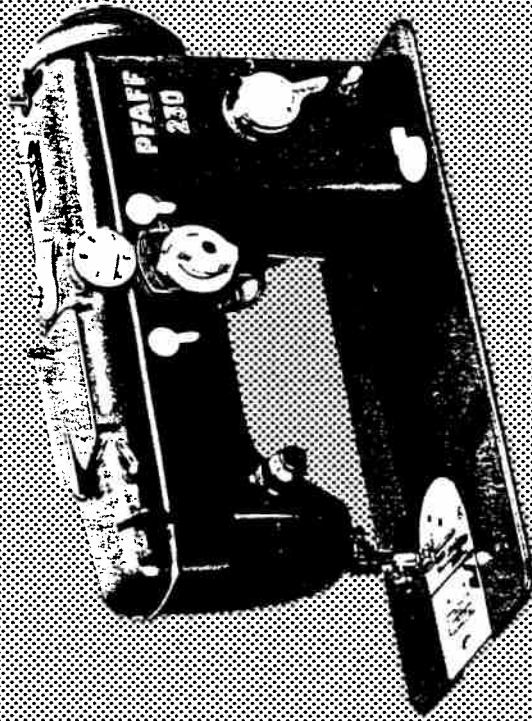


PFAFF

AUTOMATIC

230-260



INSTRUCTION BOOK

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PFAFF

Automatic 230-260

I N S T R U C T I O N S

F O R E W O R D

Your dream has come true!

You are now the proud owner of a PFAFF 230-260 Automatic -- the sewing machine with unlimited possibilities.

This instruction book will help you understand the machine and give you valuable tips to make sewing more fun for you.

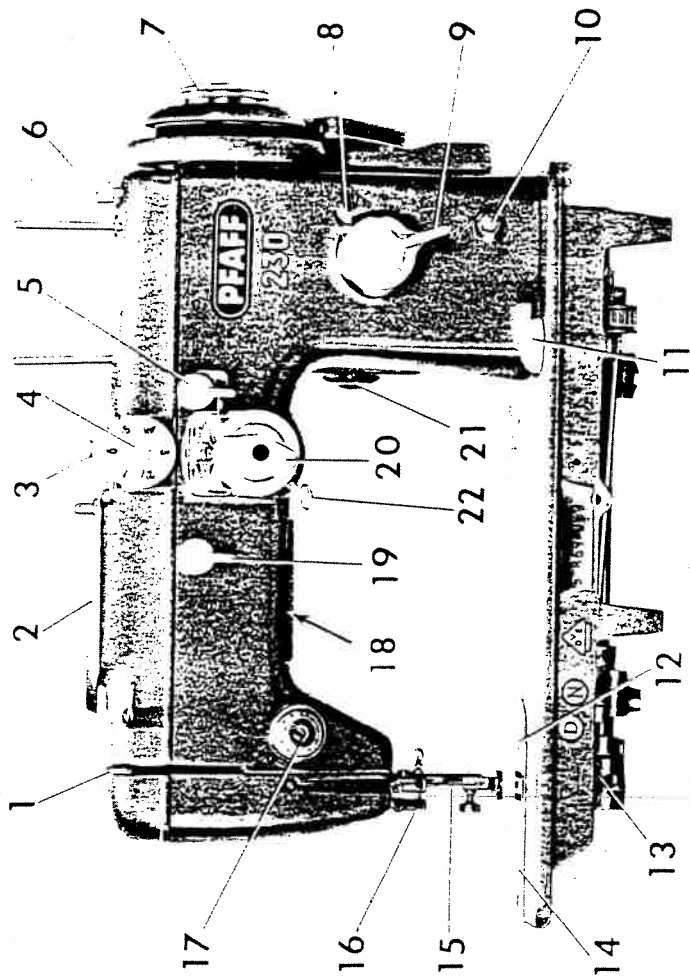
Even if you are an experienced seamstress, you will find this book a valuable guide to easy sewing -- PFAFF Automatic Sewing.

Follow these simple instructions and familiarize yourself with the exclusive automatic features of your machine.

You will find sewing exciting on your easy-to-operate PFAFF Automatic.

If you have any sewing problems, please contact your Pfaff dealer. He will be glad to help you at any time.

Pfaff International Corporation
New York, N.Y.

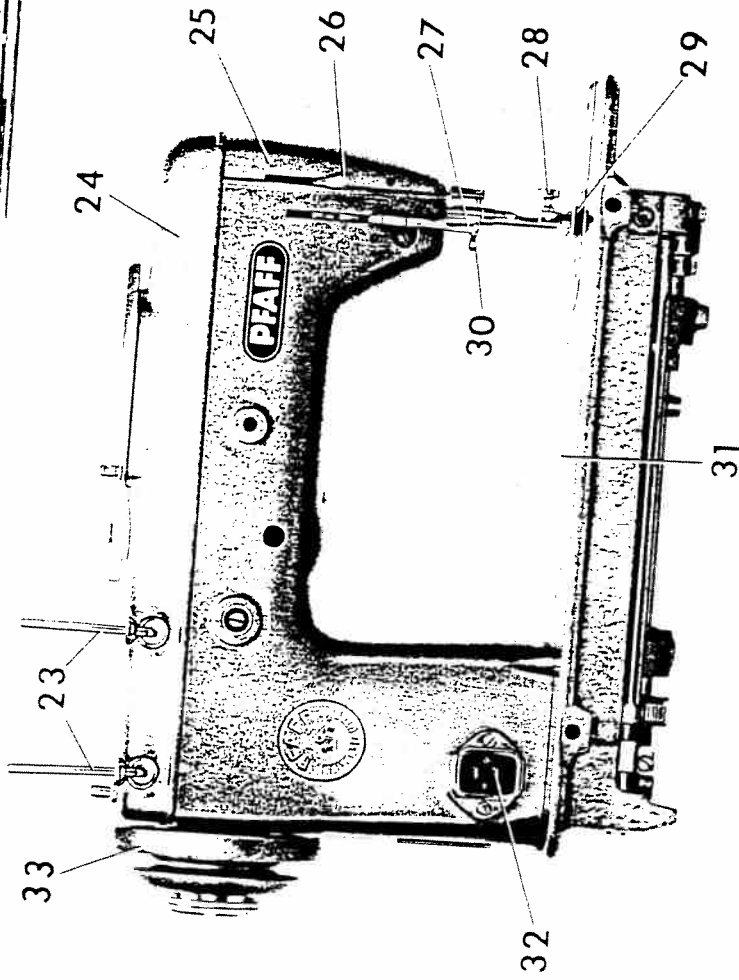


- 1 Thread take-up lever
- 2 Top control cover (A)
- 3 Embroidery pattern length lever (E)
- 4 Dial B
- 5 Buttonhole slide lever
- 6 Bobbin winder
- 7 Stop motion knob
- 8 Stitch length stop control

- 9 Stitch length forward and reverse lever
- 10 Light switch
- 11 Drop feed control
- 12 Needle plate
- 13 Transverse rotary sewing hook
- 14 Bed slide
- 15 Needle

- 16 Automatic needle threader
- 17 Upper tension
- 18 Sewlight
- 19 Sewlight swing-out lever
- 20 Stitch width control (D)
- 21 Motor
- 22 Needle position lever (C)

R 7079



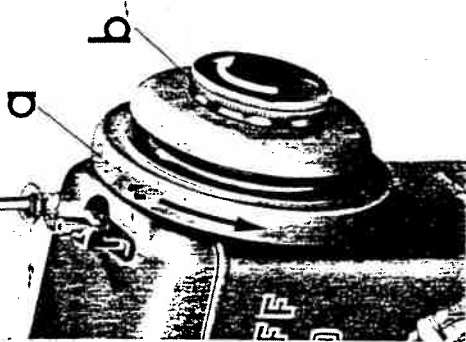
R 7080

- 23 Collapsible spool pins
- 24 Top cover
- 25 Face cover
- 26 Needle threader lever

- 27 Presser bar lever
- 28 Sewing foot set screw
- 29 Sewing foot

- 30 Needle set screw
- 31 Bed plate
- 32 Motor plug receptacle
- 33 Balance wheel

Fundamentals of Machine Operation

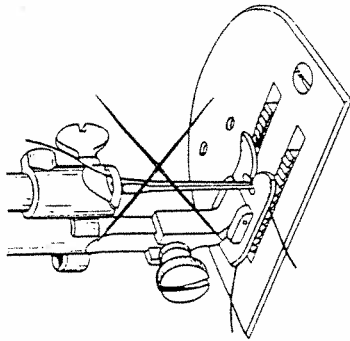


- ① Make sure stop motion knob **b** is tightened before you begin sewing (clockwise as indicated by white arrow).

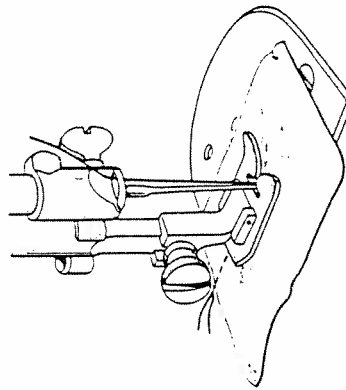
- ② Whenever you have to turn the balance wheel **a**, turn it toward you (counter-clockwise as shown by black arrow).



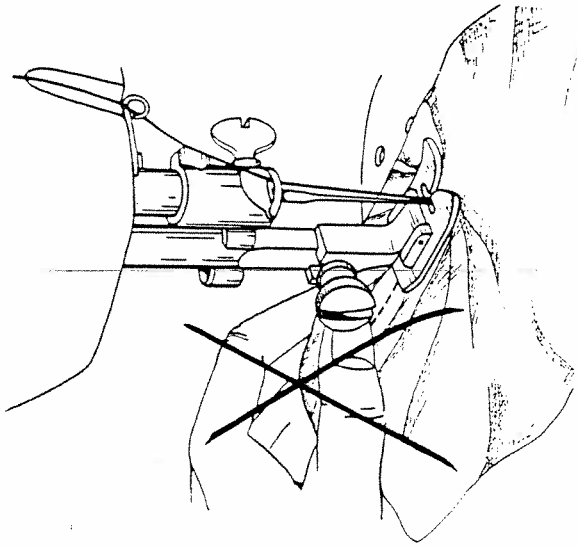
- ③ Raise presser bar lever **c** and place both threads under and behind the sewing foot. Slide material under needle, lower sewing foot -- and you're ready to sew.



- ④ Never run a threaded machine unless you have fabric under the presser foot.



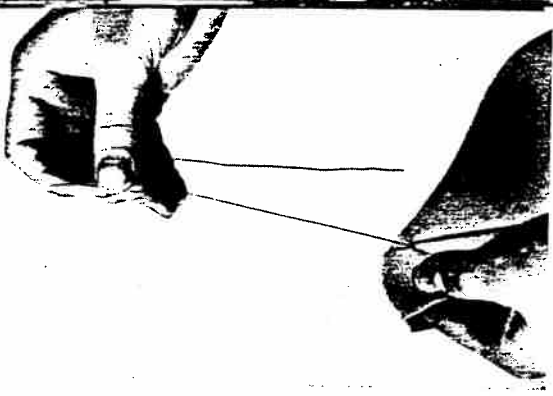
Important Points to Remember



The machine will feed the material under the sewing foot automatically. All you have to do is guide the work. Never try to hasten feeding by pushing or pulling the fabric while stitching because the needle may bend or break.

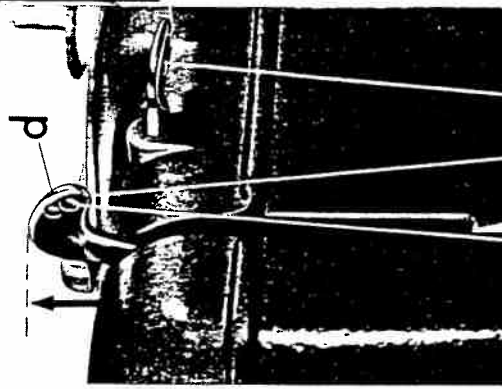
R 6808

A woman sewing by hand will normally draw one stitch tight before making another. On a sewing machine, this is done automatically by take-up lever **d**.



d

Therefore, **always** turn the balance wheel toward you until the take-up lever is at its highest position before you begin and after you have completed a seam. Failure to observe this rule may cause the thread to tangle under the needle plate or slip out of the needle eye. ▶



R 6809

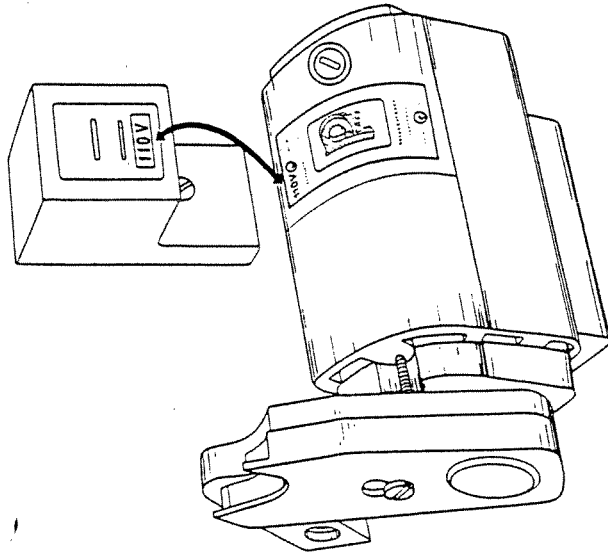
Starting the Machine

When your PFAFF Automatic is delivered to your home, it is ready for sewing.

The machine is driven by an electric motor which requires no attendance, except that the brushes should be replaced after about 400 hours of service.

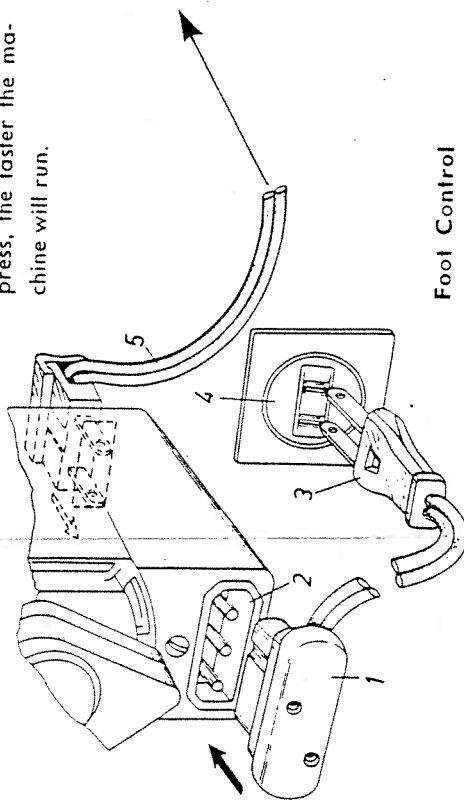
When you replace the brushes, also check whether the driving belt has the correct tension. If not, adjust the belt idler.

The sewing speed is regulated either by knee or foot control.



Before you connect the plug with the electric outlet, make sure that the voltage indicated on the motor name plate is within the tension range marked on the electric meter.

Connect electric cords as shown in illustration



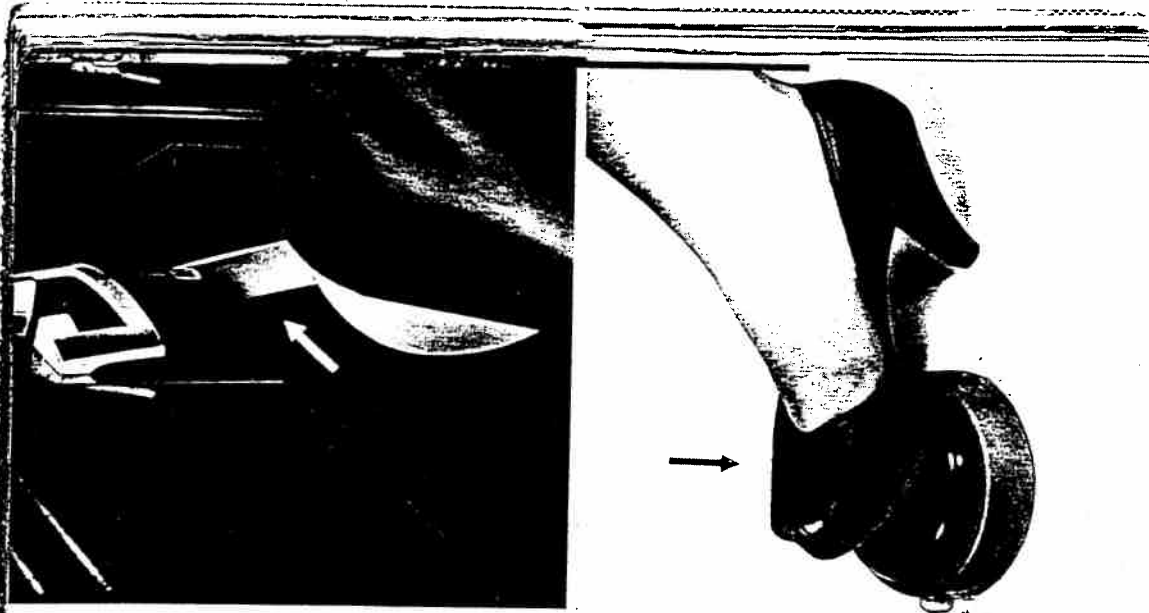
Knee Control

Press the right knee lightly against the knee control lever. The harder you press, the faster the machine will run.

Foot Control

Place the foot control under the cabinet within easy reach of your foot. Rest the right foot on the speed control and press. The harder you press, the faster the machine will run.

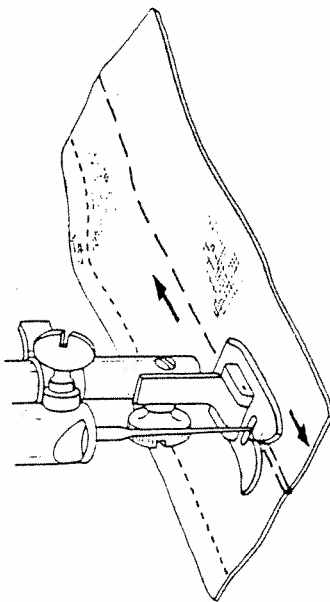
Push plug 1 into three-pin receptacle 2, and plug 3 at other end of cord into wall outlet 4. The foot control cord is permanently connected with plug 1. If machine is fitted with knee control, also connect plug of cord 5 with outlet at opposite end of motor.



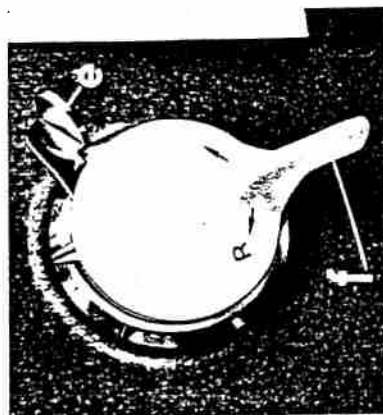
Straight Stitch Sewing

◀ Set:

Dial B - 0 Lever E - 0
Control D - 0 Lever C - Centered

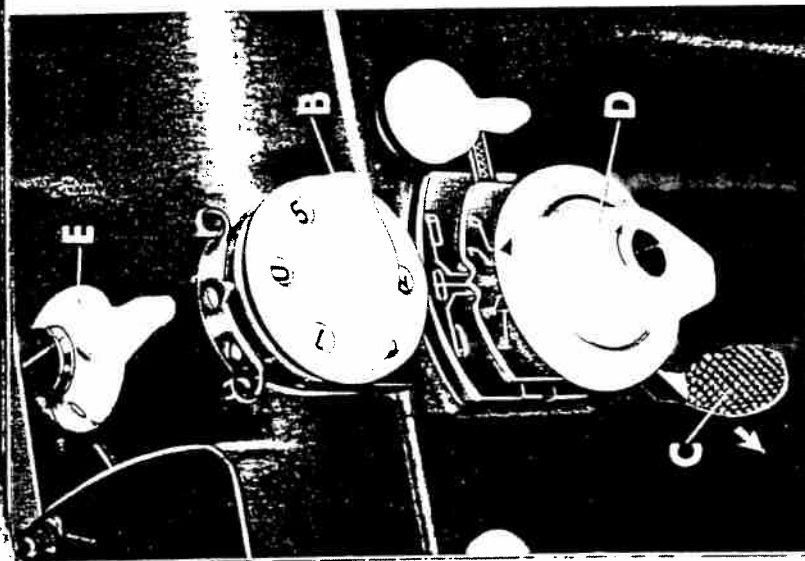


Lever f regulates the stitch length and controls forward and reverse sewing. (Lever should be in vertical position before setting stitch length). Control e stops stitch on length desired.



R 7066

8



R 6629

Forward Sewing

Set e on number that indicates stitch length you want (1-5; the higher the number, the longer the stitch). Turn f right as far as it will go.

Reverse Sewing

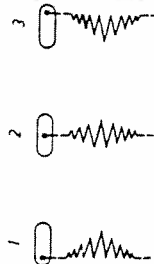
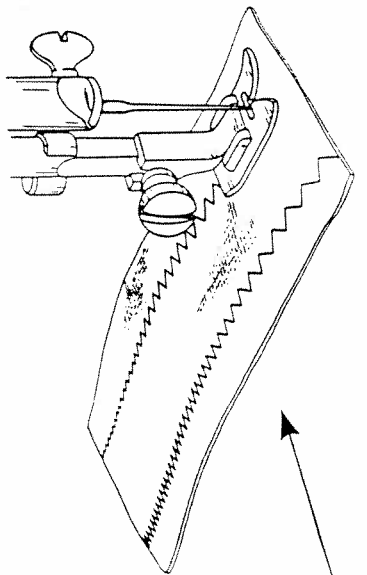
Turn f left as far as it will go. (The reverse stitches will be the same length as forward stitches.)

Zigzag Sewing

Set: Dial B - 0 Lever E - 0

Turn control D left to desired stitch width (indicated by numbers 1 to 4; the higher the number, the wider the stitch).

Do not move C or D while needle is in fabric.



Lever F lengthens zigzag stitches or packs them more closely together. To form the satin stitch gradually decrease stitch length almost to 0 until you get the desired effect.

Lever C changes needle position from left to right. Thus the stitching can be moved from the center to the left or right of the needle plate slot.

To change needle position, press lever C down and move into:

Notch 1 - The needle is at the extreme left of the needle plate slot in straight sewing, and swings to the right in zigzag stitching.

Notch 2 - The needle is centered in the needle plate slot in straight sewing, and swings both ways in zigzag stitching.

Notch 3 - The needle is at the extreme right of the needle plate slot in straight sewing, and swings to the left in zigzag stitching.

Pointer Z indicates the position of the needle on the top scale.

Setting Machine for Automatic Embroidery

Set: Lever E — 3

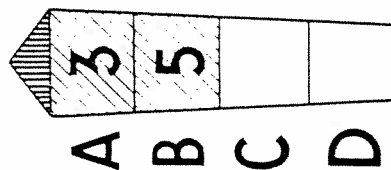
Swing back the cover on control A.

Your embroidery design dial shows all the primary designs you can make with the Automatic. Pick your design and turn the dial so it points to that design. The numbers in the slot indicate the machine dial settings which will give you the design you have chosen.

For example:

Turn A (clockwise) so 3 is opposite n.

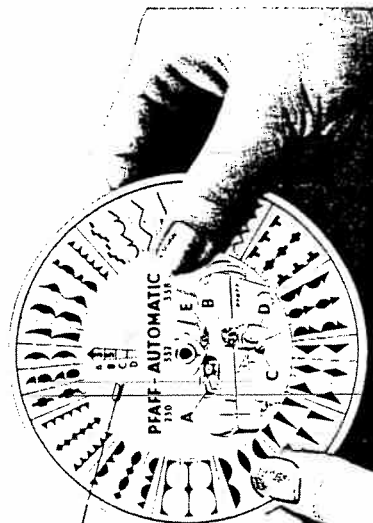
Turn B (clockwise) so 5 is at top.

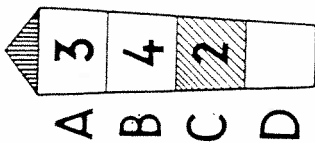


Set stitch length lever f (page 8) so stitches are closely packed.

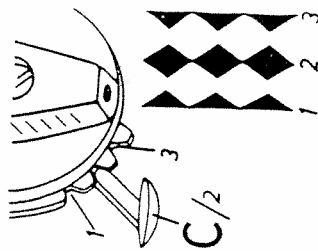
If embroidery design dial shows no symbol for lever C or control D, disregard them.

For such designs C and D will operate automatically. Do not touch them.





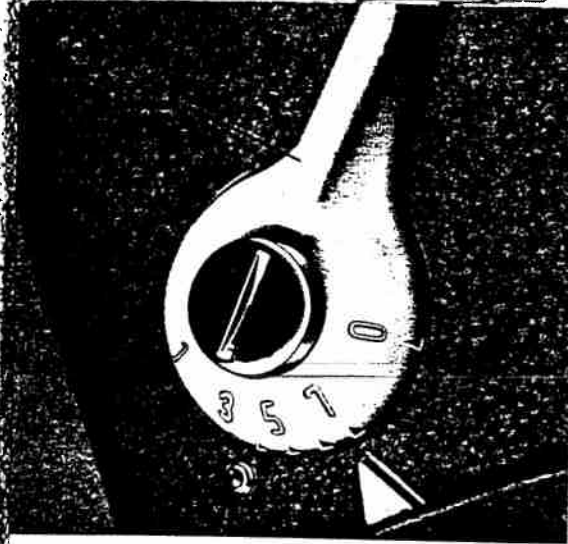
If number 1, 2 or 3 appears in box C, move lever C to the appropriate slot. An arrow → or 0 in box D indicates that control D should be turned to the right as far as it will go without applying force.



If a 2 appears in box D, you may set the dial exactly at "2"; or, if you want a narrower design, you may set it somewhat lower, say between "1" and "2". Pattern is not clear, if D is set above "2".

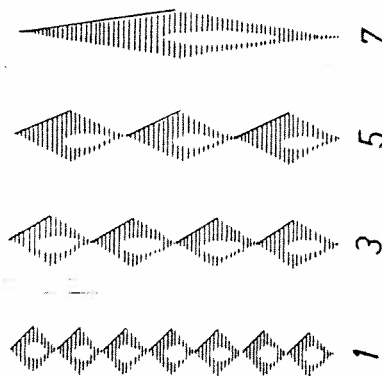
A Big Advantage of the PFAFF Automatic

Each of the primary designs pictured on the embroidery design dial can be sewn in different lengths. Therefore you can vary the appearance of the pattern without changing the stitch length. The pattern length is controlled by lever E, which has seven gradations — four numbered (1, 3, 5 and 7) and three unnumbered. Maximum pattern length is obtained by setting lever E on "7", and minimum length by setting it on "1". When it is set on "0", the Automatic mechanism is disengaged.



R 7095

Machine Setting: A 3, B 4, C 2



Lever E at: 1

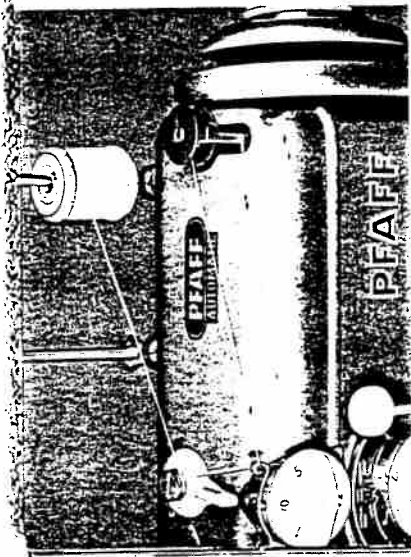
3

5

7

Winding the Bobbin

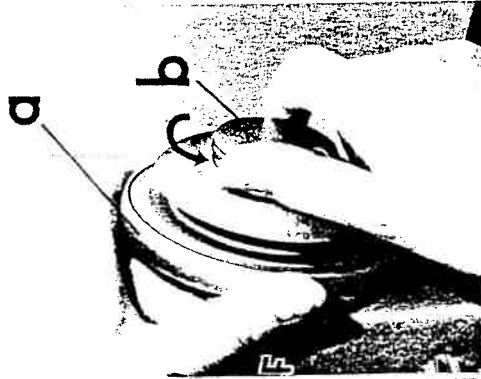
- ① Hold balance wheel **a** and turn stop motion knob **b** all the way to the left (counter-clockwise).
- ② Place spool of thread on right-hand spool pin. The bobbin thread should always be the same size as that used on the spool, or a little finer.
- ③ Pull thread from spool and lead it clockwise around thread retainer **g**, crossing the thread.



R 6722

1

R 6704

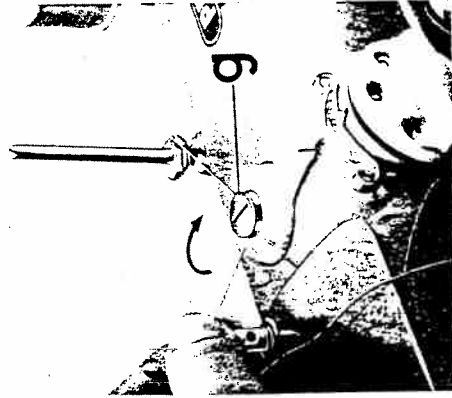


2

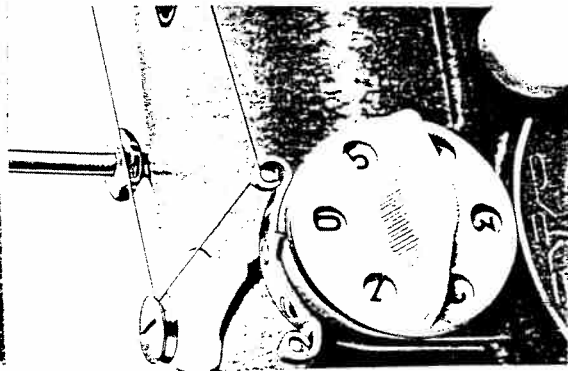


R 7101

3



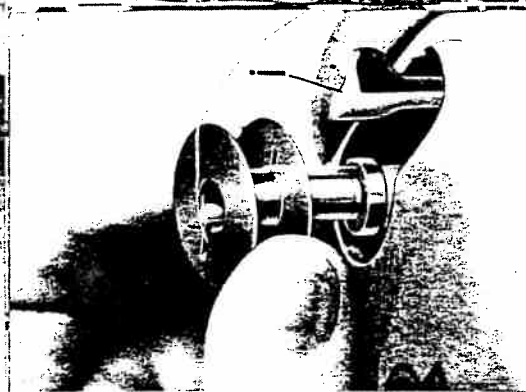
R 7096



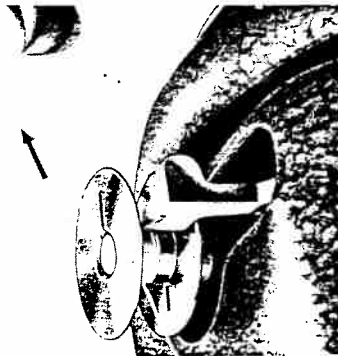
R 7100 4

- ④ Pull it through thread guide h.
- ⑤ Pass end of thread through slot in bobbin, from inside. Set bobbin on bobbin winder spindle so that key at base of spindle enters slot in bobbin. Press in lever i.
- ⑥ Hold end of thread and slowly start machine. Having wound a few turns, break off end of thread and continue winding at a faster pace.
- ⑦ Bobbin winder will stop automatically when bobbin is full.
- ⑧ If you don't want a full bobbin, press out lever i when sufficient amount of thread has been wound. You may continue sewing while you are winding bobbin without disconnecting balance wheel.

5 R 7102

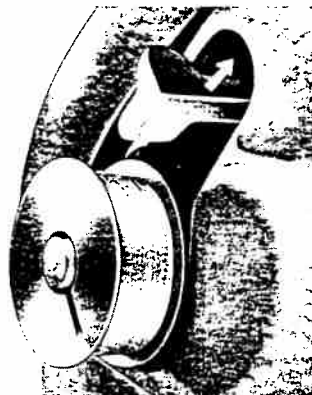


6



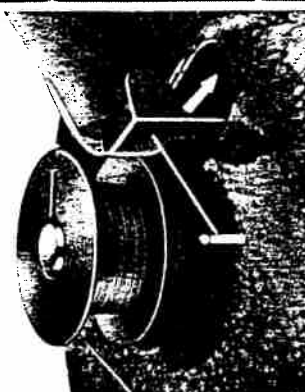
R 7067

7

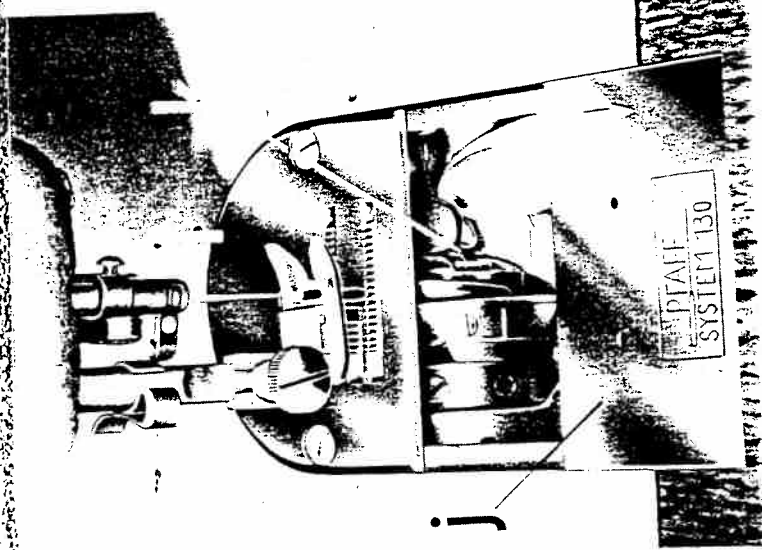


R 7097

8



R 7099



R 5882

Removing the Bobbin Case

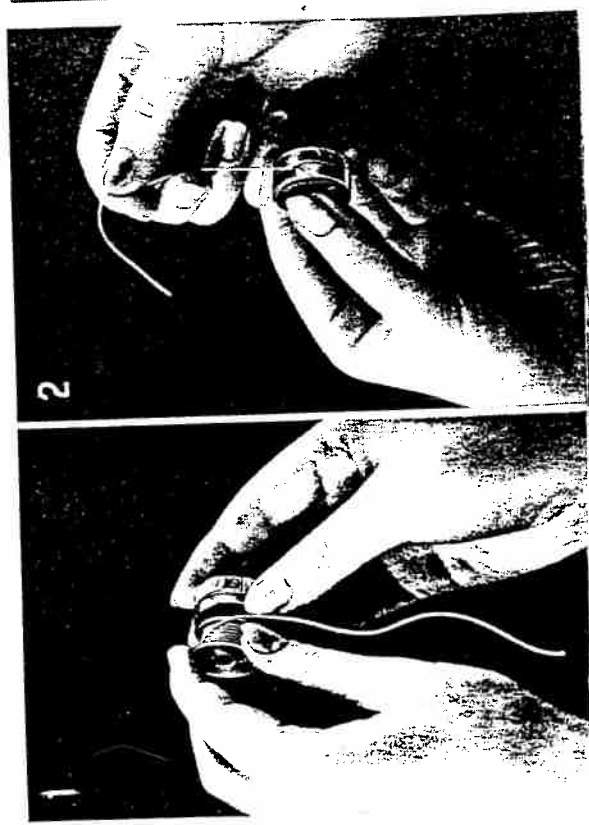
- ▲ Raise needle to its highest point and open bed slide i, so you can see sewing hook.
- Reach under the machine with your left hand and lift latch k with your forefinger. Pull out bobbin case with bobbin by holding the latch. When you release latch k, the empty bobbin drops out.

Inserting a Full Bobbin into Bobbin Case

- ① As shown in illustration 1, hold bobbin in left hand so that the thread end falls from the top down toward you, and insert bobbin into bobbin case.
- ② Hold the bobbin firmly in the bobbin case and pull the thread into the case slot.
- ③ Pull the thread under the tension spring until it emerges from the opening at the end of the spring. Leave about three inches of thread hanging from the bobbin case.
- ④ Hold the case by its open latch, so that the bobbin cannot fall out.

R 5867

R 5869



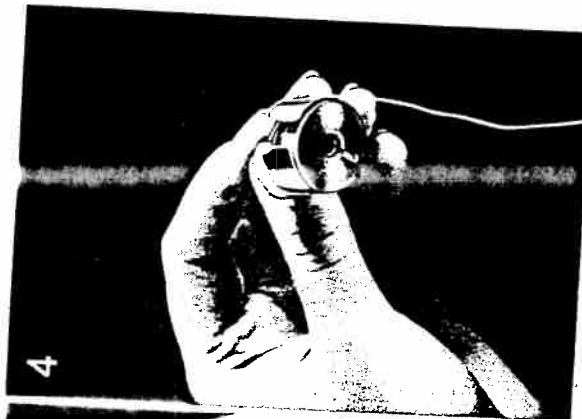
Inserting the Bobbin Case

It is best to tilt machine back when inserting bobbin case the first time. After you have become more practiced, you will manage without tilting it. Move bed slide *j* all the way to the left so you can see the hook. Make sure the needle is still at its highest point. With the thumb and forefinger of left hand, lift latch *k* and turn bobbin case until slot at end of latch points up. Then place it on center stud *l* of hook.

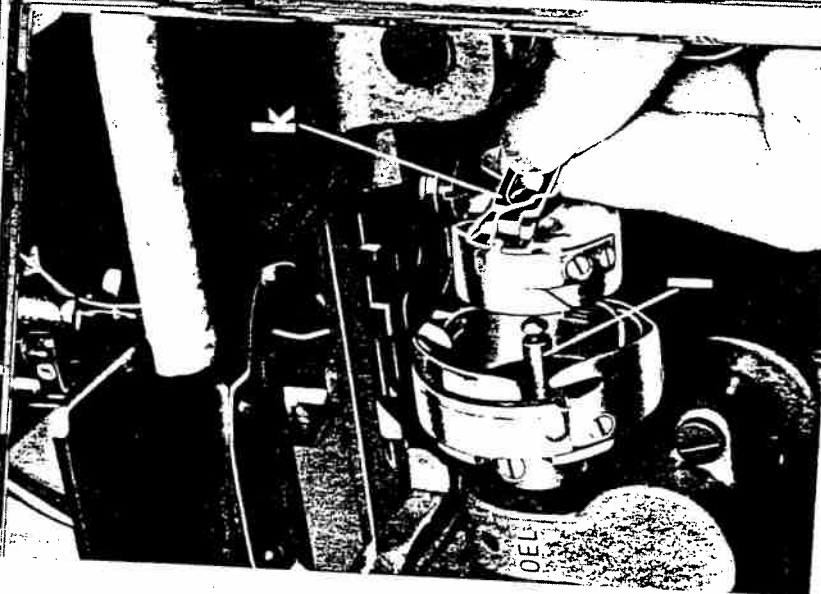
R 5870



R 5868



R 7076



In replacing the bobbin case, it is best to hold the loose end of thread so that it will not get jammed between bobbin case and hook. Release latch *k* and press against bobbin case until you hear it snap into place. An improperly inserted bobbin case will cause needle breakage.

Recommended Needle and Thread Sizes

The appearance of the finished seam is dependent on the correct relationship between needle, thread and fabric. Select the proper thread sizes and needles from this chart.

The same size threads should be used in the needle and on the bobbin. Some experienced seamstresses prefer a somewhat thinner bobbin thread. However, the bobbin thread never should be thicker than the needle thread.

Types of Fabrics	Mercedized Cotton	Silk	Needle Size
Fine Fabrics such as georgette, chiffon, batiste, voile, lawn, silk.	80 to 100	0 to 000 twist	60 or 70
Lightweight Fabrics such as dress silks and cottons, sheer, woolsens, shirting, dra- peries.	70 to 80	A & B twist	80
Medium Fabrics such as lightweight woolsens, madras, muslin, brocades, heavy silks and rayon, gabardine.	50 to 70	B & C twist	90
Heavy Fabrics such as coating, denim, corduroy, slipcover fabrics, bed tickings, lightweight canvas.	40 to 50	C & D twist	100
Very Heavy Fabrics such as heavy tickings, canvas, overcoating, sailcloth, up- holstery.	24 to 40	E twist	90 to 110
Synthetics, Rayon, Acetate including nylon, orlon, dacron, plastics, etc.	Determined by weight of fabric 40 to 50		Determined by thread size 60 to 80

Important Facts about Needles

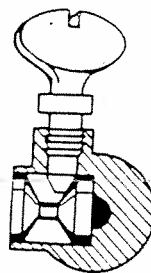
On PFAFF Automatic sewing machines, System 130 R, flat-shank needles are used for all ordinary sewing and embroidery work. The needle system is stamped on the bed slide. Genuine Pfaff needles, System 130, are available from every Pfaff dealer. Bent or blunt needles should not be used.

Changing the Needle

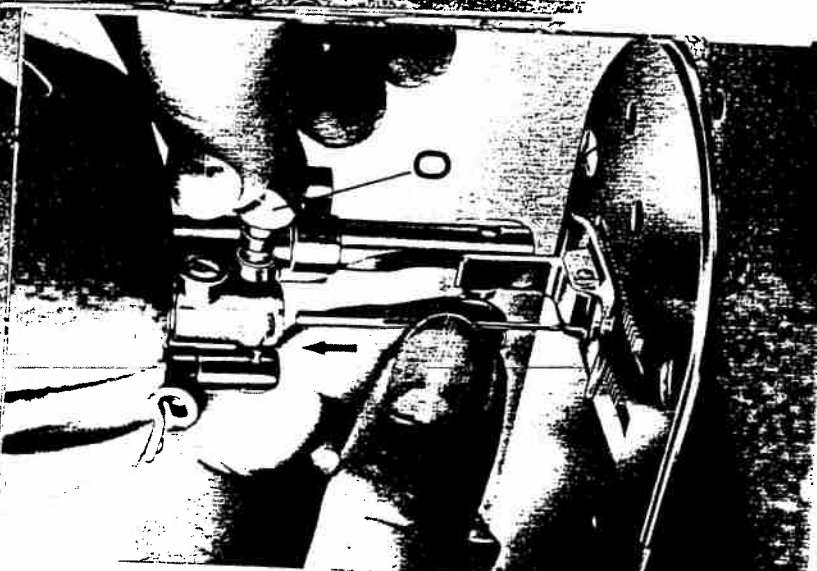
Bring needle bar to its highest point and lower sewing foot.

Loosen needle set screw  and pull old needle out of needle clamp. Insert new needle into opening of needle clamp and push it up as far as it will go. Make sure that the flat side of shank faces toward the back and long groove toward you. Tighten needle set screw .

The illustration (left) shows you how the needle clamp works. The needle set screw presses against the tapered needle positioning roller which presses against the flat side of the needle shank and holds the needle in place.



R 6798



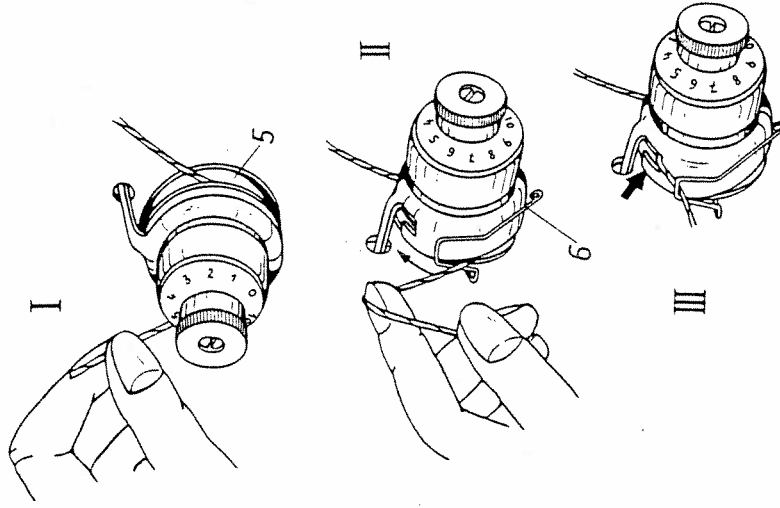
Upper Threading

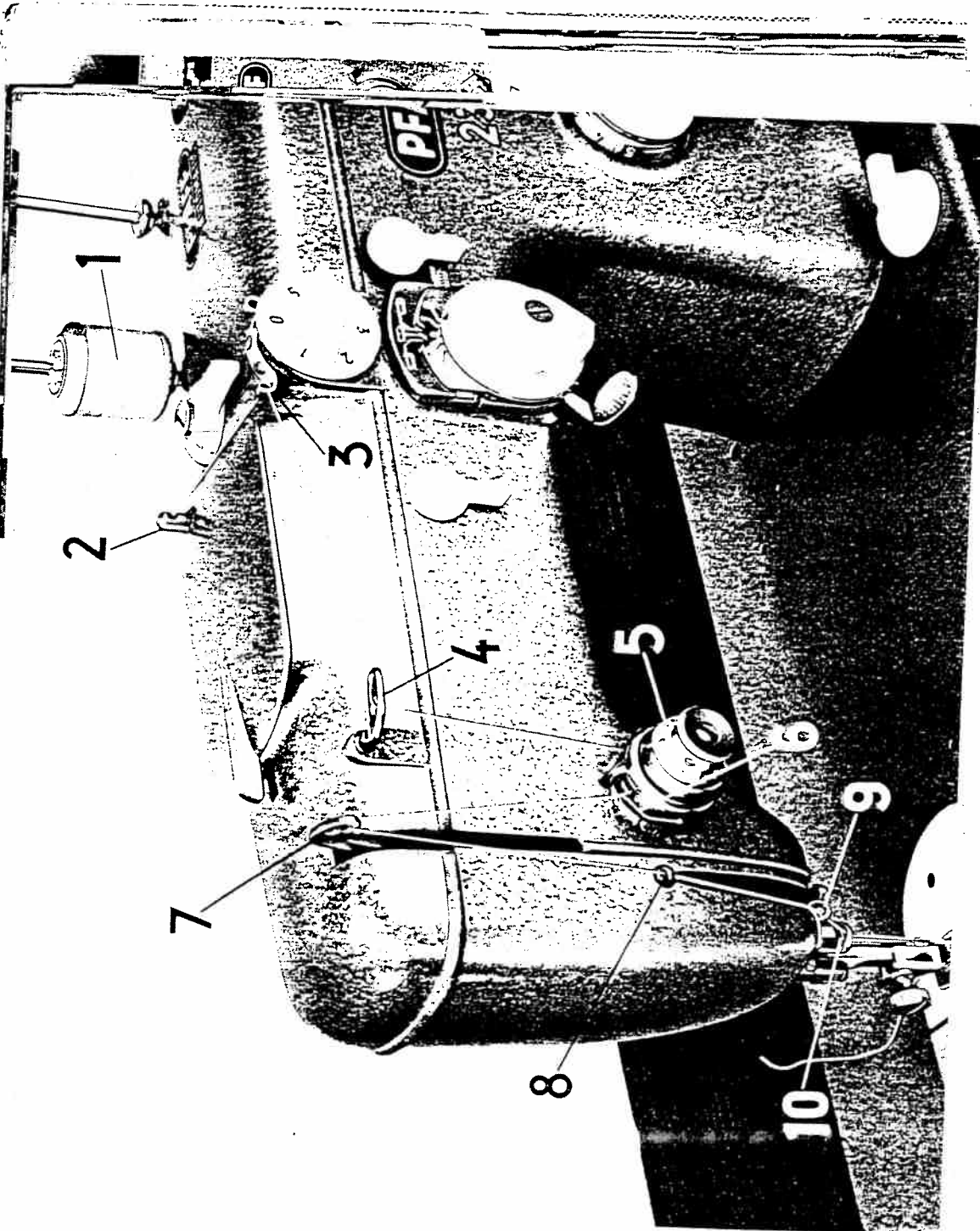
Place thread on spool pin 4 and lead thread end through holes in thread guides 2 and 3 and through both thread retainer openings 4 (see illustration opposite).

Pull thread between any two of the tension discs 5, (Fig. I) and lead it clockwise (Fig. II) until it snaps into the square notch in the tension cup (Arrow, Fig. III). The thread passes underneath the thread check spring which holds it down permanently.

Bring take-up lever 7 as high as it will go and pass thread from right to left through one of the holes at its end. Pull thread into slots at left of thread guides 8 and 9, and then into the slot at left of needle clamp 10.

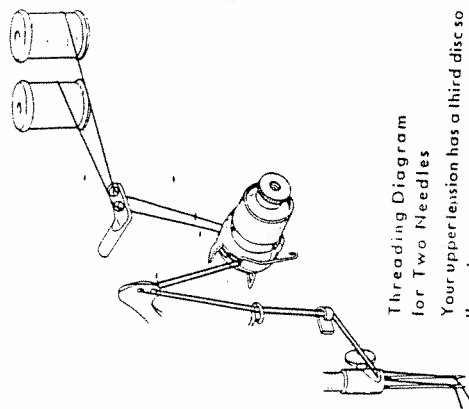
Then thread needle, front to back. PFAFF's Automatic needle threader will do this for you easily and quickly.





R 7081

19



Threading Diagram
for Two Needles

Your upper tension has a third disc so
threads are separated as they are
threaded through the tension.

Increase the bobbin tension slightly for cording. Pfaff recommends you fill your cording so it keeps its shape in the laundry. Filler cord thickness depends on cording size you want. To sew filled cording use the two cording plates with cord ducts.

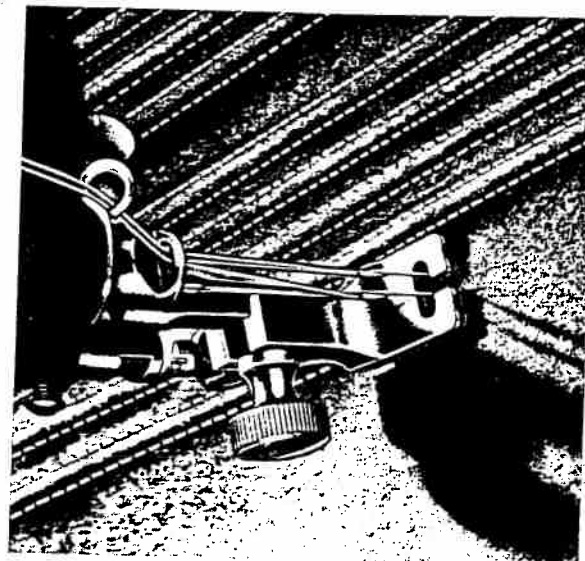
Only very narrow lucks are made without filler cord.

Machine Setting: E-0 · B-0 · C-2 · D-0

Additional Information on Cording

Ordinary cording in medium-heavy fabric is made with cording foot No. 41319 and cording plate No. 41842.

For thicker cording use foot No. 41318 with cording plate No. 105996.

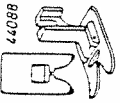


Cording foot No. 41641 and plate No. 41842 (with center claw, but without cord duct) serve to make narrow air lucks in light-weight material.

Pin lucks also are made with cording foot No. 41641, but without cording plate.

Cording height and width are determined by the distance between the two needles, the cord diameter and the height of the ridge on the cording plate. Thread tensions also influence cording size. For uniform spacing of parallel lucks, attach an adjustable guide to the cording foot. When space between lucks is very narrow, place the preceding seam into one of the grooves of the foot and use it as a guide. This procedure insures uniform and parallel rows of cording.

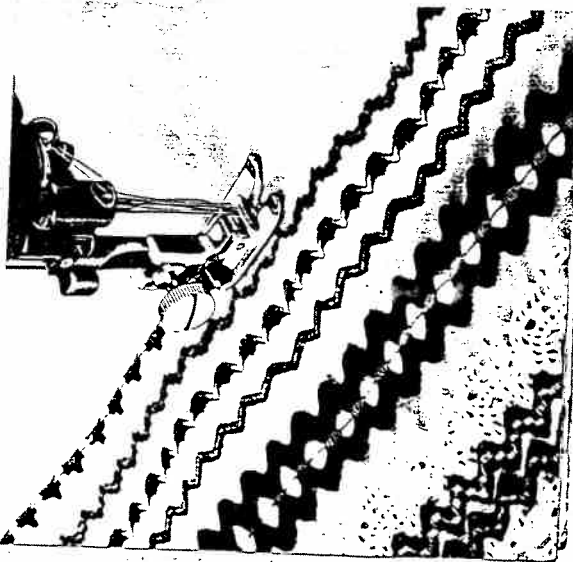
44088



Two-Needle Decorative Sewing

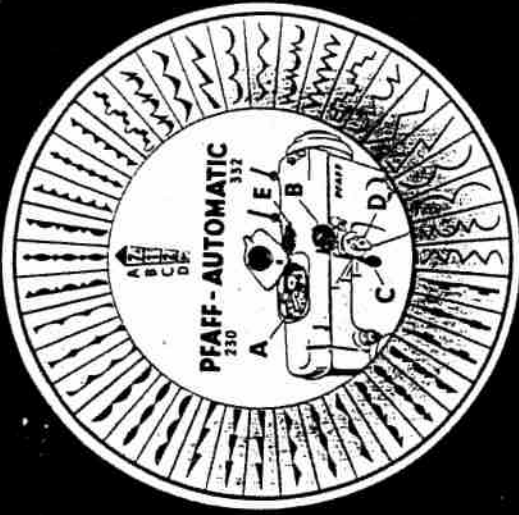
All patterns on the narrow-stitch side of the embroidery design dial can be sewn with two needles, if the distance between the needles does not exceed $\frac{5}{64}$ inch. This also applies to the eight B - 3 designs shown on the other side of the design dial, if control C is not set beyond $1\frac{1}{2}$. The above patterns can be sewn without changing machine parts. If any of the other designs are sewn with two needles, the needle plate, machine feed and sewing foot must be changed. Your Pfaff dealer will do this for you at extra cost. These parts have wider slots to allow for movement of both needles.

R 7178



Two-needle designs are particularly attractive when sewn with different color threads.

The sewing abilities of your PFAFF Automatic are practically unlimited. Interesting effects can be obtained by combining various designs, embroidering colored ribbons, glamorizing a garment with lace or rick-rack attached with a line of Automatic stitches and -- well, you probably can think of many articles which would take on new life with a touch of embroidery. Your PFAFF Automatic will help you solve decorative problems and will stimulate your creative fancy.



R 5966

R 7137

Three-Needle Decorative Sewing

◀ To do three-needle sewing, you must buy spool holder No. 153137 which slips over the regular spool pins (see illustration) and have your Pfaff dealer convert your machine to sew a stitch width of about $\frac{1}{4}$ inch. The third thread is led to the needle with the second thread.

After your machine has been converted, you can sew all patterns on the narrow-design side of the embroidery dial with three needles.

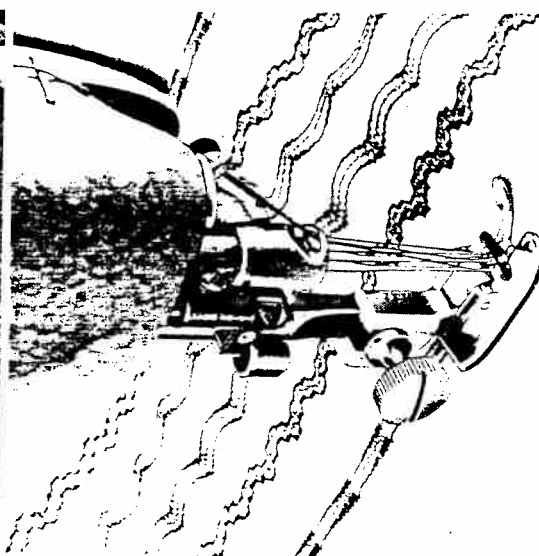


R 7175

Automatic Embroidery ▲

Interesting design effects are easy to make by combining Automatic patterns. Now you can make flower petals, and other intricate designs.

The more familiar you are with your machine, the more inspired you will be toward creative sewing.

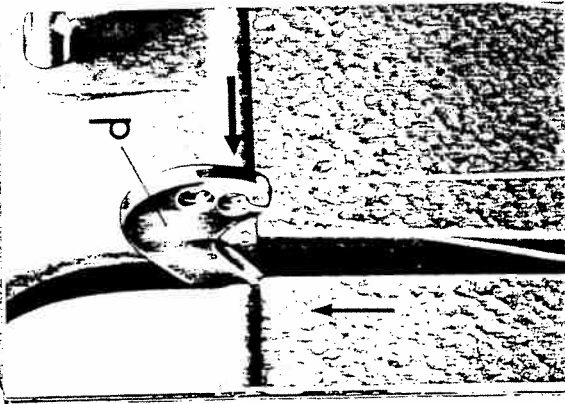


R 7176

Operating the Automatic Needle Threader

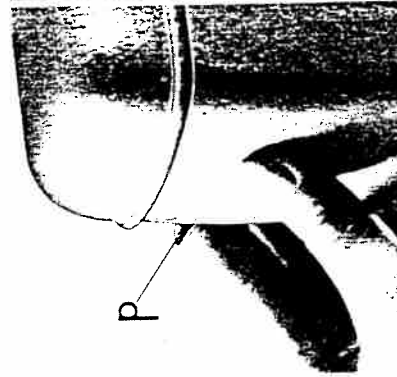
Before you begin, make sure that the needle is at its highest position – when the lower hole of the ascending take-up lever **d** is in line with the bottom edge of the top cover. Now lower the sewing foot and –

- ① With your left hand push threader engaging lever **p** up until threader prong penetrates needle eye. Keep lever **p** in this position.
- ② Hold thread loosely and lead from left around pin **q** behind hook of prong **w** on needle threader.
- ③ Slowly lower lever **p** part way until prong **w** reverses and pulls thread through the eye.
- ④ Jerk lever **p** up slightly so the thread loop will fall off the prong. Release lever **p**. Pull thread through needle eye.

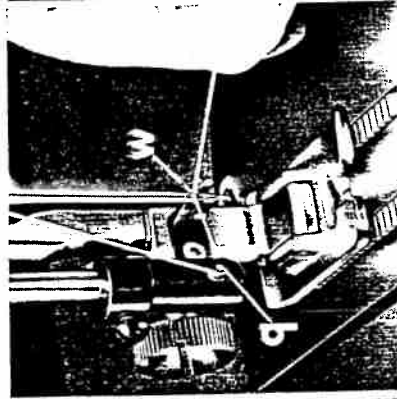


R 7068

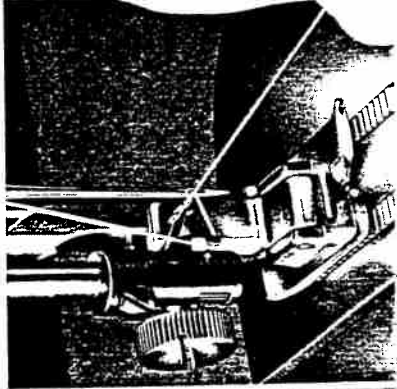
R 7069



R 7089

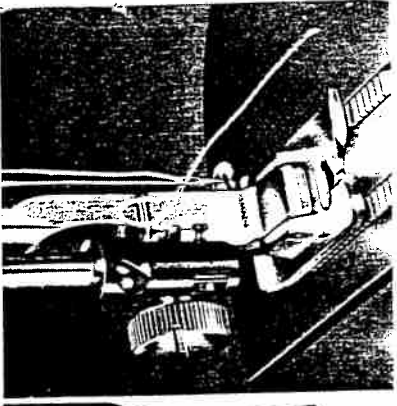


2



R 7088

3



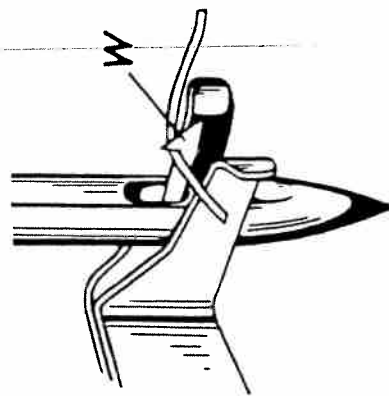
R 7087

4

When you have had sufficient needle threading practice, you may shorten the procedure as follows:

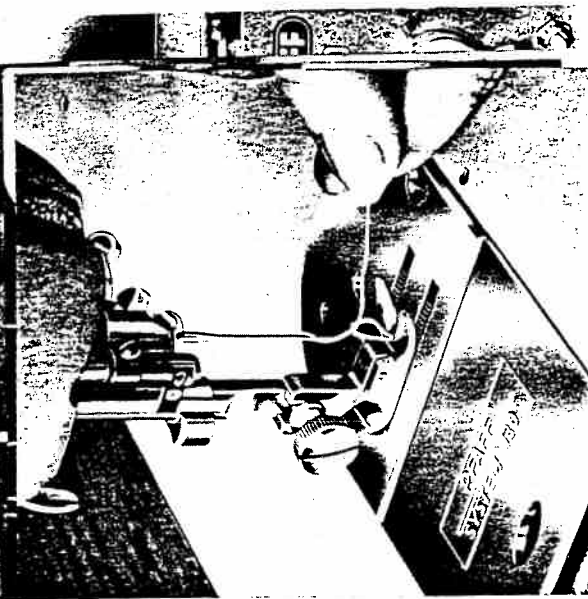
- Push lever **p** up. Place thread behind hook of prong **w** so that its end is about $\frac{1}{2}$ inch to the right of the prong. Slowly lower lever **p**. Prong **w** now pulls end of the thread — instead of the loop — through needle eye.

Since take-up lever **d** is not at its highest point when you thread the needle, pull about four inches of thread through the needle eye before you begin sewing.



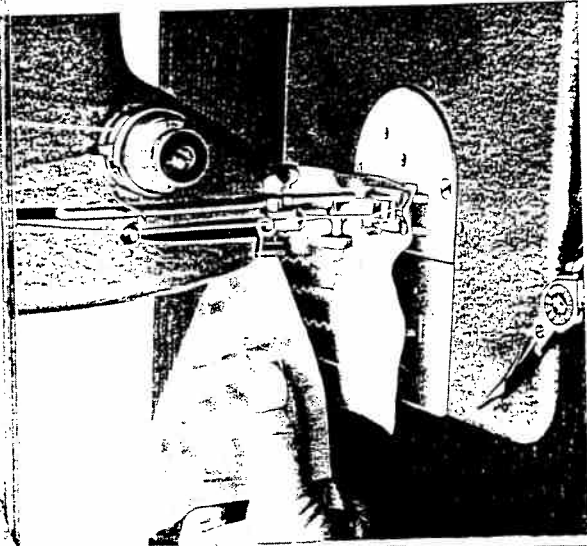
Drawing Up the Bobbin Thread

Hold needle thread lightly in your left hand. Turn balance wheel toward you until the needle moves down and up again and take-up lever reaches its highest position. Lightly pull needle thread to draw bobbin thread up through needle plate slot. Place both threads back under sewing foot before you put fabric into machine.



R 5888

77



R 7070

▲ To check whether the tensions are correctly balanced, take a closely woven piece of fabric and sew a few straight and zigzag seams. If the straight stitches are tightly drawn in on both sides of the fabric (see seam sketch III), the tensions are correct. The surest way to double-check this is by examining a zigzag seam. If the zigzag seam is equally wide on surface and underside of the fabric, that is, if the threads are locked exactly at the zigs and zags of the seam, the tension adjustment is correct.

Correct Tension Regulation

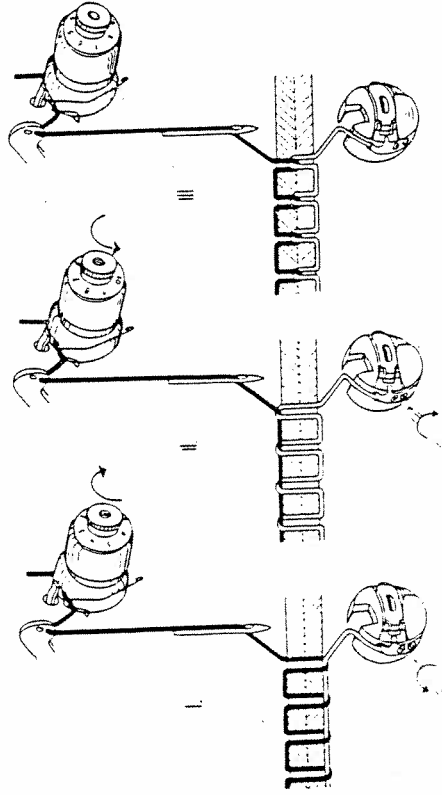
Balanced tensions are essential for sewing. If your tension is correct, you will have perfect seams as sketched (III) below.

Sketch I – The threads interlock on the underside of the fabric.

Cause: Upper tension too loose or lower tension too tight.

Sketch II – The threads interlock on the surface of the fabric.

Cause: Upper tension too tight or lower tension too loose.



Regulating Thread Tension

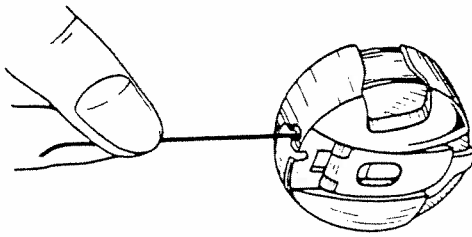
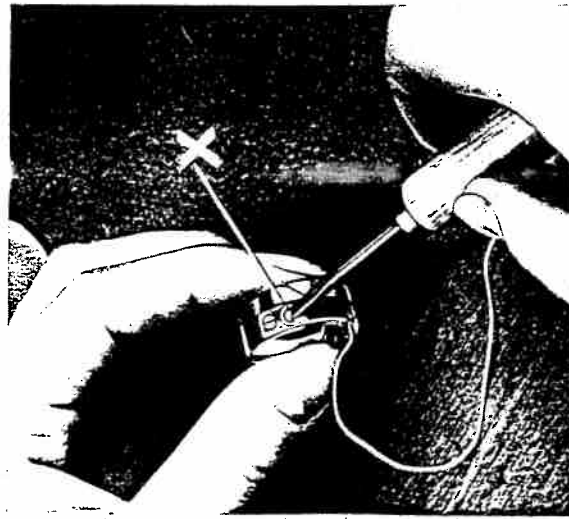
Bobbin tension rarely needs adjusting, except for embroidery when it should be a little tighter than for ordinary sewing. Adjustment is made by the small screw (x) on the bobbin case:

Turn it left ◀◀ for looser tension.

Turn it right ▶▶ for tighter tension.

Determine correct bobbin tension by holding the thread end between thumb and forefinger and letting the bobbin case hang freely. The tension should be strong enough to keep the bobbin case from being pulled down by its own weight. However, as you jerk your hand slightly, the bobbin case should gradually slide down.

R 6946



23



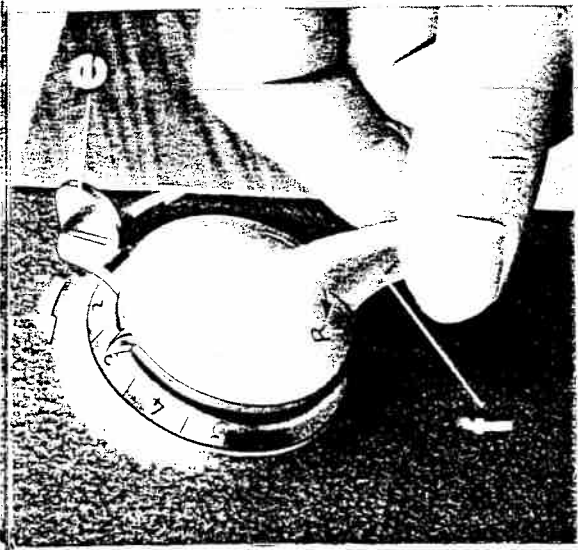
R 7245

The final stitch appearance can be regulated by upper tension knob (y) as follows:

Turn left ◀◀ for looser tension.

Turn right ▶▶ for tighter tension.

The upper tension is so designed that all grades of tension – loose to tight – can be covered with one complete turn of the tension knob. The numbers on the tension dial indicate different degrees of tension. The higher the number, the greater the tension. For ordinary sewing, the upper tension should be set between 3 and 5.



R 7066

Stitch Length Regulation

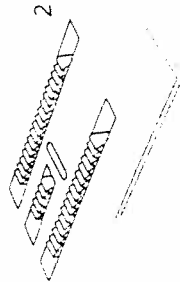
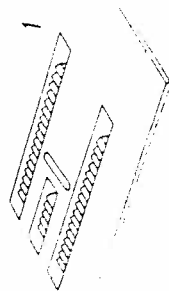
- ▼ Set **f** in neutral (vertical position).

Set **e** so its pointer is on the indicator scale number corresponding to the desired stitch length. Turn lever **f** to the right as far as it will go.

To sew backwards, turn lever **f** toward the left as far as it will go.

Control **e** stops stitch length, 1 to 5, on indicator scale. Stitch length may also be regulated by turning **e** all the way left and **f** in the forward sewing position as far as it will go. Sew a few stitches and regulate the stitch length by turning **f** slowly toward the right. To hold the stitch length in position, turn **e** until it stops.

R 6705



Dropping the Machine Feed

The machine feed is dropped for darning, hoop embroidery and button sewing.

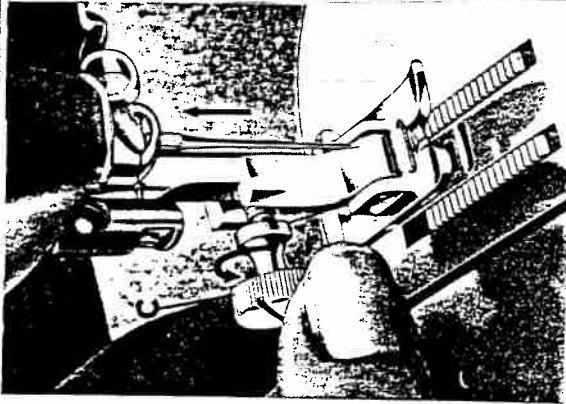
- ① To lower feed below the needle plate, turn drop feed control **v** clockwise. Fabric will cease feeding.
- ② When control **v** is turned to the right as far as it will go, feeding of the fabric resumes automatically when you start sewing.



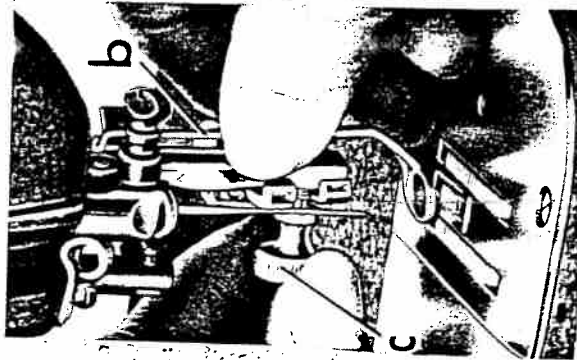
Changing the Sewing Foot

Lift both needle and presser bars to their highest positions and turn screw c to the left. The screw usually can be loosened by hand; but if it is too tight, use a screw driver. Tilt the foot sideways and pull it down. Slip on new foot and tighten screw c.

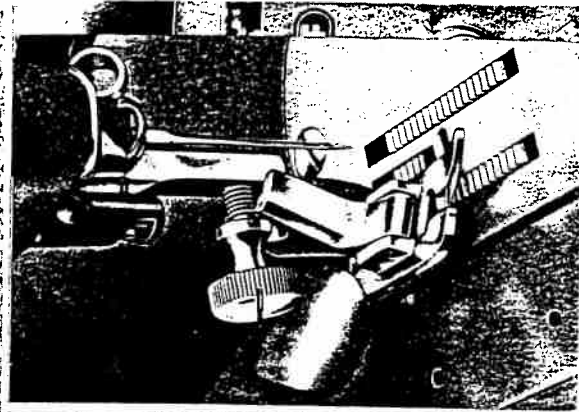
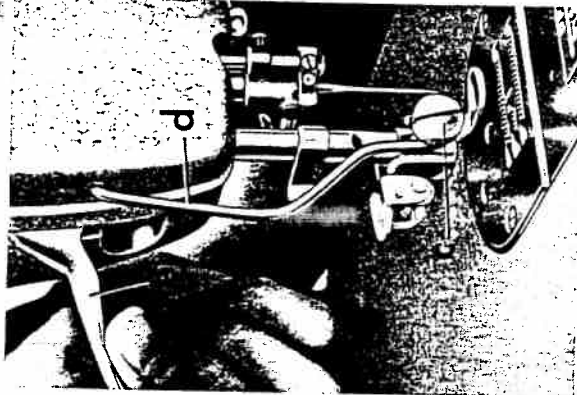
R 7085



R 6591



R 6592



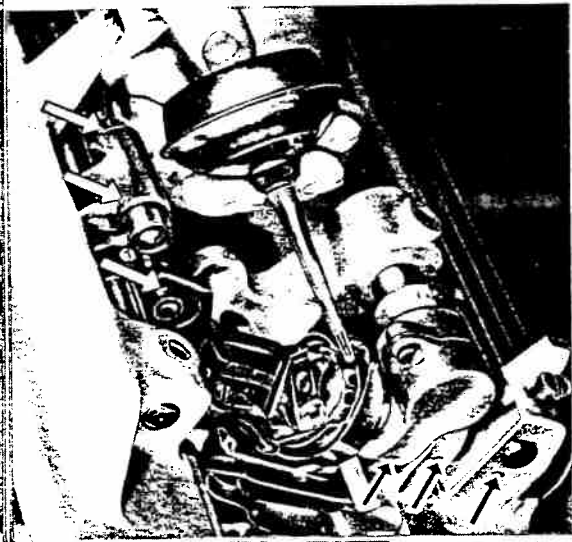
R 7086

The Darning Foot

Remove the sewing foot. Attach darning foot from the rear. Hold spring clip b so that it is behind the needle set screw, and tighten screw c. Attach darning hook d as illustrated so that when you lower presser bar lever e, the darning foot will stay in position. Remember to lower presser bar lever e so that the upper tension is activated.

25

R 5087



Care and Maintenance

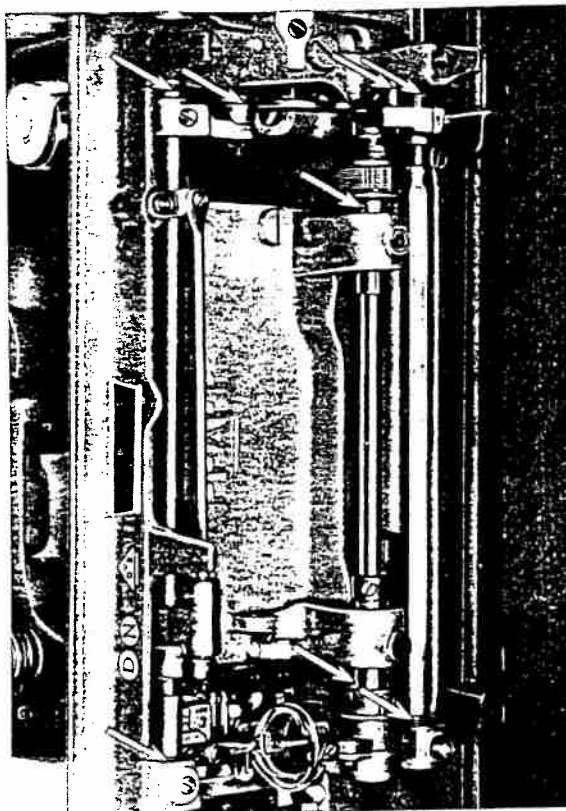
Longevity and smooth machine performance are dependent on regular and proper cleaning and oiling.

Use Pfaff sewing machine oil only. Never lubricate machine with animal or vegetable oils. Remove all lint before oiling.

All moving and rotating parts require regular lubrication. It is advisable to establish a pattern when oiling your machine. Begin under the bed plate. The principal oiling points are marked by arrows.

▼

R 6799

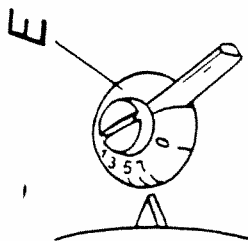


- ▲ The raceway in the sewing hook is the most important oiling point. Put one drop of oil into the raceway each day you sew. A dry raceway will cause rapid wear. Don't forget to oil the bearings and bevel gears of the short hook shaft (black arrows).

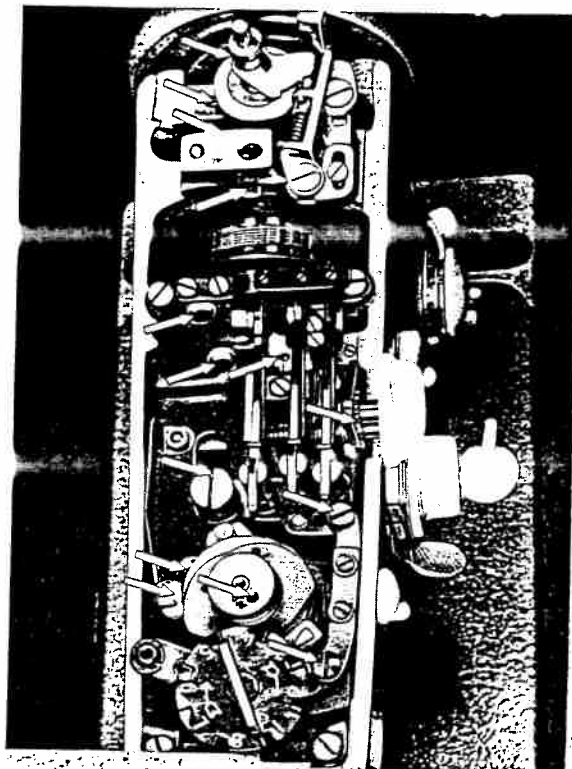
The oiling points in the machine arm can be reached easily by removing the top cover. Oil should be applied sparingly. Excessive quantities of oil may soil work and cause machine sluggishness. One or two drops of oil usually will suffice.

Before you remove the top cover, set lever **E** between 5 and 7. To pull cover up, tilt it back and lift.

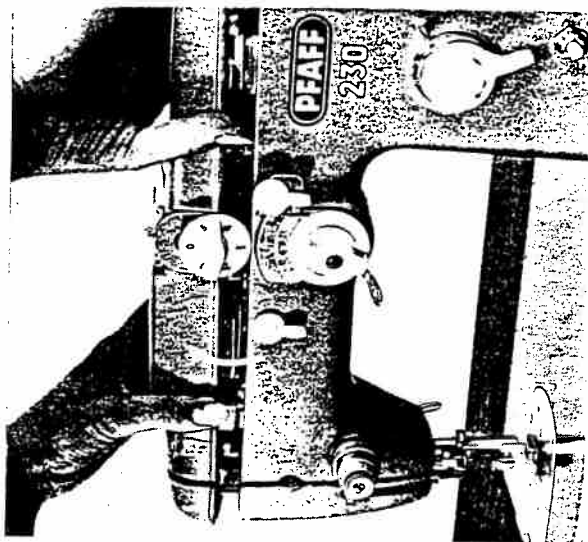
A



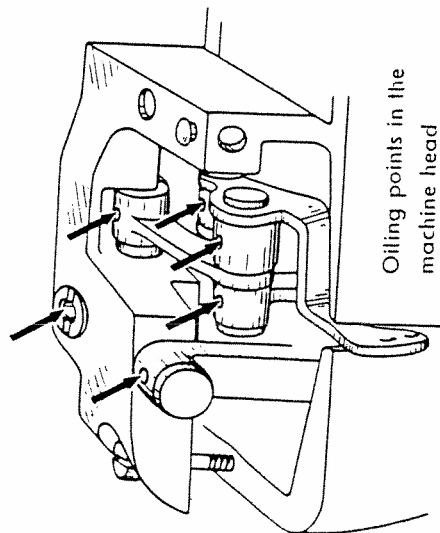
R 7082



27



R 7077



Oiling points in the machine head

Sewlight Facts

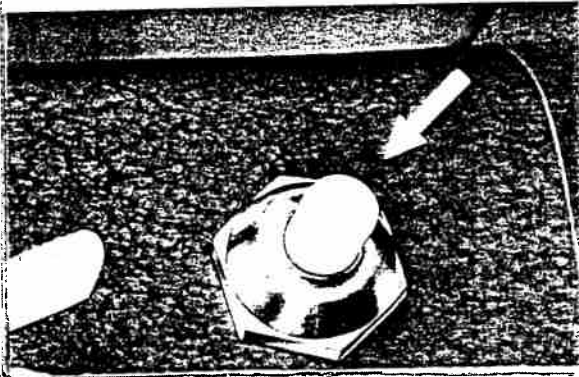
The 25-watt sewlight is recessed under the machine arm. Lever *u* swings out the light to illuminate a larger working area.

To change the light bulb:

Swing lever *u* up (see arrow) and hold. Push bulb up into socket, turn left, and pull out.

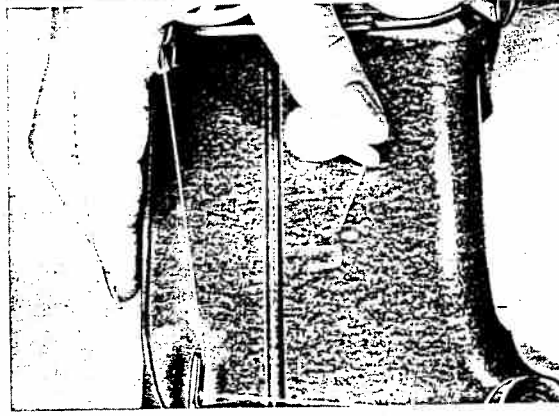
When inserting the new bulb, be sure to slide bulb pins into bayonet socket slots.

Press bulb in and turn right.



R 7066

Press this button to
switch sewlight on
and off



R 7084



R 5883

Trouble Shooting

1. Machine Skips Stitches

Cause:

Needle incorrectly inserted.

Wrong needle.

Needle bent.

Machine threaded improperly.

Needle too fine or too thick for the thread.

Remedy:

Push needle up as far as it will go and be sure that the long groove faces you, and flat part of needle away from you.

The correct needle system is stamped on bed slide.

Insert new needle.

Check and correct threading as instructed.

Use correct needle and thread.

2. Needle Thread Breaks

Cause:

The above mentioned may cause thread breakage.

Thread tension too tight.

Poor or knotty thread used.

Hook race is jammed with thread or needs oiling.

Burrs or sharp edges on needle plate slot.

Remedy:

See remedies listed under 1. above.

Adjust tensions as instructed.

Use good quality threads only.

Clean and oil hook raceway.

Polish needle plate slot with fine emery cloth.

3. Needle Breaks

Cause:

Bent needle strikes point of sewing hook.
Needle too thin or thread too heavy.
Fabric pulls needle so it bends and strikes needle plate.
Bobbin case inserted incorrectly.

Remedy:

Replace needle at once to prevent further damage.
Use correct needle and thread sizes.
Don't force the feeding motion. Guide the material lightly.
Push bobbin case until you hear it snap into place.

4. Faulty Stitch Formation

Cause:

Improper tension.
Thread too heavy, knotty or hard.
Bobbin unevenly wound.
Pieces of thread between tension discs.

Remedy:

Adjust tensions as instructed.
Use only first-rate thread -- the correct size for the needle and fabric.
Don't run thread over finger when winding the bobbin, but lead it around tension stud on top cover and through thread guide h.
Release upper tension by setting it on "0" and remove thread.

5. Machine Feeds Improperly

Cause:

Feed dog set too low and does not rise up enough above needle plate level.

Remedy:

Have your Pfaff dealer make the necessary adjustment.

Accumulations of lint packed between feed teeth. Take off needle plate and remove lint with a stiff brush.

6. Machine Works Heavily

Cause:

Motor belt is loose and slips, or has shrunk and causes excessive pressure on bearings.

Hook raceway lacks oil or is obstructed by pieces of thread.

Mechanism clogged by inferior oil.

Bobbin winder working while sewing.
(When a bobbin is not being filled)

Snarled thread between balance wheel and bushing.

Remedy:

Loosen or tighten motor belt by adjusting idler.

Clean and oil hook raceway.

Use only Pfaff sewing machine oil – never salad oil or glycerine.

Stop bobbin winder.

Unwind and remove thread.

Thread Jamming

If thread jams in the sewing hook mechanism and blocks it, proceed as follows:

- ① The thread will come out more easily if you put a few drops of oil or cleaning fluid into the hook raceway.
 - ② Tighten the stop motion knob.
 - ③ Move the balance wheel away from you.
 - ④ Take the end of the thread and pull it out while rocking the balance wheel.
 - ⑤ If thread is still jammed, call your Pfaff dealer for help.
- Thread jamming can be avoided by following the instructions on pages 4 and 5.

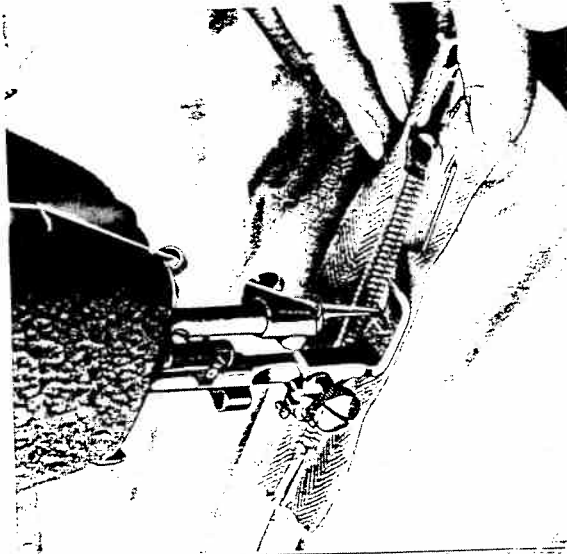
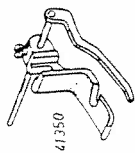
Zipper Insertion

Machine Setting:

E - 0 C - 3
B - 0 D - 0

Zipper Foot No. 41350.

Pin or baste closed zipper on fabric. Position of zipper depends on whether or not you want the edge of the fabric to overlap the zipper. Run a straight seam close to left edge of zipper, stitch across lower end and up the other side in one continuous operation. Use right edge of foot as a guide. Follow directions in your zipper package. ▼



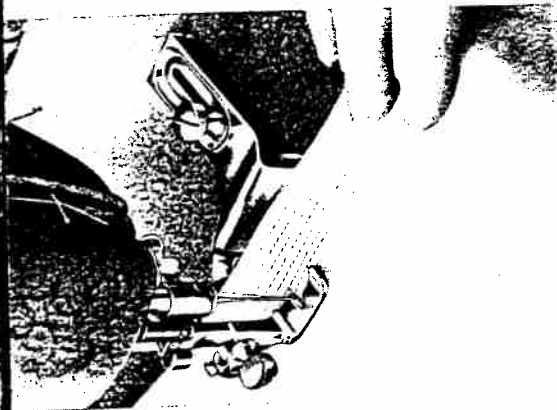
R 7104

Edge Stitching

Machine Setting:

E - 0 C - 2
B - 0 D - 0 to 4 (optional)
Edge Stitcher No. 41350.

Sew parallel rows of straight or zigzag stitches at various distances from the fabric edge by using adjustable seam guide No. 53077 and the edge stitcher (without quilting gauge). The seam guide is fastened to the machine bed with the thumb screw. ▲



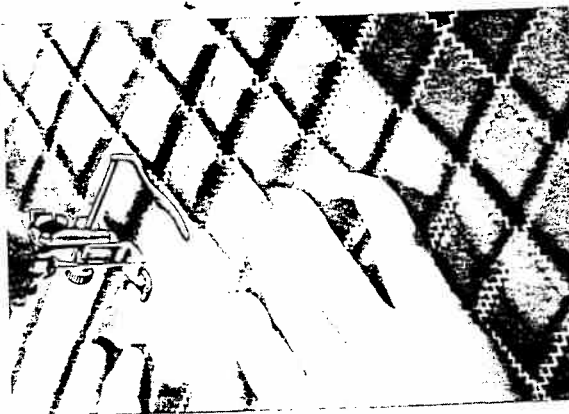
R 7153

Quilting

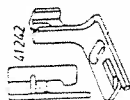
Machine Setting:

E - 0 C - 2
B - 0 D - 0 or 2 (optional)
Edge Stitcher No. 41350.

Used with the quilting gauge sews parallel rows of stitching over the entire surface of the fabric. Always guide the gauge finger along the preceding row of stitches. Attractive tea cosies, slippers, seat pads, and covers can be quilted. ▲



R 5905



Flat Felled Seams

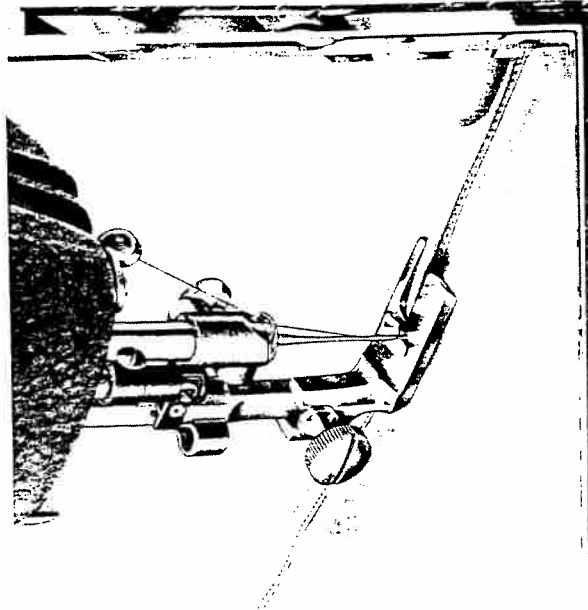
Machine Setting: E - θ C - 2
B - 0 D - 0 or 2 (optional)

Flat felled seams are used to durably join two pieces of fabric. They are made in two operations.

Flat felled seams usually are straight stitched. Narrow zigzag stitches are used for felling on elasticized fabrics only.

First Seam

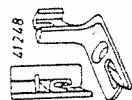
Lay pieces together wrong sides facing up with the bottom piece protruding $\frac{1}{8}$ inch. Feed both pieces into felling foot, as illustrated, so that the bottom fabric is folded over edge of top piece and stitched down. Make sure that protruding seam allowance is not folded twice.



Second Seam

Open the two pieces, place them under the needle right side up, insert seam ridge into felling foot opening, and stitch down to the left. Make sure that second seam is placed close to the edge but not beyond it.

The felling foot has a needle slot, rather than a needle hole, to permit zigzag felling.

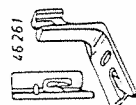
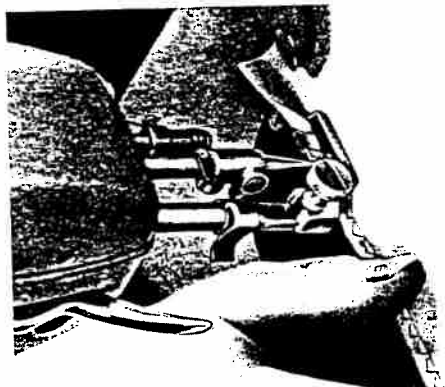


Hemming

Machine Setting:

E - 0 C - 2
B - 0 D - 0 or 2 to 4 (optional)

The hemmer foot is indispensable if you want to sew a uniform hem. You can hem with straight or zigzag stitches, depending on the type of fabric you are using. Clip off the corner of the fabric to facilitate insertion into the hemmer foot. Feed fabric so that the raw edge is in line with the left edge of the hemmer foot opening. If you feed less, the fabric will not be folded twice and the raw edge will show. Avoid ugly ends by slowing down feeding. Press the fabric against the needle plate on the left side of the foot before you come to the end of the hem.

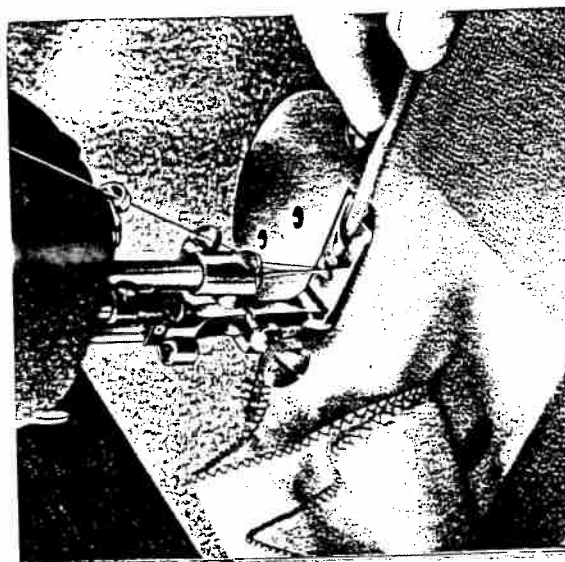


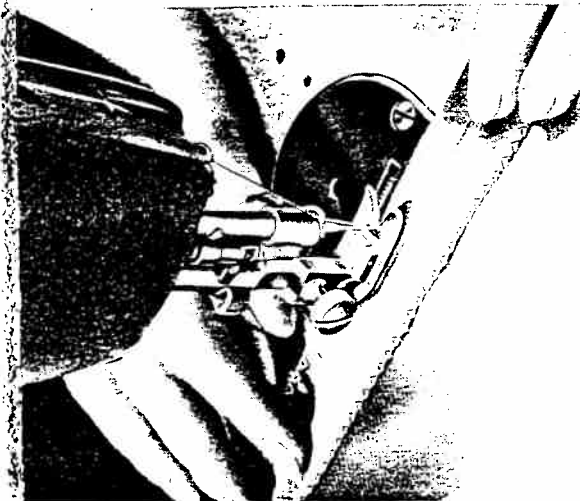
Rolled Hems

Machine Setting:

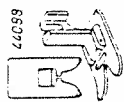
E - 0 C - 2
B - 0 D - 1 to 4 (optional)

Rolled hems are used to finish sheer or delicate fabrics. For a smooth, unpuckered hem, ease thread tension slightly and set D on 1 to 3. To hem tricot fabrics increase the tension, and use the widest zigzag stitch so the hem has a rolled shell effect.





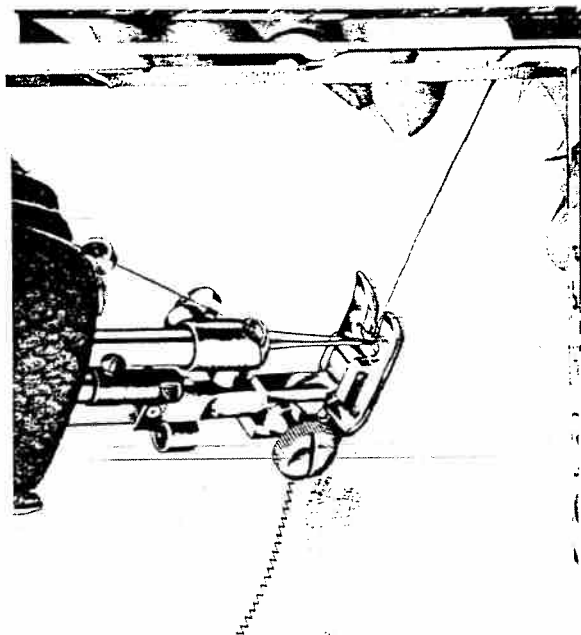
R 5925



Overcasting Edges

Machine Setting: E - 0 C - 2
B - 0 D - 4

Overcasting prevents frayed edges. Sew edge with the needle taking one stitch into the fabric and the other over its edge. You may overcast edges after fabric is cut and before the pieces are joined.



R 7169



Butt Seaming

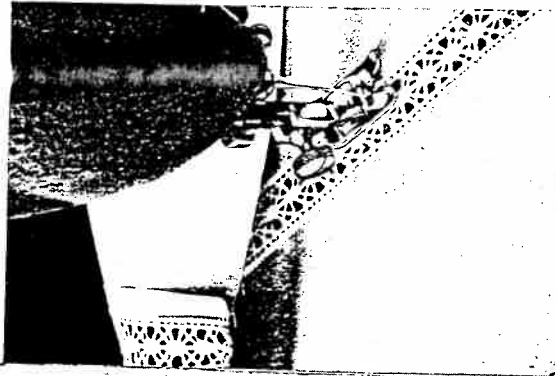
Machine Setting: E - 0 C - 2
B - 0 D - 3 or 4 (optional)

Two similar pieces of fabric which do not ravel easily may be butted together and joined with zigzag stitches. Worn bed sheets may be mended this way. Cut out worn center strip. Place the selvaged edges of the remaining pieces of sheet under the sewing foot so that the abutted edges are centered under the needle. Join them with close, wide zigzag stitches. Hem raw edges of sheets.

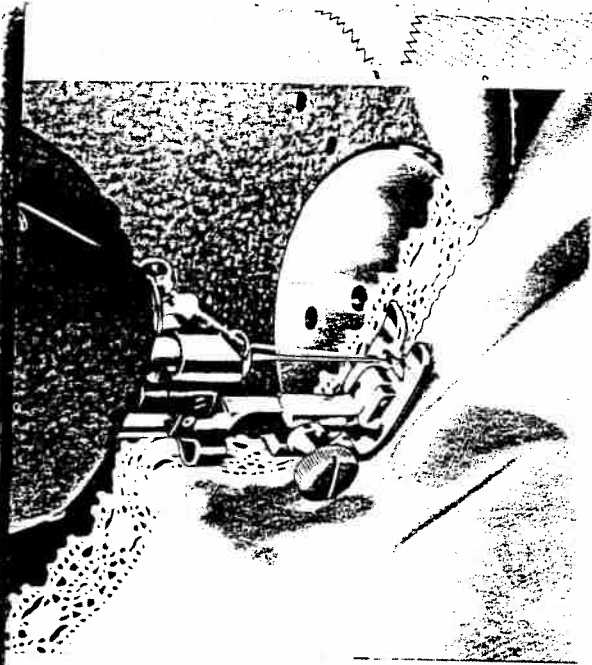
Attaching Lace

Machine Setting: E-0 B-0 C-2 D-1 to 3

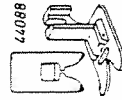
You can attach lace edging in one simple operation. Overlap lace on raw edge. Sew to fabric with narrow zigzag stitches, taking one stitch into lace and fabric and the other into lace only.



R 7177



R 7170



Inserting Lace

Machine Setting: E-0 B-0 C-2 D-1 to 3

Pin or baste lace on fabric. Sew together with needle taking one stitch into fabric alone and one into the lace. Carefully trim excess fabric underneath.

44088



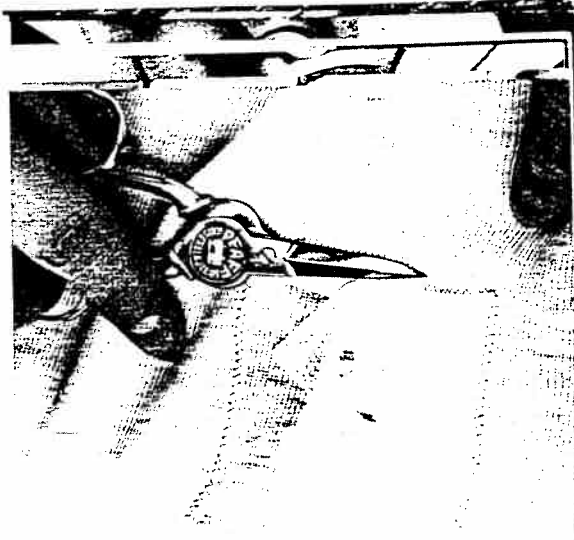
Inserting Patches

Machine Setting: E - 0 C - 2
B - 0 D - 3 to 4

Large holes can be patched quickly. The following method may also be used for tricot fabrics. Cut patch so that its grain will match the rest of the fabric. Place the patch over the damaged area. Sew it down with zigzag stitch of medium length.

R 7156

For additional strength stitch over corners twice. Turn over and trim close to seams.



R 7162

66121

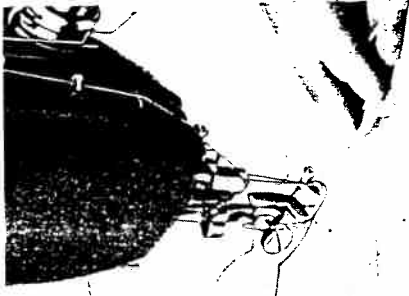


Single-Needle Cording

Machine Setting: E - 0 C - 2
B - 0 D - 2

Set stitch length between "0" and "1". Trace pattern on fabric and place a filler thread under the groove in the sole of the cording foot. Follow the pattern and hold the filler thread lightly.

R 7159



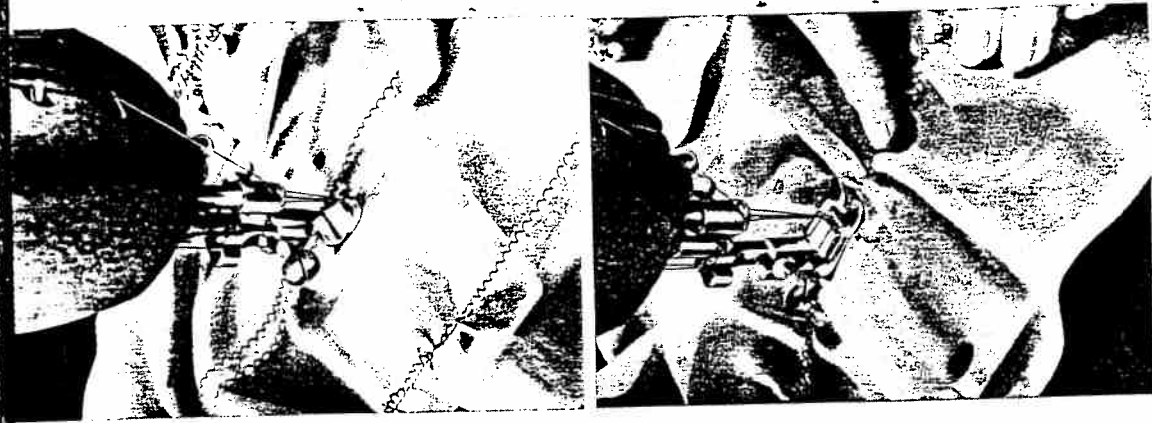
Shirring

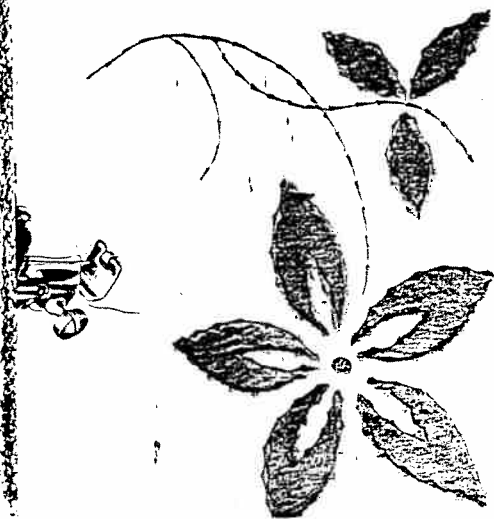
Machine Setting: E - 0 C - 2
B - 0 D - 2 to 2 1/2
Stitch Length - 2 to 4
Ease Upper Tension

Follow above directions for shirring but place filler thread under rather than on top of the fabric. Fabric and filler thread both are guided in the groove of the foot. Width of zigzag depends on the thickness of the filler thread used.

When you have finished the zigzag seam, slide material along the filler thread to distribute fullness. Finish the shirring with a line of straight stitching.

Leave the filler thread in the shirring or pull it out as you straight-stitch, depending on the stress to which shirring will be exposed.





Applique Work

Machine Setting: E - 0 C - 2
 B - 0 D - 1 1/2 to 3

R 7155



R 7429

Pin or baste applique on fabric and overcast edges.
 Appliques also can be attached with a satin stitch
 or any embroidery design.

46121



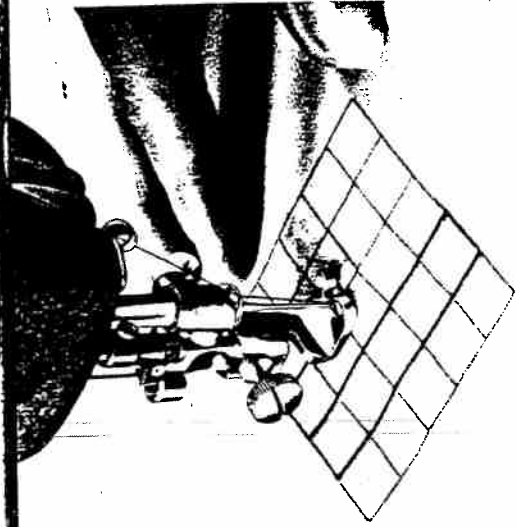
Openwork Embroidery

Machine Setting: E-0 B-0

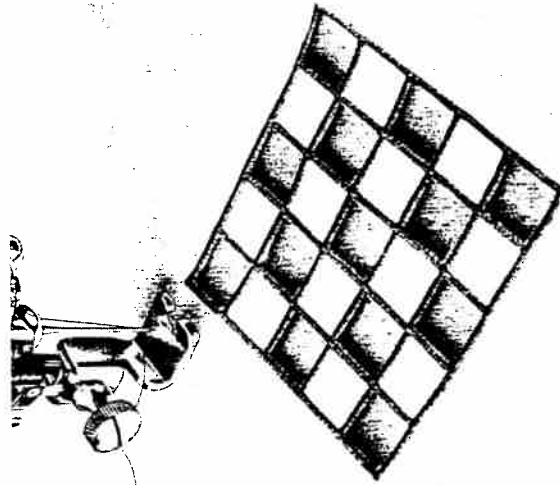
C-2 D-0 and 2 1/2

There are hundreds of patterns excellent for openwork embroidery. Let's embroider the 25-square box illustrated. First, sew over all traced lines twice using short straight stitches. Then sew over straight-stitch lines with a medium-wide satin stitch. Make sure that your rows of satin stitching are even so the corners of your squares look neat.

R 7166

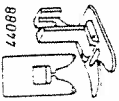


R 7179



◀ When you finish sewing, cut out every other square. To make an attractive modern design, outline flowers or free forms with an embroidery design instead of satin stitching.

R 7158



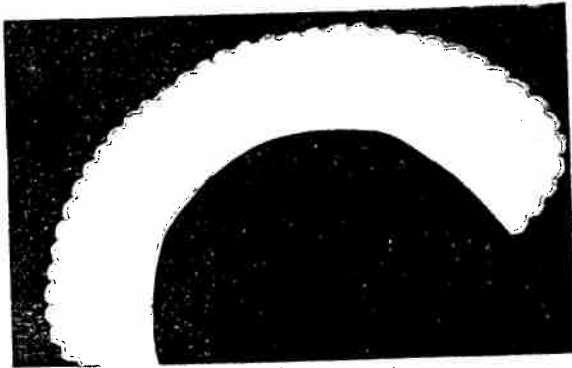
Scalloping

Machine Setting: E - 1 - 7 (optional) B - 3
A - 5 D - 2

Scalloping can be done in a jiffy on your PFAFF 230 Automatic. Scalloped edges can be used effectively as trimming on numerous articles.

The illustrations left show how scalloping adds sparkle to a child's collar. Here's how to do it. First, trace collar pattern on a doubled piece of fabric. Set machine (shown above), place fabric under sewing foot and guide needle along traced line. The

scallops are produced automatically. You may vary the length of the scallops by changing the setting of lever E (see sketch). When you have finished, trim excess fabric along scalloped edge.



R 7168

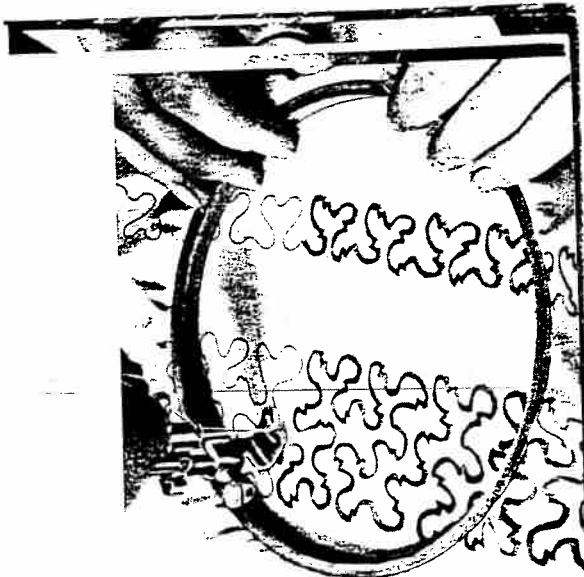
46121



Scrollwork

Machine Setting: E - 0 C - 2
B - 0 D - 2 to 4

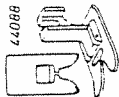
Draw designs on fabric. Clamp work into embroidery hoop. As you are following the scrollwork outline with wide satin stitches, move hoop right, then left, alternating the rhythm and the direction of your movements. An exciting note may be added by using variegated thread.



R 7150

41

44088



Imitation Hemstitching

Machine Setting: E - 0
B - 0
C - 2
D - 2 1/2
Stitch Length: 1 - 1 1/2
Increase Tensions

Beautiful hemstitching effects on handkerchiefs, blouses, dresses, and so forth, can be made with Pfaff's System 130 (wing) needle available at Pfaff stores at extra cost. Loosely woven fabrics, such as batiste, organdy, georgette, etc., are well suited to hemstitching while woolly fabrics are not recommended because needle penetrations close up. Since the hemstitching needle has a slightly thicker shank, the needle set screw must be turned out far enough for insertion. The hemstitching needle cannot be threaded with the Automatic needle threader.

Hemstitching is very simple (see sketch).

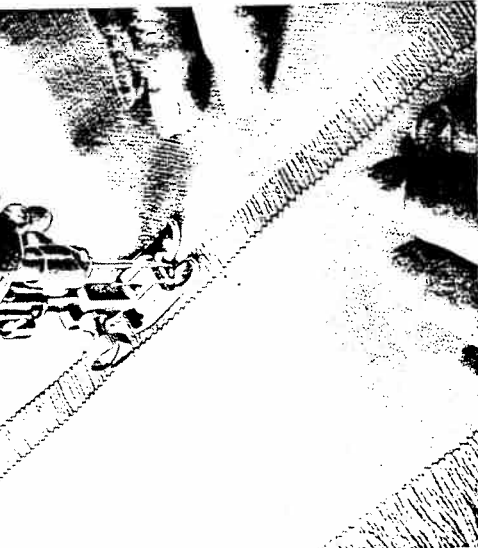
- 1 Sew first row.
- 2 Stop machine when needle is in fabric on the right.
- 3 Lift sewing foot, turn fabric in the direction of arrow, and lower foot again.
- 4 Sew second row, as shown in sketch, guiding material parallel to first row so that needle penetrates needle holes of previous zigzag stitches as it descends on the right.
- 5 If you are making more than two lines of hemstitching, alternately leave needle in fabric on the left and right at turning points, pivot fabric on needle, and proceed as directed above.



R 7138



R 7140



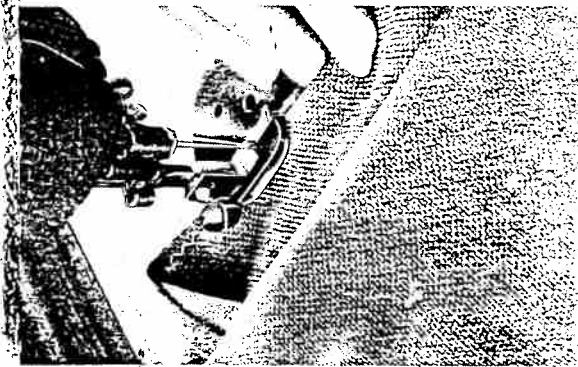
R 7173

42

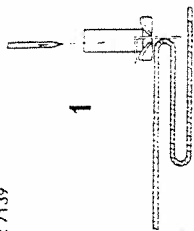
Hemstitching

Hemstitching is successful on linen and twilled fabrics. For this type of work use an ordinary needle.

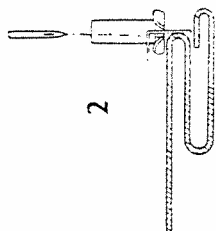
Draw several threads out of the fabric. Set machine for a medium-wide zigzag stitch and sew along both edges of the strip, making sure that "zigs" and "zags" in both rows are exactly opposite each other. Set stitch length according to thread bar width you desire. Draw threads from the edge until your fringe is the length you want. Zigzag along this line - and you will have picot edging.



R 7139



1



2

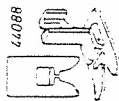
Blindstitching

Machine Setting: E-0 B-0 C-3 D-1 to 2
Stitch Length: Maximum

Hemming dresses and skirts by hand is a laborious task. You can do it easily on your Pfaff on medium and heavy fabrics. Use blindstitch guide No. 46669, which you can buy at your Pfaff store. Use it with zigzag foot No. 44088 and attach it so that its vertical flange goes through the sewing foot slot. Use a No. 70 needle, a loose upper tension and thin thread in the needle.

Next follow this procedure:

Turn fabric wrong side up. On selvage edge or if bias seam binding is used on edge of hem, fold material once (Fig. 1). On unselvaged fabric, fold twice (Fig. 2). It is advisable to pin or baste hem. Guide work evenly, holding top hem edge against the vertical flange of the blindstitch guide. Set D so that needle takes left stitch exactly in the folded edge and the right stitch over the hem edge. When hem is finished, stitches will not be visible on top side.



44088

Automatic Blindstitching

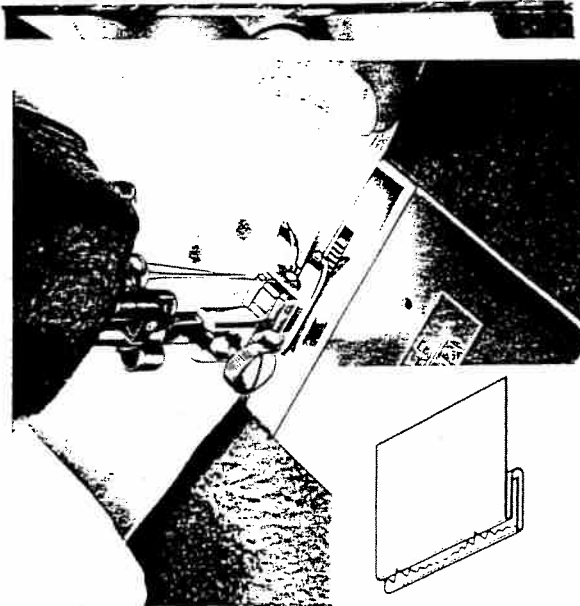
Used for draperies or curtains

Machine Setting: E-1 B-1
A-6 C-1

Stitch Length: 1 1/2-2

Blindstitching is used for medium and heavy fabrics and would be visible on the right side of sheer and filmy fabrics. Therefore these fabrics should be blindstitched with the Automatic so a number of narrow and one wide zigzag stitch are sewn at regular intervals. Use thread that matches fabric and fold the hem as illustrated. Feed fold against left inside edge of foot so that narrow zigzag stitches are made on hem edge and wide stitches pierce fold.

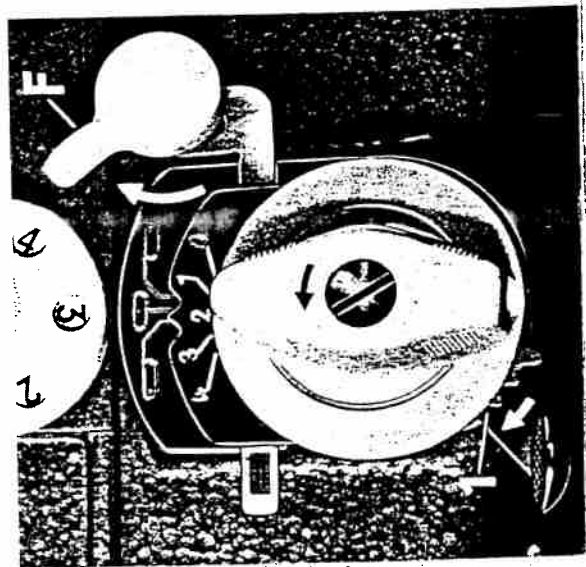
Bulky work is placed in machine with bulk of material to the left of the needle. Set lever C on "3".



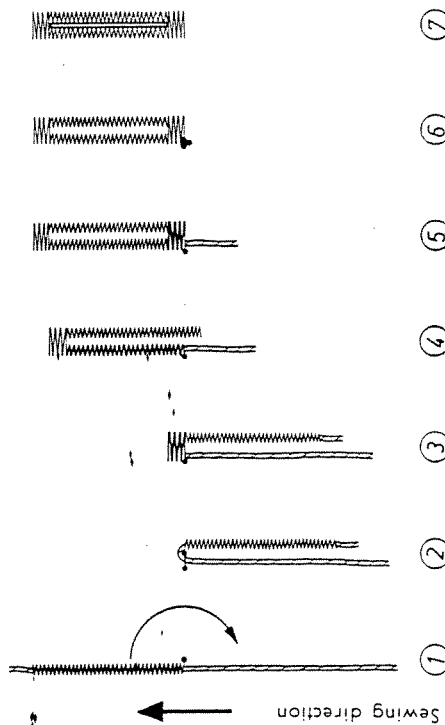
Sewing Buttonholes

Machine Setting: E - 0 · B - 0 · C - 1

The setting of control D is changed several times while you are making buttonholes. So you can easily return the control to its previous setting, turn lever F clockwise, as illustrated. Put lever C in notch 1, so D will be caught in two notches of the buttonhole slide, one position at "1 1/2" for sewing sides, and the other at "3" for bartacking. This setting corresponds to the size of ordinary lingerie buttonholes. When lever F is moved up further, the stops for the stitch width setting change accordingly, and both the parallels and bars of the buttonhole grow wider.

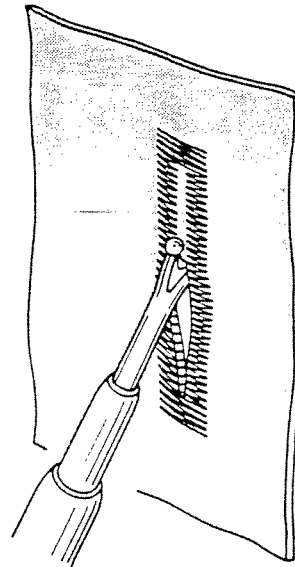


Use buttonhole foot No. 51016 and set slide on buttonhole gauge to buttonhole length desired. If you prefer more prominent buttonholes, pull a filler cord through the hole in left toe of foot. To get the correct stitch length, sew on a piece of scrap material. In making buttonholes in soft or loosely woven fabrics, it is advantageous to place a piece of tissue paper under the material. To strengthen buttonholes in tricot and knit fabrics, insert a piece of firmly woven cotton material between the fabric layers.



Buttonholes

- ① Set **D** at "1 1/2", **C** at "1", stitch length lever **F** on satin stitch.
Attach foot No. 51016 and adjust slide indicator on buttonhole gauge to length of buttonhole desired. Insert filler cord through foot.
- ② Lift foot, turn fabric clockwise, using needle as a pivot. Lower foot, take one stitch to the left, pull filler cord taut and lay it parallel to completed line of stitching.
- ③ Switch **D** to "3".
Make 4-6 bartack stitches. Raise needle.



- ④ Change **D** to "1 1/2".
Trim both ends of filler cord at end of first stitch row. Sew second row and stop about 4-6 stitches from end of first row, leaving needle up.
- ⑤ Turn **D** to "3", and drop machine feed.
Make second tack, as instructed above.
- ⑥ Switch **D** back to "0" and make two or three fastening stitches.
- ⑦ Trim the sewing threads. Open the buttonhole with your seam ripper. Be careful not to injure the bartacks.
- ⑧ Raise feed.
Buttonhole can also be made without a filler cord.

46120

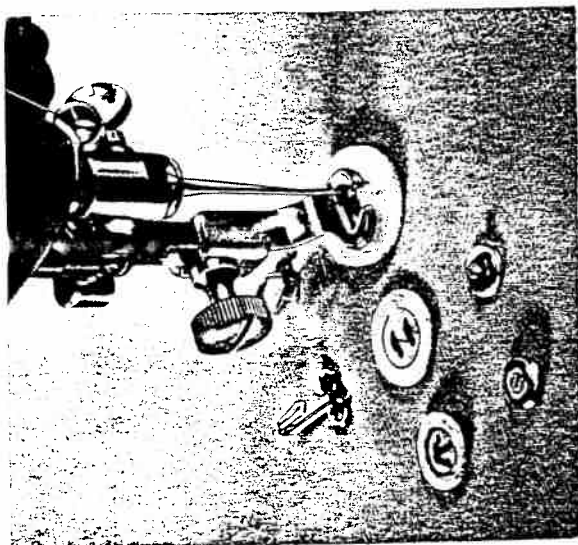


Button Sewing

Machine Setting: E - 0 C - 3
 B - 0 D - 3 or 4
 Drop Machine Feed

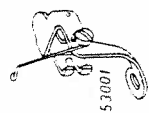
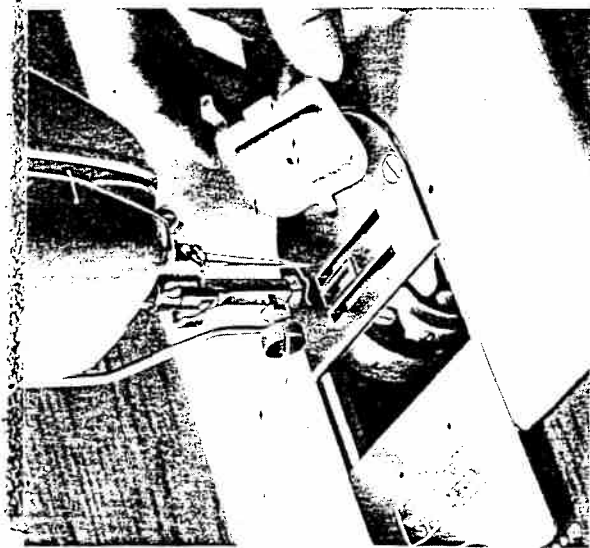
Don't be afraid to sew on buttons, hooks, eyes or rings with your Pfaff. Make sure the thread take-up lever is at its highest point. Place the button under the button sewing foot. Align button so needle will enter right hole when D is at "0".

R 7160



Then turn D to the left, usually to "4", until needle is centered over the left hole. Sew as many zigzag stitches as you think necessary to fasten button securely. When sewing on four-hole buttons, lift foot, reposition button and repeat the above process, stitching through the second pair of holes.

Now set D on "0" and make two or three tying stitches through one of the holes. Hooks, eyes, snaps, etc. are attached in the same manner.



Darning

Machine Setting: E - 0 C - 2
B - 0 D - 0
Drop Machine Feed

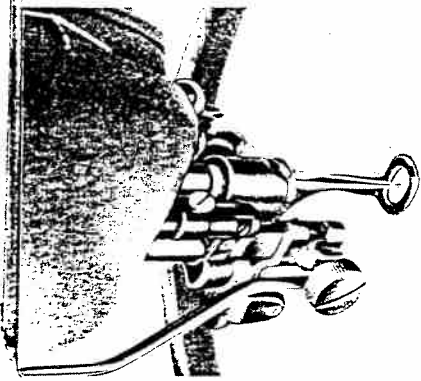
Remove presser foot. Use feed cover plate No. 41251 to increase tautness of fabric in hoop and permit free movement. To fasten the feed cover plate to the machine, slip its finger into the hole of the needle plate, as illustrated, turn, and fasten to position with bed slide (see illustration below).

R 5914



Attach darning foot as instructed on page 25, and suspend presser bar from the rear of the face cover with darning hook No. 46128. Even though the presser bar is suspended, the presser bar lever must be lowered to activate the tension, or the upper thread tension will be released --- and you cannot sew without it.

Place fabric into darning hoop.

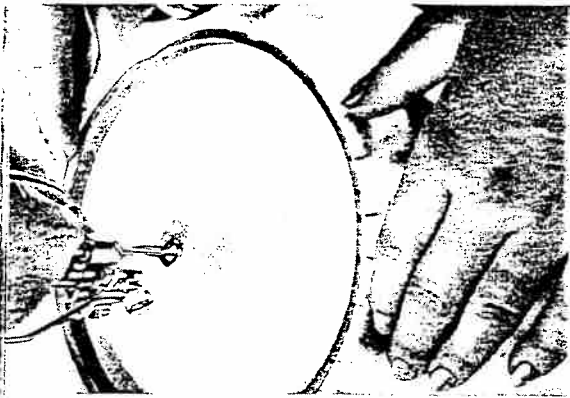


R 5913

Thin Spots

Remember that "a stitch in time saves nine" and reinforce spots that have worn thin with short stitches made lengthwise and across worn section. Clamp fabric into darning hoop and move it freely under the needle.

Long rips may be darned with the normal sewing foot and without hoop. Raise machine feed and use forward and reverse stitch lever.



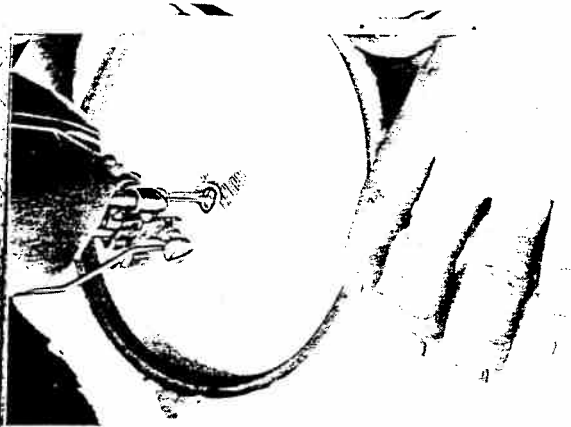
R 5916

Triangular Tears

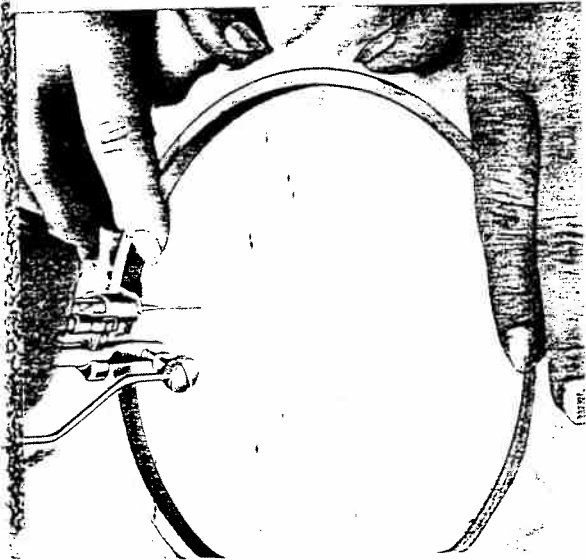
Triangular tears are best darned by placing the torn section in hoop and sewing across and lengthwise.

Small Holes

Darn small and medium-size holes by trimming ragged edges with the fabric grain. First stitch back and forth across the hole from one side to the other with the machine running at high speed. Then turn the fabric at right angles and sew back and forth over preceding work. This anchors threads in the unworn area around the hole.



R 5924



R 5926

46121



Sewing Monograms

Machine Setting: E - 0
B - 0

The procedure below is primarily used for block letters. Raise feed and set machine for satin stitch. Attach cord stitcher and sew outlines of monogram. Watch that seams do not overlap at joints of letters.

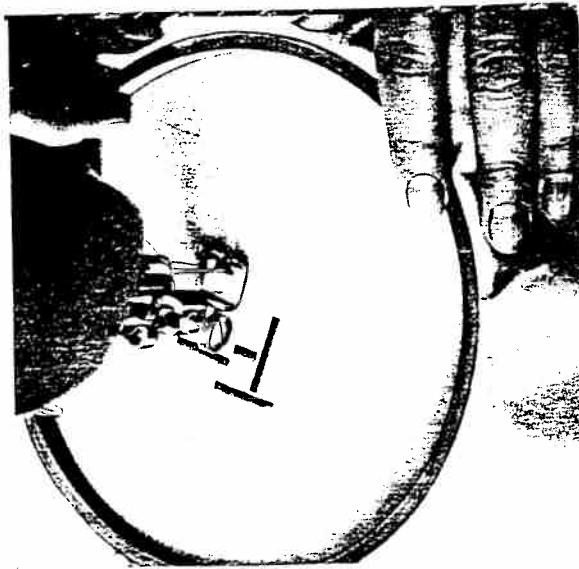
Ask your Pfaff dealer to show you the Ornamentograph, the ingeniously designed monogram and ornamental stitch attachment. You will marvel at its versatility and delight in the countless creative possibilities which it adds to your Automatic.

Monogram Embroidery

Machine Setting: E - 0 C - 2
B - 0 D - according to desired width
Drop Machine Feed

Script letters are best for monogram embroidery without a sewing foot. It requires a little practice. You will soon enjoy creative embroidery once you have learned to move the material at a uniform rate. The fabric should be held taut in the hoop, the presser bar suspended and the presser bar lever lowered. Lower needle into fabric at the beginning of your design and draw bobbin thread up through the fabric. Hold both thread ends, and sew over outline, moving hoop slowly and evenly.

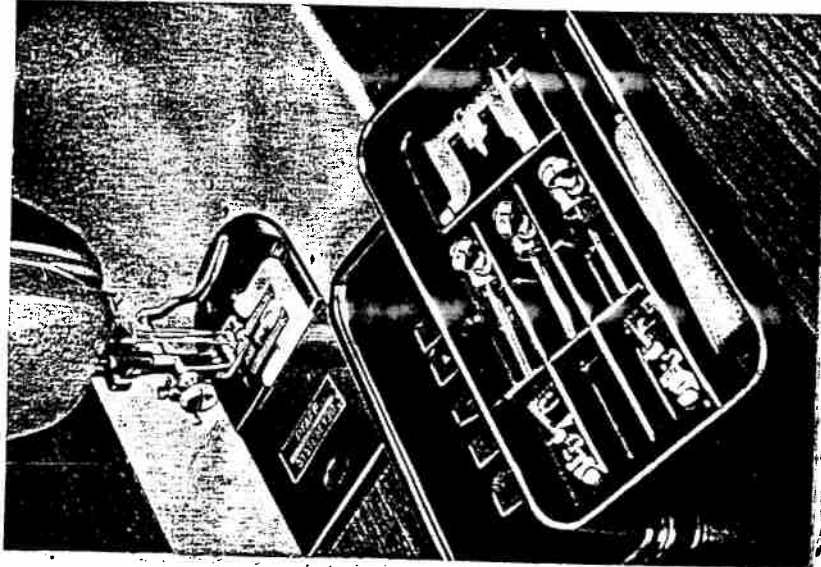
R 7165



Cording

To cord, use sewing foot No. 46121 with a double needle, or Cording Kit No. 50115 available at extra cost.

R 5964

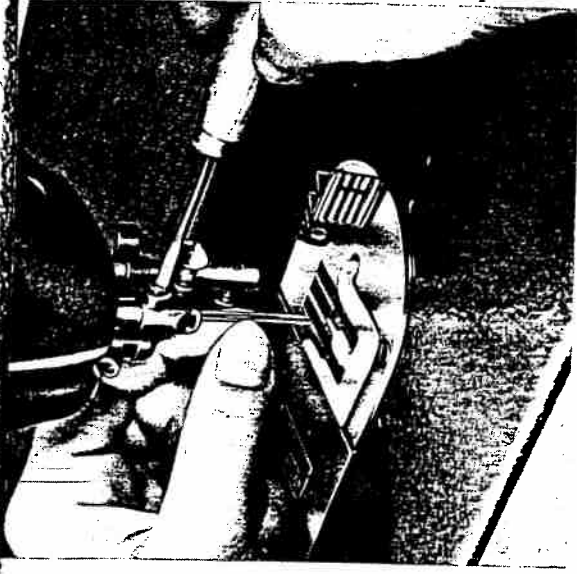


This set consists of:

4 double-needle holders for needle distances of $\frac{1}{16}$, $\frac{5}{64}$, $\frac{3}{32}$ and $\frac{7}{64}$ inch, 3 cording feet, 3 cording plates (2 with cord ducts and 1 with center claw), and 1 package of System 130 B needles. Additional parts for heavier cording are available at extra cost.

The interchangeable double-needle holder is easy to attach. ▶

R 6942



Changing the Needle Holder

▲

Bring take-up lever to highest point, loosen small set screw and change needle holders. Tighten set screw securely. The large needle holder screw must always point toward the right. To attach cording plate refer to instructions on page 47 for mounting feed cover plate.

Use System 130 B round-shank needles in $\frac{1}{16}$ and $\frac{5}{64}$ -inch double-needle holders, and System 130 R flat-shank needles in $\frac{3}{32}$ and $\frac{7}{64}$ -inch needle holders.

