

elna

Greetings,

As the user of an **ELNA** you have chosen one of the world's finest precision-made sewing machines. It offers you new dimensions of home sewing:

satisfaction—simplicity—versatility.

Depend upon the easy-to-follow instructions in this booklet to use properly and care for your wonderful **ELNA**. When you have become well acquainted with your machine, you can save time and money by referring to the handy index of general subjects on page 2.



I am the **ELNA** elf, inviting you first of all to go through the booklet with me—page by page. Follow me closely and find that home sewing can be relaxing and pleasurable—not hard work—also that a good understanding of these instructions can eliminate costly service calls as time goes on.

Ready—let's go...

Contents and Useful Hints

Preparing your ELNA

3-10

- Giving your machine the care it deserves, is your guarantee of perfect performance.
- Even the best sewing machine will not sew properly with a needle of poor quality. Choose needles of first-class quality, system 130/705 H or the American style 15 x 1.
- Needle and thread must be adapted to the kind of work to be done.

Straight Sewing

11

- Universal tension

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Sewing with ELNA Zig Zag and some examples of practical sewing

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- Tapered stitch width
- Centering the needle

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Additional sewing with ELNA Special and some examples of practical sewing

21-24

- First familiarize yourself with the simpler kinds of work. You will then take better advantage of the other possibilities offered by your **ELNA**.

Extra Accessories

25-26

Servicing and Disorders

27

- Do not try to remedy a disorder without first having consulted our recommendations.
- Make as much use of your **ELNA** service as you wish. In each **ELNA** shop, there is a qualified personnel ready to help you. Under the conditions of the guarantee, they are the only ones competent to deal with every technical matter concerning your machine.

Table of Adjustments

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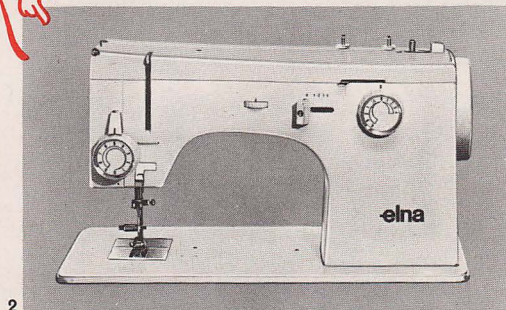
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ELNA Cl. 11 or ELNA Plana Cl. 13

**ELNA Zig Zag Cl. 21 or
ELNA Plana Zig Zag Cl. 23**

**ELNA Special Cl. 31 or
ELNA Plana Special Cl. 33**



Preparing Your ELNA

Opening the Case and Unpacking for the free-arm ELNA

Fig. 3

Remove the 4 screws at the bottom.

Keep them in the accessory box for use again if necessary (important for shipping).

Fig. 4

Open the flap.

Fig. 5

Remove the cover.

Take out the foot control.

Fig. 6

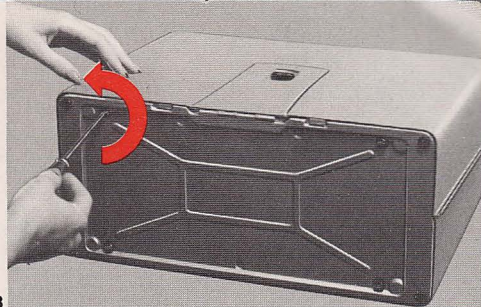
Take out the machine,
the accessory box.

Fig. 7

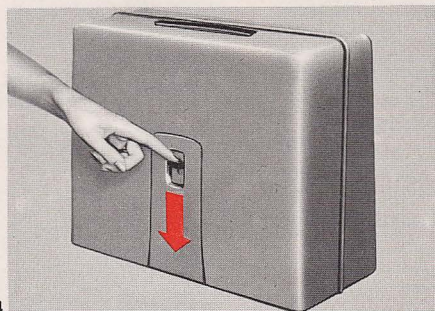
Work Table

To increase the working surface, use the cover as
a work table.

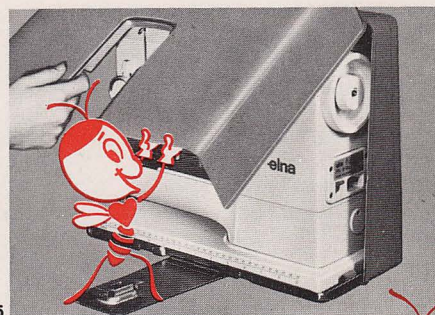
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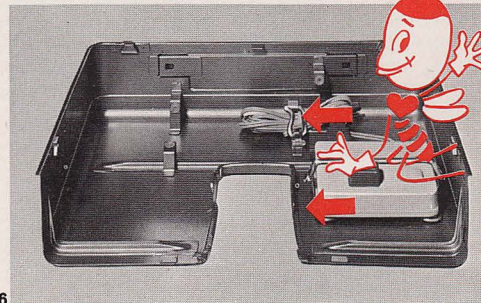
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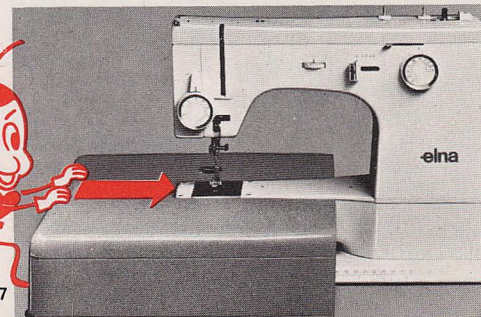
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Accessories

The accessory box contains the following standard accessories:

- 1 presser foot (already on the machine) (8)
- 1 darning foot (9a)
- 1 darning plate
- 1 adjustable zipper foot (9b)
- 5 bobbins
- 1 assortment of 5 needles
- 1 screwdriver
- 1 cleaning brush
- 1 empty oiler
- 1 **ELNA** oil refill
- 1 needle threader

For **ELNA Zig Zag** and **ELNA Special** only:

- 1 darning and button plate instead of darning plate
- 1 cording—buttonhole foot (10)
- 1 buttonhole knife

How to use the accessories is explained from page 13.

Fig. 11

Electrical Controls

Check the voltage on the switch plate. Make sure that the voltage is the same as that indicated on the light bulbs in your home. If this is not the case, do not plug in the machine, but get in touch with the **ELNA** service. Do not go by the markings on the plugs.

Electric Foot Control and Cord

Plug these in as shown in fig. 11.

Electronic foot control

See extra accessories page 25.

Starting the Machine

The more you press the foot control pedal down, the faster the machine runs.

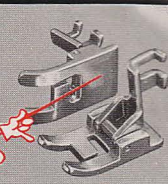
Fig. 12

Sewing Light

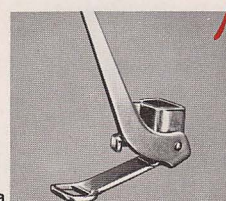
The switch is on the switch plate.

To replace the bulb: First of all, pull out the plug. Press with the screwdriver to make the lamp come out.

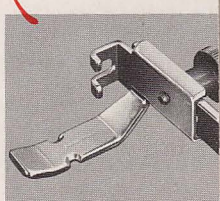
Bayonet socket: push in, turn and remove the bulb.



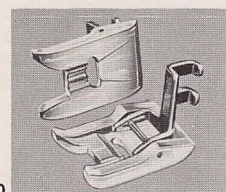
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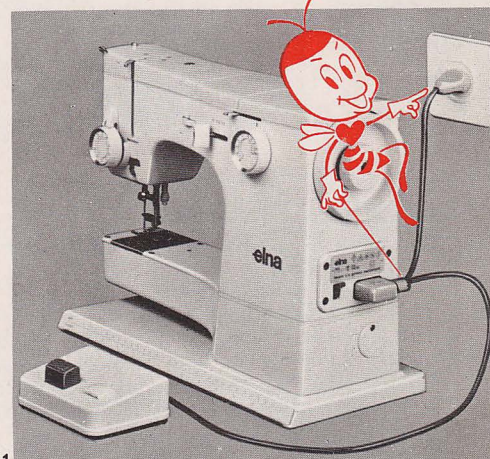
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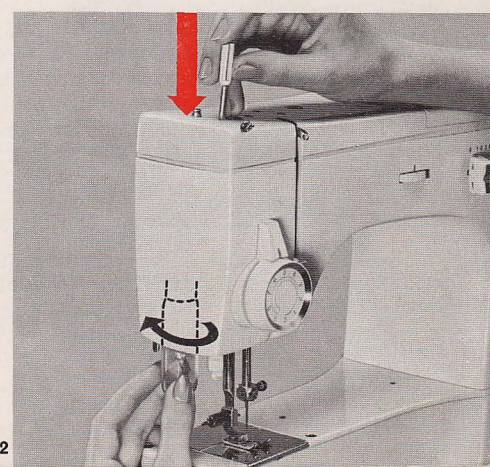
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10



11



12

Maintenance and Cleaning

The **ELNA** will always serve you faithfully, if it is cared for properly.

Fig. 13

Remove the needle and foot. Open the rotary hook cover. Take off the needle plate.

Brush the rotary hook and feed dog with the cleaning brush, to remove the pieces of thread and lint.

Oiling

Fig. 14-15

To oil the machine, **raise** the thread take-up lever to its highest position.

Use only good quality oil for your sewing machine.

Two drops of **ELNA** oil will suffice for each oil hole; the latter are painted red. **Oil occasionally according to use.**

Fig. 14

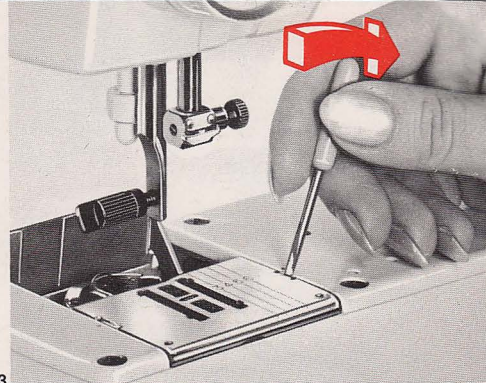
Insert oiler tube as far as possible in oil holes.

In case of prolonged, uninterrupted use, place one drop of oil from time to time on the rotary hook.

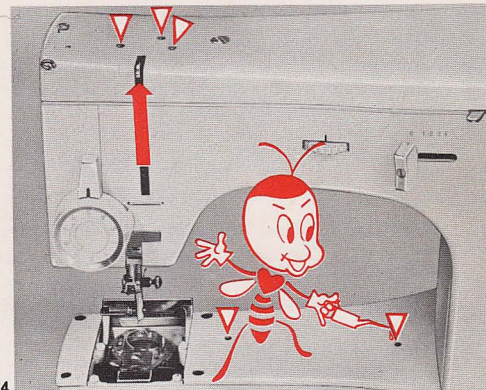
Fig. 16

Insertion of the needle plate.

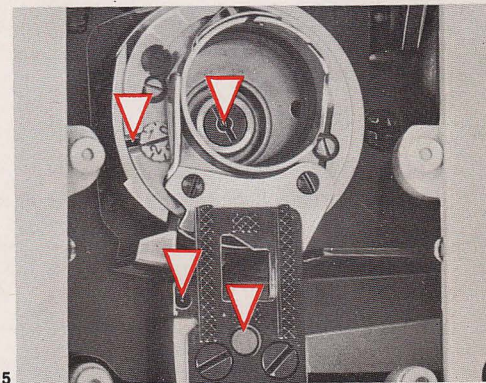
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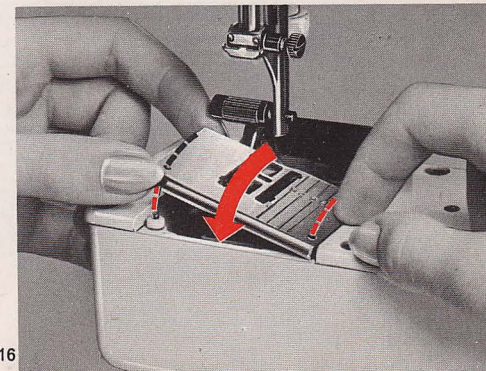


Fig. 17-18

Quick Change of the Presser Feet—without a screwdriver.

For all accessories, whether standard or extra **raise** the needle bar and the presser bar. Turn out the wings of the clamping screw and loosen it. Fasten the foot. Tighten the clamping screw, turn in the wings, fig. 18.

Fig. 19

N. B. The darning foot is fastened from the rear, the lever of the foot passing behind the needle clamp stud.

Make sure to lower the presser foot lever before starting to darn.

Threads

The use of **good quality** dull or mercerized thread is preferable.

A dry thread becomes brittle. It regains its strength when placed near an open window overnight.

Fig. 20

For darning, use left twist thread (stronger).

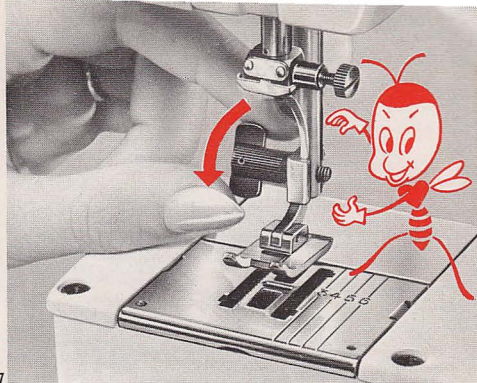
Choice of Threads and Needles

Choose the thread according to the kind of work and material used, the needle according to the thread: darning, sewing or embroidery thread according to the fineness, durability and the appearance to be given to the sewing work.

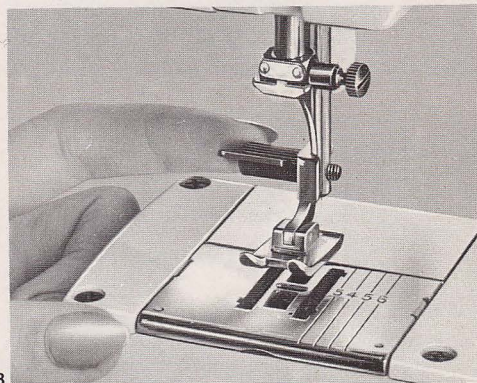
Materials	Threads			Needles System 130/705 H 15 × 1
	Cotton	Silk	Synthetic Fibres	
Sheer	120-100*	sewing	sewing	70 10
Used (darning)	darning 120-100*	darning	darning	70 10
Ordinary	100-60*	sewing	sewing	80 12
Medium and heavy weights	80-40*	sewing	sewing	80-90 12-14

*Size may change depending on the country

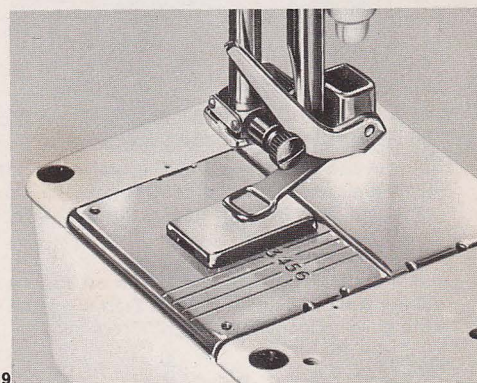
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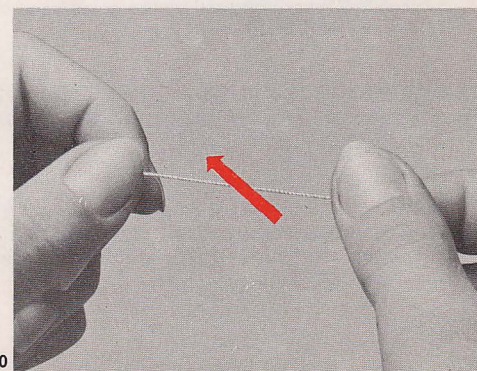


Fig. 21

Needle

Insert the needle into the needle clamp, with the flat of the needle against the index finger. Make sure that the needle is **pushed as far as it will go**. Tighten the screw firmly (without using the screw-driver).

Fig. 22

Bobbin Winding

Disengage the flywheel by unscrewing the coupling knob by a **quarter of a turn**.

Pull out the spool pin. Put the reel of cotton in place and pass the thread through the thread guide and then through one of the bobbin holes.

Fig. 23a

Place the bobbin **with the holes on top** on the bobbin winder. The thread will then wind and unwind automatically in the right direction.

Fig. 23b

Push the bobbin winder to the right.

Wind a few turns of thread on the bobbin and then **break the end off**.

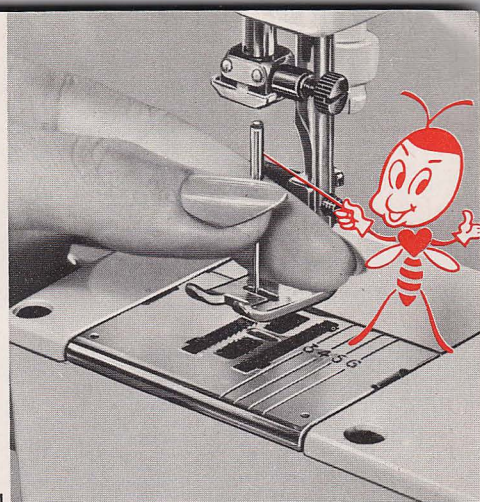
Fig. 23

Wind the bobbin while pressing lightly on the reel of cotton with the left hand. The bobbin stops automatically when it is full.

Fig. 22

Tighten the flywheel coupling knob **firmly** (turn knob in **opposite direction to the arrow**), cut the thread and remove the bobbin by pushing away the bobbin winder.

21

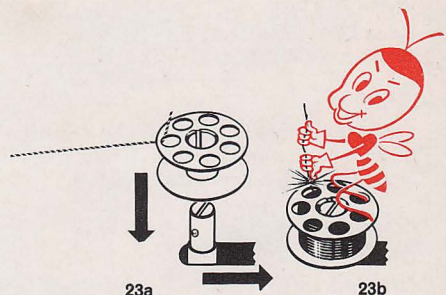


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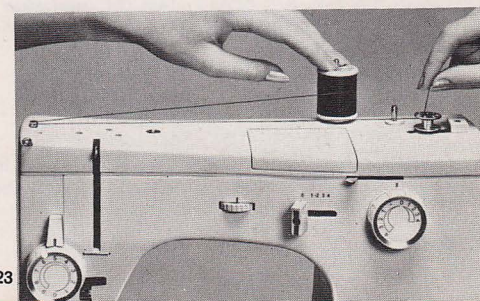


23a

23b



23



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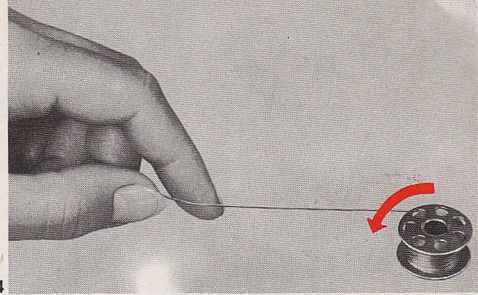


Fig. 24

The bobbin should unwind in the direction of the arrow.

Fig. 25

Inserting the Bobbin and Threading the Lower Thread

Place the bobbin into the rotary hook **with the holes on the top. Retain the bobbin with the left index** and pass the thread through the slot.

Bring the thread around to the front, to the right, at the angle illustrated.

Fig. 26

Close the rotary hook cover and draw the thread into the slot with a slight tug. It then snaps into the tension spring automatically.

Fig. 27

Check

Open the rotary hook cover and check by pulling the thread gently to the rear; it should not come out of the slot. If it does repeat the operation as explained above (fig. 25-26).

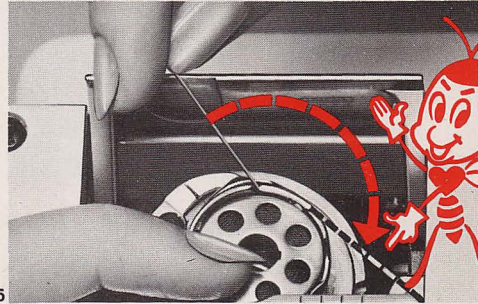
Pull out about 6 inches of thread.

Fig. 28

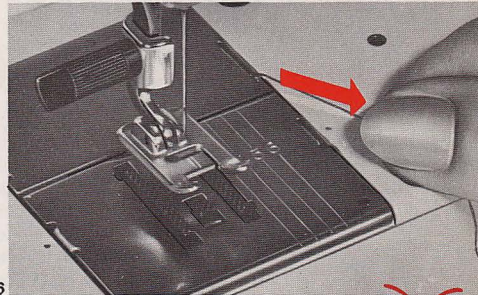
Changing the Bobbin

Presser bar raised. Pull the **extractor** down into the central hole of the bobbin. When it is released, the bobbin is automatically removed.

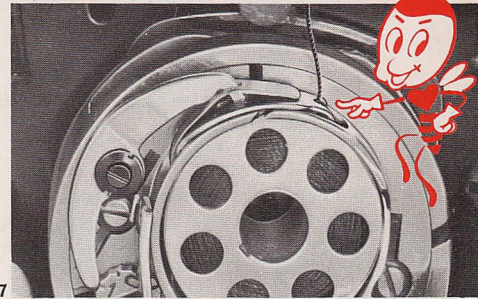
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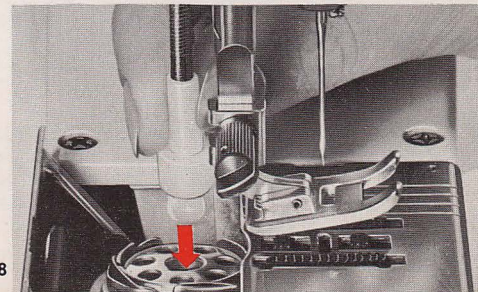


Fig. 29

Threading the Upper Thread

Needle bar and presser bar up.

Pass the thread through: the two thread guides the upper tension slot **(hold the spool back when inserting the thread, giving it a slight tug upwards)** the thread take-up lever from left to right the thread guide

The needle clamp is to be threaded exactly as shown in the drawing.

Fig. 30-30a

Thread the needle **from front to back.**

When using the needle threader, you must therefore insert it into the eye of the needle from the back.

Pull forward about 6 inches of thread.

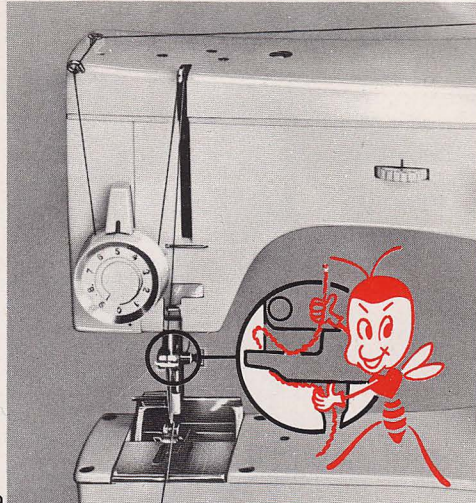
Threading Twin Needles

See special accessories, page 26.

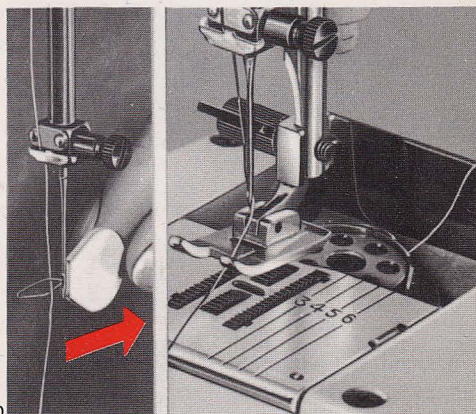
Fig. 31-31a

Proceed in the same way but with two threads. Pass one thread on either side of the separating disc of the upper tension (fig. 31a) as well as on either side of the thread guide on the needle clamp.

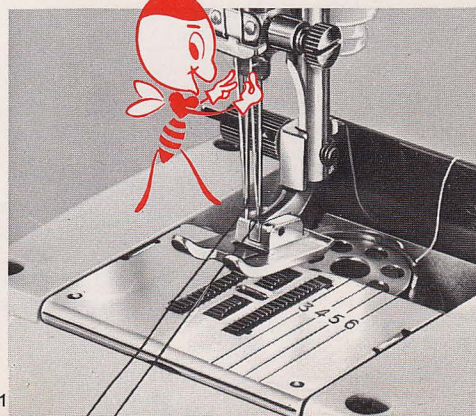
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30



31a



31

Drawing up the Lower Thread

Fig.32

Hold the upper thread between the left index finger and the edge of the needle plate.

Place your hand on the top of the flywheel, turn it for one full turn—towards you—so that the thread take-up lever is lowered and then raised completely to its highest position.

The lower thread then is drawn up automatically. Free it by hand completely.

Fig.33

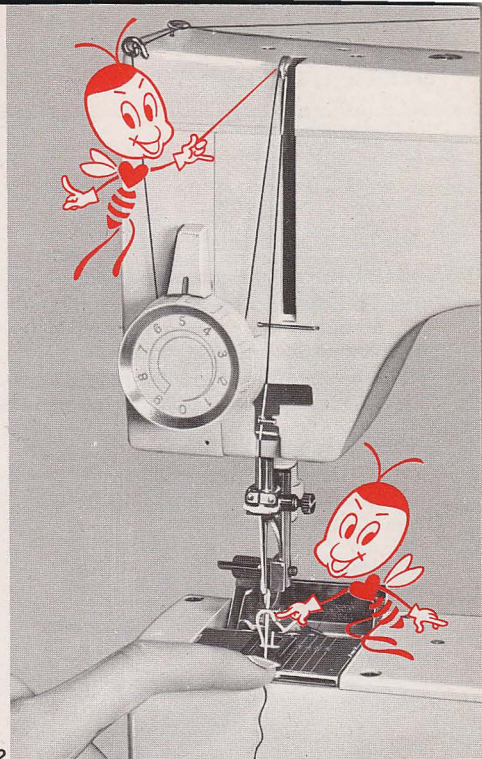
Make sure that the lower thread crosses the bobbin correctly.

Fig.34

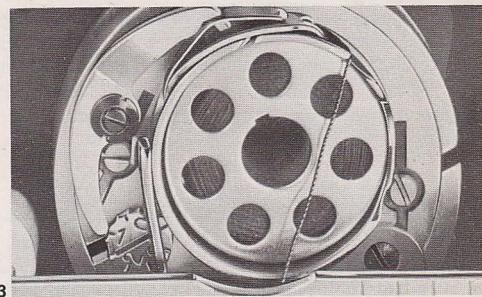
Close the rotary hook cover, pull both threads about 6 inches towards the rear and pass them under the presser foot.

Place the material beneath the presser foot and lower the presser foot lever. **Never run a threaded machine without any material under the presser foot.**

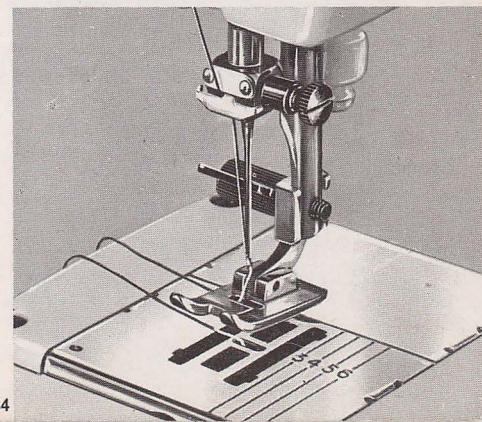
The two threads should be held back while sewing the first two or three stitches, every time you start sewing.



32



33



34

Straight Sewing

Important Characteristics:

The Universal Pressure of the Foot

The ideal pressure has been adjusted at the factory—for both sheer and heavy materials—so that **no further adjustment is required.**

For the preparation of your ELNA, the feet to use and for the adjustments, see chart on page 28.

Normal Straight Sewing

Use the presser foot (see page 4).
Place the material under the foot.
Lower the presser foot lever.

Adjustments

- Stitch length knob on position 1–4.

For **ELNA Zig Zag** and **ELNA Special**:

Stitch width lever at "0".

Needle position wheel at the center position (**red mark**).

Fig. 35

Forward Stitching

Set stitch length knob at desired length from 1–4 (black numbers).

Adapt the stitch length to the kind of work and the thickness of the material used, i.e. short stitches for fine material, longer stitches for heavy material.

The two threads should be **held back while sewing the first two or three stitches.**

Fig. 36–37

Reverse Stitching

- (a) **For a short distance to finish off or to make a short seam:**

Push the lever. When it is released, the **ELNA** automatically goes back to forward stitching (fig. 36).

- (b) **Prolonged Use:**

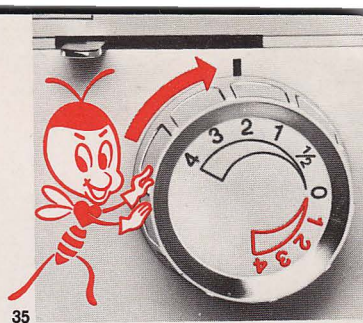
Turn the stitch length knob between 1 and 4, red numbers (fig. 37).

In principle, straight sewing does not require other adjustments. **The tension of the threads is universal**—see next page.

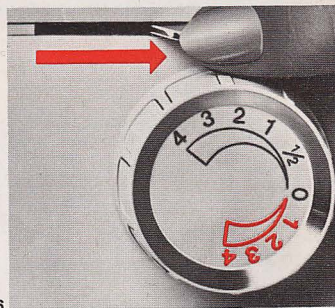
Fig. 38

Removing the Material

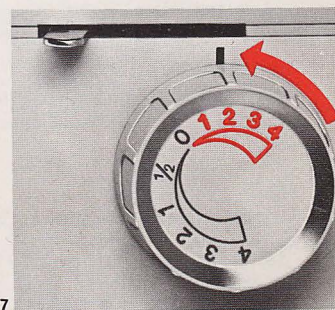
- Turn the flywheel towards you to **raise the thread take-up lever.**
- Lift up the presser foot lever.
- Pull out the material towards the back and cut the thread with the thread cutter on the presser bar.



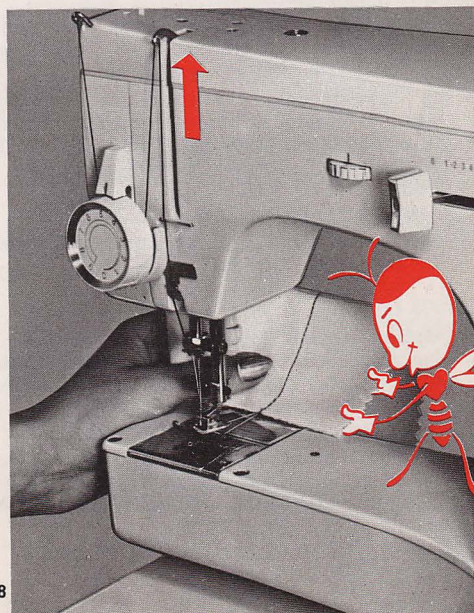
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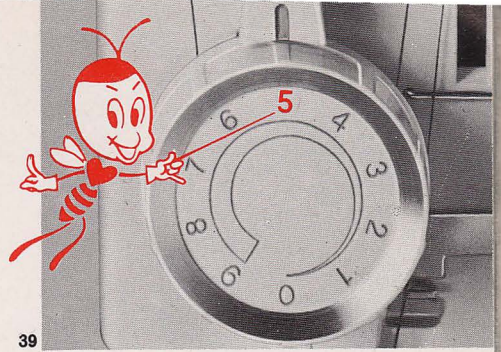
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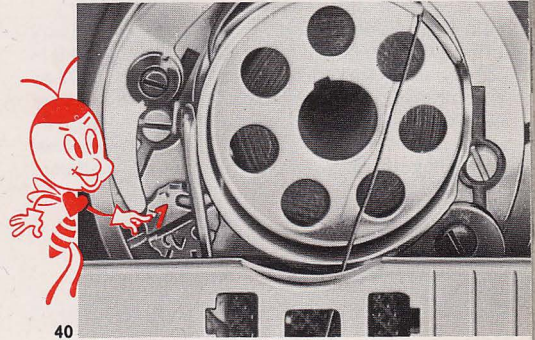
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39



40

Universal Tension

With universal tension, most of the usual sewing jobs can be done **without changing the tension**, i.e.:

Fig. 39

Upper tension: red number "5", facing the guide mark.

Fig. 40

Lower tension: red number "1", facing the tip of the tension lever.

For certain jobs (nylon threads, hemstitching, special seams, etc.), an adjustment can be made by turning the tension regulator knob.

If the lower tension has to be altered (nylon work), turn the graduated screw with the screwdriver. The graduation marks allow you to come back easily to the universal tension.

Fig. 41

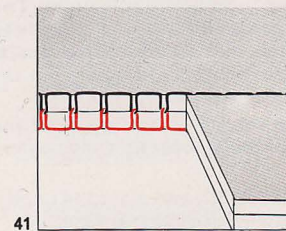
Perfect tension: The threads are locked between the two layers of cloth.

Fig. 42

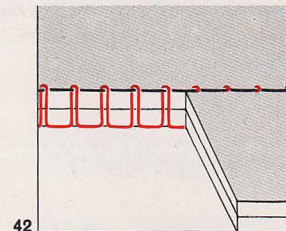
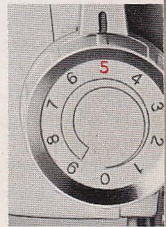
Upper tension too strong: The threads are locked on top of the material. Decrease the tension by turning the knob in the direction of the arrow.

Fig. 43

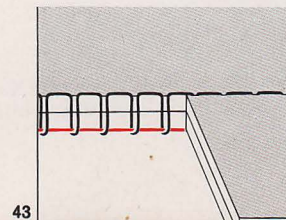
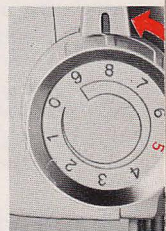
Upper tension too weak: The threads are locked on the underside of the material. Increase the tension by turning the knob in the direction of the arrow.



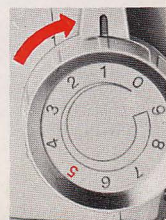
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Some Examples of Practical Sewing

Your instruction book gives you all the necessary information about how your **ELNA** works, but it is not a sewing course! The following pages serve as a complete guide for the efficient use of your **ELNA**. Other practical suggestions can be given to you by your **ELNA** dealer, and by the special booklets you can obtain from him. Find out about these!

Straight Sewing

See page 11.

Fig. 44-47

Darning



- Attach the darning plate and darning foot. **The darning plate avoids the use of a drop feed mechanism and makes darning easier** (without a darning hoop) by covering up the openings in the needle plate.
- Place the material beneath the darning foot and make sure to lower the presser foot lever before starting to darn.
- Stretch the material tightly and place the fingers as close to the darning foot as possible.
- To darn a hole, sew a screen of closely woven stitches: going from right to left and vice versa.
- Finish the darn by sewing parallel serpentine forward and reverse.

To reinforce a worn-out spot, it is not necessary to sew a screen first.

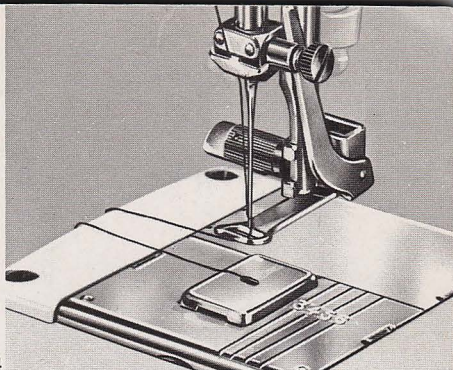
For particularly fine darning, the darning plate with round hole is recommended (see extra accessories, page 25).

Fig. 48

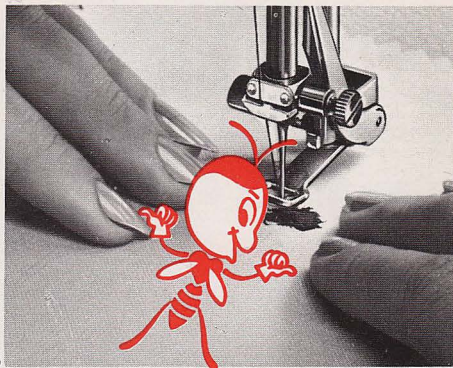
Worn-out Edges



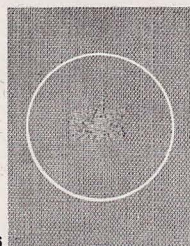
Darn in the usual manner, but when the edge of the material is reached, turn back quickly to avoid forming knots.



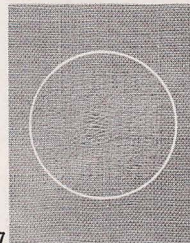
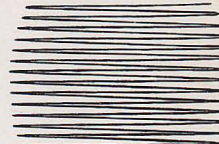
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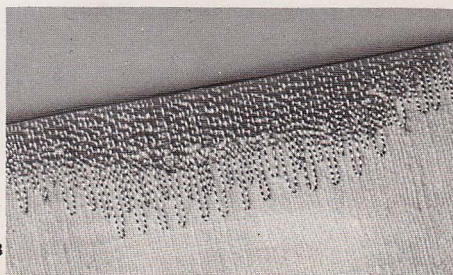
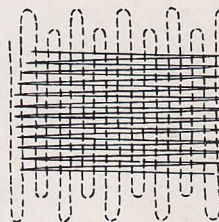
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47



48

Fig. 49a

Tricot



Sew a row of tiny stitches once around the hole to fasten the meshes. Place the wool as shown in the illustration and fasten it with a few stitches.

Fig. 49b

Cover the hole with wool, by sewing from left to right and vice versa, starting from the front and going backwards.

Cut the wool and fasten it off in the usual way.

Fig. 50



If the button plate is used together with the zig-zag stitch, to fasten off the wool, the darn is softer (**ELNA Zig Zag** and **ELNA Special**).

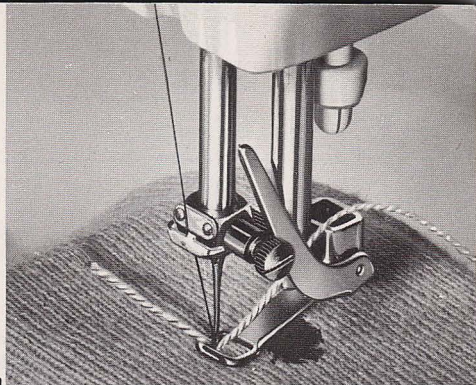
Fig. 51

Zip Fasteners

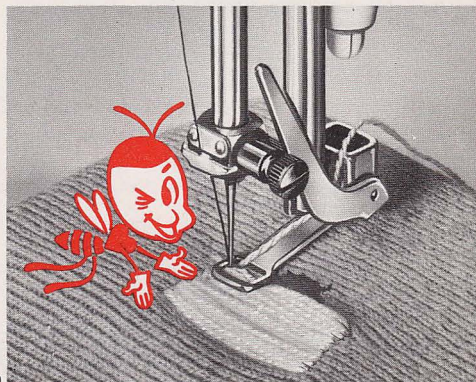


Use the adjustable zipper foot which can be moved to the left or right of the needle, after the screw has been loosened. This screw must be tightened again afterwards. The foot allows you to sew in the zip fastener without having to turn the work. It is also suitable for sewing in cords, and for sewing right at the edge of a piece of cloth, etc.

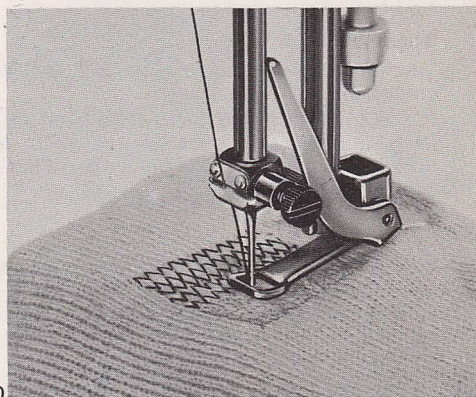
49a



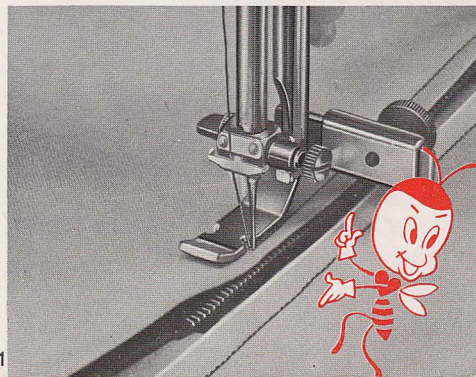
49b



50



51



Sewing with the ELNA Zig Zag

Important Characteristics

Fig. 52

- The stitch width lever has a dual action and can be set in the following two positions:
 1. for a fixed stitch width,
 2. for a variable stitch width.

Fig. 53

Adjustments

- Stitch length knob on positions 1-4 as desired.
- Stitch width lever with the mark "I" on top, on position 1-4 as desired.
- Needle position wheel at the center position (red mark).

Example:



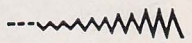
 1/2	 0 1 2 3 4
	

Fig. 54

Tapered Stitch Width

The width of the zigzag stitches may be adjusted gradually, at will, by hand.

Pull out and turn the stitch width lever into the **horizontal** position. It can then be moved freely from 1-4 and from 4-1, with the thumb of the right hand.

Fig. 55

This free adjustment of the stitch width is particularly suitable for making filled-in patterns and tapered monograms as well as for doing fancy embroidery.

Fig. 56

Centering the Needle

For certain kinds of work such as bindings, zip fasteners, etc. (straight stitch), buttons, button-holes, etc. (zigzag) the stitch can be displaced towards the right or left, by turning the needle position wheel to the right or to the left, or to any position between left and right.

Example of sewing displaced from center:

center (red mark), left, right.

- (a) Straight stitch
- (b) Zigzag stitch at stitch width "2"
- (c) Zigzag stitch at gradually variable stitch width

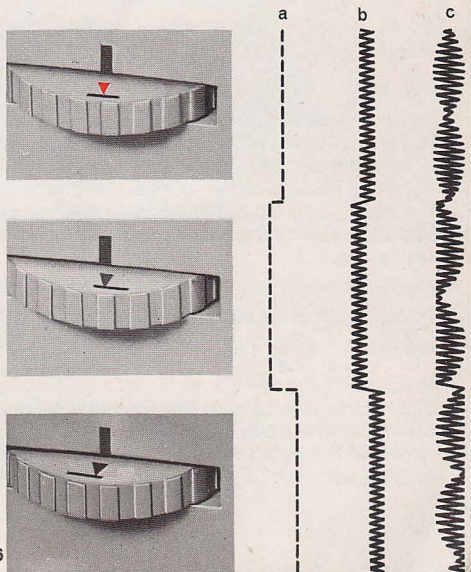
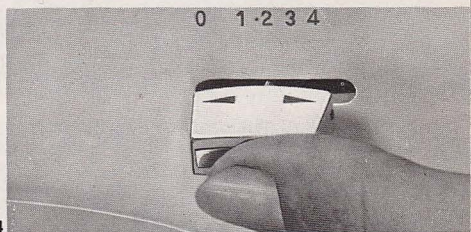
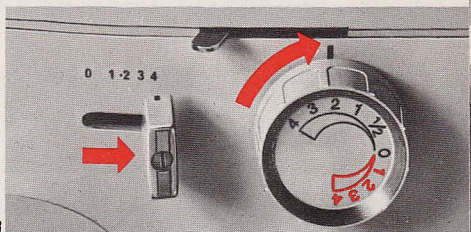
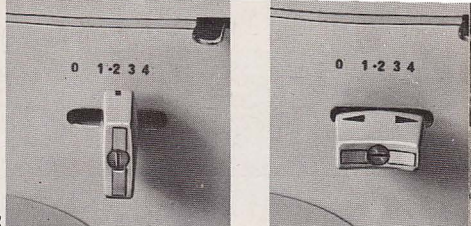
52

53

54

55

56



Some Examples of Practical Sewing with the Zigzag Stitch

Fig. 57

Overcasting



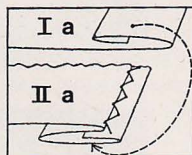
Proceed as shown in fig. 57.

Fig. 58

Blind Stitch



- Form the hem: I, (a = wrong side of fabric).
- Fold it back, underneath the fabric: II.
- Place it under the presser foot as shown in fig. 58.
- Sew the hem, making sure that the stitches are sewn alternately, one just on the fold of the material, the other beside the fold.



When the work is finished, unfold it and press.

If you often sew this stitch, the special blind stitch foot with guide is recommended—see extra accessories page 25.

Fig. 59

Shell Stitch



- (a) The shell stitch is sewn on the bias.
- (b) Proceed as shown in fig. 59, taking care that the stitches are sewn successively one on the material and the other just off it.

Also suitable for sewing with jersey material.

Fig. 60

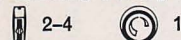
Patching



Cover the damaged part with a patch. Sew two rows of zigzag stitches, one at the edge of the patch, and the other just behind it. Cut out the defective portion of the original material close to the zigzag stitching. This simple method avoids having to sew over an extra thickness or having to fell seams.

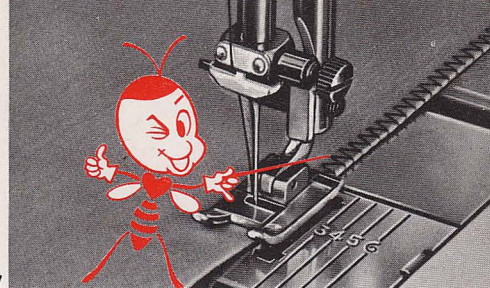
Fig. 61

Patching Jersey Material

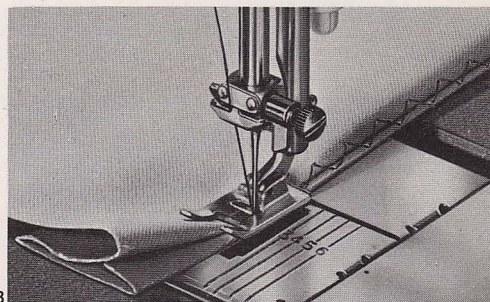


Proceed in exactly the same way, but make the patch circular and sew the first row of stitches about $\frac{3}{8}$ " from the edge. Then cut off the loose edges of the patch and the defective part of the original material.

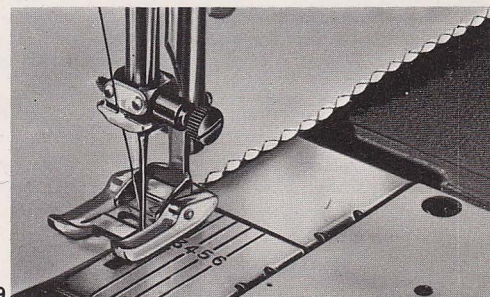
57



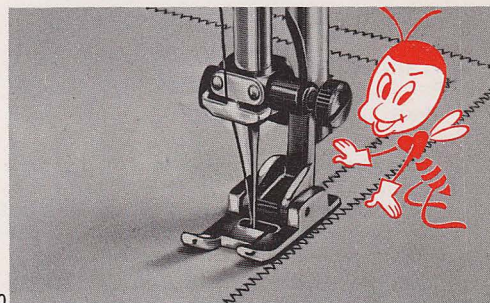
58



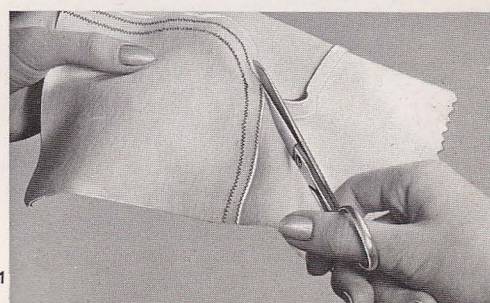
59



60



61





62

Fig. 62

Satin Stitch



Use the cording foot.

The satin stitch is obtained by sewing very short zigzag stitches, which can easily be adjusted, thanks to the large distance which has been allowed for making fine adjustments between 0 and $\frac{1}{2}$ on the stitch length knob.

Use this stitch for making decorative patterns, monograms, etc.

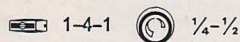
A nice raised effect is obtained by covering the first row of stitches, once or twice, using the same stitch width.

Fig. 63

For small monograms, marking linen, etc., it is preferable to use the darning foot.

Fig. 64

Tapered Stitch



Turn the stitch width lever into the horizontal position. The width of the stitches can be changed while sewing, **to obtain a stitch with a fuller or tapered effect, as desired.** It is used for making monograms and fancy patterns.

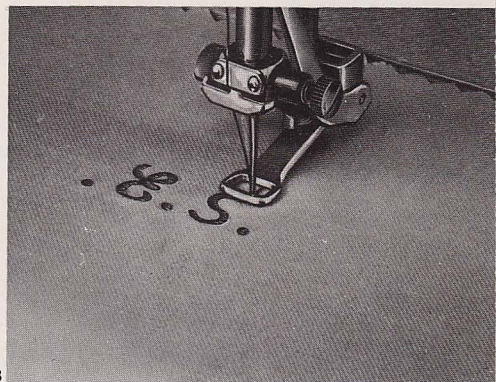
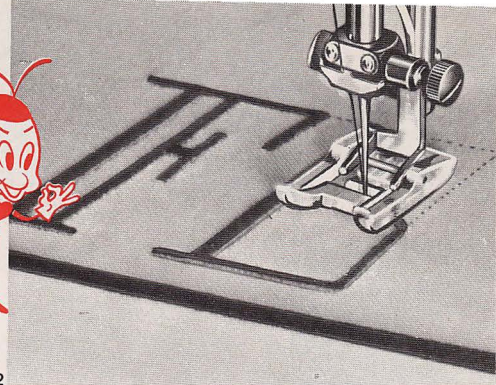
For monogramming, stretch the material on an embroidery hoop or reinforce it by placing paper under the work.

Fig. 65

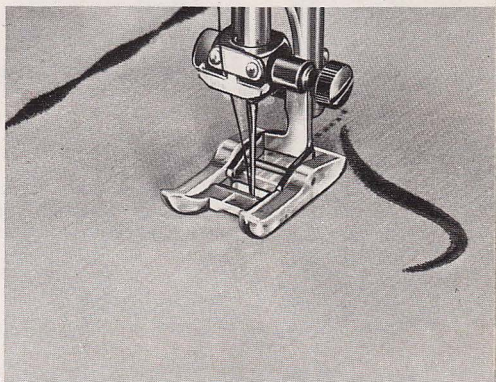
Decorative Work with the ZigZag Stitch



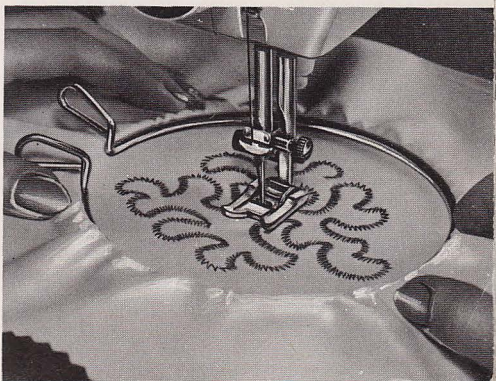
The zigzag stitch is sewn on material stretched in an embroidery hoop, which is moved freely by hand.



63



64



65

Buttonhole

It may be preferable, first to make a trial buttonhole on a scrap of material.

Buttonhole 3/16" (4 mm) wide

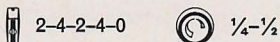


Fig.66

- Decenter the needle to the left.
- Set the stitch width lever at position "2", mark "1" on top.

Fig.67

- Sew the first side of the buttonhole. Lower the needle into the material at the right side of the row of stitches.

Fig.68

- Raise the foot and **pivot the material half a turn around the needle**. Lower the foot. Raise the needle.

Fig.69

- Set the stitch width lever at position "4". Sew a few stitches for the bartack. Raise the needle.

Fig.70

- Set the stitch width lever at position "2" and sew the second side of the buttonhole, but make this slightly shorter than the first side. Raise the needle.

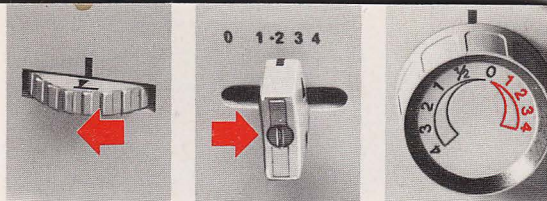
Fig.71

- Set the stitch width lever at position "4" and finish the buttonhole by sewing a few more stitches. Raise the needle.

Fig.72

- Set the stitch width lever at position "0" and fasten the threads with a few stitches whilst holding back the material by hand.

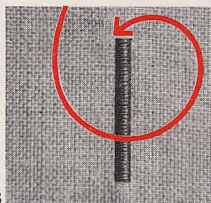
66



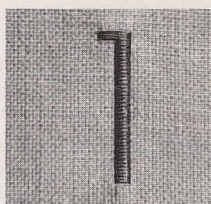
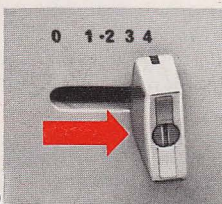
67



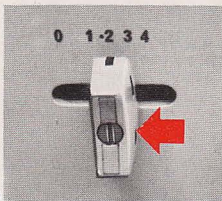
68



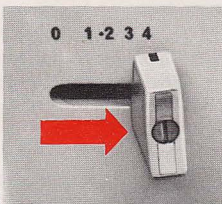
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70



71



72

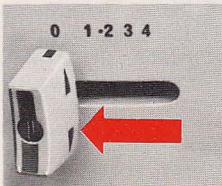


Fig. 73

Reinforced Buttonhole

Insert a soft embroidery cord under the left groove of the foot. Proceed in the same manner as for ordinary buttonholes. To finish the buttonhole, pull the protruding ends of the cord and cut them off close to the buttonhole.

Fig. 74

Cutting the Buttonhole

Proceed as shown in fig. 74.

Fig. 75

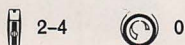
Repairing Buttonholes



Sew over the frayed edges with the satin stitch.

Fig. 76

Buttons



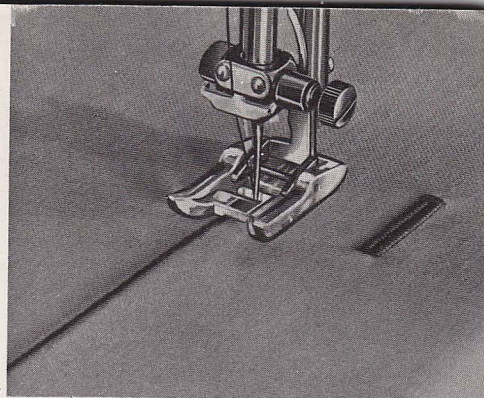
Decenter the needle to the left.

Adjust the stitch width so that the needle will descend in the center of the holes of the button. Sew about 6-8 stitches. When sewing on 4-hole buttons, move the button after having sewn the first two holes and sew the second pair of holes in exactly the same manner.

Raise the needle, set the stitch width lever at position "0" and fasten the threads by sewing a few stitches in the same hole.

Snap buttons as well as hooks and eyes, rollers for curtains, etc. are sewn on in the same way. If you often sew on buttons, the help given by the button foot (see extra accessories, page 25) and button plate will be appreciable.

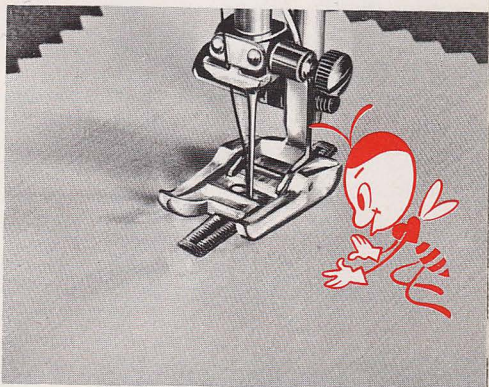
73



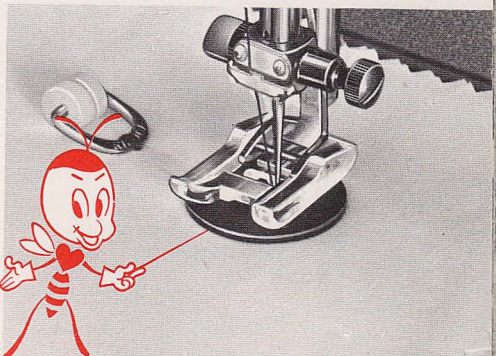
74



75



76



"No Turn" Buttonhole

—without turning the material

Buttonhole 3/16" (4 mm) wide.

It may be preferable, first to make a trial buttonhole on a scrap of material. Use thin thread.

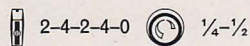


Fig.77

Decenter the needle **to the left**.

Set the stitch width lever at position "2", mark

"1" or "2" on top.

Fig.78

Sew the first side of the buttonhole. Raise the needle.

Fig.79

Decenter the needle **to the right**.

Push the "instant reverse lever" completely to the right and sew with an open zigzag back to the beginning of the first row of stitches.

Release the "instant reverse lever". Raise the needle.

Fig.80

Set the stitch width lever at position "4".

Sew a few stitches. Raise the needle.

Fig.81

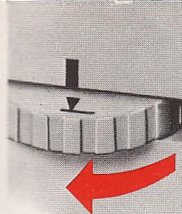
Set the stitch width lever at position "2" and sew the second side of the buttonhole, but make this slightly shorter than the first side. Raise the needle.

Fig.82

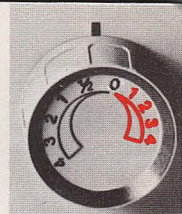
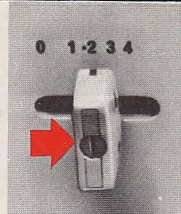
Set the stitch width lever at position "4" and finish the buttonhole by sewing a few more stitches. Raise the needle.

Fig.83

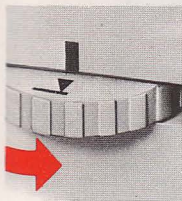
Set the stitch width lever at position "0" and fasten the threads with a few stitches whilst holding back the material by hand.



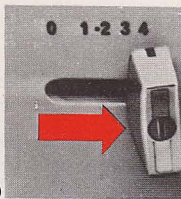
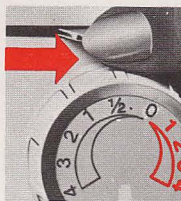
77



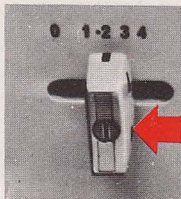
78



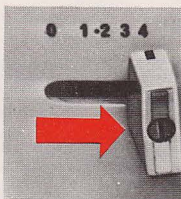
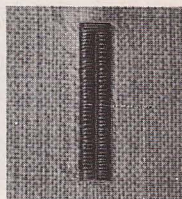
79



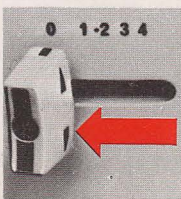
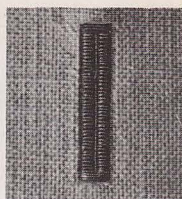
80



81



82



83



Sewing with the ELNA Special

Important Characteristics

Fig. 84

The stitch width lever is used for selecting the desired stitches.

These are marked on the lever, viz.:

- Zigzag Stitch for widths from 1-4 as desired
- Tapered Zigzag Stitch
- Serpentine Stretch-Stitch and Overcasting
- Blind Stitch and Shell Hem

Fig. 85-86

Stitch Selection

Stitch width lever at "0".



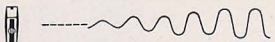
Pull out and turn the stitch width lever so that the symbol for the desired stitch is **on top**.

Fig. 87

Controls:

- Stitch width lever, with stitch symbol **on top**, on positions 1-4, as desired.
- Stitch length knob on position $\frac{1}{4}$ -4, as desired.
- Needle position wheel: centered (**red mark**).

Example:

$\frac{1}{4}$	 0 1 2 3 4
	

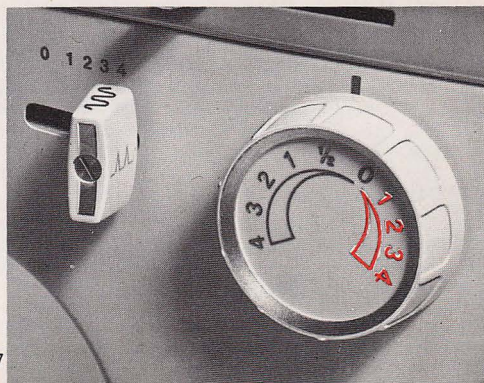
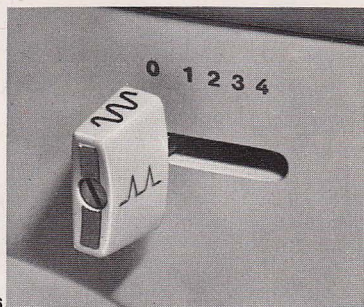
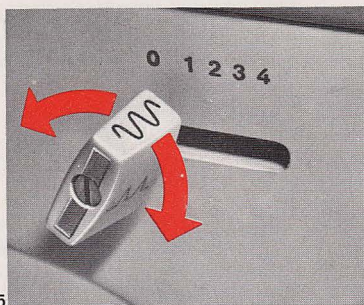
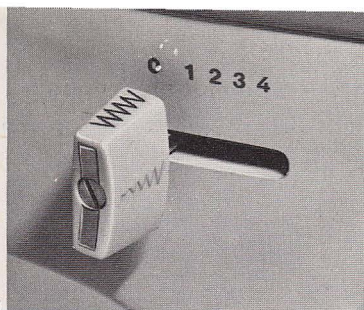
All the other sewing possibilities are the same as those of the **ELNA Zig Zag**.

84

85

86

87



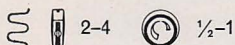
Some Examples of Practical Sewing with the ELNA Special

All the sewing jobs that can be performed on the **ELNA** straight stitch machine and the **ELNA Zig Zag** can also be sewn with the **ELNA Special**.

The overcasting, the serpentine stretch-stitch, the blind stitch and the shell hem complete these possibilities and allow for greater sewing convenience, a finer finish and quicker execution.

Fig. 88

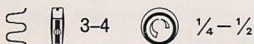
Overcasting



Proceed as shown in fig. 81. This overcasting with-stands repeated washing and keeps the material flat.

Fig. 89

Edge-to-Edge Sewing



It is best to join two selvages.

Fig. 90

Patching



Cover the damaged part with a patch. Sew with the serpentine stitch around the edges of the patch. Then cut out the defective portion of the original, close to the serpentine stitching. With this simple method the patching is done in one operation and extra thicknesses or fell seams are avoided.

Fig. 91

Patching Jersey Material



Proceed in exactly the same way, but it is preferable to make the patch circular and to sew it on **about 1/2" (1 centimetre) from the edge. Then cut off the loose edges** of the patch and the defective part of the original material.

Hemming Jersey Material

Only one fold is made and sewn in the same basic way as the patch, that is to say **1/2" (1 centimetre) away from the edge**, which is then cut back close to the stitching.

88

89

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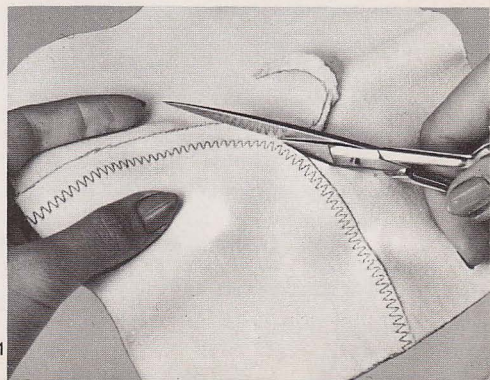
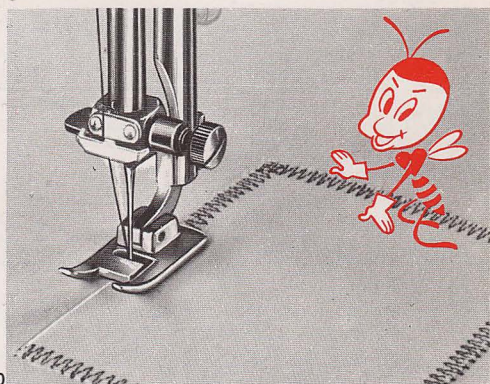
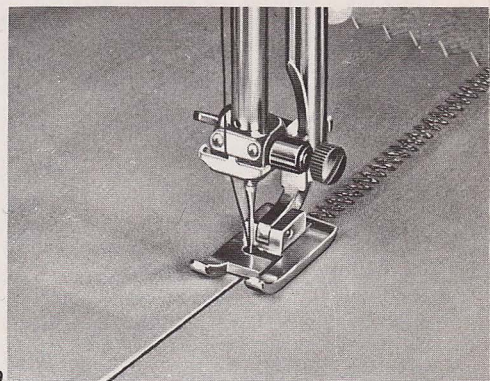
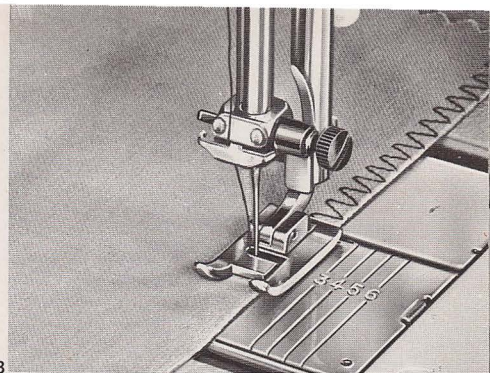
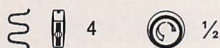


Fig. 92

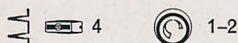
Putting in Elastics



Place the elastic on the material as shown in the illustration. In this way, it is not necessary to pull the elastic, in order to stretch it. You just sew slowly, feeding enough material under the foot, so that it gathers. This stitching remains supple and can be stretched.

Fig. 93

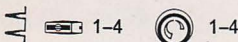
Shell Stitch



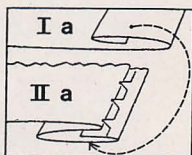
It is mainly sewn on the bias. Every sixth stitch should be made outside the material. Then sew or put the bias in place, depending on the kind of work which is being done. Also suitable for sewing on jersey material.

Fig. 94

Blind Stitch



- Form the hem: I, (a = wrong side of fabric).
- Fold it back, underneath the fabric: II.
- Place it under the presser foot as shown in fig. 94.
- Sew the hem, making sure that only the wide stitches to the left enter into the fold.

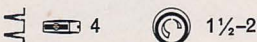


When the work is finished, unfold it and press.

If you often sew this stitch, the special blind stitch foot with guide is recommended—see extra accessories page 25.

Fig. 95

Other Uses of the Blind Stitch and the Shell Stitch



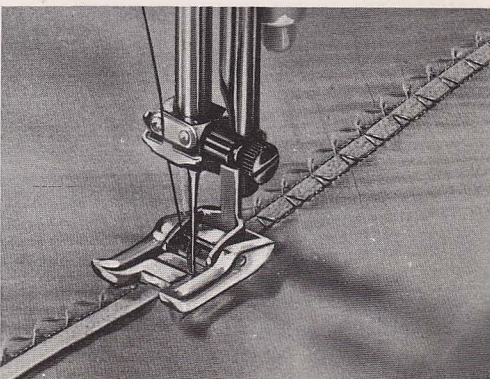
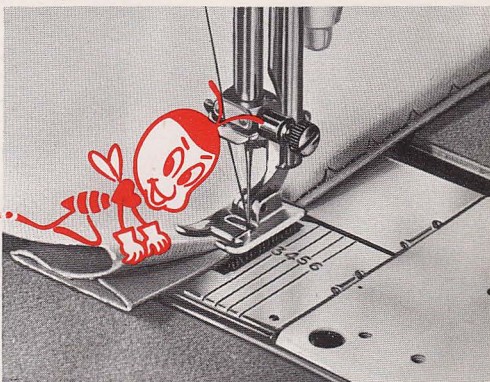
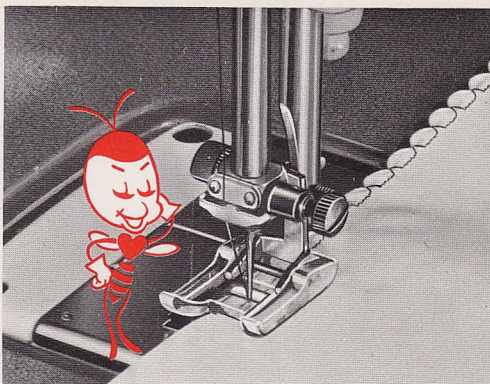
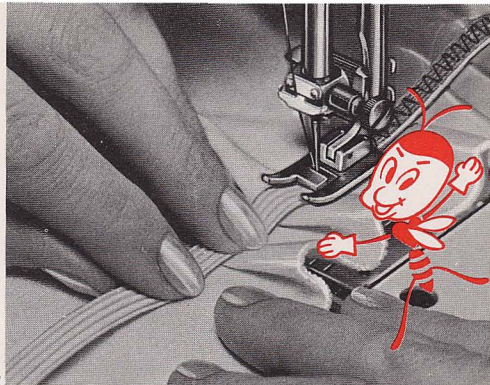
A strip of bias is first stitched with a shell stitch. It is then appliquéd to lingerie, for example, with a blind stitch, and this stitch is also used to appliquéd a ribbon as border. It thus becomes a delightful decorative stitch.

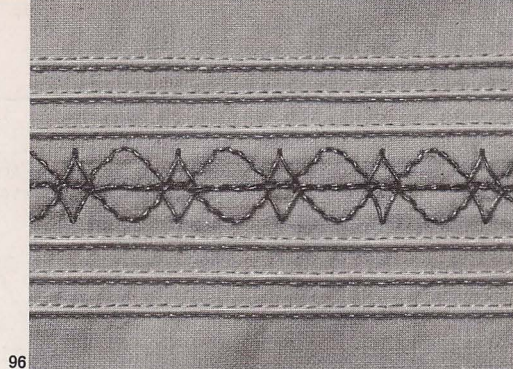
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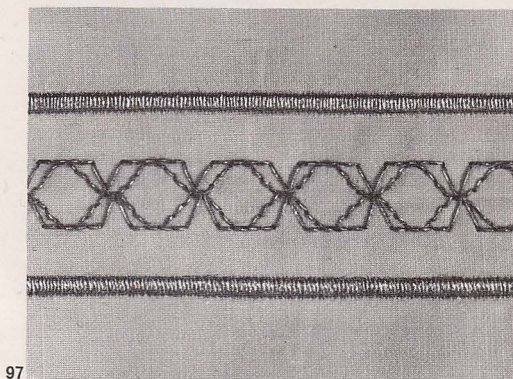
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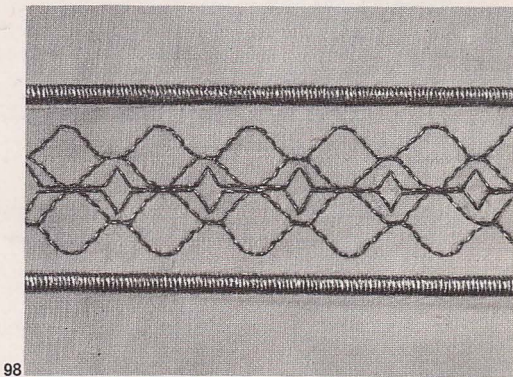




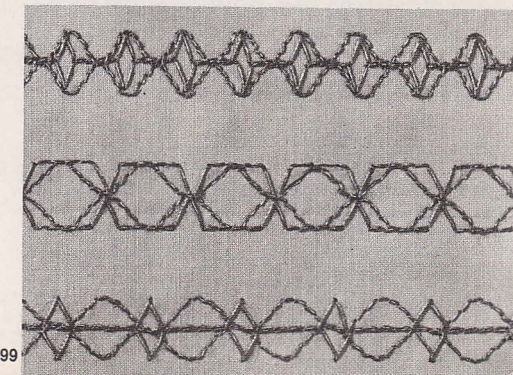
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Fig. 96

Decorative Tucks

Tucks sewn with twin needles 2 mm and tucker foot—see extra accessories, pages 25–26—, the central pattern being sewn with the cording foot, the blind stitch and the serpentine stitch. These two stitches are sewn twice, once in one direction and then in the other. Make a trial on a remnant first, to practise assembling the patterns correctly.

Fig. 97

Satin Stitch Border

This border is enhanced by a combination of the blind stitch and the serpentine stitch sewn twice, once in one direction and then in the other. Make a trial on a remnant first to practise making the stitch patterns come out evenly.

Fig. 98

Another Possible Combination

Fig. 99

Decorative Sewing

Three possibilities for grouping or combining the blind stitch and the serpentine stitch.

Extra Accessories

Electronic foot control

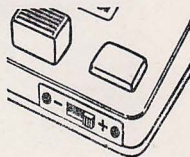
If the foot control is marked "electronic", it is also equipped with a small switch as shown in sketch below. You then have two ranges of sewing speeds, namely:

Fast speed:

With the switch at "+"

Slow speed:

With the switch at "—"



Button Foot—200 (see page 19)

For buttons and hooks, curtain rings, etc.

Darning Plate—224 (see page 13)

For particularly fine darning.

Button Foot with Adjustable Guide—202

For sewing buttons with a stem on woollens, etc.

Blind Stitch Foot with Guide—203

Highly appreciated for making hems on sheer and medium fabrics, linen, curtains, etc.

Quilting Foot with Guide—204

For sewing parallel rows of stitches at equal distances, which can be adjusted (quilting), for guiding edges and for sewing in cords.

Multiple Cord Foot—205

As many as five cords can be inserted into this foot. By covering them with decorative stitches, very attractive designs can be obtained.

Hemmer Feet, $\frac{1}{16}$ ", $\frac{1}{8}$ ", $\frac{1}{4}$ " (2, 4, 6 mm)—206

For hems of various widths.

Roller Foot—207

For various types of sewing and decorative work, especially on plastics and for sewing pieces of elastic or slippery materials together.

Felling Foot—208

For sewing two pieces of material together with a felled hem.

Gathering Foot—209

For gathering materials or for sewing on gathered valances.

Tucker Foot—210

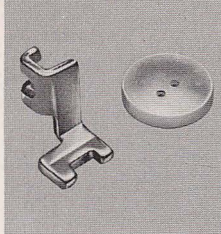
A twin needle is used for making tucks.

Rolled Hem Foot—211

For making rolled hems in combination with the zigzag stitch or other decorative stitches.

Cording Foot—223

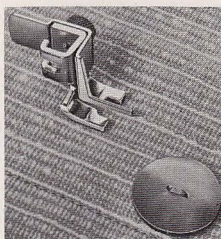
Metal foot for sewing the satin stitch and ornamental stitches, etc. semi-professionally.



200



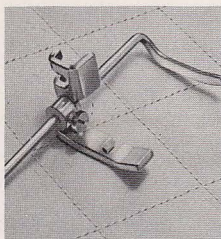
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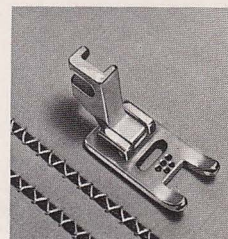
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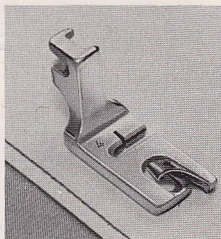
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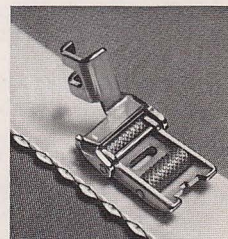
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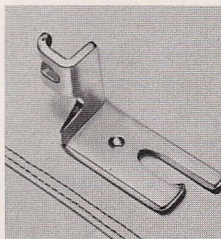
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206/211



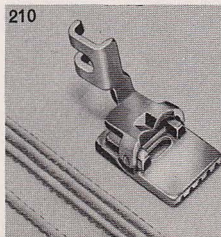
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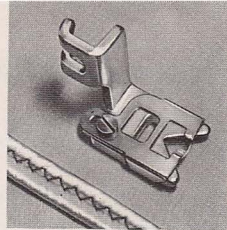
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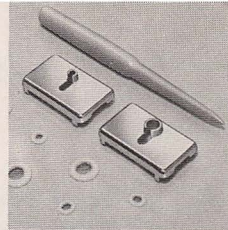
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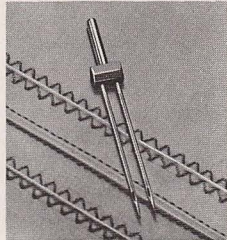
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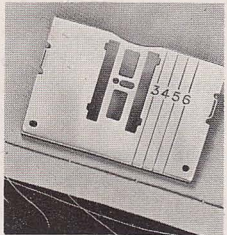
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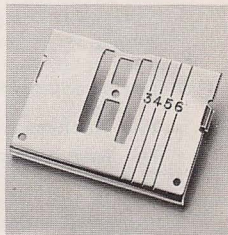
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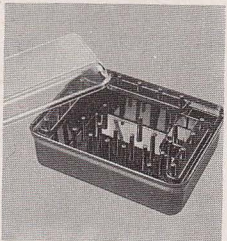
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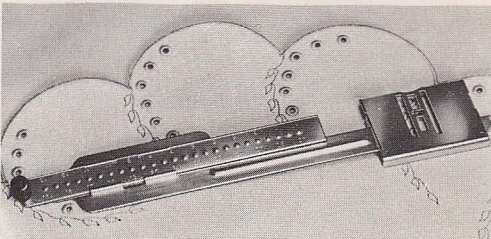
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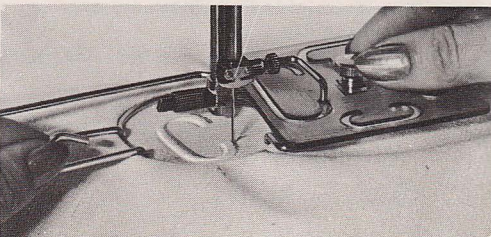
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Braiding Foot—212

For sewing braids, soutaches and cords.

Eyelet Plates 1/16" and 1/8" (2 and 4 mm) and Awl—213

Make it possible to embroider eyelets with a diameter of 1/16" and 1/8". The awl is used for piercing the material to make the holes.

Twin Needles 2 and 2.7 mm—216

For sewing tucks, reinforced seams, etc.

Needle Plate for Basting and Tacking—218

Is used for making long, loose stitches which are easily removed after sewing. Also makes it possible to sew long stitches or apparent seams with embroidery cotton or coarse sewing thread.

Needle Plate with Round Hole—219

Very handy for professionals who mainly do straight sewing (on sheer or soft material, netting, etc.).

Spool and Bobbin Case—220

For arranging reels of cotton, bobbins, threads, needles, etc., in an orderly way.

Circular Sewing Device—222

For all kinds of circular patterns, large scallops various combinations, etc. (Obtainable with a scale in centimetres or inches.)

Monogram Attachment—226

For embroidering perfect monograms on sheets, towels, table cloths, napkins, etc.



Minor Disorders

Consult the instruction book on the pages given below.

The Upper Thread Breaks

	pages
The darning thread does not have a left twist	6
The machine is not threaded correctly; the thread is dry or of poor quality	6, 9
The size of the thread is not suitable for the kind of material	6
The needle is not of the style 15×1 (system 130/705 H); it is of poor quality, bent or has not been inserted correctly (the wrong way round or at the wrong height)	6, 7
The machine needs cleaning	5
The upper tension is too tight	12

The Lower Thread Breaks

The thread has not been wound evenly on the bobbin or it has not been brought up correctly (it does not pass correctly over the bobbin)	7, 10
The lower tension is too tight	12

The Machine Skips Stitches

The machine is not threaded correctly	8-10
The needle is not of the style 15×1 (system 130/705 H); it is bent	6
The needle is not fully inserted into the needle clamp or it has been incorrectly inserted (wrong way round)	6
The thread is too coarse for the size of the needle or it is not flexible enough	6
The needle plate for basting and tacking has not been replaced by the normal needle plate	5

The Stitches are Uneven

The machine is not threaded correctly	8-10
The thread has not been wound evenly on the bobbin or the bobbin has been placed upside down	7, 8
The needle is not suitable for the size of the thread or the type of material	6
The thread is of poor quality or of uneven thickness	6
The tension devices are clogged or they have not been set correctly	12

The Material Puckers Up

The upper and/or lower tension are too tight	12
The stitch is too long	11
The thread is too coarse	6

The Material is Fed Unevenly or Insufficiently

The needle plate has not been inserted properly	5
The feed dog is clogged with dirt	5
The foot or the stitch length is not suitable for the type of material	28

and their Remedies

The Needle Breaks

The material has been pulled during sewing and the needle bends and hits against the foot or the needle plate close to the stitch hole	
The needle has not been inserted properly; it is not fully inserted into the needle clamp or it is the wrong way round	7
The needle size is too fine for the type of fabric or thread	6
The needle is not of the style 15×1 (system 130/705 H), or of poor quality or bent	6
The thread is knotted	6
The needle is poorly centered and strikes against the darning plate or the needle plate with round hole	15
The upper tension is too tight	12

The Machine Runs Slowly

The machine has not been oiled for some time or a poor quality of oil has been used	5
The electronic foot control switch is at "—", set it to "+"	25

The Motor Runs but the Machine Does Not

Tighten the coupling knob	7
---------------------------	---

Remains of Thread or Lint in the Rotary Hook

Remove the needle, the sewing foot, the bobbin and the needle plate	
Tighten the flywheel coupling knob firmly , turn the flywheel back and forth, a number of times, until the thread tangle has been cut. Clean out the remains of thread. Oil the rotary hook and run the machine without thread for a few seconds	5



The Buttonhole Does Not Work

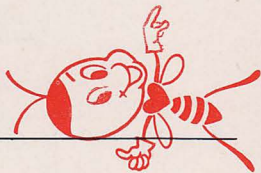
The stitch width lever is not at the right position	18-20
The needle is not decentered to the left	18-20

The Stitch Width Lever Does Not Click into Place

The stitch width lever is not at the right zigzag position	15
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Table of Adjustments

Sewing	Thread	Feet and Plates*			Described on page
Tension • All the ordinary types of work can be sewn at the Universal Tension					
• If necessary, increase or decrease the upper tension					
Straight Sewing - Straight Stitch • Decentered - Normal Darning • on Knitwear	sewing sewing darning darning	presser presser darning* darning buttonpl.*	0 0 0 0 3	1-4 1-4 0 0 0	13 15 13 14
Zigzag Sewing - Overcasting - Blind Stitch - Shell Stitch - Patching - Patching Jersey - Satin Stitch - Tapered Satin Stitch	sewing or darning sewing or darning sewing or darning darning darning or embroidery darning or embroidery	presser presser cording presser presser cording cording	2-4 1-3 4 2-3 2-4 1-4 1-4-1	1-3 2-4 1-3 1 1 1/4-1/2 1/4-1/2	16 16 16 16 16 17 17



Centering

- For buttons and buttonholes decenter to the left

- Buttonholes
- Repairing Buttonholes
- Buttons
- "No Turn" Buttonhole
- "Special" Zigzag Sewing**
 - Overcasting
 - Edge-to-edge Sewing
 - Patching Jersey
 - Putting in Elastics
 - Shell Stitch
 - Blind Stitch
- Sewing on Nylon**
 - Ordinary Sewing
 - Darning
- Decorative Sewing**
 - With ELNA Zig Zag and ELNA Special
 - With ELNA Special

- For nylon, gold or silver thread:
upper tension: 0-3
lower tension: 0-1/4

cording	2-4-2 4-0	1/4-1/2	18
cording- buttonhole	2	1/2	19
cording	2-4	0	19
cording	2-4-2-4-0	1/4-1/2	20
presser	2-4	1/2-1	22
presser	3-4	1/4-1/2	22
presser	4	1/4-1/2	22
presser	4	1/4-1/2	22
presser	4	1/2	23
cording	4	1-2	23
presser	1-4	1-4	23
presser darning*	0 0	1-3 0	17
			24

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