(No Model.)

W. H. KYNETT.

SHUTTLE FOR CARPET LOOMS.

No. 538,683. Patented May 7, 1895

Fig. 1.

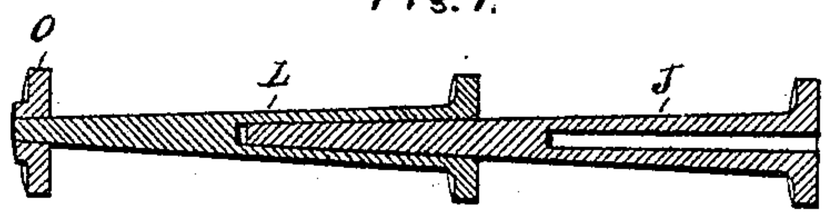


Fig. 2.

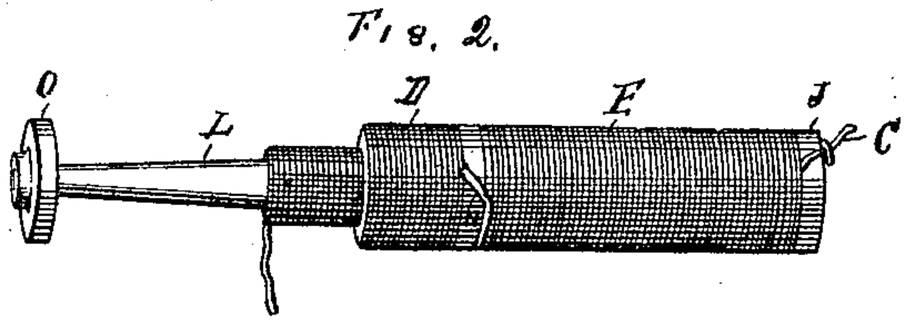


Fig. 3.

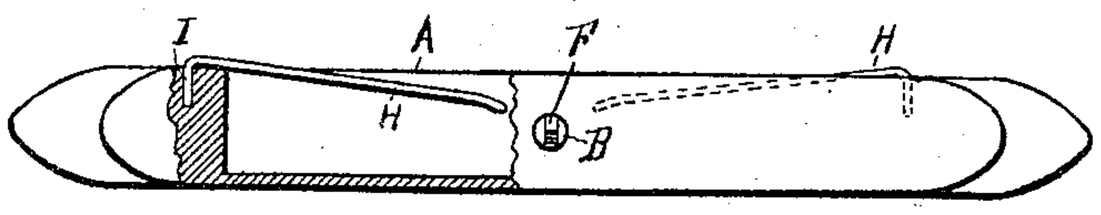


Fig. 4.

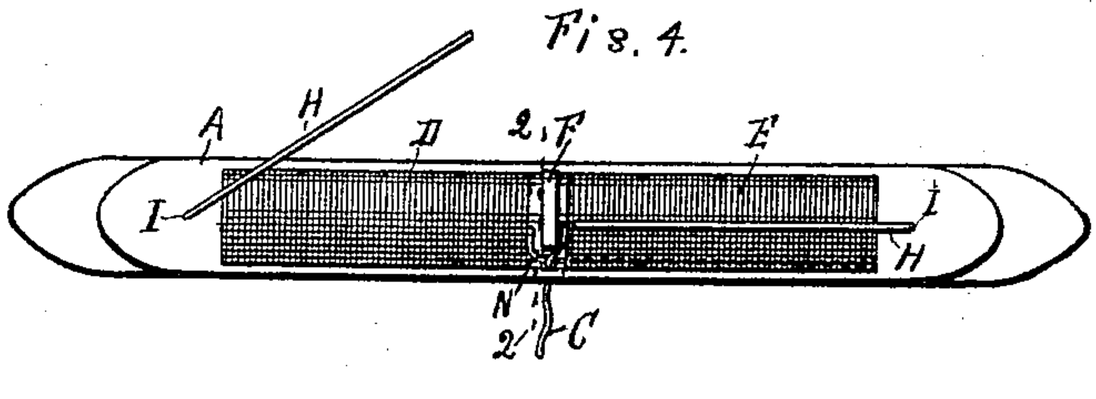


Fig. 5.

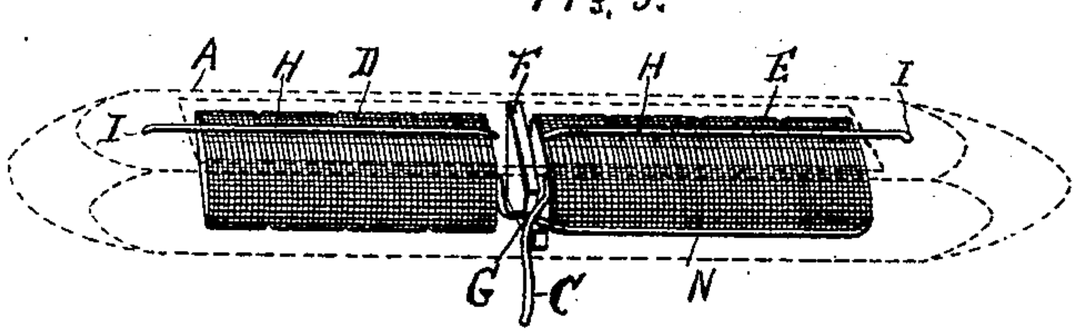
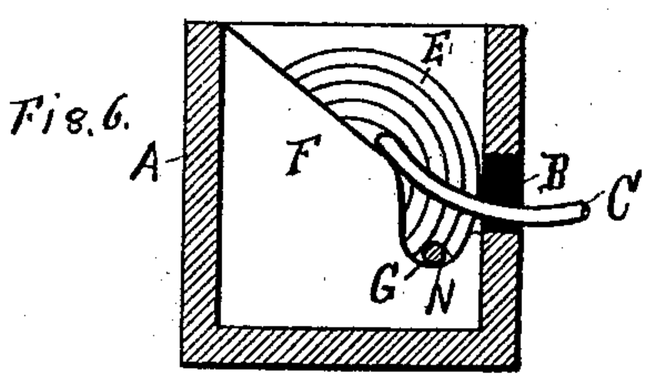


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM H. KYNETT, OF BATTLE CREEK, MICHIGAN.

SHUTTLE FOR CARPET-LOOMS.

SPECIFICATION forming part of Letters Patent No. 538,683, dated May 7, 1895.

Application filed November 16, 1894. Serial No. 529,076. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. KYNETT, a citizen of the United States, residing at Battle Creek, in the county of Calhoun, State of Michigan, have invented a new and useful Shuttle for Carpet-Looms, of which the following is a specification.

This invention relates to shuttles having a central side delivery aperture for the woof to feed through.

The object of the invention is to separate the hollow interior of the shuttle into separate compartments for containing the peculiar rolls of woof used by me, by means of a transverse partition opposite the central aperture and having a notch or groove directly contiguous to said aperture and below the lower surface thereof so the out-feeding strand of woof will not conflict with the strand connecting the two rolls and laying in said notch.

A further object consists in improved spring clamps for holding the rolls of woof in the compartments so made by the downward incline of their free ends that they press hardest on the ends of the rolls last fed out, and so pivoted that they will open laterally.

In the drawings forming a part of this specification, Figure 1 is a longitudinal section of the spools employed in winding the woof preparatory to filling the shuttle; Fig. 2, a perspective view showing the operation of winding the woof on the spools; Fig. 3, a side elevation of the shuttle, parts being broken away; Fig. 4, a top view of Fig. 3; Fig. 5, a perspective view showing the rolls of woof with the shuttle in dotted lines; and Fig. 6 is a cross-section, enlarged, on line 2 2 in Fig. 4, looking from a point at the left.

Referring to the lettered parts of the drawings, A is the shuttle body, tapered at the ends, and interiorly chambered out and open at the top, like the interior of an open box in the ordinary manner. Through one side at the longitudinal center is an aperture B, through which the woof C, is drawn from the rolls D, E, of the woof.

Transversely and centrally in the shuttle A, opposite to the aperture B, is a partition F, the upper edge of which slants downward from the rear side of the shuttle to a point just below the lower side of the aperture B, Fig. 6. This partition F, has a notch G, in the upper edge at the front side for a purpose hereinafter described. The compartments each side of the partition F, are provided with an elastic clamp H, for holding the rolls D, E, of the woof in place in the shuttle. These clamps consist of elastic bars pivoted in the heads of the shuttle body on top at I, so as to be swung laterally out of the way when inserting the rolls D, E, of woof C, Fig. 4, and then swung back onto said rolls. The free ends of the clamps are bent downward, and their elastic pressure is downward; hence the rolls D, E, are kept in place in the shuttle.

In Figs. 1 and 2 are shown two spools J, L, one inserted onto the other, upon which the rolls D, E, of the woof are wound. In winding the woof onto the spools, said spools J, L, are first inserted onto the spindle of a spinning wheel, so as to revolve the spools, no spinning wheel being here shown. The end of the woof C, is then attached to the large end of the spool J, which spool would be the one inserted onto the spindle of the spinning wheel, and the woof is wound continuous in sections, like the full section of the roll D, on spool L, one after another until the spools are full. After the first spool J, is full, the woof C, is allowed to pass over the head of the spool L, Fig. 2, and for convenience in describing the operation of feeding I will designate this crossing part of the woof as portion N.

In Fig. 2, one complete section of woof is shown wound, and part of another section, showing the idea of winding in sections, the object of which is that, since the woof is drawn from the interior of rolls D, E, it is not so liable to become tangled if one section is drawn from until it is all used up, and then another is drawn from and so on.

At O, is a head on the end of the spool L, but this may be used or not as desired.

After the spools are wound with warp, they are taken apart, and drawn out of the rolls D, E, and then the roll E, is inverted end for end before being put into the shuttle as in Figs. 4 and 5. This action of inverting the roll E, brings the end of the woof C, which was attached to the end of the spool J, at the center of the shuttle where it is passed through the aperture B, Fig. 6. This action also unwinds the portion N, of the woof from one end of the roll E, to the other and this por-

tion N, then lays along the side of the roll E, in the bottom of the shuttle, Figs. 4 and 5, and crosses over in the notch G, and of course into the interior of the roll D. It will now be seen that the woof C, will draw from the interior of the roll E, until said roll is all used up, the portion N, will then pass out through the aperture B, and then the woof will be drawn from the interior of the roll D, until it is used up. Thus the woof of both rolls is drawn through a center delivery of the shuttle in feeding, danger of tangling is greatly lessened, and there is no end strain laterally on the shuttle to cant it out of its proper course sidewise as it is thrown back and forth through the warp of the carpet.

It sometimes happens that there are bunches in the woof, or it tangles up in feeding too fast, and for this reason the notch G, is made in the partition F with its lower surface below the lower surface of the aperture B, so that the outgoing woof cannot engage the portion N, and carry it out with the same.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The interiorly chambered shuttle body having the central side delivery opening, and a transverse partition opposite said opening, said partition being provided with the notch or groove contiguous to the opening and below the lower surface thereof, whereby the out-feeding strand of woof will not conflict with the strand of woof crossing in said notch and connecting the two rolls of woof carried by the shuttle body, substantially as set forth.

2. The interiorly chambered shuttle body having the side delivery opening, a transverse partition opposite said opening, said partition being provided with a notch or groove contiguous to the opening and below the lower surface thereof, whereby the out-feeding strand of woof will not conflict with the strand of woof crossing in said notch and connecting the two rolls of woof carried by the shuttle body, and an elastic clamp for each compartment consisting of elastic bars pivoted on top the heads of the shuttle body in a manner to swing laterally, the free ends of said clamps being bent downward at an incline, substantially as set forth.

In testimony of the foregoing I have hereunto set my hand in the presence of two witnesses.

WILLIAM H. KYNETT.

Witnesses:
E. B. KEITH,
L. C. WEST.