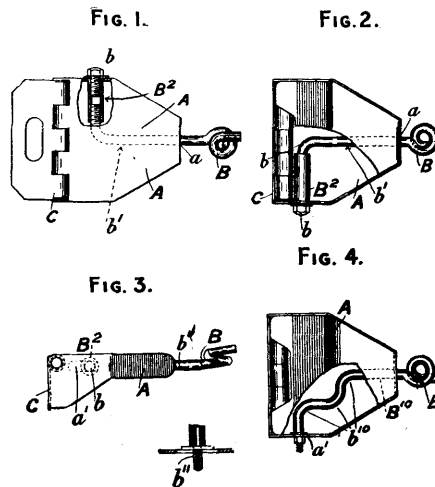


Textile Patents

Improved Thread Guide for Spinning Frames

An invention to provide improved means for adjustably securing the shank of the thread guide in position relatively to the lappet has recently been patented. The lappet is formed with an opening in its front portion and a longitudinal slot to the rear; the shank of the thread guide is passed through the opening in the usual way; it, or a detachable extension, is bent transversely to the main portion and is adjustably secured by means of co-operating with both the longitudinal slot and with the rear end of the thread guide, or with a bushing or other suitable extension.

In the accompanying drawings Fig. 1 is a top plan of one construction of lappet and thread guide according to this invention; Fig. 2 is an inverted plan, partly in section; Fig. 3 is a side



elevation; and Fig. 4 is a section plan of a modified construction.

Referring to the construction shown in Figs. 1 to 3, A is the lappet, B the thread guide, and C the hinge whereby the lappet is secured to the lappet board in the usual way. The lappet shown is of the box-like form. The shank of the thread guide passes through the usual hole *a* in the front portion of the lappet; and the side of the lappet is formed with a longitudinal slot *a'* adapted to receive a screw *b*. The shank *b'* is bent approximately at right angles as at *b* and its rear end is screw threaded and engaged with the end of a ninternally tapped bush *B*², the other end of which is engaged by the screw *b*.

In the construction shown in Fig. 4 the shank *B*¹⁰ is bent three times at *b*¹⁰, and its rear end is reduced and screw-threaded at *b*¹¹; the portion *b*¹¹ extends through the slot *a*¹ in the side of the lappet and receives a nut as shown, the shoulder or abutment of the thicker portion of the thread guide being thus drawn tightly against the inner face of the lappet wall, or, as shown, against a washer interposed between the shoulder and the inner face. In this construction the three bends *b*¹⁰ are necessary with the box-like form of lappet in order to enable the shank to be inserted through

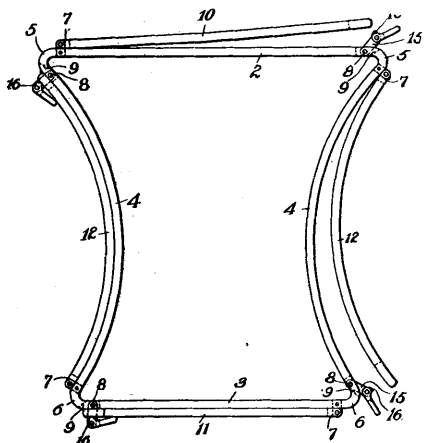
the ordinary small hole *a* in the front of the lappet.

In all of the constructions described above the position of the thread guide may be adjusted longitudinally by varying the position of the screw *b* or the shank end *b*¹¹ in the slot *a* in the lappet wall, the lateral adjustment being effected by means of the hinge C.

Hosiery Holder for Embroidering Machines

A fabric-holding device employed in connection with embroidering machines which has recently been patented and assigned to a large hosiery mill, is shown in the illustration. It consists of an improved construction adapted particularly for hosiery and having as its essential feature a rigid one-piece frame formed of a bent bar and carrying independently locked clamping bars arranged wholly within the plane of the frame.

The horizontal frame is formed in a single piece, from a bar of metal, of uniform cross-section, having its ends rigidly united; this endless bar being bent to ring-like form but having parallel top and bottom portions 2, 3, connected as shown by side portions 4, 4, which are generally curved so as to form corner portions 5 and 6. The



frame is provided respectively with a fixed outwardly extending pivot ear 7 and with a laterally extending pivot aperture 8; the latter extending through a portion of the frame bar which is provided with a slot 9.

Similar clamping bars, 10, 11 and 12 are provided for the top and bottom portions 2, 3 and side portions 4 of the frame; one end of each of the clamping bars being slotted to pivotally engage a fixed pivot ear 7 of the frame, and the other end being slotted to engage a link 15 which is pivoted in a slot 9 of the same portion of the frame.

Each of the bars 10, 11 and 12 conforms with the end or side portion of the frame to which it is connected and with which it co-operates in clamping the interposed fabric; and each is adapted to be independently pressed into clamping contact by a locking cam lever 16 which is carried by the free end of a link 15, as shown. The contacting faces of the frame and clamping bars provide a recessed engagement adapted to securely grip the fabric; and all of the clamping bars, together with their pivoting and locking connections, lie wholly within the plane of the frame, so as to provide a rigid device of minimum and uniform thickness throughout, which permits of easily placing and manipulating the fabric with relation to the embroidering mechanism.

Combined Napping and Carbonizing

Experiments by an Austrian inventor have shown that a cloth with raised designs can be obtained in a technically simple and economical manner, by impressing a size on fabric consisting

of a mixture of vegetable and animal fibers; this size not only preventing the napping of web at the impressed portions, but at the same time permitting the destruction or detaching of one of the two kinds of fiber, whereby a raised or napped surface will be formed. The result of this will be that along the impressed portions of the web merely the smooth, unnapped fiber of the other kind will remain, while both fibers will be retained, with a partially raised surface, along the remainder of the web. The process is carried out in the following manner:

1. A size which in the course of the subsequent operations will cause acid to be formed, or which will detach or destroy the vegetable fiber is impressed on a web composed partially of vegetable and partially of animal fibers. This size will, on the one hand, prevent the napping of the web, and on the other hand, cause the destruction of the vegetable fiber. By these means the animal fiber will remain at the unnapped portions on which the size has been impressed, while on the non-impressed portions both fibers will be retained and the cloth will be raised or napped in spots.

2. An alkaline size, such as will be capable of detaching the animal fiber, is impressed on a cloth consisting partly of animal and partly of vegetable fibers. The animal fiber will be destroyed along the impressed portions of the web, so that nothing but the vegetable fiber will remain, while simultaneously these portions of the web will be prevented from napping; on the other hand along the non-impressed portion, both kinds of fiber will be retained.

A size capable of destroying the vegetable fiber is composed of 200 parts by weight of sulphuric acid, 66 degrees Be. and 800 parts by weight of dextrin paste, 2 parts by weight for each part by weight of water.

A size capable of destroying the animal fiber consists of 600 parts by weight of soda lye 40 degrees Be. and 600 parts by weight of dextrin paste (2:1).

The size is impressed on the cloth, which is then napped, whereupon the fiber-destroying action of the size comes into operation by the article being treated at a raised temperature by passing it through an evaporator, a drying cylinder or a furnace for carbonizing.

After the destruction or detaching of the fiber, the resulting waste is removed by washing, in which case (it being the animal fiber which has been destroyed), suitable substances (say dextrin, glucose, glycerin, or gelatin) are added to the wash waters to prevent an injurious effect of the dissociating lye in the remaining portions of the animal fiber.

The subsequent expansion of the process with the view to obtaining colored effects or designs will permit of the following modifications:

1. The addition of dyestuffs and means for fixing the same to the fiber destroying size whereby the fiber retained will be dyed or colored.

2. The employing of colors such as are used for dyeing or cloth printing capable of fixing the dyestuffs to only one of the two kinds of fiber mentioned.

3. A combination of the working operations in 1 and 2.

4. The obtaining of effects or designs the principle of which consists in the fact of the article being treated in dyebaths which will render the coloring of only the one kind of fiber possible while the other fiber remains uncolored or but faintly colored.