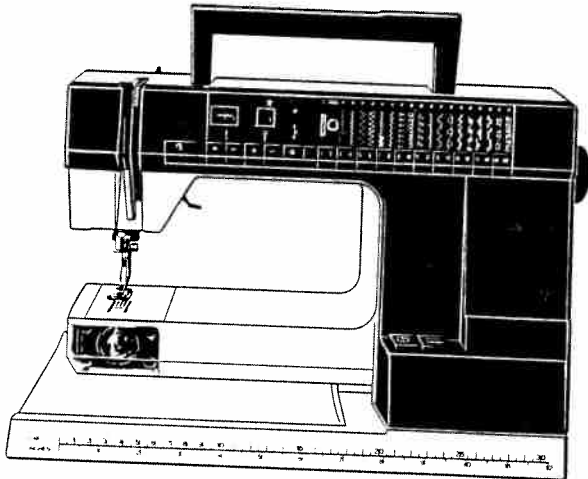


# Operating manual for Husqvarna sewing machine PRISMA 940





## For you and your new sewing machine

We have prepared this booklet, to let you know how to operate this sewing machine and how to make use of all its sewing possibilities.

We are quite sure that you will get many pleasant hours with your new sewing machine and that you will be successful in obtaining many fine results.

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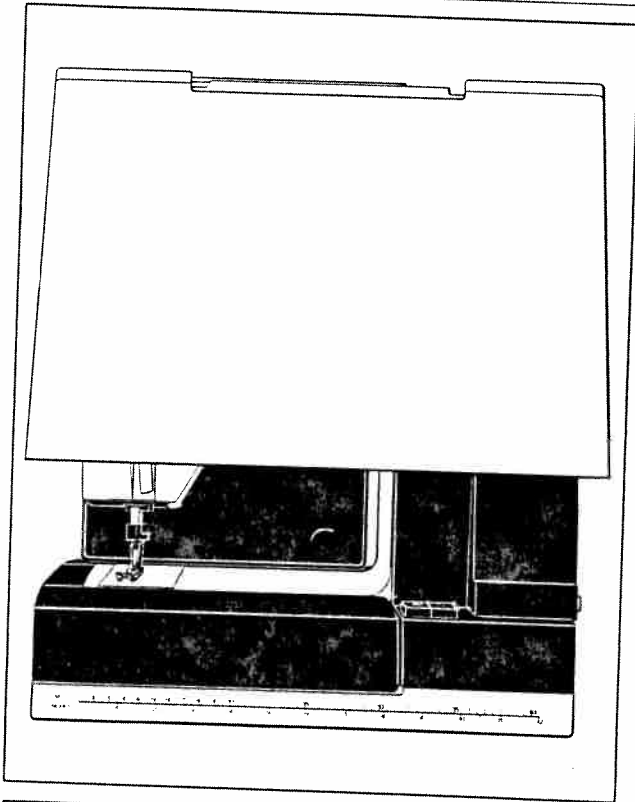
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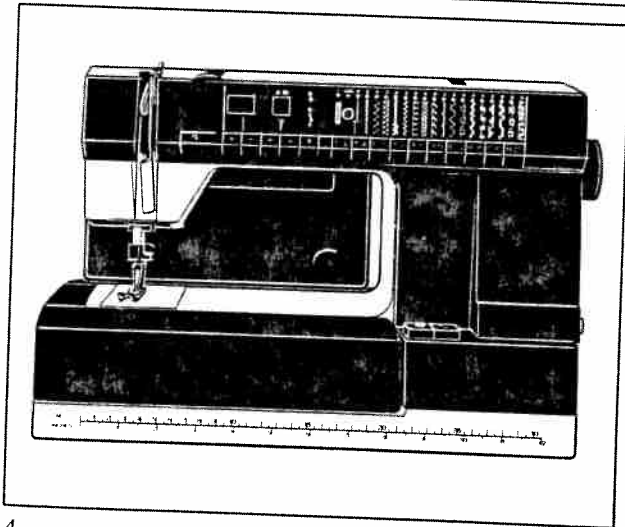
## Unpacking and putting away the machine



### Unpacking

Place the machine on the table, with the recess for the handle furthest away from you, and fold down the handle. Lift off the cover and put it aside. Remove the foot control from the back of the machine.

Wipe the machine clean before you start sewing, and be especially careful with the stitch plate and the space around the needle. The machine is equipped with a number of presser feet and these are packed in two plastic bags. Regarding the placing of the accessories, please refer to page 14 under "Accessory box".



### Putting the machine away

Pull the plugs out of the wall outlet and the socket of the machine. Wind the cords around your hand, starting at the foot control and push them into the control compartment.

Make sure that all accessories are correctly placed in the box. Slide the accessory box into place.

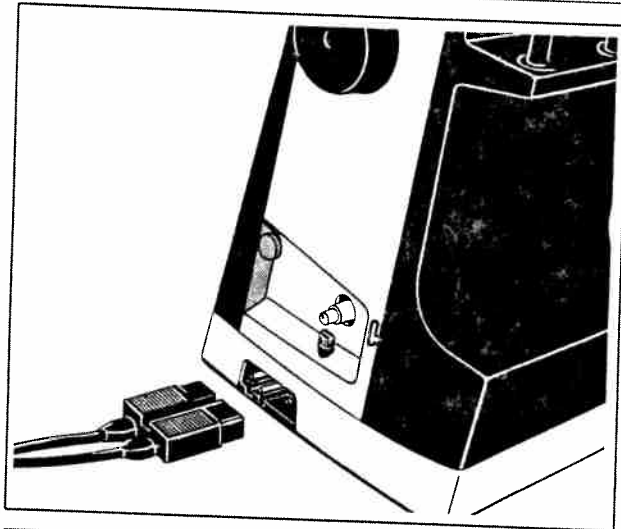
Lower the presser foot and hang the foot control on the thread guide at the rear of the machine. The bottom of the foot control should be turned toward the machine.

Fold down the handle and put on the cover.

## Connecting the machine

### Connecting the foot control

Remove the cord from the foot control and place the control under the table. Insert the foot control plug into the socket on the right side of the machine.



### Connecting to the wall outlet

The voltage (V) and frequency (Hz) are indicated under the base of the machine. Check that these values correspond to those of the electricity source before connecting the machine.

### Main switch

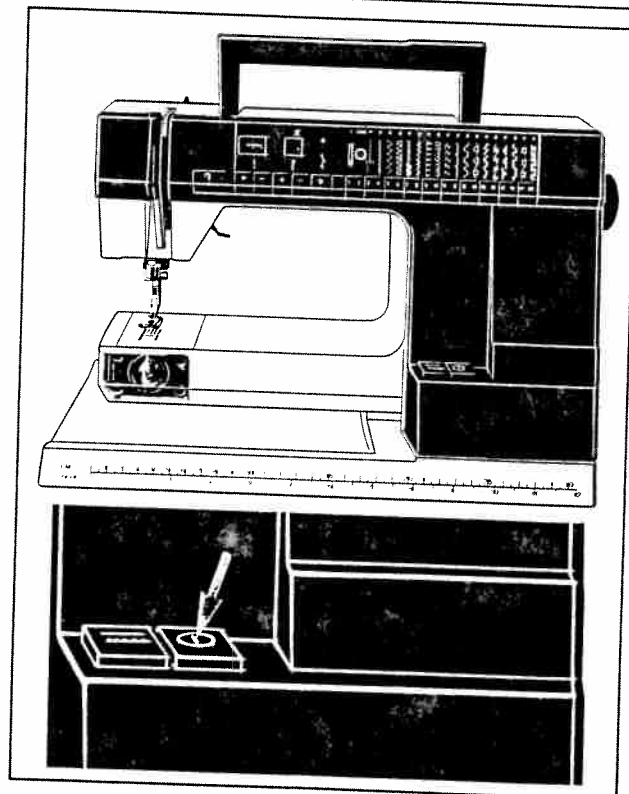
The light and the machine are turned on by pressing the main switch. This makes it easy to see that the machine is ready for sewing.

### Speed control and needle stop-right

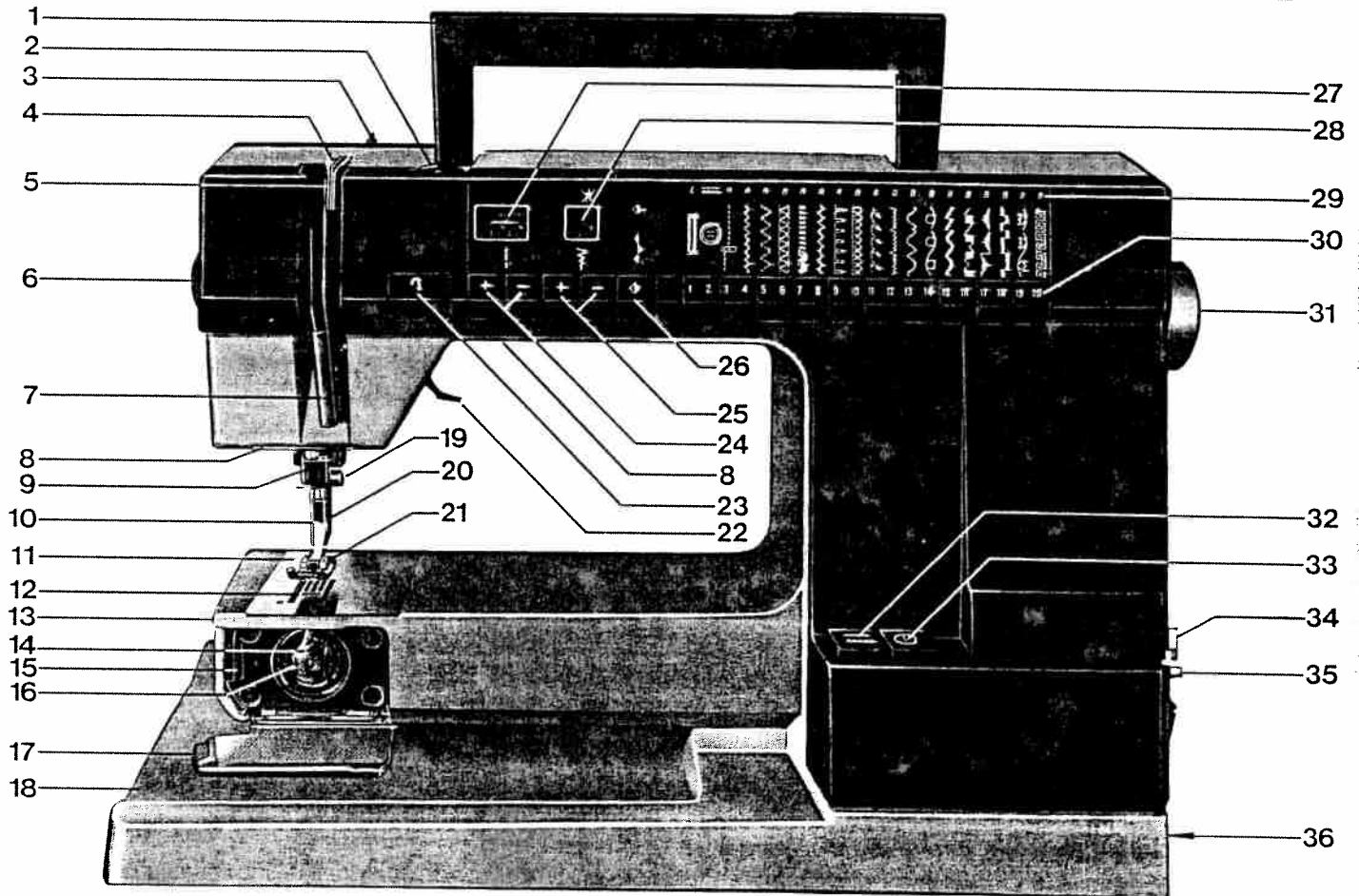
The speed is controlled by means of the foot control. Press the foot control down lightly and the machine will start sewing at the lowest stitch speed. This speed is suitable for precision sewing and if you wish to maneuver the fabric by hand.

When you depress the foot control further the machine will run faster. The needle has full penetration power all the time.

When you lift your foot from the control the needle will always stop at its upper position so it is not necessary to think about the needle position at the start or finish of a seam. If you wish to turn the fabric when sewing around a corner for example, it is easy to get the needle to stop down in the fabric. Just press the foot control down quickly and release it again.

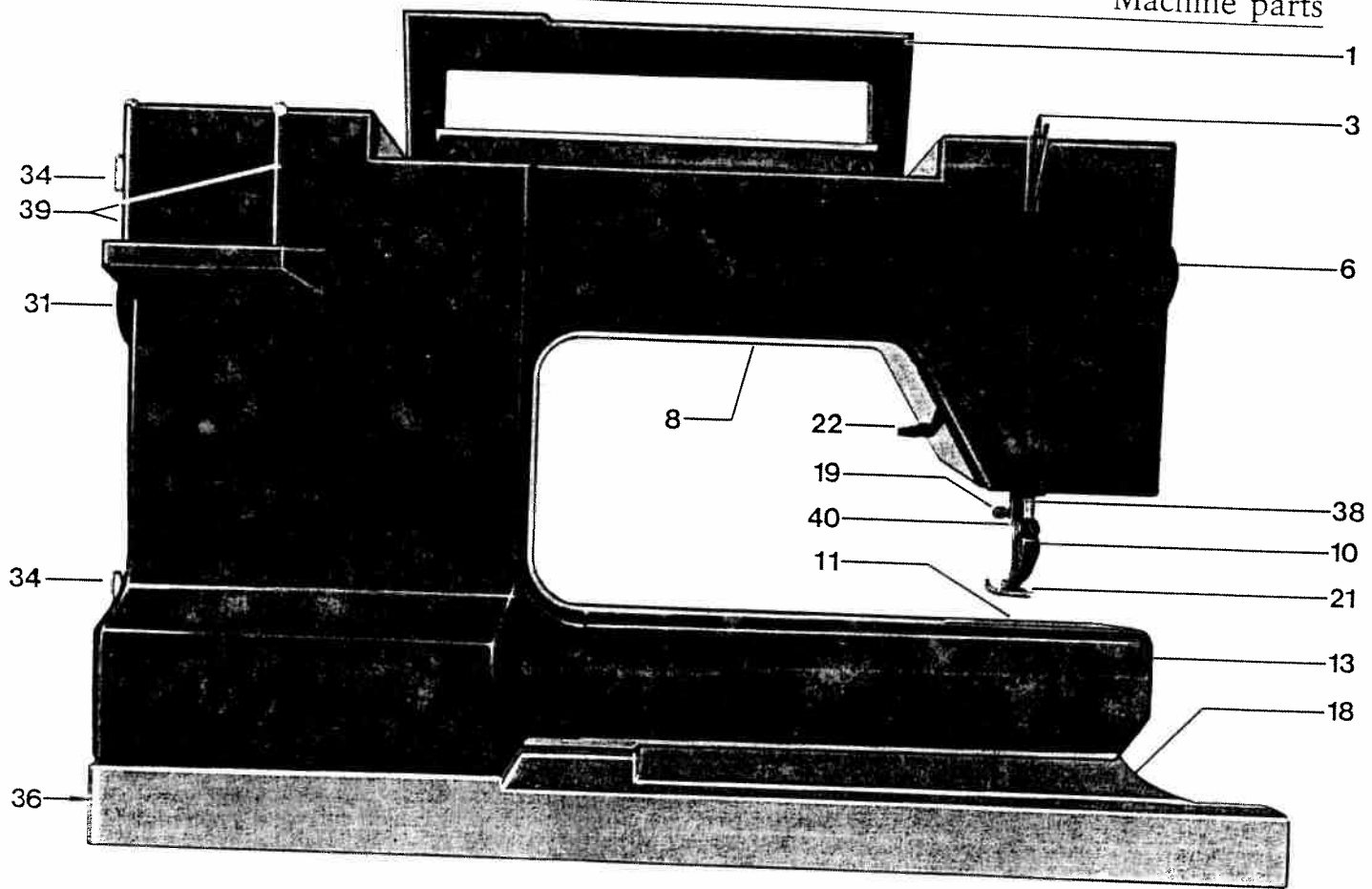


## Machine parts



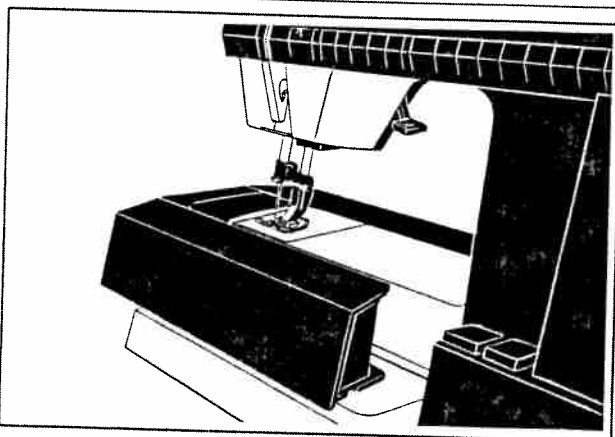
- |  |   |  |
|--|---|--|
| 1. Handle  | 13. Free arm                                    | 25. Push-buttons for changing the stitch width   |
| 2. Thread tension dial                           | 14. Bobbin case                                 | 26. Push-button for mirroring the stitch pattern |
| 3. Thread guide                                  | 15. Thread cutter                               | 27. Stitch length indicator                      |
| 4. Thread tension discs                          | 16. Shuttle (hook)                              | 28. Stitch width indicator                       |
| 5. Thread take-up lever                          | 17. Door for shuttle (hook)                     | 29. Recommended presser foot                     |
| 6. Presser foot pressure dial                    | 18. Base plate                                  | 30. Push-buttons for stitch selection            |
| 7. Front thread guide with thread take-up spring | 19. Needle clamp screw                          | 31. Handwheel                                    |
| 8. Sewing light                                  | 20. Presser bar                                 | 32. Drop feed button                             |
| 9. Needle bar with needle clamp                  | 21. Presser foot                                | 33. Main switch                                  |
| 10. Presser foot ankle                           | 22. Presser bar lever                           | 34. Thread guide for bobbin winding              |
| 11. Needle plate (stitch plate)                  | 23. Reverse feed button                         | 35. Bobbin winding spindle                       |
| 12. Feed dog                                     | 24. Push-buttons for changing the stitch length | 36. Socket for foot control                      |

Machine parts



- |                                 |                        |                                     |
|---------------------------------|------------------------|-------------------------------------|
| 1. Handle                       | 13. Free arm           | 34. Thread guide for bobbin winding |
| 3. Thread guide                 | 18. Base plate         | 36. Socket for foot control         |
| 6. Presser foot pressure dial   | 19. Needle clamp screw | 38. Thread cutter                   |
| 8. Sewing light                 | 21. Presser foot       | 39. Spool pins                      |
| 10. Presser foot ankle          | 22. Presser bar lever  | 40. Screw for edge guide            |
| 11. Needle plate (stitch plate) | 31. Handwheel          |                                     |

## Function

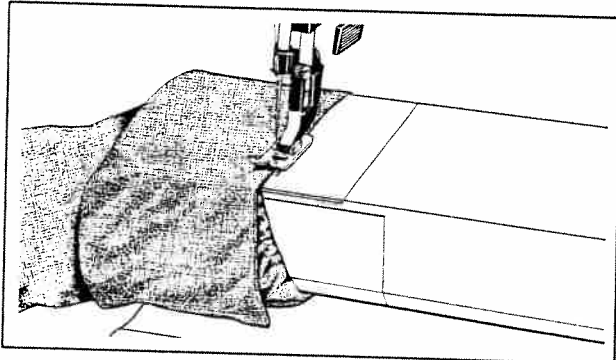


### Working surface

The working surface around the stitch plate consists partly of the upper side of the accessory box and partly of the machine itself, i.e. the free arm.

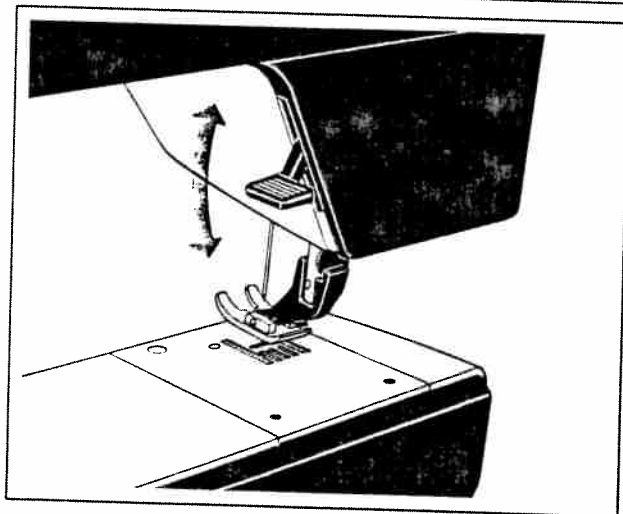
Retain the accessory box on the machine when you require a larger working surface.

Pull the accessory box to the left and remove it if you wish to use the free arm.



Pant legs and sleeves can be drawn onto the free arm, making it easy to sew, mend or patch these parts.

The free arm also makes it much easier to attach collars and cuffs as well as sew children's clothes, or darn socks and stockings on the machine.



### Presser bar lever


By means of the presser bar lever at the rear of the machine, the presser foot can be raised and lowered. When raising, the presser foot will remain in the raised position, but the height can be increased by 1.5 mm by pushing the presser bar lever upward and holding it in this position. This is useful when you want to put garments with thick seams under the presser foot.

The presser foot should be lowered while sewing.

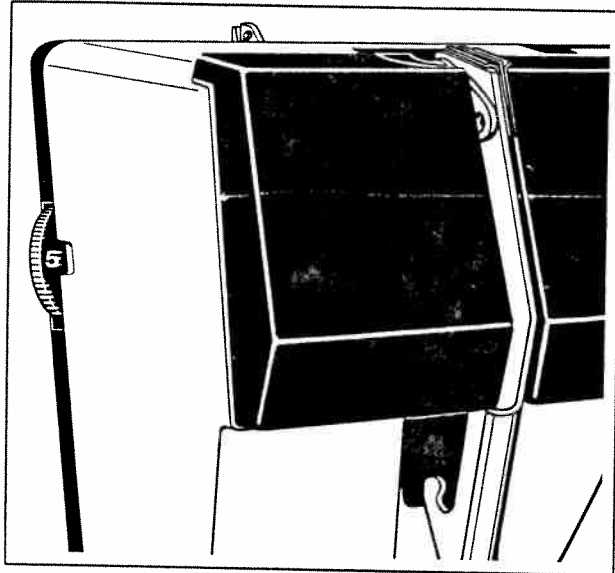


## Presser foot pressure

The presser foot pressure can be adjusted with the aid of a marked dial on the left side of the machine. Normal pressure is obtained by setting the dial at the white dot but for some fabrics it may be better to reduce or increase the pressure. The higher the number, the greater the pressure.

By setting the dial at the symbol  the pressure foot pressure is completely released. This setting should be used when free-hand sewing with the darning foot, i.e. darning, monogramming, machine embroidery and quilting.

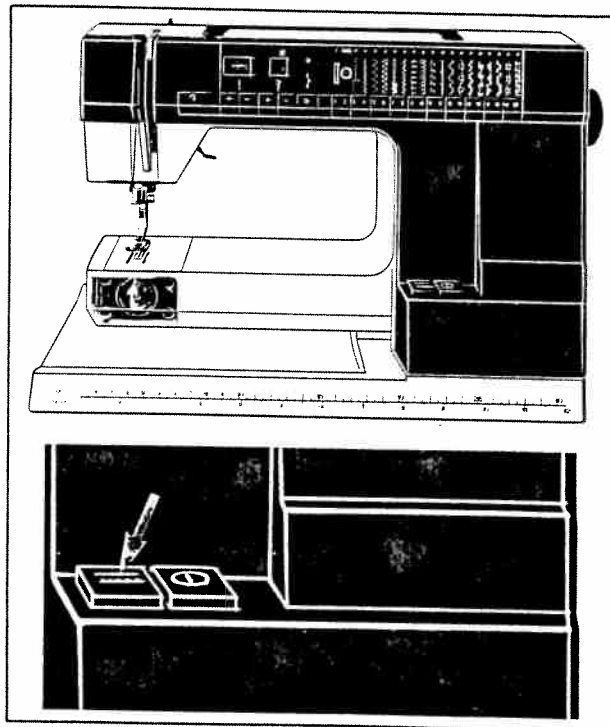
If you turn the graded dial for the pressure foot pressure to the lowest number, it is possible to darn with presser foot A. Lower the feed dog and move the fabric forward, backward and sideways by hand.



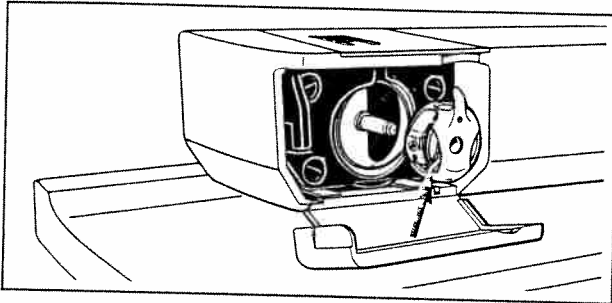
## Lowering the feed dog

Lower the feed dog by pressing the push-button down and raise it by re-pressing the push-button.

The feed dog should be lowered for a certain type of darning and when sewing on buttons. It is also easier to get thick garments under the presser foot if the teeth of the feed dog are not above the level of the stitch plate.



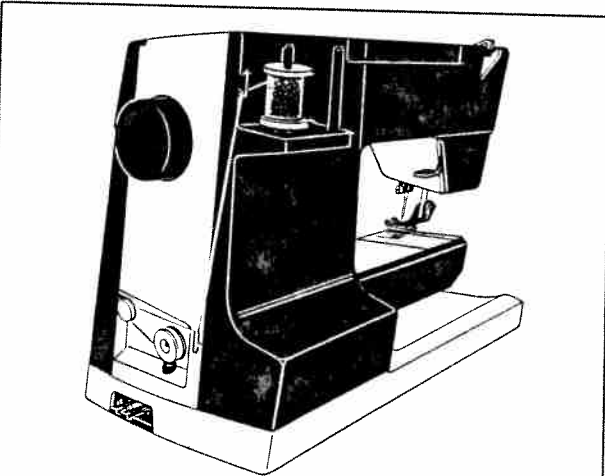
## Bobbin winding



### Removing the bobbin case

Open the door in front of the shuttle by means of the small recess on the left side.

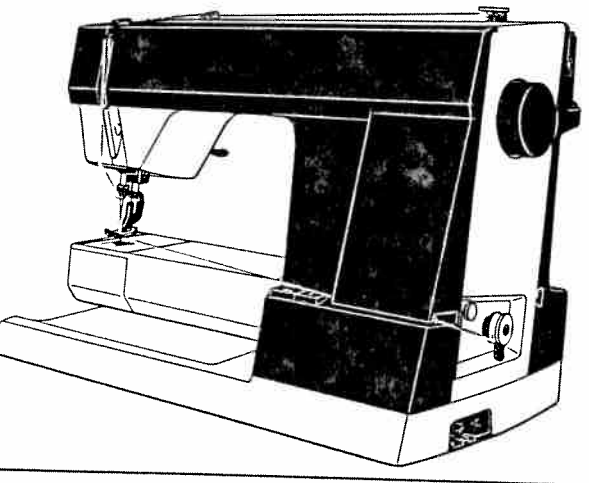
Grip the bobbin case with the thumb and index finger so that the latch is depressed and pull the bobbin case out. The bobbin will remain in the case as long as the latch is depressed. When you release the latch, the bobbin will be released.



### Bobbin winding

Turn the empty bobbin until the small round dot on one side is outward. Slide the bobbin onto the bobbin spindle, which is located on the right side of the machine.

Threading for bobbin winding can be done as illustrated in the upper picture. If you do not want to unthread the machine, raise the presser foot and thread the machine as illustrated in the lower picture. Do not draw the thread straight from the needle eye, otherwise the needle may get bent. Run the thread in the thread guide at the front of the machine. Start from underneath and wind the thread around the bobbin a few times. Hold the end of the thread while you press down the foot control. Release the thread end as soon as winding starts. The machine will stop automatically when the bobbin is full.



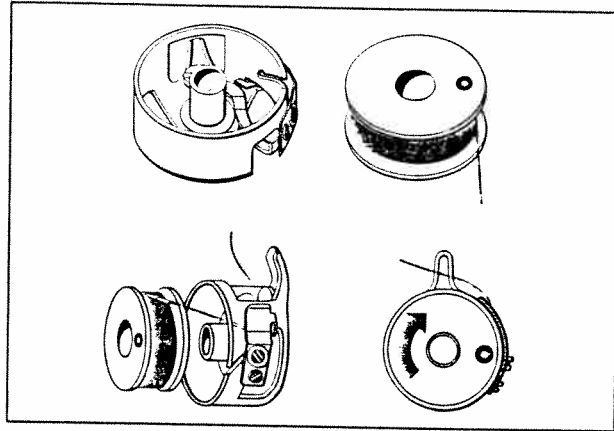
## Threading, thread tension

### Threading the lower thread

When the bobbin winding is finished, place the bobbin beside its case with the marking upward. The thread should run as shown in the figure. Place the bobbin in its case without turning it around.

Slide the thread into the slot on the edge of the bobbin case. Pull the thread in under the tension spring. Check that the bobbin rotates in the direction of the arrow (clockwise) when the thread is pulled.

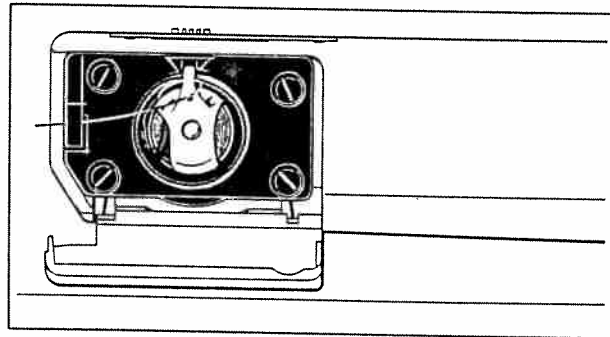
The thread must be pulled in the direction of the spring, otherwise the spring will be overloaded.



### Insertion of the bobbin case

Slide the thread behind the projection of the bobbin case and to the right. Put the bobbin case into place. Press the bobbin case until it clicks to ensure that it fits properly.

The thread cutter is located to the left of the bobbin case. Hold the thread end and draw the thread from underneath and up toward the thread cutter. By doing so the thread will be cut off and kept in place. Shut the door.

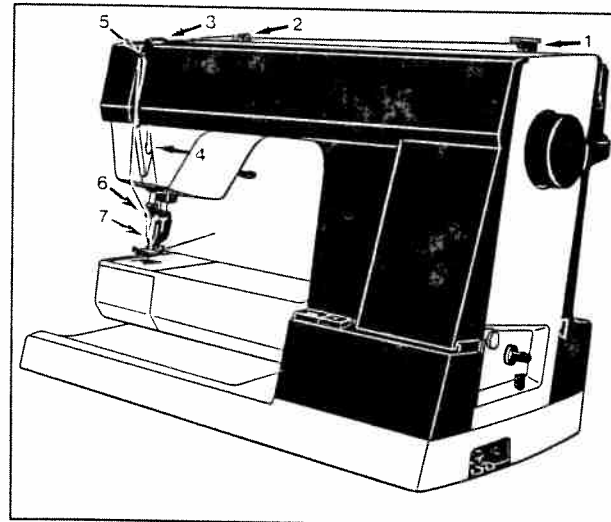


### Threading the upper thread

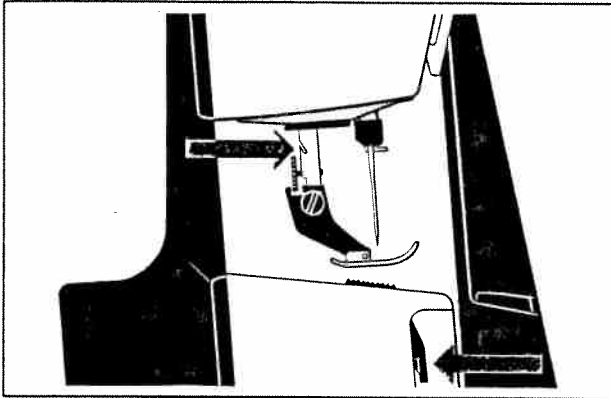
Raise the presser foot. Check that the needle is at its highest position. Place the spool of thread on the left spool pin and thread the machine for sewing.

Slide the thread into thread guide 2 on the upper arm and draw it upward. Then draw the thread to the front between the tension discs 3 and down around thread guide 4. Continue threading by drawing the thread from the right into the slot on thread take-up lever 5 and draw it down to the needle, ensuring that it goes through thread guide 6.

Thread the needle from the front. Due to the white color of the presser foot ankle the needle-eye is clearly seen and the threading of the needle, 7, is easier. Pull the thread under the presser foot about 15 cm (6") toward the rear.

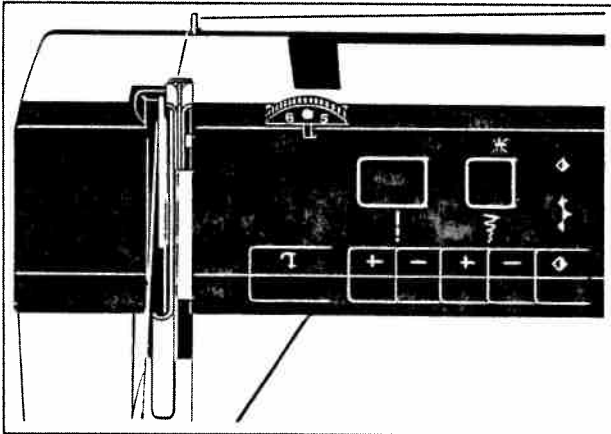


## Thread tension



### Thread cutters

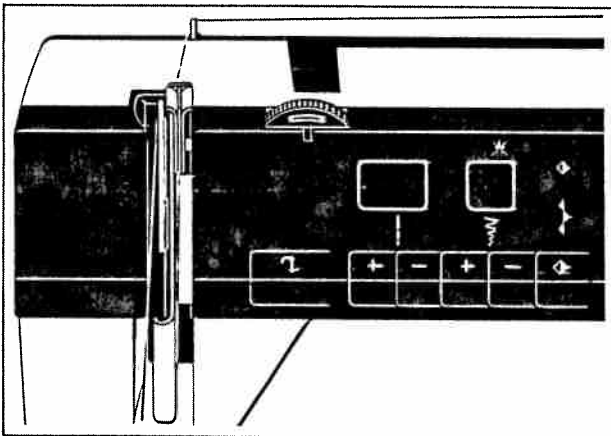
On the back of the presser bar you will find a notch, the thread cutter, by means of which you can easily cut off the threads when you have finished sewing. There is a special thread cutter for the bobbin thread. See page 11 "Insertion of the bobbin case".



### Tension of the upper thread

The dial which regulates the tension of the upper thread is graduated from 0–10. The higher the number, the tighter the tension. Normal thread tension is obtained by setting the dial at the white dot. Your machine has been tested using the thread which accompanies it and with the thread tension dial at the white dot.

If using a coarser thread, it may be necessary to alter the thread tension slightly. Also the type of fabric may require that the tension be adjusted.



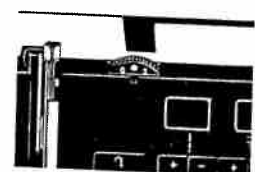
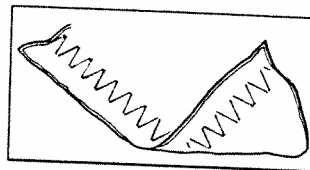
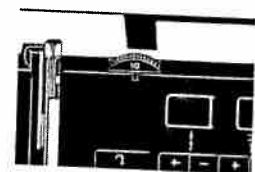
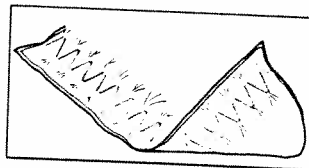
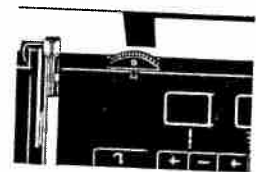
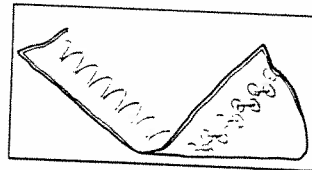
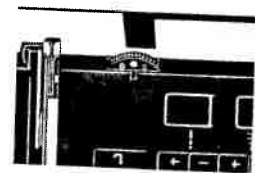
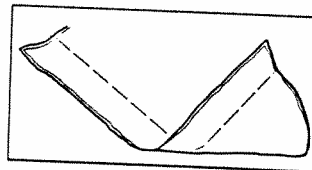
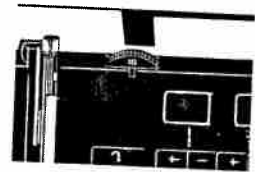
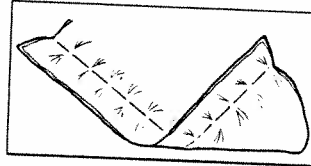
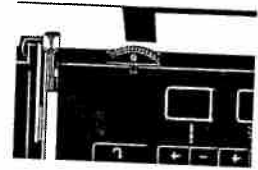
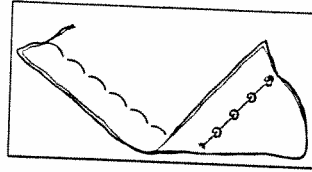
There is also a mark on the thread tension dial for the tension that is suitable for making buttonholes. This setting is also suitable for satin stitching, decorative stitching, topstitching, embroidering, etc.

### Correct and incorrect thread tension

In order to easily understand the importance of correct thread tension, you can try different thread tensions by sewing on a scrap of fabric. Begin by using an excessively loose tension, i.e. set the tension dial near "0". Look at the fabric and you will find that the lower thread lies straight and the upper thread is drawn underneath the fabric. If, however, you set the dial at the highest number, the opposite will occur, or the seam may pucker.

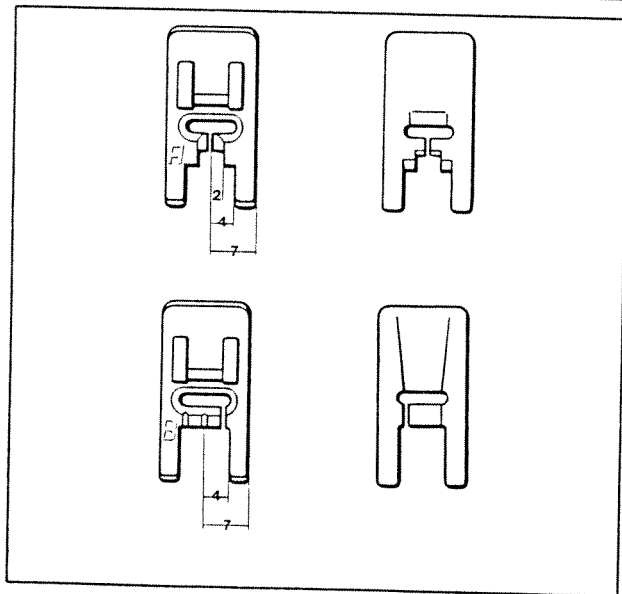
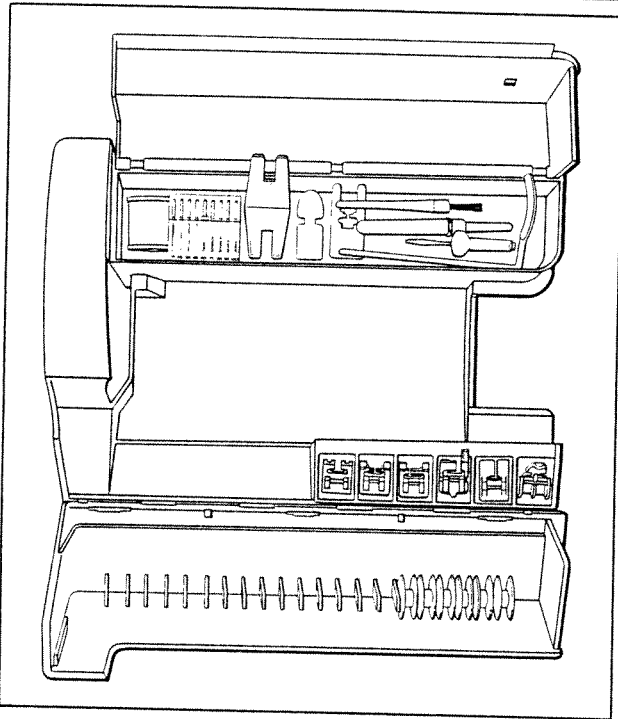
The thread tension is correct when the threads interlock in the middle of both layers of fabric.

Please note that even the best quality thread may vary in thickness. When sewing in fine fabrics, the knot may sometimes be visible.



Always check that the thread tension is correct by first sewing on a scrap of the same fabric, folded double, that you intend to work with.

## Accessory box



## Accessory box

To obtain the best sewing results you should select the correct presser foot for the type of sewing you are doing. The presser feet are marked with letters and above each stitch on the control panel you will find a letter which will help you to make the right selection.

By means of these feet you will be able to carry out practically all types of sewing work. There are additional accessories to assist you with special work. These will be found under "Extra accessories" on pages 53-59.

Store the accessories in the accessory box. By placing them as illustrated, it will be easier for you to remove and replace the box.

A list of the accessories which accompany the machine will be found on the loose sheet which is included but we reserve the right to change the equipment of the machine without prior notice.

## Presser foot A

The presser foot which is fitted on the machine at delivery is marked A. This foot is used mainly for straight stitching and zig-zag stitching with a stitch length longer than 1 mm.

## Presser foot B

When sewing close zig-zag stitches with less than 1 mm stitch length, decorative stitches or seams in thick knits, you should use presser foot B. The bottom of the foot is designed to give more space for satin stitches on thick fabrics.

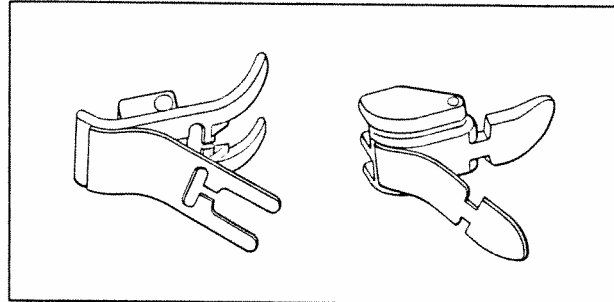
## Various markings

As you can see from the illustration, the above presser feet have notches or markings which can be used as guides when sewing. When straight stitching with the needle in the center position, you will have a 7 mm (1/4") seam allowance if you guide the fabric even with the outer edge of the foot; 4 mm (3/16") at the inner edge and 2 mm (3/32") at the innermost notch on presser foot A.

### Glide plates

The glide plates fit presser foot A and E. These plates can be used when sewing on foam plastic, plastic-coated fabric and leather imitations. They will minimize the risk of these materials sticking to the presser foot.

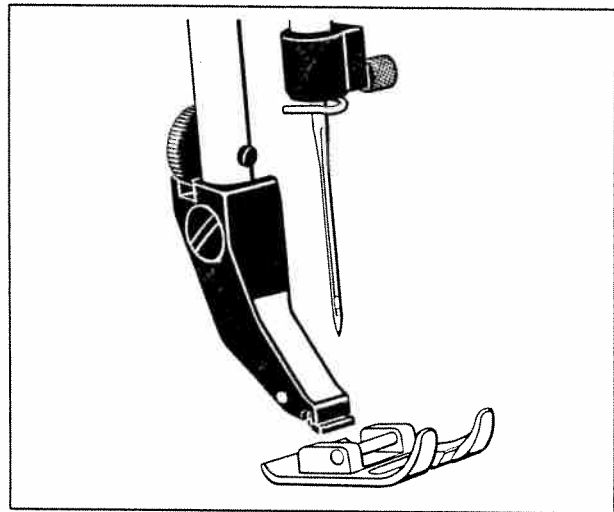
Peel off the protective paper and press the self-adhesive side of the glide plate against the underside of the presser foot.



### Changing the presser foot

If you wish to change the presser foot, check that the needle is at its upper position. Remove the presser foot by drawing it toward you while pressing slightly downward.

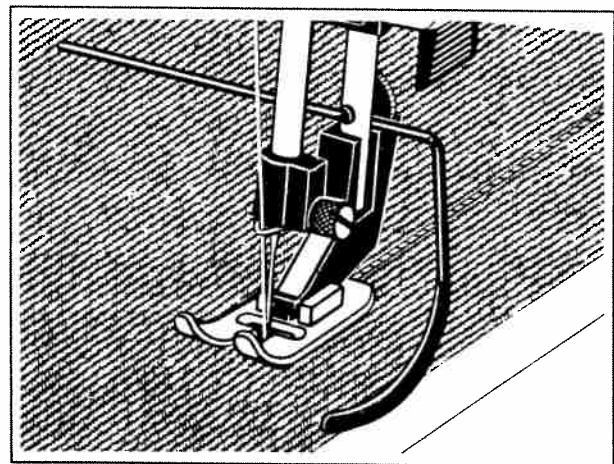
Insert the new presser foot in such a way that the round, horizontal pin fits in between the spring and the presser foot ankle. Press slightly downward and backward and the foot will snap into place.



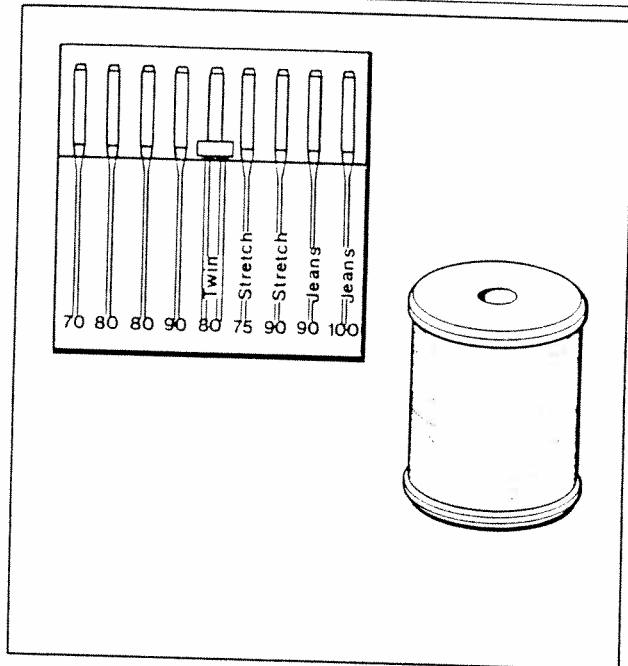
### Edge guide

The stitch plate has markings for 1.0, 1.5, 2.0, 2.5, 3.0 and 3.5 cm, to simplify sewing seam allowances. If you require an even wider seam allowance, use the edge guide.

First loosen the screw at the rear of the presser bar as far as it will go. Insert the guide into the groove under the screw and adjust it to the required seam allowance. Tighten the screw, using the screwdriver.



## Accessory box

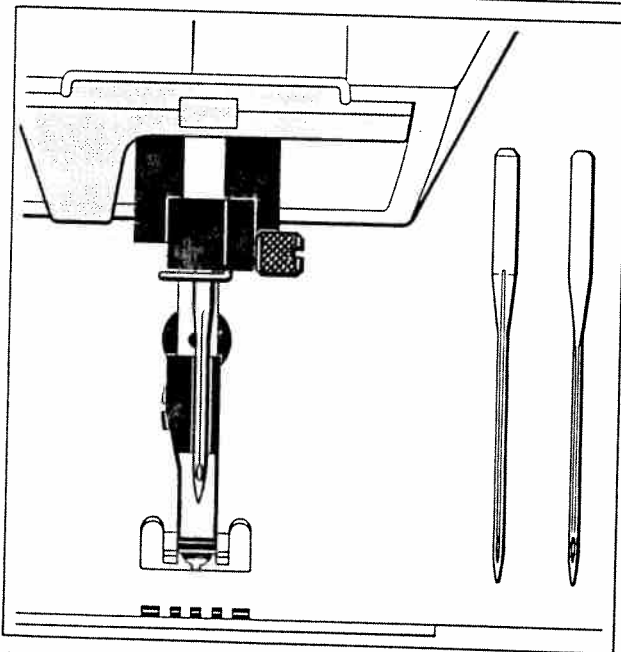


## Needle and thread

The machine is delivered with a spool of synthetic thread, which can be used for all types of fabrics and most seams. Mercerized cotton can also be used.

When sewing decorative stitches, embroidery silk No. 30–50 is generally used. It produces attractive buttonholes and topstitching and can also be used for darning.

Always use the recommended needles (code 130/705H). The size is denoted by a number. The needle fitted in the machine is No. 80.



## Changing the needle

Even if the needles look alike there can be slight variations which can affect the sewing result. Be sure to use high quality needles.

Only a completely undamaged needle will give perfect sewing results. Therefore, change the needle if you have the slightest reason to believe that it is bent or that the point is damaged. To remove the needle, loosen the screw in the needle clamp. With the flat side of the shank away from you, insert the new needle into the needle socket as far as it will go. Tighten the screw with the screwdriver.



## Needle design

In most cases the standard needle is the most suitable and the thickness of the needle should be adapted to the type of thread and fabric. However, when sewing certain fabrics, another design of the needle point can produce better results.

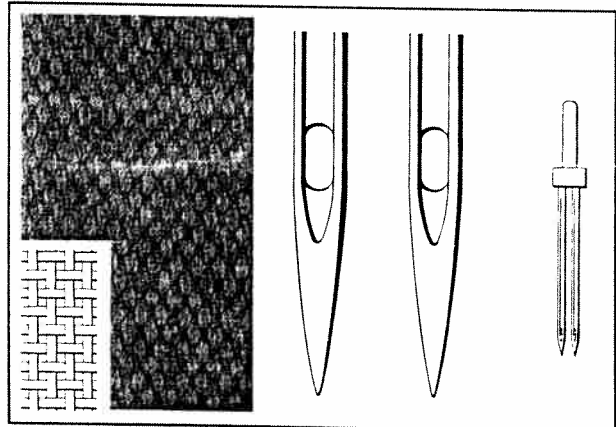
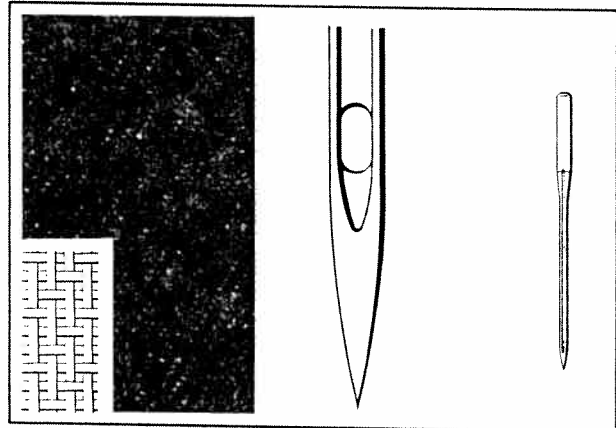
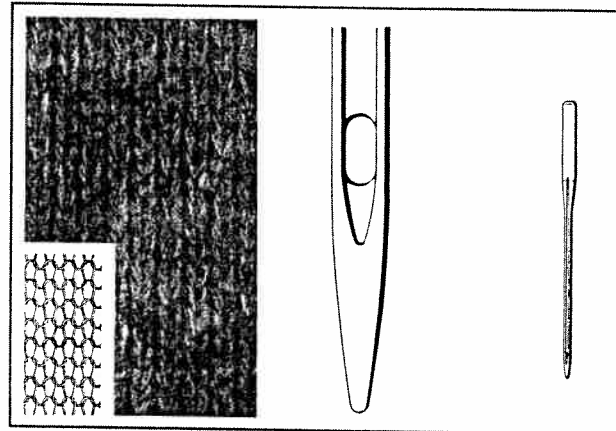
You will find two needles in the needle case with the description "Stretch" (completely blue). These needles have rounder tips and should be used when sewing light elastic fabrics. When a needle of this type contacts a thread in the weave, the thread is pushed aside, without being damaged.

If, on the other hand, you are using a rigid fabric, like denim, use the needle described "Jeans" (upper part blue). This has a sharper tip, enabling it to pass through thick seams more easily.

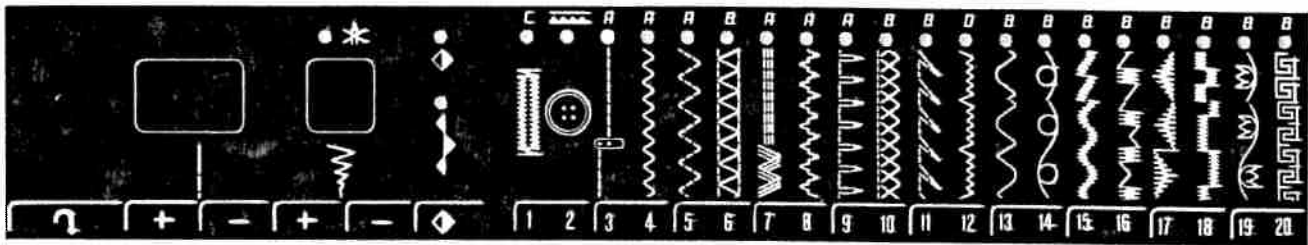
There is a twin needle ("Twin") in the needle case. It consists of two standard needles, size 80, and is intended to be used when sewing decorative or raised seams, as described on pages 46 and 25.

Note, however, the warning symbol above the right digital indicator. When the red light goes on you cannot sew with the twin needle. Reduce the stitch width until the light goes out. You can now sew without any risk of the needle striking against the stitch plate.

Regarding special needles, please refer to "Needle Assortment" on pages 52 and 53.



## Control panel



## Control panel

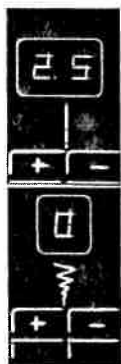
There is a control panel on the upper part of the machine for setting the various stitches, etc. By means of the symbols you can select all the settings needed for sewing.

Press the push-button under each symbol once or twice to engage the required stitch or function. Each push-button controls two stitches. The light above the symbol indicates which stitch is set.



The symbol to the left denotes reverse feeding. As long as the button is depressed the machine will sew the selected stitch in reverse.

When you press the button under one of the symbols, the machine will automatically select a stitch width and length suitable in most cases. Always test sew first at this setting. If you require other settings, it is possible to make changes.



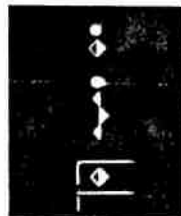
### Changing stitch settings

The stitch length is indicated in the left digital indicator and the stitch width in the right one.

The buttons under the digital indicators are to be used to increase or decrease the values from 0 to 6 mm. In certain cases the stitch length is only variable between 1.5 and 4.5 mm.



When the red light above the right digital indicator lights up you cannot use the twin needle.



The push-button under this symbol is for mirroring the engaged stitch pattern each or every other time. Please refer to page 47.



### Recommendation

The letters above the stitch symbols indicate the recommended presser foot.



The upper symbol indicates that the feed dog shall be lowered when sewing on buttons. You will find the same symbol on the push-button for lowering the feed dog.

## General hints

The best way to hold the fabric is to let your left hand rest lightly on the work at A and guide it forward. Hold the edge of the fabric at B with your right hand and guide the work. Do not pull the fabric—just guide it toward the presser foot and let the machine do the feeding.

When you wish to sew straight stitch, place the work so that the needle goes down in the center of the marking for the seam. When sewing zig-zag and other wide stitches, e.g. overlock stitches place the marking for the seam along the left edge of the needle hole.

Turn your work so that the larger amount of fabric is placed to the left of the needle. In some cases it is necessary to mirror the stitch in order to obtain the required result. To do this, press the mirroring button and the light above the symbol will go on.

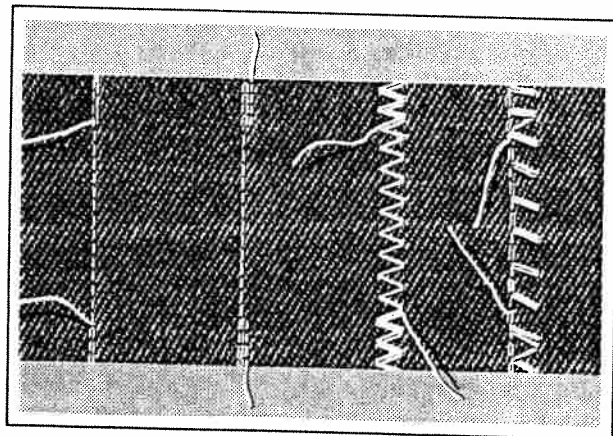
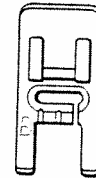
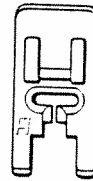
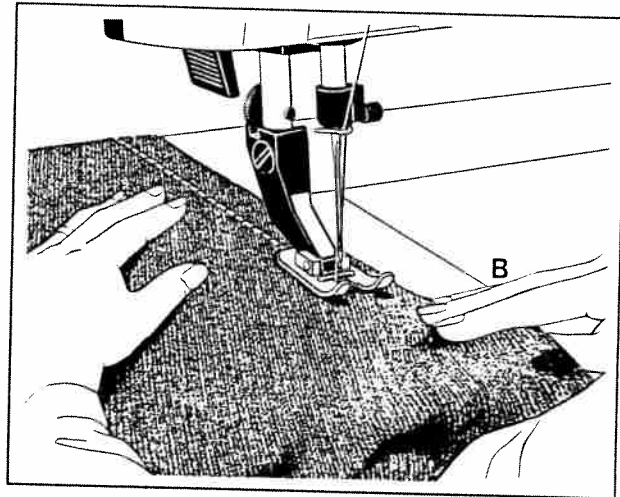
Lower the presser foot, start the machine gently and increase the speed gradually.

When sewing fine and soft fabrics, start the seam a couple of mm (1/8") from the edge of the fabric, to prevent it from being pulled down into the needle hole. If you wish to extend the seam out to the very edge of the fabric, sew a few reverse stitches and then hold the threads behind the presser foot when sewing forward again.

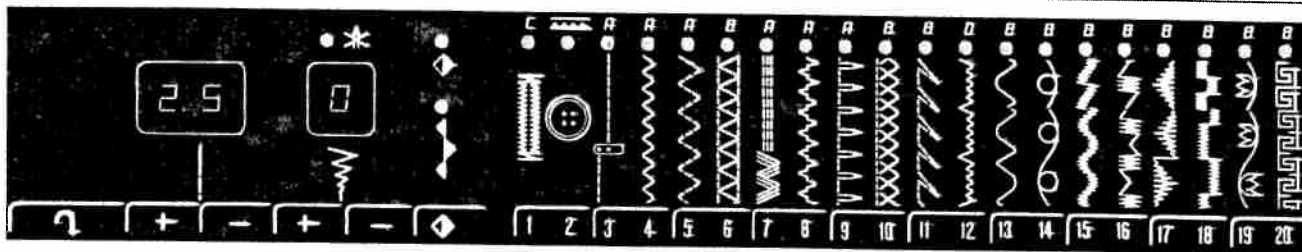
When sewing a long seam, where you must stop often to arrange the work, or when you wish to pivot at a corner, allow the needle to stop at its lower position.

Fasten off the seam by depressing the reverse feed button and sewing a few reverse stitches.

When the seam is finished, raise the presser foot, remove the work from behind and cut off the threads leaving at least 15 cm (6") of thread.



## Sewing with straight stitching



### Straight stitching

If you switch on the main switch or press the button for stitch No. 3 so that the light above the symbol for straight stitch goes on, the machine will automatically be set for stitch length 2.5. This stitch is suitable for joining pieces of fabric which will not stretch and for seams which will not be subjected to strain.

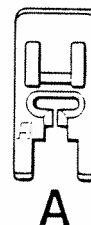
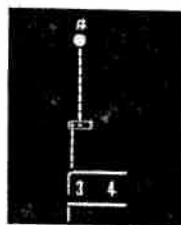
When sewing elastic fabrics, or when an extra strong seam is necessary, use elastic straight stitch, stitch No. 7.

Reduce the stitch length to 2 or 1.5 when you join seams in fine fabrics. Increase it when sewing thick fabrics, basting and topstitching.

### Straight stitching with the needle in the left-hand or right-hand position

When sewing light fabrics, it may sometimes be an advantage to sew straight stitching with the needle at one of the edges of the needle hole. It may also make it easier for you to sew a very narrow hem as the fabric will be supported better by the stitch plate.

If you press the + button under the right digital indicator the needle will be moved to the left in steps of 0.5 mm. If instead you wish to sew in the same position but to the right of the center line, press the mirroring button.



### Adjustment possibilities

The stitch length indicated in the left digital indicator can be increased or decreased from 0.3 to 6 mm by means of the two push-buttons (+ and -) located under the digital indicator.

## Topstitching

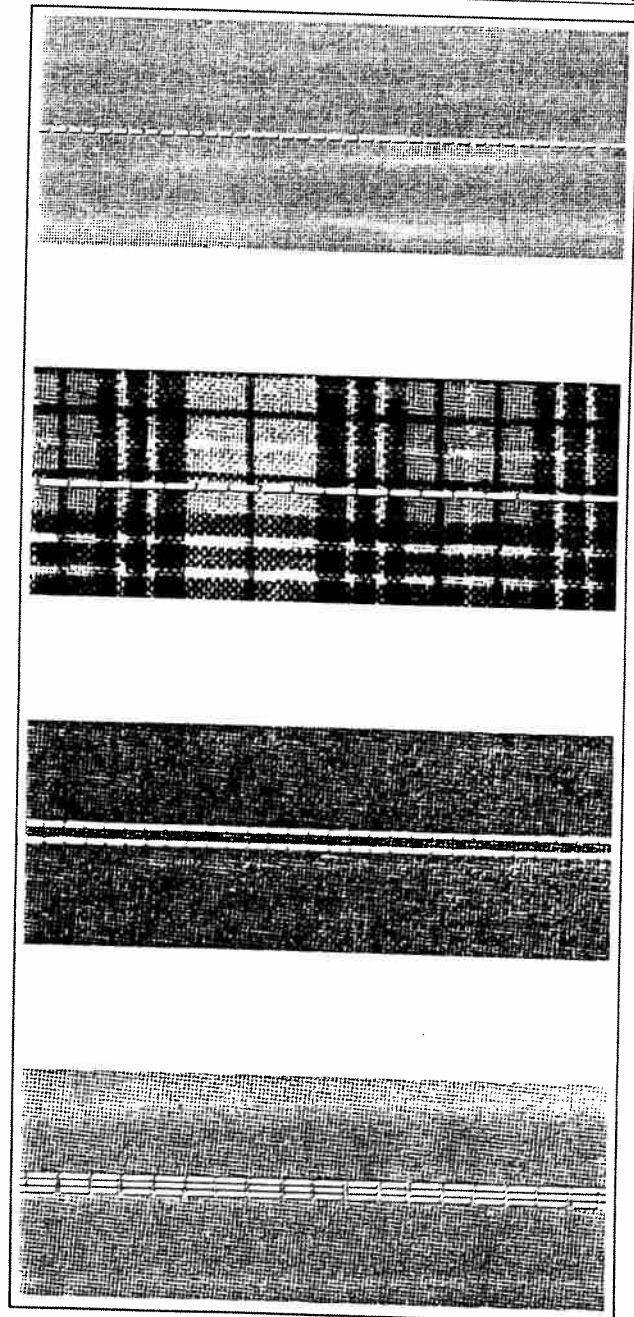
For topstitching on lighter fabrics, fine thread and needle should generally be used. The picture shows topstitching on lawn cotton, sewn with ordinary straight stitching, stitch length 3–4 and ordinary sewing thread. Topstitching is more attractive on double fabric.

When sewing thicker fabrics, you can use a coarser thread to produce more pronounced topstitching. The picture shows topstitching with synthetic buttonhole thread, sewn with ordinary straight stitching, stitch length 6.

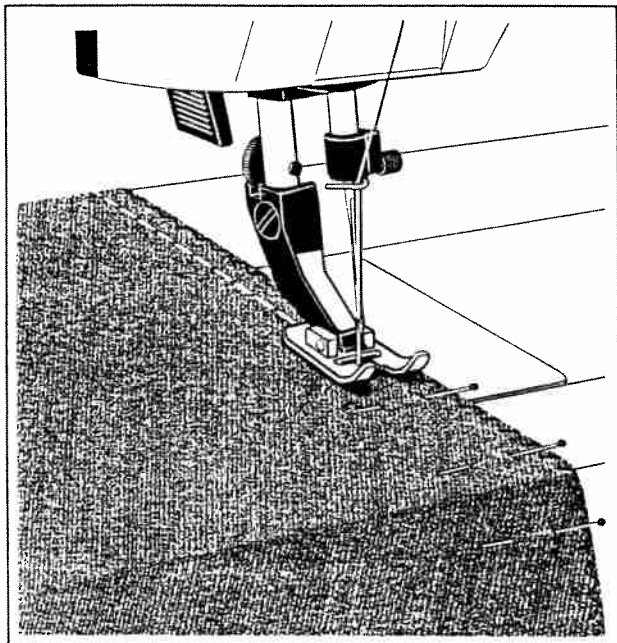
Parallel topstitching is possible by means of the twin needle. Good results can be obtained by using a coarser upper thread and a finer lower thread.

Topstitching can also be sewn with elastic straight stitch (increase the stitch length 2–3 steps), zig-zag or decorative stitches.

Stitch No. 7 will give you reinforced zig-zag (Ric-Rac) if you increase the stitch width.



## Sewing with straight stitching

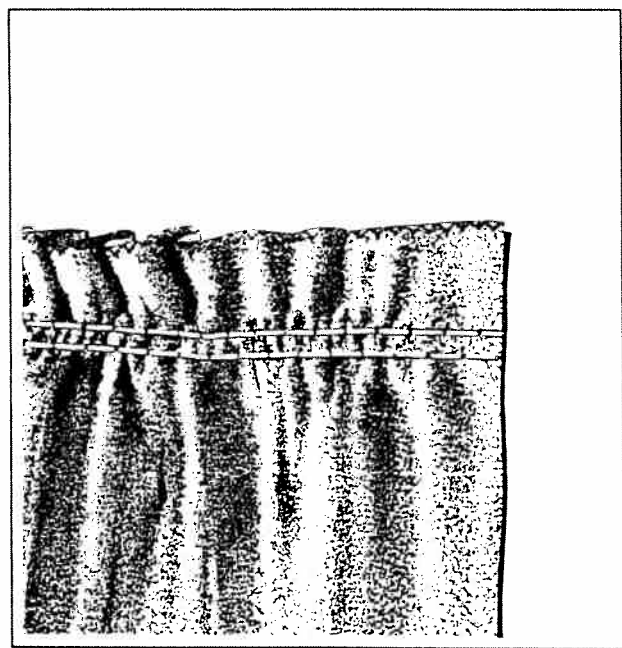


### Basting

When sewing simpler garments you can save time by inserting pins at right angles to the seam. Then sew the seam removing each pin as you come to it. If you are careful, use fine pins, and relatively long stitches, you can sew right across the pins. However, you run the risk of blunting the needle, or breaking the needle or pins.

Machine basting facilitates trying on the garment. Pin the seams as described above. Set the stitch length to 3–4 for light fabrics, to 4–6 for normal and heavier fabrics. Set the thread tension dial at the buttonhole symbol. Stitch.

Remove the basting by pulling out the lower thread.

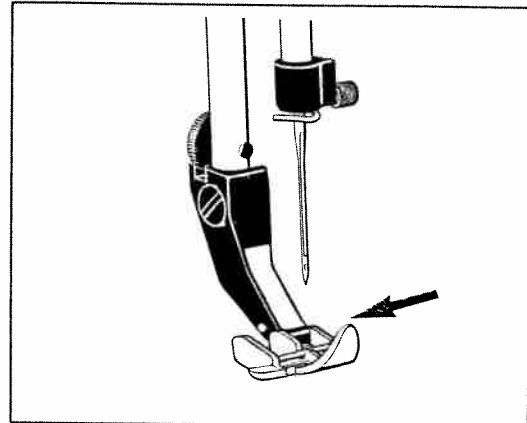
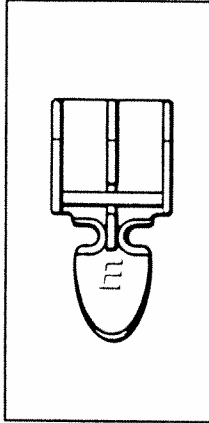


### Gathering

Gathering with the straight stitch is the most common method. The best results are obtained if stitch length 3–3.5 is used and the upper thread tension decreased to the buttonhole symbol. Two rows of gathering stitches are sewn side by side—the lower threads from both rows are then pulled simultaneously to produce the gathering.

### Sewing in zippers

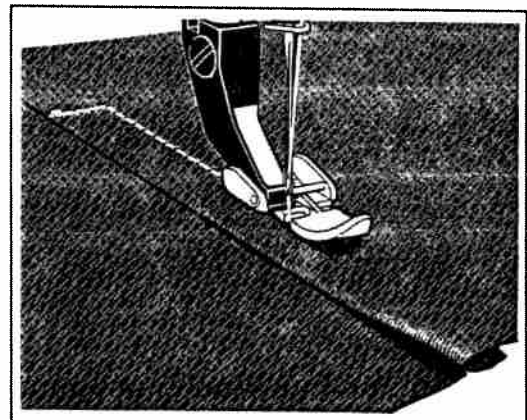
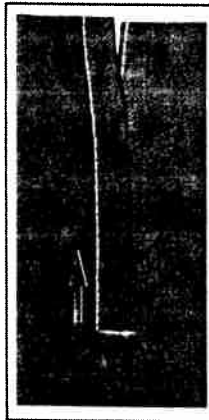
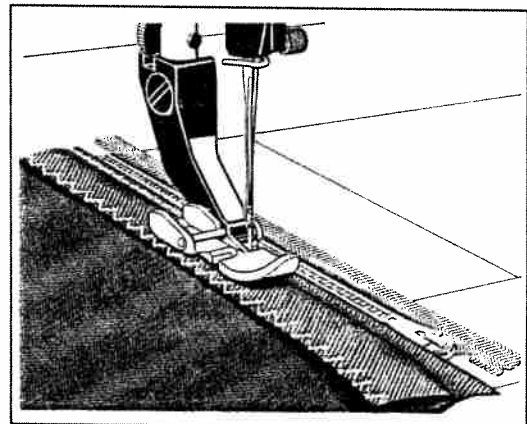
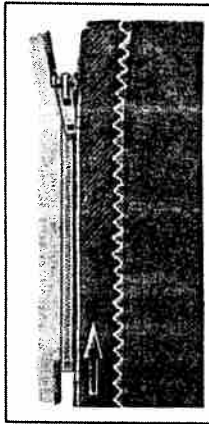
The zipper foot E can be attached so that it is located either to the right or to the left of the needle, making it easy to sew both sides of the zipper. To sew the other side of the zipper, re-position the zipper foot.



### Lapped zipper

Baste the opening together using decreased upper thread tension and long stitches. Leave approx. 2 cm (3/4") open at the top. Turn the work so that the wrong side is up. Fold the left seam allowance outward a couple of mm from the basted seam.

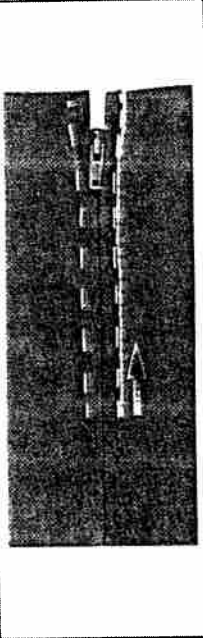
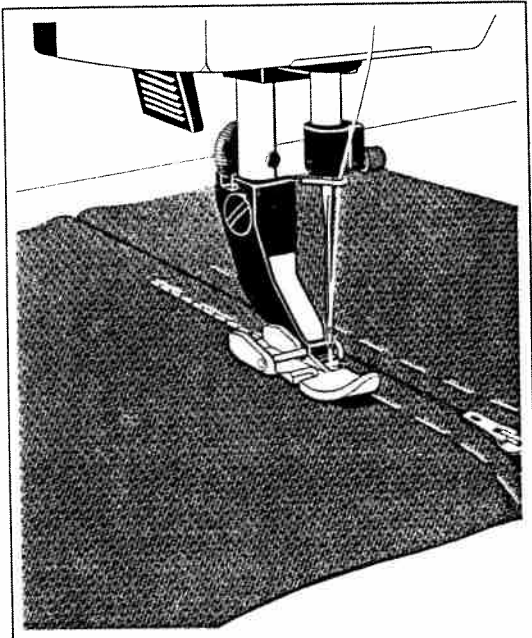
Attach the zipper foot to the left of the needle. Use the lower needle stop position. Place the zipper with the right side up under the folded seam allowance and sew the right edge of the zipper, starting at the bottom. Open the zipper a couple of cm (1") before the seam is finished, raise the zipper foot and pull the tap behind the foot. Lower the foot and finish the seam.



Re-position the zipper foot to the right of the needle. Sew the other side of the zipper into place from the right side of the fabric. Start with perpendicular stitching at the lower edge and then sew from the bottom to the top.

Remove the basting.

## Sewing with straight stitching



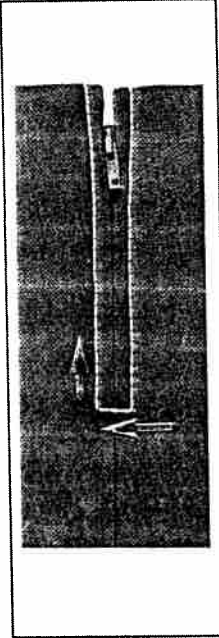
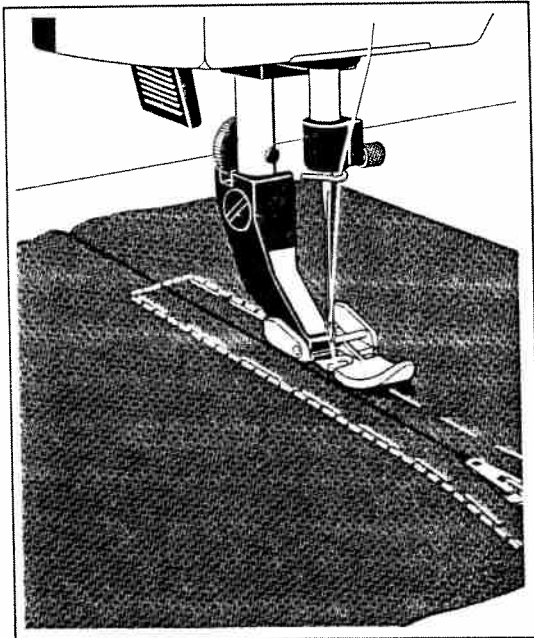
### Slot zipper

Baste the opening together by machine with long stitches and decreased upper thread tension. Leave about 1" open at the top.

Press the seam open and baste or tape the zipper under the seam. Place the zipper foot E to the left of the needle.

Use the lower needle stop position. Start at the bottom and sew the right edge of the zipper as illustrated.

Open the zipper before the seam is finished, raise the zipper foot and pull the tab behind the foot. Lower the foot and finish the seam.



Re-position the zipper foot to the right of the needle.

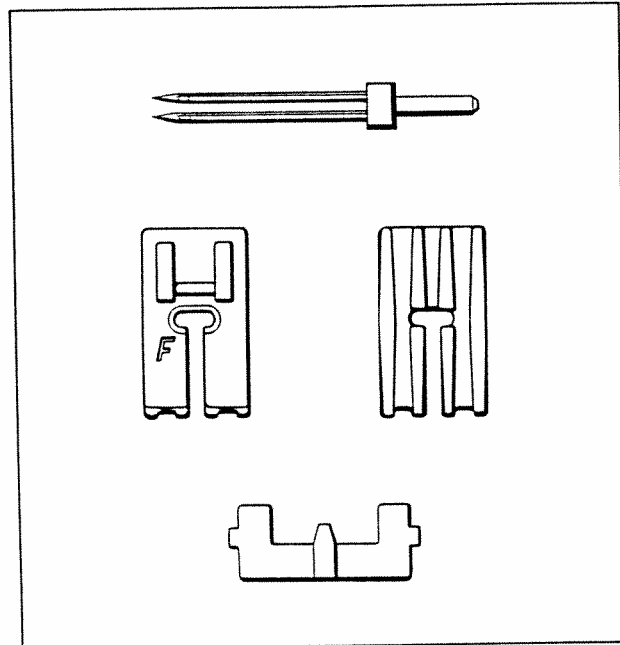
Start with perpendicular stitching at the lower edge, turn the garment and sew the other edge of the zipper as illustrated. Remove the basting.



### Raised seams

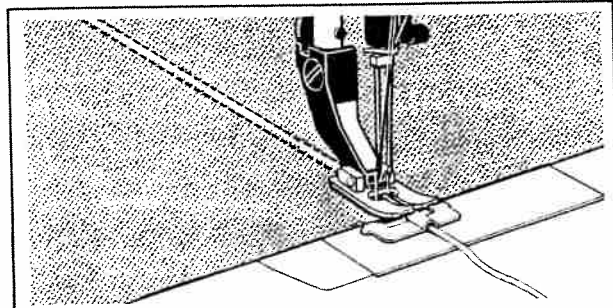
Exchange the ordinary needle for a twin needle and be sure that it is pushed all the way up into the needle clamp.

Change to presser foot F. If you wish to use small cording, fit the raised seam plate 411 39 25-01 with its straight edge toward you, inserting the cord at the same time. Place a spool of thread on each of the spool pins and let one of the threads go on the outside and the other one go through the thread guide on the needle clamp. Otherwise thread as usual with one thread in each of the needles.



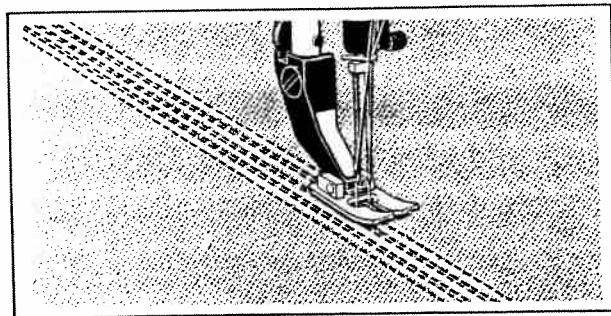
Now set the machine for straight stitching. The height of the raised seam can be adjusted by means of the thread tension—the tighter the thread tension, the more pronounced the seam will be.

If you are using small cording, first pull it out well behind the presser foot and then it will only be necessary to see that it runs freely while you are sewing.

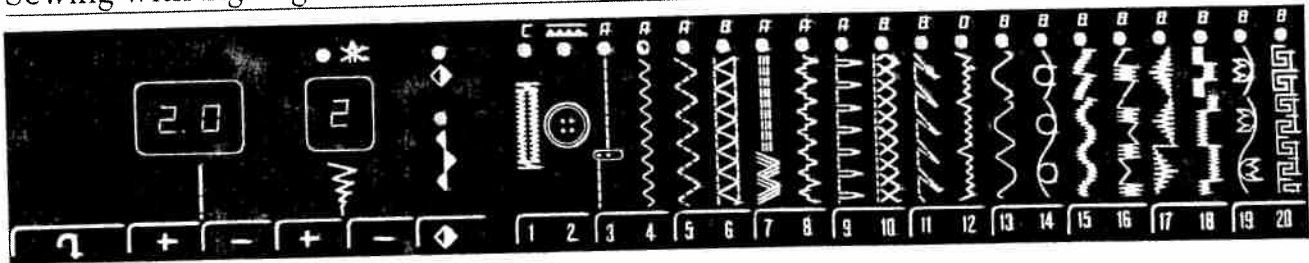


### Parallel raised seams

If you wish to sew several parallel seams, you can use the grooves on the bottom of the presser foot as edge guides. Place the previously sewn seam to the left or to the right of the one you are about to sew and let the presser foot guide the work.



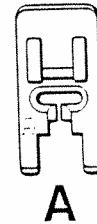
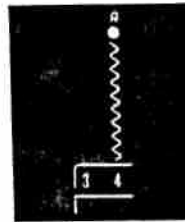
## Sewing with zig-zag



### Zig-zag

By pressing the push-button for stitch No. 4 so that the light above the symbol for zig-zag goes on, the machine will automatically be set for sewing a seam (stitch length 2, stitch width 2), which is suitable for many sewing operations like gathering with shirring elastic, bound edging, sewing on appliqués and lace. It can also be used for overcasting but in most cases, however, three-step zig-zag is recommended for better binding of the threads and a neater appearance.

Normally presser foot A is used, but when sewing closer stitches in particular (less than 1 mm stitch length), use presser foot B.



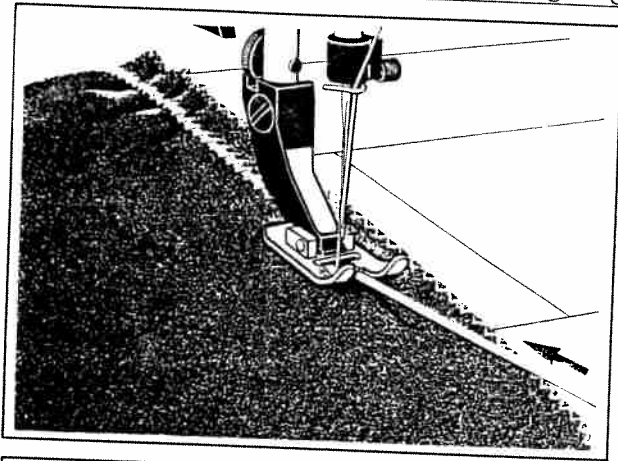
### Adjustment possibilities

The stitch length can, as for straight stitching, be decreased or increased by means of the two push-buttons under the left digital indicator (+ and -) from 0.3 to 6. The stitch width can be changed by pressing the + or - push-buttons under the right digital indicator from 0 to 6.

### Gathering with zig-zag

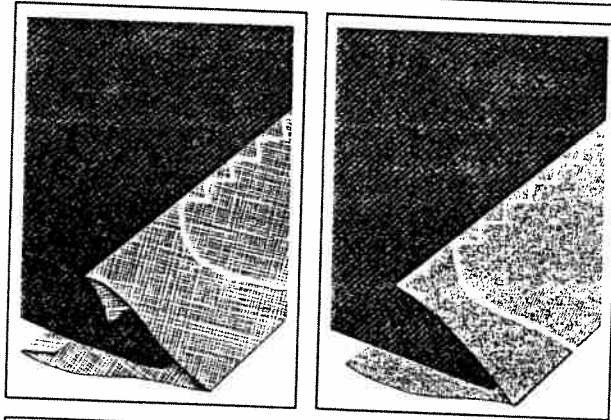
Gathering by zig-zagging over elastic cording gives soft, supple gathering for smocking and elastic in blouses, children's clothes and nightwear. The elastic can be stretched while sewing or when the seam is finished. The latter method is particularly suitable when sewing several rows of gathering.

If you sew and gather simultaneously, hold the elastic firmly both in front and behind the presser foot and stretch the elastic—not the fabric! The zig-zag stitch should be wide enough so that the elastic can glide within it and the gathers will be evenly spaced when the work is finished.



### Bound edges

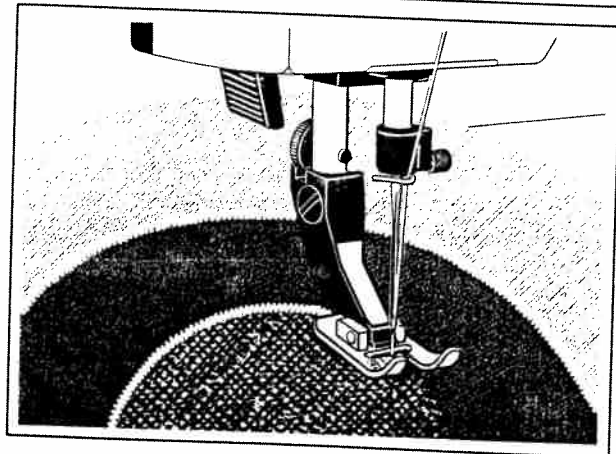
The simplest method to bind edges is to use ready-made bias binding or woven tape with selvedge. If the binding is to be sewn on to a curved edge it should be pre-shaped. Fold it over the edge of the fabric allowing the part which will be on the reverse side of the fabric to be slightly wider. Sew on with a zig-zag.



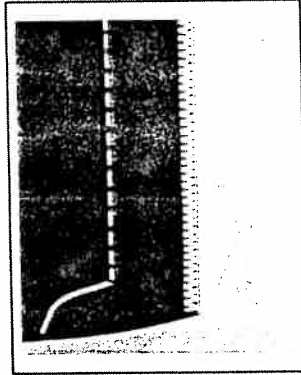
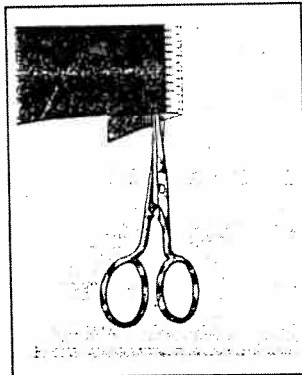
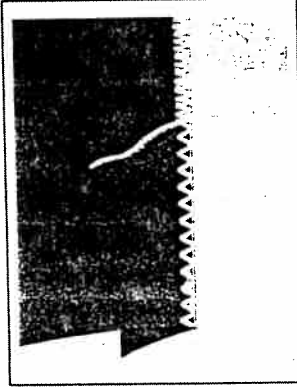
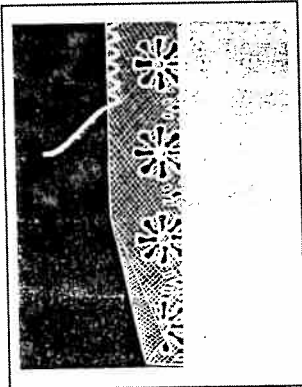
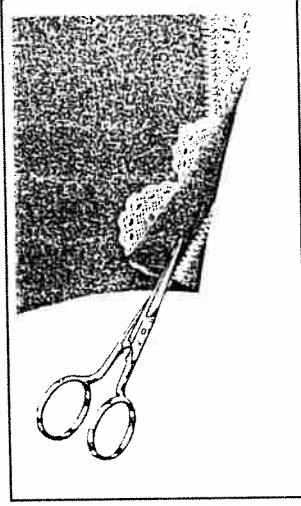
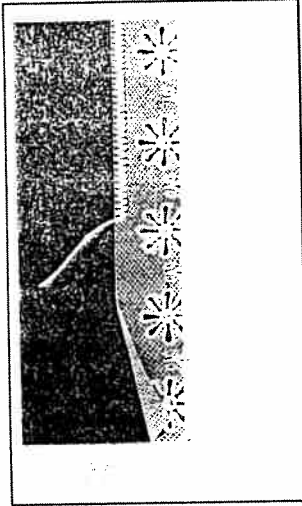
### Appliqués

When sewing appliques you can either cut out the figures before sewing them on, or draw the figure, sew it onto the garment around the contours and then trim, cutting close to the stitching. Secure the pieces with pins. Use presser foot B. Sew the figures on by machine, using a long zig-zag stitch. Then stitch around the edges a second time with a closer and wider zig-zag. The stitch length should be adjusted according to the thickness of the fabric.

If you use small cording when sewing the second stitching, you will produce a raised contour outline.



## Sewing with zig-zag



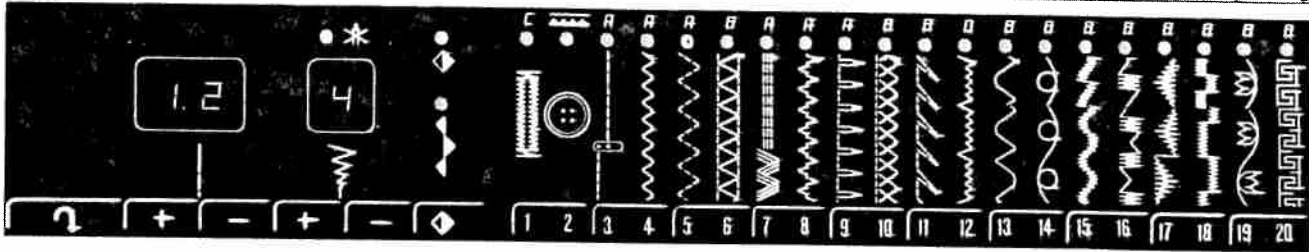
### Attaching lace

The simplest way to attach lace is to place it 1/2" or so in on the fabric and stitch with fairly close zig-zag (stitch length 0.5, stitch width 3). Trim from the wrong side.

The lace will be more firmly attached if it is first placed approx. 1/2" in on the fabric and sewn on with narrow, widely-spaced zig-zag, stitch length 1.5 and stitch width 2. Fold the fabric to the wrong side and sew once more from the right side, this time using a slightly wider zig-zag and closer stitches (stitch length 0.5, stitch width 3). If you want the seam to be more pronounced, use the raised seam presser foot F and small cording. Loosen the upper thread tension.

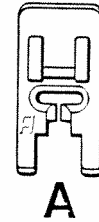
Trim from the wrong side or fold a hem and sew with straight stitching or a decorative stitch.

## Sewing with three-step zig-zag



### Three-step zig-zag

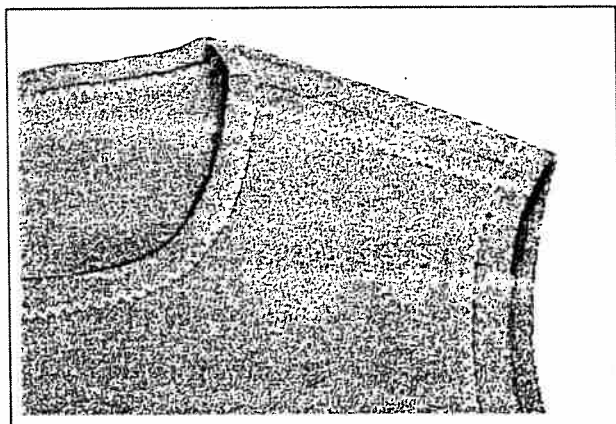
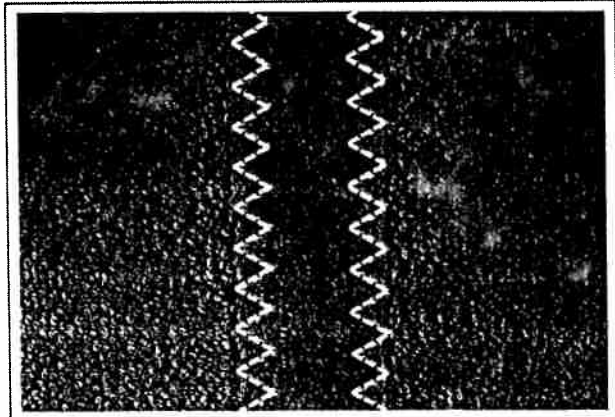
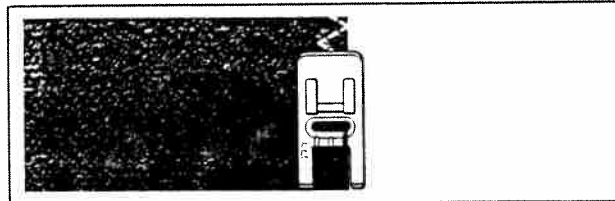
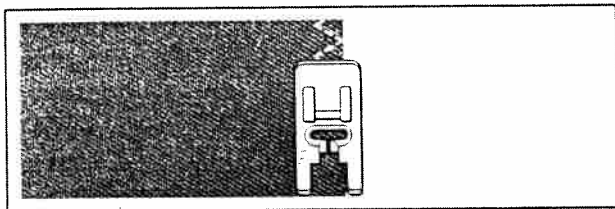
By pressing the push-button for stitch No. 5 so that the light above the symbol for three-step zig-zag goes on, the machine will automatically be set for sewing a seam (stitch length 1.2, stitch width 4) which is suitable for overcasting the majority of fabrics, particularly fine stretch or easily-frayed fabrics. It has many advantages compared to ordinary zig-zag. It is more elastic and does not pucker the edges of the fabric. It is ideal for sewing terry cloth and is also used for darning and mending.



#### Adjustment possibilities

The stitch length can be increased or decreased from 0.3 to 6 by pressing the + or – push-buttons under the left digital indicator. The stitch width can be increased or decreased from 0 to 6 by pressing the + or – push-buttons under the right digital indicator.

## Sewing with three-step zig-zag



## Overcasting

Trim the edges of the fabric before overcasting. Make sure that the needle reaches over the edge of the fabric. It is enough to allow the edge of the fabric to follow the right marking on the presser foot. For smooth fabrics, use presser foot A but for overcasting terry cloth, presser foot B is recommended, as illustrated in the lower picture.

## Sewing terry cloth

Terry cloth is a rather loosely woven fabric in which seams easily break and where hems are frequently thick and clumsy. However, with three-step zig-zag you can sew a strong and attractive seam if you sew the seam allowance to the garment, right through the fabric.

When overcasting proceed as follows. Sew the garment together with straight stitch, leaving 1.5–2 cm (5/8–3/4") seam allowance. Trim the seams so that they do not fray. Press the seam allowance flat and sew the edges down against the garment on the wrong side with three-step zig-zag. Even though the stitching goes right through to the "right" side of the garment, it is almost invisible. Even the wrong side looks neat.

When hemming garments in terry cloth, it is only necessary to turn the hem once and sew with three-step zig-zag. This gives a smooth and flexible hem. Necklines and armholes are finished in a similar manner.

## Mending

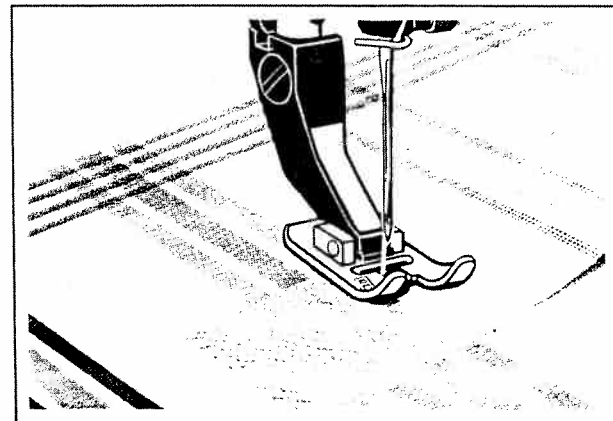
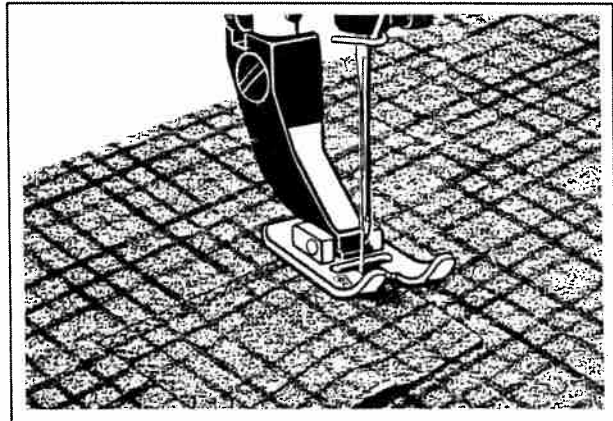
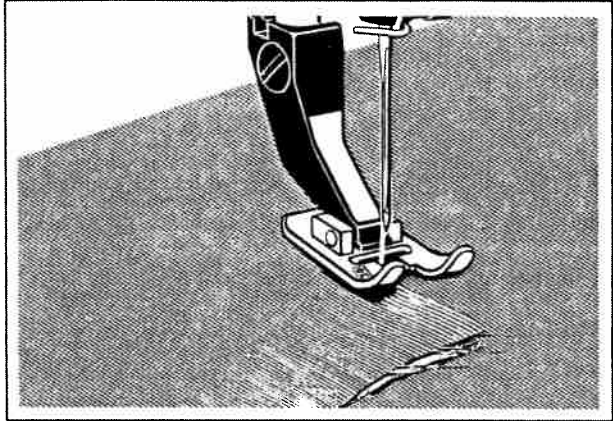
Three-step zig-zag is a versatile stitch which can be utilized for mending and darning the majority of materials. Use presser foot A. The thread should be the same color as the fabric. The setting should be adapted to the material. Stitch length 0.5-1.

When mending a tear, place the edges of the fabric together and sew them together with three-step zig-zag. If necessary, reinforce the tear with a piece of fabric on the reverse side and sew back and forth once or twice.

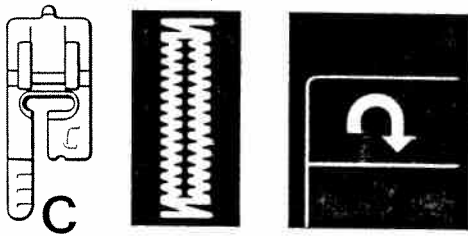
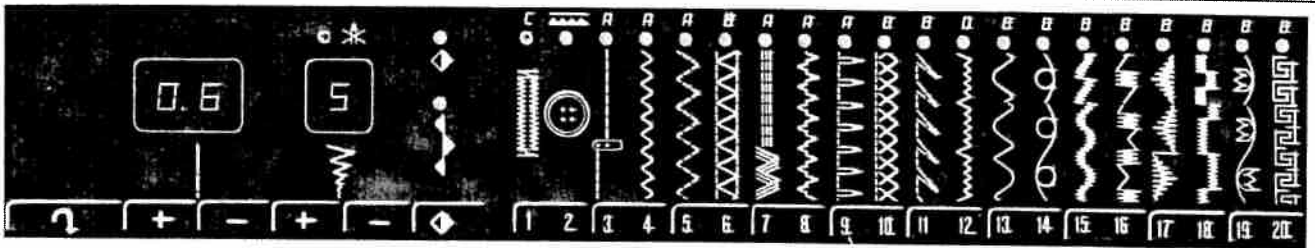
A patch is sewn on the right side with the three-step zig-zag. By sewing around the patch several times with relatively close stitching, the mend will be stronger.

Let the needle stop in the lower position when turning corners.

A threadbare spot is mended by sewing back and forth with three-step zig-zag. This method is called Quickmend and is the quickest and easiest method of darning. Use the reverse feed button. For every row of stitching, guide the fabric slightly to the side so that the stitches cover the entire worn area. If the fabric is very worn, a piece of fabric or lining may be attached to the reverse side of the material as reinforcement. Use gauze as reinforcement when mending table-cloths, napkins and towels.



## Sewing buttonholes



### Buttonholes

If you press the push-button for buttonholes (No. 1) so that the light above the symbol goes on, the machine will automatically be set for sewing a buttonhole (stitch length 0.6, stitch width 5) which is suitable for the majority of ordinary fabrics.

Change to presser foot C, which you will find in the accessory box, and attach it in the same way as the other presser feet. It is graded to enable you to get the buttonholes the same length.

Decrease the upper thread tension by turning the thread tension dial to the buttonhole symbol. The finer thread you use, the more attractive and even the buttonholes will be. Always test sew a buttonhole on a scrap of fabric.

The width of the buttonhole can be adapted to the weight of the fabric by means of the + or - push-buttons under the right digital indicator.

### Adjustment possibilities

When sewing in certain combinations of fabric, needle and thread, it may be necessary to change the stitch length. It can be increased or decreased by pressing the push-buttons under the left digital indicator (+ or -). If you change it before starting to sew, or when sewing the first column, the closeness of both the columns will be affected. If you wish to only adjust the closeness of the right column, press one of the adjustment buttons after sewing the first bar tack.

Test sew on a scrap of fabric and adjust the first column to the required tightness. Sew the bar tack and part of the next column and compare the columns. If both the columns do not have the same tightness, adjust with the + or - push-buttons as described above.

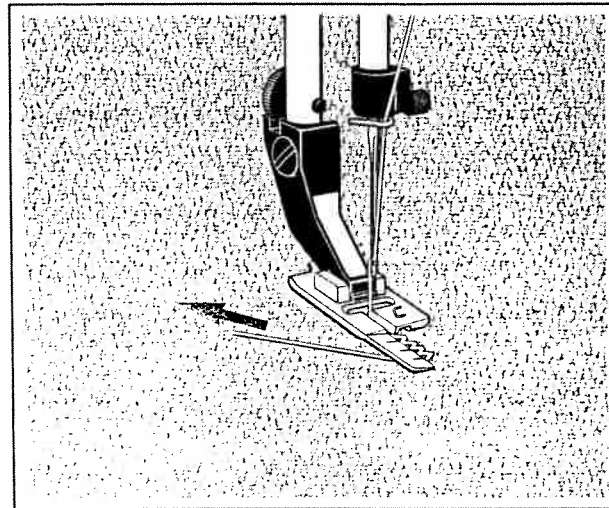
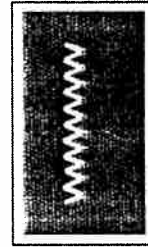
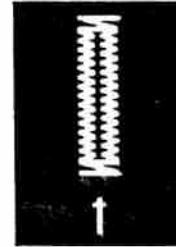
When sewing reinforced or corded buttonholes, the stitch length should be increased. All the adjustments you make will remain until the next buttonhole. Do not press the push-button under the buttonhole symbol when sewing the next buttonhole. The machine will start a similar buttonhole as soon as you depress the foot control.



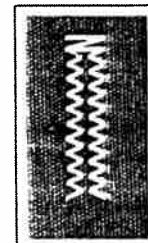
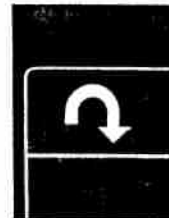
### Ordinary buttonholes

Mark on the fabric where you want to place the buttonhole. Insert the fabric under the presser foot, remembering that the machine will begin to sew in reverse. Hold the upper thread at a right angle to the left. Press push-button No. 1 so that the light above the buttonhole symbol goes on. Start to sew. Stop when you reach the required column length.

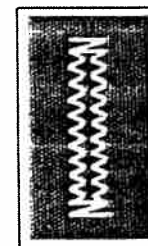
By holding the thread end as illustrated it is easier to check that the second column is the correct length.



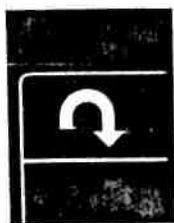
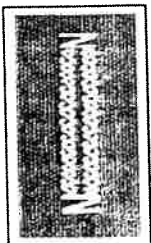
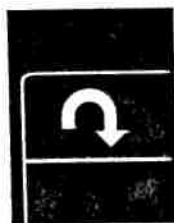
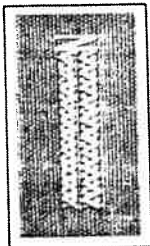
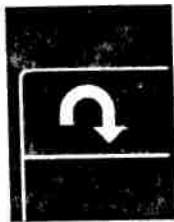
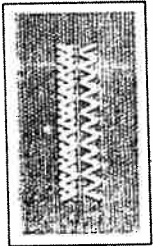
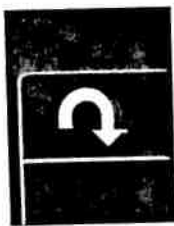
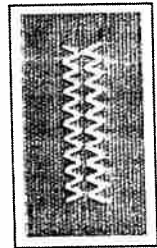
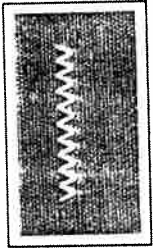
Press the reverse feed button and the machine will sew the bar tack and then automatically sew the column forward.



When the second column is even with the first one, repress the reverse feed button. The machine will now sew the other bar tack, reduce speed, fasten off the threads and stop automatically. As soon as you lift your foot from the foot control the machine is ready to start sewing the next buttonhole in the same way without having to press any buttons.



## Sewing buttonholes



### Reinforced buttonholes

If a more raised and tight buttonhole is required, sew once more without the bar tacks, as follows:

Press push-button No. 1 so that the light above the buttonhole symbol goes on. Increase the stitch length by pressing the + button under the left digital indicator. Sew the first column to the required length.

Press the reverse feed button twice and sew the other column the same length.

Re-press the reverse feed button twice and sew the first column once more.

Press the reverse feed button once and sew the bar tack and the other column forward.

Finally, press the reverse feed button once more and sew the other bar tack.

When the bar tack is finished the machine will reduce speed, fasten off the threads and stop automatically.

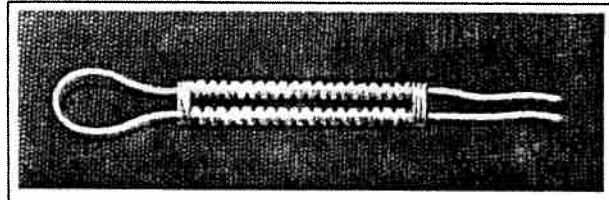
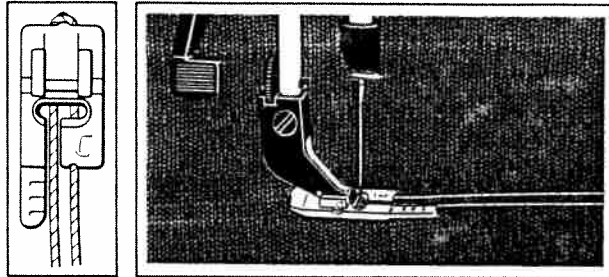
When you then lift your foot from the foot control the machine is ready to start sewing the next buttonhole without having to press any buttons.

### Corded buttonholes

A small cord can be used to sew buttonholes in elastic material, in order to keep the shape better. Attach the cord around the projection at the heel of the buttonhole foot as shown in the illustration. Draw the cords toward you, one under each groove in the presser foot. Lower the foot and sew the buttonhole in the normal way.

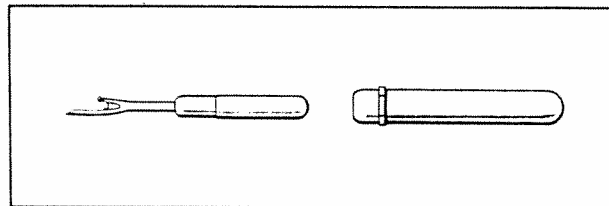
Note: Do not hold the cords.

When the buttonhole is finished, pull the cord to eliminate the loop which will act as a reinforcement at one end (the end which is most worn by the button) of the buttonhole. Bar tack and cut the cord close to the stitching or use a needle and hand sew the loose ends through to the reverse side and tie them.

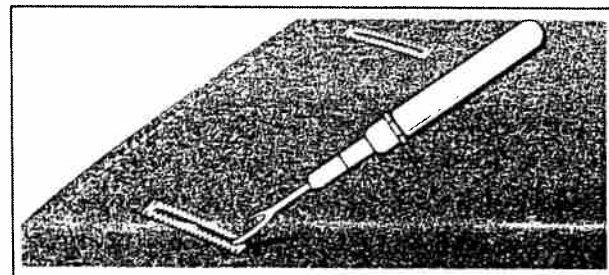


### Cutting the buttonhole

The buttonhole knife which you will find in the accessory box, is equipped with a safety cap which, when taken off, can be pushed onto the back of the knife, providing a good handle.



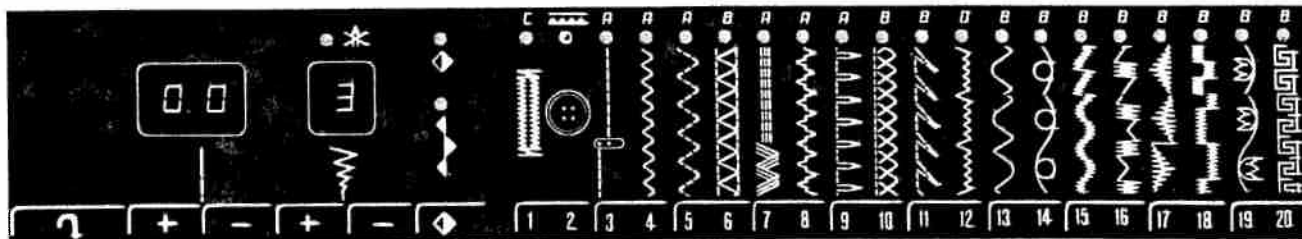
When you have finished sewing all the buttonholes, they must be cut open as follows: Pierce the fabric at a right angle until the curved blade edge reaches down to the buttonhole.




With the knife more or less parallel to the fabric, push forward, taking care not to cut the columns of the buttonhole. The small red bead serves as a guide. Cut the buttonhole to the middle and repeat the cut from the other direction.



## Sewing on buttons

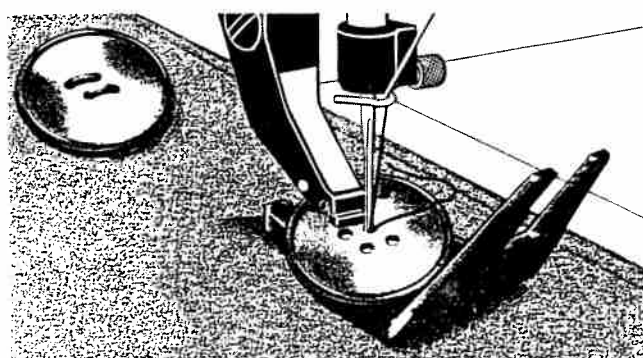


### Sewing on buttons

By pressing push-button No. 2 so that the light above the button symbol  goes on, the machine will be automatically set for sewing on buttons. Lower the feed dog. Remove the presser foot. Put the button in place on the garment and lower the presser bar so that the presser foot ankle is in the center of the holes in the button. Hold the thread ends to one side. Turn the handwheel and test carefully that the needle enters the left hole of the button. The machine is set for a hole distance which suits most buttons but it may be necessary to adjust the width in some cases. To do this, press one of the push-buttons under the right digital indicator (+ or -). The needle will then move to a position corresponding to another hole distance. When the needle is positioned just in front of the left hole, press the mirroring button and check that the needle pierces the right hole as well.

Now sew as many stitches as you consider necessary (usually 6-8), move the garment, sew the other pair of holes and press the reverse feed button. When you then depress the foot control the machine will sew three fastening stitches in one of the holes and then stop. As soon as you lift your foot from the foot control, the machine is ready to sew on the next button.

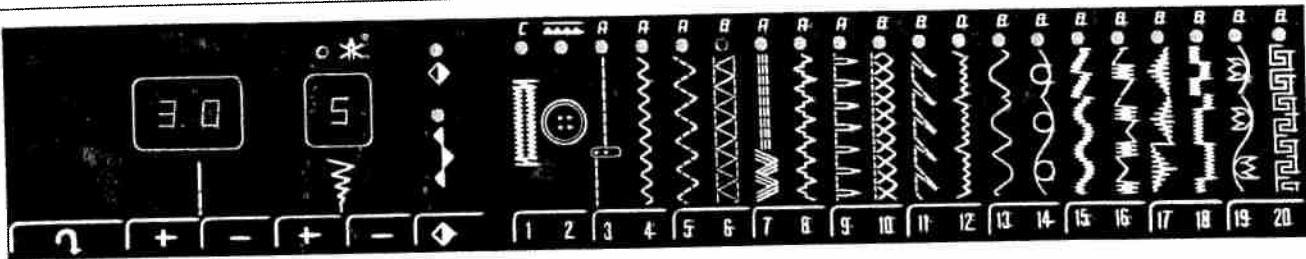
When the buttons are sewn on, raise the feed dog.



### Button reed

When sewing buttons on garments, a shank is often required so that the button stands slightly away from the fabric. Use the button reed for this purpose. Use the thin end when sewing buttons on light fabrics, the thick end for heavier fabrics. Fix the button with a stitch. Raise the presser foot and place the button reed between the button and the fabric. Lower the presser bar and sew on the button.

Remove the button reed, pull the threads between the button and the fabric, wind them a few times around the shank and tie the ends.



### Flatlock

By pressing the push-button for stitch No. 6 so that the light above the symbol for flatlock goes on, the machine is automatically set to sew overlapping seams, decorative hems, binding and edges on woven and elastic fabrics.

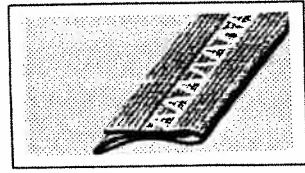
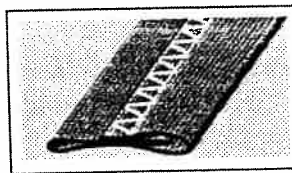
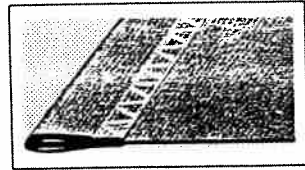
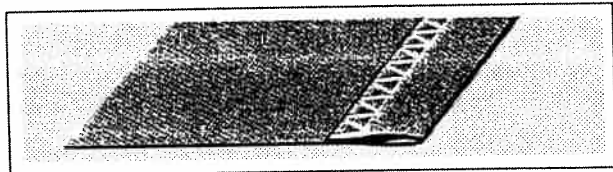
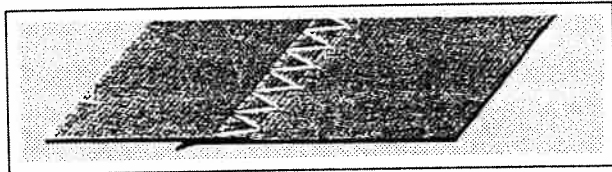
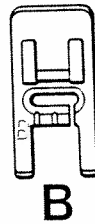
The standard setting for the stitch length is 3.0 and the stitch width 5. The length and width can be changed if required.

To sew an overlapping seam, lap one piece of fabric 1 cm (3/8") over the other piece and sew flatlock stitch over the fabric edge on the right side. Trim from the wrong side or sew another seam from the right side.

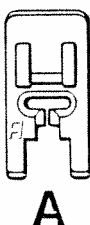
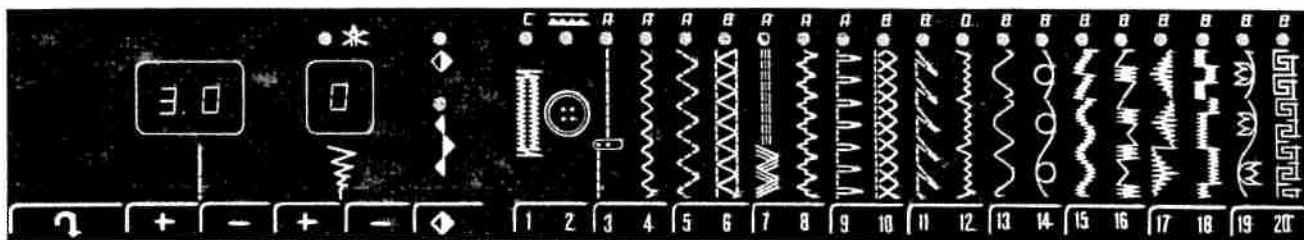
You can produce a decorative hem by folding a single hem on the wrong side and sewing the flatlock from the right side.

Fasten binding by folding the binding over the edge of the fabric, slightly wider on the wrong side. Sew over the edge of the binding on the right side with the flatlock and trim excess material. Use knit trim or bias binding when binding curved edges, like round necks and armholes.

Use the flatlock to sew narrow belts, bands, etc. Fold the fabric in thirds and sew in the center. Trim excess material from underneath.



## Sewing with reinforced straight stitch



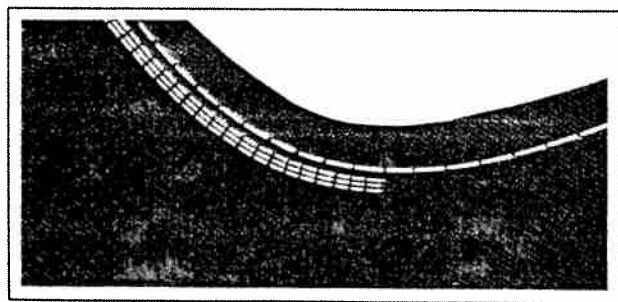
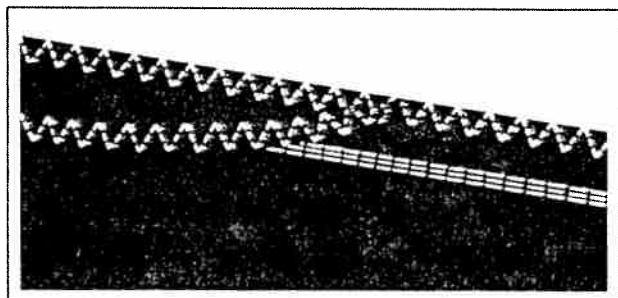
### Reinforced straight stitch

By pressing the push-button for stitch No. 7 so that the light above the symbol for reinforced straight stitch goes on, the machine is automatically set to join seams in stretch fabrics.

It can also be used for topstitching in stretch fabrics.

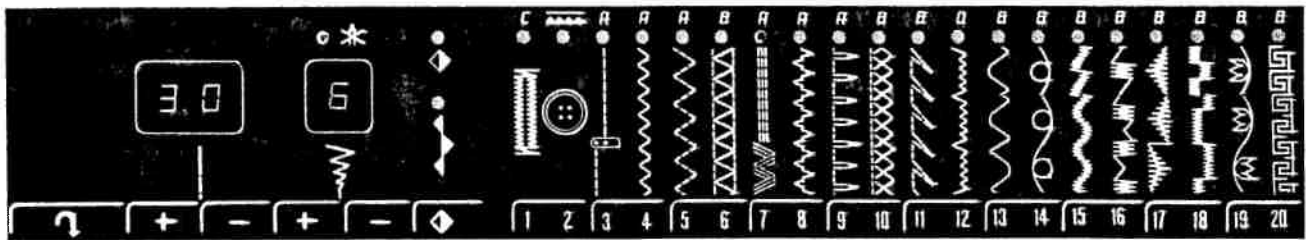
The standard setting for the stitch length is 3.0. It can be increased to 4.5 or decreased when necessary. Reinforced straight stitching is, as the word implies, stronger than ordinary straight stitching, due to the fact that it is a triple stitch and is elastic.

When sewing stretch fabrics which are to be pressed open, use reinforced straight stitching instead of ordinary straight stitching. Overcasting can be done with the three-step zig-zag.



Reinforced straight stitching is also preferable for sleeve insertion and for crotch seams which are subject to considerable strain, even in non-stretch fabrics.

A tip: baste the seams using ordinary straight stitching, stitch length 4–6, and thread the same color as the fabric. After you have tried on the garment, the seams can be “sewn in” with elastic straight stitching. The basting thread need not be removed if you sew exactly along the basting seam.



### Reinforced zig-zag (Ric-Rac)

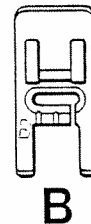
By pressing the push-button for stitch No. 7 so that the light above the symbol for reinforced straight stitch goes on, you can also sew Ric-Rac. Set the width by pressing the + button under the right digital indicator. Use presser foot B.

Ric-Rac is used for pronounced topstitching, overlapped seams and appliqués.

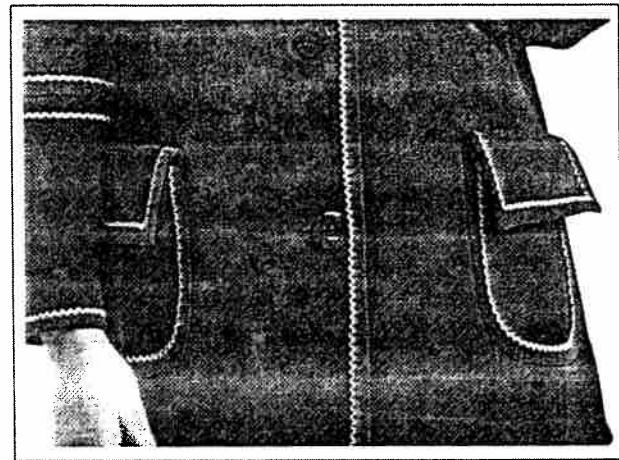
The standard setting for the stitch length is 3.0 and it can be increased or decreased as required.

The Ric-Rac produces a pronounced and striking topstitching effect due to the fact that it is a triple stitch.

It is elastic like the reinforced straight stitch and is therefore particularly suitable for sewing jersey and other stretch fabrics.



B

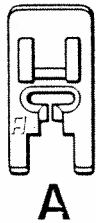
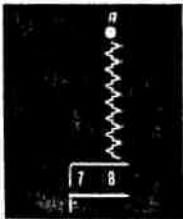
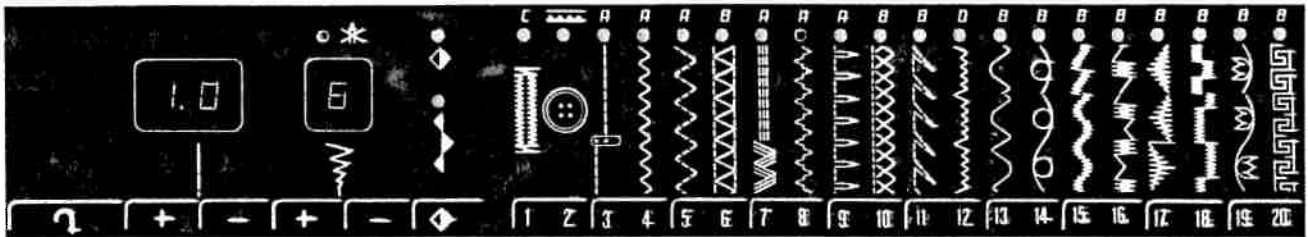


The simplest way to join leather pieces is to overlap the edges approx. 0.5 cm (3/16") and sew with Ric-Rac from the right side. This method is also suitable when using the patchwork technique on leather.

It is also possible to join the pieces edge to edge.



## Sewing with bridging stitch



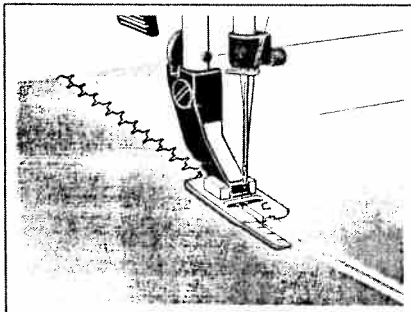
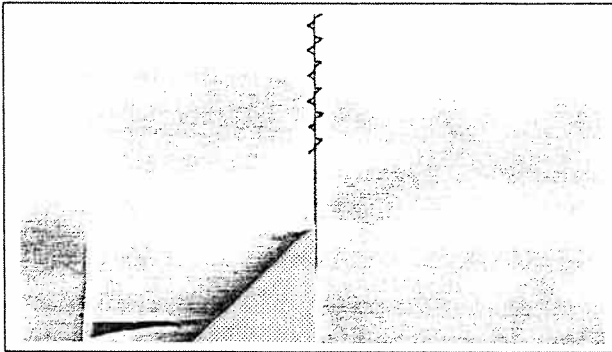
### Bridging stitch

By pressing the push-button for stitch No. 8 so that the light above the symbol for the bridging stitch goes on, the machine is automatically set for sewing a seam which can be used for joining two pieces of fabric with folded edges.

The standard setting for the stitch length is 1.0 and may be varied between 0.5 and 2.0. The standard setting for stitch width is the widest, 6, and this may be reduced when necessary.

If you would like a decorative seam, place the folded edges (without sewing them together first) some mm from each other and join with bridging stitch.

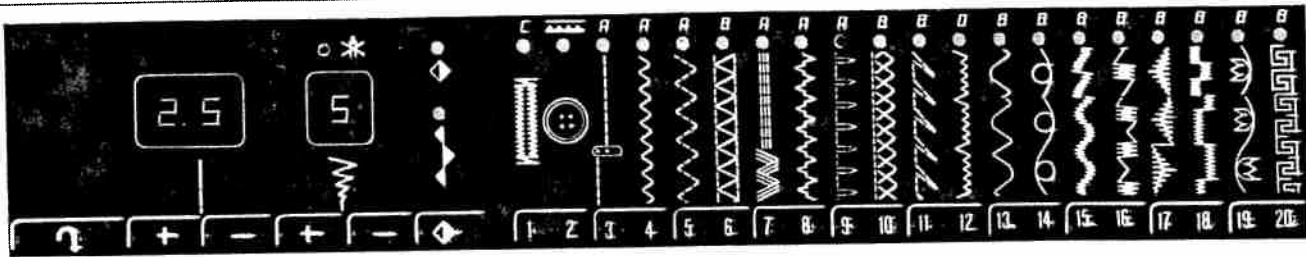
It may also be used for inserting lace and embroidery. As it is elastic, it is suitable for sewing and mending underwear and swimsuits made of lycra.



The bridging stitch is also useful for gathering with shirring elastic. Use the buttonhole foot C and place the shirring elastic around its "heel". Remember that the elastic will always be stitched double, so take this into account when calculating how much you will need. Sew bridging stitch over both lengths of the elastic simultaneously. The elastic may either be stretched while sewing or when you have finished the seam. In the latter case it is important that the elastic does not get stitched in by mistake but can run freely under the stitching.



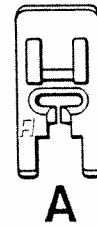
## Sewing with overcast stitch



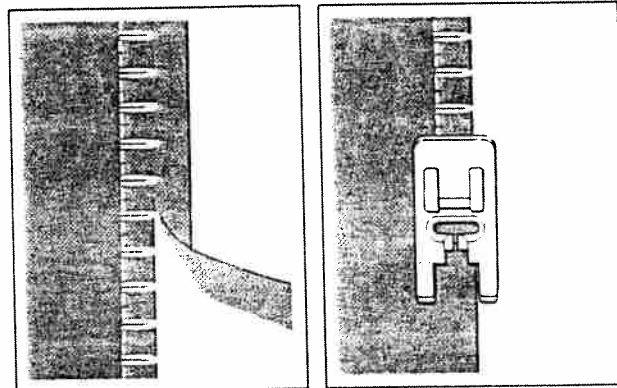
### Overcast stitch

By pressing the push-button for stitch No. 9 so that the light above the symbol for overcast stitch goes on, the machine is automatically set for joining and overcasting the edges of light woven and stretch fabrics like chambray, taffeta, nylon cre and silky-knits (jersey).

The standard setting for the stitch length is 2.5 and for the stitch width 5 and this can be increased or decreased depending on the fabric and how tight you wish the seam to be.

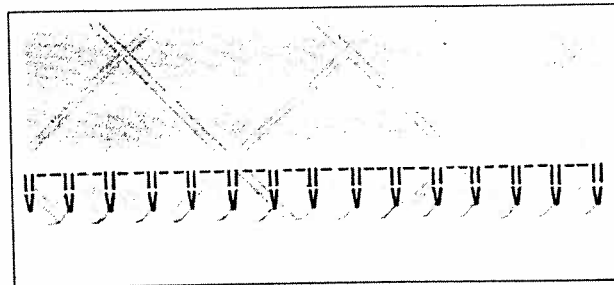


Join and overcast directly on the edge where a 5 mm (3/16") seam is allowed, or cut out the garment with a wider seam allowance, sew with overcast stitch and then trim close to the stitching.

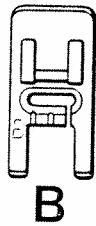
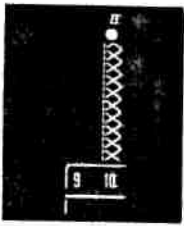
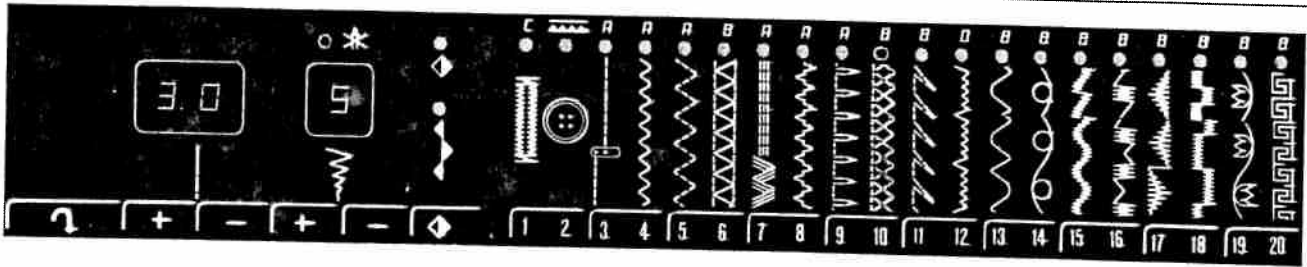


Use the overcast stitch to make scalloped edges on sleeves, flounces, etc. on light fabrics. Fold the edge and sew on the fold, using a tight upper thread tension. Use presser foot A.

If you sew scalloped edges on woven fabrics, it will be necessary to sew on the bias.



## Sewing with double overlock



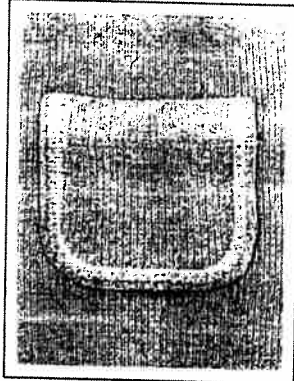
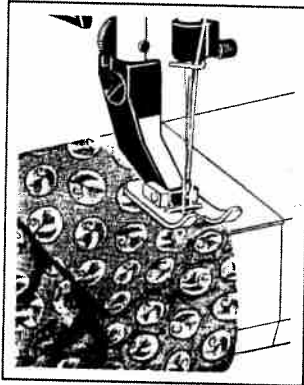
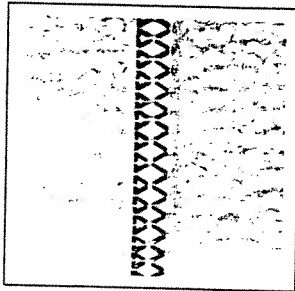
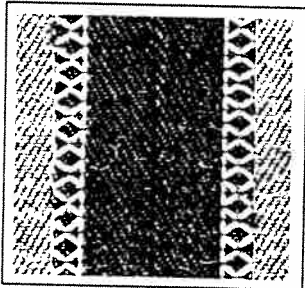
### Double overlock

By pressing the push-button for stitch No. 10 so that the light above the symbol for the double overlock stitch goes on, the machine is automatically set to sew overcasting or for joining and finishing a seam in one operation in both stretch and non-stretch fabrics.

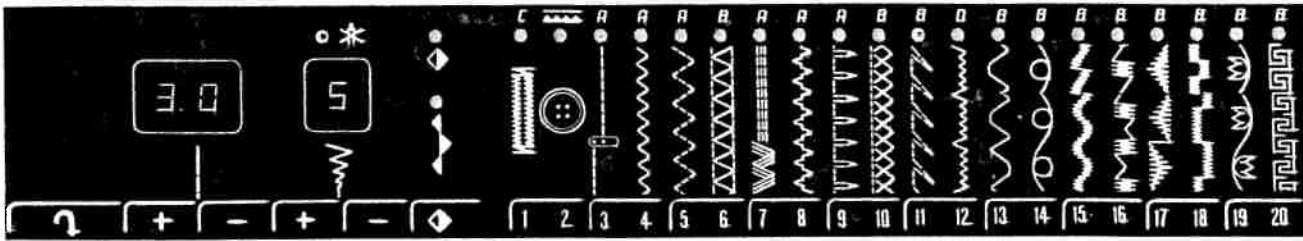
The standard setting for the stitch length is 3.0 and for the stitch width 5.0. The length and width can be changed if required.

It binds tightly over the edge, which makes it ideal for overcasting loosely woven and looped material and fabrics which tend to fray.

Use the double overlock stitch for attaching collars, cuffs, turn-ups, pockets, facings, etc.



## Sewing with overlock



### Overlock

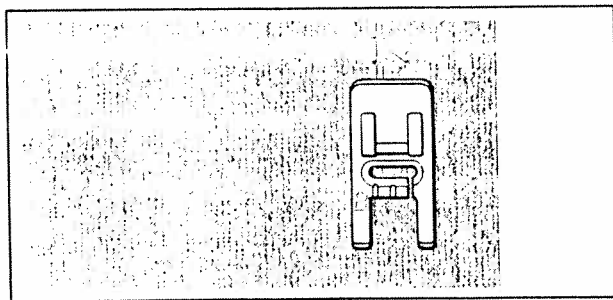
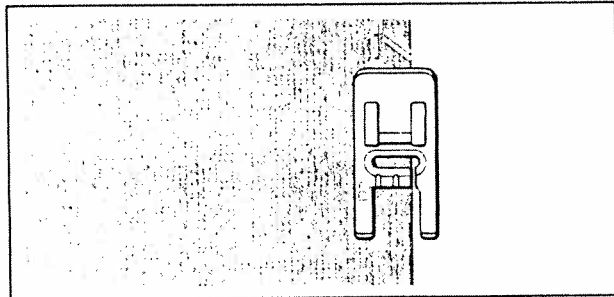
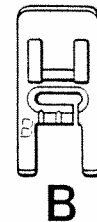
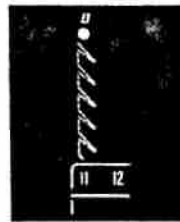
By pressing the push-button for stitch No. 11 so that the light above the symbol for the overlock stitch goes on, the machine is automatically set to sew a seam which joins and finishes in one operation. It is elastic and binds the edges well. It can be used on all fabrics but is particularly suitable for producing narrow, supple stretch seams in double-knit, jersey, stretch terry cloth and other knitted fabrics.

The standard setting for the stitch length is 3.0 and the stitch width 5.0. The length and width can be changed if required.

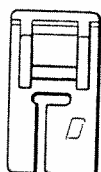
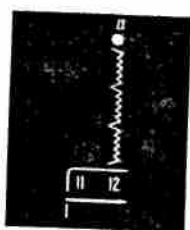
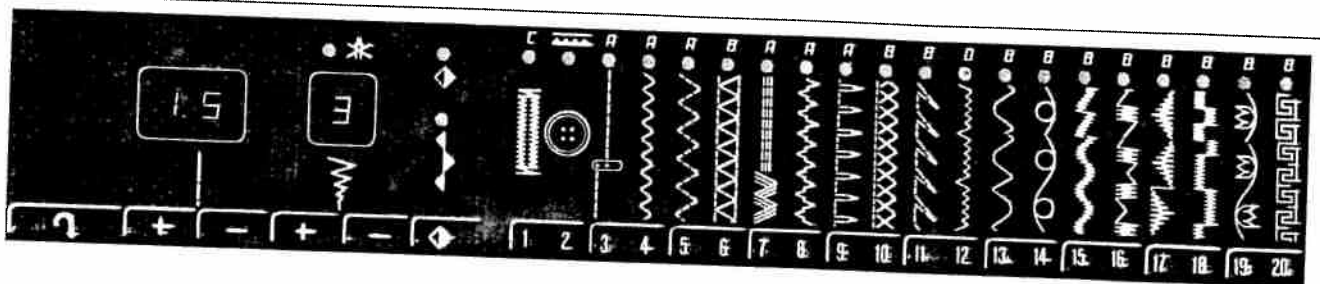
With the overlock stitch you join and overcast simultaneously. Use a 5 mm (3/16") seam allowance. When sewing knitted fabrics, it may be better to reduce the presser foot pressure slightly.

If you prefer, you can also cut the garment with a wider seam allowance, but remember that the left edge of the seam should follow the marking for the seam. The illustration shows how the left marking of the presser foot B can be used as a guide.

Trim the remaining seam allowance after you have finished the seam.



## Blindstitching



**D**

## Blindstitching

By pressing the push-button for stitch No. 12 so that the light above the symbol for blindstitching goes on, the machine is automatically set for sewing a seam which has small zig-zag stitches between the larger zig-zag stitches. It is used for hemming skirts made of woven and knitted fabrics, without the stitches being visible on the right side. You will find presser foot D in the accessory box. Attach it in the same way as the ordinary presser foot.

To avoid hard creasing when hemming certain fabrics, you can reduce the presser foot pressure one or two steps.

Before starting to sew, test sew on a scrap of fabric and look at the right side. The thicker and softer the fabric, the less visible the stitches will be. When sewing light, woven fabrics, it is unavoidable that a small stitch will be visible on the right side.

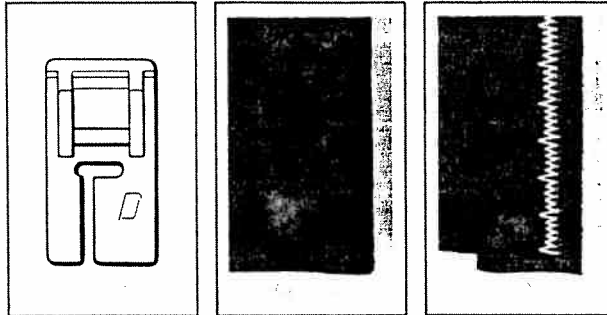
### Adjustment possibilities

The stitch length may be reduced or increased depending on how often you wish the stitch to catch the fabric fold. By pressing one of the two buttons under the left digital indicator (+ or -) you can vary the length between 0.3 and 6.

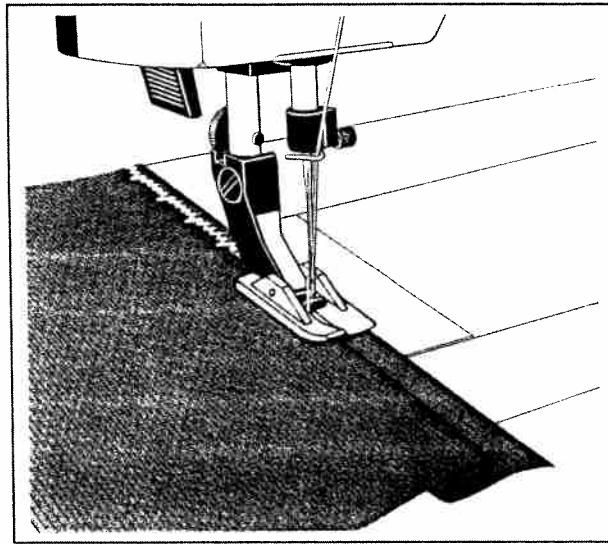
The stitch width can be adjusted by means of the buttons under the right digital indicator. The standard setting for the stitch length is 1.5 and for the stitch width 3.

## Blindstitching

Fold the fabric as illustrated.



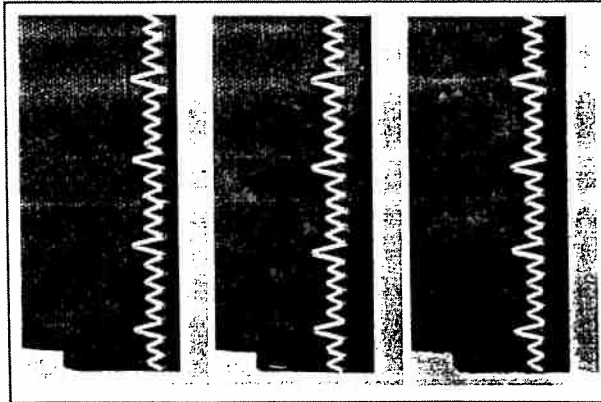
Make sure that the fold line of the fabric rides in the groove under the left side of the presser foot.



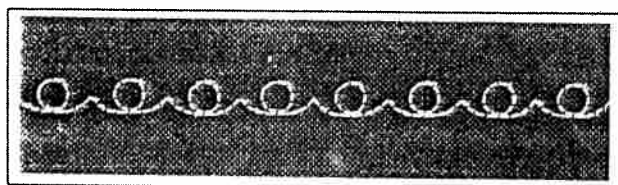
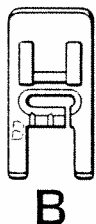
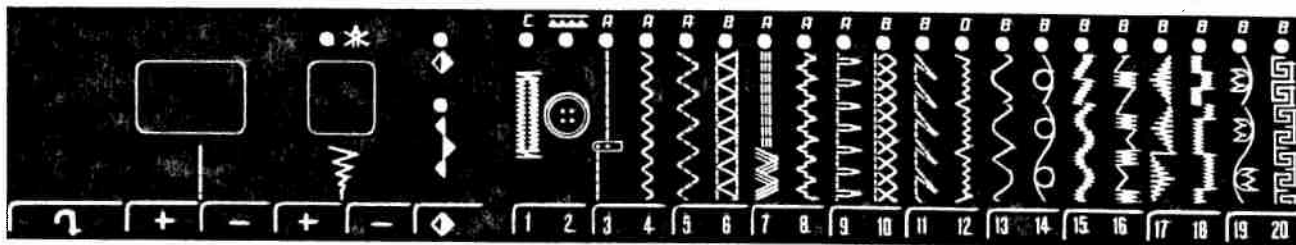
Test sew a few stitches and compare the results with the illustrations. The picture to the left shows how the stitches fail to reach the fold line of the fabric. A check should be made that the fold line of the fabric rides in the groove and, if necessary, increase the stitch width slightly by pressing the + button under the right digital indicator.

The center picture illustrates how the stitch width has been increased too much, leading to an excessive "bite", resulting in the stitches being visible from the right side. If this is the case, reduce the stitch width slightly.

The right picture shows a correctly sewn blindstitched hem. The needle catches one thread only of the folded edge.



## Sewing decorative designs



### Decorative stitches

Stitch No. 13 up to and including No. 20 are mainly for use as decorative stitches.

By pressing the push-button under the symbol so that the light above the selected symbol goes on, the machine is automatically set to sew the stitch pattern indicated. The machine will select the width and length which will produce the best decorative effect on the majority of fabrics. The stitch length and width can be increased or decreased by pressing the buttons under the digital indicators. In some cases, however, it is not possible to sew with a stitch length of more than 4.5. The machine will revert to the standard setting by pressing the push-button under the symbol twice. After the second press the light above the symbol for the stitch will go on.

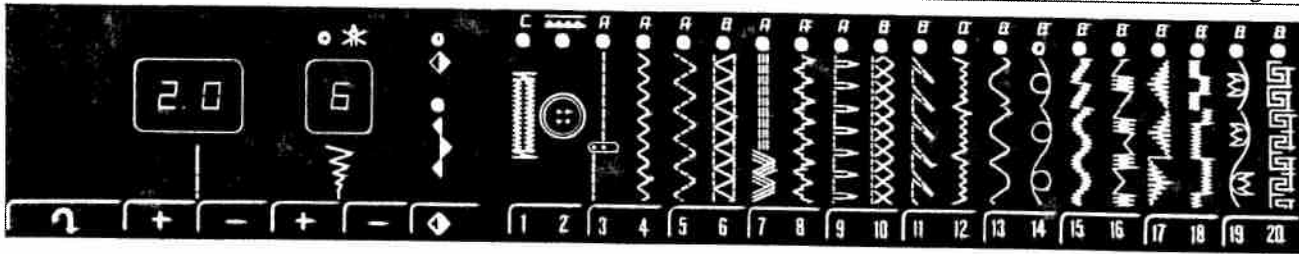
### Choice of thread

Use a finer needle and thread when sewing lighter fabrics. Embroidery thread, which is more loosely twisted and finer, produces more attractive and even stitches.

You can produce a more pronounced seam in thicker fabrics by using a coarser needle and thread, e.g. synthetic buttonhole thread or double upper thread. Metallic thread or extra coarse thread which cannot be threaded through the needle can be wound on the bobbin and used as the lower thread. Sew on the wrong side of the fabric.

You can also use the twin needle for decorative stitches but remember that the stitch width must not be wider than 3 mm. The light above the right digital indicator will give a warning signal! With a wider width the needle will strike the stitch plate and be damaged.

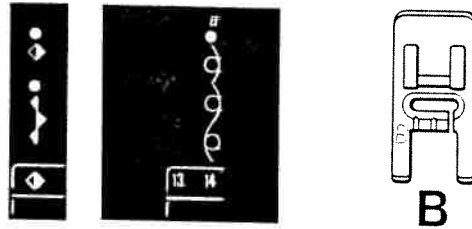
## Sewing decorative designs



### Mirroring

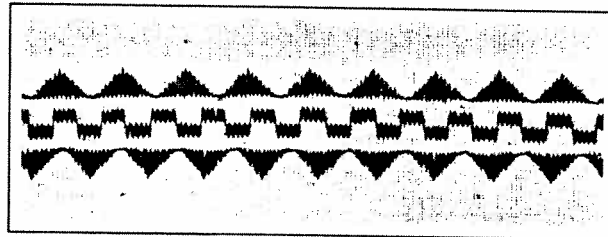
By pressing the mirroring push-button after selecting a pattern stitch the upper light will go on. The machine will now sew the pattern in the reverse image. By pressing the same push-button again the light above the lower blue symbol will go on. The machine will now alternate the pattern stitch once the original way and once mirrored, as indicated by the lower blue symbol.

This gives you the possibility to choose between three different pattern stitches for each of the eight decorative stitches.

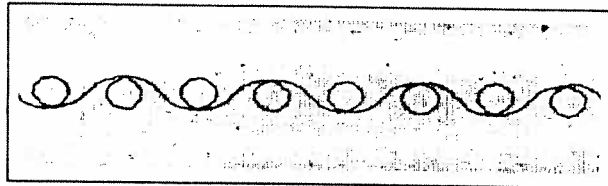


Here is a border illustrated where stitch No. 18 has been used in the middle and stitch No. 17 on each side, one of them mirrored compared to the other.

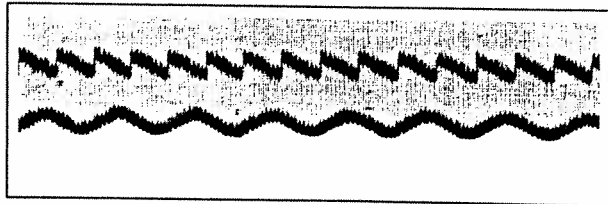
If you prefer to have longer patterns in the middle, you can mirror stitch No. 18 alternately.



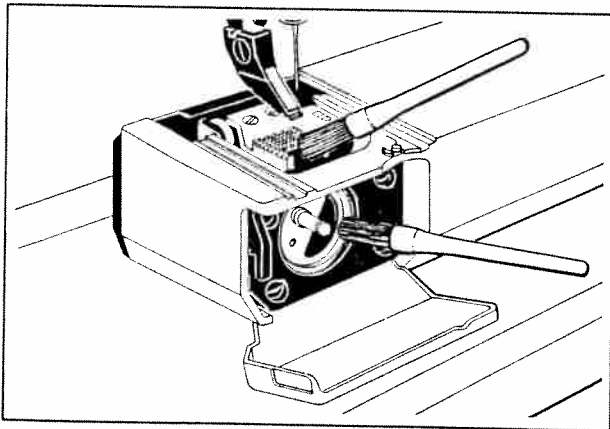
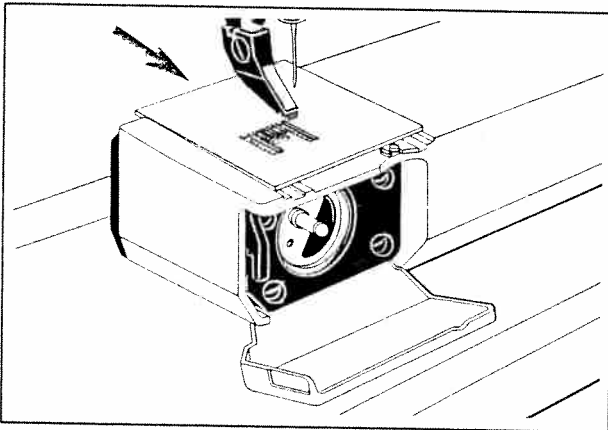
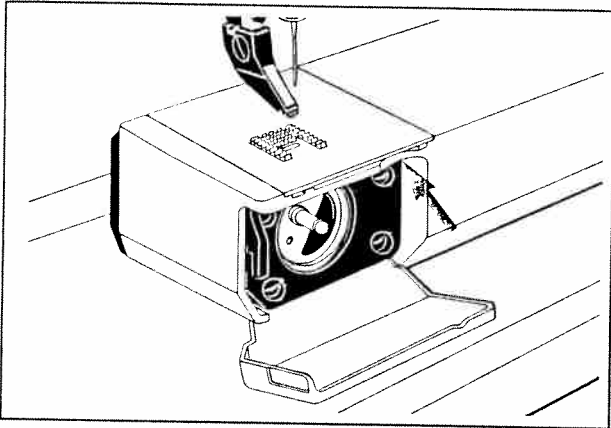
This is stitch No. 14 mirrored alternately. Compare the blue part of the symbol.



By mirroring stitch No. 15 alternately you can sew oceanwave stitching as an edging stitch. In the illustration you can see the stitch sewn once the original way and once mirrored.



## Maintenance



### Care of the machine

To keep your sewing machine operating satisfactorily it requires, like other precision machines, regular cleaning. It need not, however, be lubricated.

The stitch plate should occasionally be removed. Remove the presser foot and lower the feed dog. There is a recess in the free arm to the right above the hook cover. Push the stitch plate straight up approx. 1 mm and backward at the same time until it loosens. Clean between the teeth of the feed dog with the brush you will find in the accessory box.

When replacing the stitch plate, insert it from behind into the recess in the arm. Ease the front edge up onto the small pin and continue to push it forward until it snaps into place.

Whenever necessary the bobbin case and hook should also be brushed clean. Sizing or finishing compounds from fabric may adhere to the spindle of the hook. If this has happened, the spindle should also be cleaned with the brush. Remove any pieces of thread which may have become wound around the spindle.

### Belts

Belt adjustment is not required.

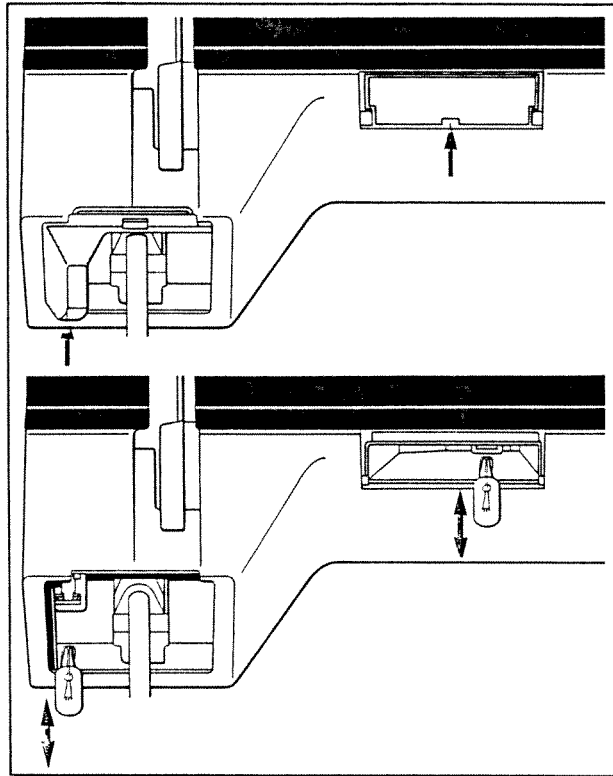


### Changing the light bulb

The machine is equipped with two lights, to provide the best possible lighting and avoid shadowing from the presser bar and needle bar. They are located on each side of the needle bar, as illustrated. In both cases, the plastic guard can be removed by inserting the small screwdriver at the rear edge of the guard, by the arrows, and applying slight downward leverage.

Do not turn the light, just pull it downward and fit in a new one. The plastic guard can now be replaced in the recess and pressed into place.

Use light bulbs designed for 12 V and maximum 5 W as indicated on the light guard.



## Fault-finding

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### Why haven't I got the results I expected?

Very seldom does anything go wrong with this sewing machine. It is well constructed and can withstand very intensive use. Yes, generally it performs better the more it is used. However, below you will find some advice if, in spite of everything, you are not satisfied with your sewing results.

#### **Always start by checking the needle**

An important part which needs to be changed from time to time is the needle. Always start with a new needle as soon as you discover that a seam is not what you expected. Test sew on a scrap of the fabric you are sewing. Read about needles on pages 16 and 17.

Check that you have chosen the correct needle and see that it is correctly inserted.

#### **Unattractive stitches**

The thread tension is not correct. See page 13.

The machine may be incorrectly threaded. The correct threading is shown on page 11.

The needle, thread and fabric do not correspond. See pages 16 and 17.

Wrong upper thread. It should be of the same thickness as the lower thread.

Bobbin wrongly inserted in the bobbin case. See page 11.

#### **The needle breaks**

You may have helped the machine to feed by pulling the fabric. The needle can easily strike against the needle plate and break.

#### **The upper thread breaks**

Check the thread spool to see that it has not caught in any way.

The needle eye may have sharp edges which cut the thread. If so, change the needle. See page 16.

The upper thread is incorrectly threaded. See page 11.

The upper thread may have too much tension. Refer to thread tension, pages 12 and 13.

The thread is knotted.

The thread and needle do not correspond. See pages 16 and 17.

The hole in the needle plate may be chipped and have sharp edges. Slight damage to the needle plate can possibly be polished or filed but we recommend that you replace it. See page 48.

#### **Lower thread breaks**

The bobbin case is incorrectly inserted. See page 11.

The lower thread may be incorrectly threaded. See page 11.

The needle plate hole is damaged. Slight damage to the needle plate can possibly be polished or filed but we recommend that you replace it. See page 48.

Why haven't I got the results I expected? (cont.)

**Uneven thread tension**

This may be due to poor quality thread.

**Irregular bobbin winding**

The bobbin is not placed correctly. See page 11.

The machine is not correctly threaded for bobbin winding. See page 10.

**The fabric puckers**

The upper thread tension is too tight. See page 13 for correct thread tension.

**The machine does not feed the fabric**

The stitch length is too short. Press the + button.

The feed dog may be lowered. Raise it by pressing the feed dog button. See page 9.

The presser foot pressure is disengaged. See page 9.

The feed dog is full of dust and dirt. Clean with the brush. See page 48.

**The seam is too loose—fabric layers not held together**

The thread tension is far too loose. Pages 12–13 show how to adjust the thread tension.

**Incorrect pattern**

If the machine does not sew the pattern indicated by the symbol, it is possible that the electronics have been disturbed in some way, perhaps by a short power cut or electrical disturbance. Shut off the main switch, wait a few seconds and try again. If the fault remains, contact your dealer.

**Machine runs sluggishly**

Dirt or lint has fastened under the needle plate. Loosen the needle plate and brush clean between the teeth of the feed dog. See page 48.

Dirt or lint has fastened in the hook. Remove the bobbin and bobbin case and clean with the brush. See page 48.

**Expert assistance**

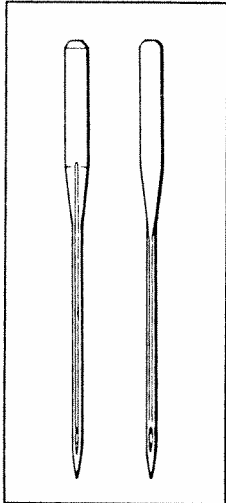
If you have followed the preceding points and still do not get satisfactory results, you should contact the dealer where you bought the machine. The dealer will always be more than willing to give you advice and help as to what measures should be taken.

When the machine is being checked, it is a great help if it can be test sewn under as similar conditions as possible as when you used it.

Remember to take a sewing sample along with you, preferably on the fabric and with the thread you intend to use.

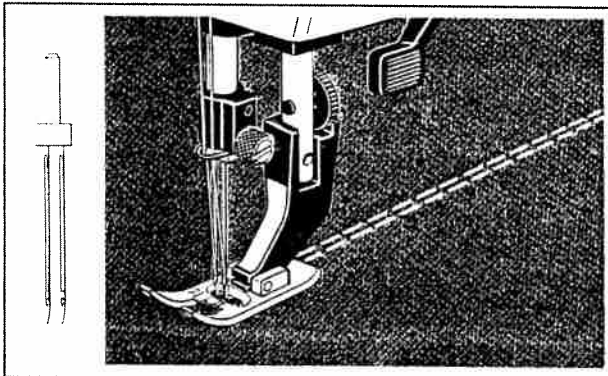
A sewing sample will often give much better information than words.

## Needle assortment

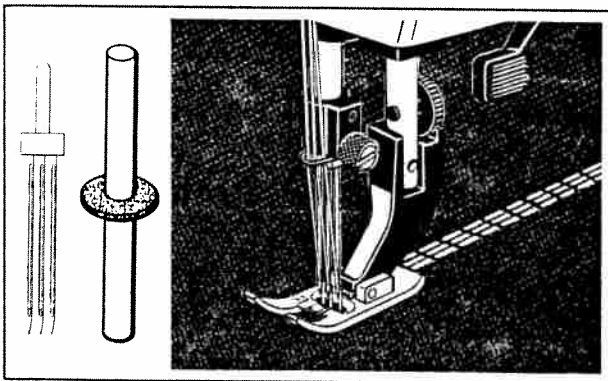


Only use needles of System 130/705 H.

401 60 86-01. Needle No 60. 401 60 89-01. Needle No 70. 401 60 92-01. Needle No 80.  
 401 60 96-01. Needle No 90. 401 60 99-01. Needle No 100. 401 61 02-01.  
 Needle No 110. 401 61 06-01. Needle No 120. 401 58 19-01. Needle case containing 1 No 70,  
 2 No 80, 1 No 90, 1 twin needle No 80 with 2 mm needle gap.  
 401 61 19-01. Needle case containing 1 No 80, 3 No 90, 1 No 100.  
 411 07 14-01. Needle case containing 3 No 80, 2 No 90.  
 411 45 18-01. Needle case containing 2 No 70, 6 No 80, 2 No 90.  
 411 47 03-01. Needle case containing needles with rounded tip, 2 No 70, 3 No 80.  
 411 46 68-01. Needle case containing stretch needles, 5 No 75.  
 411 62 84-01. Needle case containing stretch needles, 5 No 90.  
 411 62 85-01. Needle case containing jeans needles, 2 No 90, 2 No 100, 1 No 110.  
 411 62 85-02. Needle case containing jeans needles, 5 No 90.  
 411 46 69-01. Needle case containing jeans needles, 5 No 100.  
 411 64 14-01. Needle case containing 1 No 70, 2 No 80,  
 1 No 90, 1 twin needle No 80 with 2 mm needle gap,  
 2 stretch needles, 1 No 75, 1 No 90, 2 jeans needles, 1 No 90, 1 No 100.



411 42 35-01, Twin needle No 80, 2 mm needle gap.  
 411 42 35-02. Twin needle No 80, 3 mm needle gap.  
 411 42 35-03. Twin needle No 80, 4 mm needle gap.  
 Maximum stitch width setting: 3 resp. 2 and 1.  
 411 42 35-04. Twin needle No 80, 1.6 mm needle gap.  
 Maximum stitch width setting 4.  
 411 16 21-01. Twin needle No 90, 3 mm needle gap.  
 411 16 21-02. Twin needle No 90, 4 mm needle gap.  
 411 16 21-03. Twin needle No 90, 2 mm needle gap.  
 Maximum stitch width setting: 2 resp. 1 and 3.  
 For parallel seams and raised seams.  
 When doing twin needle work check the stitch width  
 setting. See pages 18 and 46.

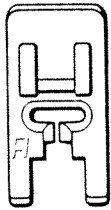


411 16 22-01. Triple needle No 90, 3 mm needle gap.  
 411 16 22-02. Triple needle No 80, 2.5 mm needle gap.  
 Maximum stitch width setting 2 resp. 3.  
 401 56 00-01. Thread spool pin. To be used when neces-  
 sary for a third thread spool.  
 The above-mentioned needles are suitable for our sew-  
 ing machines. However, all types are not available on all  
 markets.

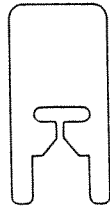
Read more about needles on pages 16, 17 and the next  
 page.

Standardtillbehör  
Standardtilbehør  
Vakiotarvikkeet  
Standard accessories  
Standardzubehör

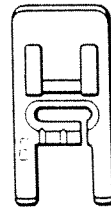
Accessoires standard  
Standaard toebehoren  
Accessori standard  
Accesorios standard



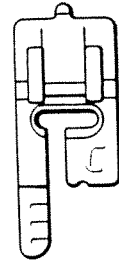
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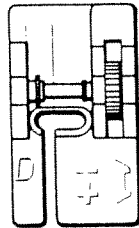
411 77 91-01



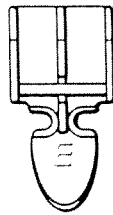
411 73 88-01



411 73 89-01



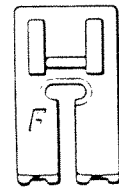
411 53 31-02



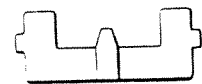
411 73 93-01



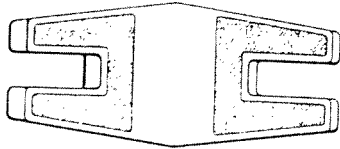
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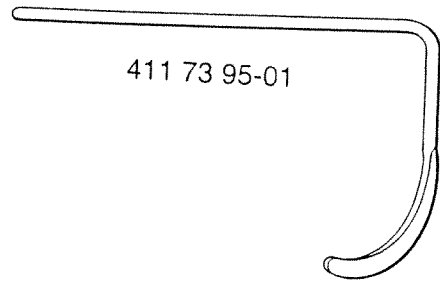
411 73 99-01



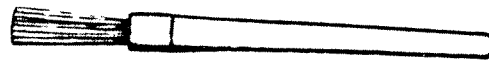
411 39 25-01



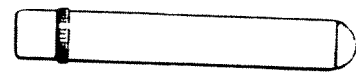
411 17 32-01



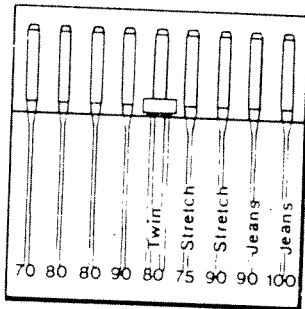
411 73 95-01



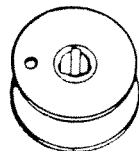
401 55 55-01



401 53 99-01



411 64 14-01

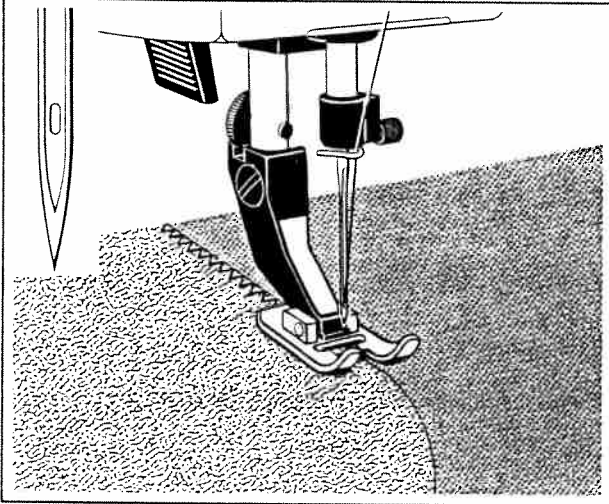


411 44 01-01

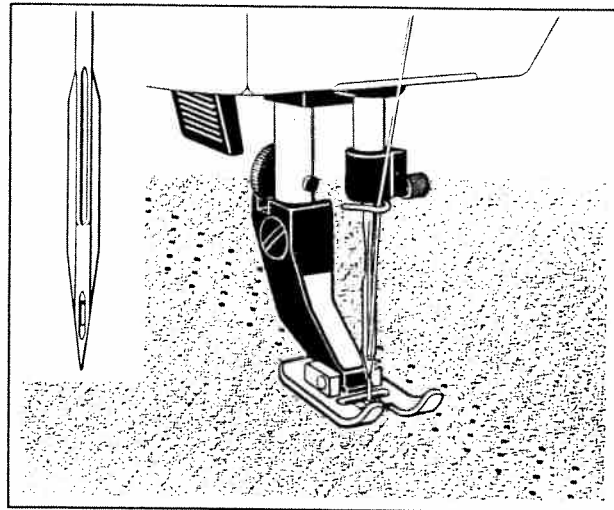


411 78 83-01

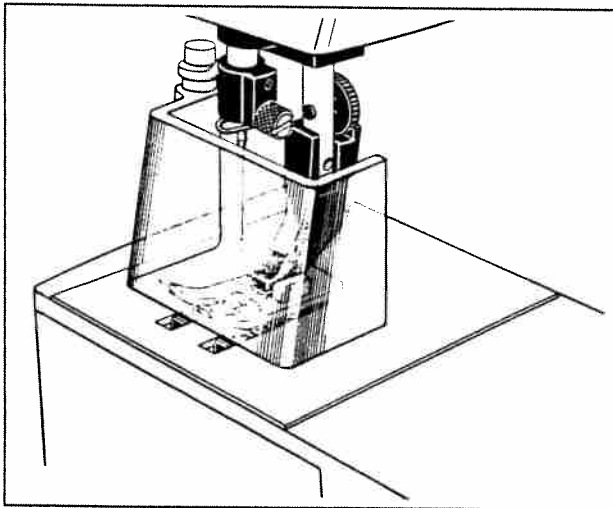
## Extra accessories



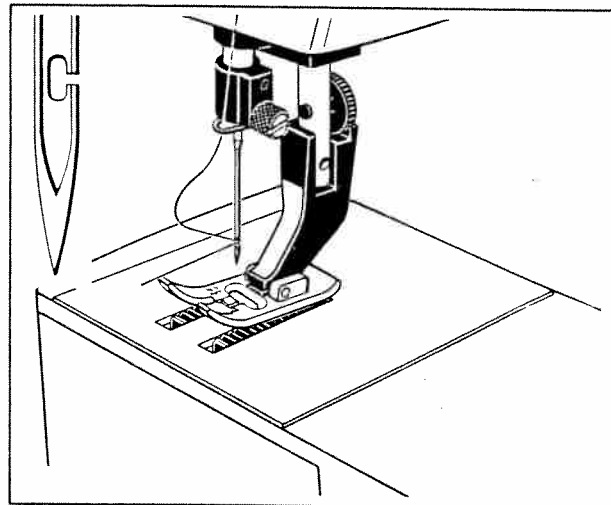
411 26 83-01. Cutting needle No 100 for sewing on leather or thick skin.



411 26 84-01. Wing needle produces a hemstitch effect. Can be used for zig-zag and pattern stitching. Maximum stitch width setting 4.

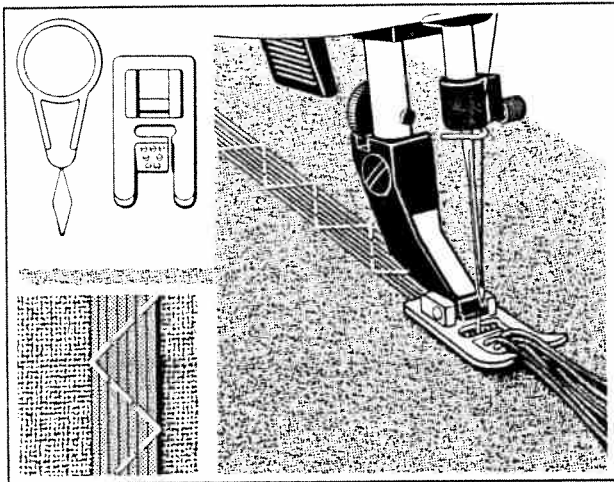


411 85 86-01. Finger guard, effectively protects your fingers while sewing.

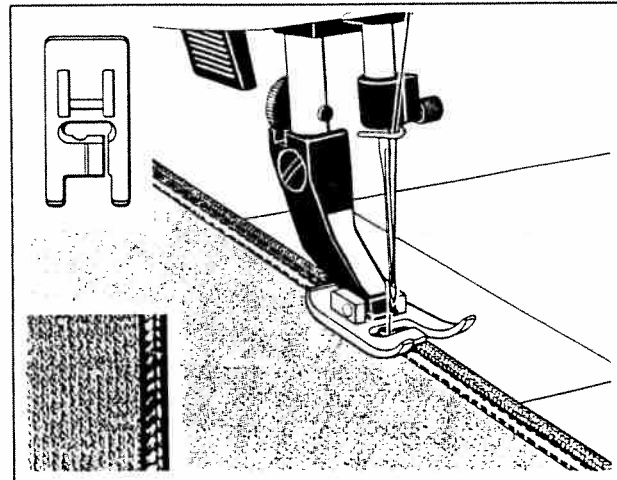


411 26 85-01/02/03. Slotted needles Nos 80, 90 and 100, for people with impaired vision. When threading, pass the thread along the needle, until it glides into the slot.

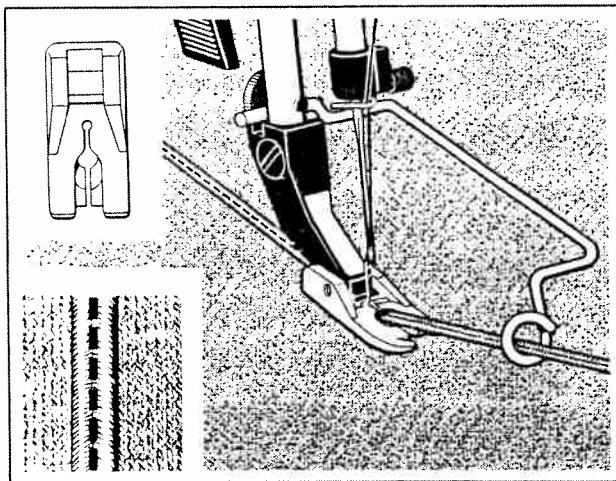
Extra accessories



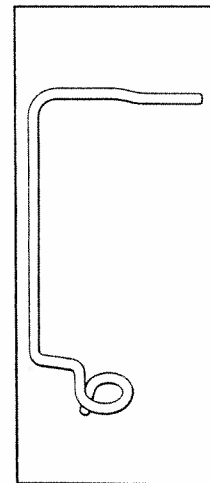
411 85 11-01. Presser foot with seven holes for decorative stitching over yarn or for satin-stitching with wide zig-zag.  
411 62 87-01. Thread the needle threader from underneath the presser foot and draw the threads down through the holes.



411 85 10-01. Piping presser foot for fastening tape with a flat and round part (piping). Only the round part will be visible when the tape is in place.



411 85 00-01. Presser foot for attaching braiding, which is inserted through a guide and attached with a straight stitch in the middle of the braiding.

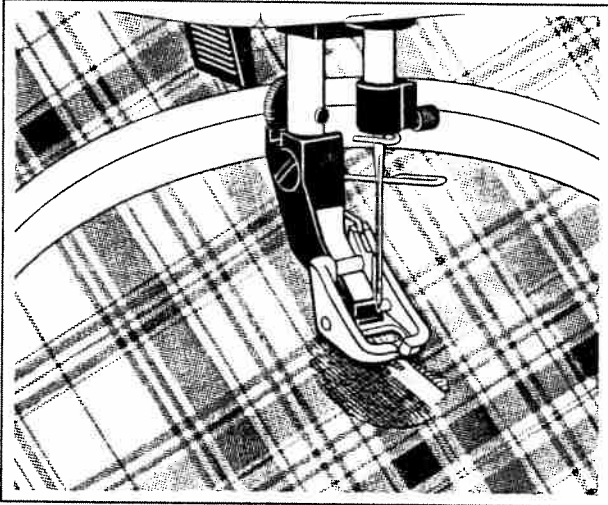


411 85 01-01. Braid guide, facilitates guiding tape, cord, etc.

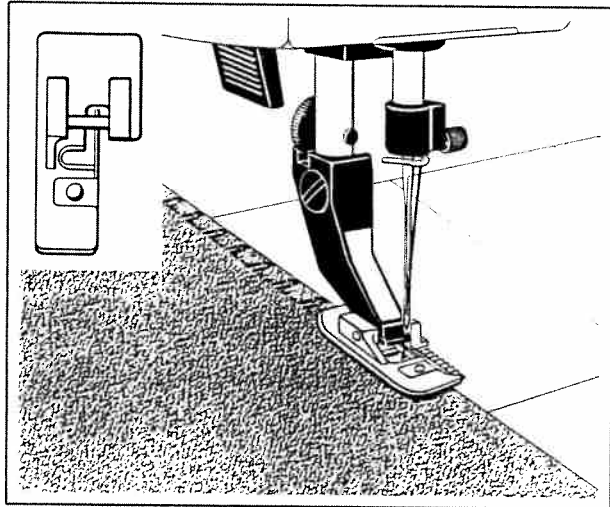
To be used together with presser feet 411 85 00-01, 411 85 09-01 or when sewing on braid or cord with presser foot A.



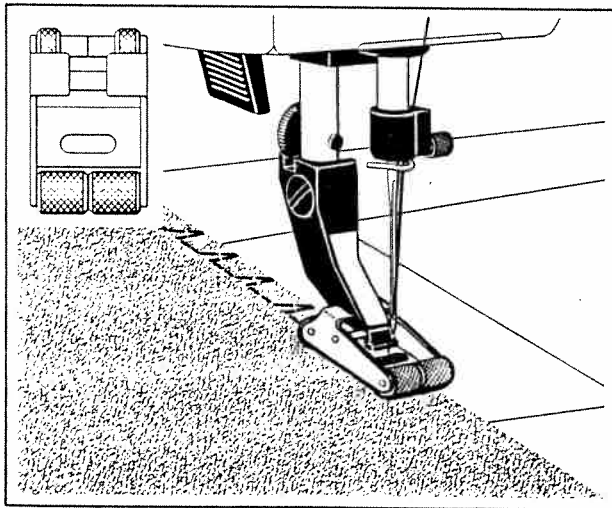
## Extra accessories



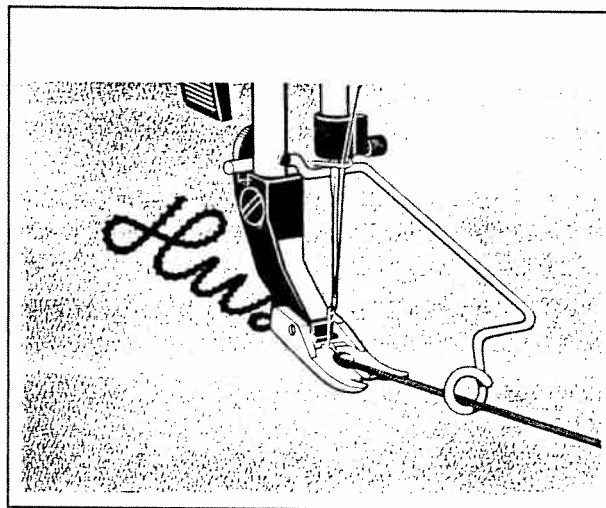
411 73 90-01. Darning foot. For darning with straight stitching when the work is stretched in a hoop. For darning socks use zig-zag stitching. The material is guided by hand. Set presser foot pressure at darning symbol.



411 85 27-01. Edging presser foot. For overcasting with zig-zag or joining fine, slippery fabrics with overcast stitch.

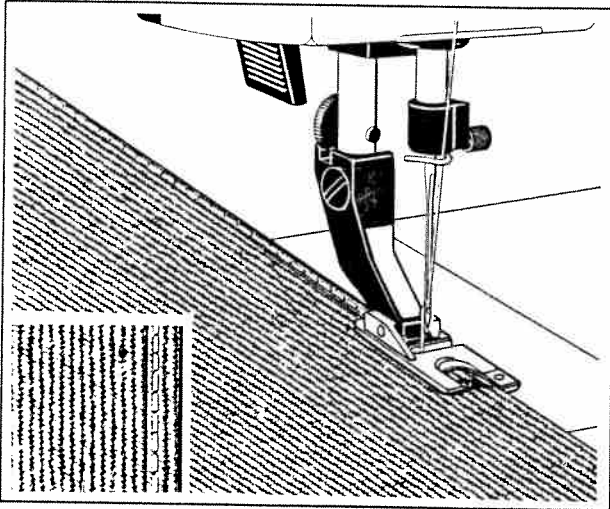


411 85 29-01. Roller presser foot. Suitable for coarse-knitted material, certain knit and stretch fabrics, as well as leather imitations and plastic material. The grooved rollers give better friction against these materials.

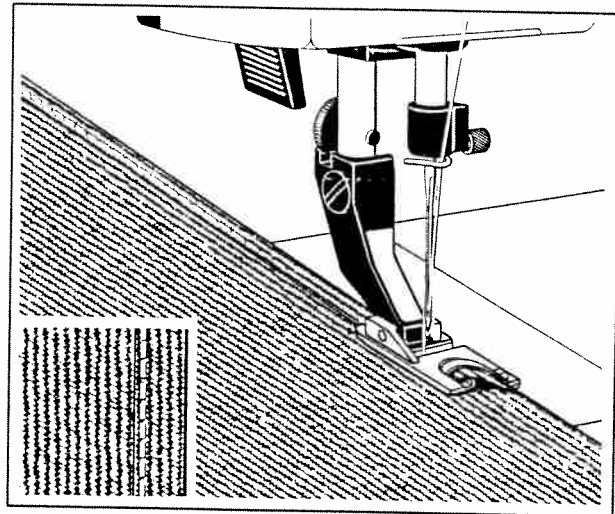


411 85 09-01. Braiding presser foot for embroidery with braid or cord.

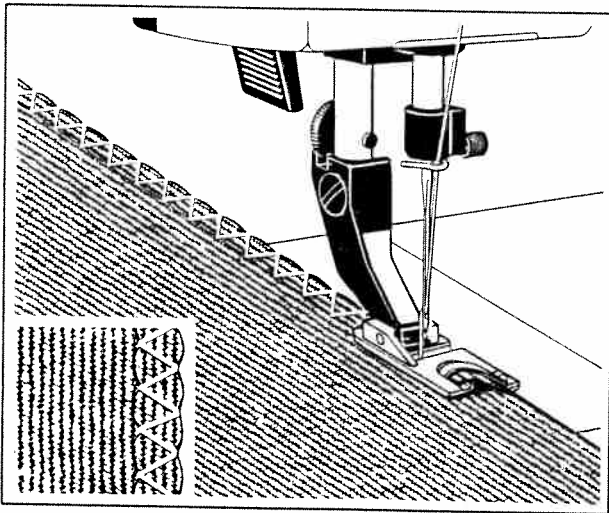
## Extra accessories



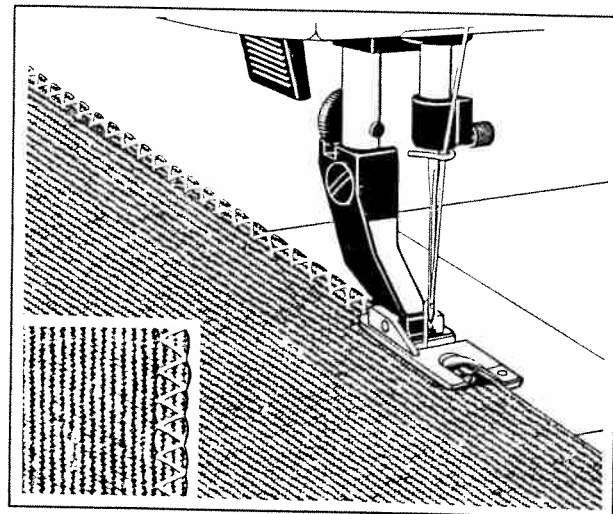
411 85 22-01. Presser foot for 2 mm hemming. To be sewn with straight stitch or zig-zag. Stitch length 1.5, stitch width 1.5.



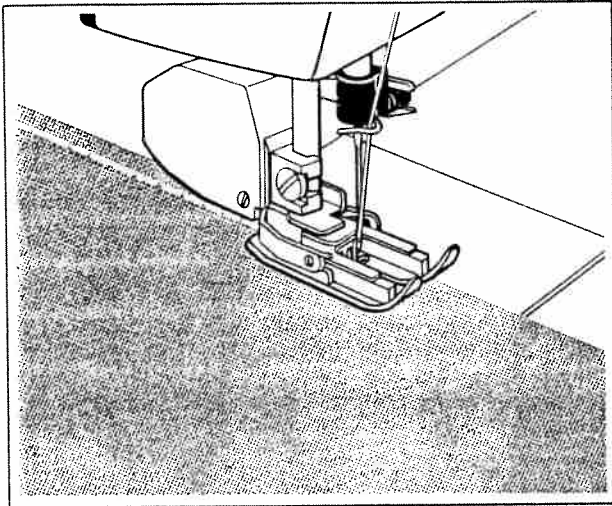
411 85 17-01. Presser foot for 5 mm hemming. To be sewn with straight stitch, zig-zag or a decorative stitch.



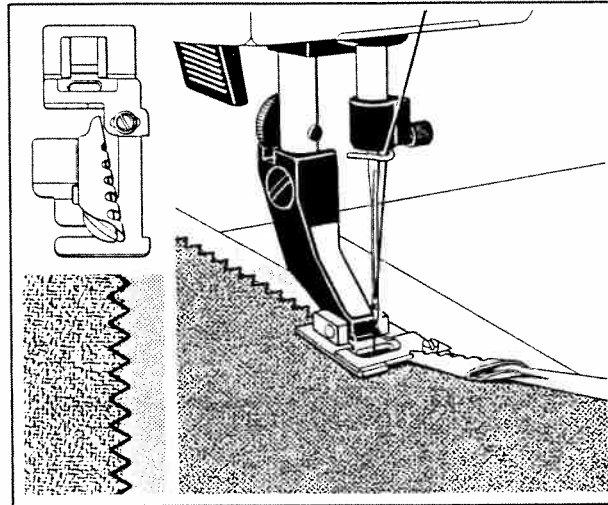
411 85 20-01. Presser foot for 3 mm scalloped hem. To be sewn with zig-zag, stitch length 4.5, stitch width 4 and tight thread tension. Suitable for soft fabrics.



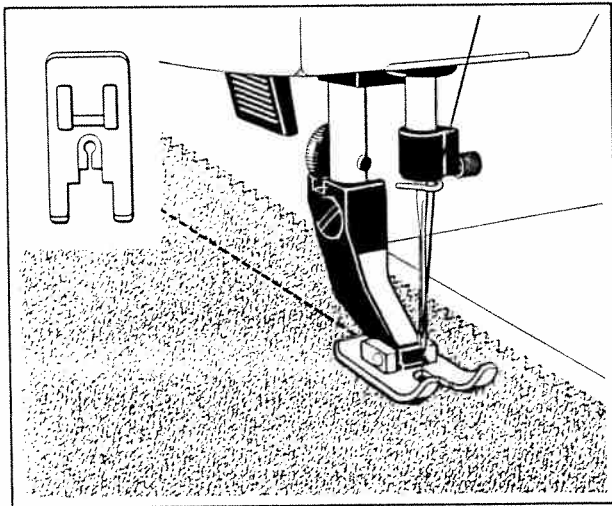
411 85 24-01. Presser foot for 2 mm rolled hem. To be sewn with zig-zag, stitch length and width 3.0. Suitable for light fabrics.



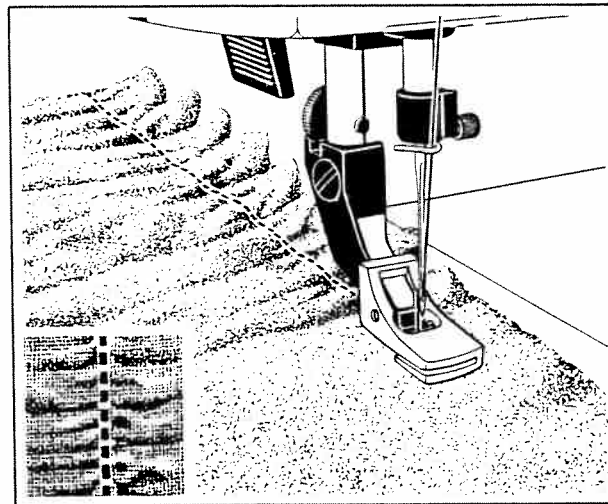
411 85 84-01. Dual feeder. To be used for materials which easily shift, e.g. plastic, velvet, etc. Useful also for checked and striped fabrics.



411 85 04-01. Bias binder for edging with bias tape. For use with 24 mm (1") unfolded tape, zig-zag or decorative stitch.

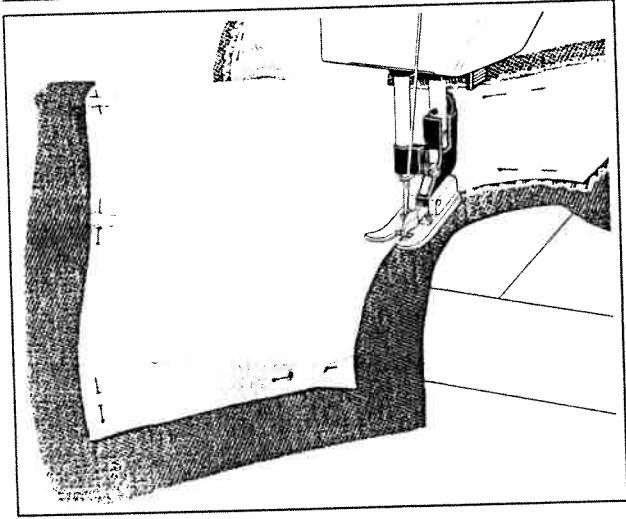


411 85 35-01. Straight stitch presser foot. For straight stitching in fine fabrics. It compresses the fabric more firmly to the stitch plate. Use only stitch width 0.

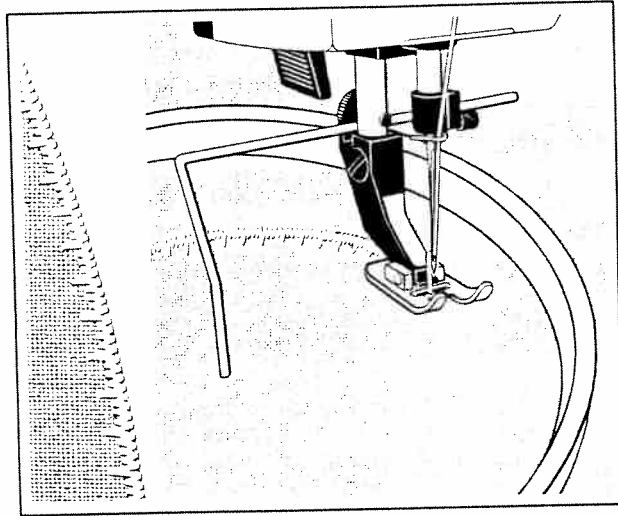


411 85 02-01. Presser foot for gathering. The fabric is gathered as it is sewn—the tighter the tension, the fuller the gathering. The gathered fabric can be sewn simultaneously to another ungathered fabric.

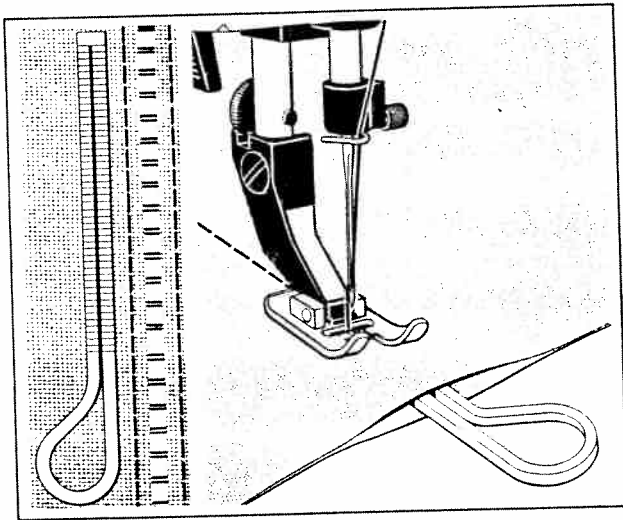
## Extra accessories



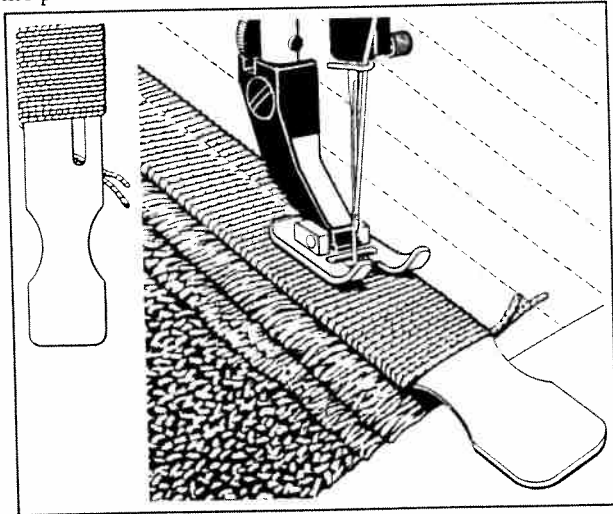
411 85 03-01. Marker presser foot. By using this foot you can transfer markings from paper patterns to fabric.



411 85 26-01. Attachment for circular sewing. Stretch the fabric over an embroidery hoop, place a thumbtack in the middle as a pivot point and attach the guide over the pivot thumbtack.

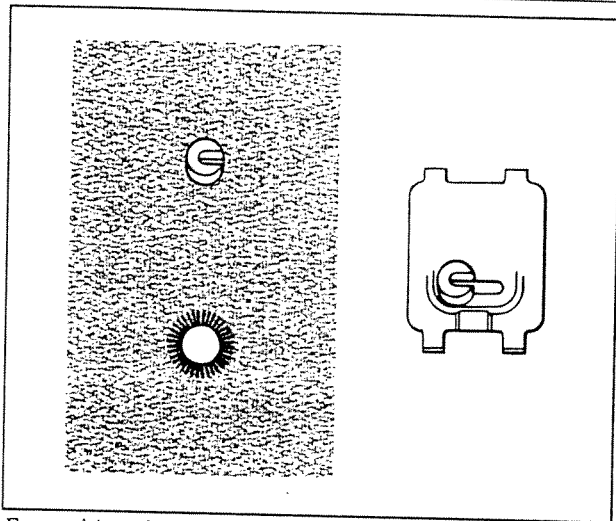


401 53 67-01. Hemstitcher. Put the fork between two layers of material, which are sewn together with long straight stitches.



411 34 58-01, 30 mm (1 1/8"). 411 34 58-02, 45 mm (1 3/4"). Weaver's reed for rug sewing. Wind the yarn over the reed and sew in place, with straight stitch. Special presser foot for rug sewing, 411 29 64-01 available.

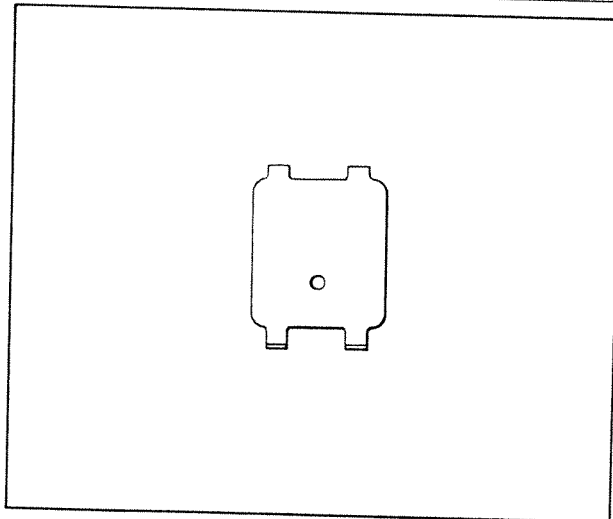
## Extra accessories



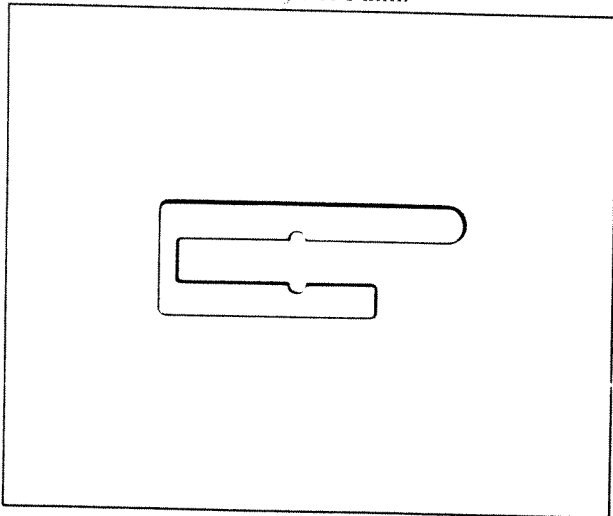
For making closing bars around holes, e.g. eyelets in belts, the feed dog is covered by a plate. Available for different hole-diameters.

411 85 12-01. Plate for eyelet 4 mm.

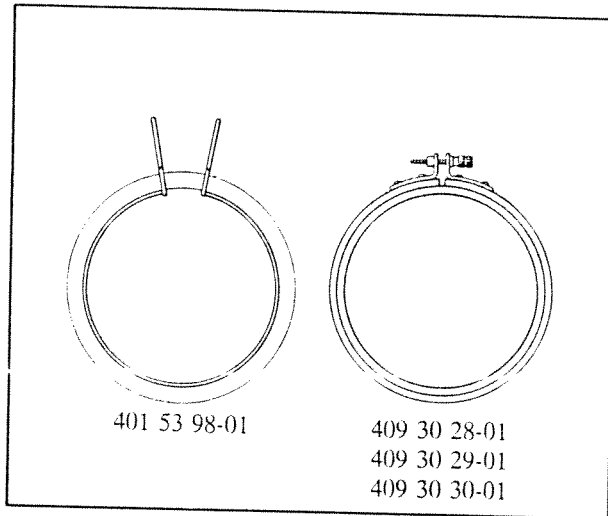
411 85 12-02. Plate for eyelet 6 mm.



411 85 14-02. Plate for darning and free-hand embroidery especially in light fabrics. Only for straight stitching.



411 85 87-01. Glide plate for buttonhole foot C.



401 53 98-01

409 30 28-01

409 30 29-01

409 30 30-01

Frames for darning and embroidery.

401 53 98-01 5.5 cm diameter (2 1/8")

409 30 28-01 10 cm diameter (4")

409 30 29-01 15 cm diameter (6")

409 30 30-01 20 cm diameter (8")

We reserve the right to change the machine equipment without any previous notice, or make modifications in the design or appearance of the machine, which do not negatively affect the function.

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