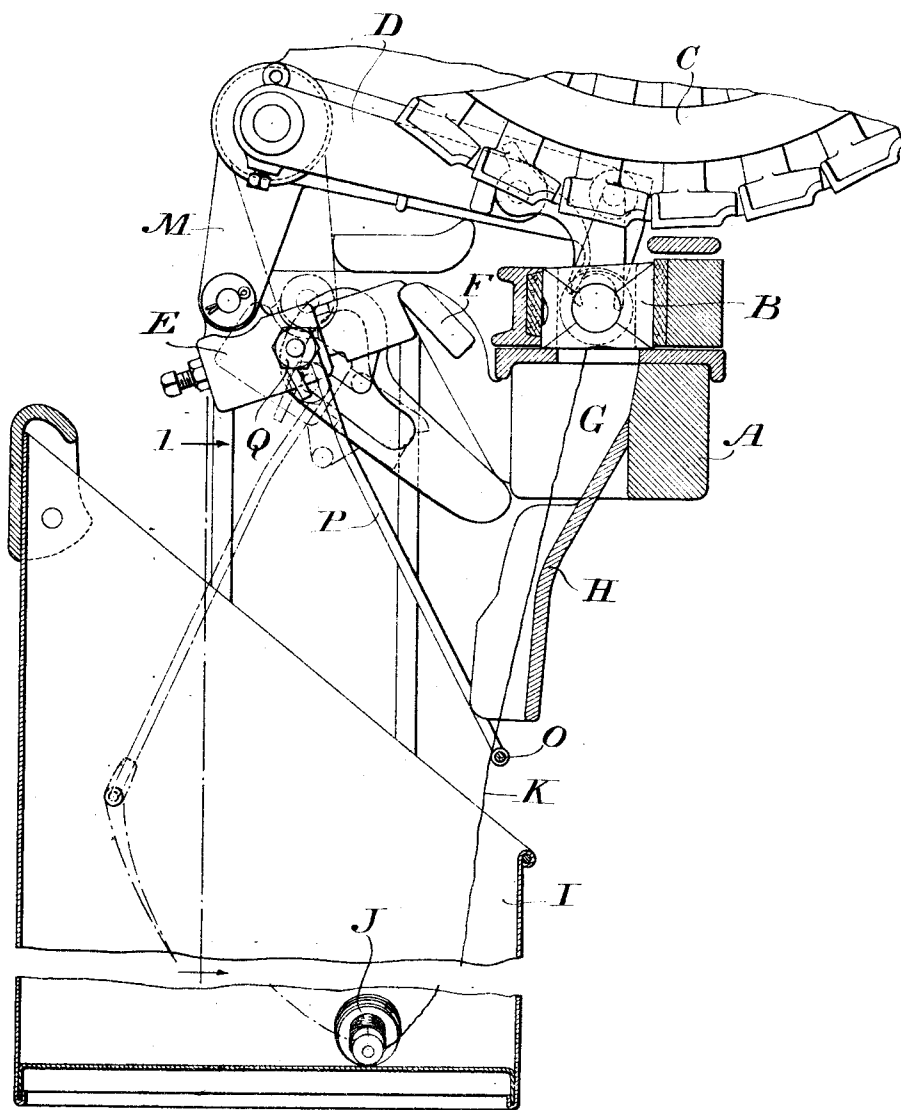
Inventor:
 Patrick Hunt
 By *Arthur S. Browne*
 Attorney:

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Joseph S. Limer
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FIG. 2.

Inventor:
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UNITED STATES PATENT OFFICE.

PATRICK HUNT, OF NEW BEDFORD, MASSACHUSETTS, ASSIGNOR TO DRAPER COMPANY, OF HOPEDALE, MASSACHUSETTS, A CORPORATION OF MAINE.

THREAD-STRIPPER FOR LOOM-SHUTTLES.

1,048,538.

Specification of Letters Patent.

Patented Dec. 31, 1912.

Application filed January 4, 1912. Serial No. 669,508.

To all whom it may concern:

Be it known that I, PATRICK HUNT, of New Bedford, in the county of Bristol, in the State of Massachusetts, have invented a new and useful Thread-Stripper for Loom-Shuttles, of which the following is a specification.

In automatic weft-replenishing looms of the character wherein replenishment is effected by discharging a spent bobbin or other weft-carrier from the shuttle and inserting a full weft-carrier in the shuttle, it frequently happens that there is a trailing end of thread extending from the spent bobbin which may not be entirely drawn out from the eye of the shuttle upon the discharge of the spent shuttle. This occasionally happens in the case of that class of such looms in which the replenishment is brought about upon the breakage or complete exhaustion of the running shuttle thread in the event of the thread breaking; but it more frequently occurs in that class of automatic weft-replenishing looms now commonly known as "feeler" looms (such, for example, as set forth in United States Letters Patent of J. Northrop, No. 911,672, February 9, 1909) wherein replenishment occurs prior to the complete exhaustion of the running weft. The result of the trailing end of the discharged weft thread being left within the shuttle eye may be imperfect cloth, thus defeating the object of the feeler looms. After a full weft-carrier has been inserted in the shuttle and the shuttle makes its first flight therewith across the loom, the trailing end of the discharged weft-carrier is occasionally drawn by the shuttle through the shed, with the result that there is a double pick or a partial double pick woven into the cloth.

The object of the present invention is to avoid this occasional defect.

To this end the invention comprises an automatic thread stripper, which acts during the discharge of the spent weft-carrier to engage the trailing thread extending from the spent weft-carrier to the eye of the shuttle and to draw upon said trailing thread so as to strip it from the shuttle.

The present invention is illustrated in the accompanying drawings, wherein—

Figure 1, is a front view of the replenishing end of an automatic weft-carrier replenishing loom, illustrating so much of the loom as is necessary for an understanding

of the present invention, this figure also illustrating a portion of the receiver for spent weft-carriers in section in the plane indicated by the line 1—1 in Fig. 2. Fig. 2, is a transverse section in the plane indicated by the line 2—2 in Fig. 1.

The drawings illustrate various well known features of a well-known type of weft-carrier replenishing looms, the illustrated characteristics being in organization and mode of operation substantially like the corresponding parts set forth in United States Letters Patent of J. H. Northrop, No. 529,940, November 27, 1894.

A, is the lay; B, is the working shuttle shown as occupying the shuttle-box at the replenishing side of the loom; C, is a portion of the rotary magazine or hopper containing spare weft-carriers; D, is the oscillating transferrer which descends to transfer a fresh weft-carrier from the magazine into the shuttle and to concurrently drive down the spent weft-carrier from the shuttle; and E, is the swinging transferrer dog carried by the transferrer which, when a transfer of weft-carriers is demanded, is automatically swung upwardly to the position shown in full lines at Fig. 2, where it is in the path of a bunter F, carried by the lay. The spent weft-carrier is discharged downwardly through a passage G, in the lay and is directed forwardly by a weft-carrier guide chute H, mounted on the lay into a receiver I. In all of these respects the drawings illustrate well-known mechanism.

Fig. 2, of the drawings shows a spent weft-carrier J, at the bottom of the receiver I, and shows this spent weft-carrier with some weft still on it and a trailing end K, extending from the spent weft-carrier up to and through the eye L (see Fig. 1) of the shuttle; thus indicating a condition which often exists in the practical operation of these looms and which occasionally gives rise to the defect in the cloth heretofore mentioned. The thread stripper constituting the present invention is shown as applied to this well-known mechanism.

The transferrer dog E, is shown in full lines in Fig. 2, occupying its uplifted position in the path of the lay bunter F, and the transferrer D, is shown in its depressed position, the lay being substantially at front center. Thus there is illustrated the condition which exists just after the spent weft-

carrier has been ejected. Fig. 2, shows in dotted lines the normally idle position of the transfer dog E, and of the arm M, of the transfer to which it is pivoted. The thread stripper O, is mounted upon the transfer dog E. As shown, the stripper O, is a horizontal arm located just below the guide chute H, and extending nearly the width of the receiver I, and widthwise of the discharge passage G. The thread stripper has an upwardly extending arm P, at its inner end which is clamped to the transfer dog by a headed bolt Q. The thread stripper O, is covered with a friction material R, such as felt, or rough cloth, so as more efficiently to act upon the trailing thread.

The thread stripper normally occupies the position shown in dotted lines in Fig. 2. When, however, the weft-replenishing mechanism is set into action on the approaching exhaustion of the running weft, or on its breakage, (as the case may be), the transfer dog E, is swung upwardly to the position shown in full lines in Fig. 2, thus carrying the thread stripper O, backwardly to the position shown in full lines in Fig. 2, where it is directly below the lower end of the weft-carrier guide chute H. The thread stripper and guide chute are brought to this position as the result of the conjoint action of the transfer dog and the lay in advance of the descent of the discharged weft-carrier, so that when said spent weft-carrier falls into the receiver I, its trailing thread passes in front of the thread stripper O. When the lay swings backwardly the transfer dog E, is restored to its dotted line position, thus carrying the thread stripper forwardly to the dotted line position. This movement is completed during the backward movement or retreat of the lay and before the lay reaches the position at which the pick of the shuttle takes place. Accordingly, the thread stripping movement of the

thread stripper occurs while the shuttle is still within the shuttle box at the replenishing side of the loom. This thread-drawing movement of the thread stripper draws on the trailing thread and pulls it out from the eye of the shuttle. The retreating lay carrying the shuttle backwardly also aids the thread stripper in the performance of its stripping office. The result is that no trailing end of the spent weft is left in the eye of the shuttle when it is first picked after being supplied with fresh weft; and consequently there can be no double pick or partial double pick woven into the cloth due to the trailing end of a discharged weft-carrier.

I claim—

1. An automatic weft-replenishing loom of the weft-carrier changing class having, in combination, a lay having a weft-carrier discharge passage beneath the shuttle-box at the replenishing side of the loom and a weft-carrier directing chute to direct the discharged spent carriers forwardly; a transfer dog and a swinging transfer dog; and a thread stripper carried by and moving with said transfer dog, said thread stripper being located below said chute and extending widthwise of said discharge passage.

2. An automatic weft-carrier replenishing loom having, in combination, a lay having a weft-carrier discharge passage beneath the shuttle-box at the replenishing side of the loom; a transfer dog; a transfer dog; and a thread stripper carried by and moving with said transfer dog, said thread stripper being located below and extending widthwise of said discharge passage.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

PATRICK HUNT.

Witnesses:

JOHN B. LOWNY,
GERSETH GEILS, Jr.