(No Model.)

# W. E. SARTWELL.

## PICKER STICK CHECK FOR LOOMS.

No. 563,067. Patented June 30, 1896.

Fig: 1.

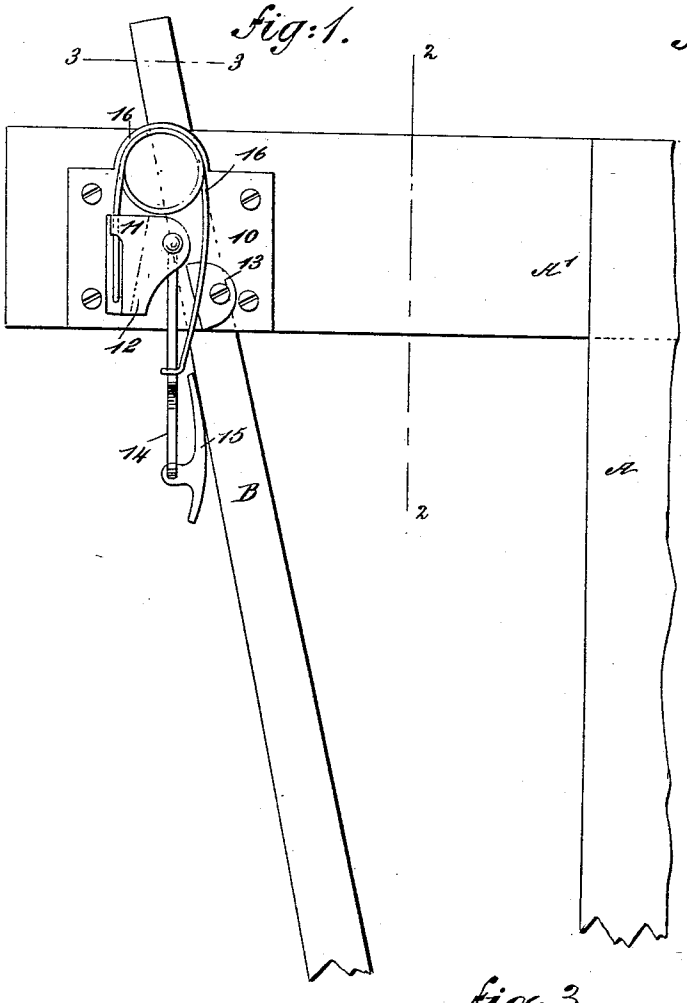



Fig: 2.

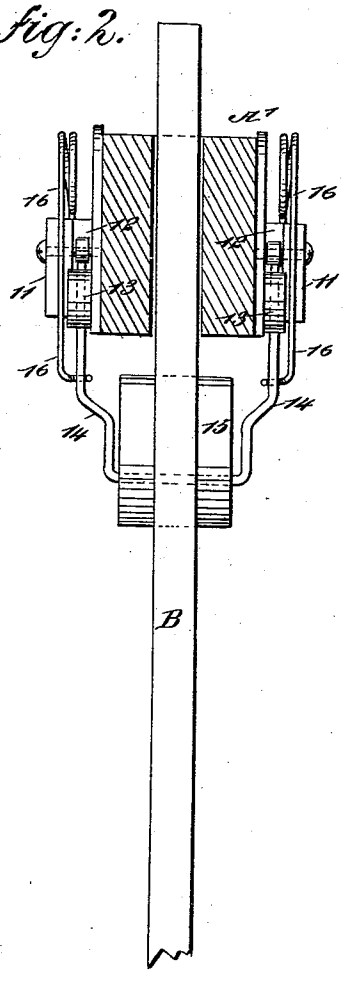
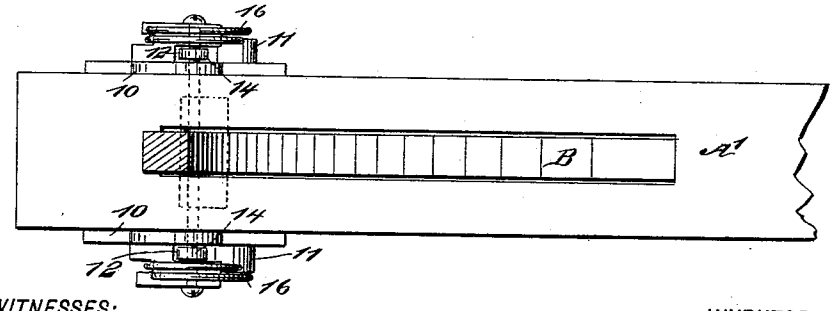



Fig: 3.

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# UNITED STATES PATENT OFFICE.

WILLIAM E. SARTWELL, OF TROY, VERMONT.

## PICKER-STICK CHECK FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 563,067, dated June 30, 1896.

Application filed November 30, 1894. Serial No. 530,389. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM E. SARTWELL, of North Troy, in the county of Orleans and State of Vermont, have invented a new and Improved Picker-Stick Check for Looms, of which the following is a full, clear, and exact description.

This invention is adapted for use in that class of looms in which the shuttle that carries the filling is thrown back and forth in the batten by so-called "picker-sticks," located one at each end of said batten; and the object of the invention is to provide a yielding stop to check the picker-stick in its outward movement and to cushion the said stick and thus relieve the shock at the sudden stopping of the shuttle as it shoots through the shuttle-race and comes in contact with said stick; and a further object of the invention is to provide a check which will be exceedingly simple, durable, and economic, and which will not exert a downward thrust on the picker-stick, but a tension in a horizontal direction.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a portion of the batten or lathe of a loom, illustrating the picker-stick in side elevation and likewise the check. Fig. 2 is a vertical section taken on the line 2 2 of Fig. 1, and Fig. 3 is a horizontal section taken practically on the line 3 3 of Fig. 1.

In carrying out the invention, A represents a portion of the loom-frame, A' the batten or lathe, and B the picker-stick, arranged to throw the shuttle in the usual or ordinary manner. At each side of the batten or lathe a plate 10 is secured in any suitable or approved manner, and each of said plates is provided with a lug 11, and in the said lug a recess 12 is produced, while adjacent to the lug 11 an offset 13 is secured to the plate, as is best shown in Fig. 1, and the face of the offset substantially opposed to the lug 11 is preferably of a yielding or elastic material, such as leather or rubber, or the equivalent thereof.

A substantially U-shaped arm 14 has its members pivoted in the upper portion of the recesses 12 of the said lugs 11, the bottom or bow portion of the arms being a predetermined distance below the bottom portion of the lathe or batten, and upon the lower or bow portions of the arms 14 a stop plate or shield 15 is secured in any suitable or approved manner, adapted to be engaged by the picker-stick B in its outward movement, and the face of the stop plate or shield which is engaged by the picker-stick B is made cylindrical or convexed, as is likewise best shown in the said Fig. 1.

A spring 16 is located at each side of the batten or lathe A', and one end of each spring is secured in any suitable or approved manner in one of the lugs 11 of the base-plate 10, the spring being provided with one or more coils above the top of the lug with which it is connected, and the said springs are then carried downward to an engagement with the side members of the U-arm 14, the tendency of the spring being to carry the stop-plate 15 in an inward direction, at which time the arm 14 will have a downward and inward inclination.

In the operation of this device, when the shuttle strikes the picker-stick, the picker-stick is forced outward or rearward, engaging with the stop-plate 15, and as this plate has a convexed surface it has a rocking connection with the picker-stick, and therefore the plate will exert a lateral tension upon the picker-stick at all times and not the downward tension which is found in most other checks for looms, and under this construction the picker-stick will have less wear than heretofore. Furthermore, when the picker-stick is carried outward the springs 16 will be placed under tension, and as these springs are simply engaged with the pivoted U-arm 14 their ends are free to slide on the members of the arm 14, and they are not weakened to any appreciable extent when acted upon by the stick, since none but torsional strain will come upon the springs, and when the springs act to return the picker-stick in an inward direction the moment that the U-arm 14 strikes

the check projections 13 on the base-plate 10 the springs will be free to vibrate independently of the arm 14, and therefore will come to rest more rapidly than if they were secured to the arm to vibrate therewith. Therefore it is obvious that even in both movements of the picker-stick the springs 16 will not be in any manner injured, while they will act as effectively as though the springs were connected directly with the stop-plate 15.

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

1. A picker-stick check for looms, comprising two plates adapted to be secured to opposite sides of the batten or lathe, said plates each being provided with a laterally-projecting and recessed lug, and with a laterally-projecting stop in front of the said lug, said stop having yielding or elastic faces, a U-shaped arm having the ends of its members pivoted in the recesses of the lugs, a stop-plate secured to the horizontal or connecting portion of the arm, and springs, each provided with a coil between its ends, the said springs having one end secured to the rear portions of the said lugs and their free ends loosely engaging the members of the arms at about midway of their length, substantially as described.

2. The combination with a batten or lathe, and the picker-stick, of two plates secured to opposite sides of the batten or lathe and each provided with a laterally-projecting and recessed lug, and an elongated stop in front of the lug, said stops having yielding or elastic faces, a U-shaped arm having the ends of its members pivoted in the upper portion of the recesses of the lugs, a stop-plate having a convex face and secured to the horizontal or connecting portion of the arm and projecting above and below said connecting portion, and springs, each provided with a coil between its ends the said springs having one end secured to the rear portions of the lugs of the plate and their free ends loosely engaging the members of the arms, substantially as herein shown and described.

WILLIAM E. SARTWELL.

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