

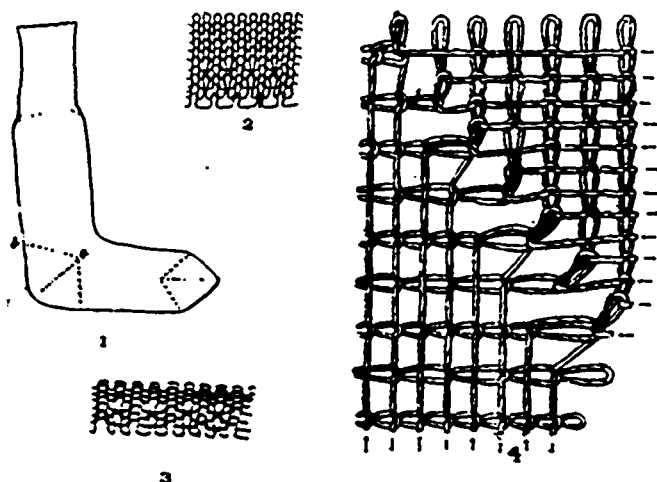
### A PATENT STOCKING.

The accompanying diagrams illustrate a new method of knitting hosiery as described in *The Textile World*. Fig. 1 is a side elevation of a stocking with the cone-shaped toe and heel portions marked. Fig. 2 is an elongated view of the knitting-stitches used. Fig. 3 is a reversed view of the stitches, showing the appearance from the back of the fabric. Fig. 4 is a detail view, showing on an enlarged scale, the loops by which the triangular sections are joined to the adjacent fabric.

This invention is for the production of stockings which have heels and toes knitted in a different manner from the remainder of the fabric to produce a firm and well-wearing fabric at these points. The other portions of the stocking or sock, save the heel and toe, are made with a common flat or rib or other stitch; when the heel or toe is reached the stitch is changed to what is called the "lock-stitch," or one which is formed by knitting all the working needles in one direction and then working every alternate needle in the reverse direction until the heel or toe is completed.

In this way a very desirable and strongly knit heel or toe is made from a single thread, and one which, it is said, cannot feel uncomfortable to the wearer, as one surface will feel very much the same as another, the stitch forming a mock rib on one side of the fabric only and tightly-drawn wales on the other side.

As soon as the line, a, b, is reached and one-half of the knitting-needles have been thrown out of operation, the knitting the first triangular section of the heel is begun by knitting one way with all the active needles. When one course



has been completed every alternate needle is arranged so that it will not rise to release its loops from its latch and take fresh yarn. Thus every other needle will perform the knitting operation in this course.

The next course is knit with all the active needles in operation again, after which the full course will again be knit with every other needle. The courses will thus alternate until the whole conical fabric comprising the heel or toe has been completed. Because of the skipping of the stitches where the alternate needles have not operated and the reaching of the stitches in alternate courses across the long stitches, the fabric will be of a somewhat heavier and closer-woven texture than the remainder of the stocking, and will have a greater wearing quality than the ordinary plain stitch will afford. It is claimed that such a stitch in practice forms an ideal heel and toe for a stocking or sock, the loops being all

on the outside of the fabric, presenting mock ribs on the said outer side and wales on the inner side, drawn tight from alternate stitches.

It will be noticed that in using a tuck-stitch to form the triangular section constituting this heel, the portions of the strand of yarn used in knitting the course which is knitted with alternate needles only can be drawn tight, or they can be pulled down with the hooks of the inactive needles, thus forming bent-spanning portions. The inventor states that the heel made of straight or tightly-drawn portions is the strongest, and, as the conically-knitted heel gives the proper amount of space for the heel of the stocking, he prefers to draw these spanning portions of yarn tightly, which span alternate needles, thus forming a strong fabric with but little give.

### MULES IN THE MILL.

A new and inexperienced inspector was recently sent to inspect a certain mill. Among the instructions given him was a caution to inspect the mules. He dutifully went through the buildings, and then enquired for the stables. The employee whom he questioned looked surprised, and remarked that there were no stables. "Then where do you keep the mules?" asked the green inspector.

### A NEW CLOTH BOARD.

The difficulties with the ordinary cloth board are well known to every manufacturer of cloth. If made of green or partially dried stock the moisture is liable to injure the finish and cause mould spots on the tail end of the piece. If not covered with paper, the sawdust, chips and dirt adhering to the board get on the cloth, causing much trouble in removing them when the pieces are unrolled, and, what is worse, exciting a prejudice against the goods just as the purchaser or his examiner is about to inspect them. Covering the boards with paper is a remedy for these troubles, but this takes time, costs money, and if not done properly, is worse than not doing it at all. In every lot of solid cloth boards, there is apt to be a greater or less proportion of defective boards. Many of these are not strong enough to stand the strain in winding the cloth. The result is an immediate break up of the board as soon as the winding is begun, or a crack which is not discovered until the piece is partially or completely wound on the board, in which latter case the cloth must be unwound, a new board substituted and another start made.

Too many mill men fail to recognize the value of properly doing up the goods for market after they are finished. Clothes make the man, it is said, and so the cloth board, the cloth ticket, the winding and general appearance of the roll of cloth goes far to predispose the trade for or against the goods before the fabric has been shown. In many of the best mills these facts are recognized, and in one instance, that of a well known make of imported dress goods, a cloth board of such an attractive and distinctive character has been used so long for this line that the goods are recognized by nine out of ten buyers as soon as the board is seen.

Recognizing the defects of the ordinary board and the advantages to the mill of a board properly constructed, Chaffee Bros. & Co., Oxford, Mass., have designed and patented a cloth board which combines strength, lightness and an attractive appearance.

It consists of a wooden frame covered with strong paper. The construction of the frame brings the strain in winding lengthways of the grain instead of crossways as in the com-