March 30, 1948. G. K. NICHOLAS 2,438,675

WARP TENSION ATTACHMENT

Filed Sept. 26, 1946 2 Sheets-Sheet 1

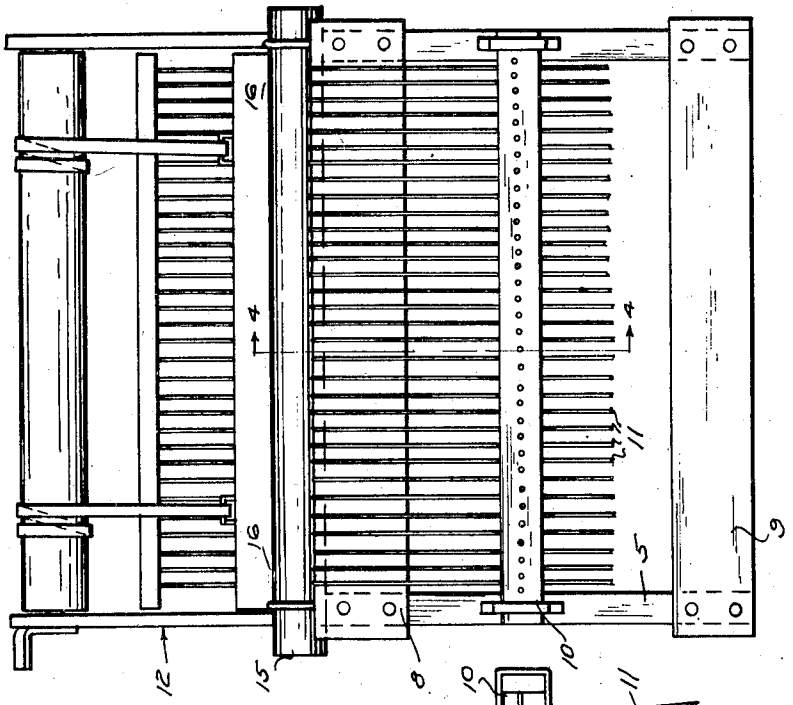


Fig. 2.

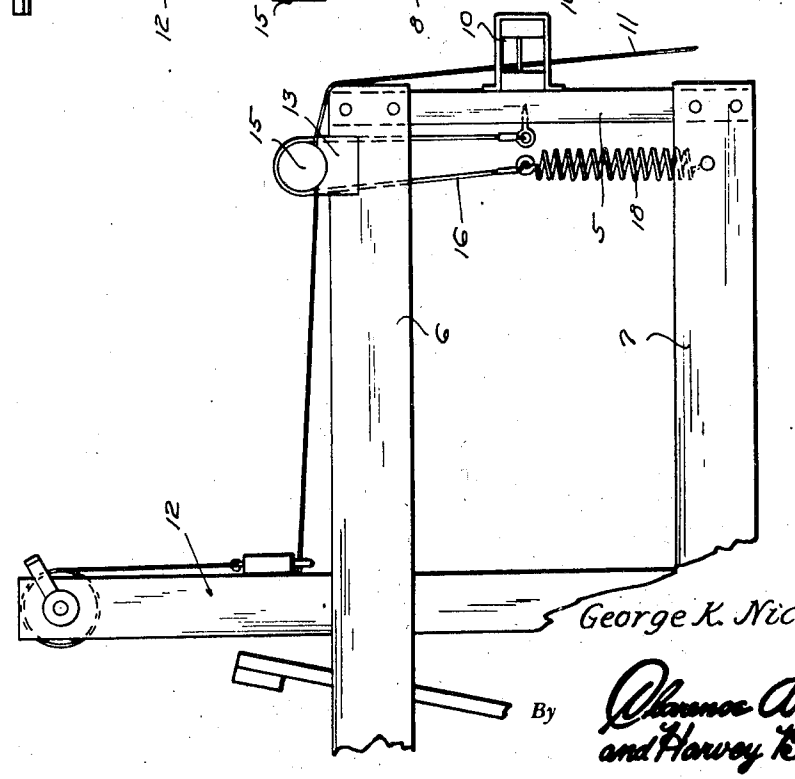


Fig. 1.

Inventor

George K. Nicholas,

By Clarence A. O'Brien and Harvey B. Jacobson

Attorneys

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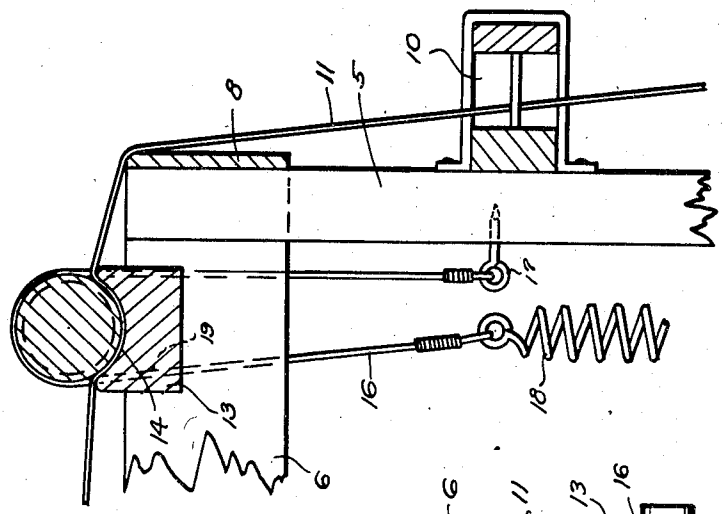


Fig. 4.

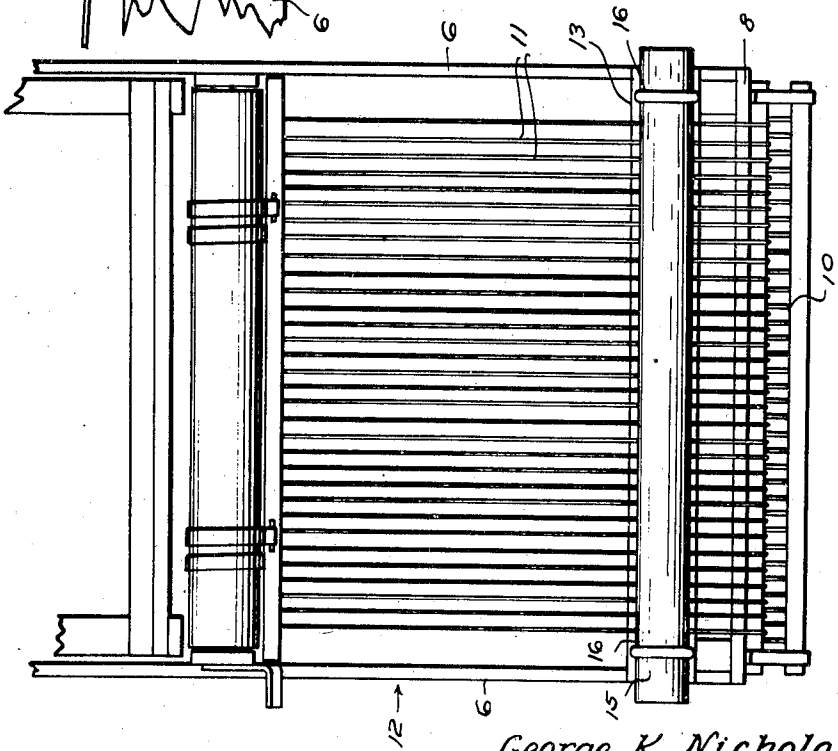


Fig. 3.

Inventor

George K. Nicholas,

By Clarence A. O'Brien and Harvey B. Jacobson

Attorneys

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UNITED STATES PATENT OFFICE

2,438,675

WARP TENSION ATTACHMENT

George K. Nicholas, La Porte, Ind.

Application September 26, 1946, Serial No. 699,431

2 Claims. (Cl. 139—97)

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The present invention relates to new and useful improvements in looms and more particularly to a warp tension attachment therefor.

An important object of the present invention is to provide a simple and practical warp tensioning attachment for looms of small size which eliminates the necessity of using a warp beam thereby saving time in the warp preparation and lowers the cost of the loom construction.

A further object of the invention is to provide an attachment of this character of simple and practical construction, which is efficient and reliable in operation, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a fragmentary side elevational view of a loom showing the warp tensioning attachment in position thereon.

Figure 2 is a front elevational view.

Figure 3 is a top plan view, and

Figure 4 is an enlarged fragmentary sectional view taken substantially on the line 4—4 of Figure 2.

Referring now to the drawings in detail wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention the numeral 5 designates the rear vertical beam of the loom frame and 6 and 7 the upper and lower longitudinal beams, the rear ends of the beams 6 being connected by an upper transverse beam 8 while the rear ends of the beams 7 are connected by a lower transverse beam 9.

A conventional form of comb 10 is secured in a horizontal position to the beam 5 through which the yarn 11 passes in an upward direction forwardly to the harnesses and other conventional parts of the loom designated generally at 12.

The yarn 11 passes over a transverse block 13 secured to the longitudinal beams 6 adjacent the rear ends thereof, the block having a groove 14 in its upper surface.

A tension roll is shown at 15 which is seated in the groove 14 with a slight clearance therefrom, the yarn passing under the roll.

A cord or other flexible member 16 extends over each end of the roll 15, one end of the cord being attached to the vertical beam 5 by means of screw eyes or the like 17, the other end of the cords being attached to the upper ends of

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coil springs 18 which have their lower ends secured to the lower longitudinal beams 7. The block 13 may be provided with openings 19 through which the cords 16 freely pass.

In the operation of the device the yarn 11 passes upwardly through the comb 10 which straightens and delivers the yarn evenly between the tension roll 15 and the grooved block 13, the springs 18 exerting a desired tension on the yarn.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the construction, operation and advantages of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

I claim:

1. A warp tensioning attachment for looms comprising a grooved block over which strands of yarn are drawn, a roller seated on the block, a flexible member extended over the roller and slidably extended through said block, and coil springs anchoring the flexible member to a part of the loom to yieldably urge the roller in the groove.

2. A warp tensioning attachment for looms comprising a grooved block over which strands of yarns are drawn, a roller seated on the block, a flexible member extended over the roller and slidably extended through said block to yieldably maintain the roller seated in the groove of the block.

GEORGE K. NICHOLAS.

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