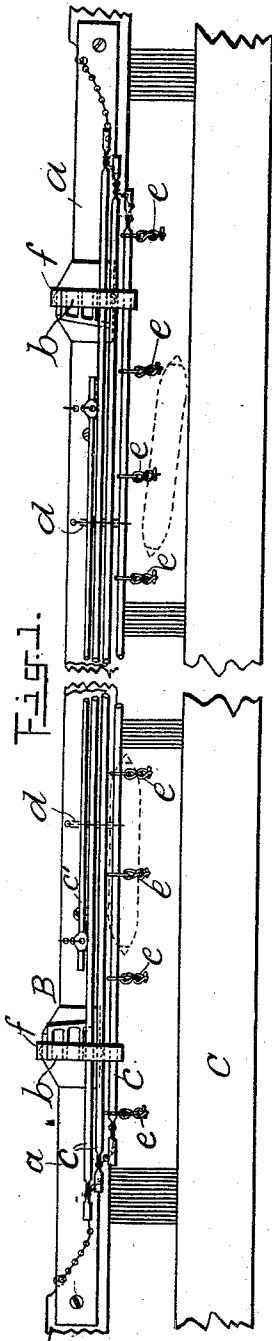


(No Model.)

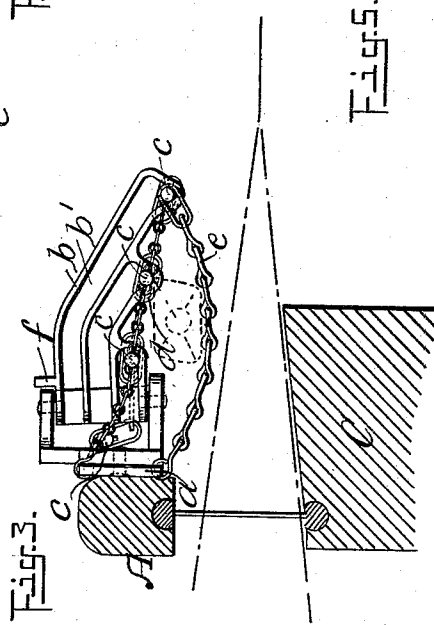
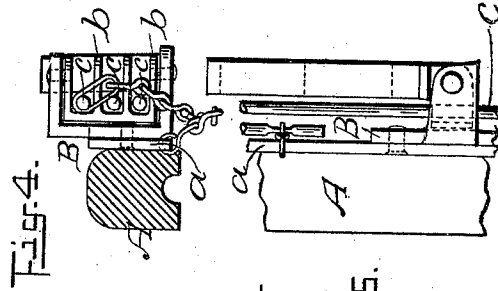
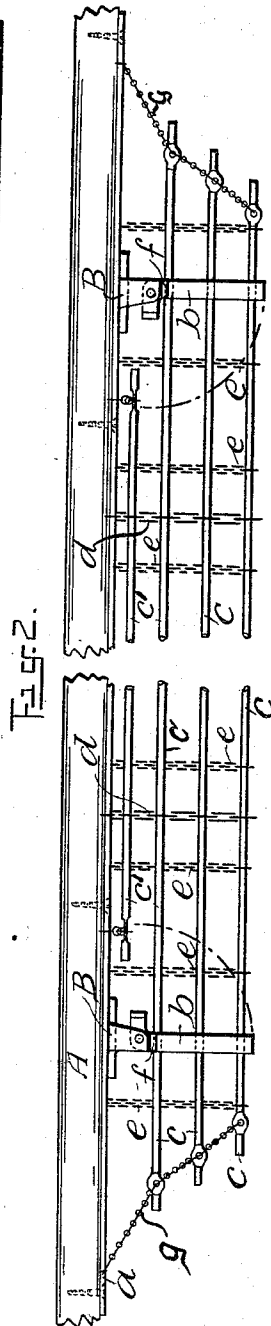
C. H. WILKINSON.
SHUTTLE GUARD AND CATCHER FOR LOOMS.

No. 535,085.

Patented Mar. 5, 1895.



WITNESSES:
J. P. M. G. R. R. R.
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INVENTOR:

Charles H. Wilkinson.
by Herbert W. Jenner Attorney

UNITED STATES PATENT OFFICE.

CHARLES HY. WILKINSON, OF HUDDERSFIELD, ENGLAND.

SHUTTLE GUARD AND CATCHER FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 535,085, dated March 5, 1895.

Application filed September 17, 1894. Serial No. 523,260. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HENRY WILKINSON, a citizen of Great Britain, residing at Huddersfield, in the county of York, England, have invented certain new and useful Improvements in Shuttle Guards and Catchers for Looms for Weaving; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to the arrangement and construction of a new form of collapsible shuttle guard in combination with a shuttle catcher.

Referring to the drawings:—Figure 1 is a front elevation of guard; Fig. 2, a plan of same; Fig. 3, an end elevation. Fig. 4 is an end elevation and shows the guard closed, and Fig. 5 is a plan of same.

To the lay cap or hand rail A is fixed a long plate *a* which supports two brackets B to which are pivoted other brackets *b*. The latter are formed with curved slots *b'* in which rest, in the positions shown, three very light bars or rods *c*. The ends of these rods are coupled together by chains *g* whose rear ends are fastened to the plate *a*. Other chains *d* are coupled to each rod and to plate *a* at intervals (two only being shown) across the reed space, while alternating with these are the chains *e* which depend from plate *a* in loops as shown in Fig. 3 and are attached only to the front guard bar *c*. A fourth and shorter rod or bar *c'* is slung from plate *a* at the back between the pivoted brackets *b*.

It will be seen from the above that the guard is so arranged that as the shuttle flies from the race of the shuttle board C in an upward direction it will enter the catcher between the chains *e* stretched across it at intervals. The shuttle, being checked in its upward flight by the suspended bars *c*, drives its way forward and ultimately falls down on the cross or suspending chains *e* forming the catcher where it is held secure. Thus the shuttle is prevented from injuring the operative or doing damage to the fabric, or to the shuttle itself. When a warp thread is broken and the weaver is required to get near the reed, he simply pushes the front bar *c* of the guard up the slides *b'* of the pivoted bracket *b* and in doing so the bar itself then turns the said bracket inward in the direction of dotted lines (Fig. 2) against the hand rail A,

thus enabling the weaver to get to the reed for the purpose of piecing up. When restarting the loom, the throw of the lay in its forward motion causes the guard, by its own inertia, to be put into position. Stops *f* on brackets *b* prevent them turning too far.

The guard is in no way detrimental to the weaver as the front bar being round and light and working loose in the pivoted bracket, the weaver can place his hands beneath it in any manner without injury or inconvenience.

The apparatus protects both weaver and material for by the shuttle entering the catcher it cannot break down the warp or cut the piece, while it is of the least possible inconvenience to the weaver when slewing the ends.

The slots or slides *b'* in pivoted brackets are continued at right angles, as shown, so that on pushing up the front bar and the remaining bar also, they engage with the extremities of said slots and thus turn the pivoted brackets inward toward the hand rail.

Instead of using chains *d* and *e* suspenders made of other material may be used.

I claim as my invention—

1. In a collapsible shuttle guard for a loom, the combination, with the rail A, and the pivoted end brackets *b* supported by the said rail and provided with a series of guide slots *b'*; of the light bars resting in the said slots, the flexible connections *e* suspended between the outer bar and the rail, and the flexible connections *d* coupling all the bars to the rail, substantially as set forth.

2. In a collapsible shuttle guard for a loom, the combination, with the rail A, the plate *a* secured to the rail, the brackets B secured to the plate *a*, and the end brackets *b* pivoted to the brackets B and provided with a series of guide slots *b'*; of the light bars resting in the said slots, the flexible connections *e* attached to the outer bar and to the plate *a*, the flexible connections *d* attached to all the bars and to the plate *a*, and the short bar *c'* supported between the brackets *b* next to the plate *a*, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES HY. WILKINSON.

Witnesses:

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