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[33]		Netherlands
[31]		6901771

[56]	References Cited		
	UNITED STATES PATENTS		
283,127	8/1883	Mason.....	139/292
	FOREIGN PATENTS		
290,674	8/1928	Great Britain.....	139/292
944,231	12/1963	Great Britain.....	139/292
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[54] TEMPLE FOR USE IN A WEAVING LOOM
5 Claims, 4 Drawing Figs.

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[51]	Int. Cl.....	D03j 1/22
[50]	Field of Search.....	139/292, 291: 26/54

ABSTRACT: A temple adapted for use in a weaving loom, comprising a bladelike bar adapted to be fixedly mounted in a transverse position in the beating-up zone of the loom, said bar having a bend at one of its longitudinal edges, a second bladelike element extending at one of its longitudinal edges into the seat formed by said bend so as to constitute a tortuous path for the woven fabric passing around the rebent edge of said bar and then around the edge of said second bladelike element, the assembly of said bar and said bladelike core element being characterized by a relatively small overall height when mounted in place in a weaving loom.

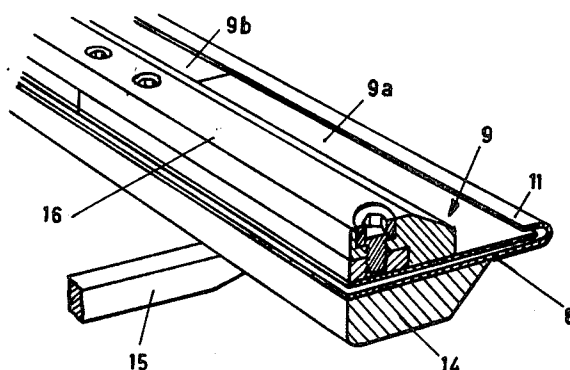


FIG. 1

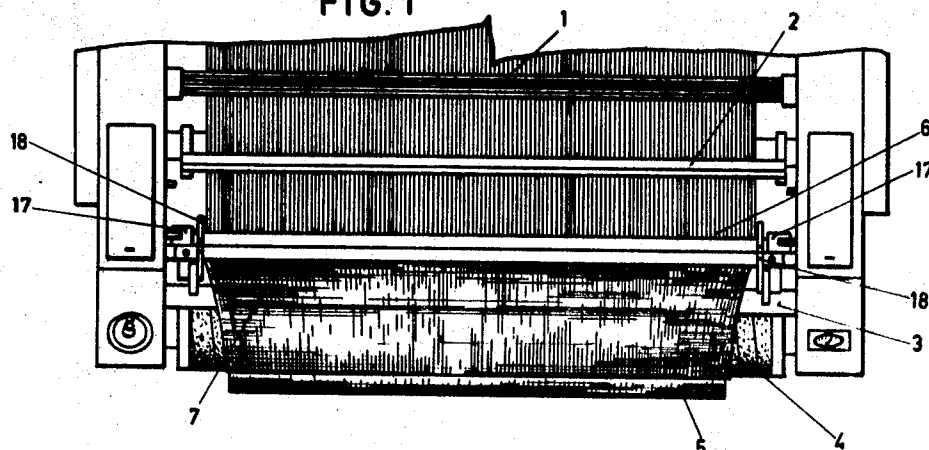


FIG. 3

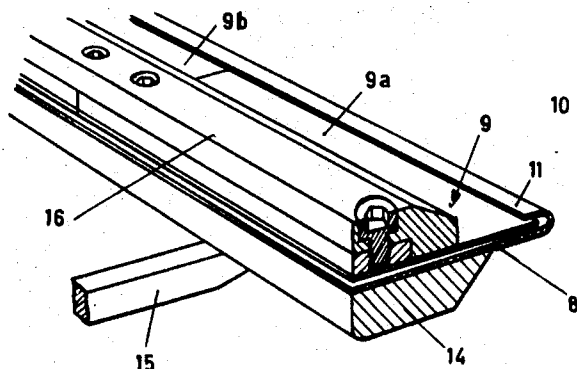


FIG. 2

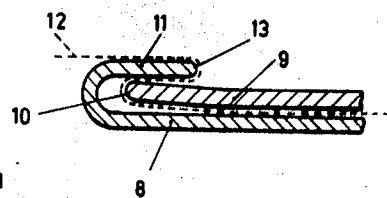
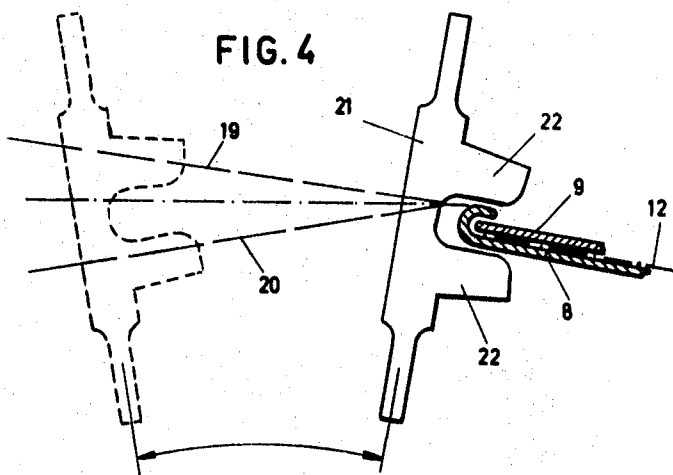


FIG. 4



TEMPLE FOR USE IN A WEAVING LOOM

BACKGROUND OF THE INVENTION

Description of the Prior Art

This invention relates to weaving looms. In order to assure a correct position of the newly inserted weft when beaten up into the cloth by the reed, weaving looms are usually provided with a so-called temple extending transversely in the beating-up zone between the reed and the breast beam.

A well-known temple comprises a fixedly mounted bar, having a longitudinal recess, forming a seat for a substantially cylindrical core element, thereby forming a tortuous path for the travelling fabric between the walls of the recess and the surface of the core element. Although temples of this type are generally satisfactory they are not suitable for application in weaving machines designed for high production rates. In such weaving machines in which the wefts are generally inserted by jet action of a flowing gas or liquid the reed is usually provided with ledges or like elements to cover the upper and lower sides of the shed. In this type of high-speed weaving machine generally also a shed of very small height is used, involving a relatively small vertical distance between the ledges forming the upper and lower covers for the shed. Consequently the relatively large dimensions of the well-known temple would not allow this temple to be accommodated in the space between the upper and lower ledges of the reed when the latter reaches the end of its beating-up stroke, so that it would not be possible to dispose the temple in a position sufficiently close to the beating-up line to perform its function properly.

SUMMARY OF THE INVENTION

The invention aims at providing a temple construction occupying a very small overall height so that it is particularly suitable for use in high-speed weaving machines, in which the reed is provided with upper and lower ledges as upper and lower covers respectively for a shed of a relatively small height.

In accordance with the present invention a temple is provided for use in a weaving loom, comprising a bladelike bar, adapted to be fixedly mounted transversely in the beating-up zone between the reed and the breast beam of the loom, said bar having a bend at at least one of its longitudinal edges, a bladelike core element extending at one of its longitudinal edges into the seat formed by said bend so as to constitute a tortuous path for the woven fabric passing around the rebent edge of said bar and then around the edge of said second bladelike element, the assembly of said bar and said bladelike core element being characterized by a relatively small overall height when mounted in place in a weaving loom.

In a preferred embodiment of the invention the bladelike core element is composed of a number of separate sections mounted in end-to-end fashion on a support beam. This makes it possible to remove the end sections of the core element in a loom of a given width in case a cloth of a reduced width is to be woven. Then in the seat portions which have become free by the removal of the said end sections devices may be mounted for tensioning the free ends of the wefts, e.g., when the loom is designed for inserting the wefts by jet action of a flowing fluid.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of the front part of a loom provided with a temple constructed in accordance with the invention;

FIG. 2 is a cross section of part of a temple assembly according to the invention;

FIG. 3 is a perspective view, partially in cross section, of the complete temple assembly according to the invention; and

FIG. 4 is a schematic side elevation of a reed in its two end positions, with the main part of an associated temple shown in cross section.

DESCRIPTION OF THE PREFERRED EMBODIMENT

In FIG. 1 shafts 1, a reed 2, a breast beam 3, a sand beam 4 and a part of a cloth beam 5 are shown as parts of a weaving loom. The beginning of the cloth, corresponding with the last beaten-up weft is indicated at 6. Immediately after the beginning of the cloth there is a temple extending over the entire width of the cloth and generally indicated by the reference number 7. The temple 7 is mainly constituted by a bladelike bar 8, cooperating with a bladelike element 9. The longitudinal edge 10 of the blade 9 is rounded off and faces towards the weaving shed. The bar 8 has a rebent edge portion 11 extending around the edge 10 of the blade 9 and being coextensive with a part of said blade. Thus a seat is formed in the rebent edge portion 11 of the bar 8, for the edge 10 of the blade 9, constituting a core in said seat around which part of the cloth may be wrapped. Dotted lines 12 show the part of the cloth travelling from the weaving shed around the rebent edge portion 11 at 13 and then around the rounded edge 10 of the blade 9 and further between the body portions of blade 9 and bar 8 towards the breast beam 3. The bar 8 may be formed of a thin material, e.g., from sheet steel. The blade 9 may likewise be formed of thin sheet coefficient or of a synthetic material having a relatively low coefficient of friction. If the blade 9 is made of a synthetic material and is somewhat resilient then it may adjust itself with its edge 10 in a correct position between the rebent edge portion 11 and the body portion of the bar 8, as shown in FIG. 2, in which position the blade 9 is curved a little. The bar 8 is secured on a support beam 14, which is of a relatively heavy construction in order to prevent the thin bar 8 from flexing in a direction perpendicular to the cloth. The support beam 14 may be mounted by means of brackets 15 to the breast beam 3. The blade 9 is likewise secured to a support bar, indicated by the reference number 16.

Preferably the blade 9 is composed of sections, two sections 9a and 9b being shown in FIG. 3. This is of advantage when it is desired to reduce the weaving width of the loom. In such a case the removal of an appropriate number of sections will provide the necessary space for mounting suction devices on the bar 8 for tensioning the free ends of the wefts at the selvage of the fabric. Such a suction device is schematically shown in FIG. 1 and indicated at 17. When the weaving width is reduced the suction devices are displaced inwardly so that they have their suction nozzles positioned in the seat within the rebent edge portion 11 of the bar 8 adjacent the selvage of the fabric. Thus the free ends of the wefts are tensioned and with the intermediary of a cutting device, schematically shown in FIG. 1 and indicated at 18, cooperating with the suction device they may be sucked off.

With reference to FIG. 4 in which the cloth 12 as well as the upper warp 19 and the lower warp 20 have been shown, the portions of the temple, the blade 9 and the bar 8 also have been shown. The two end positions of the reed are also shown in said figure, the reed having specially shaped reed blades 21. In order to screen part of the weaving shed said reed blades 21 are provided with projecting tongues 22. The purpose of said tongues will not be described in detail since they do not constitute part of the invention. They have been shown only to illustrate that a temple according to the present invention makes it possible to satisfy special conditions. The distance between the tongues 22 may, e.g., amount as low as 6 to 8 mm. and the temple has to fit in this space as shown in the beaten-up position of the reed (indicated by full lines). The fully retracted position of the reed is indicated in broken lines.

It will thus be clear that with the temple according to the invention it is possible in a very simple way to keep the cloth taut very close the beating-up line even in a loom designed for a very small shed height and having a reed provided with lower tongues or edges to cover the shed.

The temple according to the invention may also be adjusted to adapt its operation to the kind of cloth. For this purpose the blade 9 is adjustable in a direction perpendicular to the weft

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direction. Thereby the blade may function with a certain biasing tension. If desired the blade 9 may be mounted together with the support beam so that the blade 9 and the bar do not extend parallel to each other but form an angle with each other and converge in the direction of the edge 10. The blade 9 need not be completely planar but may have an undulated form, with the crests extending parallel to the weft direction. This would render the blade 9 more resilient and may fit it easily in the space confined by the rebent edge portion 11 of the bar 8.

What is claimed is:

1. A temple for use in a weaving loom, comprising a bladelike bar, adapted to be fixedly mounted transversely in the beating-up zone between the reed and the breast beam of the loom, said bar having a bend along at least one of its longitudinal edges, a bladelike core element extending at one of its longitudinal edges into the seat formed by said bend so as to constitute a tortuous path for the woven fabric passing around

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the rebent edge of said bar and then around the edge of said bladelike core element and between said bar and said bladelike core element.

2. A temple according to claim 1, characterized in that the bar and the bladelike core element extend substantially parallel to each other and parallel to the part of the cloth therebetween.

3. A temple according to claim 1, characterized in that the rebent edge portion of the bar is coextensive with a part of the bladelike core element.

4. A temple according to claim 3, characterized in that the part of the bar that is coextensive with a part of the bladelike core element extends parallel to said element.

5. A temple according to claim 1 characterized in that the bladelike core element is composed of a number of separate sections mounted in end-to-end fashion on a support beam.

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