

B. TRIMBLE.
PICKER MECHANISM FOR LOOMS.
APPLICATION FILED NOV. 18, 1908.

933,403.

Patented Sept. 7, 1909.

Fig. 1.

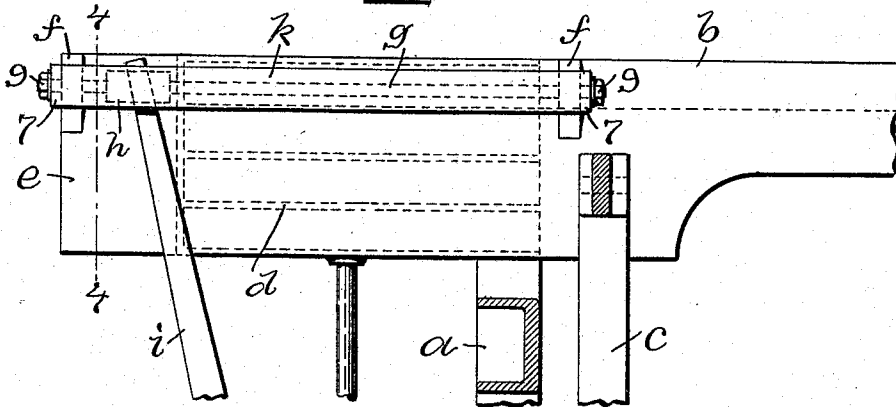


Fig. 2.

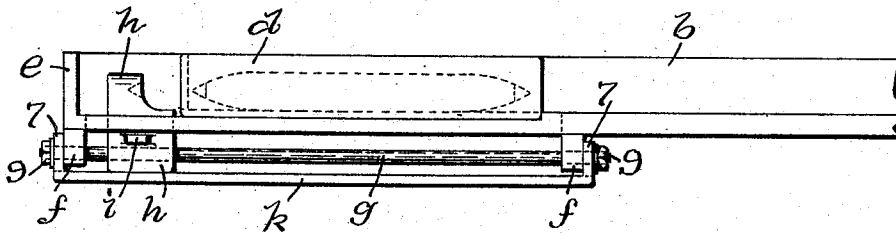


Fig. 3.

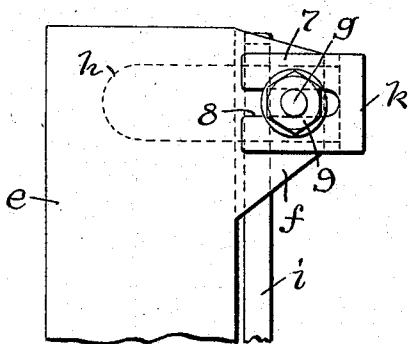
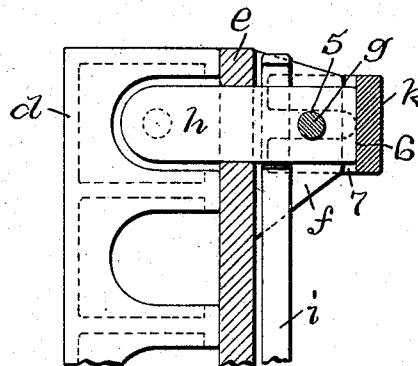


Fig. 4.



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PICKER MECHANISM FOR LOOMS.

933,403.

Specification of Letters Patent.

Patented Sept. 7, 1909.

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To all whom it may concern:

Be it known that I, BARTHOLOMEW TRIMBLE, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Picker Mechanisms for Looms, of which the following is a specification.

This invention has reference to an improvement in looms and more particularly to an improvement in the picker mechanism of looms.

In the operation of looms it is essential that the picker should be guided and thrown in a straight line in the direction in which the shuttle is to be thrown in order to throw the shuttle straight across the loom through the shed and into the opposite shuttle box. The picker is usually guided by a picker rod which extends through the picker and is supported at each end on the back of the shuttle box frame. In this construction the picker wears loose laterally in a short time on the picker rod and assumes more or less of an angle sidewise relative to the picker rod or line of throw, and on the throw of the picker by the picker stick the shuttle is liable to and is at times thrown at an angle laterally, thereby smashing the warp threads or throwing the shuttle out of the loom.

The object of my invention is to prevent as far as possible lateral or sidewise movement of the picker on the picker rod, caused by the wearing loose of the picker on the picker rod, and I accomplish this object by providing the picker mechanism with a guide bar adapted to form an additional guide for the picker and adjustably secured for wear to the back of the shuttle box frame parallel with the picker rod and in a position for the back of the picker to engage lengthwise with the guide bar.

My invention consists in the peculiar and novel construction of a picker guide mechanism for looms, said mechanism having in addition to the usual picker, picker stick and picker rod a guide bar and means for adjustably securing the guide bar to the back of the shuttle box frame parallel with the picker rod and in a position for the back of the picker to engage longitudinally with the guide bar, as will be more fully set forth hereinafter and claimed.

Figure 1 is a vertical sectional view of part of a drop box loom looking at the back

of the lay and showing the same provided with my improved picker mechanism. Fig. 2 is a top plan view of Fig. 1, showing the picker in operative engagement with the guide bar. Fig. 3 is an enlarged detail end view, showing the means for adjustably securing the guide bar to the back of the shuttle box frame, and Fig. 4 is an enlarged detail sectional view taken on line 4—4 of Fig. 1 through the shuttle box frame, picker rod and guide bar.

In the drawings, *a* indicates the side frame, *b* the lay, *c* the lay sword, *d* the shuttle boxes, *e* the shuttle box frame, *f f* the picker rod supports, *g* the picker rod, *h* the picker, and *i* the picker stick of one side of a drop box loom provided with my improved picker guide bar *k*. The picker rod supports *f f* are on the back of the shuttle box frame *e*, as shown in Figs. 1 and 2, and support the ends of the picker rod *g* each end of which is screw-threaded and extends outwardly through a hole in the supports a predetermined distance. The picker *h* has the usual hole 5 for the picker rod *g* and preferably a flat back edge 6, as shown in Figs. 2 and 4. The picker guide bar *k* consists of a straight flat bar having the ends 7 7 bent at right angles to the bar, each end 7 having a horizontal slot 8 for the ends of the picker rod *g*. The picker guide bar *k* is placed back of and parallel with the picker rod *g* in a position for the ends of the picker rod *g* to extend through the slots 8 8 in the ends 7 7 of the guide bar and for the back edge 6 of the picker *h* to engage with the inner face of the guide bar and secured by tightening nuts 9 9 on the ends of the picker rod *g*, thereby clamping the ends 7 7 of the guide bar between the supports *f f* and the nuts 9 9.

In the operation of my improved picker mechanism the picker guide bar *k* forms an additional guide for the picker *h* and prevents lateral movement or wobbling of the picker *h* on the picker rod *g*. As the picker wears loose on the picker rod the guide bar *k* is adjusted toward the picker rod *g*, thereby taking up the wear on the picker. As the throw of the picker is now always in a straight line parallel with the line of throw of the shuttle, the liability of smashing the warp threads or throwing the shuttle out of the loom by throwing the shuttle at an angle is eliminated and as the wear on the

pickers is taken up the pickers will last longer than heretofore, thereby decreasing the maintenance cost of the loom.

It is evident that the picker guide bar *h* may be adjustably secured in its operative position to the back of the shuttle box frame *e* in any well known way, without materially affecting the spirit of my invention.

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

1. In a picker mechanism for looms, a guide bar adapted to engage with the back edge of the picker and hold the picker from lateral movement on the picker rod, and means for adjustably securing the guide bar to the shuttle box frame back of the picker rod and parallel with the picker rod.

2. In a picker mechanism for looms, a picker rod held at each end in supports on the back of the shuttle box frame, a picker on the picker rod having a straight back edge parallel with the picker rod, a guide bar having a straight flat face adapted to engage with the straight back edge of the picker and hold the picker from lateral movement on the picker rod, and means for securing the guide bar to the picker rod supports back of and parallel with the picker rod.

3. In a picker mechanism for looms, a shuttle box frame, supports on the back of

the shuttle box frame, a picker rod held at each end in the supports, a picker on the picker rod having a straight flat back edge parallel with the picker rod, a guide bar having a straight flat inner face adapted to engage with the back edge of the picker and hold the picker from lateral movement on the picker rod, and means for adjustably securing the ends of the guide bar to the picker rod supports parallel with the picker rod and in a position for the inner face of the guide bar to engage with the back edge of the picker.

4. In a picker mechanism for looms, the combination with a shuttle box frame *e* having the supports *f f*, a picker rod *g* having screw-threaded ends, a picker *h* having the hole 5 and a flat back edge 6, and a picker stick *i*, of a guide bar *k* having the ends 7 7 bent at right angles, each end having a horizontal slot 8, and means for adjustably securing the guide bar to the supports *f f* consisting of nuts 9 9 on the screw-threaded ends of the picker rod *g*, as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BARTHOLOMEW TRIMBLE.

Witnesses:

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