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TECHNOLOGY OF OBTAINING ONE-SIDED TWO-THREAD PLUSH JERSEY ON TURNING MACHINES

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Annotation:
One of the important and urgent tasks facing the knitting industry is to improve the quality, improve and update the range of products. At the same time, it is necessary to significantly increase the output of knitwear with improved heat-shielding properties, products for recreation and tourism, while ensuring the rational use of raw materials.

Keywords: knitting, two layers, loop step, yarn, tissue types, glad tissue, rubber fabric

Our scientists and experts of the knitting industry new types of plush knitwear are created on the basis of various weaves. The scope of plush fabrics is gradually expanding. Plush knitwear is already used not only for the manufacture of hosiery, underwear, jackets, children's suits, sports suits, but also as a lining material for production of toys, shoes, carpets, for various technical purposes, in production of toys, shoes, carpets, for various technical purposes, in medicine [1-3]. One of the ways to expand the range and improve the quality of manufactured products is the development of new structures and methods production of plush knitwear. The issues of expanding

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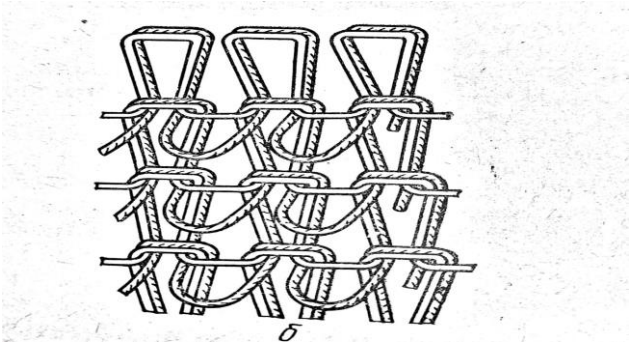
the range and improving the quality of plush knitwear, creating new structures and developing effective methods of knitting knitwear with optimal parameters are currently being studied by many researchers both in our country and abroad [4-15].

Knitwear made from soil threads by any main, derivative or patterned weave with knitting additional threads or bundles of staple fibers into the soil, forming increased platinum arcs or pile broaches, is called knitted plush weave (picture.1)



1-picture. Structure of plush jersey.

The most important feature of the structure of plush knitwear is the method of fixing the plush thread in the ground of knitwear. The quality of knitwear, its appearance, the consumption of raw materials during production, etc. depend on this indicator.

The work developed a method of knitting plush knitwear with the location of plush broaches on one side of the fabric on a circular machine. As elements of the baffle plane (Picture.2), for the culling of the plush thread, the baffle teeth of the needle bed are used, on which the looping process does not occur. The design of the thread guide and the trajectory of the needles of the circular machine allow the thread guide to be used for laying plush thread. For this, in addition to the hole O for laying the main thread, the thread guide 5 of the machine has an additional hole 01 for laying the plush thread. Thus, on a circular machine for the production of one-sided plush, minor design changes are required. The mutual arrangement of the needles 1, the breaking teeth 4, the thread guide 5 and the trajectory of the needles indicate that the teeth of the upper needle cylinder can be used for laying and culling the plush thread when the looping process is carried out in the lower needle cylinder. To do this, it is enough to reduce the width of the breaking teeth of the upper cylinder. Reducing the width of the chipping tooth will allow the plush thread b to be laid and create a second line of cutting. With the developed method of knitting plush knitwear, a plush thread 6 is first laid on the needle 1, and then a ground thread a. With further lowering of the needle, culling occurs plush thread on the breaking teeth of the upper cylinder, and ground thread on the breaking teeth of the 6th lower cylinder. After cooling plush thread on the breaking teeth of the upper cylinder, and a ground thread on the breaking teeth of the 6th lower cylinder. After culling the plush and ground yarns, the subsequent steps of the process are carried out in the usual manner. The removal of plush broaches 3 is carried out using a special device 2 installed on the outside of the machine, fixed in the lock and rotating with the lock, and the plush broaches guide.

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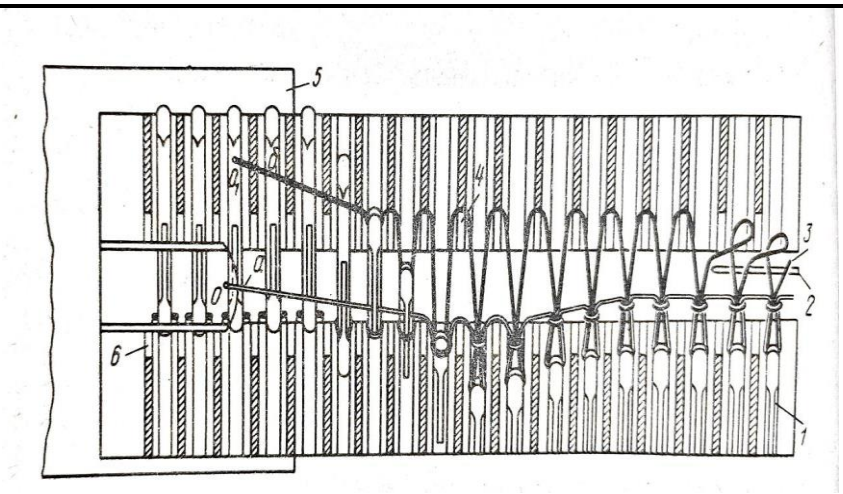
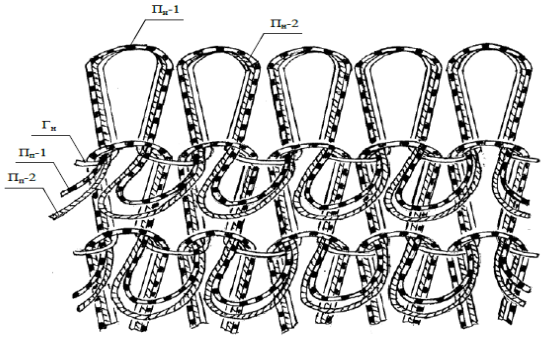


Picture.2. The process of forming plush knitwear on a reverse machine.

The length of the plush broaches depends on the width of the breaking teeth of the upper cylinder, the distance between the cylinders and the depth of the thread culling in the lower cylinder. The simultaneous formation of plush loops and removal of plush broaches in one looping system greatly increases the productivity of the machine. To expand the range of outerwear made of plush knitwear, as well as to improve the heat-shielding properties and quality of manufactured knitwear, scientists from the Department of Knitwear Technologies of NamMTI developed a structure and a method for obtaining one-sided double-thread pl4 Le8 knitwear on negotiable single-sided double-thread plush jersey on the back machines with improved heat-shielding properties. One-sided double-thread plush knitwear of a new structure, consisting of two plush threads knitted with a ground thread on one side of the knitwear in one row, increases the volume surface, increases heat-shielding properties, and in this weave, the fixation of plush threads increases, which improves the quality of knitwear. In Picture .3. the structure of a two-thread plush knitwear based on a satin stitch is shown; in fig. 4 knitting process of double-thread plush jersey.



Picture.4. The structure of a one-sided double-thread plush jersey.

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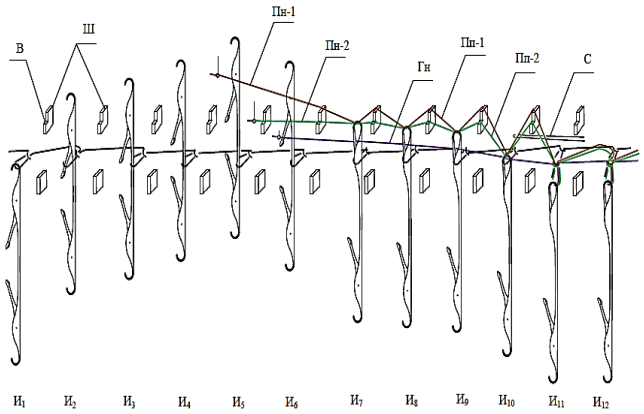
Two-strand plush knitwear consists of a ground thread Gn, which forms an interlacing of a culinary surface and plush threads Pn-1, Pn 2 knitted together with threads Gn into loops and forming plush broaches Pp-1 and Pp-2 of different lengths (Picture. 3).



Picture.4. The process of knitting double-thread plush knitwear on reverse machines is carried out as follows. (Picture. 4).

When the loop-forming systems rotate, the needles rise to the conclusion, while the needles rise to such a height that it is possible to lay the Gn ground thread between the needle beds and the Pn-1 plush thread on the upper section of the shingles Sh under the hooks of the needles I., I. and I. , and the plush thread Pn-2 on the lower section B of the stems under the hooks of the needles I., I. and I. (Picture. 4). With further rotation of the loop-forming systems from the plush thread Pn-1, plush broaches PP-1 are formed between the needles I7, IZ, I9, I10 on the upper sections of the pins Sh, and from the plush thread Pn-2, plush broaches Pp-2 are formed on the lower sections B of the pins Sh. Resetting plush broaches is carried out using a puller. Thus, the formation of a loop row of one-sided double-thread plush knitwear on turnover machines is achieved. The advantage of the proposed method and structure is that a plush row can be obtained from two plush knitted with a ground thread, which increases the heat-shielding properties, and also increases the degree of fixation of the plush threads in the knitwear ground, thereby improving the quality of knitwear. The proposed method is easy to implement and does not reduce machine performance.

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