

PUBLISHED
MAY 4, 1943.
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METHOD FOR ENABLING KNITTED FABRICS TO
BE MECHANICALLY PRINTED IN ORDINARY
TEXTILE PRINTING MACHINES
Filed Oct. 28, 1940

Serial No.
363,234

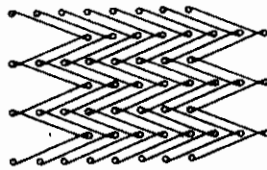


FIG.1.

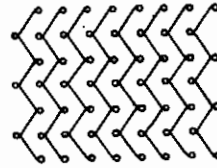


FIG.2.

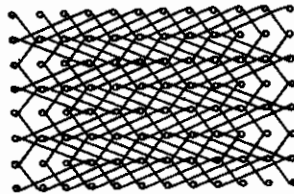


FIG.3.

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ALIEN PROPERTY CUSTODIAN

METHOD FOR ENABLING KNITTED FABRICS TO BE MECHANICALLY PRINTED IN ORDINARY TEXTILE PRINTING MACHINES

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Application filed October 28, 1940

This invention relates to an improved method of enabling knitted fabrics to be mechanically printed.

It is well known that knitted fabrics, such as tricotine or the like are, unlike other fabrics, unable to be mechanically printed, and that owing to their excessive stretching property preventing the desired pattern to be precisely transmitted onto the knitted fabric. Therefore, printing goods of said kind was hitherto carried out only in a very restricted way, i. e. either manually which, however, is a very expansive operation, or in special devices designed particularly for eliminating temporarily the stretching property of the knitted goods by sticking the latter on a suitable base or by an adequate process whereupon the knitted fabric is restored to its previous state. This process, too, is time wasting and costly and therefore could not be introduced in general technical practice.

The present invention enables all types of standard printing machines for fabrics to be used without difficulty for handling knitted goods, such feature being attained by eliminating in a permanent manner the stretching property without, however, affecting the fundamental characteristics of knitted goods, i. e. porosity, easiness, smooth and agreeable touch etc.

The main feature of the present invention is that, for enabling the knitted goods to be mechanically printed in ordinary printing machines for treating fabrics, the knitted goods are, from the beginning of their manufacture, treated in such way that they are deprived of their stretching property both in longitudinal and in transversal directions. This aim is attained by a special type of binding by means of a suitable eye building apparatus provided in the machine, the elements of said apparatus being correspondingly adapted for the purpose to be achieved.

A type of binding according to the present invention and which is especially suitable for the purpose aimed at, is shown, by way of example, in the accompanying drawing, wherein

Fig. 1 shows the binding of the back warp,

Fig. 2 shows the binding of the front warp,

Fig. 3 shows both bindings combined in the finished fabric.

As can be clearly seen, a special double binding is utilized for eliminating the stretching property of the knitted goods, in order to enable the same to be mechanically printed on both sides, one of the needle tricks producing the back-side of the knitted fabric shown in Fig. 1 on the principle "under 3 over 1 needle" and the other needle trick working on the principle "under 1 over 1 needle" according to fig. 2 producing the front side of the knitted goods. In this manner a binding of the type of an exchanged sateen weave, wherein the guides would be exchanged. Hitherto such type of binding had not been used in general technical practice, but it is obvious that such weave is most suitable for enabling knitted fabrics to be printed in a textile printing machine. The fabric thus produced may be printed in bulk in pieces attaining a length of 100 yards and even more, without their selvages being rolled as hitherto in the case of all fine knitted goods. The knitted fabric thus obtained is very alike to a woven fabric, is not stretching and does not shrink when being washed, unlike the ordinary knitted tricotines or similar goods, and may be printed, without any preliminary treatment or preparation, in the usual printing machines of all kinds without any alteration being necessary of such machines. It is obvious that the method of manufacturing knitted goods according to the present invention does not involve any increase of the production costs and that the method of printing the fabrics produced means a higher value of the product at an expenditure by far lower than in the cases of the methods hitherto existing.

It is to be understood that the aim above disclosed may be attained by bindings similar to that described by way of example in the foregoing statement and to which the present invention is in no way limited, applying to all bindings resulting in goods of the same characteristics enabled to be mechanically printed.

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