J. B. CLOUTIER.

LOOM SHUTTLE CHECK.

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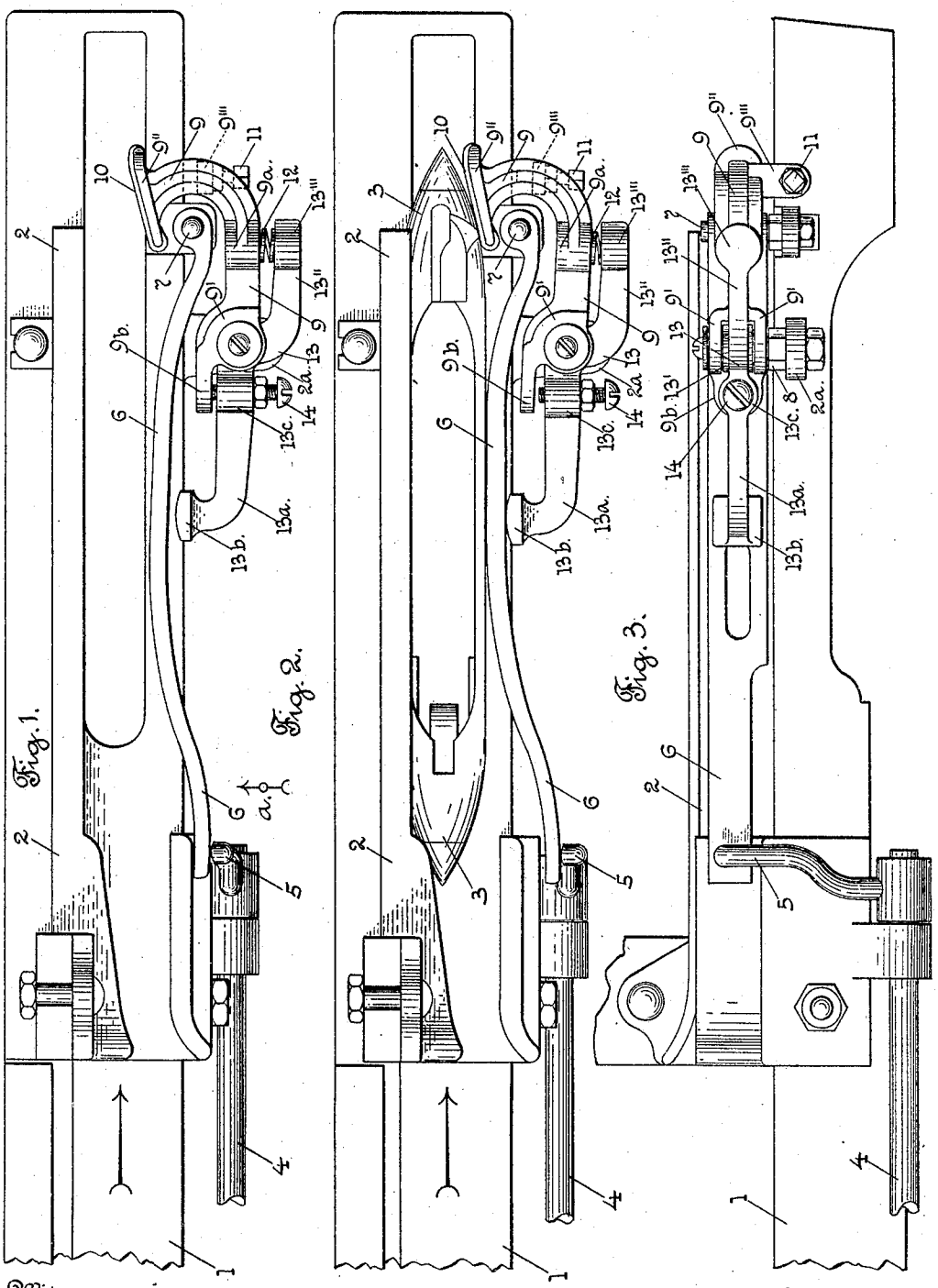
1,005,159.

Patented Oct. 10, 1911.



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LOOM SHUTTLE-CHECK.

1,005,159. Specification of Letters Patent. **Patented Oct. 10, 1911.**

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To all whom it may concern:

Be it known that I, JOHN B. CLOUTIER, a citizen of the Dominion of Canada, residing at Saco, in the county of York and State of Maine, have invented certain new and useful Improvements in Loom Shuttle-Checks, of which the following is a specification.

My invention relates to a loom shuttle check, and the object of my invention is to provide a shuttle check of improved construction, and adapted to be combined with a stationary shuttle box of ordinary construction, with which the ordinary shuttle binder is used.

My shuttle check consists preferably of two levers or arms pivotally mounted on a common stud, independent of the binder pivotal stud, and adjustable relative to each other, and located at the front of the shuttle box, and near the outer end thereof. One of the two levers has an engaging end extending in the path of the shuttle when it enters the shuttle box, to be engaged by the shuttle as it enters the shuttle box, and the other of said levers has an engaging end adapted to engage the shutter binder, to yieldingly press the binder against the shuttle when it is in the box. There is an actuating spring intermediate the first mentioned lever, and in this instance an extension on the second mentioned lever, beyond the pivot point of said lever. The first mentioned lever has an extension thereon beyond its pivot point, which is adapted to engage with an adjusting screw carried on the second mentioned lever, and the first mentioned lever has an adjusting screw thereon, to regulate the inward movement of said lever, all as will be hereinafter described.

I have shown in the drawing a stationary shuttle box at one end of the loom, with my improvements in shuttle check applied thereto.

Referring to the drawing:—Figure 1 is a plan view of the right hand end of a lay of a loom, with a stationary shuttle box thereon, with my improvements applied thereto; there is no shuttle in the shuttle box. Fig. 2 corresponds to Fig. 1, but shows the parts shown in Fig. 1, when a shuttle enters the shuttle box; a shuttle is shown in this figure, and, Fig. 3 is a front view of the parts shown in Fig. 1, looking in the direction of arrow *a*, same figure.

In the accompanying drawing, 1 is the right hand end of a lay of a loom, carrying a stationary shuttle box or cell 2, for a shuttle 3, in the usual way.

4 is a rock shaft at the front of the lay, carrying the protector finger 5, which is adapted to bear at its upper end against the inner end of the shuttle binder 6, which is pivoted at its outer end on a stud 7 on the front side of the shuttle box.

All of the above mentioned parts may be of the usual and well known construction.

I will now describe my improvements.

The front side of the stationary shuttle box is provided in this instance with a lug or projection 2^a, which has adjustably secured thereon a bolt 8. The bolt 8 has pivotally mounted thereon the yoke shaped boss or hub 9′, see Fig. 3, of an arm or lever 9, which extends toward the outer end of the shuttle box. The free end of the arm or lever 9 is bent inwardly, and extends in this instance around the pivot stud 7 of the shuttle binder 6, and is adapted to engage with its engaging end 9″, which end is preferably covered with leather 10 or other suitable material, the outer end of the shuttle 3, as shown in Fig. 2, when the shuttle enters the shuttle box.

In a downwardly extending lug 9‴ on the arm 9 is an adjusting screw 11, which turns in a threaded hole in said lug, and engages at its inner end the lower part of the stationary shuttle box 2, and acts to limit the inward movement of the lever 9. The lever 9 is provided with a boss 9^a thereon, see Fig. 1, adapted to hold in a recessed portion a helically coiled expansion spring 12.

The second lever or arm 13 of my shuttle check has its hub 13′ pivotally mounted on the bolt 8. Extending outwardly from the hub 13′ is the extension 13″ having a boss 13‴ thereon, into which the expansion spring 12 enters. The other extension 13^a, or main part of the lever 13, has the engaging end 13^b, adapted to engage with the binder 6, when the engaging end 9″ of the lever 9 is moved outwardly when the shuttle enters the shuttle box, in the direction indicated by the arrow in Fig. 1. On the main part 13^a of the lever 13 is a boss 13^c, which

carries an adjusting screw 14, which is adapted to engage at its inner end with an extension 9^b on the lever 9, on the opposite side of the pivot point from the main portion of the lever 9.

The operation of my improvements in shuttle checks, from the above description in connection with the drawing, will be readily understood by those skilled in the art. When there is no shuttle in the box, the parts of the shuttle check mechanism will normally be in the position shown in Fig. 1. When the shuttle enters the shuttle box, in the direction of the arrow, Fig. 1, the forward or outer end of the shuttle will come in contact with the engaging end 9″ of the lever 9, and move said lever outwardly, and through the action of the expansion spring 12, move the engaging end 13^b on the portion 13^a of the lever 13 yieldingly inwardly, to press against the binder 6, and force the binder against the side of the shuttle, to bind the same.

It will be understood that the details of construction of my improvements may be varied if desired.

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

1. In a loom shuttle check, the combination with the binder having a pivotal stud, of two levers or arms having a common pivotal stud independent of the binder pivotal stud, and said levers being adjustable relative to each other, and located at the front of the shuttle box, one of said levers extending in the path of the shuttle when it enters the box, to be engaged by the shuttle, and the other lever yieldingly pressed against the binder by the first mentioned lever, when the shuttle is in the box, to cause the binder to press against the shuttle.

2. In a loom shuttle check, the combination with the binder having a pivotal stud, of two levers or arms having a common pivotal stud, independent of the binder pivotal stud, and located at the front of the shuttle box, and one of said levers extending in the path of the shuttle when it enters the box, to be engaged by the shuttle, and the other lever yieldingly pressed against the binder by the first mentioned lever, when the shuttle is in the box, to cause the binder to press against the shuttle.

3. In a loom shuttle check, the combination with the binder having a pivotal stud, of two levers or arms, having a common pivotal stud, independent of the binder pivotal stud, said levers located at the front of the shuttle box, and one of said levers having a curved arm partially encircling the pivotal stud of the binder, with an engaging end extending in the path of the shuttle when it enters the box, and having an extension thereon beyond its pivotal stud, the other of said levers having one arm with an engaging end to engage the binder, and carrying an adjusting stud, to engage said extension on the first mentioned lever, and having a second arm on the opposite side of its fulcrum, and an actuating spring intermediate said second mentioned arm and the first mentioned lever, for the purpose stated.

4. In a loom shuttle check mechanism, the combination with the protector rod carrying the protector finger, and said finger to engage a shuttle binder, and said shuttle binder, of a shuttle check, comprising two separate levers, pivotally mounted, and having the same fulcrum, one of said levers having a curved arm extending around the fulcrum of the binder, with its engaging end in the path of the shuttle when it enters the shuttle box, and having an extension on the opposite side of its fulcrum, and the other lever having an arm with an engaging end to engage the binder, and carrying an adjusting screw to engage said extension on the first mentioned lever, and a second arm on the opposite side of its fulcrum, and a helically coiled expansion spring intermediate said second arm and the first mentioned lever, for the purpose stated.

5. In a loom shuttle check mechanism, the combination with the protector rod carrying the protector finger, and said finger, to engage a shuttle binder, and said shuttle binder, of a shuttle check comprising two separate levers, pivotally mounted, and having the same fulcrum, one of said levers having a curved arm extending around the fulcrum of the binder, with its engaging end in the path of the shuttle as it enters the shuttle box, and having an extension on the opposite side of its fulcrum, and carrying an adjusting screw to limit the inward movement of said lever, and the other lever having an arm with an engaging end to engage the binder, and carrying an adjusting screw to engage said extension on the first mentioned lever, and a second arm on the opposite side of its fulcrum, and a helically coiled expansion spring intermediate said second arm and the first mentioned lever, for the purpose stated.

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