H. F. LIVERMORE.

MEANS FOR OPERATING PICKER STICKS.

APPLICATION FILED MAR. 1, 1921.

1,411,637. Patented Apr. 4, 1922.

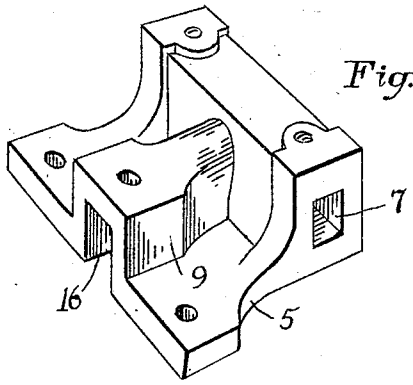


Fig. 5

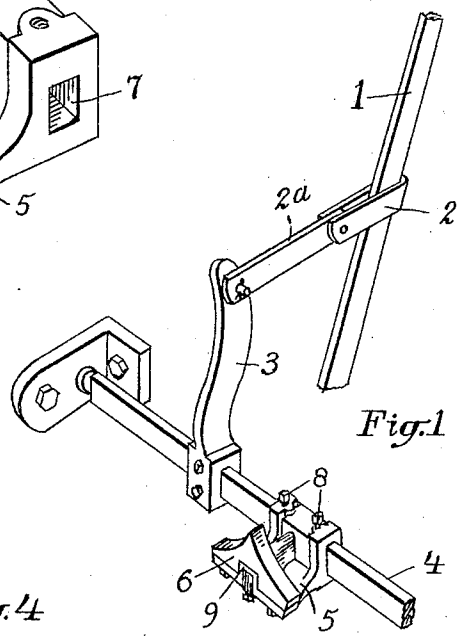


Fig. 1

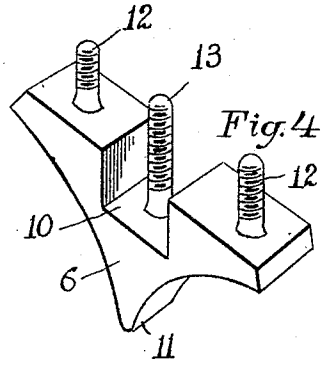


Fig. 4

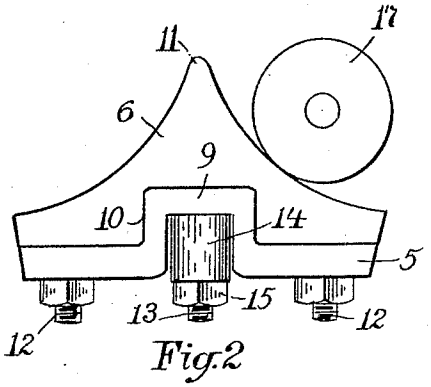
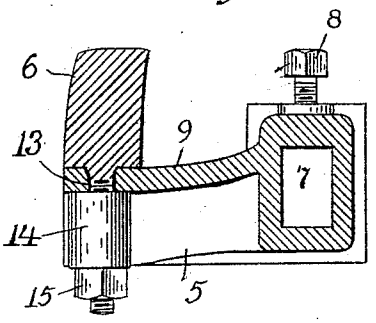


Fig. 2

Fig. 3



Inventor,

Homer F. Livermore;

By A. B. Lupham,

Attorney.

UNITED STATES PATENT OFFICE.

HOMER F. LIVERMORE, OF BOSTON, MASSACHUSETTS.

MEANS FOR OPERATING PICKER STICKS.

1,411,637. Specification of Letters Patent. Patented Apr. 4, 1922.

Application filed March 1, 1921. Serial No. 448,915.

To all whom it may concern:

Be it known that I, HOMER F. LIVERMORE, a citizen of the United States, and a resident of the city of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Means for Operating Picker Sticks, of which the following is a full, clear, and exact specification.

It is customary in looms to operate the picker stick by means of a rocker shaft or picker shaft connected to the picker stick through a picker arm, a sweep stick, and a lug strap, the picker shaft being actuated by the engagement with a picker shoe carried by the shaft, of an antifriction roll termed a picker roll. This picker shoe is usually composed of chilled iron having its cam surface or nose hardened by such chilling; and when this nose becomes worn or otherwise injured, the entire picker shoe must be removed and a new one substituted, thus necessitating taking down the picker shaft and disconnecting other parts of the loom, thereby entailing much loss of time, not to speak of the cost of an entire new casting.

The object of my present invention is the effecting of means whereby such shoe-nose can be renewed at any time without affecting in any way other parts of the machine, and hence at a minimum expenditure of time and material. At the same time, a more perfect and better-wearing nose is provided for the picker shoe.

In the drawings forming part of this specification, Fig. 1 is a perspective view of parts of a picker stick actuating mechanism showing my improvement applied thereto. Fig. 2 is an elevation of a picker shoe embodying my improvement. Fig. 3 is a side sectional view of the same. Fig. 4 is a perspective view from beneath of the removable picker nose. Fig. 5 is a perspective view of the picker shoe with the nose removed therefrom.

As shown in Fig. 1, the picker stick 1 is operatively connected by a lug strap 2 and a sweep stick 2^a to the picker arm 3 rigidly attached to the picker shaft 4. Mounted on this shaft 4 is the picker shoe 5 having a picker nose 6 removably attached thereto. The contour of this nose is the same as those previously formed on the picker shoe, being adapted to be engaged by the picker roll 17 in a well known manner.

For rendering this nose 6 removable, I form the picker shoe with a mid-rib 9 adapted to enter a central recess 10 in the nose 6, the shoe being provided with a socket 7 by which it is mounted on the picker shaft, and set screws 8 for fastening it in place thereon.

The nose 6 is substantially in the shape of an equilateral triangle, with the exception that its outer surfaces are concave. The recess 10 is located beneath the crest 11 of the nose, and hence does not materially weaken the latter. It is fastened upon the picker shoe by means of bolts 12, 13 and nuts thereon, the bolts being preferably integral with the nose by having the entire member a drop-forging.

The mid-rib 9 being hollowed out from beneath for the sake of lightness, the bolt 13 which descends into the channel 16 in the mid-rib is made longer than the other two bolts, and a thick washer 14 is mounted thereon between the surface of the channel and the nut 15, in order to bring the nut into position for convenient access.

By thus having the mid-rib 9 at right angles to the picker shaft 4 and to the line of action of the pick-roll 17, the picker nose 6 is amply supported against the shocks of the roll, so that the only function required of the bolts 12, 13 is that of holding the picker nose down upon the picker shoe 5.

Thus constructed, the picker shoe and its nose is of maximum durability, but if in the course of time the nose becomes badly worn, it can be easily removed and a new one substituted, without in the least disturbing the remainder of the machinery.

What I claim is:

1. In a loom, the combination with a picker stick, of means for its actuation comprising a picker shaft, a picker shoe mounted thereon having a rib upon its surface substantially at right angles to said shaft, a picker nose having a recess fitting said rib, and bolts fastening said nose to said shoe.

2. In a loom, the combination with a picker stick, of means for its actuation comprising a picker shaft, a picker shoe mounted thereon having a hollow mid-rib upon it, a picker nose having a recess fitting said rib and a plurality of bolts descending through said shoe from said nose, and nuts screwing onto said bolts for fastening said shoe and nose together.

In testimony that I claim the foregoing invention, I have hereunto set my hand this 26th day of February, 1921.

HOMER F. LIVERMORE.