United States Patent

Chretin

[15] **3,658,316**

[45] **Apr. 25, 1972**

[54] DEVICE FOR FIXING THE CANVAS OF A RUG DURING FABRICATION

[72] Inventor: **Jean Chretin,** 2 bis rue Francique Jomard, Oullins, France

[22] Filed: **Dec. 11, 1969**

[21] Appl. No.: **884,115**

[30] **Foreign Application Priority Data**

May 12, 1969 France 6914876

[52] **U.S. Cl.** **269/54,** 269/309

[51] **Int. Cl.** **B23q 3/00**

[58] **Field of Search** 269/47, 53, 54, 289, 309; 112/80, 260

[56] **References Cited**

UNITED STATES PATENTS

154,694	9/1874	Martin	269/53
1,173,760	2/1916	Williams	269/54
1,619,940	3/1927	Kaplan	269/54
2,006,074	6/1935	Knight et al.	269/53
3,167,041	1/1965	Briggs	112/121.14
3,342,478	9/1967	Shaw et al.	269/309 X
3,504,829	4/1970	Smakel	269/53 X

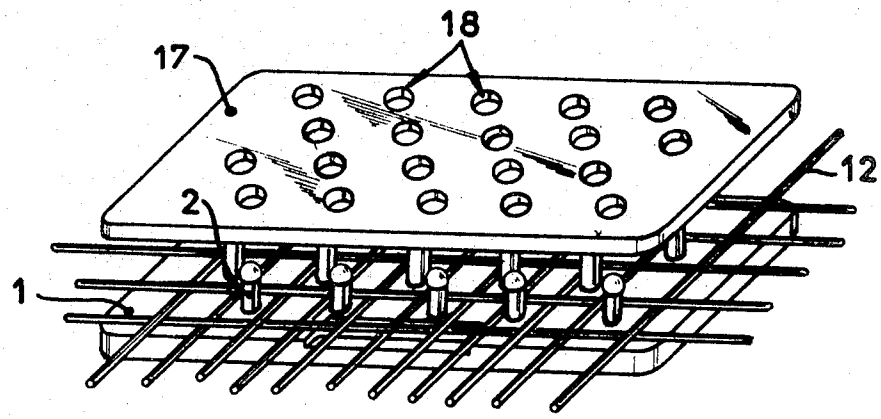
Primary Examiner—Frank T. Yost

Attorney—Sughrue, Rothwell, Mion, Zinn & Macpeak

[57] **ABSTRACT**

The device for holding a mesh-type backing fabric on a table top includes a plate having a plurality of upstanding pins on one surface thereof. The undersurface of the plate is provided with a flange which raises the plate off the surface of the table and two parallel through slots are provided on opposite edges of the plate to facilitate the passage of a strap therethrough. The strap may pass entirely around the surface of the table to secure the plate firmly on the surface of the table.

6 Claims, 11 Drawing Figures



PATENTED APR 25 1972

3,658,316

SHEET 1 OF 2

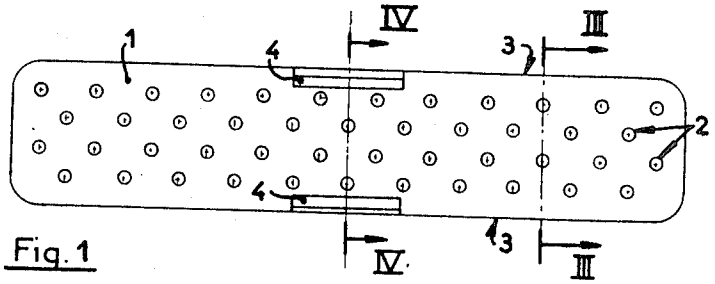


Fig. 1

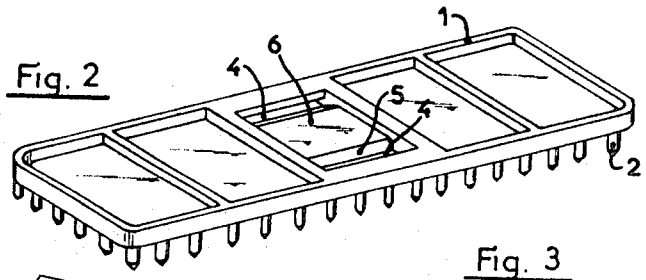


Fig. 2

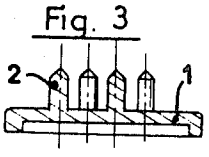


Fig. 3

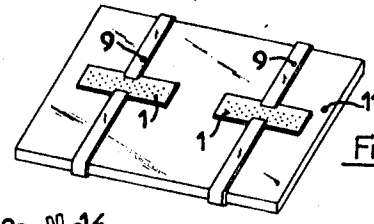


Fig. 5

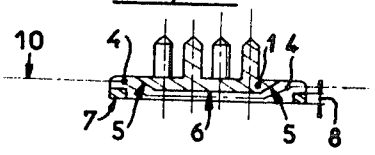


Fig. 4

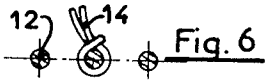


Fig. 6

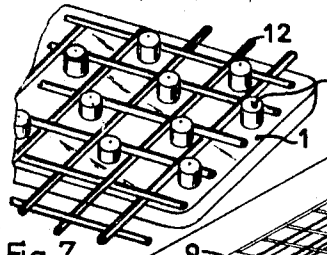


Fig. 7

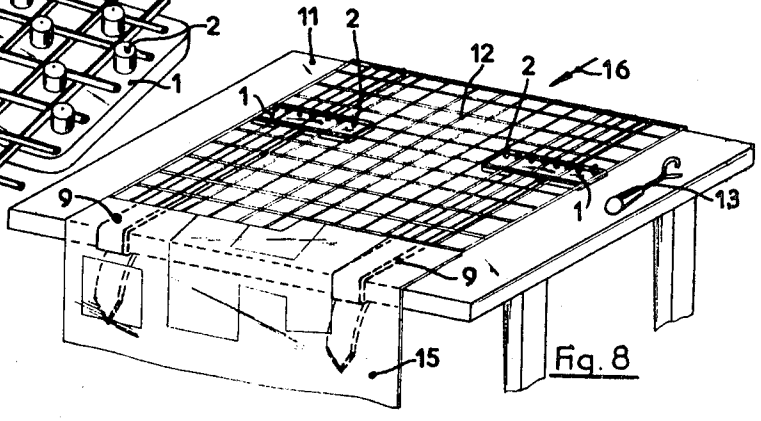


Fig. 8

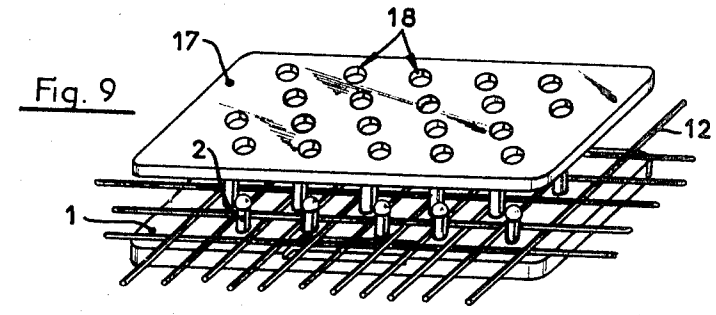


Fig. 9

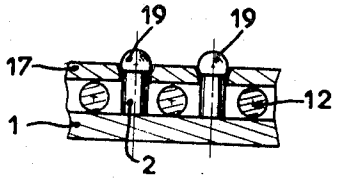


Fig. 10

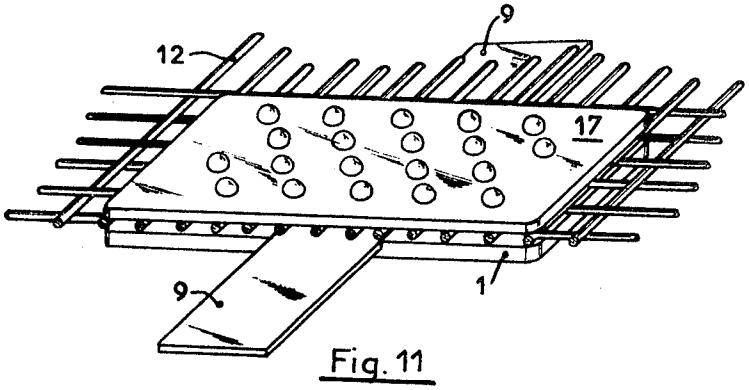


Fig. 11

DEVICE FOR FIXING THE CANVAS OF A RUG DURING FABRICATION

The present invention relates to a device designed to immobilise the canvas of a rug during manufacture.

It is a known technique to make thick pile rugs with knotted stitches. To do this, the operator places a canvas on a table and by means of a latchet hook he engages the pieces of wool, already cut to length, in the mesh of the canvas and knots them on each stitch of the mesh. Since the operator is seated at his work-table, the already completed portion of the rug (that is to say, the heavier part) rests on his knees, whilst the table carries the bare canvas (that is to say the lighter part). In practice, it is found that the heavy part drags by its weight the lighter part which tends to slide on the table. This should be avoided if possible, because the different prepared lengths of wool arranged according to the design of the rug are often waiting on the bare part of the canvas, and it is important not to mix them.

To prevent the rug falling the operator is obliged to have recourse to chance methods. Some people grip it by means of clips which spoil the edge of the table top.

The present invention has the aim of avoiding these disadvantages by providing, a cheap device which is very simple to use and ensures fixing of the canvas without spoiling the table.

The fixing device according to the invention is characterised in that it comprises at least one plate, the upper face of which is provided with fingers of which the diameter and the distribution correspond to the characteristics of the mesh of the canvas to be treated, means being provided in addition on two opposite edges of this plate for fixing a strap able to be buckled around the table top or any other known similar support.

Following a preferred method of manufacture of the invention, the plate is made as a monolithic plastics injection moulding.

According to another preferred feature of the invention, the means of fixing the strap are constituted by two parallel slots in the middle of two opposite edges of the plate, which allow an endless strap to be engaged in them, the strap passing underneath the plate between the two slots, whilst the strap is above the plate on each side of the slots. Hence the tension of the strap itself helps to hold the plate on the table.

In practical use, it is of advantage to use two devices of the above type simultaneously. In fact, with a single plate of small dimensions, the bulk of the canvas may have a tendency to turn around the point of attachment to the strap. On the other hand, if a plate of large dimensions is made, there is a risk of some of the fingers being out of line with the mesh of the canvas, since the regularity of the distribution of these meshes has fairly large tolerances. It is therefore preferable to use two plates of small dimensions simultaneously each one fixed by its own strap, and to use them to immobilise the two sides of the canvas.

Finally, if the canvas has a tendency to ruckup, it is possible to avoid its becoming unfastened by fitting behind it a further plate perforated in such a manner that its holes engage on the fingers of the first plate.

The invention will be better understood by reference to the following examples described with reference to the accompanying drawings, in which:

FIG. 1 is a plan view of the upper surface of a plate according to the invention,

FIG. 2 shows the under surface of this plate in perspective,

FIGS. 3 and 4 are respectively sections along III — III and IV — IV in FIG. 1,

FIG. 5 is a view in perspective showing the fitting of two devices side by side on the same table top,

FIG. 6 is a schematic part section of a canvas, showing the making of a knotted stitch,

FIG. 7 is a part section in perspective showing the engagement of the fingers of the plate in the mesh of the canvas,

FIG. 8 is an overall view of a rug in process of being made, its canvas being held by a pair of devices according to the invention,

FIG. 9 shows a variant in which a second plate is provided to fit on the first plate, trapping the threads of the canvas between the plates,

FIG. 10 is a transverse section of this variant, after the plates are assembled, and

FIG. 11 shows in perspective the assembly of FIG. 10 in the working position.

There is shown in FIGS. 1 to 4 a plate made in one piece as a plastics injection moulding. This plate comprises a body 1 made in the form of a long rectangle with rounded corners. From the upper face of the body 1 project teeth, points or fingers 2 arranged in staggered rows, for example, according to the apertures of a fabric with a square mesh.

The rectangular body 1 comprises two long opposite sides 3 in each of which, near to the middle of the side, is cut a slot 4. The two slots 4 are parallel to each other and they preferably open under the plate by oblique faces 5. In addition, between the two slots 4, the lower face 6 of the body 1 is recessed in relation to the lower face 7 of the main part of the body 1, to a depth 8 (FIG. 4) equal to the thickness of a strap 9. Thus, by using a strap 9 of known type, of a width equal to the length of the slots 4, it is possible to pass this strap 9 through the body 1 following the path shown schematically in FIG. 4 by the broken line 10.

The operation is as follows:

The operator preferably uses two devices of the kind which has just been described. He places them side by side on a table top 11 and he buckles the two straps 9 around this top. Thus the plates 1, 2 are arranged in line with one another, held on to the table top 11. Then, it is only necessary to fit on to the assembly of the two plates a canvas 12 of known type, the mesh of which will fit around the teeth or fingers 2 of the bodies 1. (FIGS. 7 and 8). By means of a latchet hook 13 of known type the operator knots pieces of wool 14 previously cut to length (FIG. 6) on to the threads of the canvas 12. In doing this, the operator pulls firmly on the canvas 12. This pull, together with the effect of the weight of the part 15 of the rug which is already completed, tends to make the whole canvas fall on to the knees of the operator, the canvas 12 sliding in the direction of the arrow 16. It will be understood that the plates 1, 2 according to the invention, oppose this sliding and hold the canvas 12 firmly in place. When the making of the rug has progressed sufficiently, it is only necessary to pull the canvas 12 from the fingers 2 and apply it again in a different place.

It will be seen that the use of these devices in no way damages the table top, unlike certain clips of known type.

In certain cases, it may happen that the canvas has a tendency to ruck up. For this, a variant according to the invention enables it to be trapped between two plates (FIGS. 9 to 11). The first plate 1, is of the type already described and is held by straps 9. The second plate 17 is made in a similar shape, but it is perforated by holes 18 each of which is able to fit on to the top of a finger 2 of the first plate. If necessary, the fingers 2 may be given bulbous tops 19 to hold the plate 17 clipped on by elasticity.

Thus it is only necessary to cap the assembly already described (FIG. 8) with a plate 17 on each plate 1, 2 to trap the canvas 12 and hold it firmly in place (FIGS. 10 and 11).

I claim:

1. A device for clamping a rug canvas to a table during manufacture of a rug, comprising a plate said plate having fingers projecting upwardly from its top surface, said fingers corresponding in distribution to the characteristics of the mesh of said canvas, means being provided on two opposite sides of said plate for anchoring a flexible fastening device capable of being buckled around a table top.

2. A device in accordance with claim 1, wherein said plate and said fingers are made as a monolithic plastics injection moulding.

3. A device in accordance with claim 1, wherein said means for anchoring said flexible fastening device is formed by said plate defining two parallel slots arranged one near to each of two opposite sides of said plate.

4. A device according to claim 3, wherein the underside of said plate is recessed between said slots.

5. A device according to claim 1, further comprising a second plate preforated with holes which have diameters and a distribution corresponding to the diameter and distribution of said fingers.

6. A device according to claim 5, wherein the extremities of said fingers are bulbous.

* * * * *