



MACHINE KNITTING
The Technique of
Slipstitch

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Abbreviations

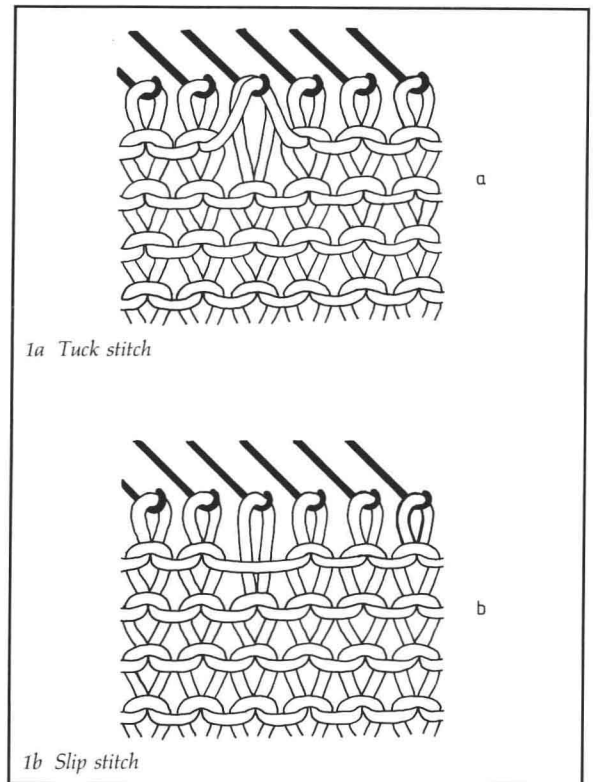
BX	slip on the Passap
BY	background yarn
COL	carriage on left
COR	carriage on right
CY	contrast yarn or centre yarn in petal slip stitch
dec	decrease
EAN	every alternate needle
FNR	full needle rib
HP	holding position
KC	pattern knitting on the Brother
KCI	Brother electronic pattern knitting, with end needle selection
KCII	Brother electronic pattern knitting without end needle selection
MY	main yarn
NIC	needle 1 cam (Knitmaster)
NWP	non-working position
PC	point cam (Knitmaster electronic machines)
PP	punchcard pattern
PPE	punchcard pattern on elongation
PY	petal colour yarn
RC	row count
RH	right hand
st(s)	stitches
TD	tension dial
UWP	upper working position
WP	working position
WY	waste yarn

Introduction

Slip stitch is used to produce a surface texture on the purl side of the fabric in the same way as tuck stitch. For a long time it has been used mostly for this purpose with only an occasional exploration into its other uses. There are many similarities between tuck stitch and slip stitch: both cam settings use the non-selected needles as the patterning needles, both pattern on the purl side of the fabric and both rely on a strand of yarn across the non-selected needles on the purl side. When using either cam setting they both have restrictions as to the number of rows which can be knitted before a muddle occurs.

At first sight the differences between slip stitch and tuck stitch are hard to separate. Why then has tuck stitch been researched and developed whilst slip stitch has been neglected? The main difference between them is that in tuck stitch the strand of yarn which passes the non-selected needle is taken into the needle head without knitting and held there for several rows. In slip stitch the strand of yarn passes in front of the non-selected needles across the fabric, forming a float (*Fig. 1*). The significance of this difference has not been fully realized until now.

The loops which form in the needle head of a tuck stitch are the reason for the development of tuck stitch and the neglect of slip stitch. The tuck loops distort the fabric by pushing the stitches out of line, thus widening the knitting and forming interesting, patterned textures on either side of the fabric. Slip stitch seems to be capable only of producing surface textures on the purl side of the knitting. The texturing produced by slip stitch is rather flat and uninteresting when compared with tuck stitch. The strands of yarn across the surface of the knitting pull in the work, narrowing the width of the fabric.



The tuck stitch characteristic of collecting loops in the needle head means that tuck stitch has an inbuilt restriction in that the Japanese machines are capable of knitting no more than 6–8 loops of yarn before causing a muddle. Even the Passap with its capacity of perhaps 20 loops has a limit. The slip stitch characteristic of taking a strand of yarn across the front of the fabric is far more flexible, as will be shown as we explore and develop ‘slip stitch’, the neglected stitch.



1 Guidance and information

THE SLIP SETTING

The slip setting has a different name on each make of machine:

- 1 Knitmaster – slip
- 2 Brother – part
- 3 Toyota – empty
- 4 Passap – BX

The Passap has other slip settings available such as GX and HX. GX is used for a free move across the needlebed whether the pushers are in work or not. The BX setting is the one mostly used in conjunction with the arrow keys to produce the intricate patterns on which we shall be working and – unless stated otherwise – is the setting to use when slip is specified.

For the sake of simplicity, ‘slip’ will be used throughout the book unless a particular machine is specified.

Note: Throughout this book any reference to a Passap knitting machine also refers to the Pfaff Duomatic machine.

YARN GUIDE

The yarn that was used to knit the samples illustrated here is not of any particular brand. Most manufactur-

ers tend to change their range of yarns and colours every year or two. I do not want there to be the restriction of trying to reproduce an exact copy of the samples. What I want to do is to encourage you to experiment and mix your own yarn.

There are more outlets than ever before which sell the most interesting fancy yarns. Try to buy as many fine yarns as you can afford so that they can be mixed and matched. By fine yarn I mean the industrial counts such as 2/30s, 2/24s, 2/20s and 2/16s which are usually marked inside the cone. Not all the labels inside the cones can be relied on as they are used to rewind small amounts from larger cones but if the yarn is a repeatable one then the label should be correct. Remember it is not only the chunky machines which will take more than one strand of yarn. If you can move away from the standard 4-ply yarn when you have mastered your machine, a whole new world will be opened up. The restriction placed on you by someone else deciding which colours should be used is lifted, giving a freedom of choice not usually available.

There are five branded yarns with a wide colour range which I keep in stock. They are Hobby, Astrakan, Silky, a 4-ply acrylic from Texere Yarns in Bradford which is similar to Artistic, and Forsells 2-ply wool. All of these yarns are well established, they are tried and tested for colour fastness and reliability and are easily obtainable (*see Yarn suppliers, page 155*). They mix very well with each other and with natural fibres to produce unique fabrics with unusual finishes.

TENSION GUIDE

Tension is the most important feature of machine knitting. The way the machine stretches and distorts the fabric whilst it is being knitted makes it imperative that tension pieces are correctly dealt with and measured.

Wash and press every tension piece before attempting to knit a garment. When mixing different types of yarn it is important to find out how any particular yarn combination will react when washed. It is no good trying to sell a designer garment and then finding out that the fabric has stretched or shrunk after washing! Wash garments with a natural fibre content before despatch. Make sure that your customers know this and give them full details of how they can get the same result. This can save a lot of problems later on. Washing a tension piece also ensures that any distortion to the pattern shows up before the garment is knitted.

Each machine produces its own unique tension and it is often impossible to match exactly a tension

produced by a designer. As the book has progressed I have worked on various makes and models of machines which has made me realize just how much the tension differs. Any reference to a specific tension is to be used only as a guide. The types of fabric I am aiming for are those with a soft fluid feel. Even jacquard fabrics can have this finish if a fine yarn and the correct tension is used. There is no need for 'cardboard' knitting once you have mastered the correct combination of yarn and tension.

There are numerous ways of checking and measuring a tension piece.

Standard-gauge machines: normal tension piece

- 1 Cast on over 30/30 sts each side of 0. Knit 20 rows in the yarn, stitch and tension that you would like to use for the garment. Check that the fabric has the right feel to it. If not, alter the tension dial one whole number, smaller to tighten and firm up the fabric, larger to loosen

2 Charting rulers

