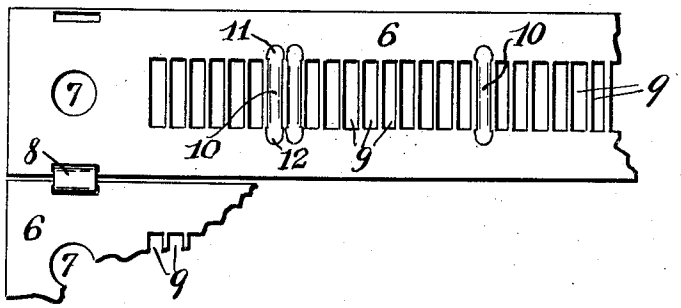
Feb. 12, 1929. 1,701,522

M. ZIMITZ

JACQUARD BAR AND PATTERN LUG THEREFOR

Filed Dec. 3, 1926

Fig. 1



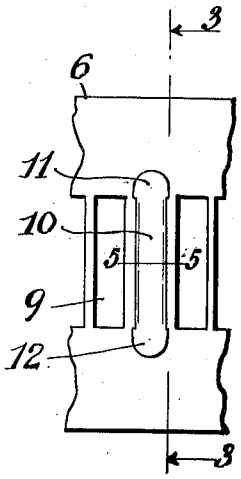


Fig. 2

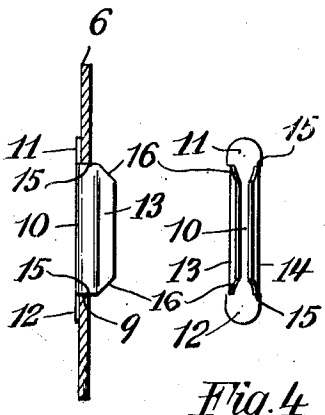


Fig. 3

Fig. 4

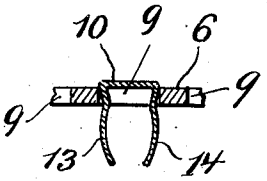


Fig. 5

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UNITED STATES PATENT OFFICE.

MICHAEL ZIMITZ, OF BROOKLYN, NEW YORK.

JACQUARD BAR AND PATTERN LUG THEREFOR.

Application filed December 3, 1926. Serial No. 152,315.

This invention relates to improvements in jacquard bars and pattern lugs therefor adapted to be used with flat bed knitting machines for actuating the needles thereof in accordance with a given pattern or design.

The object of the invention is to provide an improved jacquard bar provided with a row of rectangular transversely disposed openings, closely adjacent each other; and further, in providing an improved pattern lug adapted to be removably inserted in said openings.

The advantages of my improved jacquard bar are that it may be quickly and accurately manufactured, permits the rectangular openings to be spaced very close, yet leaves sufficient material on each side of the row of openings running the length of the bar. My improved pattern lug is provided with wings or feet adapted to hug the longer sides of the rectangular openings, thus fitting tightly and at the same time permitting ready removal. Still another object of the invention is to provide a pattern lug adapted to lie flat against the bar to prevent accidental removal or disarrangement of the pattern lugs in making up the patterns and attaching the bars to the knitting machine.

In the drawing accompanying this specification

Fig. 1 is a view of one end of a jacquard bar provided with pattern lugs embodying the invention, and shows two bars hinged together with parts broken away.

Fig. 2 shows enlarged a portion of the bars with a pattern lug in position.

Fig. 3 is a sectional view on line 3—3 of Figure 2.

Fig. 4 is a rear view of the pattern lug.

Fig. 5 is a view on line 5—5 of Figure 2.

Referring to the drawing the reference numeral 6 denotes the jacquard bar, only one end thereof being shown. At each end the bar is provided with a hole 7 for attachment and operation on the knitting machine, which is not shown. The bars are hinged together as at 8.

The body of the bar is provided with a row of closely spaced rectangular openings 9 having their longer sides disposed transversely of the bar, but leaving a solid strip of material along the edges of the bar for purposes of rigidity. There are as many openings 9 as there are needles in the machines, and the openings are of necessity placed very close.

For actuating the needles of the knitting machine in the well known manner, I provide improved pattern lugs adapted to be removably inserted in the openings 9 to make up the different pattern, such as has heretofore been made by other means.

Each pattern lug is cut and bent in a die and is specially hardened and tempered to permit ready handling by unskilled labor and increase the life of the lug.

Each pattern lug is composed of a single piece cut and bent to form a rectangular body portion 10 of a size to cover the openings 9 in the jacquard bar. The body portion is provided with longitudinally extending stop portions 11 and 12 adapted to lie against the bar flush with the body portion to prevent it from passing through the opening. The body portion is further provided with depending side wings 13 and 14 so that as shown in Figure 5, the lug is U-shaped in cross section, the wings being springy or yielding to hold the lug in position and to hug the longitudinal sides of the opening in an obvious manner. The wings have square ends as at 15, 15 to prevent longitudinal movement of the lug in the openings 9, thus seating the lug more securely. The ends or free portions of the wings are bevelled as at 16, 16 to facilitate insertion in the openings.

The pattern lug is inserted quickly in the opening in the jacquard bar and placed therein in accordance with the pattern desired. The lug fits tightly, yet, it is readily removed by inserting a knife blade or the like under one of the end stops 11 or 12.

The lugs are inexpensive to manufacture and use, and it has been found that they fit so tight, that the patterns may be made up and the bars handled without danger of losing a lug. The lugs are practically flush with the bar and therefore do not readily catch in anything.

I claim:—

1. In combination with a jacquard bar provided with a row of closely spaced and transversely disposed rectangular openings, the longer sides of which are of a length materially greater than the shorter sides thereof, a pattern lug of substantial permanent U-shaped cross section comprising a rectangular body portion adapted to fill the opening in the bar and having longitudinally extending end stop portions, the said body and end portions forming one unbroken flush surface substantially flush with the surface of the

jacquard bar said body portion having its two remaining sides bent to form permanently depending wings adapted to pass through and yieldingly hug the longer sides of the rectangular opening, said wings having square portions adjacent the body to prevent it from sliding within the opening and bevelled corners to permit ready insertion in said opening for the purpose set forth.

2. As a new article of manufacture a pattern lug for jacquard bars comprising a body portion adapted to cover the opening in the bar, said body being in the form of a rectangle of materially greater length than width and provided on two of its sides with depending yielding side wings integral with said body and permanently bent therefrom at right angles thereto, whereby the outsides of said side wings yieldingly engage the sides of the opening in the bar.

MICHAEL ZIMITZ.