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(54) **Sinker channel on the needle cylinder of a knitting machine for the production of single jersey with terry loops on both sides.**

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EP 0 472 745 B1

Description

The present invention is related to a knitting machine in accordance with the preamble of claim 1.

A knitting machine of this kind is disclosed in US-A 3 977 216. This knitting machine includes fabric lifting means, positioned at a predetermined location with respect to each feed and mounted inwardly of the needles, supporting the fabric web at a level sufficiently high so that the web will rest on the ledge of the front loop sinker when such sinker means are radially actuated toward the center of the cylinder. Nevertheless, this known machine does not provide for any retained structure for the terry loops to attach to, and therefore, the terry loops are not easy to be formed perfectly and not sufficiently trimmed.

US-A 2 893 226 describes a knitting machine comprising means to support a fabric at a level above a lower level at least during the feeding and reception of yarn fed at the lower of said levels. There is also no structure provided for the terry loops to attach to. The type of sinker channel with which the present invention is concerned is illustrated in Figs. 1 and 2 in which a sinker channel is designed in uniform width throughout the whole space therein and merely for the insertion therein of a sinker. In this design of sinker channel, the cast off loops are prohibited from entering the sinker channel and an auxiliary ring is required on the needle cylinder to keep the cast off loops from the latch needle permitting the fabric formed to be retained at a level equal to the middle notch of the sinker.

The fabric formed is loosely suspended and may be damaged by the sinker when the sinker is inserted in the sinker channel. The present invention is to provide an improved structure of sinker channel which can eliminate the afore-said problem.

SUMMARY OF THE INVENTION:

According to the present invention, a sinker channel comprises a wider upper space for receiving a sinker and the cast off loops permitting the fabric formed to attach to the upper edge of the sinker channel so as to eliminate the use of any auxiliary means, shorten the movement range between the latch needle and the sinker and protect the fabric formed from piercing through by the sinker.

BRIEF DESCRIPTION OF THE DRAWINGS:

Fig. 1 is a perspective view of a structure of sinker channel according to the prior art;

Fig. 2 illustrates the relative relation between the sinker channel and the fabric according to the prior art;

Fig. 3 is a perspective view of a structure of sinker channel according to the present invention; and

Fig. 4 illustrates the relative relation between the sinker channel and the fabric according to the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT:

Referring to Fig. 3, a stepped sinker channel 11 is formed on a needle cylinder 1, which defines therein a wider upper space 111 and a relatively narrower lower space 112. The lower space 112 is designed in width equal to that of a conventional sinker channel for the insertion therein of a sinker 2. The upper space 111 is designed in width suitable for the insertion therein of a sinker 2 and the cast off fabric 6 so that the loops 3 of the fabric 6 formed are maintained at a higher position after a sinker 2 is retracted.

Comparing Fig. 4 with Fig. 2, because the stepped sinker channel 11 on the needle cylinder 1 has a space for holding the cast off loops 3, no auxiliary ring is required to dispose at a certain distance from a latch needle 5. Therefore, the design of the stepped sinker channel 11 can achieve the performance of an auxiliary ring which is used in the sinker channel of a conventional double knit machine to keep cast off loops at an upper position. Because the fabric formed is firmly retained at the upper edge of the stepped sinker channel 11 and uniformly stretched in the stepped sinker channel 11, constant knitting quality can be maintained and the fabric formed is protected from piercing through during the insertion of a sinker 2.

As described above, the present invention is to provide a sinker channel designed in stepped space so that the cast off loops are automatically maintained at a higher position and the fabric formed is firmly attached to the upper edge of the stepped sinker channel at a level equal to the middle notch of a sinker and protected from piercing through by a sinker.

Claims

1. Knitting machine for knitting single jersey fabrics wherein terry loops are made to appear on the technical front face of the fabrics, the knitting machine comprising latch needles (5) mounted for rocking movement in a needle cylinder (1) co-operating with sinkers (2) featuring an upper, middle and lower notch and mounted for movement relative to the needles

(5) in a sinker dial,

characterized by

said needle cylinder (1) being provided with a sinker channel (11) defining a stepped space, comprising a lower space (112) having a width suited for accomodating therein a sinker (2) and an upper space (111) having a width suited for accomodating therein a sinker (2) and the cast off loops (3) permitting the fabric (6) formed to be firmly attached to the upper edge at a level equal to the middle notch of said sinker (2).

convenable pour y loger une platine (2) et un espace supérieur (111) ayant une largeur convenable pour y loger une platine (2) et les mailles jetées (3) permettant au tricot formé (6) d'être attaché fermement sur le bord supérieur à un niveau égal à l'entaille médiane de ladite platine (2).

Patentansprüche

1. Strickmaschine zum Stricken einflächiger Maschinenware, bei der Schlingenfäden an der technischen Vorderfläche der Ware vorgesehen sind, wobei die Strickmaschine Zungennadeln (5) aufweist, die sich hin- und herbewegend in einem Nadelzylinder (1) befestigt sind, der mit Platinen (2) zusammenwirkt, die eine obere, mittlere und untere Kerbe aufweisen und sich relativ zu den Nadeln (5) bewegend in einem Platinenführungsring befestigt sind, **dadurch gekennzeichnet,** daß der Nadelzylinder (1) mit einem Platinenkanal (11) versehen ist, der einen gestuften Raum bestimmt, welcher einen unteren Raum (112) mit einer Breite aufweist, die geeignet ist, um darin eine Platine (2) aufzunehmen, sowie einen oberen Raum (111) mit einer Breite, die geeignet ist, um darin eine Platine (2) und die abgenommenen Maschen (3) aufzunehmen, wodurch ermöglicht wird, daß die Ware (6) so gebildet wird, daß sie fest am oberen Rand in gleicher Höhe wie die mittlere Kerbe der Platine (2) befestigt wird.

Revendications

1. Métier à tricoter pour réaliser des tricotés en jersey simple, dans lequel on forme des bouclettes éponge en apparence sur le côté frontal technique du tricot, le métier à tricoter comprenant des aiguilles à crochet (5) montées de manière à exécuter un mouvement de basculement dans un cylindre à aiguille (1) en coopération avec des platines cueillantes standard (2) qui comportent une entaille supérieure, une entaille médiane et une entaille inférieure, et qui sont montées de manière à se déplacer par rapport aux aiguilles (5) dans un sélecteur de platine, caractérisé en ce que ledit cylindre à aiguille (1) est pourvu d'un canal de platine (11) qui définit un espace en gradin, comprenant un espace inférieur (112) ayant une largeur

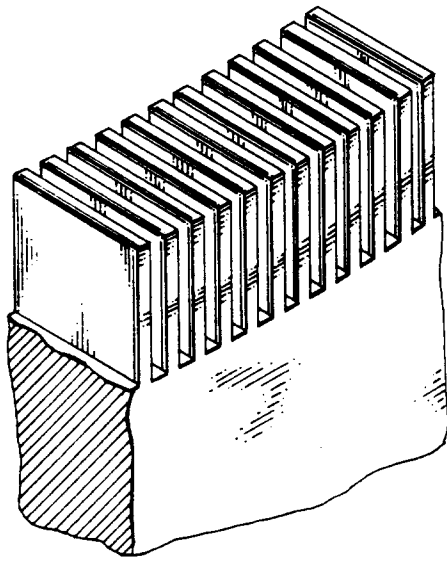


Fig . 1 PRIOR ART

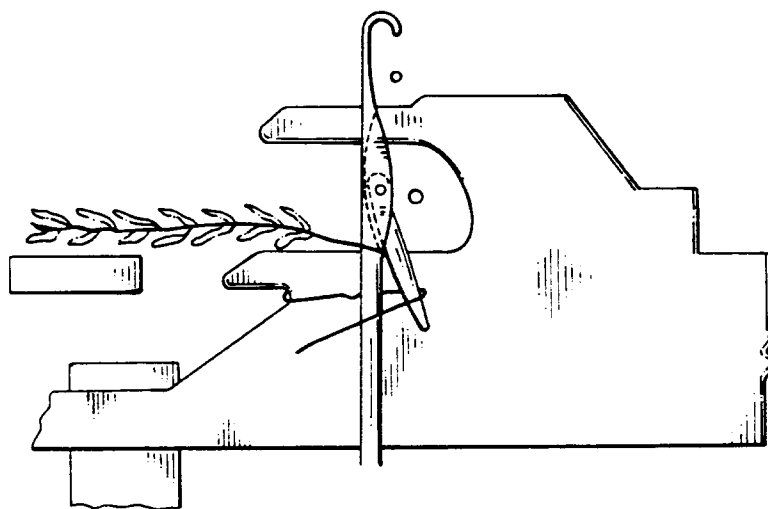


Fig . 2 PRIOR ART

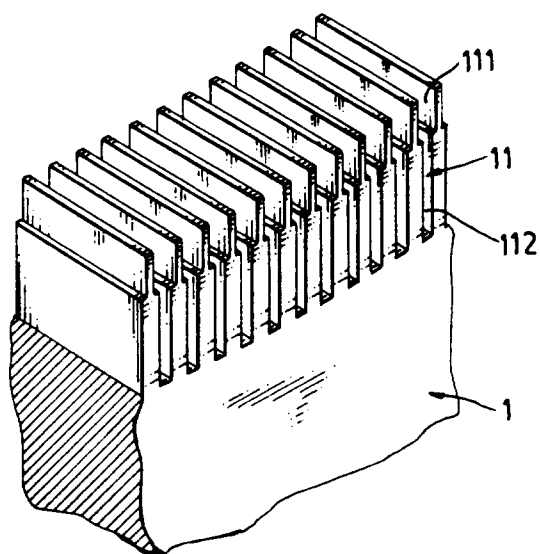


Fig. 3

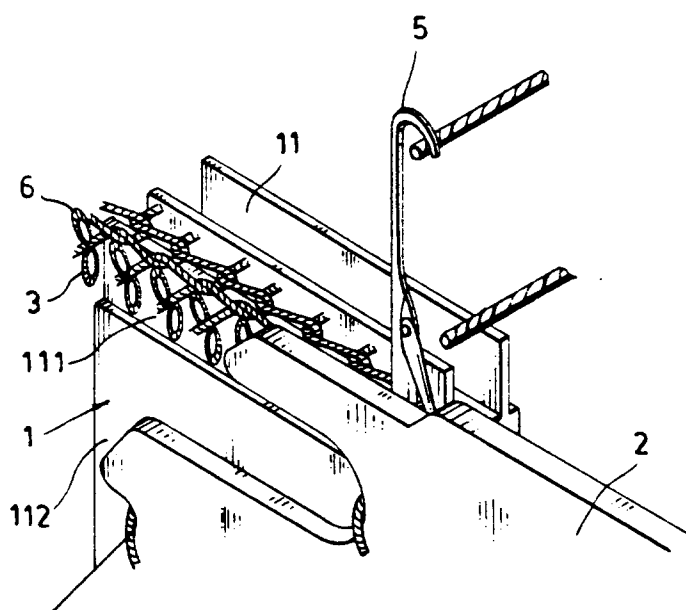


Fig. 4