

No. 860,043.

PATENTED JULY 16, 1907.

P. MACPHERSON.  
LOOM SHUTTLE CHECK.  
APPLICATION FILED DEC. 1, 1906.

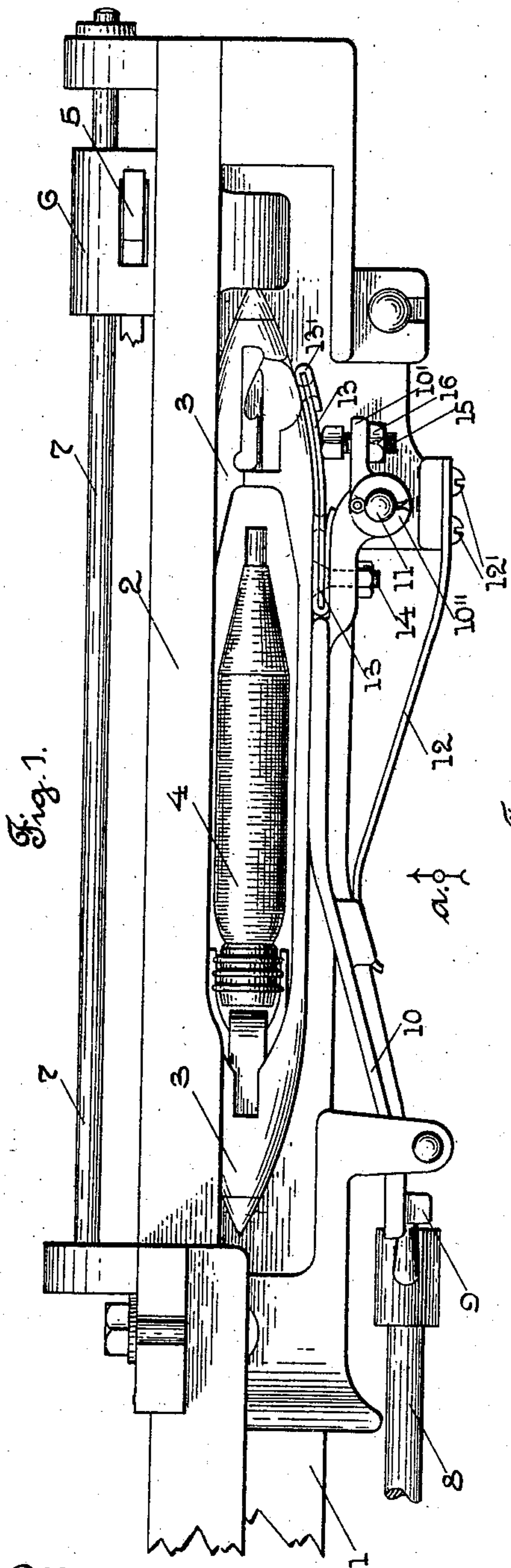


Fig. 1.

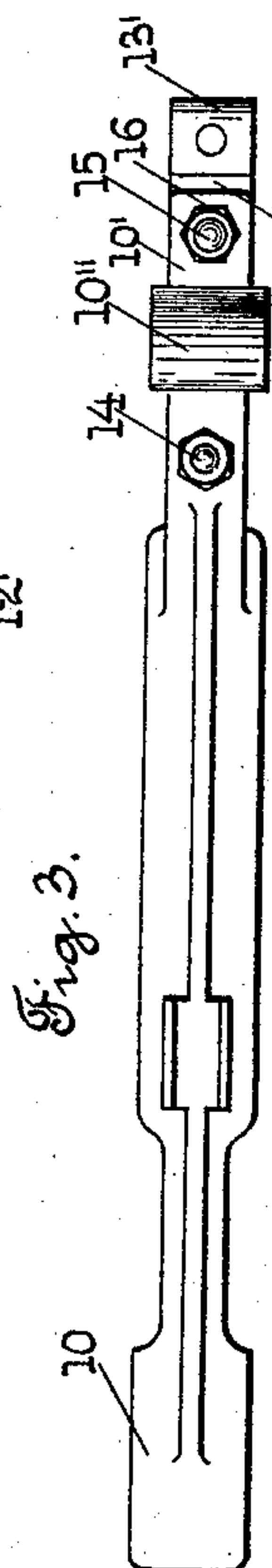


Fig. 3.

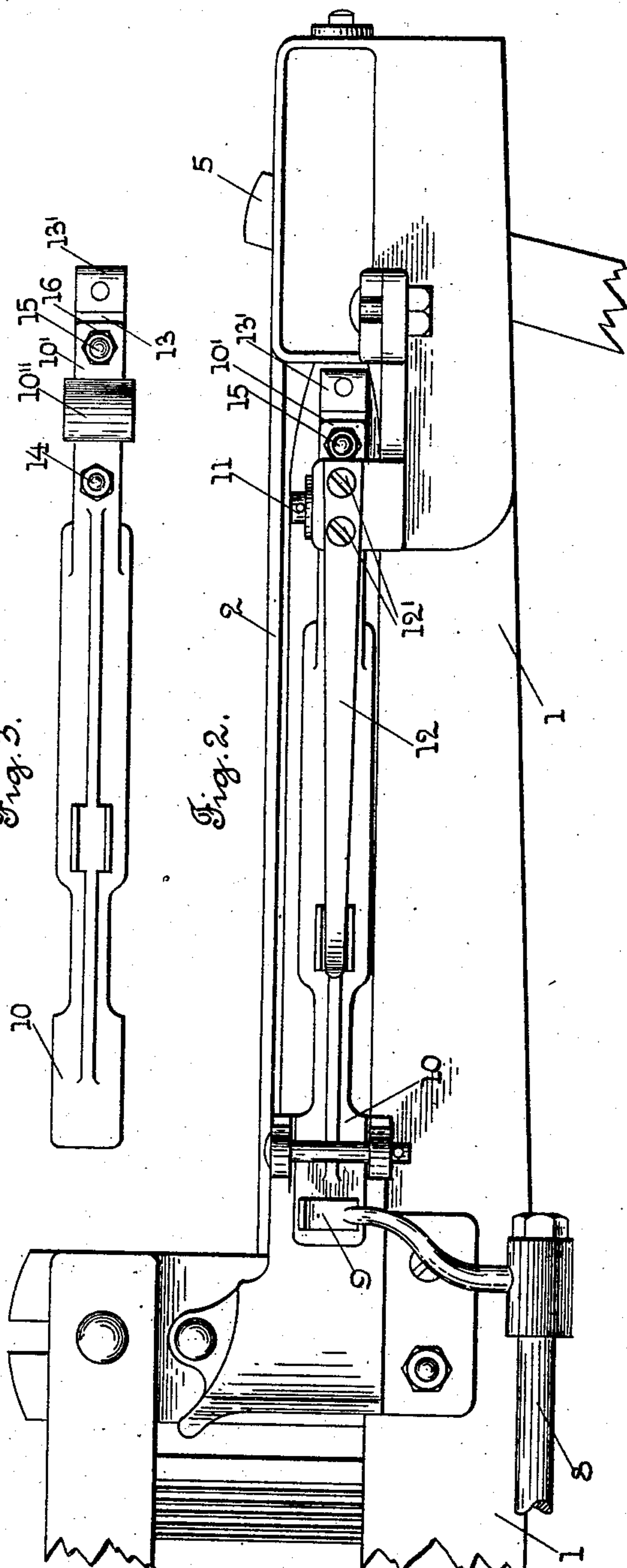


Fig. 2.

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# UNITED STATES PATENT OFFICE.

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## LOOM-SHUTTLE CHECK.

No. 860,043.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed December 1, 1906. Serial No. 345,889.

*To all whom it may concern:*

Be it known that I, PETER MACPHERSON, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, 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 shuttle box of ordinary construction, either stationary or movable, and be attached to and form a part of the shuttle binder, and act, on the entrance of the shuttle into the shuttle box, to move inwardly the shuttle binder and cause it to press harder against the shuttle, to hold it more securely in position.

My improved shuttle check consists preferably of a flat spring blade or plate, which is preferably covered with leather, or other suitable material, and is located preferably near the outer end of the shuttle box, and rigidly attached at one end to the shuttle binder, near its pivot point, and has its other free end extend into the shuttle box beyond the pivot point of the shuttle binder, and in the path of and adapted to be engaged by the outer end of the shuttle, on its entrance into the box. An adjusting screw, preferably connected with the binder, engages the shuttle check and holds its free end in its inward position in engagement with the shuttle, and through the adjusting screw the shuttle binder is moved inwardly, on the entrance of the shuttle into the shuttle box, to press harder against the shuttle and hold it more securely in position.

I have shown in the drawing a stationary shuttle box at one end of the lay, and some other parts of a loom, and my improvements in shuttle check combined therewith, sufficient to enable those skilled in the art to understand the construction and operation thereof.

Referring to the drawing:—Figure 1 is a plan view of the right hand end of the lay of a loom, and a stationary shuttle box thereon, and my improvements combined therewith. Fig. 2 is a front view of the parts shown in Fig. 1, looking in the direction of arrow *a*, same figure, and, Fig. 3 shows the shuttle binder shown in Fig. 2, detached.

In the accompanying drawing, 1 is the right hand end of the lay of a loom, carrying a stationary shuttle box 2 for the shuttle 3, having a bobbin 4 therein, in the usual way.

5 is the upper end of the picker stick, which is connected with the picker 6 sliding on the picker rod 7, and adapted to engage the shuttle 3, in the usual way.

8 is a rock shaft at the front of the loom, carrying the binder finger 9 which is adapted to bear against the inner free end of the shuttle binder 10, which is pivoted at its outer end on a stud 11 on the front side of the shuttle box. The binder spring 12 is secured in this in-

stance at its outer end by two screws 12' on the front outer end of the lay, and bears at its inner free end against the binder 10.

All of the above mentioned parts, except the binder 10, may be of the usual and well known construction.

I will now describe my improvements.

My shuttle check consists preferably of a flat spring blade or plate 13, preferably covered with leather 13', or other suitable material, which may be riveted or otherwise secured to the blade 13, see Fig. 1. The inner end of the blade 13 is in this instance rigidly secured by a bolt 14 upon the inner side of the shuttle binder 10, near its pivot point. The inner side of the shuttle binder 10 is preferably recessed to receive the blade 13, so that the inner side of the blade 13, or shuttle check, will extend in the same plane and in line with the inner side of the shuttle binder, see Fig. 1. The free end of the blade 13, or shuttle check, is preferably bent or curved inwardly, and extends within the shuttle box or cell, back of the pivoted end of the shuttle binder 10, and beyond the pivot point of the shuttle binder, and in the path of and adapted to be engaged by the outer side of the outer end of the shuttle on its entrance into the shuttle box.

The shuttle binder 10 has in this instance a projection or extension 10' on its hub 10'', which extends beyond the pivot point of the shuttle binder, in substantially the same plane as the main portion of the binder. The projection 10' on the binder 10 carries in this instance an adjusting screw 15, which in this instance turns in a threaded hole in the projection 10', and is held in its adjusted position by a nut 16. The inner end or head of the adjusting screw 15 is adapted to engage the free end of the spring blade 13, or shuttle check, and hold it in its inward position, in the path of and adapted to be engaged by the shuttle on its entrance into the shuttle box. By turning the adjusting screw in or out in the projection 10', the amount of pressure of the spring blade 13, or shuttle check, on the shuttle may be regulated as desired. The adjusting screw 15, or its equivalent, may be attached to the blade 13, instead of to the projection on the shuttle binder, if preferred.

The outward movement of the spring blade 13, or shuttle check, when it is engaged by the shuttle entering the shuttle box, will, through the adjusting screw 15, move outwardly the projection 10' on the shuttle binder 10, and move the binder on its pivot support, and cause the main portion of the binder to move inwardly and press harder against the shuttle, independently of the ordinary binder spring 12, to hold the shuttle securely in position.

The advantages of my improvements will be readily appreciated by those skilled in the art.

My improved shuttle check may be readily applied



to a shuttle box of any ordinary construction, stationary or movable, and attached to the shuttle binder, and through an adjusting screw, or its equivalent, the pressure of the shuttle check on the shuttle may be regulated, and through the engagement of the shuttle with the shuttle check, the shuttle binder, through the adjusting screw or its equivalent, is pressed harder against the shuttle, to hold the shuttle securely in position. The amount of pressure of the binder on the shuttle may be regulated by the adjusting screw.

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. A loom shuttle check, comprising a binder pivotally mounted, and having a projection thereon extending beyond its pivotal support, a blade or plate rigidly attached at one end to said binder on one side of its pivotal support, and its other free end extending into the shuttle box on the other side of the pivotal support of the binder, and in the path of and adapted to be engaged by the shuttle, and an adjusting screw intermediate the blade or plate and the projection on the shuttle binder, to regulate the pressure on the shuttle.

2. A loom shuttle check, comprising a binder pivotally mounted, and having a projection thereon extending beyond its pivotal support, a spring blade or plate rigidly attached at one end to said binder on one side of its pivotal support, and its other free end extending into the shuttle box on the other side of the pivotal support of the binder, and in the path of and adapted to be engaged by the shuttle, and means for adjusting the free end of the spring blade or plate, relatively to the binder, to regulate the pressure of said blade or plate, and of the binder on the shuttle.

3. A loom shuttle check, comprising a binder pivotally mounted, and having a projection thereon extending beyond its pivotal support, a spring blade or plate rigidly attached at one end to said binder, on one side of its pivotal support, and its other free end extending into the shuttle box on the other side of the pivotal support of the binder, and in the path of and adapted to be engaged by the shuttle, and an adjusting screw carried on the projection on the binder, and adapted to engage the blade or plate bearing on the shuttle, and regulate the pressure of the said blade or plate, and of the binder on the shuttle.

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