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PICKER FOR LOOMS

William A. Blanchard, Millbury, Mass., assignor
to Crompton & Knowles Loom Works, Worcester,
Mass., a corporation of Massachusetts

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This invention relates to improvements in loom pickers and it is the general object of the invention to provide a picker made of felt in which metallic wool is incorporated.

It is another object of the invention to provide a picker built up of a number of layers of felt in which is incorporated a considerable mass of metallic fibers which may be in the form of a metal wool. The metal fibers may be made of any suitable metal, such as stainless steel, hard brass, or copper.

It is another object of the invention to provide the picker with a picker stick shield held in position by rivets or the like which secure the several layers of felt together.

With these and other objects in view which will appear as the description proceeds, my invention resides in the combination and arrangement of parts hereinafter described and set forth.

In the accompanying drawing, wherein a convenient embodiment of my invention is set forth,

Fig. 1 is a plan view of a picker made according to my present invention showing the same related to a picker spindle and a picker stick,

Fig. 2 is a vertical section on line 2—2 of Fig. 1,

Fig. 3 is a detailed section on line 3—3 of Fig. 1,

Fig. 4 is a perspective view of the picker stick shield or guard,

Fig. 5 is a diagrammatic view showing the relation of the metallic fibers in the shuttle engaging part of the picker when the latter is first put in use, and

Fig. 6 is a view similar to Fig. 5 but showing the arrangement which the metallic fibers assumed after the picker has been in use a short time.

Referring particularly to Figs. 1 and 2, the picker P is of the type which is mounted for sliding on a picker spindle 10 and has a slot designated generally at 11 to receive the upper end of the picker stick 12. The kind of picker shown in Fig. 1 is used more particularly at the drop shuttle box end of fancy looms, but certain features of my invention are not limited to this particular type of picker.

The picker is made of several layers 13 of metal impregnated felt the right ends of which are enclosed in a U-strip 14 similar to the layers 13 to form a shuttle engaging head H. At the left end of the picker as seen in Fig. 2 there is formed a bearing indicated generally at 15 made of layers of metal impregnated felt located around a cylindrical bearing sleeve 16 which slides along the spindle 10. This bearing sleeve may be made of any appropriate low friction material, preferably

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metallic, and has its ends flared as at 17 to be held in position in the bearing 15.

The slot 11 is defined by a picker stick shield or guard G having front and back vertical walls 20 and 21, respectively, as viewed in Fig. 2, and having right and left vertical walls 22 and 23, respectively, Figs. 1 and 4, preferably integral with the walls 20 and 21. Oppositely extending attaching wings 24 integral with the upper ends of the walls 22 and 23 are perforated as at 25. The several layers of felt are bound together by a plurality of rivets 26 two of which pass through the openings 25. Fig. 3 indicates how one of the wings 24 is held by its rivet 26. The rivets may be similar to those used heretofore in the manufacture of pickers and in addition to their usual function of holding the layers 13 together certain of them also position the guard G.

An important part of my invention resides in the fact that the several layers of felt have incorporated into them a considerable amount of metallic fibers. These fibers are introduced during the manufacture of the sheet of felt from which the layers 13 and strip 14 are later cut, and may constitute up to 50% of the fibrous content of the layers. The metallic fibers may be in the form of wool with the various fibers thereof intermingled with each other and also with the textile fibers of which the felt part of the picker is made. In order to prevent rusting the metal wool may be made either of stainless steel, hard brass or copper, or any other suitable metal which can be formed into thin wirelike fibers. The usual fulling operations incident to making the felt sheet insure close intermingling of the several fibers, and when the layers have been assembled to take the arrangement indicated more particularly in Fig. 2, the picker may be subjected to additional fulling. In this latter fulling operation the metallic fibers of adjacent layers will intermingle with each other and tend to integrate the picker into a homogeneous unit.

When the picker is first put in use the metallic fibers will be distributed more or less uniformly throughout the head H, as indicated diagrammatically in Fig. 5, but as the picker continues in use a pocket 30 will be formed in the head by tip 31 of the shuttle S. During formation of this pocket the metallic fibers will become compacted and concentrated around the pocket as indicated at 32 in Fig. 6. The metal fibers originally in that part of the head H in which the pocket 30 is formed are bent or otherwise deformed to produce a hard surface for engagement with the shuttle tip.

From the foregoing it will be seen that I have provided a loom picker made of a felt in which is incorporated a considerable amount of metal wool which is distributed throughout the picker and intermingled with textile fibers. The metallic fibers forming the wool add considerable strength to the picker and are interlaced not only with themselves but also with the textile fibers. It will also be seen that the picker stick is protected against direct contact with the metal fibers by means of a guard which is held in position by certain of the rivets utilized to hold together the several layers of felt. It will further be noted with particular reference to Fig. 6 that as the result of use of the picker the metallic fibers are concentrated around the shuttle tip receiving pocket 30 and eventually build up such an amount of strength as to resist further deepening of the pocket.

Having thus described my invention it will be seen that changes and modifications may be made therein by those skilled in the art without departing from the spirit and scope of the invention and I do not wish to be limited to the details herein disclosed, but what I claim is:

1. A loom picker made of material comprising essentially an intermingled mixture of textile and metallic fibers.

2. A loom picker comprising a plurality of layers fastened together and having a shuttle engaging head, said layers being made of felt impregnated with metallic wool.

3. A loom picker made of a plurality of layers fastened together and having a shuttle engaging

head, said layers being made of intermingled textile fibers and metallic wool.

4. A loom picker made of a plurality of layers fastened together and having a shuttle engaging head, said layers being made of substantially equal parts of intermingled textile fibers and non-corrosive metallic fibers.

5. A loom picker having incorporated therein metallic fibers and having a slot extending there-through for a picker stick, and a guard surrounding said slot and secured to the picker to hold the picker stick out of engagement with the metallic fibers in the picker.

6. In a loom picker made of a plurality of layers of material including textile and metallic fibers, said picker having a picker stick slot there-through, a guard in said slot to prevent engagement of the picker stick with the metallic fibers of the picker, and rivets holding said layers together, certain of said rivets securing said guard to the picker.

7. In a loom picker adapted for sliding movement along a picker spindle, said picker being composed essentially of a mixture of textile and metallic fibers, and a sleeve member held in said picker to surround the spindle and prevent engagement of the latter by the metallic fibers of the picker.

8. A loom picker made of material comprising essentially a uniform mixture of textile and metallic fibers, said picker having a head in which is a shuttle tip receiving pocket around which is a concentration of metallic fibers.

WILLIAM A. BLANCHARD.