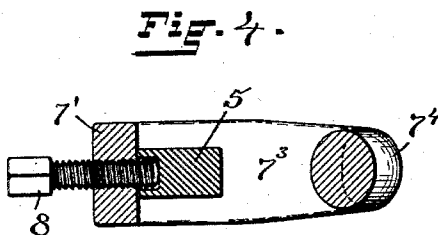
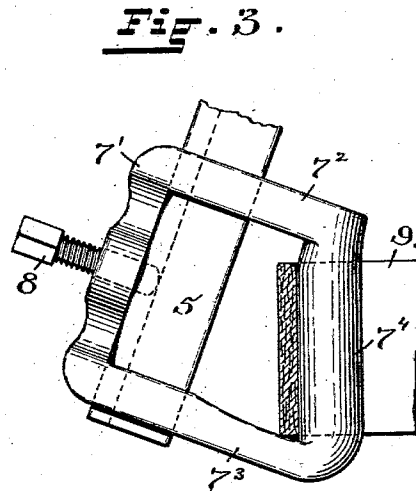
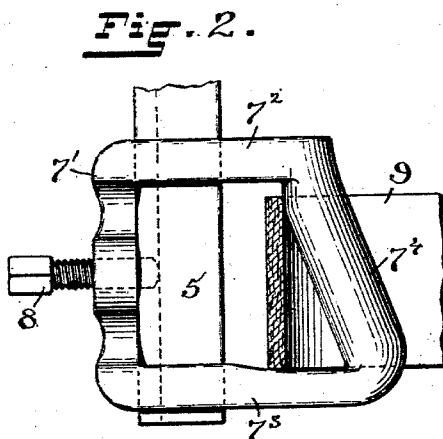
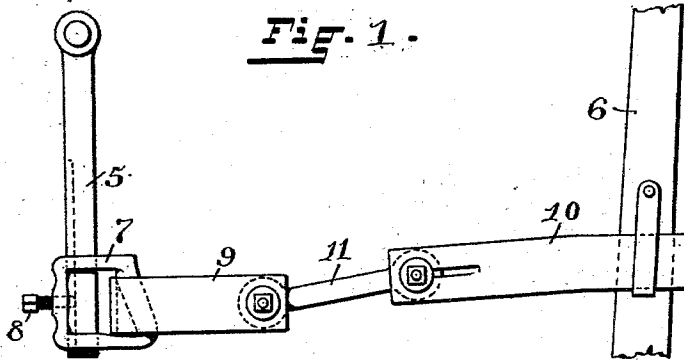


(No Model.)

P. ASHBY.
PICKER STRAP DOG FOR LOOMS.

No. 569,570.

Patented Oct. 13, 1896.



WITNESSES:

W. F. Bligh.
Chas. H. Luther.

INVENTOR:

Peter Ashby
by Joseph A. Miller & Co.,
Attys.

UNITED STATES PATENT OFFICE.

PETER ASHBY, OF VALLEY FALLS, RHODE ISLAND, ASSIGNOR TO THE WHITIN MACHINE WORKS, OF WHITINSVILLE, MASSACHUSETTS.

PICKER-STRAP DOG FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 569,570, dated October 13, 1896.

Application filed June 11, 1896. Serial No. 595,097. (No model.)

To all whom it may concern:

Be it known that I, PETER ASHBY, of Valley Falls, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Picker-Strap Dogs for Looms; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

In a loom for weaving cloth the shuttle by which the weft is laid is driven through the open shed of the warp by means of the picker-stick. This stick usually starts the shuttle out of the shuttle-box and then by giving to the shuttle a sudden blow sends it across the width of the fabric into the opposite shuttle-box. This is usually effected by the use of a cam which bears against the picker-roll turning on a pin extending from an arm of the picker-shaft, thereby partially turning the picker-shaft until a sudden projection of the cam strikes the picker-roll and gives to the picker-shaft the sharp sudden turn which, transmitted to the picker-stick, gives the sudden blow to the shuttle by which it is sent across the fabric. The picker-shaft is provided with an arm, on the outer end of which the dog is secured. A picker-strap connects the dog with the picker-stick. The arm on the picker-shaft has also been connected with the picker-stick by the picker-strap without the use of the dog. The arm on the picker-shaft, which for convenience I may call the "picker-arm," swings in a vertical plane and thus changes the angle of the surface on the arm or on the dog against which the loop of the picker-strap bears, so that at the time when the blow is exerted the strap bears only at one edge on the picker-arm or the dog. These sharp blows soon wear and weaken this part of the loop of the picker-strap, and in power-loom running at the high speed now used the loop of the picker-strap connected with the picker-arm wears out very rapidly, thereby causing the stoppage of the loom and the renewal of this part of the picker-strap.

The object of this invention is to prevent this local wearing of the loop by so constructing the dog that at the time when the blow is

given and the full force exerted the loop will bear on the dog fairly and along its whole width.

Figure 1 is a view showing the connection of the picker-arm with the picker-stick in the relative positions when the picker-stick has been drawn fully back by the picker-stick spring. Fig. 2 is an enlarged view showing the dog secured to the picker-arm, the loop of the picker-strap being shown in section and the position of the picker-arm being the same as in Fig. 1 when no strain is exerted on the picker-strap. Fig. 3 is an enlarged view showing the picker-arm, the dog, and the loop of the picker-strap in the position when the projection on the cam strikes the picker-roller and the force is transmitted by the picker-strap to the picker-stick to send the shuttle across the fabric and the loom. The loop of the picker-strap is shown in section and shows the surface bearing on the dog the whole width of the strap. Fig. 4 is a transverse sectional view of the dog.

In the drawings, 5 indicates the picker-arm; 6, the picker-stick; 7, the dog secured to the free end of the picker-arm. The dog 7 consists of the face-plate 7', in the center of which the clamp-screw 8 is secured by screw-threaded engagement. From the upper end of the plate 7' the bracket 7² projects and from the lower end the bracket 7³. Both of these brackets are slotted for the reception of the picker-arm 5. The bracket 7³ is longer than the bracket 7². The ends of the brackets 7² and 7³ are connected by the strap-bar 7⁴, which forms an angle of less than ninety degrees or right angle with the bracket 7³ and an angle of more than ninety degrees with the bracket 7², the angular position of the strap-bar 7⁴ being such that the strap bears its whole width on the bar when the greatest strain on the strap is exerted.

In practice I find that the strap-bar 7⁴, when inclined at an angle of about twenty degrees to the picker-bar, will form a fair bearing on the loop, but I do not wish to confine myself to any particular angle, as the same may be varied to the oscillation of the picker-arm. The loop 9 extends through the dog and is connected with the loop 10 by the link 11. This construction allows some ad-

justment of the loops to their bearings on the dog and the picker-stick.

I find that with a dog the strap-bar of which is placed, as shown in the drawings, at an inclined angle to the picker-bar, instead of parallel with the same, as formerly constructed, the picker-strap wears evenly its whole width.

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

A pick-strap dog comprising upper and lower members having openings to receive

the picker-arm, a connecting-plate for the rear ends of said members, and an inclined strap-bar connecting the forward ends of the members, together with a clamping device carried by the connecting-plate, whereby the pick-strap dog may be secured to a picker-arm.

In witness whereof I have hereunto set my hand.

PETER ASHBY.

Witnesses:

JOSEPH A. MILLER, Jr.,
M. F. BLIGH.