

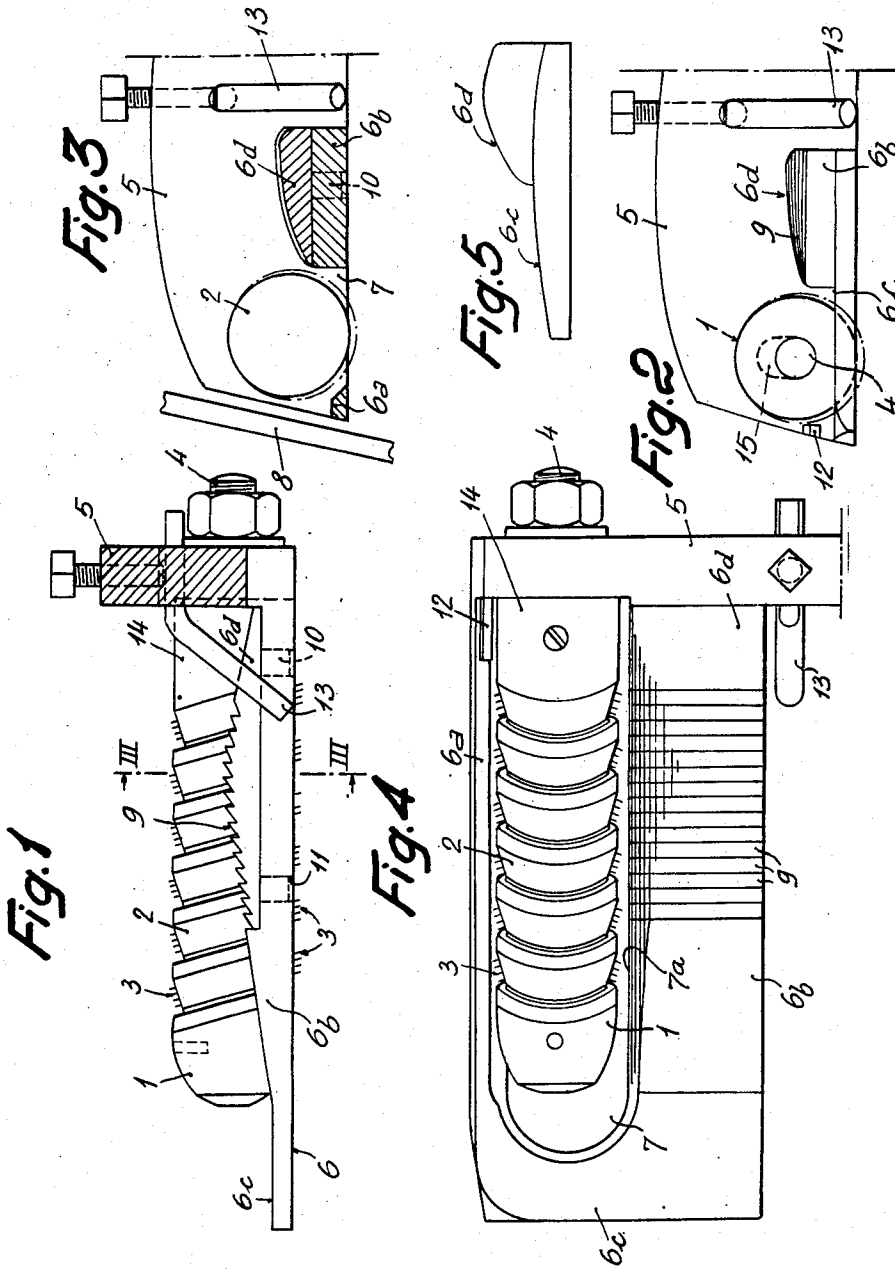
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TEMPLE FOR WEAVING LOOMS

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TEMPLE FOR WEAVING LOOMS

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The subject of the invention is a temple for weaving looms, and more particularly for those with continuous weft fed by large fixed bobbins and so-called shuttleless looms, such for example as the kinds of looms having projectiles or needles.

This temple is of the type known as "coverless" or "trough and roller" in which the fabric passes under the cylinder and combines the advantages of offering only a small bulkiness in height, on the reed side, of providing the necessary rigidity in the parts with which the fabric contacts in passing, to resist the efforts to which they are submitted, and of ensuring that the fabric has a sufficiently large enveloping arc around the lower part of the cylinder.

The fact that this temple offers only a small bulk in height, on the reed side, enables it to be used, in particular, with looms on the sley of which are fixed elements for the guiding of the weft carrier or needle as well as certain parts which, at the forward beating-up movement of the batten, must be able to pass freely under the temples.

According to the invention, the temple is characterized in that it comprises a plate having an opening arranged longitudinally below the cylinder and extending preferably beyond the end of said cylinder to assist in the tensioning of the selvage of the fabric downwardly deflected under the cylinder, said opening in the plate providing a bar of reduced height and width on the side facing the reed; a relatively wide table suitably profiled longitudinally and transversely on the side opposite to the reed side; and a fore-table at the end.

Other characteristics and advantages will appear in the following description of a construction or arrangement of a temple designed according to the invention that is given merely by way of non-limitative example, reference being made to the attached drawing, in which:

Fig. 1 is a side elevation of a temple intended for the right-hand selvage of the fabric and supposed to be seen from the front of the loom;

Fig. 2 is an end elevation of Fig. 1;

Fig. 3 is a cross-sectional elevation taken on the line III—III of Fig. 1;

Fig. 4 is a plan view of Fig. 1;

Fig. 5 is an end elevation showing a variant of the profile of the fore-table.

1 is the ring cylinder of which 2 are the rings fitted with spikes 3; 4 is the centre spindle of the spiked ring cylinder fixed in a support 5 which has, for this purpose, a slide 15 to enable the height to be adjusted.

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6 is a plate integral with the support 5 and at right angles thereto, having an elongated opening 7 extending under the cylinder in the same direction and beyond the free end of the latter. This opening is bordered, on the side facing the reed, by a part of reduced height and width, in the form of a small bar 6a; on the breast beam side, by a part 6b of relatively considerable width forming a table; and, at the end, by a fore-table 6c. The fabric, from the fell of the cloth onwards, passes over the bar 6a into the opening 7, under the cylinder 1, encircling partly its lower part and then passes on to the table 6b. The end of the plate 6 directed towards the centre of the fabric and forming the fore-table 6c, extends sufficiently beyond the opening 7 to impart, amongst other advantages, the necessary rigidity to the bar 6a.

The bar 6a is preferably trapezoidal in cross-section. The face opposite the reed 8 advantageously is sloped or inclined to correspond with the greatest obliquity that the reed can assume, at the moment of the beating up of the weft, and the face turned towards the cylinder 1 is arranged at a short distance from the latter. As a result of its shape, the bar 6a extends a little beyond the cylinder 1, so that the distance between the reed 8 when in beating up position (Fig. 3) and the place where the fabric comes into contact with the spikes 3 on the rings 2 is reduced to the minimum. Further the bar 6a, the rigidity of which is ensured by its construction, can, despite its narrowness, be of such a small height as to allow for the free passage of the guides mounted on the batten, whilst enabling the fell of the cloth to be kept sufficiently low.

The table 6b can be shaped over all or part of its length, with a progressive increase in thickness that can extend to the support 5. The table 6b may also be provided with a longitudinal profile consisting of a wavy line having a rising part followed by a horizontal part and, then, eventually, by a falling part, or still, by a rising curve or a rising and a falling one, or again, as shown in the drawing, by a rising straight part followed by a curve that rises and then falls.

Crosswise ridges 9, preferably in the shape of the teeth of a saw, may be arranged on the whole or part of the surface of the table 6b, which, combined with the rising cross profile of the table 6b, contribute to maintain the width of the fabric and thus assist the action of the cylinder on the latter.

It is possible with advantage to render the upper part of the table 6b interchangeable by

providing it with a removable plate 6*d* fitted on its lower face with studs 10 fitting into holes 11. Thus it is easily possible to alter the profiles lengthwise and crosswise and the nature of the surface of the table by the changing of the plate so as to adapt the action of the temple to the type of fabric and to the working conditions of the loom.

The upper part of the longitudinal edge of the opening 7, that comprises the table 6*b* or/and the plate 6*d*, includes a rounded part 7*a*, preferably progressive with the slope, to facilitate the travel of the fabric.

The fore-table 6*c* may increase in thickness from the bar 6*a*. This fore-table 6*c* also can be advantageously provided with ridges arranged in a general direction similar to that of the ridges 9, when its profile swells out as shown in Fig. 5.

The part of the bar 6*a* adjacent to the support 5 can have a beak or projection 12 arranged above it, the purpose of this projection being to guide the weft threads or/and the warp threads.

Further, a finger 13 may be provided, at a suitable distance from the cylinder, for the purpose of guiding the selvage.

The cylinder is provided with a sleeve 14 between the support 5 and the first spiked ring 2, the sleeve being of such a length that the first ring will act in the best conditions.

It is to be understood that variants, improvements of detail and uses of equivalent means may be conceived and employed without departing from the scope of the invention. Thus for instance the plate 6 may be prolonged in such a way as to be mounted on the breast beam or on the scrimp bar, in which case the size of the support 5 in which the centre spindle 4 is mounted is reduced.

The slide 15 provided in the support 5 for the mounting of the centre spindle 4 of the cylinder need not be vertical, but may be inclined in order to favour the action of the cylinder when the reed is inclined.

What I claim is:

1. A temple for weaving looms of the trough and roller type, adapted to tension the fabric downwardly deflected, comprising an elongated plate; a support projecting at one end of said plate; a cylinder rotatably mounted in said support; said plate having a longitudinal aperture under the cylinder and extending therebeyond for forming a fore table and a table portion, said table portion on one side, having a surface the shape of which in longitudinal and transverse direction is adapted to receive said fabric; and a substantially low and narrow bar integral with said plate on the opposite side thereof.

2. A temple according to claim 1, wherein the table portion has a thickness progressively increasing in the longitudinal direction on at least

a part of its length from the end opposite the support towards said support.

3. A temple according to claim 1, wherein the table portion has a thickness progressively varying in the longitudinal direction on at least a part of its length.

4. A temple according to claim 1, wherein the table portion has a thickness varying in the longitudinal direction on at least a part of its length to form a rising straight part followed by a curve that rises and then falls.

5. A temple according to claim 1, wherein the table portion has a thickness varying in the longitudinal direction on at least a part of its length, to form a slope up and a consecutive slope down.

6. A temple for weaving looms of the trough and roller type, having a reed and adapted to tension the fabric downwardly deflected, comprising an elongated plate; a support projecting at one end of said plate; a cylinder rotatably mounted in said support; said plate having a longitudinal aperture under the cylinder and extending therebeyond for forming a fore table and a table portion, said fore table, on the side opposite the reed side, having a thickness progressively increasing in the longitudinal direction on at least a part of its length from the edge towards said table portion, said table portion, on the side opposite the reed side, having a surface the shape of which in longitudinal and transverse direction is adapted to receive said fabric; and a substantially low and narrow bar integral with said plate on the reed side thereof.

7. A temple according to claim 1 wherein at least a part of the table portion is transversely serrated.

8. A temple according to claim 1 wherein at least a part of the table portion is transversely serrated.

9. A temple according to claim 1 wherein at least a part of the table portion is made of a removable piece.

10. A temple according to claim 1 wherein the bar is provided with a guiding projection adjacent to the support.

11. A temple according to claim 1 wherein a selvage guiding finger is provided at a suitable distance from the cylinder.

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