INSTRUCTION-BOOK

BERNINA

Model 740, BERNINA-Favorite
Zigzag Sewing Machine with
automatic ornamental stitch device

Model 741
Zigzag Sewing Machine with
automatic ornamental stitch device

Model 742
Zigzag Sewing Machine without
automatic ornamental stitch device

FR. GEGAUF LTD. BERNINA SEWING MACHINE FACTORY
STECKBORN / Switzerland

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BERNINA

The Warranty Certificate is sent to the Buyer direct by the Importers. Please complete and mail to them the card supplied with the machine, and they shall send you the Warranty Certificate.

FR. GEGAUF LTD. BERNINA SEWING MACHINE FACTORY STECKBORN / Switzerland

Terms of Guarantee

We engage ourselves to repair free of charge any defects due to faulty material and/or workmanship arising during five (5) years in the machine, and during two (2) years in the motor of the Bernina Model 740, 741, or 742 sewing machine supplied by us. All other claims are excluded from this guarantee, which is valid only towards the first buyer of the machine.

This guarantee becomes valid on the day of the delivery of the machine. A buyer wishing to claim under the guarantee should return the machine to the Bernina representative next to his domicile. Transport charges as well as any damage caused by faulty packing are at buyer's expense.

The guarantee does not cover normal wear and tear, nor any damage resulting therefrom; such as cable breaking, burning out of electric bulb, a. s. o.

This guarantee does not apply if the buyer does not treat the machine in the right way, as indicated in the instructions for use, if the machine is not properly cleaned and lubricated, nor in the right way; if third persons not appointed by us are allowed to effect alterations and/or repairs.

Damages due to faulty manipulations are not covered by this guarantee.

The guarantee is only valid if high-grade sewing machine oil and needles of the system no. 130 are used.

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Fig. 1 hereunder shows a Bernina–Favorite sewing machine model 740 with horizontal motor. It is a zigzag sewing machine with ornamental stitch and buttonhole device. The controls referred to in the operating instructions are marked thereon and identified as well.

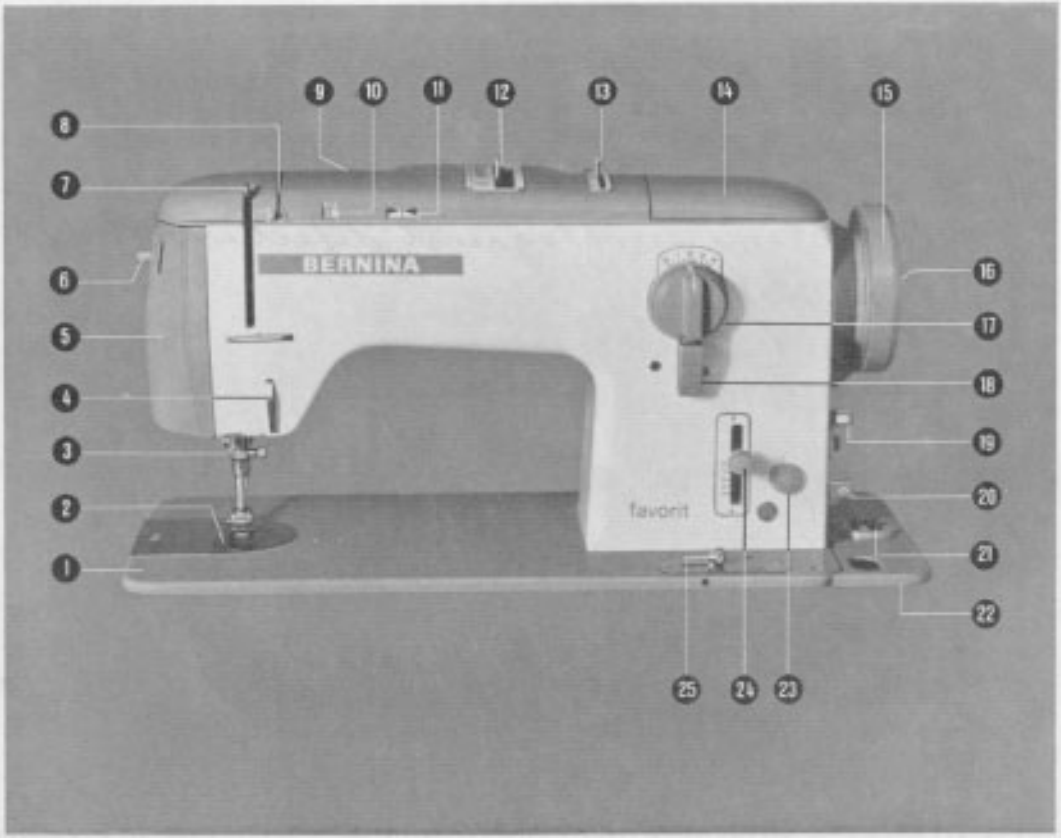


Fig. 1

1 Base plate

2 Needle plate

3 Needle holder

4 Thread regulator

5 Face cover

6 Light switch

7 Thread lever

8 Thread tension and thread guide

9 Thread tension control plate

10 Sight hole for tension control

11 Sight hole for ornamental stitch indicator control

12 Switch lever for ornamental stitch selection

13 Change lever for zigzag or ornamental stitch

14 Flap-plate covering spooling device

15 Handwheel

16 Handwheel release

17 Needle displacement lever on left, medium, or right position

18 Plain stitch, zigzag, and buttonhole sewing control knob

19 Switch button for buttonhole device

20 Switch button for satin stitch stop

21 Plug-socket for light

22 Extension plate

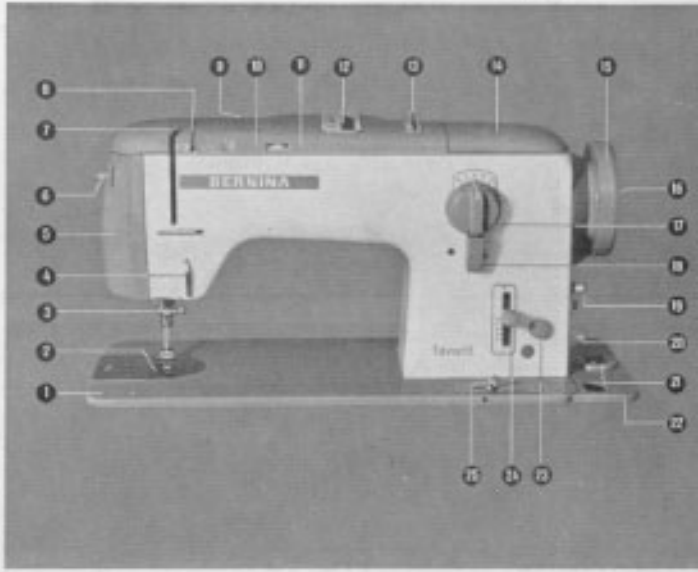
23 Regulation knob for adjusting closeness of stitches with buttonholes and satin stitch seams

24 Stitch length regulating lever

25 Feed retracting knob

The figure no. 2 hereunder shows a Bernina model 741 sewing machine. The controls referred to in the operating instructions are marked thereon and identified as well.

Fig. 2



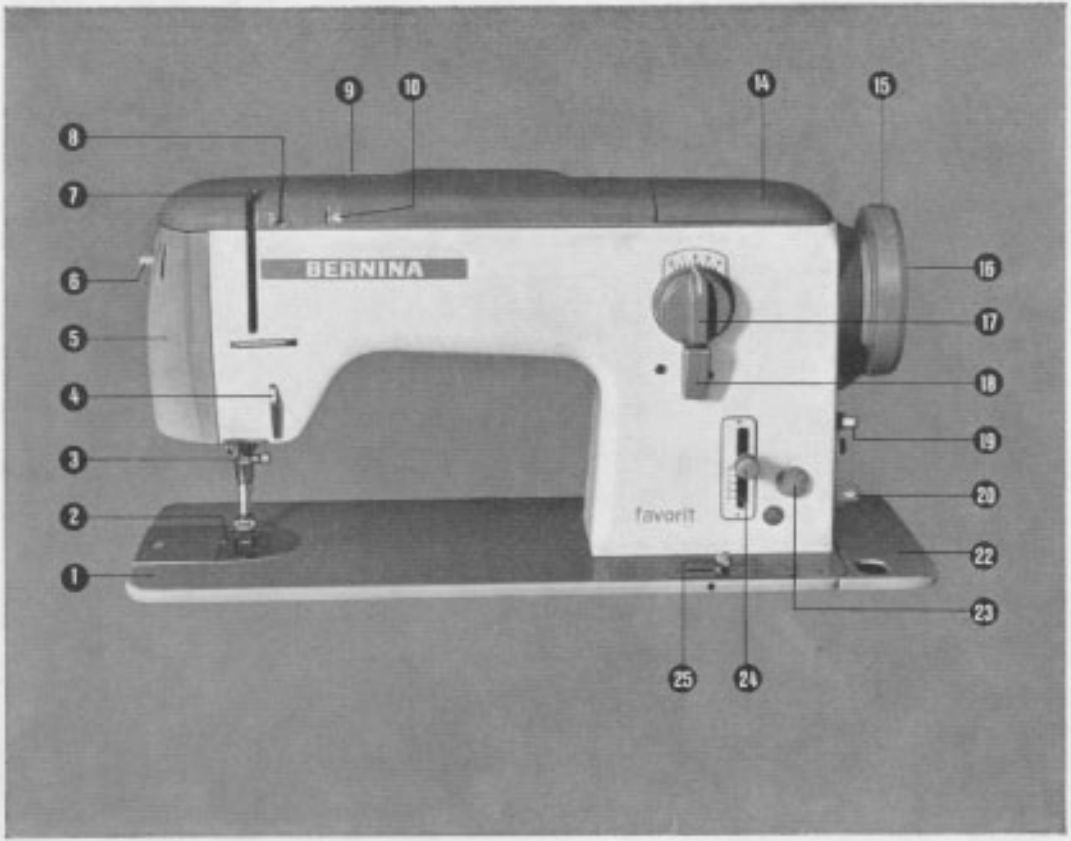


Fig. 3

In the opposite fig. no. 3 you will see a Bernina sewing machine of model 742, whereon the controls referred to in the operating instructions are marked thereon and identified as well.

1 Base plate

2 Needle plate

3 Needle holder

4 Thread regulator

5 Face cover

6 Light switch

7 Thread lever

8 Thread tension and thread guide

9 Thread tension control plate

10 Sight hole for tension control

14 Flap-plate covering spooling device

15 Handwheel

16 Handwheel release

17 Needle displacement lever on left, medium, or right position

18 Plain stitch, zigzag, and buttonhole sewing control knob

19 Switch button for buttonhole device

20 Switch button for satin stitch stop

22 Extension plate

23 Regulation knob for adjusting closeness of stitches with buttonholes and satin stitch seams

24 Stitch length regulating lever

25 Feed retracting knob

Motor

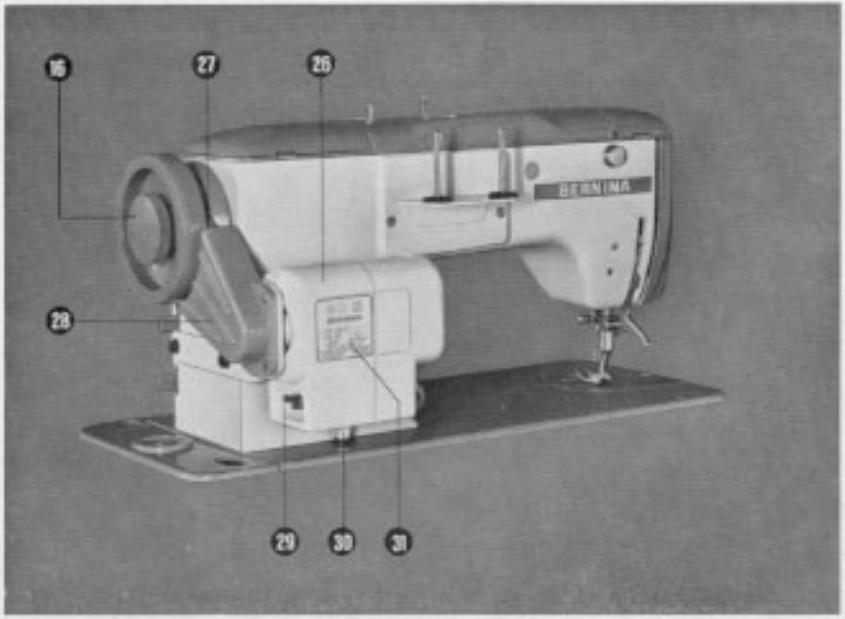


Fig. 4

16 Handwheel release screw

26 Motor

27 V-belt

28 Belt protecting plate

29 3-pole coupling plug, combined for cable to supply circuit and for footstarter

30 Supply circuit plug

31 Date plate

The Bernina–Favorite sewing machines, models 740 and 741, as well as 742, are driven by a horizontal motor fixed at the back of the machine on the balance-wheel side. Drive is effected by means of a V-belt acting directly onto the groove of the balance-wheel. The coupling plug 29 is of the 3-pole type. The cable for the footstarter, as well as the cable with plug for junction to the electric supply circuit are both connected therewith.

A so-called data or rating plate 31, giving particulars of the voltage and power of the motor, is fixed on the casing. Prior to connecting the flex to the mains, make definitely sure that the voltage indicated on the rating plate (i. e. the number of volts) corresponds to the mains voltage.

Said mains voltage is indicated on the current meter of your home.

Dot not rely on the number of volts indicated on plugs and sockets !

Care of the motor

a) Lubrication

The motor has friction bearings, by means of which a nearly silent running can be obtained. The bearings are automatically lubricated, so that they need no service at all.

b) Carbon brushes

From time to time the length of the carbon brushes should be seriously controlled. In order to accomplish this task, the upper and lower brush support plates, situated at the front side of the motor, must be unscrewed and the carbon brushes removed. If these carbon brushes are not removed in due time, with a minimum length of 1/8", they will damage the collector and soon the motor can no more be used.

When re-inserting the carbon brushes please take care that the ground rounding which must match with the rounding of the collector is not introduced the wrong way !

The sewing light

The lamp is mounted in the swivelling head cover to enable an even distribution of light over the entire sewing area, completely free from any glare.

It is switched on and off by pressing the light button 6. The bulb can be changed as is usual currently with all lamps. Turn it to the left to remove, and to the right to insert.

All the chapters of this Instruction Booklet are valid for models 740 and 741, as well as model 742, with the exception of the following two chapters: "Automatic Fancy Stitches" on page 51 and "The Ornament Indicator" on page 54.

Bobbin Case and Bobbin

Removal of bobbin case

Turn the handwheel until the thread lever 7 is raised approximately to its highest position. Then, with the forefinger of the left hand open latch A (see fig. 5) and, holding said latch with thumb and forefinger, withdraw bobbin case with bobbin. Now let go the latch which frees the bobbin, allowing it to fall out of the bobbin case.

Fig. 5

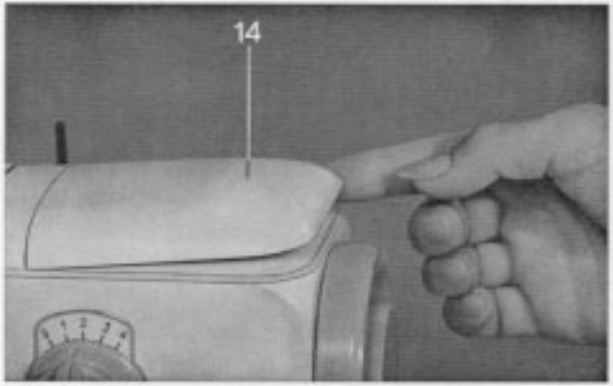


Fig. 6

Spooling the under thread (see fig. 6 and 7)

The winding of the bobbin bearing the under thread on the Bernina seving machines of the models 740, respectively 742 and 741, is done with an automatic winder. It is placed below the hinged cover 14 which is connected in a hinged way with the head cover of the frame (see fig. 6). For winding the cover 14 is turned upwards and the lever 37 carrying the winding device is swivelled out towards backside onto the stop (see fig. 7).

A more perfect stitch is obtained if the under thread is chosen somewhat finer than the one used for upper thread. The reel from which the winding has to be performed is placed onto one of the two reel-pins 35.

In order to prevent the whole machine from running needlessly when winding, turn with your right hand the handwheel release screw 16 as far as possible towards you, and at the same time holding the hand-wheel 15 firmly with your left hand.

Place the bobbin 34 onto the bobbin shaft 36 protruding from the hinged cover. Now the threading takes place as follows: First lead the thread from the reel round the winder pretension device 37, so that the thread is crossing, and from there over the thread guide bolt 32 to thread bobbin 34. Here too the thread should wind in clockwise direction on the bobbin. Now push lever 33 against the bobbin, until it gets engaged.

Then the motor can be started by a slight pressure on the knee lever, respectively on the pedal starter, the mechanism being still at rest. Operate the machine until the bobbin is filled, whereupon the winder will stop automatically. After the filled bobbin has been taken off, lever 37 with winder pretension device should be turned in again and hinged cover 14 can be returned to its starting position. Retighten hand-wheel release screw 16 once more.

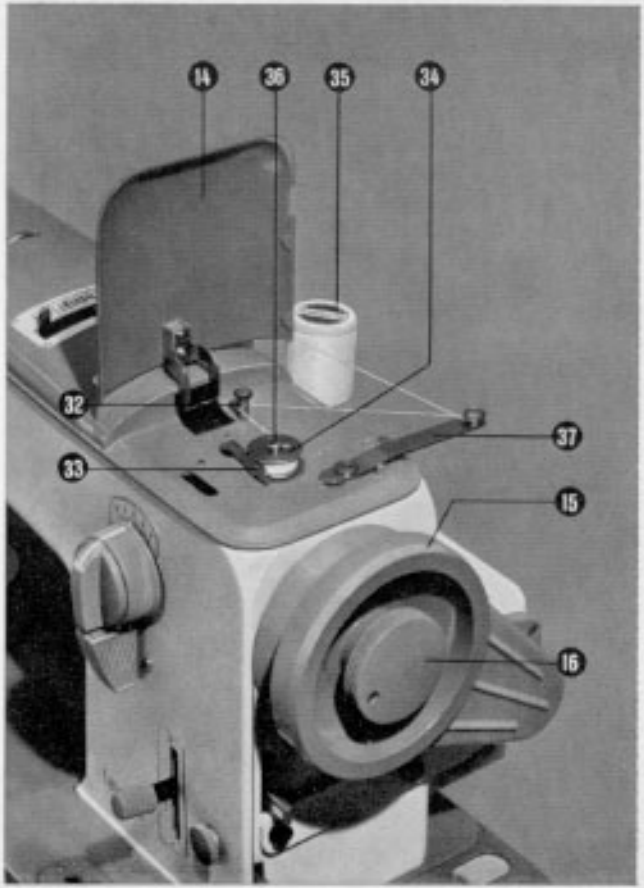


Fig. 7

Inserting the bobbin into the bobbin case and threading the under thread

When replacing bobbin into bobbin case, make sure that bobbin turns in direction of arrow when thread is pulled. After having inserted the bobbin into bobbin case, pass thread through slot 40 below tension spring and allow it to come out at the end of tension spring 42. The screw 38 fixes the thread tension spring, whereas screw 39 regulates said tension (see fig. 8).

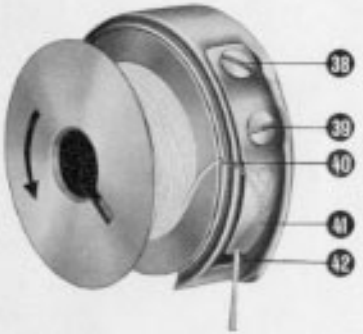


Fig. 8

Replacing bobbin case with bobbin into shuttle

Insertion of bobbin case is possible only when the thread level is approximately in its uppermost position.

The bobbin case is held by the opened latch, same as when removing it (see fig. 5). Thumb and forefinger of the left hand hold the open hinged latch A in such a way that the opening of the bobbin case points upward and can enter the recess in the shuttle race cover. Then place the bobbin case on the pin of the bobbin case finger until it strikes the bottom of the shuttle. Now release latch and make sure that the bobbin case is properly closed so that it cannot fall out any more.

Fig. 9

Setting the needle

Use only system 130 needles. Needles with blunt points or bent needles should never be employed. Turn handwheel 15 towards you, until the needle bar is at its highest.

Hold nedle between thumb and forefinger of the left hand, so that the long groove *faces you!* The *flattened* end of the needle shank must therefore be *at the rear*. Now loosen the needle holder screw by turning it to the left and insert the needle until it strikes above.

Then retighten needle holder screw by turning it to the right. It is important that the needle should be pushed right up to the needle stop and be firmly clamped by the needle holder screw.

Correct needle and thread selection

System 130 needles should be used exclusively on the Bernina–Favorite, model 740 and model 741, as also on model 742. In order to obtain good results, use only first class needles, as also high-grade thread.

First select the thread suitable for the intended work and then the needle to accommodate the thread, consulting to this intent the table hereafter.

Needle and Thread

The relation between needle and thread is correct if the thread, when placed in the long needle groove, fills this latter well and can be freely moved to and fro.

For sewing the usual needle sizes are no. 80, 90 and 100, whereas for darning use needles of the sizes no. 70 and 80.

Needle and thread table

Needle System 130	*Sewing thread*		*Darning thread*
Needle No.	Six-ply (unglazed)	Three-ply (unglazed)	Two-ply
60	–	170–200	80–100
70	70–100	70–140	50–80
80	50–60	50–70	30–40
90	40–50	30–40	–
100	20–30	–	–

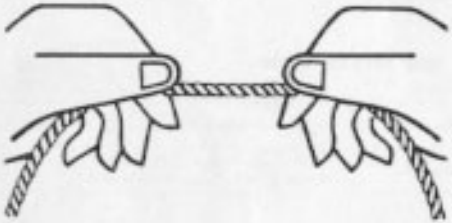
Thread suitable for sewing and darning

For plain stitch sewing: No. 60–90, three and six-ply, unglazed
For darning: No. 50–80, two-ply
For zigzag sewing: No. 60–90, three-ply only
For ornamental stitches: No. 30 and 40, two-ply

Left- and right-hand twisted thread

For darning left-hand twisted thread should only be used as upper thread. The under thread may be right- or left-hand twisted. The twist of the thread can be determined as shown in fig. 10. With both

Fig. 10



hands take hold of a thread end and with the thumb turn thread towards you. Left-hand twisted thread will tighten still more, whereas right-hand twisted thread will loosen.

It will be the best way to buy sewing and darning thread at the Bernina dealer's shop. There you will be sure to get all the products suitable for your Bernina sewing machine.

Threading the upper thread (fig. 11 and 12)

Place a reel of thread on one of the two spool-pins 35 situated at the back of the top arm. From there lead thread through the pretension 43 equally placed at the back of arm, then into slot running across top

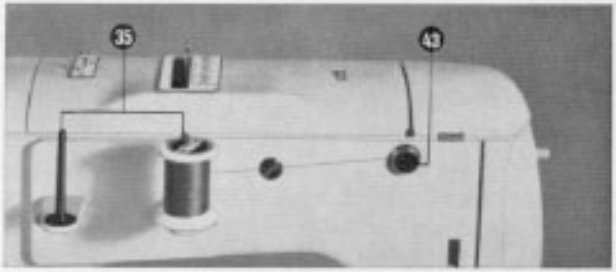
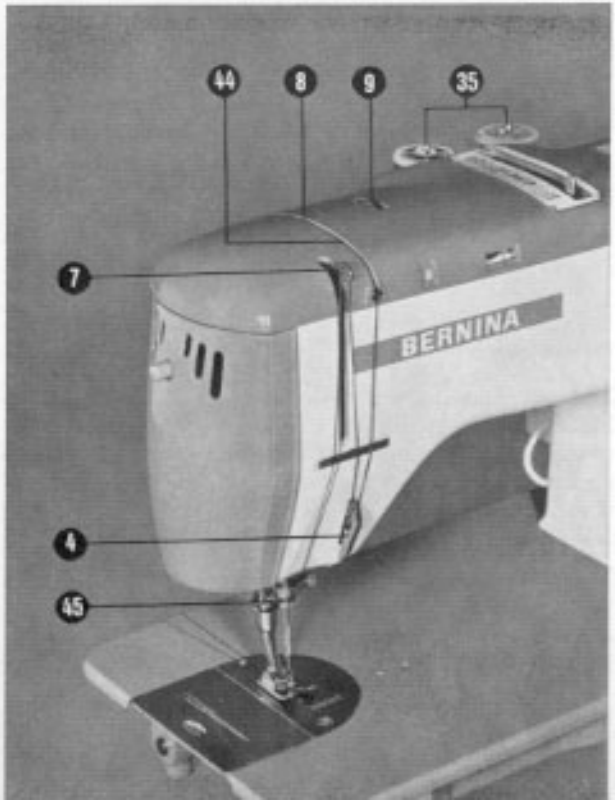


Fig. 11

arm. In its centre the double thread tension 8 is arranged. The central tension disk is protruding a little bit from slot 44. When sewing with one thread only, it does not matter whether the thread is drawn at the left or at the right of the central tension disk into the tension properly speaking. At the front pass the thread down to thread regulator 4. Then up again through front bore of thread lever 7, down once more through needle holder eyelet 45, and

finally through eye of the needle itself, from front to rear. When threading make sure that thread lever 7 and needle are in their upmost position.

Fig. 12

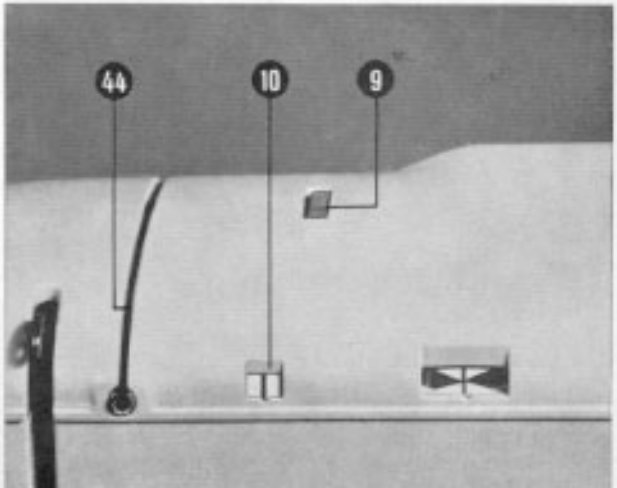


Thread tension (fig. 13)

The Bernina sewing machines offer the unique advantage that the thread tension must never be changed. Only two marked lines are provided for control. When the fixed marked line on top arm and the dot on mobile part of thread tension device are set one above the other, the perfect thread tension is attained. – With Bernina sewing machines a graduated scale is not necessary.

By means of the adjusting disk 9 the thread tension can be changed for special purposes, if any. If the marked line is moving behind sight hole 10 to the right, the thread tension will be reinforced, whereas, if said marked line moves to the left, the tension will be weaker.

Fig. 13



Correct normal tension is set when the mobile marked line is right above the fixed marked line on sight hole.

Drawing up the under thread

Before sewing can be started, the under thread should be drawn up. With thumb and forefinger of the left hand hold the end of the needle thread, leaving it slack from hand to needle. Now turn handwheel with one single revolution towards you, until, protruding from the eye of the needle the thread causes the thread lever to ascend approximately to its highest position. Presently draw a little bit the end of the needle thread, whereby the under thread will come through the stitch hole towards above. Tighten upper and under thread slightly, and pass them backwards under the presser foot.

Fig. 14

To lower the feed dog (fig. 16)

For certain sewing purposes, and mainly for darning, the feed dog should always be lowered. Below on the right side of the sewing machine a control knob 25 is provided, by means of which the feed dog can be brought out of action or set, ready for sewing. Marked signs on the right of said knob 25 are illustrating the actual position, i. e. to the right for sewing and to the left for darning.

Fig. 16

Thread cutter

The pressure foot holding device on the Bernina sewing machines is designed in such a way that it can also serve as thread cutter.

This small gadget helps to save time, especially when the scissors are not immediately at hand.

Fig. 17

Cleaning and Oiling

To clean the machine

Fluff is collected during sewing, particularly around the shuttle, as also between stitch plate and feed dog. Such fluff may detrimentally affect the proper function of the sewing machine and it is absolutely necessary to remove it frequently. From time to time unscrew stitch plate 2 (see fig. 1 to 6), so that the fluff which accumulated under the stitch plate can be adequately removed.

Fig. 18

To insert the cover plate, move it upwards in direction of the stand and introduce the tongue of the cover plate into the guide provided in the stand. Then depress the cover plate at its foremost point, where the stitch plate lies, and the latch will engage automatically (see fig. 19).

Fig. 19

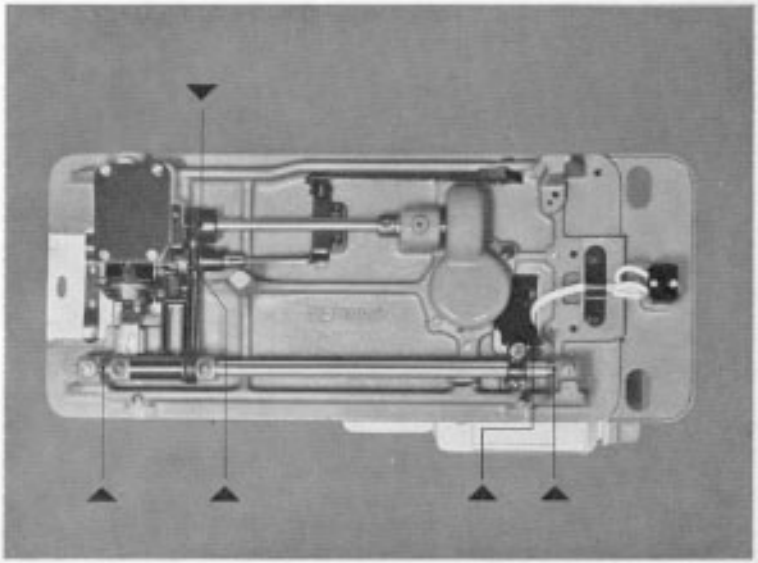
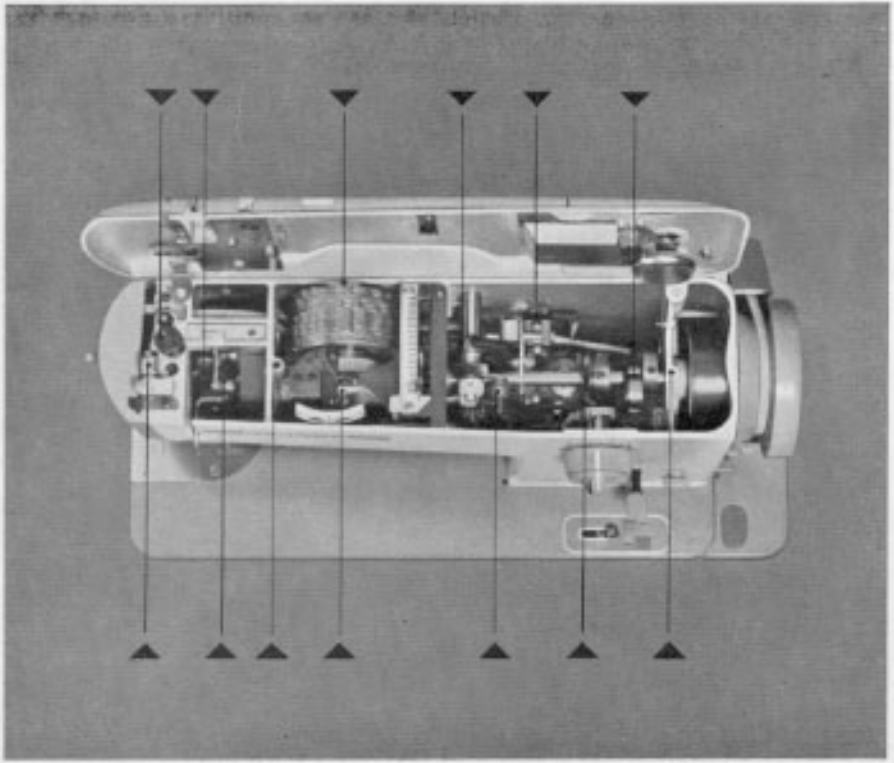


Fig. 20



The sewing machine should be oiled frequently, but never too liberally. A few drops of oil will be sufficient to keep the machine running freely. Oil in excess will drain off unused and may only soil the fabric.

Always oil your machine before sewing and not afterwards. Use clear oil which is free from resin and acid, such as is supplied by all the Bernina representatives. The use of inferior oils may cause your sewing machine to jam when the oil dries up and becomes tacky. The figures 18, 19 and 20 show the oiling points indicated by a series of black lines. By means of opening the slide on the base plate you will have access to the shuttle of which the race should be oiled frequently, but only lightly, at the point indicated by an arrow (see fig. 18).

Expert oiling guarantees the silent running of the sewing machine and increases its durability. The oiling points not visible in the figures 18, 19 and 20 are marked with red colour on the machine itself.

When the sewing machine has been kept in a cold room, it should be opened and placed in a warm room about an hour before use, so that it can assume room temperature and allow the oil in the bearings to become liquid again.

Fig. 21

The shuttle

The Bernina sewing machines model 740, 741, and 742 are all furnished with a patented shuttle. This shuttle has been patented in many countries throughout the world. Its distinctive feature is to make the machine practically insensible to any mistake resulting from wrong manipulation. (See fig. 21.)

Plain Stitch

Plain stitching with standard and special presser feet

Exchanging the presser feet

The different tasks of sewing work involve the necessity of frequent changes of the various presser feet. For this reason the Bernina sewing machines, models 740, 741 and 742, have been equipped with the patented "Plug"-feet which can be connected as easily as an electrical plug, no screwdriver being needed and a reliable stability guaranteed.

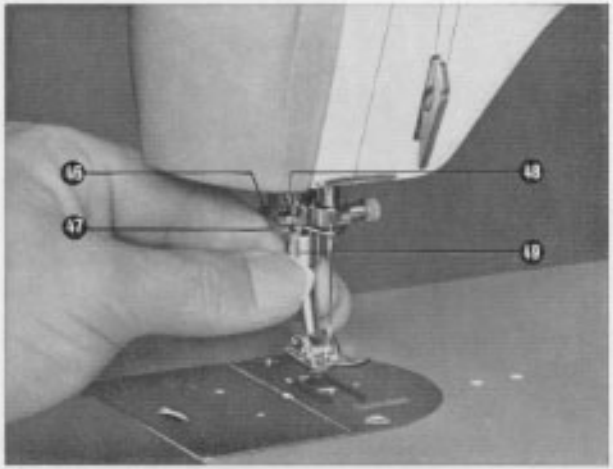


Fig. 22

a) *How to remove the presser foot* (see fig. 22)
The presser bar with presser foot attached is raised by means of the lifting lever placed at the back of the machine head. Now raise the clamping lever 46 which continues under the clamping cam 48 of presser foot 49 far enough for the hook 47 of said clamping lever 46 to release the clamping cam 48 entirely. Now the presser foot will drop automatically or with very little assistance from the presser bar cone, so that it can easily be removed.

b) *When replacing the presser foot*, push presser foot firmly onto the presser bar cone and fix it with the aid of the clamping lever 46.

The plain stitch

For plain stitching adjust the sewing machine as follows:

1. Raise thread lever to its uppermost position.
2. Insert zigzag foot, but if you intend to sew quite a lot of seams with plain stitching, it will be advisable to use the normal presser foot for plain stitches.
3. Thread the upper thread from front to back through the eye of the needle. Then draw up the under thread and lay both threads under and to the back of the presser foot.
4. Turn knob 25 to the right. Symbol to be put on "Sewing".

5. Unscrew stitch regulating device 24, the stitch regulating handle being developed as a turnable screw by means of which the stitch length can be adjusted by turning same in or out, and regulate the stitch length device on the wished for number. Normally this will be 1.5.
6. Set zigzag knob 18 in such a way that the zero mark becomes visible on the graduated stitch length dial above said knob.

Make sure that the handwheel is always directed towards the operator when turning the sewing machine.

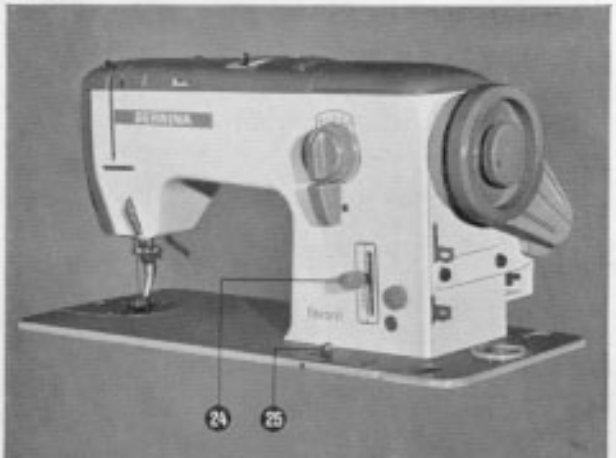
Forward and backward sewing, and adjustment of different stitch lenghts

According to the position of the stitch regulating lever 24, the machine will sew forward or backward, forming by the way long or short stitches. If the stitch regulating lever 24 is pushed down until the marked line is just *below* number zero at the left side of scale, the machine will sew forward. If to the contrary the stitch regulating lever 24 is pushed upwards to just *above* number zero, the machine will sew backward.

Forward and backward sewing serves to strengthen certain sewing areas and to secure the ends of the threads.

The more the stitch regulating lever screw 24 is displaced either upward or downward, the longer the forward or backward stitch will be. In order to ensure that both forward and backward stitches will be of the same length, the lock screw of the stitch regulating lever 24 should be turned, respectively tightened or loosened. In this manner the upward and downward movement of the stitch regulating lever 24 can be limited. When loosening said lock screw the displacement of the lever will be increased, whereas in tightening same it will be reduced adequately.

Fig. 23



To remove the work from the machine

Raise the thread lever to its uppermost position. Then raise also the presser foot by means of the lifting lever. This will release the upper thread tension and the working piece can now easily be removed without having to draw on the thread previously.

Darning

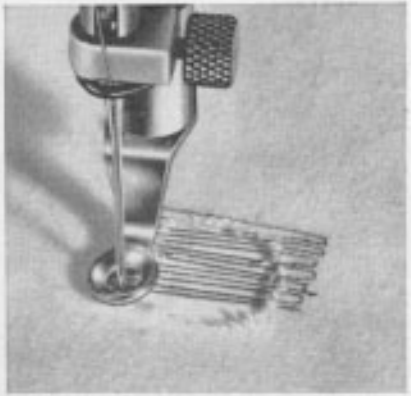
When the machine should be set for darning and mending, proceed as follows:

1. Lower feed dog by turning knob 25 to the left upon "Darning" symbol (see page 16).
2. Adjust zigzag knob 18 upon zero position.
3. Set stitch regulating lever 24 upon zero point to prevent the feed dog from being operated unnecessarily.
4. Raise thread lever to its uppermost position.
5. Remove presser foot and insert darning or hopper foot.
6. Insert darning plate.
7. Threading of bobbin as for buttonholing; see fig. 50, page 38.

Darning table linen, towels a. s. o.

Cut out the whole damaged spot, so that only solid material remains. Start as shown in fig. 24 a, in directing the work by hand, so that one thread comes to lie directly along the other. It will be useful to guide the threads about $^{13}/_{64}$" beyond the edge of the hole, but in somewhat different lenghts altogether. This will aid to strengthen the material round the hole.

Fig. 24 a



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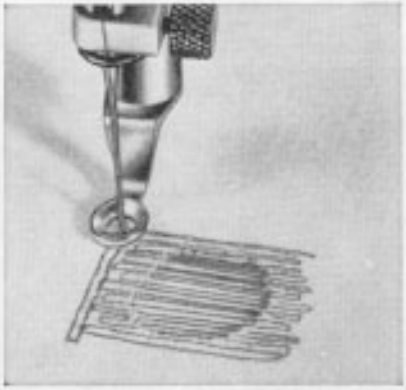

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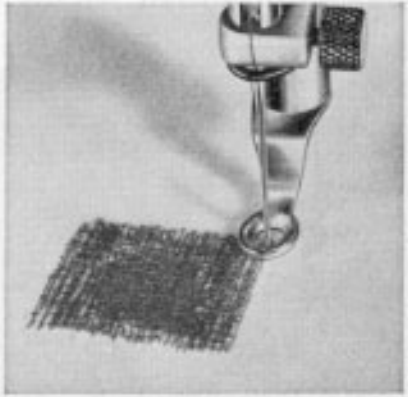

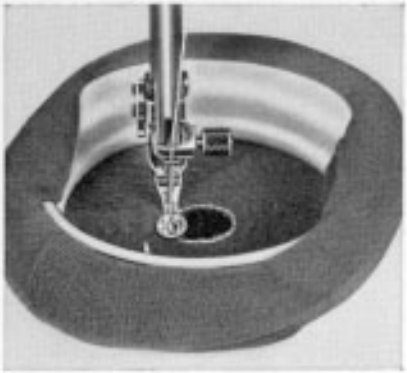

Fig. 23 a

b

c

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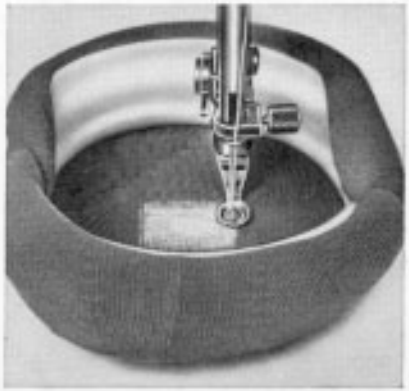


After the stitching has thus been performed, continue, as shown in fig. 24 b, to sew a second layer of threads over the first line of stitches, whereby you begin a bit outwards of the already stitched threads. This second layer should be a bit more covering.

Finally stitch a few more rows at equal distance apart, in order to fill eventual gaps. This should be done in a very regular manner (see fig. 24 c).

Darning stockings

(The darning apparatus is available only against extra charge)

For darning stockings the darning apparatus is used, on which the stocking is rolled in such a way

that the damaged area comes to lie in the middle of the apparatus.

Now place the stretched stocking under the presser foot for darning and work a simple plain stitch row around the damaged area. This stitching will prevent laddering (see fig. 25a). Continue by stitching from front to back, across the direction of the loops, one row along the other (see fig. 25b). The darning rows should be laid about $^{5}/_{32}$" to $^{13}/_{64}$" beyond the edge of the damaged area. This should be done with lines of unequal lengths.

After the stitching has been completed turn the darning apparatus round about by one-quarter turn and begin with the covering of the first lines of stitches. In order to make these covering lines less visible, work them in the direction of the loops, beginning outside of the farthest first lines (see fig. 25c). These covering lines of different lengths should run parallel with the loops. Finally fill in the small spaces remaining in the darning area properly speaking, working lines of stitches in the same direction as before, but these lines should not reach beyond the edge of the former hole (see fig. 25d).

THE FELLERFOOT

In order to connect two pieces of material (linen, gents shirts a. s. o.) by means of a firm seam, the fellerfoot is used, whereby the felled seam is obtained in two different operations.

1st operation (see fig. 27)

Arrange the fabric sections to be joined together on top of each other, in such a manner that the bottom section slightly projects from the top one, and pass

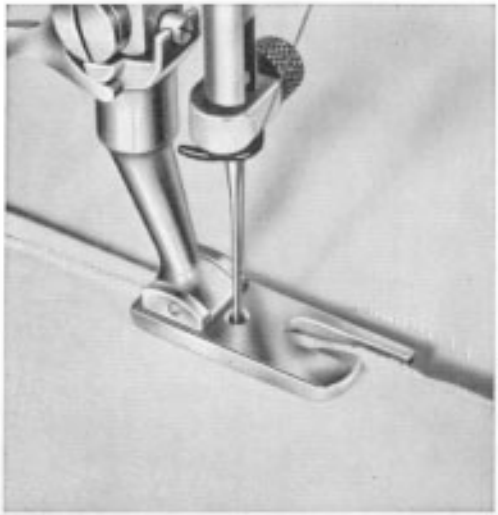


Fig. 27

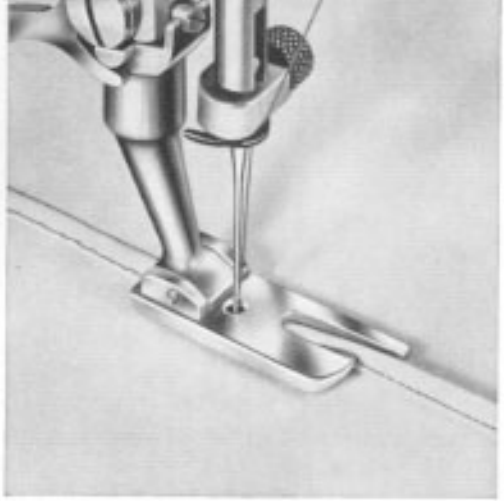


Fig. 28

both sections under the fellerfoot as when hemming, so that they fold over. Make sure that the same width of material enters the fellerfoot.

2nd operation (see fig. 28)

The two fabric sections are now unfolded and laid flat, so that the seam which has been formed stands up like a pleat. The pleat is again passed into the fellerfoot *in the same direction as was the case the first time*, so that it is folded over and can now be sewn down.

Hemmer

(Hem with a width of approximately $^{5}/_{32}$")

Attach the hemmer in place of the ordinary presser foot, raising the presser foot to this purpose.

Fold the edge of the material over to the desired hem width and guide the so prepared fabric into the spiral-type guide tongue of the raised hemmer till under the needle; then lower the hemmer. When sewing, lightly guide the prefolded edge (see fig. 29). If too much fabric enters the hemmer, the seam will appear bulgy and quite uneven; if too little, the hem will not be folded in sufficiently and does not close the seam in the way which is correct and nice to look at.

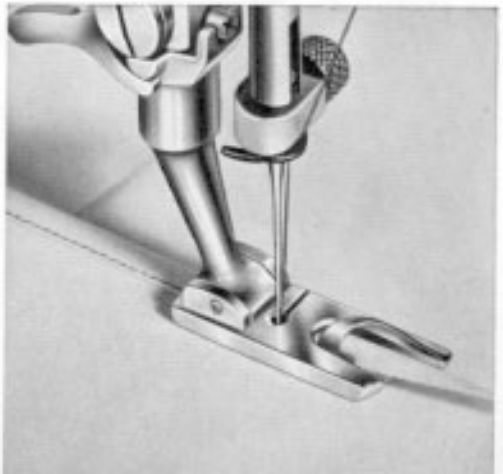
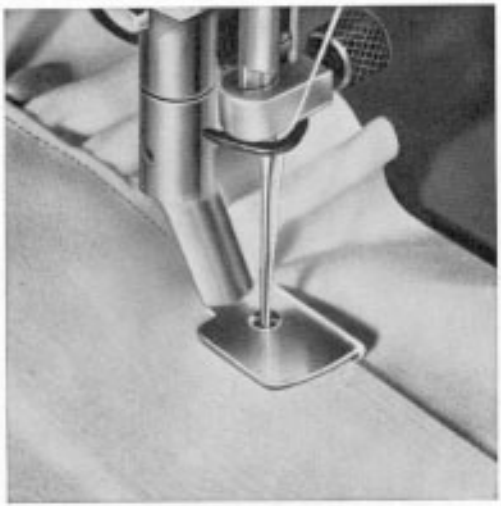


Fig. 29

Gathering foot

(To be supplied only against extra charge)

Fig. 30



Introduce gathering foot and adjust sewing machine upon plain stitch sewing.

Put the material to be gathered under the gathering foot and not into the transverse slot. Lower the gathering foot by means of the presser foot lever and introduce the piece of material to be gathered, which must remain quite flat for the moment being, into the transverse slot of the gathering foot as far as it will go. To increase the amount of gathering on the bottom material, hold the top material back. The more it is retained, the greater the fullness of the gathering will be, and vice-versa.

If only one layer of fabric has to be gathered, place the material beneath the gathering foot onto the feed dog, where the adjusted stitch length will regulate the fullness of the gathering. A somewhat longer stitch will increase said fullness, whereas a shorter one will decrease it.

Edger

Adjust the sewing machine upon plain stitch sewing and introduce the edger instead of the standard presser foot.

The edger with its stitch hole farthest to the right of foot is specially suited for edge stitching. For this purpose the edge stitcher is employed *without* the quilting guide.

The edger *with* quilting guide is mostly used for quilting works (see fig. 31), when the distance of the guide from the needle determines the width between the rows of stitches. Adjust correspondingly and when sewing guide the fabric in such a way that the quilting guide runs always within the precedent seam. In such a way all the seams – the cross seams included – are quite parallel one with respect to the others.

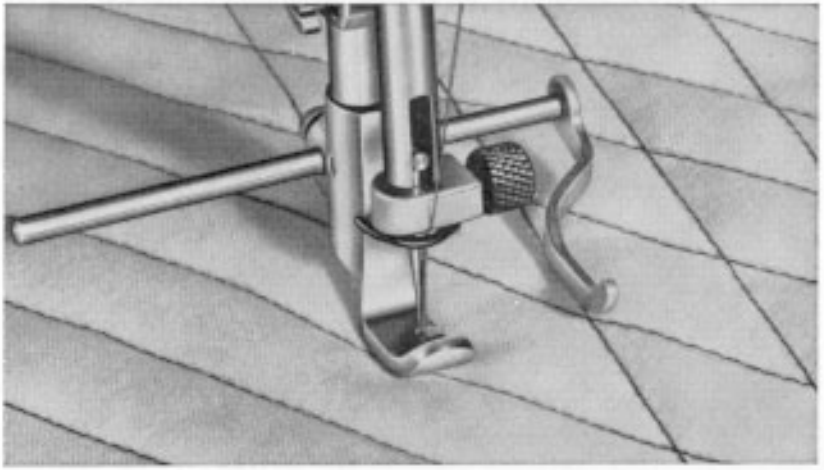
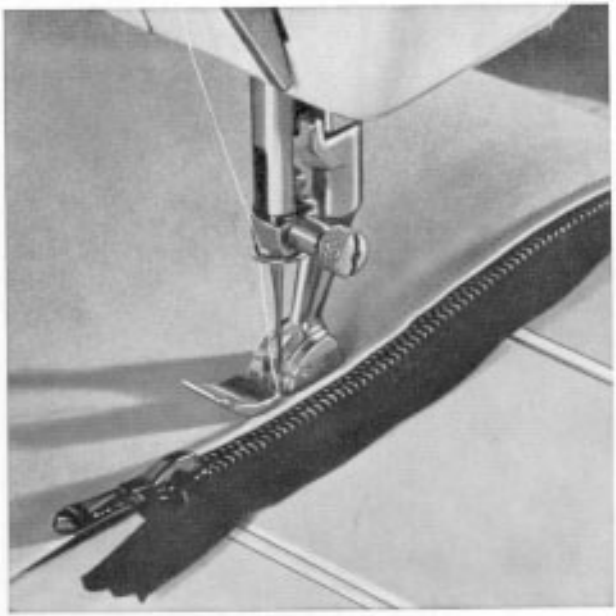


Fig. 31

THE ZIPPER FOOT

(Available only against extra charge)

Fig. 32



When inserting zippers be sure that for the stitching of the left side of the zipper the needle position to the right must be used (see fig. 34).

Thus knob 17 must be set to the right (see fig. 2).

The stitching of the right side of the zipper must be performed with needle position to the left (see fig. 33).

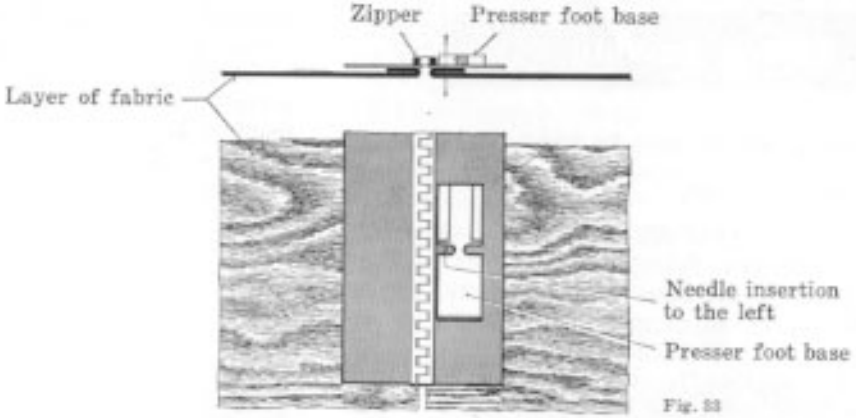

Zipper
Presser foot base
Layer of fabric
Needle insertion to the left
Presser foot base

Fig. 33

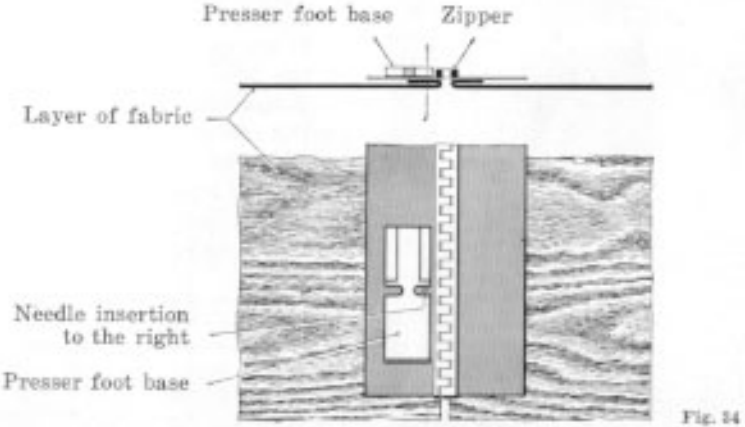

Presser foot base
Zipper
Layer of fabric
Needle insertion to the right
Presser foot base

Fig. 34

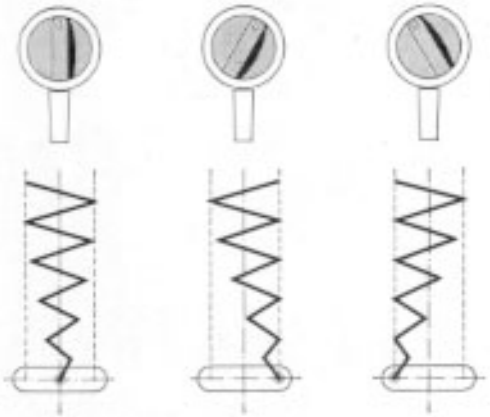
Zigzag sewing

Zigzag sewing, with service by hand

Adjustment et stitch width

At the right-hand top of the body of the sewing machine the adjustment knob 18 (see fig. 2) will be found. It serves to regulate the stitch width. When turning the zigzag adjustment knob 18 the width of the stitches will be set. The pointer on the knob 18 enables you to read on the stitch width scale behind said knob the actual width of the seam. For plain stitches the pointer on the knob 18 must indicate number zero on the scale. Thus a plain stitch will result. When turning the adjustment knob 18 to the right (in clockwise direction), the pointer will move from number zero to number four. The higher the nomber, the more the pointer will move; thus the zigzag stitch will get larger following the adjusted number on the scale. The adjustment knob 18 can be regulated whilst sewing, but when you operate your sewing machine, it can only be set if the needle is *outside of the layer of fabric.*

Fig. 35 a b c



a) Central position of the needle
Needle throw from centre evenly to both sides

b) Position of needle to the right
Needle throw starting from a straight line at right edge of seam

c) Position of needle to the left
Needle throw starting from a straight line at left edge of seam

Centre, right, or left position of needle

Above the zigzag adjusting knob 18 a lever 17 is provided. This lever can also be adjusted when sewing, but, when the machine is at a standstill, it can equally be set only when the needle is outside of the layer of fabric.

If the grip of this lever is placed upwards, i.e. when the pointer is directed exactly upwards, the needle throw will be uniform to both sides, proceeding from the centre to the left and to the right, with every adjusted width of the zigzag stitch (see fig. 35 a, central position of the needle).

By turning the grip in such a manner that the arrow points to the right, the piercing of the needle will be

in a straight line at the *right* edge of the adjusted zigzag width (see fig. 36b, needle position to the right). Thus the different zigzag stitch widths are only to be seen on the left side of the seam. On the other hand, if the arrow points to the left, the piercing of the needle will be in a straight line only at the *left* edge of the adjusted zigzag width (see fig. 36c, needle position to the left).

Most zigzag sewing work is done with the zigzag stitch adjusted in central position, while the sewing machine needle is generally set to its left position when making buttonholes, sewing on buttons, and producing ornamental stitches. For other ornamental stitches often the right zigzag position is used, sometimes also by means of combining with the previously mentioned two needle positions.

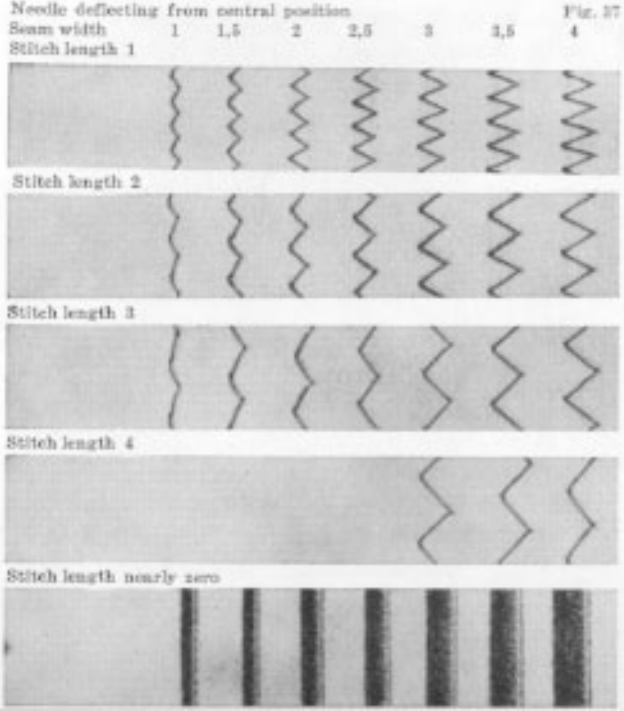
Zigzag sewing

(Never use 6-ply threads, but only 2- or 3-ply.)

For zigzag sewing adjust the sewing machine as follows:

1. Raise thread lever 7 to its uppermost position.
2. Insert zigzag foot, not to be mistaken for the zigzag embroidery foot which has its lower surface hollow ground. When raised, leave zigzag foot in this position.
3. Thread upper and under thread, and place both threads under and to the back of zigzag presser foot.
4. Turn knob 25 to the right, the symbol being set on sewing.
5. Adjust stitch length regulator 24 onto the wished for stitch length.
6. Fix slide-on table.
7. Lower zigzag presser foot.

Proceeding from stitch length zero to four, and with a stitch width equally from zero to four, the simple zigzag seams will appear with central needle position as shown hereunder. Of course all intermediate sizes can be used as regards the stitch widths, as also their length.



Elastic Sewing of Knitted Goods

- Always use darning thread for basting tricot and other knitted goods. Never do it with basting thread.
- Use perfectly straight and pointed needles. Size 70 or 80.
- The thinnest area of material should be placed always under and to the left of presser foot.

If the tricot seam is not regular, test whether:

a) the needle is accurately set, and

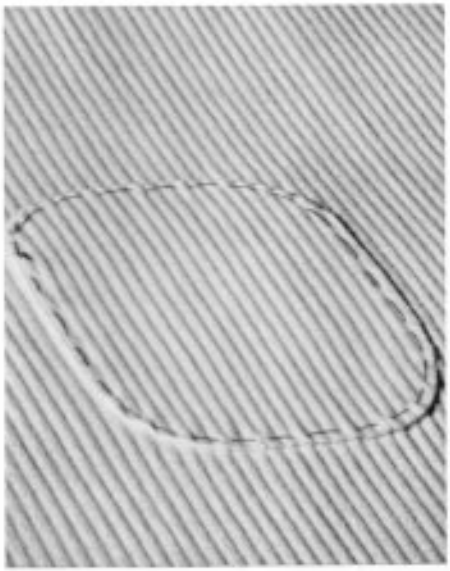
b) size of thread does really correspond with size of needle or not.

If the zigzag seam seems to be not elastic enough, it will just be necessary to adjust a larger width and a shorter stitch length in order to obtain a better elasticity of the seam.

Mending tricot and other knitted goods by means of elastic seams

A fresh piece of tricot fabric is placed on top of the damaged area in the direction of the loops and basted by hand, using darning thread to this intent.

Fig. 38

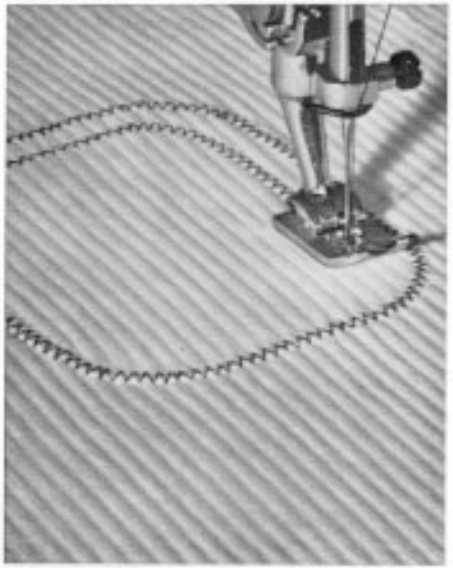


Stitch a zigzag seam along patchwork edge about the depth of presser foot towards inside.

Adjustment of machine:

Zigzag width upon 3 or 4
Stitch length upon 1

Fig. 39



Tricot seams

With ordinary tricot it seams advisable to make a fold with all seams and then only stitch across.

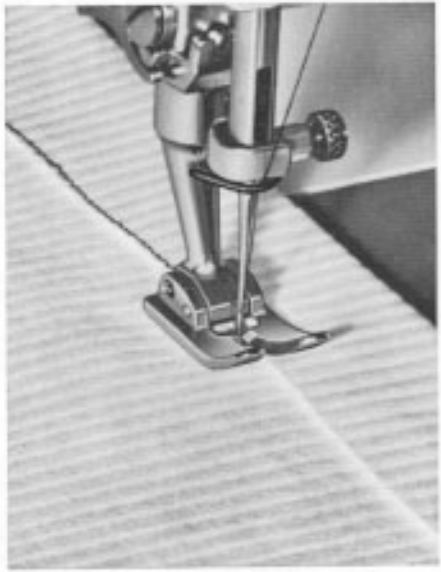
Zigzag width upon 2.5 or 3
Stitch length upon 1.5

Fig. 40

If a seam is stitched without being folded along the edge, it is recommanded to stitch first a straight seam with plain stitches approximately 3/64" inside the cut edge, instead of basting, whereby the material and the seam are prevented at the same time from being distorted.

Zigzag width upon zero mark
Stitch length upon no. 3

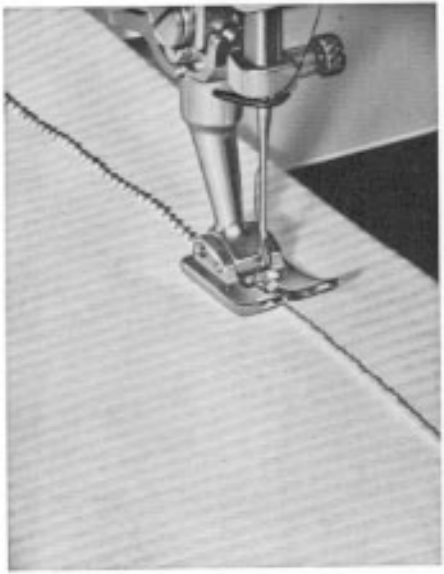
Fig. 41



Finish with a zigzag seam.

Zigzag width upon 3 to 4
Stitch length upon 1.5

Fig. 42



The tricot or elastic side seam

Fig. 43

Place both pieces of cloth on top of one another and stitch a first seam about the depth of the presser foot from the cut edge.

Zigzag width upon 1.5
Stitch length upon 1

Fig. 44

Cut off projecting edge at about 1/8" distance from seam.

Fig. 45

Now stitch another seam accross the new edge of cloth (winding round).

Zigzag width from 3 to 4
Stitch length from 1.5 to 2

Sewing on lace

To run on laces use short stitch lengths and narrow stitch widths as a rule. Normally the stitch length regulating lever 24 (see fig. 1) is set at 1/2 and the zigzag knob 18 at from 1 to 2. Place the lace on the fabric to be sewn, approximately 3/64" to 1/8" inside edge, in order to facilitate sewing on. Now attach the lace with zigzag stitches and then cut off the material edge projecting, along said zigzag seam.

Roll Hemmer

The rolling hemmer, characterized by two red lines on its shank, is similar in shape to the ordinary hemmer. The only difference is that its stitch hole is not round, but elongated, so that zigzag seams can be sewn with it. The rolling hemmer is operated in the same manner as the ordinary hemmer foot. The zigzag knob 18 (see fig. 1) is set at approximately 3 or 4. – Rolled hems are used particularly for edging fine material.

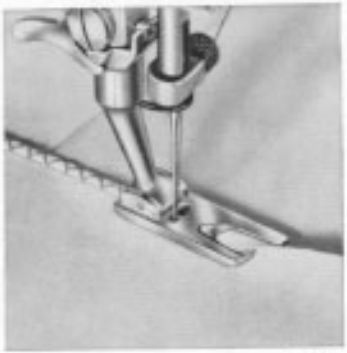
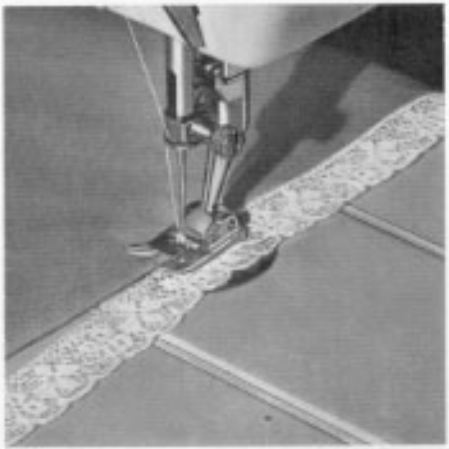


Fig. 47

Fig. 46 a

b



The scalloped hem

For scalloped hems use the rolling hemmer too. The material or elastic fabric (tricot) is inserted in the spiral guide as is the case when using the rolling hemmer. The zigzag stitch bridges the entire seam. Tight top thread tension and large stitch length produce the scalloped effect. This scalloped hem is employed mainly for edging knitted linen goods.

Braiding

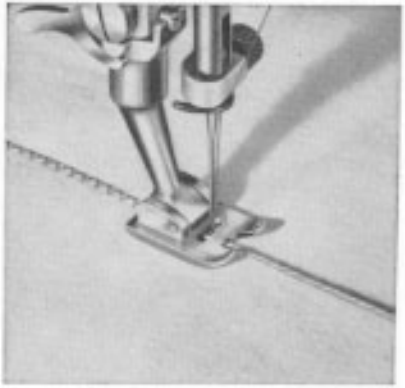


Fig. 48

Introduce a soft cord in the guide hole of the zigzag embroidering foot, which is marked by one red line on its shank, and stitch or embroider over with zigzag stitches. – Use mercerized thread no. 50/2 or 60/2.

A great variety of effects can be obtained with this type of work. – Colour thread, coloured cord, or a number of adjacent seams a.s.o. will still enhance said effects.

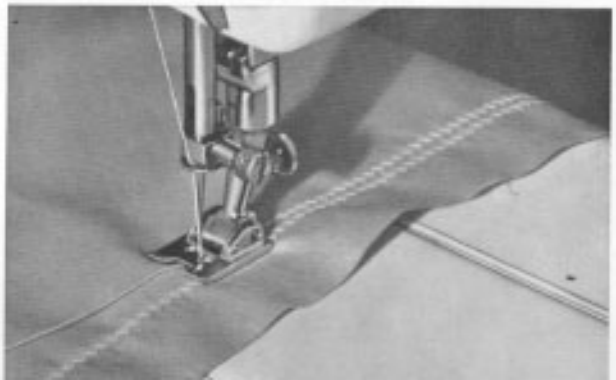
Ruffler

Light, soft fabrics such as Batiste, Georgette, Charmeuse a.s.o., may be very attractively ruffled or shirred, using the embroidering foot and working with stitch length upon 4.

When ruffling rather stiff fabrics such as Poplin, Reps, or Wool a.s.o., a pearl yarn no. 8 should be introduced into the guide hole of the embroidering foot and stitched onto the underside of the fabric, sewing a zigzag stitch with a width of 1.5, with a stitch length of from 1.5 to 2.

At a distance of $^5/_{64}$" a second row is sewn, whereupon both rows or the peral yarn are shoved together, when needed, to a uniform ruffle. If the ruffled part is combined with a straight one, this seam should be sewn in between the two ruffled rows.

Fig. 49



AUTOMATIC BUTTONHOLE SEWING

There are three different kinds of buttonholes:

a) The ordinary buttonhole
b) The buttonhole with cord inlay
c) The raised buttonhole

The ordinary buttonhole

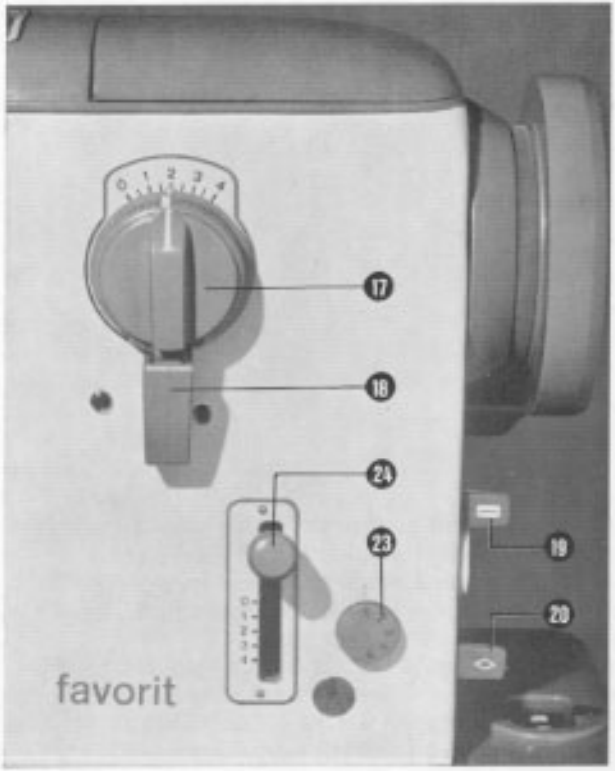
This is sewn with normal under thread tension, with a special threading of the bobbin case. The sewing of the buttonhole is performed without turning the cloth around. This can be made either step by step, the sewing machine being stopped after each operation, or in one working process i.e. without interrupting the various working stages. It will, however, be well to learn the sewing of buttonholes step by step; after some time you will be able to sew the entire buttonhole in one single working process as well.

Fig. 50

Threading of the under thread:

An increased tension of the under thread produces still better results when sewing buttonholes. To get this higher bottom thread tension without changing the lower tension itself, which is correctly set for normal sewing (see fig. 50), a hole has been drilled through the finger of the bobbin case. For normal sewing the bobbin case is threaded as explained on page 12.

Fig. 51



For sewing buttonholes, the machine should be adjusted as follows:

1. Insert buttonhole presser foot.
2. Feed drop knob 25 (see fig. 1) must stand on symbol "sewing".
3. Draw zigzag knob grip lever 18 downwards, so that it can work together with the fixed stops on sewing machine stand.

Fig. 52

4. To engage the buttonhole device proceed as explained hereafter. Draw the upper lever 19, which is marked with a buttonhole symbol, with a light movement towards you and then upwards. Now let it go; the buttonhole device is now engaged in its working position. To disengage the buttonhole device proceed in the reverse order.
5. The stitch length adjusting lever 22 is pushed upwards as far as possible.
6. After the stop has been brought into working position by moving the grip lever of the zigzag knob 18, get hold of it and swivel it in such a way that the pawl comes to lie against stop pin I. This is done by moving said grip lever slightly to the right. Now the pointer pin of zigzag knob 18 will be approximately opposite scale number 1.5.

Fig. 54

7. Adjust needle position regulating knob 17 (see fig. 2). The lever is turned so far to the left, until the white mark at the top end is lying exactly opposite the mark on the zigzag lever 18. Now the machine is perfectly adjusted for buttonhole sewing.

Fig. 55

The step by step sewing of the buttonhole is performed as follows:

1. Sewing the lefthand edge

Start the machine; then the lefthand edge is swen with backward stitches. A scale on the buttonhole presser foot serves for determining the length of said buttonhole. After the wished for length of the lefthand edge has been attained, stop the machine at once. Always take care that at that moment the needle is up and outward of the work itself.

2. Sewing the first end stitches

For this purpose take hold of the zigzag lever 18 and give it a strong push to the left, until it touches stop II. The sew a few end stitches, and after that stop the machine once more and set the needle up (see fig. 57).

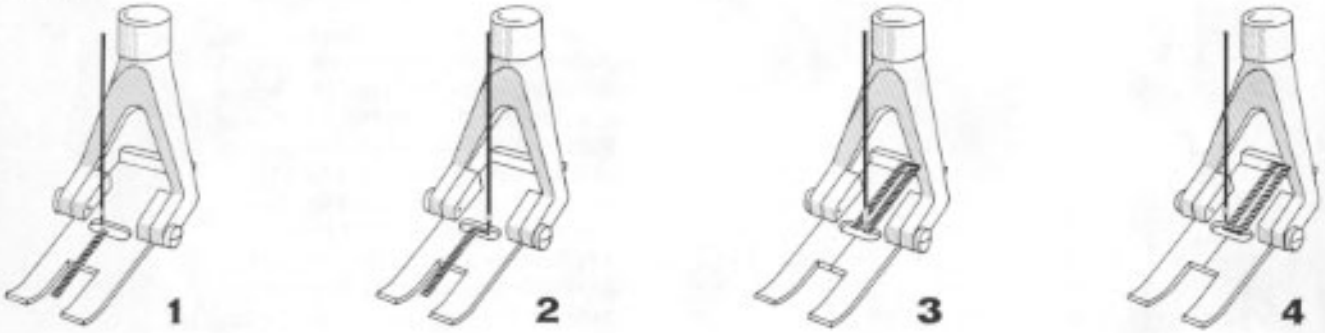
3. Sewing the righthand edge

Bring the zigzag lever 18 back from lefthand stop II to righthand stop I and start the machine again. Then stop it anew a few stitches before the righthand edge has become as long as the leefthand one and set the needle up again (see fig. 58).

4. Sewing the second end stitches

Again set the zigzag lever 18 to the stop II. After a few stitches have been sewn, stop the machine once more and set the needle up as you did before (see fig. 59).

Fig. 56



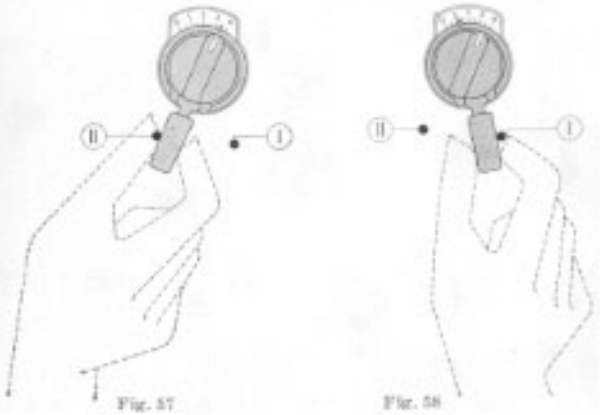


Fig. 57 Fig. 58

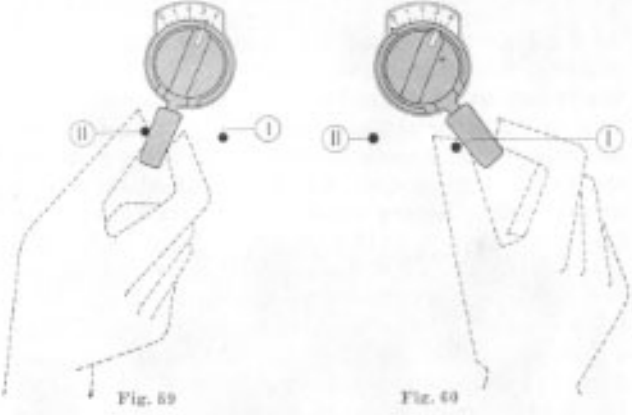


Fig. 59 Fig. 60

5. Sewing the fastening threads

For sewing the fastening threads, pull the zigzag lever 18 – which is still against stop II – towards the front; then push it entirely to the right, passing thereby over stop I (see fig. 60). In this position the sewing machine sews now the plain stitch, in order to make fastening threads.

When stitching these securing threads, it is recommended to hold the fabric slightly back.

For the next buttonhole zigzag lever 18 and the other necessary levers should be adjusted as follows:

1. Set zigzag lever 18 once more against stop I.
2. Turn lever 17 to the left, until the white lines of the levers 17 and 18 are facing each other.
3. Push the stitch length regulating lever 24 upwards as far as possible, until it touches the stop. Thus the sewing machine is again correctly adjusted for buttonhole sewing and the handling of zigzag lever 18 is once more effected as stated under "The step by step sewing of the buttonhole".

Sewing the buttonhole in one single operation

To the contrary of the just described method, the buttonhole can easily be sewn in one operation, i.e. without stopping the sewing machine after the different working steps. The buttonhole is sewn in one single operation as described hereafter: Having adjusted the sewing machine for buttonhole making and having pressed zigzag lever 18 against stop I (see fig. 54), set the machine going and keep on holding zigzag lever 18 without the least interruption.

As soon as the wished for length of the edge is reached, move the zigzag lever 18 with a vigorous movement against stop II (see fig. 57), and because only a few stitches are necessary for sewing the fastening ends, move the zigzag lever 18 corresponding to the sewing speed so to say immediately once more to stop I (see fig. 58) and press it against said stop. As soon as the second, righthand edge has reached the length of the first, lefthand one, except for a few stitches, move the zigzag lever 18 again towards stop II, and since here too only a few stitches are required for the fastening of the second edge, move the zigzag lever immediately quite to the right, in accordance with the sewing speed, i. e. beyond stop I, by drawing the zigzag lever 18 towards you, i. e. to the front (see fig. 59 and 60).

Regulating the closeness of stitches

The Bernina sewing machines, models 740, respectively 741 and 742, are provided with a patented device by means of which the closeness of the stitches can be changed when sewing buttonholes or working the satin stitch, according to the material being stitched and the sewing thread.
This change is operated with the aid of the stitch regulating knob 23 fitted with a scale numbered from one to five.
According to the kind of fabric to be stitched, finer, medium, or stronger ones, or even tricot, the feed of the fabric will differ when sewing buttonhole edges. The stronger and softer the material, the more the

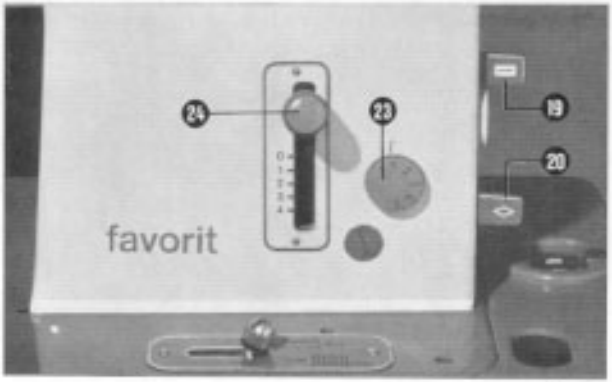


Fig. 61

feed should be increased. This change takes place by turning regulation knob 23. This regulating knob is equipped with numbers equivalent to those of the fixed scale on the machine stand itself.

If number 1 is placed opposite the fixed scale, it means that the smallest feed has been chosen for the buttonhole edge. Turning said regulation knob to the left, the numbers will be higher and the feed is thereby increased, as regards the fabric used for this operation.

That means that hereby for every kind of fabric the corresponding closeness of stitches can be chosen at will. The same adjustment which has been chosen for making the edges of the buttonholes is valid too for ornamental stitch with the same kinds of fabric.

Buttonholes with cord inlay

As inlay use thin cotton cord and place it, as is shown in fig. 63, on the nose at the back of the buttonhole presser foot, and sew the buttonhole in the manner described hereabove.

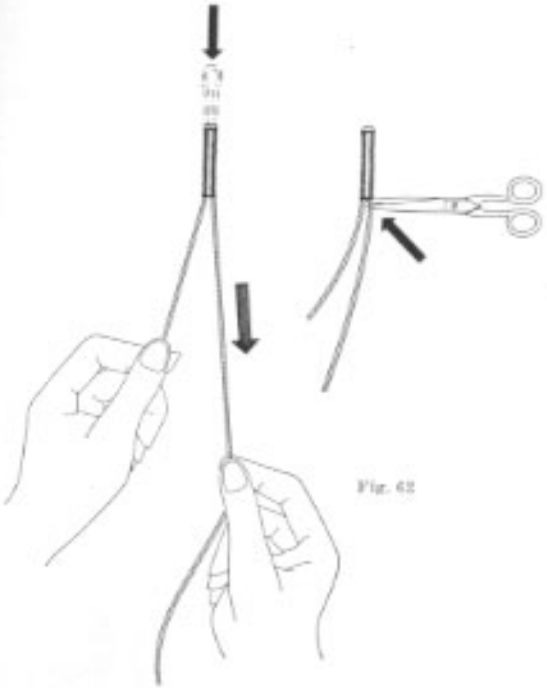


Fig. 62

The cord loop protruding beyond the back end of the finished buttonhole is tightened in such a way that the loop under the back fastening disappears. Then the two thread ends are cut (see fig. 62).

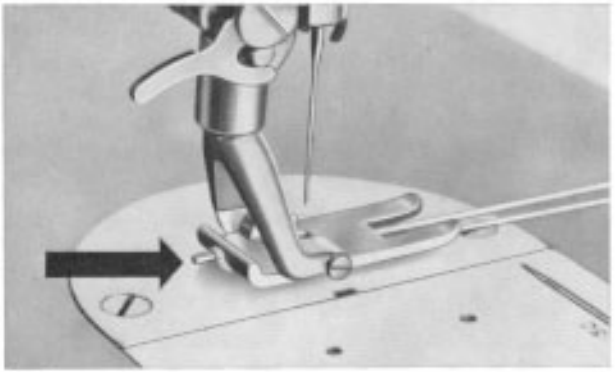


Fig. 63

The raised buttonhole

This kind of a buttonhole is sewn with a slack lower tension and a strong upper thread tension. The upper thread tension should be so strong that the bottom thread appears in a straight line on the upper side of the fabric used.

For raised buttonholes the upper thread should absolutely be unglazed, 6-ply no. 40 thread, whereas a

very thin thread will be necessary for the bobbin (f. i. no. 60/2).

Adjusting the sewing machine from automatic buttonhole sewing to zigzag or straight plain stitch

The grip lever of the pointer knob 18 (see fig. 51) is pushed upwards. Now the lever of zigzag knob 18 can be swivelled at will from zero to four over the stops I and II. Lever 17 is now swivelled into upright position, causing the needle to pierce into centre of stitch hole with zero stitch width. Grip lever 19 with its buttonhole symbol is drawn to the front and pushed into its sowest position.

Never put the machine away before having changed offer from buttonhole adjustment to zigzag or straight plain sewing, in order to have the machine ready for sewing these kinds of works when using it another day.

Sewing buttonholes without using the automatic buttonhole device

Buttonholes can also be sewn without employing the automatic buttonhole device. In such cases make the following adjustments:

1. Insert buttonhole presser foot marked with three black lines on its shaft.
2. The lever 18 (see fig. 1 and 51) remains in its position as with zigzag sewing.
3. The needle displacement lever is set to left position by turning lever 17 completely to the left (see fig. 36). In doing so do not use the white marking.
4. Set zigzag pointer 18 on 1.5 to 1.7. When sewing a buttonhole in knitted material, select stitch width 2.
5. Set stitch-length regulating lever 24 so that it comes to lie a little bit below the zero mark to the left of the stitch-length scale plate. This can only be done if the grip of the said stitch-length regulating lever 24 is not fully screwed in.
6. Set drop feed reversing knob 25 (see fig. 1) on sewing symbol, by turning it to the right.
7. Now sew the first edge to the length of the desired buttonhole. The last needle stitch of the finished edge must be to the right, whereby the needle should be allowed to remain inserted only $^1/_{64}$" to $^1/_8$" in the fabric.
8. Raise buttonhole presser foot and turn cloth by 180 degrees in clockwise direction. Then lower presser foot again and allow the needle to enter the fabric towards the left. Again here the needle should penetrate into the material only with the point.

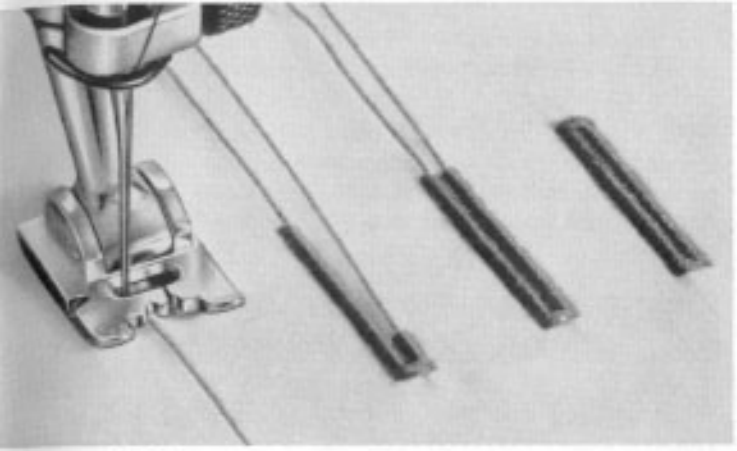


Fig. 64

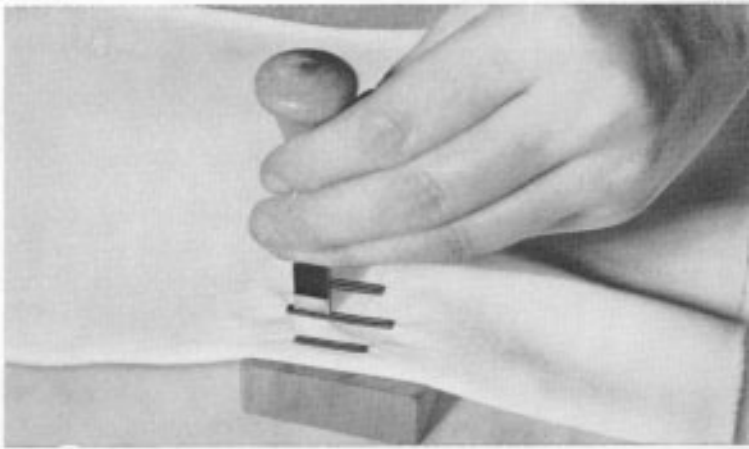
9. Set zigzag lever 18 to 3.5 and sew a few end stitches for the bar. In doing so, pull the fabric lightly towards you, in order to shorten the feed. Last needle stitch should be to the left. Allow needle to penetrate into the fabric only with the point.
10. Set zigzag knob pointer 18 once more to 1.5 or 1.7 and sew the second edge over a somewhat shorter length than the first one. Last needle stitch to the left.

Last stitch to the left

Last stitch to the left

11. Set zigzag knob 18 again at twice the edge width and sew the end stitches for the buttonhole bar. Again pull the fabric a little bit back to shorten the feed. Last needle stitch to the left.
12. Set zigzag knob 18 on zero position and sew a few fastening stitches, again pulling the fabric lightly forwards, towards you, always in order to shorten the feed.
13. Finally lay the work on the wooden support and cut the cloth between both edges by means of the buttonhole blade. (See fig. 65).

Fig. 65



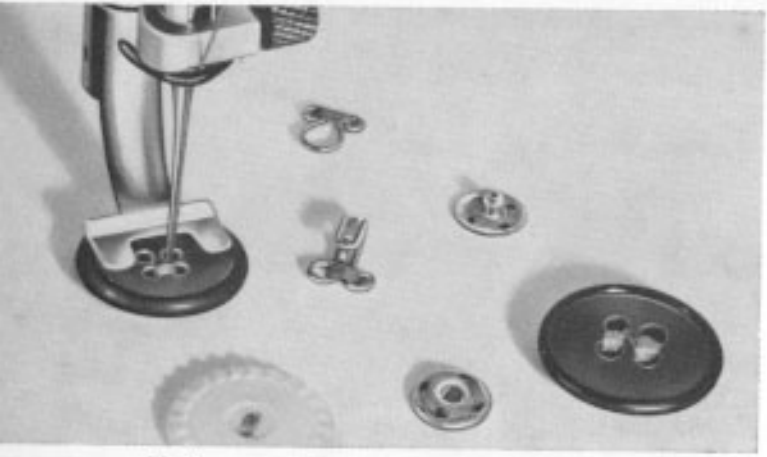


Fig. 66

Sewing on Buttons

1. Position needle to stitch in on the left. Adjust lever 17 equally to the left.
2. Lower feed dog by turning reversible knob 25 (see fig. 2) to the left, until darning symbol appears.
3. Attach button presser foot marked by two black lines on its shank and place button under said presser foot according to fig. 66.
4. Adjust zigzag stitch width according to the distance between the stitch holes in the button and now sew on button with six or eight stitches.
5. To fasten stitches the needle should always stitch in a hole of the button. The zigzag knob 18 (see fig. 2) is to be adjusted on zero position and fastening takes place by means of a few stitches.

With four-hole buttons shift the fabric with the button and make six or eight stitches in the second pair of holes. Push-buttons and hooks are sewn in the same manner too.

Darning with wool

When darning with wool, use the patented darning foot for wool. Proceed as follows:

1. Lower feet dog by turning reversible knob 25 (see fig. 2) to the left, until darning symbol appears.
2. Set stitch length regulation lever 24 (see fig. 2) to zero, in order to prevent the lovered feed dog from being operated unnecessarily.
3. Set zigzag knob 18 (see fig. 2) on 3 to 4.

For top and bottom thread use darning cotton. Wool is only employed to cover the damaged area. Upper and under threads, as also the darning wool, should be chosen of a colour corresponding to the piece to be mended, so that the darn should be as invisible as possible. Thread tension is the same as in ordinary fastening.

Woollen socks are pulled over the free arm without using the darning ring for stockings.

Darning with wool is performed in two operations, i. e.:

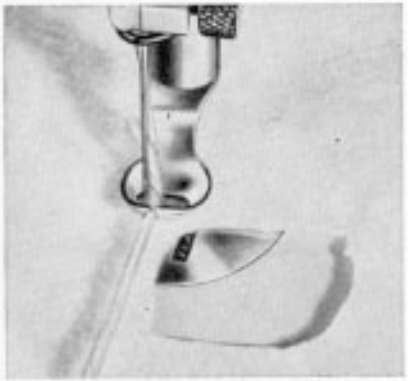
1. The damaged area is covered with wool.
2. The covering wool rows are sewn down. In the three figures no. 67a, 67b and 67c, the working process when darning is clearly indicated.

As it appears from fig. 67a, the wool is introduced in the slot of the presser foot, whereby the thread is allowed to project over the rear edge of the presser foot by approximately $^{25}/_{64}$".

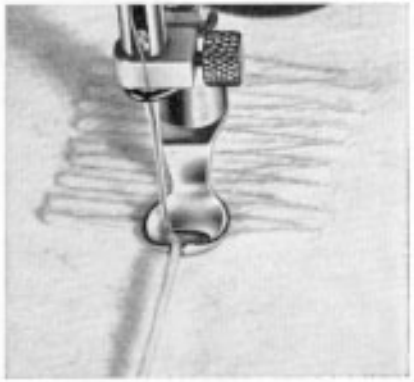
Now span the wool over the hole as is shown in fig. 67b. Start at the left hand top corner of the damaged area and stretch the wool sideways, i. e. from left to right and vice versa, by shifting the cloth accordingly to and fro. At the end of each row the zigzag stitch will fasten the wool to the fabric, when direction of movement is changed. Make sure that these rows are as close as possible together, because later on no more wool will be used.

As soon as the damaged area will be entirely covered with wool, the wool thread should be cut off at the darning presser foot. Now fasten the wool rows with zigzag stitches across them as is shown in fig 67c, by shifting the cloth forward and backward. Zigzag stitch is employed to ensure that the mend remains fully elastic, but care should be taken not to place the individual zigzag rows too closely together.

Fig. 67 a



b



c

Applique Work

(Needle stitch to the left)

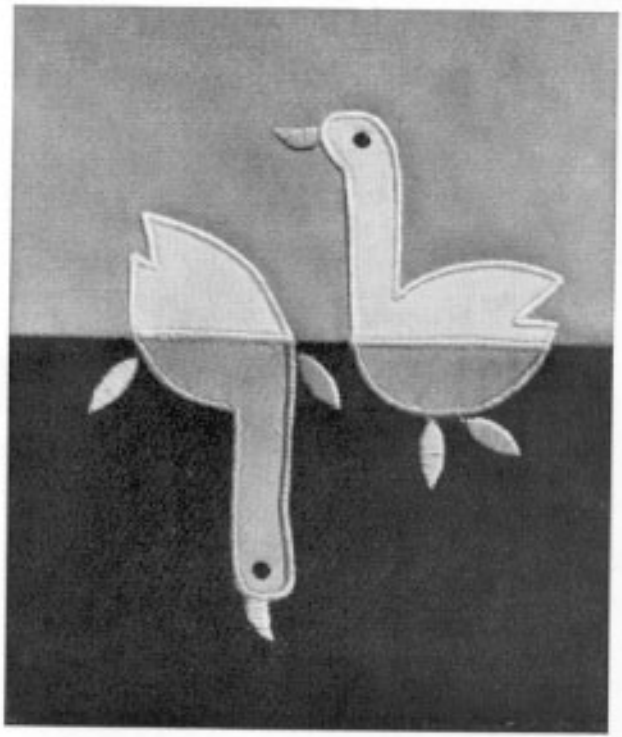
An attractive decorative effect is obtained by sewing cut-outs of materials of different colours or tulle to the cloth.

Appliqué work is mainly used on collars, ladies' and children's dresses, linen and the like.

The buttonhole presser foot will be advantageously employed for this kind of sewing work.

First draw the shapes to the underside of the fabric. The cloth from which the designs are cut should be of a pleasing contrasting colour. Cut piece slightly larger than necessary and baste it on the right side of the material, thus not on the side of the design. Then sew a narrow zigzag stitch row with no. 1/2 to 1, and not too short, along the lines of the design. The sewing thread should be of the same colour as the applied fabric. Then remove basting thread and trim cautiously along the sewing line on right side. Now finish the appliqué work by sewing a wider (2 1/2), short zigzag line over the edges of the cut-out on rigth side of fabric.

Fig. 68



Ornamental stitches, hand-operated

Fig. 70 a

Zigzag *embroidering* foot (1 red line)

Zigzag *sewing* foot

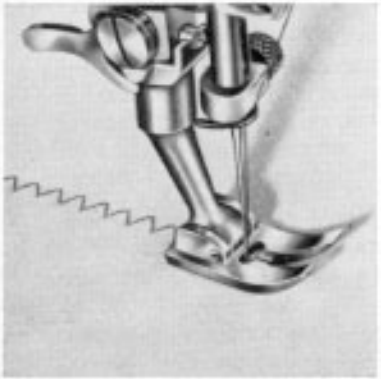


Fig. 70 b

The zigzag decorative stitch

With the Bernina zigzag sewing machine device on the Models no. 704, 741 and 742, the most various decorative stitches can be produced in the simplest possible of ways.

According to the ornamental stitch desired, the stitch regulation lever 24 is more or less depressed and the zigzag knob 18 turned in both directions, to and fro, during sewing. After a few experimental stitches the sewing of decorative stitches becomes indeed very easy.

For ornamental stitches of normal stitch length use the zigzag sewing foot (see fig. 70b). To the contrary, for stitches of very short stitch length the zigzag embroidery foot (see fig. 70a) should be employed. This latter has a recessed lower face.

SATIN STITCH CONTROL

The adjustment of the right stitch length for decorative stitches and buttonholes is very easy on the Bernina sewing machines, thanks to the patented satin stitch control. Suppose the stitch length regulation lever is on no. 2 and the stitch length must be adjusted for sewing a buttonhole.

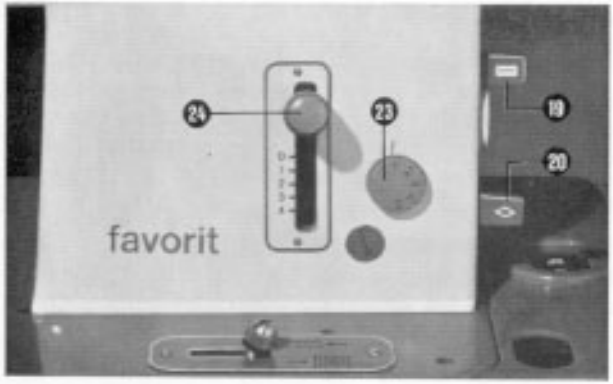
First of all the satin stitch control lever 20 is swivelled as far as possible upwards, and afterwards the stitch length regulation lever 24 is equally pushed upwards until it strikes the stop.

The satin stitch control must be brought into the disengaged position only if the machine serves also for backward sewing. This disengagement of the satin stitch control takes place by pressing the lever 20 down, whereby the normal state for the choice of the stitch length, forward and backward, is again restored.

As following the thickness of the yarn which has to be imployed for the different works this stitch length ought to be smaller or larger, the stitch control for satin stitch is laid on an eccentric axis. By turning knob 23 to the left, said stitch length will be increased following the numbers indicated on said knob, on which you will find the numbers from 1 to 5.

The thicker the yarn to be used and the stronger the cloth to be worked, the more the knob must be turned towards the left, in the direction of the next higher number on knob 23. The number is exactly opposed to the fixed mark on the machine stand. The knob must be adjusted in a way that seams of uniform thickness can be achieved.

Fig. 71



Automatic Fancy Stitches

The following section is only applicable to models 740 and 741.

Every Bernina sewing machine of the models no. 740 and 741 is equipped with an ornamental stitch device which is automatic, whereby it enables the creation of decorative stitches without having to manipulate any control whatsoever.

Just select the desired pattern, set the control lever, and then simply concentrate on guiding the fabric through the sewing machine with both hands free to do so.

The Bernina sewing machine of the model no. 741 is equipped with an automatic ornamental stitch device for four different decorative stitches. Its operation is identical to that of model no. 740.

Reversal upon automatic ornamental stitch sewing

The reversible lever 13 for zigzag or ornamental stitches is placed at right-hand side of the top arm (see fig. 72a and b). It protrudes from the slot in the plate 113. If the machine is to be set for the use of the automatic ornamental stitch device, put this lever backwards; to the contrary push lever 13 forwards, if you wish to reset the machine for zigzag stitches.

At the left of this reversible lever is placed the ornamental stitch selecting lever 12 which protrudes from graduated plate 112. This plate bears the symbols of the twenty possible decorative stitches which can be sewn.

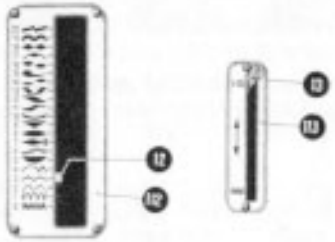
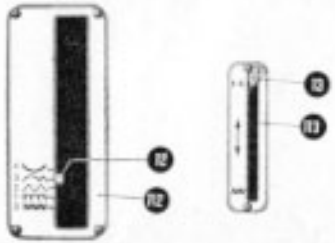


Plate of model no. 740 ▲ Fig. 72 a

Plate of model no. 741 ▼ Fig. 72 b



When sewing zigzag stitches, lever 12 which shows a white line on its side facing the scale images, is set at zero position, marked by a zigzag line, i. e. in front position. If you have selected a decorative stitch, set switching lever 12 against that symbol, so that the white line thereon lines up with the mark. This is performed in the following manner:

Pull lever 12 to the right in its guiding slot, until a resistance will be felt, and displace it until the image of the ornamental stitch and the white mark of the lever are facing themselves; then release said lever which will catch automatically, remaining in this position. When displacing said lever make sure that the needle is outside the fabric, i. e. in its upmost position. The stitch width adjusting knob 18 should be set in such a way that it shows on number 4, i. e. to produce the largest stitch width.

After threading the machine, ornamental stitching can be started exactly in the same way as with ordinary sewing.

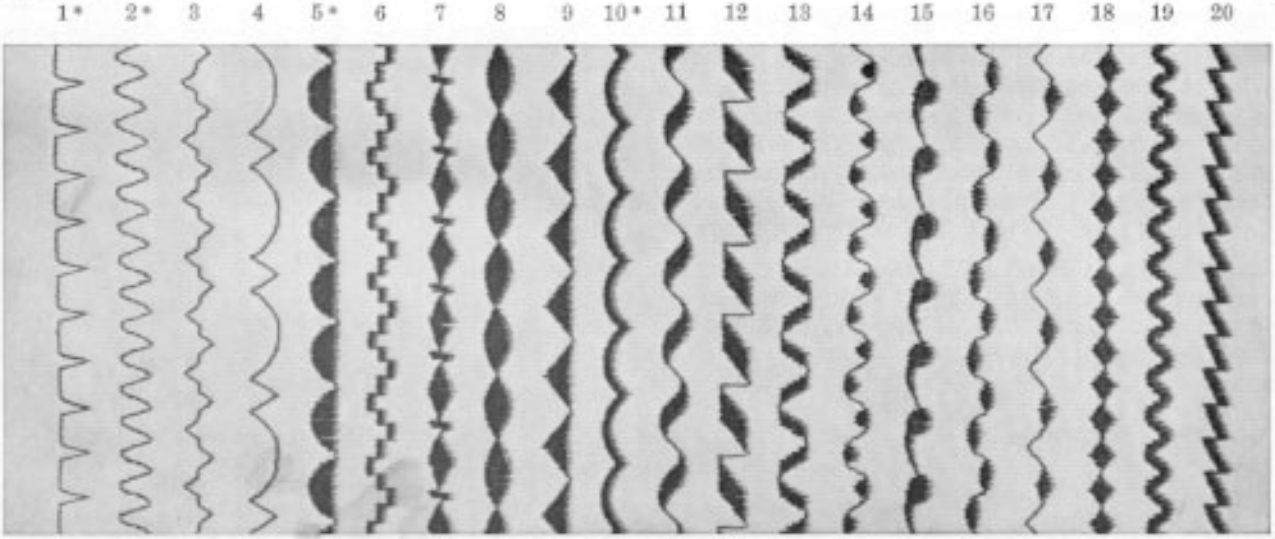
When switching back to normal zigzag stitching, place switching lever 13 again in front position.

Stitch width upon no. 4
Stitch length nearly upon zero

The fancy stitches of model no. 741 are all marked by means of an asterisk *.

Pattern no.

Fig. 78



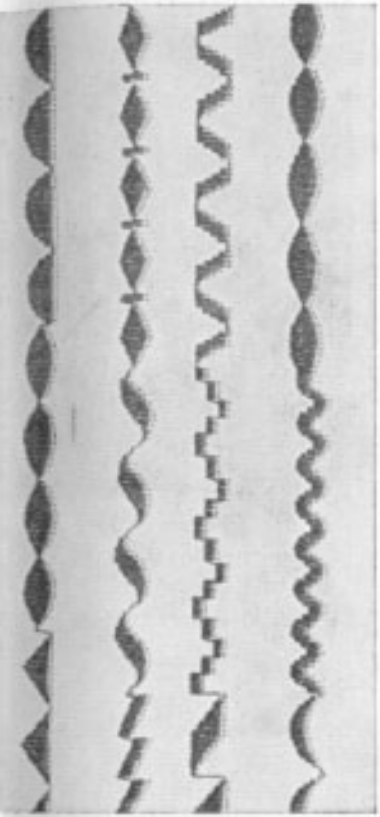


Fig. 74

Stitch length upon no. 1/2
Stitch width upon no. 4

Automatic decorative stitches with one single needle

The stitch patterns can be varied by changing the stitch length form nearly zero to four.

A further variation is possible when combining individual decorative stitches during the sewing itself, as can be seen from the opposite examples.

a) Patterns combined with each other (see fig. 74).

b) Different seam patterns combined together (see fig. 75).

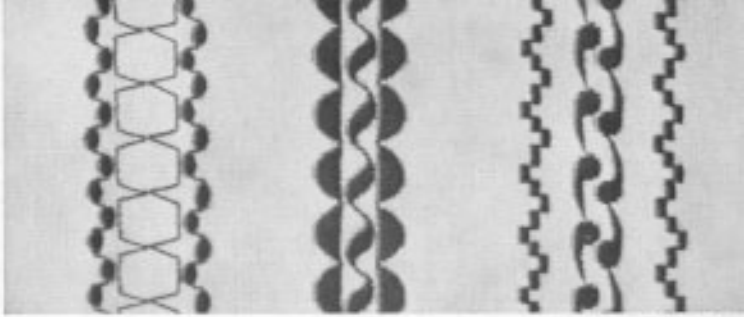
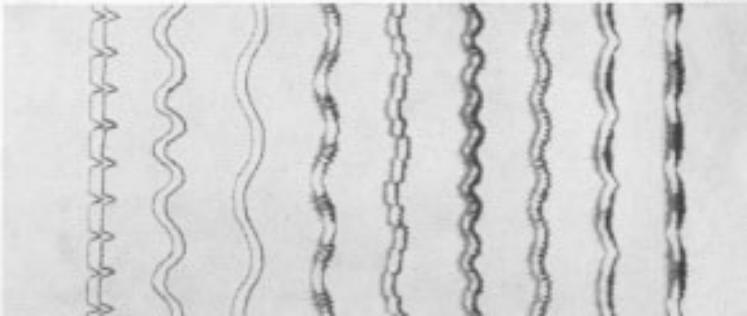


Fig. 75

Automatic decorative stitches with two needles (fig. 76)

Zigzag stitches are equally possible when sewing with two needles.
However, make sure that on principle the two needles must not be displaced further than allowed by the elongated hole in the stitch plate.
Needle throw plus distance between needles equals width of elongated hole. When a double needle with 5/64" needle distance is employed, the stitch width should not exceed 5/64" as a maximum.
Naturally ornamental stitches made with two needles can also be modified by changing the fabric feed and by selecting threads of two different colours.

Fig. 76



THE ORNAMENT INDICATOR

The Bernina sewing machines of the models no. 740 and 741 have been equipped with a novelty, the so-called ornament indicator, showing the actual position of the ornament being stitched. At the front side of the arm, to the right, near the tension sight hole, another sight hole 11 has been arranged, which is filled with a mark. Now, when the machine is sewing an ornament, the decorative stitch symbol is moving inside the machine and passes this sight hole, where it can clearly be seen (see fig. 77). Even when operating the machine at high speed, this symbol will be observed when it passes through.

As soon as the front end of the decorative stitch is cutting the mark, the sewing machine begins to stitch a new ornament. When one half of the ornament has passed the marked sight hole, this means that half of the ornament has been achieved. With this marked sight hole it is now possible to notice the moment when the machine is beginning to sew said ornament. This device will be of special importance when sewing ornaments of which only one single decoration has to be stitched and placed within a certain specified area. It will also be of great value when changing an ornament altogether.

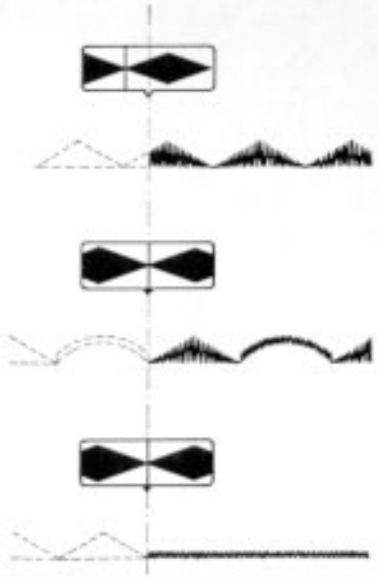


Fig. 77

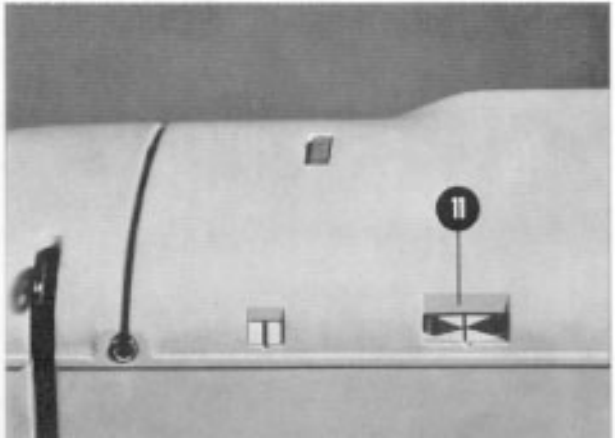
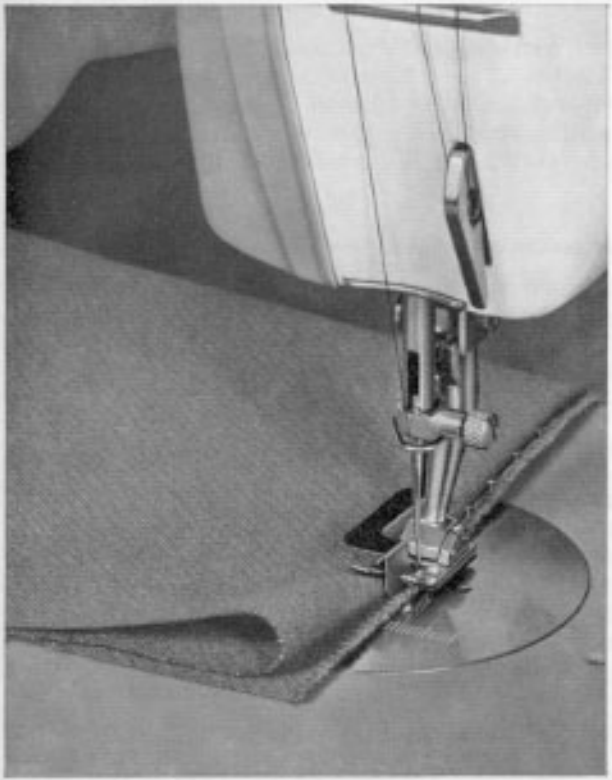


Fig. 78



Blindstitch sewing

Blindstitch sewing means sewing together two pieces of cloth, where the upper one is folded and sewn onto the lower one in such a manner that the seams are invisible on one side.

This kind of work is performed with the blindstitch presser foot (see fig. 78) which possesses an elastic cloth guide between the fingers on its base, but is otherwise identical with a normal presser foot.

Blindstitch sewing can also be accomplished with the ordinary zigzag stitch or by means of the automatic device with built-in blindstitch cam.

1. Setting of machine when sewing with ordinary zigzag stitch

a) Attach blindstitch presser foot

b) Deflect needle to right position

c) Set zigzag knob to a stitch width between 2 and 3, according to the thickness of the fabric to be sewn

d) Set stitch length regulation lever to stitch length 4

e) Set feed dog reversible knob on «sewing» symbol.

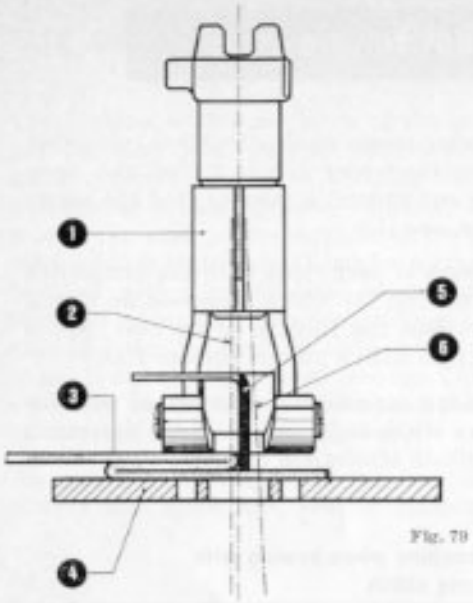


Fig. 79

1. Blindstitch presser foot (No. 5306820 3)
2. Position of needle stitch to the left
3. Folded upper layer of cloth
4. Needle plate
5. Material stop and guide
6. Position of needle stitch to the right

After having threaded the sewing machine, put the lower flat piece of cloth underneath the blindstitch presser foot; then place the upper piece of cloth on top and fold it in such a way that it always touches the elastic guide. Now lower the blindstitch presser foot and start sewing.

The zigzag stitch width should be adjusted in such a way on the zigzag button 18 that in its left deflection the needle is stitching through the middle of the folded piece of cloth, which will make the seam invisible on the upper piece of material when flattened. Said stitch width is between 2 and 3, depending on the thickness of the cloth used.

2. Adjustment of sewing machine for working with the blindstitch cam

Whereas, when blindstitching with the normal zigzag stitch, the folded piece of cloth is pierced after every second stitch, when employing the blindstitch cam there are five straight plain stitches between each piercing of the folded piece of material.

Thus the machine should be adjusted as explained hereunder.

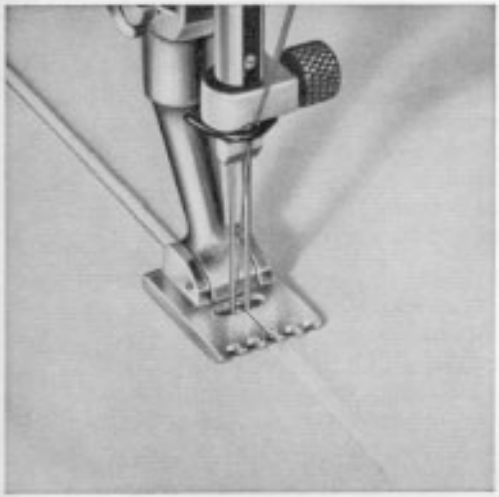
a) Attach blindstitch presser foot
b) Connect automatic device backwards by means of lever 13 (see fig. 1 and 72)
c) Set lever 12 on blindstitch cam (see no. 1)
d) Set needle into right position of stitch
e) Set zigzag knob 18 to a stitch width between 2 and 3, according to the thickness of the material to be sewn
f) Set stitch length regulation lever 24 on a stitch length of 2, 3, or 4, depending on the kind of cloth to be sewn
g) Set feed dog reversible knob 25 on «sewing» symbol.

The blindstitching itself is made exactly as has been described under section 1.

Pintucking

The pintucking device is only delivered against extra charge

Fig. 80



The complete pintucking attachment comprises the following parts:

1 pintucking stitch plate with oval stitch hole

1 feed dog

3 double needles for pintucks of approximately 5/64", 1/8", and 5/32"

3 pintuckers with 3, 5 and 7 grooves

1 pintuck tongue

1 pintucking device for cord inlay

When preparing the sewing machine for pintucking, proceed as follows:

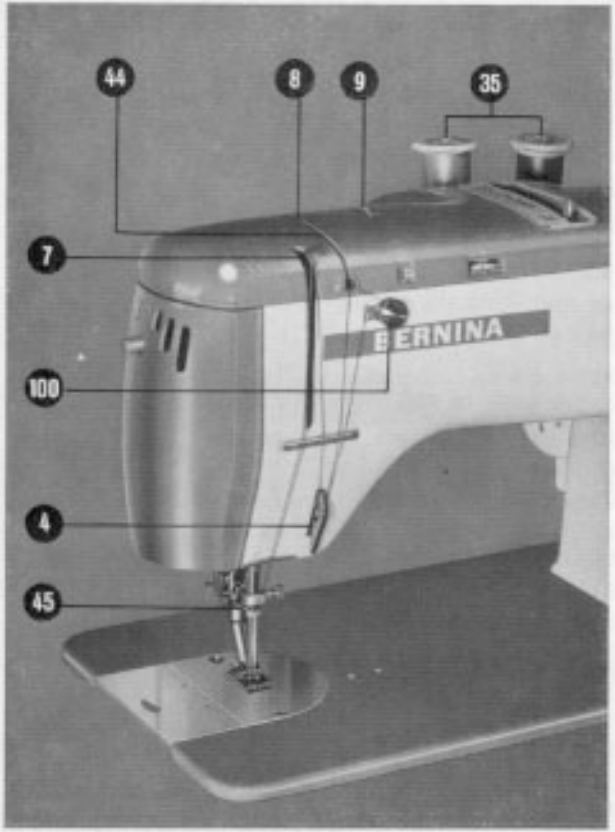
1. Set needle to centre position in stitch hole by adjusting grip 17 (see fig. 1) to the middle.
2. Set zigzag stitch lever 18 (see fig. 1) upon zero position.
3. Remove standard needle from needle bar and introduce a double needle, proceding exactly as with a standard needle.
4. Attach the pintucking presser foot corresponding to the needle distance, i. e.

   The pintucker presser foot with 7 grooves
   DUO needle of 5/64" distance

   The pintucker presser foot with 5 grooves
   DUO needle of 1/8" distance

   The pintucker presser foot with 3 grooves
   DUO needle of 5/32" distance.

Fig. 81



4 Thread tension regulator
7 Thread take-up lever
8 Thread tension
9 Thread tension regulating disc
35 Spool pin
44 Thread guide slit
45 Needle holder eyelet
100 Additional tension

Threading the two upper threads

To thread the two upper threads of the sewing machine for pintucking, proceed as for normal sewing (see fig. 81).

Place the two reels of thread onto the two pins 35 of the double spool holder at the back of the top of the machine arm. Now pass the thread of the front reel through pre-tension 43, equally at the back of machine; from there into slit 44 running across top arm and draw the thread into left tension disc, down to thread tension regulator 4, and up again through the back bore of thread take-up lever 7. Then down again to needle holder eyelet 45 and finally from front to rear through the eye of left needle.

With the second thread proceed in the same manner, but draw it through the right tension disc and following this still through additional tension 100. From there through thread tension regulator 4 up to thread take-up lever 7 and into the front slit of same. Now down once more to needle holder eyelet and finally through the eye of right needle. Both threads should always run separately through thread tension 8, in order to produce finer pintucks.

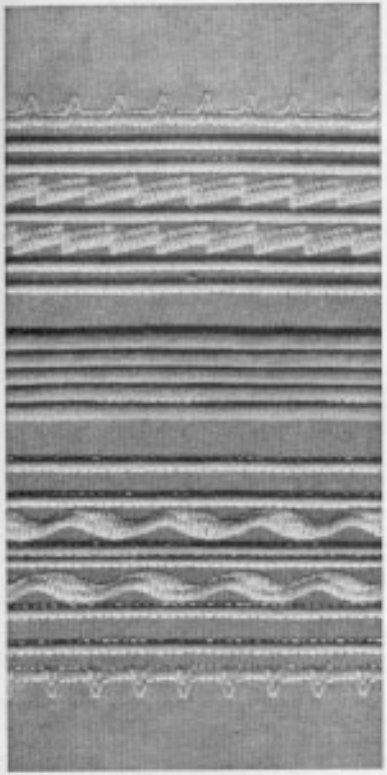


Fig. 82

The pintucking

A pintuck is created by the bottom thread which pulls both upper threads together, so that the fabric between the needles is raised and forms a tuck.

For pintucks with inserted cord the insert is passed from the ball slipped on a thread reel pin of the accessory case through the groove in the flap, up through the hole in the stitch plate between both teeth rows of the feed dog, and guided away from operator below and to the back of the pintucking presser foot.

Ornamental seam with double needle

When employing one pintucking needle and the standard zigzag presser foot, a parallel double decorative seam can be produced, whereby it will be advantageous to choose two threads of different colours.

When using a double needle with $^3/_{64}$" or $^1/_8$" needle distance, an additional small zigzag motion can also be performed. The needle deflection should, however, only be so large that neither needle fouls the hole on the stitch plate either on the left or on the right.

Therefore the zigzag knob 18 (see fig. 1) should only be moved very sligthly to the left, starting from zero point.

Hemstitch sewing

Hemstitches can be made:

1. With the single hemstitch needle, using the Bernina zigzag sewing machine, models 740, 741 or 742.

2. With the patented double needle, using the Bernina zigzag sewing machines.

With the *single hemstitch needle* only effects resembling hemstitch can be obtained, particularly on thin fabrics such as organza, organdy a. s. o., whereas with the patented *double hemstitch needle* genuine hemstitches can be made, which are known as *one-needle hemstitches and double-needle hemstitches.*

In this manner it will be possible to work not only thin, but also medium-thick to thick kinds of cloth altogether.

In the following descriptions the several operations will be represented, together with instructions as to the choice of threads to be used and the adjustment of the sewing machine.

1. Hemstitch sewing with the single hemstitch needle on Bernina zigzag sewing machines

Introduce the hemstitch needle into the sewing machine instead of the normal sewing needle.

Threading is done in the well known manner (see on p. 14).

As upper threads use darning or fine embroidery thread (f. i. DMC no. 100).

As under thread use equally darning or fine embroidery thread (f. i. DMC no. 100).

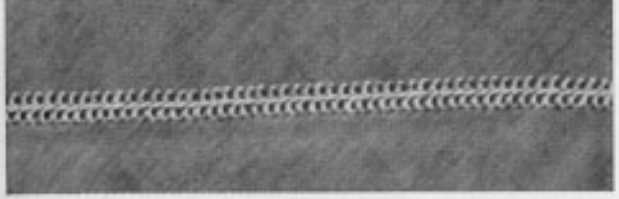


Fig. 83

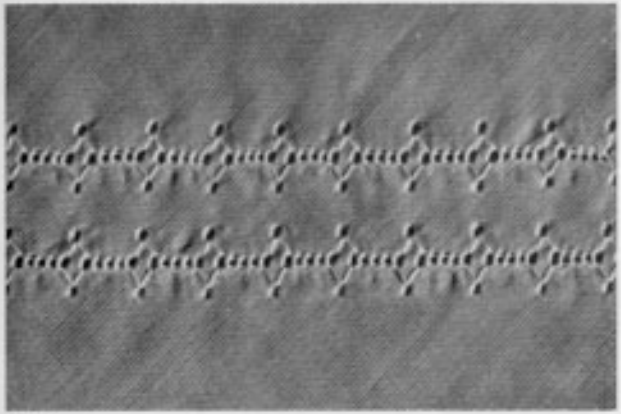


Fig. 84

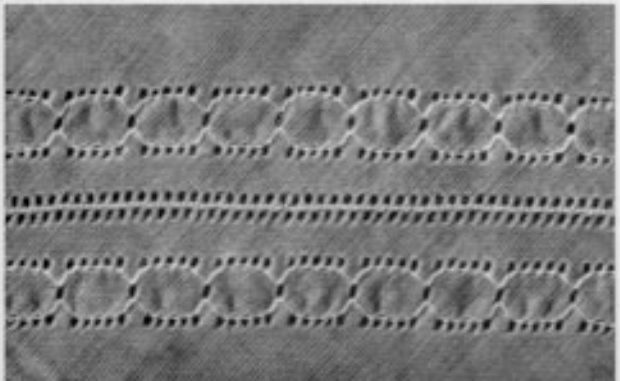


Fig. 85

For fine fabrics, such as f. i. organdy, organza a. s. o., adjust zigzag lever to stitch width 2 and stitch length adjusting lever to 1. After having brought up the under thread, lay the fabric under the presser foot and begin to sew in the well known manner. The result will be a hemstitch as shown in fig. 83.

If suitable decorative stitches of the automatic system are used instead of the usual zigzag stitch, effective ornamental hemstitches will be produced, such as they are shown in the following illustrations.

With ornamental stitch cam no. 1
(Blindstitch)

Sew first seam. After having attained the required length, turn the fabric by 180 degrees and sew the second seam in such a way that the zigzag stitches are opposite each other.

Stitch length: 1.5
Stitch width: 3.5

With decorative stitch cam no. 1

Sew first seam. After having reached the wished for length, turn the fabric by 180 degrees and sew the second seam in such a way that the needle, when deflected (i. e. every sixth stitch), pierces into the hole already existing from the first needle. In the middle of the pattern, just between the two ornamental stitchings, there will be a normal seam with the ordinary zigzag stitch.

Stitch length: 1.5
Stitch width: from 3 to 3.5

With ornamental stitch cam no. 2

Sew first seam. Leave the needle stuck into the fabric at the side where the second seam is wanted. Then turn the fabric by 180 degrees and sew the second seam alongside the first one.

Stitch length: 1.5
Stitch width: 3.5

The two outer seams are decorative stitch no. 19.

Stitch length: 1 Stitch width: 3.5

Two seams with normal zigzag stitch.

Stitch length: 1
Stitch width: 2

Between both zigzag stitches make an ornamental seam with normal zigzag needle.

Two seams beside each other; when sewing the second seam take care that it must lie at the left of the first seam and that the needle, when sewing the righthand stitch, must pierce onto the existing holes of the first seam.

Stitch length: 1
Stitch width: 2

In the middle make an ornamental stitch no. 19, using to this intent a normal sewing needle.

Fig. 86

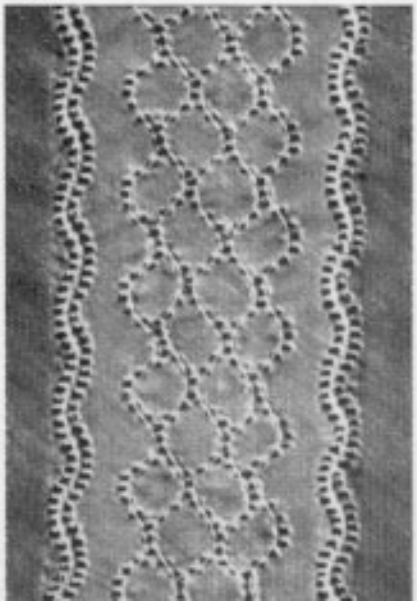


Fig. 87

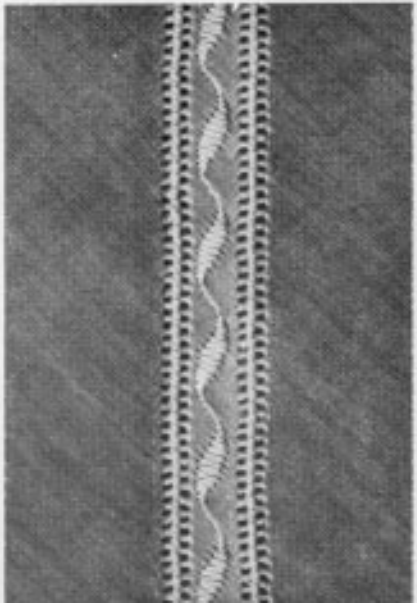
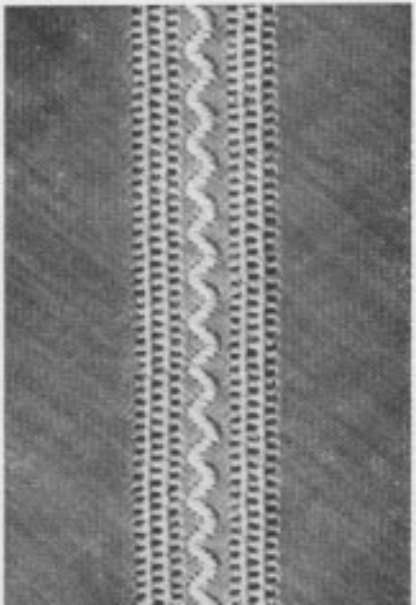


Fig. 88



2. Hemstitch sewing with the patented double needle on Bernina zigzag and plain stitch sewing machines with transversely set shuttle, zigzag stitch plate, and zigzag presser foot

Insert the double hemstitch needle into the machine instead of the normal sewing needle.

The threading of the upper threads is made in the same manner as when sewing pintucks (see operating instructions).

As upper thread use f. i. DMC no. 100 with lefthand twist

As under thread use f. i. DMC no. 50 with righthand twist

With zigzag machines set the zigzag lever at zero point or upon plain stitch.

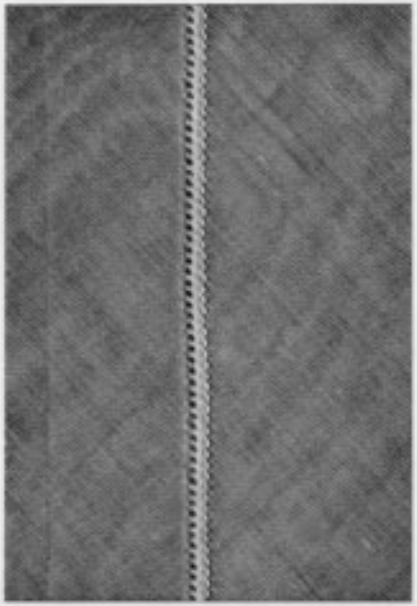
In both cases the stitch length regulation lever should be adjusted upon 1 to 1.5.

Direction of cloth feed

After having brought up the under thread, lay the fabric under the presser foot and make a straight seam as when plain stitching.

This will produce a hemstitch (see fig. 89) such as is well known as a *one-needle hemstitch*.

Fig. 89



If a hemstitch known as a *two-needle hemstitch* must be made, a second working operation will be needed. After having sewn the single hemstitch, turn the fabric by 180 degrees, allowing the point of the large needle to touch the cloth when it is turned round that point. Now the second seam can be made in the same way, but take care that the large needle always enters the previously pierced hole (see fig. 90).

Direction of cloth feed during first operation

Direction of cloth feed during second operation

Examples with two-needle hemstitch:

Fig. 90

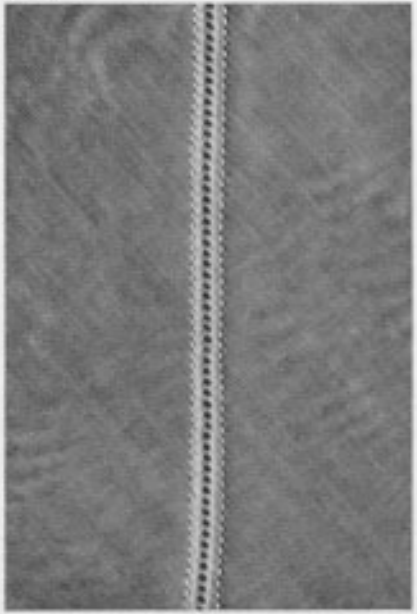


Fig. 91

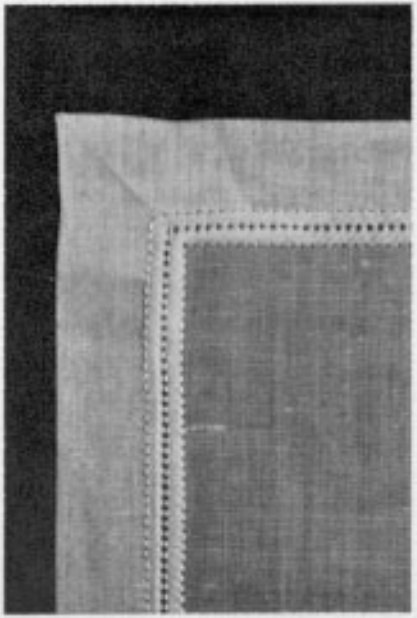
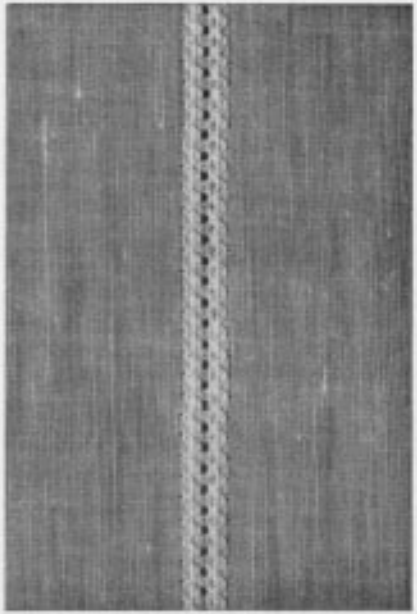


Fig. 92



Monogramming

There are two methods of embroidering initials:

1. Embroidering initials with feed dog lowered and guiding the embroidery frame by hand.
2. Embroidering with the feed dog, using the automatic satin stitch control executed by the machine.

In both cases some practise will be found indispensable. An embroidery frame is always to be used, wherein the fabric is stretched. Only quite hard and stiff cloths will permit to work without the embroidery frame.

With method no. 1 please observe the following adjustments:

a) Insert a needle no. 70. According to the fineness of the fabric a correspondingly thinner needle will be employed.

b) Insert the wool darning presser foot.

c) Lower dog feed.

d) Thread the sewing machine. For the upper thread use embroidery yarn no. 100 (f. i. DMC no. 100). For the under thread use embroidery yarn no. 100.

e) Place material into embroidery frame in such a manner that the initials designed come to lie right in the centre of said frame.

f) Adjust the width of stitch, i. e. zigzag width, according to the size of the intended initials. Then stitch length is set almost upon zero position.

After having placed the embroidery frame under the needle, the bottom thread should be brought up. Lower presser foot. Start sewing machine and keep it running smoothly at a fair speed, thus getting the best results. Guide the embroidery frame with both hands slowly and steadily along the designed initials, but without turning same. After some practising the initials can be embroidered also without using the wool darning presser foot. Fig. 93 illustrates a few examples of embroidered initials.

With the method no. 2 the same settings should be made as described heretofore for the first one, only with the following exceptions:

a) insert the embroidery presser foot instead of the wool darning presser foot;

b) instead of lowering the feed dog, this device must remain in sewing position;

c) adjust fabric speed on a small stitch length, which can easily be made with the aid of the satin stitch control;

d) adjust stitch width according to size of initial to be embroidered.

Here too the initial should be designed onto the fabric; after having spanned the cloth into the frame, the initial should come to lie right in the centre of the embroidery frame, i. e. just under the needle.

As illustrated in fig. 94, begin to sew edge A and after completion, having reached the top of the initial, stop sewing machine, leave the needle stuck in the fabric with stitch to the right, and turn the embroidery frame round the needle, until the direction towards edge B is attained.

Now you will be able to sew edge B. When swivelling anew, after having reached the required length, let the needle in the left stitch and turn embroidery frame into the novel direction. In that case you must not sew over the already finished edge, but leave a gap, thus producing a break in the outlines; this will be necessary for shaping many letters of the alphabet. In many cases the letters cannot be stitched in one single go. If brakes are necessary, a few small stitches with stitch width zero should be made at the end of every finished edge in order to secure the seam, but when you begin stitching

Fig. 93

a novel edge, this has to be done with the same width of edge like the first time, until the initial will be finished.

Various and effective results can be obtained by means of stitching another seam along the outlines of a letter, but with a narrower stitch. Eventually this can be made with a yarn of a different colour, oversewn by means of an inlay thread, as has been illustrated in Fig. 94a.

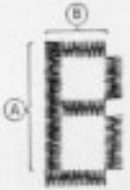


Fig. 94

Fig. 94 a

English Embroidery

(A special device available against extra charge)

The complete equipment for eyelet embroideries, which is not part of the standard accessories, comprises the following parts:

1 eyelet embroidery stitch plate no. 54 06 60.

3 slides with guide pins for eyelet embroidery work of 3/64", 1/8", and 13/64" in diameter, nos. 54 06 89, 54 06 91, and 54 06 94.

1 eyelet embroidery presser foot no. 53 06 62.

3 punches no. 54 11 07 for eyelet diameters of 1/16", 3/64", and 1/8".

1 wooden block no. 54 11 08.

This simple device allows the sewing of fashionable eyelet and circular embroideries on the Bernina-Favourite sewing machine.

With its aid different hole sizes can be surrounded, and circular embroideries up to a diameter of approximately one inch achieved. During sewing around the stitch width may be varied at will.
For eyelet embroidery work the machine should be arranged as follows:

Fig. 95

Position of slide when executing eyelet embroideries

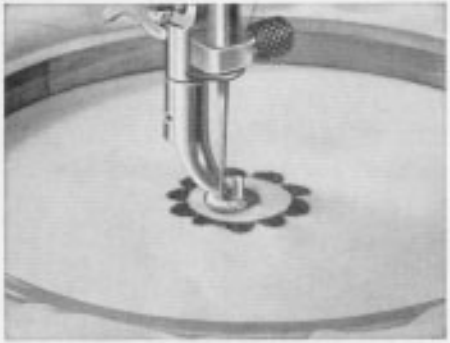


Fig. 96

Embroider within the embroidery frame

Fig. 97

Position of slide for circular embroideries

1. Set needle stitch to left position by turning grip 17 (see fig. 2) to the left.
2. Lower feed dog by turning reversible knob 25 (see fig. 2) to darning symbol.
3. The normal stitch plate must be changed against the eyelet embroidery stitch plate which is equipped with exchangeable slides provided with guide journals, whereby also the special embroidery presser foot must be inserted.

Always use the embroidery frame. We recommend winding strips of cloth around ist outer ring, in order to obtain a better tension of the fabric to be embroidered and to prevent its being damaged.

Only after having clamped the fabric, the holes should be punched with the piercers supplied.

It will be of advantage to design the holes previously on the fabric. Then place the material under the eyelet embroidery presser foot, so that the guide journal of the slide should come to lie in the hole. As has been mentioned already heretofore, the needle stitch should be set to left position.

For both upper and bottom embroidery thread no. 60—80 two-phy should be used, which will give best results in even sewing around the holes.

For eyelet embroidery the thread tension is of utmost importance. The under thread tension should be sligthly stronger than that of the top thread, so that the thread knots should only show themselves on the lower face of the fabric.

The slide in the embroidery plate should be positioned in such a way that the needle, when making a righthand stitch, enters in the recess of the guide journal exactly beyond the edge of the material.

This setting has to be changed according to stitch width and should therefore be repeated every time. Then allow the sewing machine to operate at regular speed and turn the embroidery ring at the same time three or four times around the guide journal in the same regular way in clockwise direction.

Finally set zigzag knob 18 (see fig. 2) upon zero position and secure the thread by a few stitches. These binding stitches should be parallel to the embroidery stitches, so that they will remain practically invisible.

When the slide of the stitch plate is reversed, as has been shown in fig. 97, the guide journal can be employed as a centre in sewing circular embroideries.

In doing so the needle pierces through the long slit of the slide.

By changing the density of the stitches, i. e. by varying the speed of rotation of the embroidery ring during the stitching, and using threads of different colours, very attractive and multifarious patterns can be produced, enhancing by the way the look of the eyelet embroideries.

As a rule kindly observe when executing eyelet embroidery works that the holes of the same size should always be finished successively, so that the slide need ot be changed too often.

HOW TO AVOID MACHINE TROUBLE

First of all we should like to give you some hints how machine troubles might be avoided, then what may be their cause, and finally how to remedy them.

1. On principle

In most cases troubles are resulting from faulty manipulations of the sewing machine.

However, if other causes are presumed, the machine should be examined, whether:

a) the needle has been correctly inserted.
The long groove should always be in front, i. e. on the side where the machine has to be threaded;

b) the needle is the correct size for the thread used; for darning of fine fabrics take needle size no. 70, and for other sewing work needle size no. 80 or no. 90. As regards sizes of needles with corresponding threads see page 13;

c) The machine is properly cleaned. Remove free arm cover plate and clean all lint thereunder. Then cleanse feed dog with brush;

d) shuttle is properly cleaned with but a few drops of oil (see fig. 18);

e) no thread ends are stuck between the thread tension discs;

f) no thread ends are jammed under the bobbin case tension spring;

g) the sewing machine can easily be started with the handwheel.

Note: Make it a rule always to raise thread take-up lever to its upmost position; it will help to avoid a lot of machine troubles.

2. The causes of upper thread breaking

may be the following:

a) The use of badly polished needles of inferior quality. Needles should always be purchased at a Bernina shop;

b) Needle incorrectly set. Remember that long groove must always be in front;

c) Needle is blunt or bent;

d) The relation ebtween size of thread and needle is not o. k. (see table on page 13);

e) Upper tension thread is too tight;

f) Thread of bad quality, full of knots. Thread dried out by too long storage. Thread should never be stored in heated rooms.

If the machine has been in use for a fairly long time, thread breaking may have a cause only a competent sewing machine mechanic can deal with;

g) Stitch place hole has been damaged by the needle and requires re-polishing; ask for the specialist.

h) Shuttle point is damaged.

3. Cause of under thread breaking

can be:

a) Under thread tension too tight;

b) Under thread badly wound on bobbin;

c) Bobbin is deformed and jams in the bobbin case;

d) Stitch plate hole has been damaged by the needle and requires re-polishing. Call for a skilled sewing machine mechanic.

4. Missing stitches

May be caused by:

a) using unsuitable needles of other make. Always employ needles of system 130;

b) needle is bent;

c) needle not correctly set. Long groove must always be exactly in front. When inserting needle push it up as far as it will go;

d) needle of inferior quality or badly polished;

e) size of needle is not fit for size of thread, or vice versa.

5. Needle breaking

may have the following reasons:

a) Needle holder screw is not securely tightened;

b) Upper thread tension is too tight;

c) The material has been pulled from under the presser foot towards the front, after having finished with the sewing work. Thereby the needle got bent.

Always remove the cloth from the machine by pulling it back from under the presser foot base;

d) Size of needle and size of thread are not in correct relation together. Often the needle is too thin for to thick a yarn, whereby the needle becomes bent of course;

e) Use of thread of inferior quality, showing knots or unevenly twisted;

f) During sewing never pull the cloth too strongly towards the back.

6. Faulty seams

a) A faulty uneven seam results:

1. if there are thread ends remaining between the thread tension discs;
2. if there are thread ends under the bobbin case tension spring;
3. if the bobbin is deformed and jams in the bobbin case;
4. if the thread is not always evenly thick in all its length;
5. if the shuttle is not regularly oiled.

b) When sewing tricot or other knitted goods, make sure of the following items:

1. tricot should always be basted with darning thread, never with basting thread;
2. use perfect needles of size no. 70 or no. 80;
3. the thin area of the fabric should always be placed to the left side of the presser foot;
4. sizes of needles and thread must always perfectly correspond;
5. if the zigzag stitch seems not to be elastic enough, adjust for a larger width and a shorter stitch length, in order to increase the elasticity of the seam;

c) Disagreeably puckered fabric

In most cases the cause of puckering is too tight a tension as well on the upper as on the under thread.

When sewing tricot and other knitted goods, the material must never be pulled to the back with the hands; otherwise it will get puckered, of course. Care should be taken that when sewing tricot or the like the feed towards the presser foot be always sufficient, by means of very lightly pushing the tricot on both sides of presser foot.

7. The machine operates too slowly

The motor does not work correctly (it should be examined by a skilled mechanic).

Probable causes:

a) Tension of drive belt may be too tight. Ask the expert!

b) The sewing machine has been idle for a fairly long time in a moistened room. In such a case it

should be placed in a room with normal temperature for some time, after which it should be carefully oiled;

c) If oil of doubtful quality has been employed, the sewing machine became gummed. If lubrication at the oiling points with petrol does not improve its condition, the machine must be demounted and cleaned. Thus the sewing machine should be examined by a competent mechanic.

General notice

To prevent any damage to the presser feet, place a piece of material under same, as far as possible. If the sewing machine will be idle for some time, you should do so alike. In order to avoid thread jamming, make sure that after every sewing operation the thread take-up lever is raised to its uppermost position. The precaution will greatly help to avoid any trouble.

Notes of Bernina Representative regarding instructions, home calls, and eventual warranty work.

Date	Notes

Normal accessories for model 740

Part no.	*On the sewing machine:*
64 00 30 01	1 Extension plate with plug socket (for machines with pedal starting device).
64 00 31 01	1 Extension plate for horizontal machines.
64 11 31 00	*In sewing kit:*
53 06 03 04	1 zigzag presser foot
53 16 09 00	1 embroidery foot (marked with 1 red line)
53 06 08 00	1 broad hemmer
53 06 15 00	1 edger with quilting guide
53 06 82 03	1 blindstitch presser foot
63 06 18 01	1 buttonhole presser foot
53 11 34 00	1 buttonhole knife
53 11 37 00	1 wooden support
54 06 70 00	1 darning presser foot
54 06 71 00	1 small darning plate
54 07 61 00	6 bobbins, one of which being on machine
53 11 32 00	1 small screwdriver
60 11 33 00	1 special svrewdriver
53 11 12 00	1 oiler
	1 package of assorted needles of the 130 system
	1 pintuck needle of $^{3}/_{81}$"
54 12 01 00	1 embroidery ring
53 11 10 00	1 connecting cable to the mains
	1 instruction book
	Available against extra charge:
54 12 05 00	1 darning ring for stockings
53 06 48 01	1 narrow hammer
53 06 18 02	1 special buttonhole presser foot
53 06 29 01	1 wool darning presser foot.
53 06 11 00	1 rolling and scalloping hemmer, combined (marked with 2 red lines)
53 06 13 00	1 felling foot
53 06 46 00	1 gathering presser foot
53 06 20 00	1 presser foot for sewing on buttons (marked with 2 black lines)
53 06 44 01	1 standard presser foot for plain stitching
53 06 50 00	1 attachment for general standard presser feet, normally to be found in trade
	Pintucking equipment
	Eyelet embroidery equipment
	Knee control lever, complete

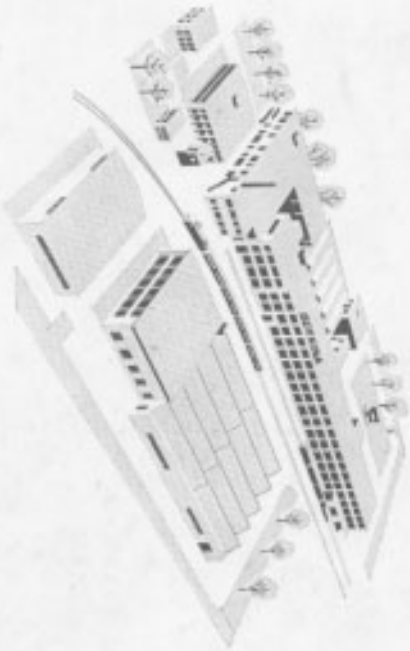
Normal accessories for model 741

Part no.	*On the sewing machine:*
64 00 30 01	1 Extension plate with plug socket (for machines with pedal starting device)
64 00 31 01	1 Extension plate for horizontal machines
64 11 03 00	*In sewing kit:*
53 06 03 04	1 zigzag presser foot
53 16 09 00	1 embroidery presser foot
53 06 18 02	1 special buttonhole presser foot
53 06 82 03	1 blindstitch presser foot
53 11 34 00	1 buttonhole knife
53 11 37 00	1 wooden support
54 06 70 00	1 darning presser foot
54 06 71 00	1 small darning plate
54 07 61 00	6 bobbins, one of them being on machine
60 11 33 00	1 special screwdriver
53 11 32 00	1 small srewdriver
53 11 12 00	1 oiler
	1 package of assorted needles of the 130 system
54 12 01 00	1 embroidery ring
53 11 10 00	1 connecting cable to the mains
	1 instruction book
	Available against extra charge:
53 06 11 00	1 rolling and scalloping hemmer, combined
53 06 08 00	1 broad hemmer
53 06 13 00	1 felling presser foot
53 06 15 00	1 edger with quilting guide
53 06 46 00	1 gathering presser foot
54 12 05 00	1 darning ring for stockings
53 06 48 00	1 narrow hemmer
63 06 18 01	1 special buttonhole presser foot
53 06 29 01	1 wool darning presser foot
53 06 50 00	1 attachment for general standard presser feet, normally to be found in the trade
	Pintucking equipment
	Eyelet embroidery equipment
	Knee control lever, complete
53 06 20 00	1 presser foot for sewing on buttons

Normal accessories for model 742

Part no.	*On the sewing machine:*
64 00 30 01	1 Extension plate with plug socket (for machines with pedal starting device)
64 00 31 01	1 Extension plate with arrangement for horizontal machines
64 11 31 00	*In sewing kit:*
53 06 03 04	1 zigzag presser foot
53 16 09 00	1 embroidery presser foot
53 06 18 02	1 special buttonhole presser foot
53 11 34 00	1 buttonhole knife
53 11 37 00	1 wooden support
54 06 70 00	1 darning presser foot
54 06 71 00	1 small darning plate
54 07 61 00	6 bobbins, one of them being on machine
53 11 32 00	1 small screwdriver
60 11 33 00	1 special screwdriver
53 11 12 00	1 oiler
	1 package of assorted needles of the 130 system
54 12 01 00	1 embroidery ring
53 11 10 00	1 connecting cable to the mains
	1 instruction book
	Available against extra charge:
54 12 05 00	1 darning ring for stockings
53 06 48 01	1 narrow hemmer
53 06 08 00	1 broad hemmer
53 06 18 02	1 special buttonhole presser foot
53 06 29 01	1 wool darning presser foot
53 06 82 03	1 blindstitch presser foot
53 06 15 00	1 edger with quilting guide
53 06 11 00	1 rolling and scalloping hemmer, combined (marked with two red lines)
53 06 13 00	1 felling presser foot
53 06 20 00	1 presser foot for sewing on buttons (marked with 2 black lines)
53 06 44 01	1 standard presser foot for plain stitching
53 06 46 00	1 gathering presser foot
53 06 50 00	1 attachment for general, standard presser feet, normally to be found in the trade
	Pintucking equipment
	Eyelet embroidery equipment
	Knee control lever, complete

FR. GEGAUF LTD. BERNINA SEWING MACHINE FACTORY
STECKBORN / Switzerland



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