

PAMELA WATTS

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MACHINE  
EMBROIDERY

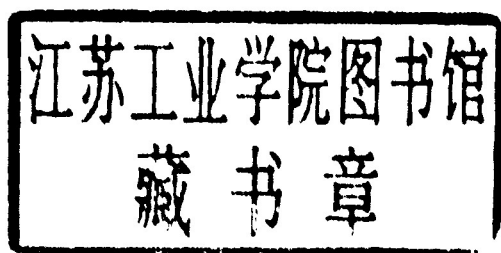
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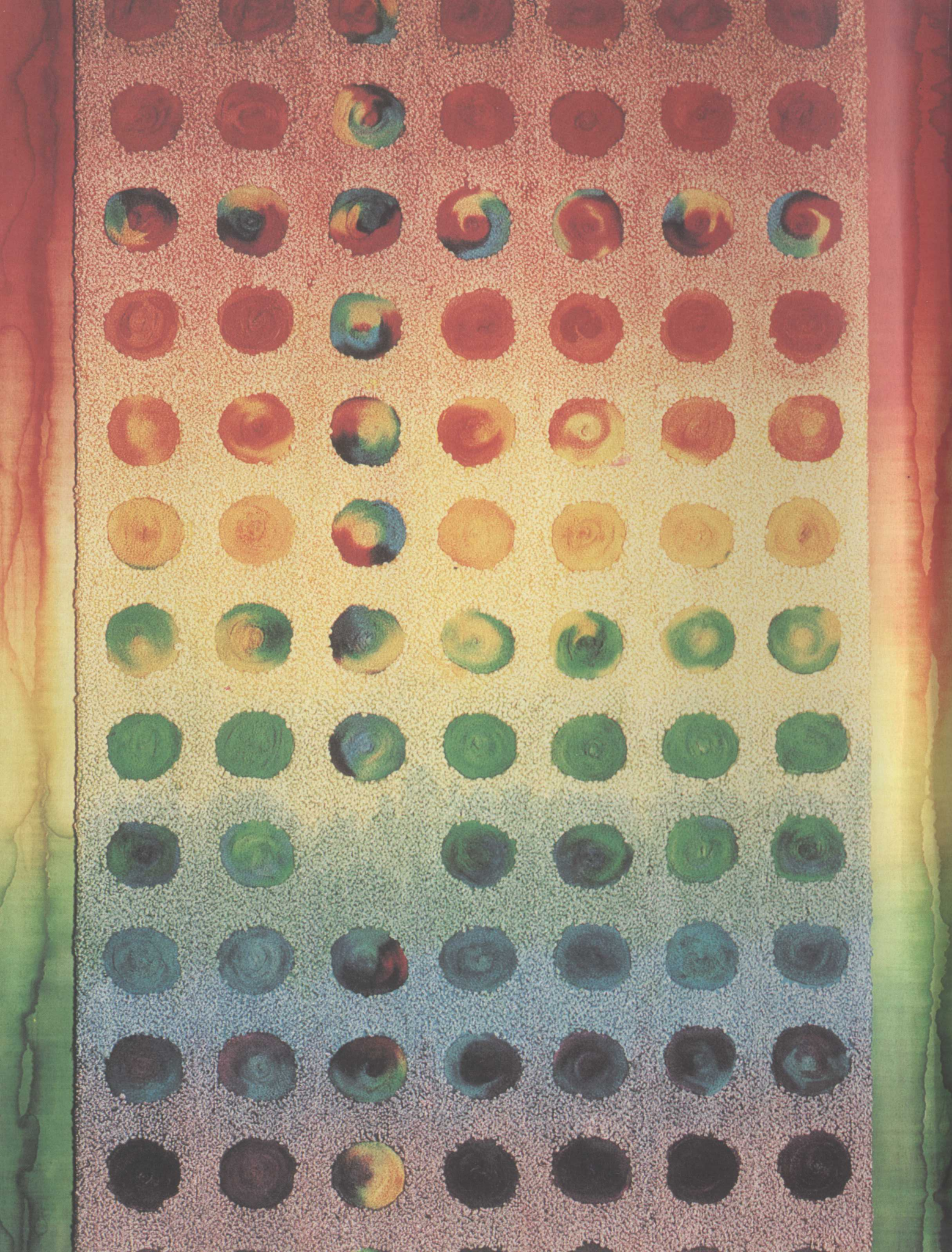
IDEAS AND TECHNIQUES

MACHINE EMBROIDERY:  

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*Ideas and Techniques*





# MACHINE EMBROIDERY:

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## *Ideas and Techniques*

PAMELA WATTS



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**Jacket illustration**

*Massed short lengths of silk thread applied to a background  
with Bondaweb, covering it completely. These are further  
secured with lines of narrow free satin stitch using a rayon  
thread.*

**Frontispiece**

*Circles of very dense free running stitch worked on tights,  
using white thread. After stitching, each circle was painted  
before being applied to a textured, painted and stitched  
background. The panel is framed on to a dyed and painted  
fabric (Frances Manz).*



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I am grateful to Valerie Campbell-Harding for her endless help, advice and encouragement and for taking some of the colour photographs.

I would like to thank everyone at Chipperfield Colour for developing and printing the black and white photographs.

My very special thanks go to David Partridge for his good humour, patience and care in photographing the embroidery for me.

Pamela Watts  
Kings Langley 1991

*The embroidery, drawings and diagrams are the work  
of the author unless otherwise stated.*

# INTRODUCTION

**L**EARNING a new skill is very satisfying. The process also needs to be fun, with regular measures of success along the way. The aim of this book is to inspire you with enthusiasm and, above all, confidence in your own ability to machine embroider.

The majority of people learn about embroidery through hand techniques, whether at school or in later years. Then suddenly it seems that exhibitions,

*Three quilted silk cushions.*

*Left: A design of roses quilted with a twin needle and finished with a decorative stitched piping cord.*

*Centre: Log-cabin patchwork quilted with a repeat pattern of roses and finished with a machine-wrapped cord and a group of three tassels at each corner.*

*Right: Italian quilting on painted fabric with bands of free running stitch, using two threads in the needle. The cushion is finished with a frill, edged with the same band of stitching.*



books and magazines are featuring machine embroidery with ever-growing emphasis. Perhaps you have been shown a piece of work which you admire, or have seen a demonstration. You may have been introduced to machine embroidery during a class or just decided to try it out at home on your own machine.

The most common first reaction is that it has an unpredictable, even alarming, quality which is very different from the somewhat precise nature of hand embroidery. It can seem, at times, that your machine is an alien, just waiting to mystify you. You will come to realize that it is actually a wonderful, strong and precise machine which is capable of producing subtle and rich patterns and textures. These are not intended to mimic hand techniques: they are in no way 'automatic', but techniques in their own right.

This is a book essentially about what to do, and what to make, with your first attempts. Every success you have will give you the confidence to develop your skills even further. You will learn more about your machine and how different effects are achieved, and will develop a relaxed and familiar

way of stitching on fabric to produce the exact effect you want every time. Predictable, yes, but always exciting.

Every time I sit at the machine, I learn something new. Perhaps the best way to use textured metallic threads, how to make machine-wrapped tassels or that the back of the work is sometimes far more exciting than the front! I hope that more experienced machine embroiderers will take a starting point from some of the ideas and techniques described and develop them still further.

The first chapters take the beginner through everything necessary to start embroidering, and the techniques of free stitching, appliqué and quilting. The last two chapters are devoted to what to make, from simple to more adventurous projects. You may have heard of cable stitch, whip stitch, and the need to alter your lower tension, but the vast majority of items described here use only two stitches: free running stitch and free zigzag stitch.

From these humble beginnings, you will discover that machine embroidery has infinite possibilities for anyone who owns an electric sewing machine.

# 1

## STARTING TO EMBROIDER

### YOUR MACHINE

It is quite wrong to assume that only the most expensive, latest model is capable of machine embroidery. If you have an electric swing-needle machine of virtually any vintage or make, you should be able to work through all the techniques described in this book. The only requirement is that your machine is in perfect working order: clean, oiled and warm!

Read the 'Maintenance' section in your manual and take time to clean and oil your machine as suggested. If you suspect that your machine has a fault, however simple, do have it professionally serviced. Machine embroidery seems to generate far more fluff than ordinary sewing, so make a habit of regularly brushing the race and removing any small pieces of loose thread.

Lastly, keep your machine in a warm room. The cupboard under the stairs is not a good place and a cold machine will seem very sluggish and ill-tempered.

### FABRICS

Technically speaking, it is possible to machine on any fabric. However, for the moment, choose firm, closely woven fabrics such as calico, cotton or old sheeting for your first efforts. Avoid those fabrics which are very thin, very thick or, worst of all, stretchy. Patterned fabrics can suggest ideas as to where to stitch. You can follow lines, fill in areas, add emphasis to a flower by stitching round and round it, stitch curved lines on stripes, or straight lines on circles.

Fabric paints and crayons are now widely available in art and craft shops, and simple printing on your own plain fabric can be an excellent starting point. Buy two or three pots of paint in your favourite colours. The only other equipment you will need is an ordinary paint brush, a few pieces of old sponge and a plate.

Put two or three blobs of different coloured paint on the plate, swirling lightly together with the brush. Do not mix them too much. Dab a piece of sponge into the paint and touch on to the fabric. A simple



*Window-blind based on a design taken from drawings of a jug. Layers of sheer fabrics and nets with short lines of free running stitch worked at right angles to the edges (Linda Cook).*

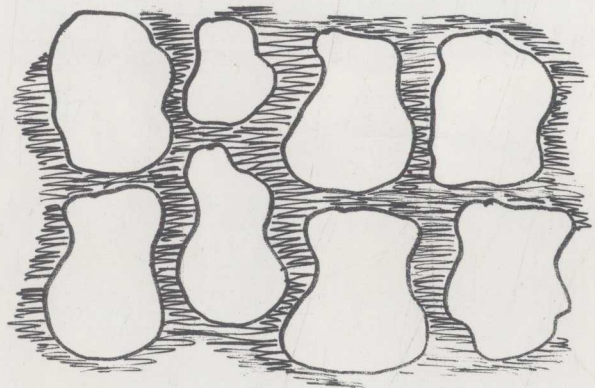
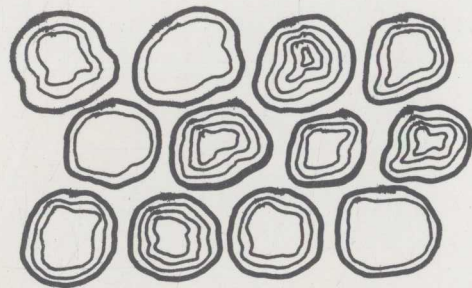
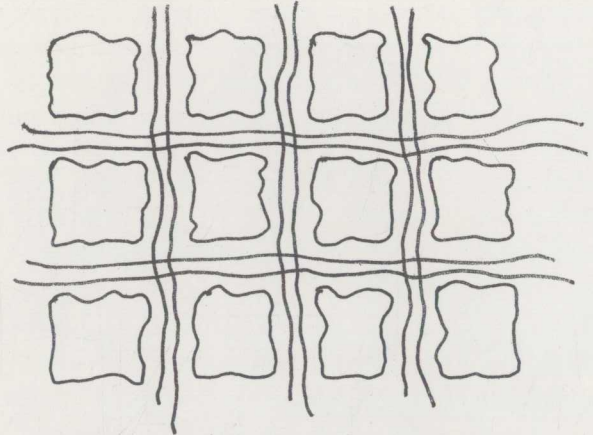


*Emphasize flowers on a patterned fabric by adding lines of stitching around them on the background.*

grid pattern of squares, blobs or circles is all that is required at this stage – a full-blown artistic design can come later!

The paint will give you an idea of where to start stitching, either on top of and around the shapes or, perhaps, filling in the spaces between them. You may decide, having worked some embroidery, to paint again on top of the stitching. The sequence is never-ending, but it will certainly produce more exciting results than a few hesitant lines of stitching on plain white fabric. After a while, you will want to try stitching on other types of fabric. It is amazing how the nature of the fabric alters the appearance of the stitching. Try working on felt, velvet, satin or textured fabrics such as dupion or furnishing fabrics.

Several layers of sheer fabric can give inspiration for stitching. Cut a number of simple shapes in different colours of organza, organdie or nets. Place these on a backing fabric, overlapping them, so that



*Simple patterns indicating areas of fabric printing with added stitching.*

'new' colours and shapes result. Cover the whole area with a layer of sheer fabric to hold the pieces in place while you add the embroidery.



ABOVE:

*Detail of window-blind, based on drawings of a jug. Layers of sheer fabrics and nets secured with short lines of free running stitch worked at right angles to the edges (Linda Cook).*



LEFT:

*Free running stitch worked on chiffon and nets, applied to silk fabric with added stitching. A satin-stitched edge and machine-wrapped cords complete the bag (Celia Litchfield-Dunn).*

### STABILIZERS

When you see a sewing machine, or machine embroidery, being demonstrated, it is often not noticed that the fabric used is either very stiff or that two layers of fabric are being used together. This helps to eliminate the problem of the fabric puckering under the density of the stitching.

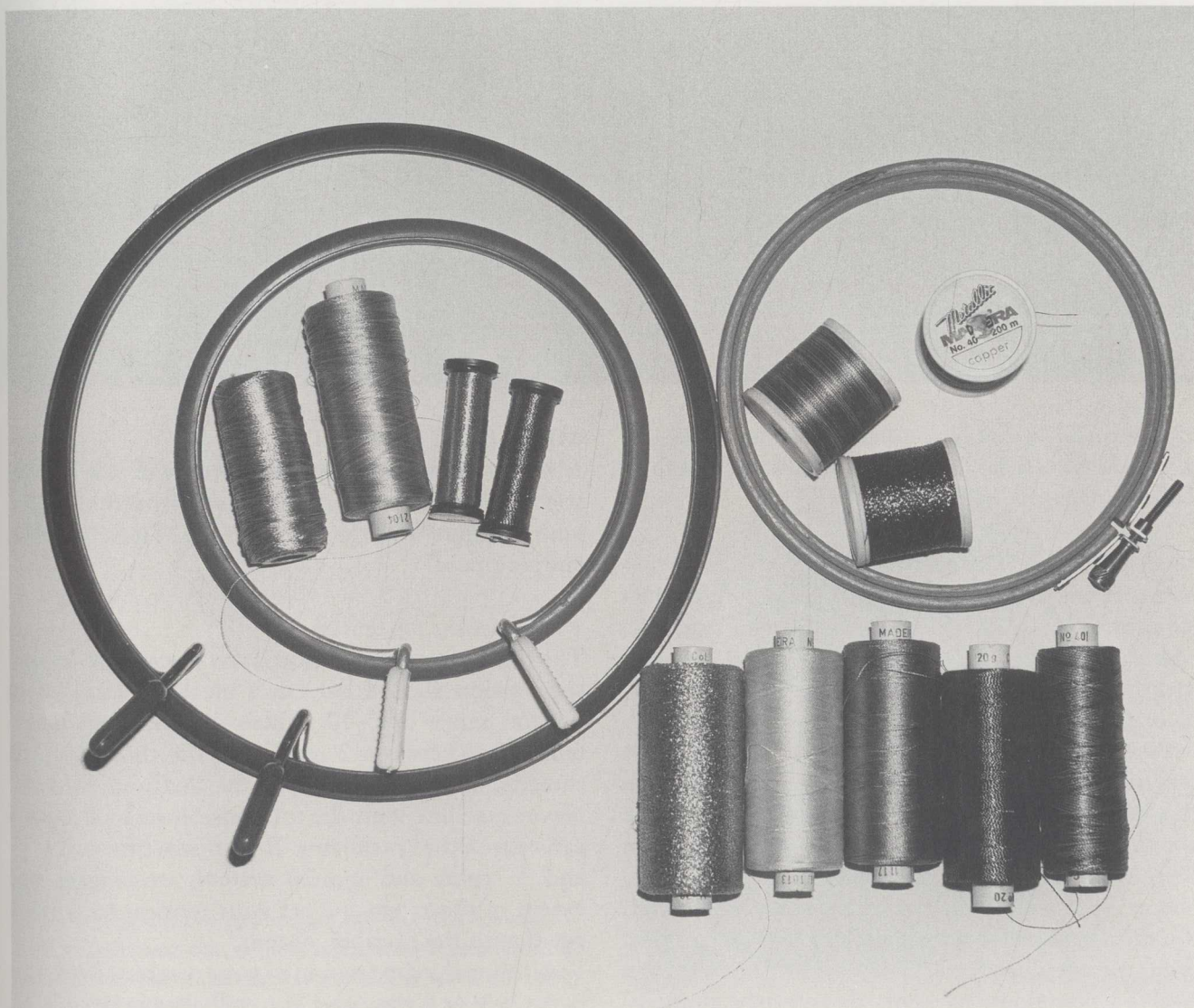
Try putting felt under your fabric or use one of the tear-away paper products made specifically to stabilize the embroidery (see page 92). Alternatively, you can use one of the iron-on interfacings usually sold for dressmaking, but these do tend to alter the feel and drape of the fabric, so bear this in mind.

You can use this extra stiffness to great advantage

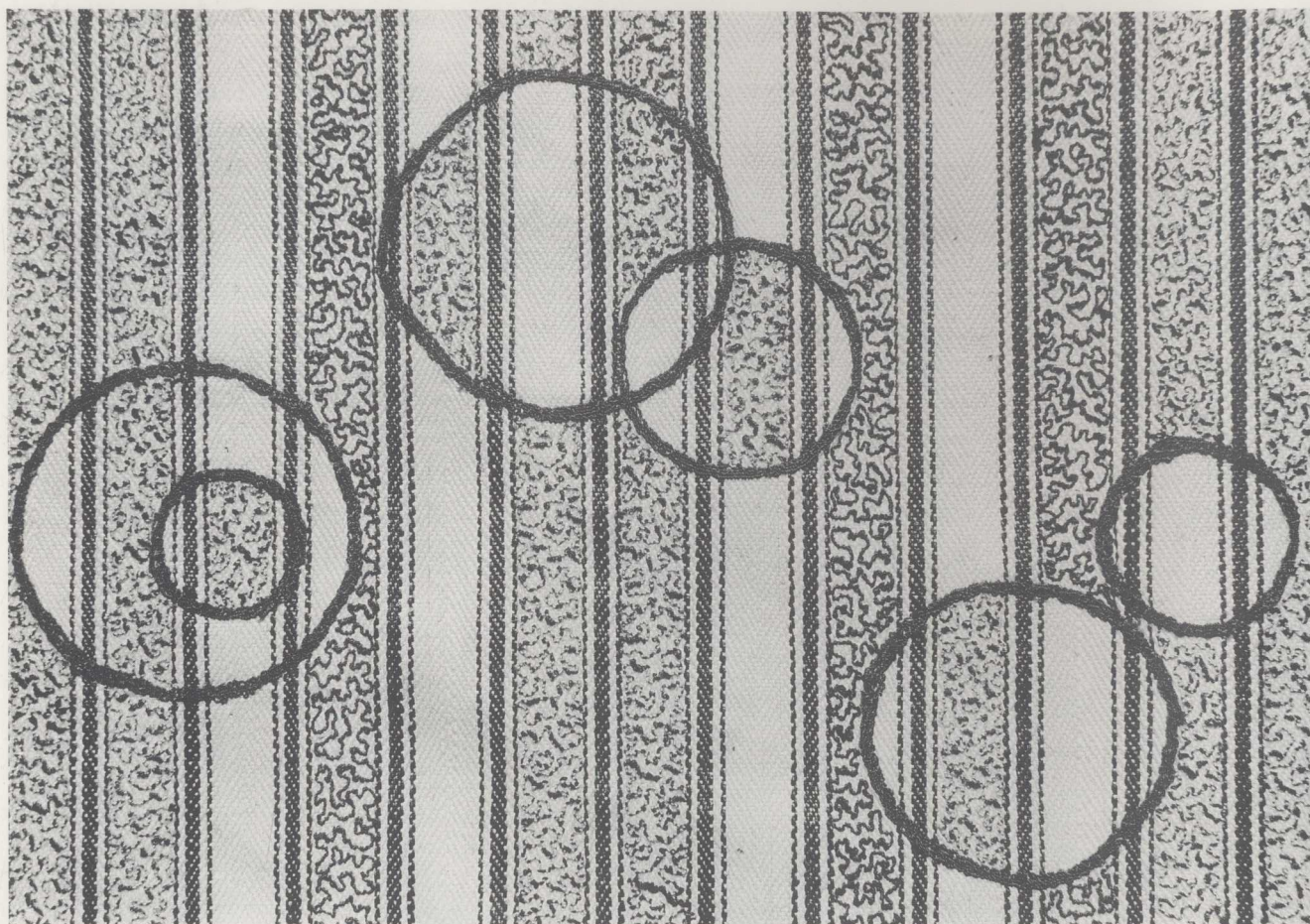
when working embroidery for a belt or bag, whereas on bed linen or a cushion, it would be disastrous. Get to know the various products by trying them out, and decide which is the most suitable for any particular project.

### THREADS

Most beginners to machine embroidery come with a selection of threads acquired for the purposes of dressmaking and household sewing. Although these can obviously be used for embroidery, they do not give the attractive results produced by threads made specifically for machine embroidery. These are now more widely available, so do ask your local craft



*A selection of frames and machine-embroidery threads.*



*These circles were worked in several lines of free running stitch. The background fabric is pillow ticking with some stripes filled in with vermicelli stitch.*

shop, embroidery friends or look in the advertisements in embroidery magazines to find your nearest stockist (see also the list of suppliers on page 95). Many suppliers offer excellent mail-order services, and the purchase of a shade card makes it very easy to order by post.

Surely there is not an embroiderer alive who is not inspired by the shaded, variegated and metallic threads available, and these can make even the simplest embroidery look wonderful. Fine rayon threads have a wonderful sheen and come in a very wide colour range. Buy the largest-size reel you can: the thousand-metre reel is much more economical than the smaller reels. Keep your threads in a covered container, as light (particularly sunlight) makes the thread brittle and likely to break.

## METALLIC THREADS

Metallic threads are remarkably easy to use on the top of the machine, but many experienced machine embroiderers find them a problem. There are two simple rules:

### 1 Reduce the top tension

The thicker or more textured the thread, the looser the tension should be. On a machine with a top tension range of 0–10 (where 5 is normal) use a tension of between 2 and 3 for the thin, smooth threads, and down to 1 for the textured threads. Never machine with the top tension set at 0 as this can cause other problems. If your machine has a + and – (plus and minus) system, investigate the extent of the range and set your tension to correspond with the number system.

Altering the top tension of your machine does not harm it in any way, and you will always be able to return to the normal setting for ordinary sewing.

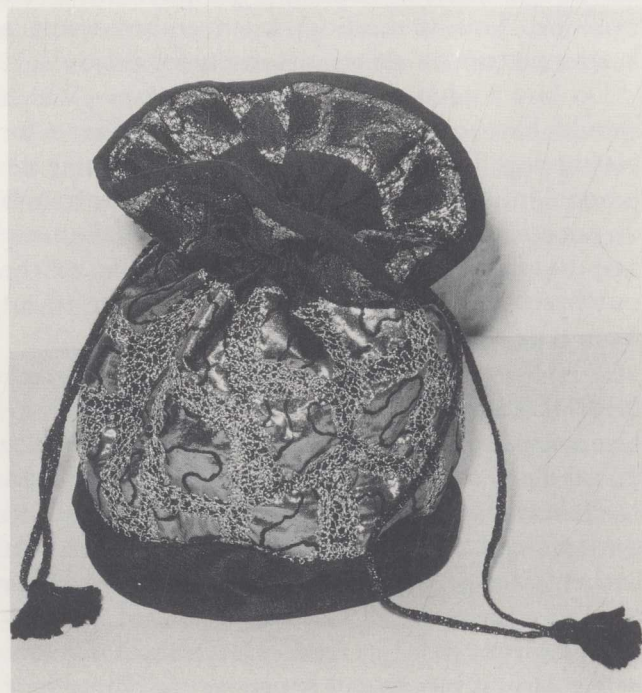


ABOVE:

Detail of embroidered pillow case and duvet cover. The printed heart motif is outlined in free running stitch, with added lines of satin stitch, using a variegated thread.

RIGHT:

Patterned gold fabric applied to black silk and heavily embroidered with free running stitch using a gold metallic thread. The top of the bag has a border of black silk pieces applied to the gold fabric, also embroidered with gold thread (Annette Monks).



## 2 Use a larger-size needle

For thin metallic threads, use a size 90 needle, but for the textured threads you must use a size 100 or even 110 (which is often sold as a 'jeans' needle). Use a new needle to begin with and replace it much more frequently than when using ordinary threads. The larger-size needles should prevent the 'shredding' of the thread which can happen just above the needle. It is also sensible to run the machine a little more slowly when using the textured metallic threads.

## FRAMES

A small ring or tambour frame is essential for machine embroidery. A wooden frame with a tightening screw can be used for small areas of work, such as individual motifs, and does keep the fabric very taut. The disadvantage is that the work has to be removed from the machine to move the frame on for another part of the design.

Metal spring ring frames are also available for machine embroidery. They are thin enough to pass under the darning foot and even under the ordinary presser foot (wooden frames are usually too thick to allow this), and there are certain times when it is a great advantage to be able to use a ring frame in conjunction with a presser foot. Another benefit is that they can be moved along to another section of the design without removing the work from the machine. This is essential when embroidering a border pattern on sheets or towels, for example.

Do buy a good-quality metal ring frame, which should have grooves on the inside of the outer plastic ring. This helps considerably in gripping the fabric. Unlike wooden frames, metal spring frames do not seem to last a lifetime. The spring of the inner ring becomes weaker after continual use, so the purchase of a new one could be a wise investment from time to time.

## NEEDLES

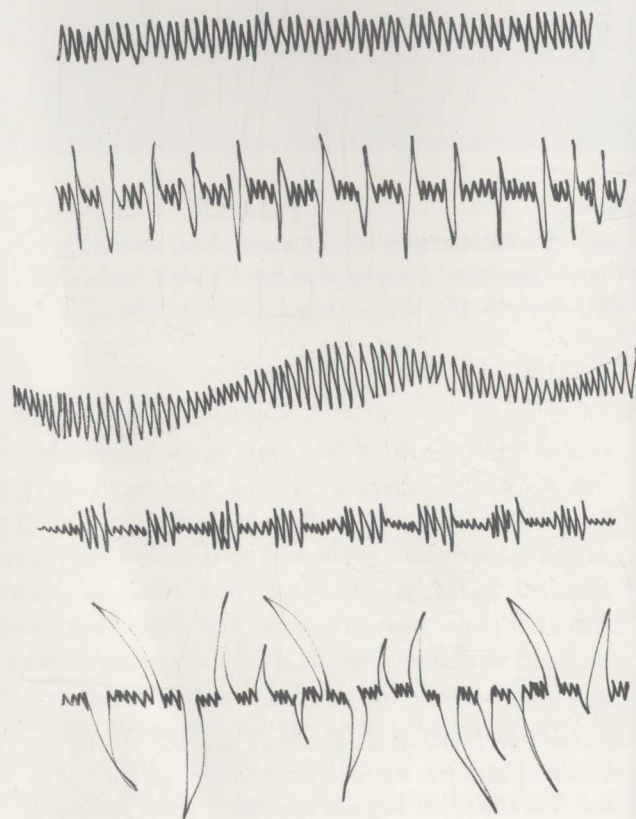
Use a new needle when starting to embroider. A size 90 needle is suitable for most fabrics and threads. Make sure it is fitted with the flat side of the shank to the rear and as high as possible into the needle socket. Change the needle frequently, as a blunt needle is one cause of skipped or missed stitches. Keep a supply of larger needles (100s and 110s) too, particularly if you intend to use metallic threads. If

you experience problems with the thread shredding or fraying, then try using a larger-size needle.

## FREE RUNNING STITCH

You may have heard machine embroidery described as 'drawing with the needle'. This is true, but many people are as nervous of drawing as they are of machine embroidery. The following method of starting machine embroidery has been devised to get over both of the above-mentioned hurdles. It really can be very easy.

- 1 Frame a piece of calico, preferably in a metal ring frame.
- 2 Thread your machine with a favourite colour, using a different colour on the bobbin. Use a synthetic or rayon thread if possible.
- 3 Lower or cover the feed dog. Refer to your manual for instructions on how to do this (probably given under *Darning*).
- 4 Replace the presser foot with a darning foot.



Confidence-building exercises for free running stitch.