Oct. 16, 1923. 1,471,110

B. F. EARLY

LUG STRAP FOR LOOMS

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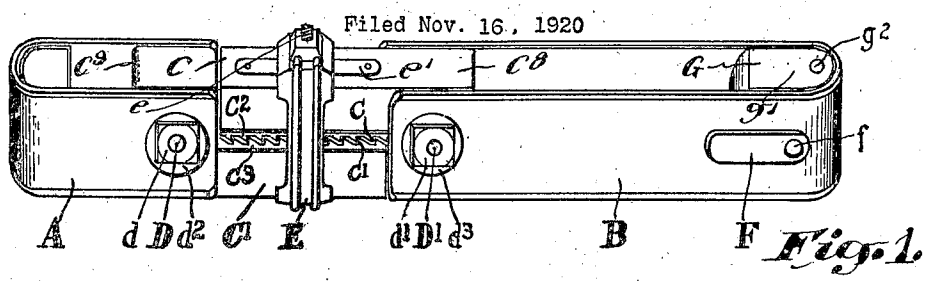


Fig. 1.

FIG. 2

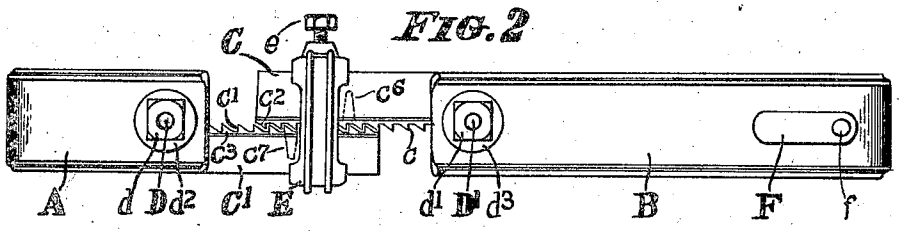


FIG. 3

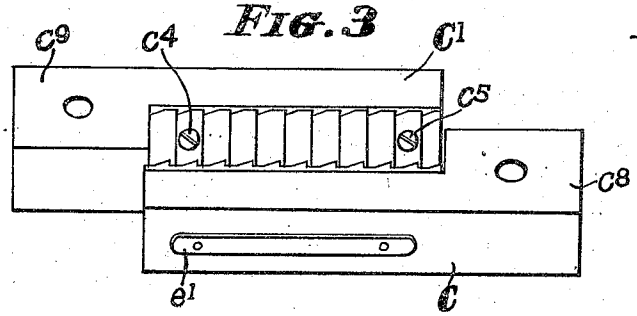


FIG. 4

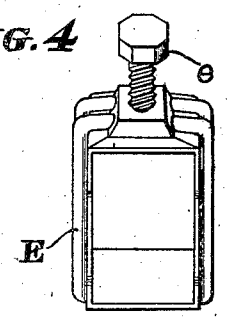


FIG. 6

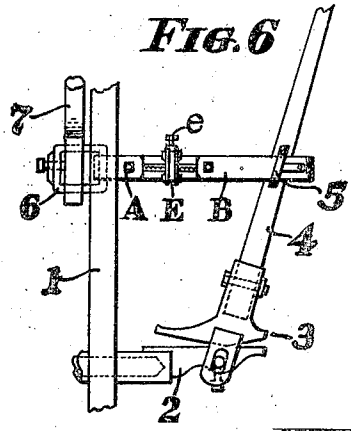
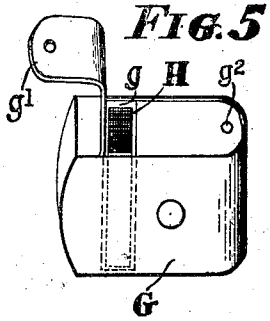


FIG. 5



Bartholomew F. Early INVENTOR.

BY

Albert M. Moore ATTORNEY.

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UNITED STATES PATENT OFFICE.

BARTHOLOMEW F. EARLY, OF LOWELL, MASSACHUSETTS.

LUG STRAP FOR LOOMS.

Application filed November 16, 1920. Serial No. 424,390.

To all whom it may concern:

Be it known that I, BARTHOLOMEW F. EARLY, a citizen of the United States, residing at Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented a certain new and useful Improvement in Lug Straps for Looms, of which the following is a specification.

This invention relates to lug-straps for looms meaning the connections between the picker-stick and the picker-shaft arm or other actuator.

Such lug-straps are commonly variable in length to control the distance of the picker-stick from the actuator to limit the distance to which the picker-stick is thrown by the impact of the incoming shuttle and to prevent or lessen the shock and noise of the picker-stick striking the outer end of the slot in the lay beam in which the picker-stick moves.

I provide novel means for varying the length of the lug-strap for the purpose above indicated and I also provide a shock-absorber or cushion of very slight elasticity which lessens the sound of the picker-stick, striking the end of the slot in the lay-beam and the wear and liability of the picker-stick to breakage and also lengthens the life of the lug-strap, and lessens the liability of breaking of the weft yarn, and the consequent waste.

I also reinforce the sides of the loop which receives the picker-stick where the latter strikes the shock-absorber to prevent the spreading of the sides of the loop.

In the accompanying drawing, Fig. 1, is a perspective view of my improved lug-strap; Fig. 2, a side elevation of the same; Fig. 3, a perspective view of the two halves of connecting blocks, the upper half, the top of the blocks being turned towards the observer and the halves being separated; Fig. 4, a side elevation of the clamp, inclined towards the observer; Fig. 5, a perspective view of the shock-absorber and pocket; Fig. 6, a front elevation of such parts of a loom as are necessary to the understanding of this invention.

In Fig. 6, 1 indicates a part of the loom frame; 2, the rocker bed; 3, the rocker; 4, the picker-stick; 5, the loop which supports the lug-strap on the picker stick; 6, the stirrup which connects the lug-strap to the picker-shaft arm, 7; all of the usual construction and operation except as hereinafter stated.

The lug-strap comprises two connected loops A B, one A of which receives the stirrup 6 of the picker-shaft arm 7, and the other B of which receives the picker-stick 4 in the usual manner, these loops being of leather, cloth as duck or other suitable material. These loops A B may be alike in every respect except that greater length will be required in the loop B which receives the picker-stick to allow said picker-stick a movement of rebound in said loop B.

The connection between the two loops A B consists of two blocks C C^1 of hard wood or metal or other suitable inextensible material each rigidly secured to one of said loops, one of said blocks overlapping the other and in contact therewith. The contacting surfaces of the connectors are provided with teeth c c^1 which may, if the bodies of the connectors be of metal or metallic alloy, be integral with the connectors, but if such bodies are of wood, the teeth will be formed upon plates c^2 c^3 of metal or alloy secured to the adjacent horizontal faces of said connectors, as shown, the plates c^2 c^3 being fastened to said bodies by screws c^4 c^5 and by studs integral with said plates and extending therefrom into the bodies of the connectors as shown in dotted lines at c^6 c^7 in Fig. 2.

The parts of the connectors which are attached to the loops are enlarged, at c^8 c^9, to fill the entire depth of the respective loops to give a better hold of the attaching bolts, and to make the direction of the pull of the connector members substantially in the line of the teeth.

The connectors are rigidly attached to the loops by bolts D D^1, nuts d d^1 and washers d^2 d^3 in an obvious manner, and said bolts fit the holes in the loops instead of being movable in slots which are liable to be worn and to tear, the only adjustment of the length of the lug-strap being accomplished by the movement of the connectors on each other.

The loop A is provided with a reinforce or lining which may be of the same or different material from that of said loop to sustain the wear of the actuator.

The loop B is provided with a block G, of material similar to that which composes said loop to serve as a shock-absorber to

minimize the shock of the picker-stick against the loop. And in furtherance of the same object I provide a pocket or space *g* in which I place a rubber cushion H held in place by the flap g^1 of textile material, the free end of which is secured to the top of the block G in any convenient manner as by glue or a nail or screw g^2 or by both means.

To prevent the sides of the loop B being crowded away from the shock-absorber G, I arrange on each side of said loop B a steel or similar metallic plate F, held in place by a bolt or rivet *f* which also serves to retain the shock-absorber in place.

The blocks C, C′ are connected together by interlocking their toothed portions and binding them together by tightening the set screw —*e*— of the clamp E upon the strip —*e*′— which is embedded in one or both of the blocks. The clamp E completely incloses the toothed ends of the two blocks as shown in Fig. 2.

I claim as my invention:

1. A lug strap comprising two loops, one of which is adapted to receive an actuating arm and the other a picker stick, blocks rigidly secured in the adjacent ends of the loops, reduced extensions carried by said blocks, interengaging teeth formed on the opposed faces of the block extensions, and a clamp inclosing the two extensions for adjustably connecting the two loops.

2. A lug strap comprising two loops, one of which is adapted to receive an actuating arm and the other a picker stick, blocks rigidly secured in the adjacent ends of the loops, reduced extensions carried by said blocks, interengaging teeth formed on the opposed faces of the block extensions, a clamp inclosing the two extensions for adjustably connecting the two loops, a block mounted in the closed end of one of the loops, and a cushion insert carried by the block.

3. A lug strap comprising two loops, one of which is adapted to receive an actuating arm and the other a picker stick, blocks rigidly secured in the adjacent ends of the loops, reduced extensions carried by said blocks, interengaging teeth formed on the opposed faces of the block extensions, a clamp inclosing the two extensions for adjustably connecting the two loops, and face plates carried by the outer sides of the block extensions adapted to be engaged by said clamp.

BARTHOLOMEW F. EARLY.