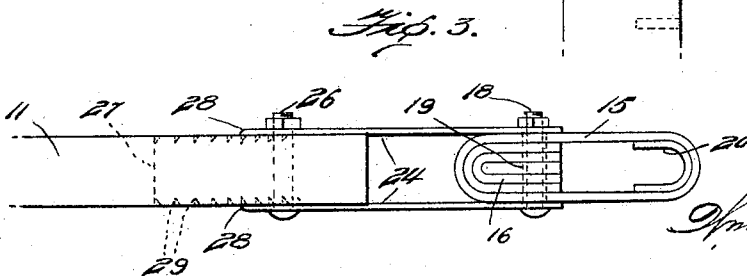
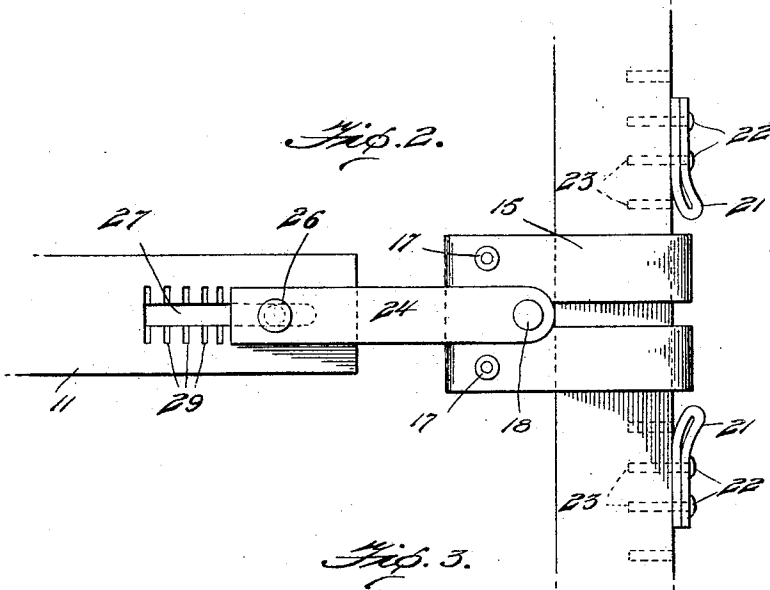
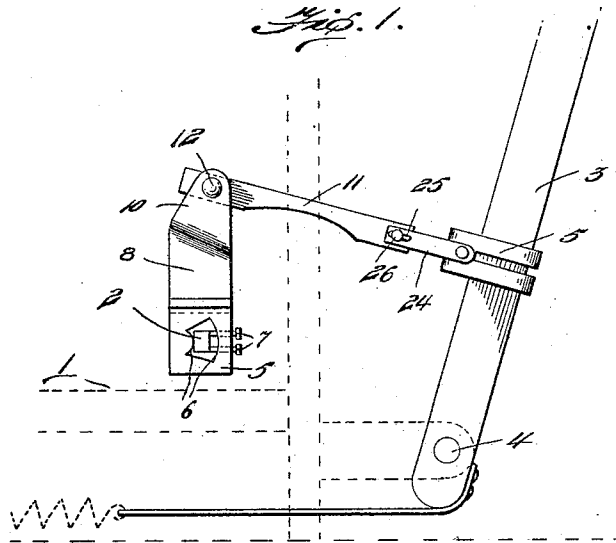


W. H. AYER.  
PICKING MOTION FOR LOOMS.  
APPLICATION FILED APR. 28, 1908.

941,844.

Patented Nov. 30, 1909.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM H. AYER, OF CLAREMONT, NEW HAMPSHIRE.

## PICKING-MOTION FOR LOOMS.

941,844.

Specification of Letters Patent. Patented Nov. 30, 1909.

Application filed April 28, 1908. Serial No. 429,711.

*To all whom it may concern:*

Be it known that I, WILLIAM H. AYER, a citizen of the United States, residing at Claremont, in the county of Sullivan and State of New Hampshire, have invented certain new and useful Improvements in Picking-Motions for Looms, of which the following is a specification.

My invention relates to improvements in picking motions for looms, and has for one of its objects the provision of a more simple and practical device of this character of durable and inexpensive construction, adjustable as to all its parts, and possessing a certain amount of flexibility so as to impart a more even throw to the shuttle.

Another object of the invention is to improve the picker arm by simplifying it and at the same time arranging it adjustably to change the stroke of the picker stick.

The invention embodies and consists in certain other novel features of construction and combination and arrangement of parts substantially as disclosed herein and illustrated in the accompanying drawings, in which:

Figure 1, is a side elevation of my improvements as applied to an ordinary loom, only a portion of the loom being shown. Fig. 2, is an enlarged detailed view of a portion of the picker stick and sweep stick showing the adjustable lug strap connection between the same. Fig. 3, is a plan view partly in section of the end of the sweep stick and the lug strap which encircles the picker stick.

In the drawings: the numeral 1 designates the frame of the loom, 2, the rock shaft, and 3, the picker stick pivoted at 4, these parts being of well known construction.

The picker arm 8 is mounted in a block or supporting member 5, having an irregular opening therein to receive the rock shaft, which is usually square. The side walls of the irregular shaft receiving opening in the picker arm support are curved in substantially concentric lines as at 6, the inner wall being preferably of slightly greater curvature as shown so as to constitute a bearing surface to permit the picker arm support to rock upon the shaft. Two or more set screws 7 pass through the outer side of the supporting block, engaging the upper and lower edges of the rock shaft, so that by adjusting these set screws the inclination of the picker arm may be adjusted to change

the stroke. The picker arm 8 is secured in the supporting block preferably by fitting in a slot 9 in the upper edge of the block. Other securing means may be employed, or the whole may be made in a single piece, and the upper end of the picker arm is preferably forked or bifurcated as at 10, to receive the end of the sweep stick 11. A bolt 12 secures the sweep stick to the picker arm, and in order to reduce friction and wear and to keep the forks from binding, the stick preferably carries a bushing not shown, which bears upon the securing bolt.

Any desired form of lug strap may be employed, that herein shown being an efficient form. It comprises an elongated loop piece 15, one end of the loop piece encircling the picker stick and the opposite end being filled in with a cushion block 16, which is preferably made up of a number of layers of leather placed edgewise. Rivets or other suitable fastenings 17 secure the wearing or cushion block in the loop binding the whole together and the bolt 18, for connecting the sweep stick is also passed through the loop and cushion block, the bolt preferably having a bushing. A wearing strip 20, is preferably placed in the loop to keep the strap from wearing on the corners of the stick. The lug strap is held in proper position on the stick by means of two stops 21 secured by screws or other fastenings 22. These stops are secured at the rear edge of the picker stick above and below the strap and are preferably made of strips of leather doubled as indicated with the rounded edges bearing against the strap. A series of properly spaced holes 23 are preferably formed in the stick so that by engaging the securing means of the stops in the different openings, the position of the lug strap upon the stick may be regulated to suit.

Links or short connecting straps 24 have their ends engaged upon the bolt 18 carried by the lug strap, and the other ends of these connecting links are adjustably connected to the end of the sweep stick. This adjustable connection may be made in different ways. In Fig. 1, the ends of the links 24 are slotted at 25, and a securing bolt 26 passes through the slotted portions of the links and the sweep stick and thus adjustably secures the sweep stick to the lug strap. The sweep stick may be slotted as at 27 in Figs. 2 and 3, and in this style, the links would preferably have inturned ends 28, to engage in any

of the transversely arranged locking kerfs or recesses 29, for adjusting the length of the sweep stick.

The invention, as I have shown and described it, is adapted for use in connection with any of the well known types of looms, and the invention may be adopted as a whole or the different parts thereof used separately. The parts are all very simply and strongly made, and as they are inexpensive, they may be replaced at slight cost. The proper freedom of movement between the different parts is provided for so that there will be no binding or chafing action, and the parts are all adjustable to suit different conditions.

From the foregoing description taken in connection with the drawings, it will be evident that I have produced an improved picking motion possessing desirability in all respects and which fully and satisfactorily accomplish the results aimed at.

I claim—

1. A picker arm having an irregular opening therein to pass over the picker shaft, a bearing point extending inward from the opening in the picker arm, and means bearing upon the shaft at opposite points from the bearing point for adjusting the relative position of the picker arm.

2. A picker arm having an opening therein to receive the picker shaft and a curved bearing point projecting inward to engage the shaft, set screws passed inward through the opposite side of the arm and bearing upon the shaft to rock the arm upon the bearing point for adjusting the inclination of the arm, and a wrist pin carried by the arm for connection to a sweep connection.

3. A picking motion consisting of a picker arm having an opening to receive the rock shaft and a bearing point extending inward in said opening and bearing upon the shaft, set screws engaging the shaft opposite the bearing point for adjusting the angle of the picker arm on the shaft, a wrist pin carried by the picker arm, a sweep stick having one end engaged on the wrist pin, a lug strap engaged on the picker stick, stops for adjustably holding the lug in position upon the stick, links connected to said lug strap and adjustably connected to the other end of said sweep stick.

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

WILLIAM H. AYER.

Witnesses:

ROBERT J. MERRILL,  
H. W. P. PUTNAM.