

C. H. HUDSON.
Loom Shuttle-Guards.

No. 137,551.

Patented April 8, 1873.

Fig 1.

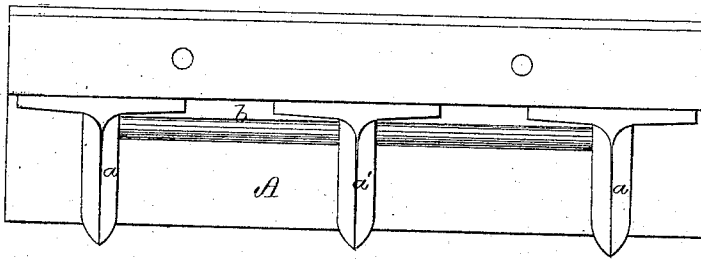


Fig 2.

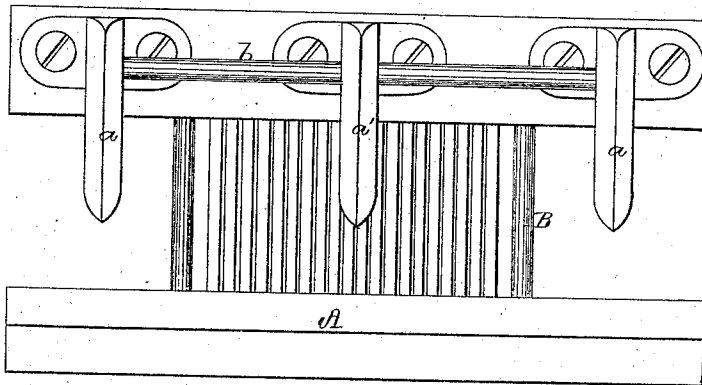


Fig 3.

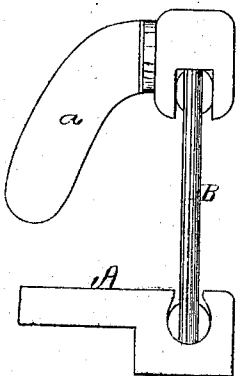


Fig 4.

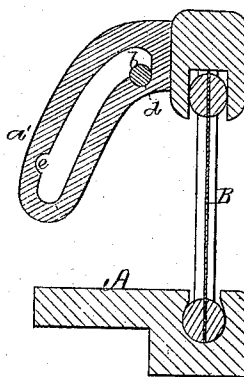
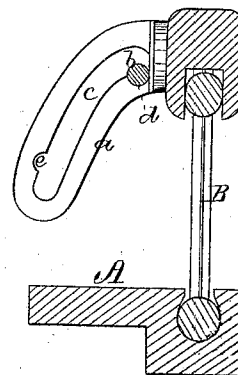


Fig 5.



Witnesses.

S. W. Piper

L. W. Möller.

Charles H. Hudson.

by his attorney.

R. H. Inay

UNITED STATES PATENT OFFICE.

CHARLES H. HUDSON, OF CLINTON, MASSACHUSETTS.

IMPROVEMENT IN LOOM-SHUTTLE GUARDS.

Specification forming part of Letters Patent No. **137,551**, dated April 8, 1873; application filed January 7, 1873.

To all whom it may concern :

Be it known that I, CHARLES H. HUDSON, of Clinton, of the county of Worcester, of the State of Massachusetts, have invented an Improved Shuttle-Guide, or Guard, for Looms; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, of which—

Figure 1 denotes a top view; Fig. 2, a front elevation; Fig. 3, an end view; and Figs. 4 and 5, transverse sections of one of my improved guides or guards, and showing its application to the race-beam and reed of a loom for weaving cloth.

In such drawings, A denotes the race-beam and B the reed. The guide or guard is extended from the upper bar of the reed, over the race-beam, and is composed of two grooved arms, *a a*, and a rod, *b*, the latter going from the groove *c* of one arm into that of the other, and being free to move upward and downward in such grooves. The arms and their grooves incline toward the race-beam in manner as shown, and at the upper part of each groove is a semicircular notch or recess, *d*, for receiving the rod and there supporting it, in order that it may not be in the way of the weaver when he may desire to obtain access to the reed. When down, the rod rests upon the lower ends of the grooves, and in that position it operates to guard the shuttle. Near the lower end of each groove, and in the upper side of the said groove, there is another recess or notch, *e*. The notches *ee* are to receive the rod when it may be struck by the shuttle and thrown upward in its grooves *c c*, in which case the notches *e* prevent the rod from ascending higher.

In very wide looms, one or more intermediate but slotted arms, *a'*, may be used, such being placed between the arms *a a* and at suitable distances therefrom. The arm *a'*, instead of being grooved like the others, is slotted, the slot going entirely through it, and it may be provided with the receiving-notches—that is, such as appertain to the arms *a*.

With my improved shuttle guide or guard not only will the shuttle be guided or guarded, or prevented from being thrown laterally off

the race-beam, but whenever necessary for the weaver to have access to the reed, he has only to move the gravitating-rod upward into the upper notches. The lay, on beating up, will throw the rod out of the upper notches, and it will fall therefrom into place at the bottoms of the grooves.

I make no claim to a shuttle guide or guard made as represented in the United State Patent No. 86,668, and consisting of an elastic cord or band and certain grooved arms or brackets for supporting such. Nor do I claim a shuttle guard or guide constructed as shown in the specification of Joseph B. Bancroft's application for a patent, allowed September 5, 1872. I use a gravitating-arm, with guide grooves and notches arranged as set forth, all of which differs in construction and operation from either of the other guides or guards herein mentioned. I make no claim to a gravitating shuttle-guard constructed as described in George M. Center's application for a patent filed February 15, 1856, and withdrawn, as in such guard the brackets or curved stands for supporting the rod are both slotted, so that heads or nuts, or a head and a nut, become a necessity to the rod, in which case they are liable by the jar of the lay to work loose and become separated from the rod. In my improved guide, the rod is without any such heads or nuts, and the outer supports of the rod are not slotted, but are simply grooved on their inner sides, whereby all danger of a nut working off the rod and doing damage to the loom is avoided. Furthermore, my grooves have the notches *e* arranged above their bottoms or lower ends, such not being found in the shuttle-guard of the said Center.

I claim—

The shuttle guide or guard as composed of the movable or gravitating rod *b*, and the arms *a a*, grooved and provided with notches at the upper ends of the grooves, and also near their lower ends, all substantially as described.

CHARLES H. HUDSON.

Witnesses:

R. H. EDDY,
J. R. SNOW.