SINGER

6SS,7SS

Singer

Blindstitch Machine

7-55

6-55

Service Manual

This service manual was prepared to provide the SINGER service centers with the necessary information to properly service the SINGER BLIND STITCH machines produced by the SINGER COMPANY OF CANADA LTD.

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OILING

To insure freedom from lubricating trouble and give longer life to sewing equipment.

The following are the correct lubricants for the Singer Blind Stitch machines.

Type B Singer Manufacturing machine oil, heavy grade

When oil is desired which will produce a minimum of stain on fabrics even after a long period of storage, use;

Type D Singer Manufacturing Machine oil, heavy grade.

Once the Blind Stitch machine is installed on the bench and properly cleaned, oil bearings as shown on oiling charts fig. 1-2-3 Page No. 3-4-5.

Fill in each lubricating point, turn hand wheel by hand or very slowly under power to let the oil reach the center of the bearings for approximately two minutes.

Depress knee lifter slightly to prevent feed dog to hit feed platten Run machine at low speed, medium speed and high speed, for approximately five (5) minutes. Re oil if necessary.

Note: Customer or operator must be informed that the machines must be oiled at least twice per day, preferably at start (morning) and (noon).

Machine covers should be removed and inside bearings should be oiled at least every two days, in addition to regular daily oiling.

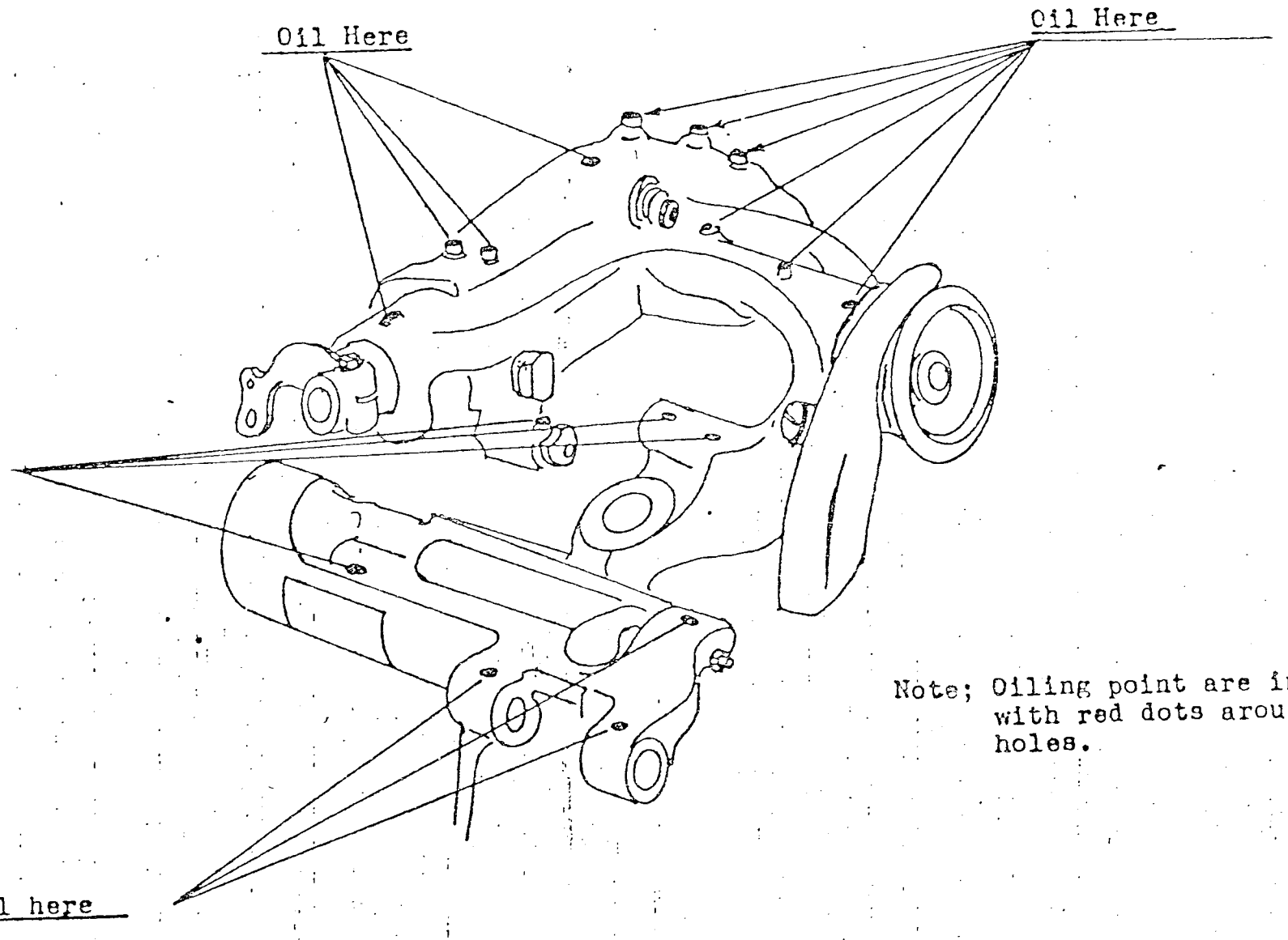
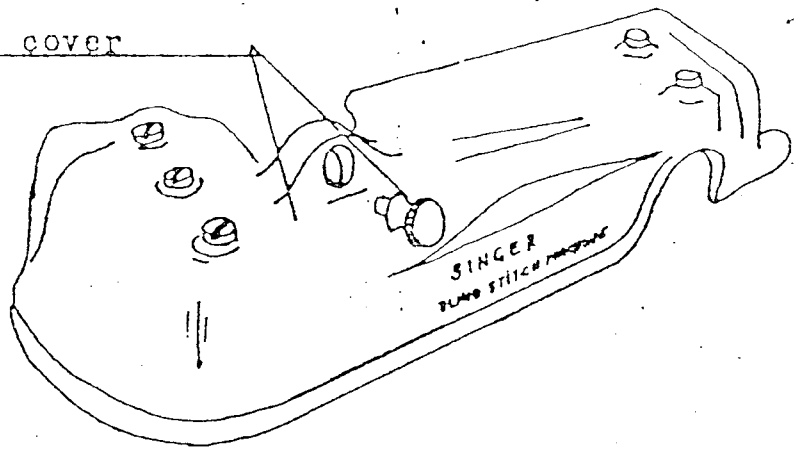


FIG. 1

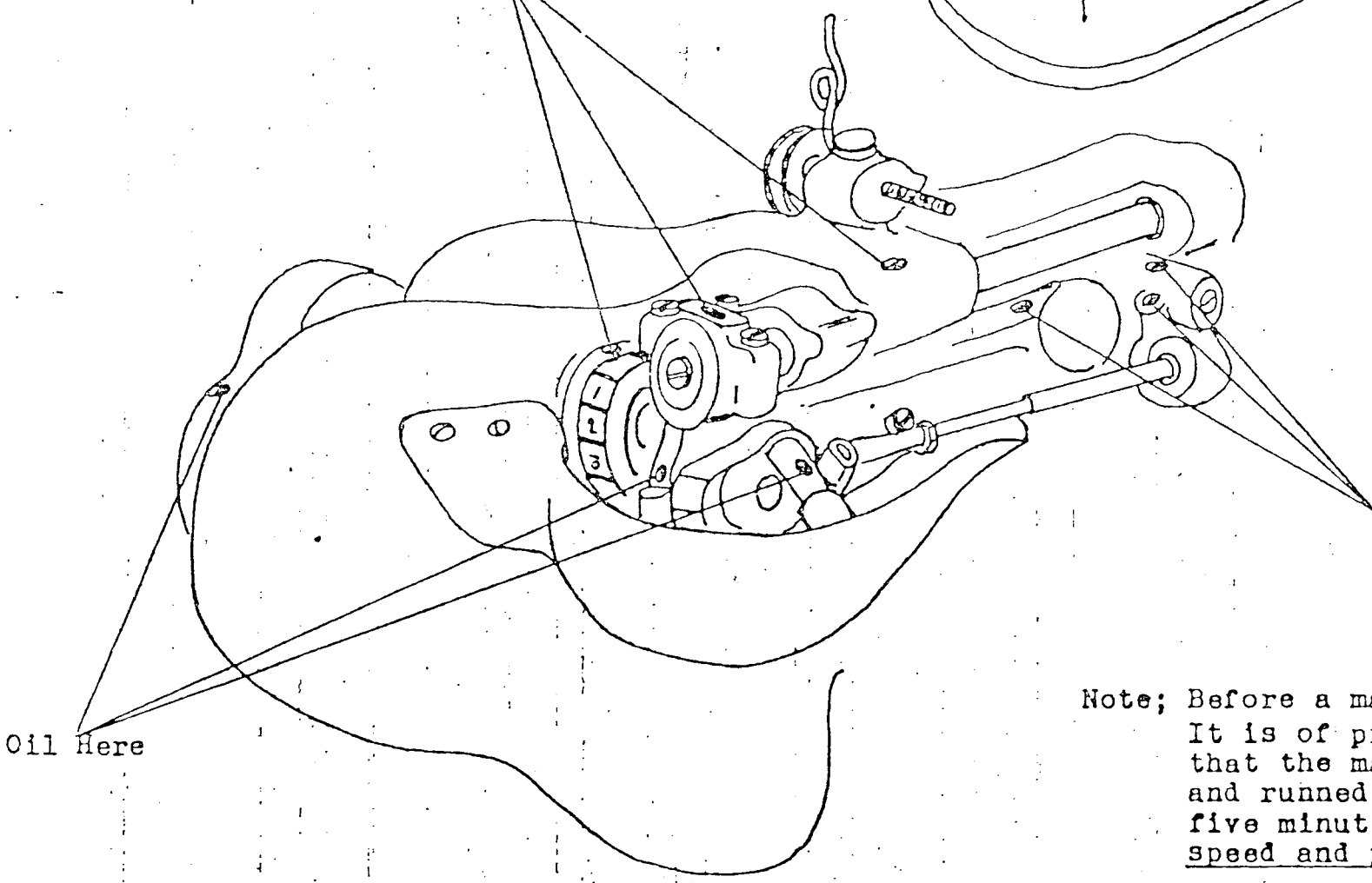
Note; Oiling point are indicated with red dots around oil holes.

To oil inside moving parts of machine before it is put in operation

Remove thumb screw and cover



Oil Here



Oil here

Oil Here

Note; Before a machine is put
It is of prime importanc
that the machine be oil
and runned in for approx
five minutes at recommen
speed and re oil if nece

FIG. 2

Pulley end View

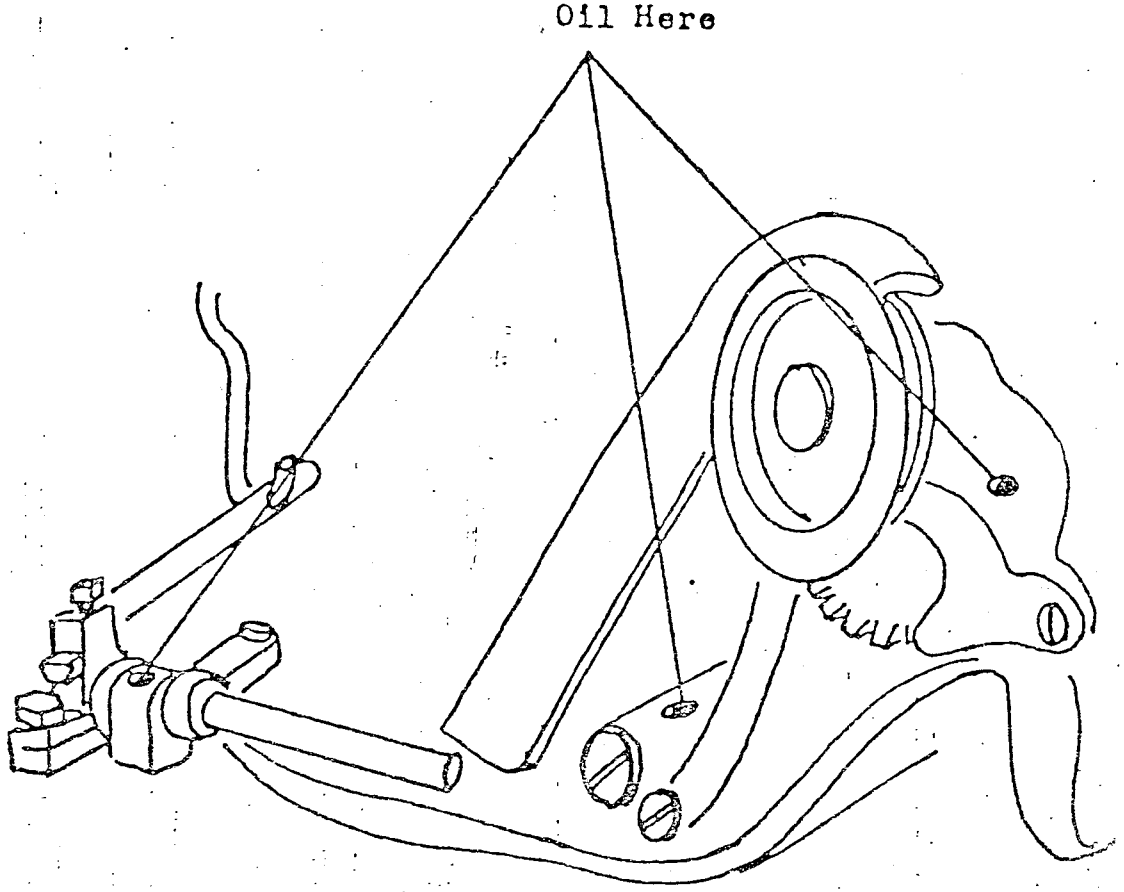


FIG. 3

Threading Chart

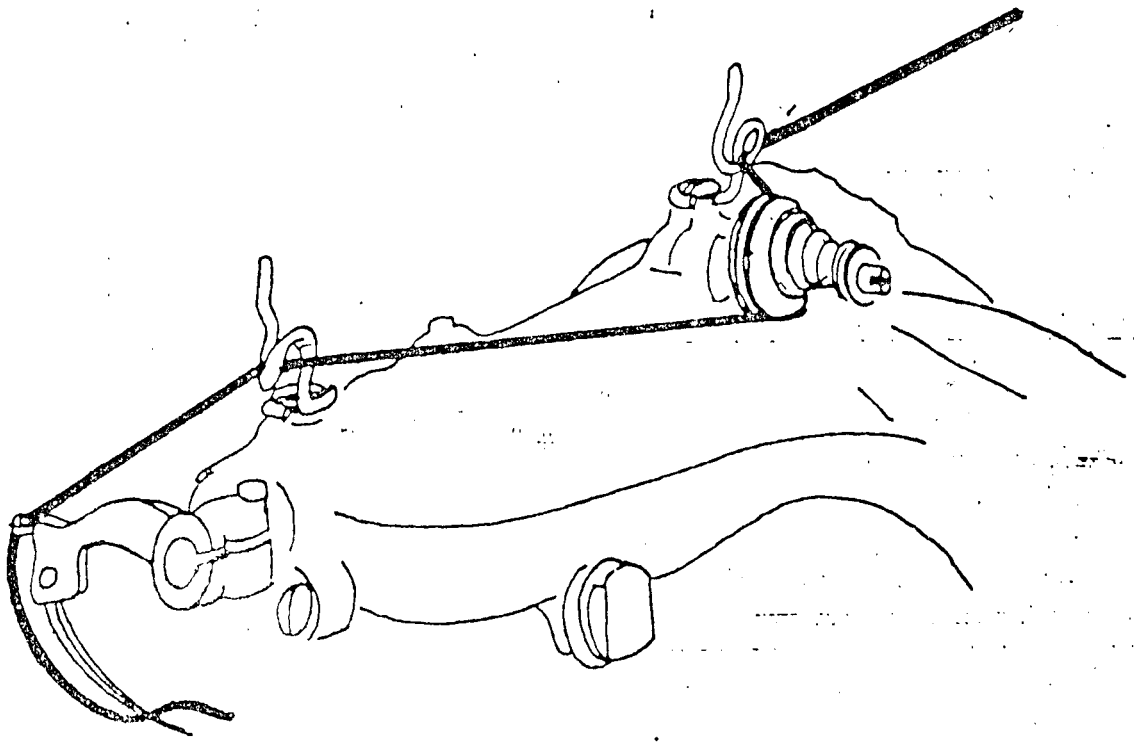


Fig.4

Needle Positioning in needle lever

For good sewing performance use Singer Blind Stitch needles as per following chart.

Needle size	Material to be sewn
No. 1	For very fine material such as: chiffon, celanese, Georgette, etc.
No. 2 - 2½	Cotton, silks and lightweight fabrics, nylon, orlon and dacron.
No. 3 - 3½	Medium weight material, such as: trouser cuffs lapel pading, etc.
No. 4 - 4½	Extremely heavy material, such as: overcoats
No. 5 - 6½	For carpet sewing only.

To position new needle in needle clamp proceed as follow

Loosen, needle clamp set screw "A" Fig. 5 page No. 8 remove broken or used up needle.

Position new needle in clamp with flat of needle facing needle lever clamp "B" push needle in bottom of clamp until it reaches needle clamp stop pin "C" Fig. 5 page No. 8. Once the needle is properly located, tighten needle clamp set screw "A" Fig. 5 Page No. 8.

Turn hand wheel by hand clockwise one full turn to insure that the needle will go through the looper prong and will follow the needle slot on presser foot.

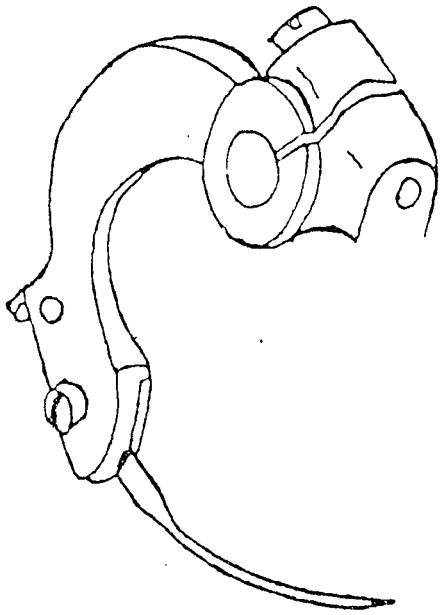


FIG.6

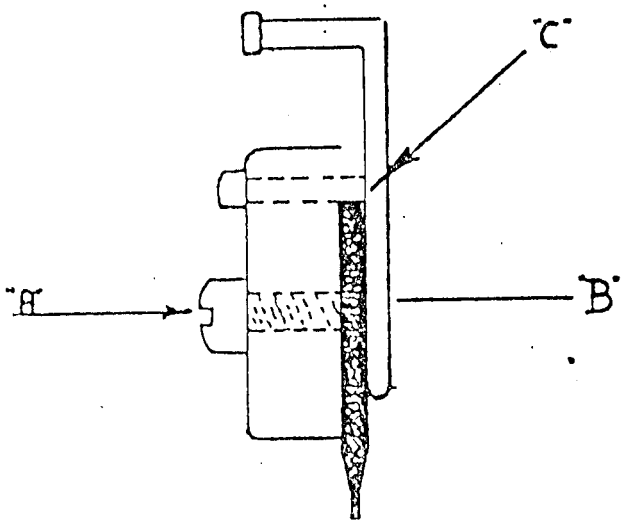


Fig. 7

Setting Needle guide to needle

For proper needle protection and good control on needle penetration the proper contact between needle and needle guide must be preserved.

Check and set as follows:

Turn hand wheel clockwise and bring needle eye over needle guide as shown at Fig. 8 Page 10.
Push down on needle, it must rest on needle guide without having no deflection.

If needle guide is too low and that the needle does not touch it, reset needle guide as follows:

Loosen: Presser foot needle guide screw "C" and insert thin screw driver blade at point D under the presser foot shoe, gently lift up the end of the presser foot shoe for the amount required to meet the needle.

Care must be taken not to break the presser foot shoe when adjusting it to needle.

If there is too great clearance due to wear a new presser foot shoe should be used.

Once the presser foot shoe is set, tighten screw "C" in position and recheck needle over shoe for proper action.

Needle must rest on guide as shown at Point "A" and "B" Fig. 9.

Setting Of Needle To Needle Guide

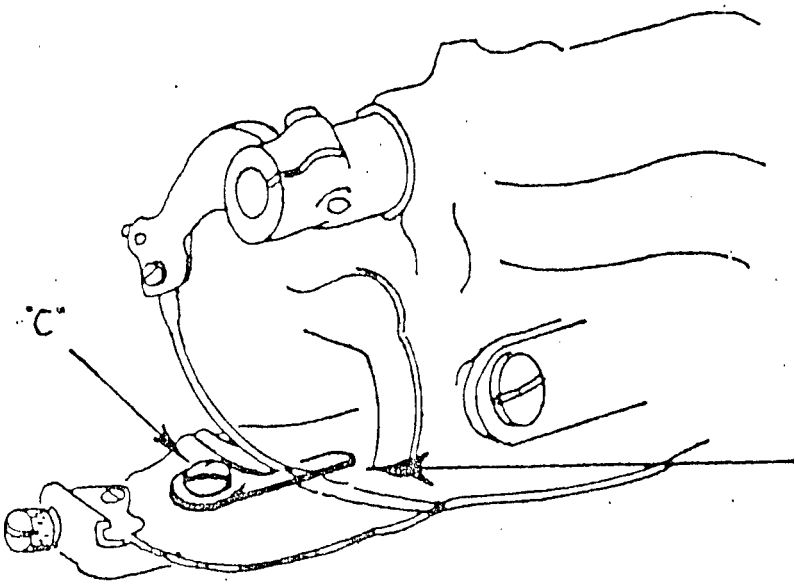


Fig. 8

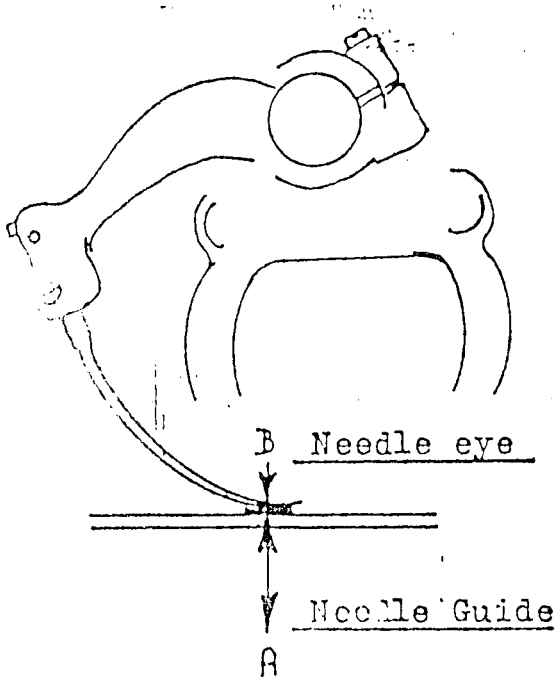


Fig.9

Setting Needle Penetration

1 - To regulate the needle penetration in the material, use regulating dial "A" Fig. 9 this dial appears at the front right hand side of the machine.

2 - The dial "A" must be adjusted depending on the thickness of the fabric so the stitches will be regular and even.

3 - If the needle fails to catch bottom layer of material turn dial "A" counter clockwise for more penetration as shown at Fig. 9.

4 - If the needle penetrates too deeply and if the stitch shows too much on finish side of garments, turn dial "A" clockwise for less penetration. Vary the dial "A" until proper or desired penetration is obtained.

5 - Due to the very fine graduation of the dial, penetration is obtainable at .0015" per graduated line.

To fully reset the needle penetration proceed as follows:

6 - Turn hand wheel of machine by hand clockwise until needle eye reaches center of Rib "B" Fig. 10 at this point, needle should only rub slightly the top of the rib it should not deflect, if adjustment is necessary, proceed as paragraph 3 and 4 above.

Adjusting feed frame safety limit screw:

7 - In order to prevent unnecessary needle breakage and possible accident due to needle breaking on the side of the rib, the Singer Blind stitch machines are provided with a safety limit stop screws which give a positive adjustment to the feed frame.

8 - The safety limit screw "D" Fig. 11 is found on the left hand side of the machine.

9 - To properly adjust the safety limit screw proceed as follows:

10 - Turn machine hand wheel to bring the needle "C" to be in line with the left hand side of the Rib B Fig. 12.

11 - Turn dial "A" counterclock wise or for more penetration, the dial can be turned or unscrewed all the way until it becomes loose.

12 - At this point the rib B should be approximately .015" to .025" above the needle, as shown at Fig. 12, or the point of the needle C should be at approximately half way between top of rib B and side of rib as shown at Fig. 12.

13 - If rib B is too high or too low, loosen nut "E" Fig. 11 and adjust distance of needle to rib as shown in Fig. 12 by turning in or turning out, the safety limit screw D until desired adjustment is obtained. Tighten nut E tight.

14 - Once the adjustment of the safety limit screw is completed proceed as described at paragraph 3 and 4 for fine adjustment of needle penetration.

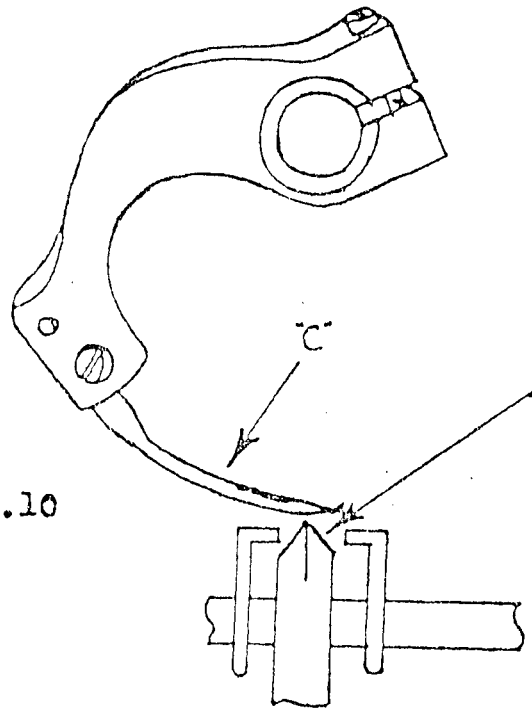


Fig.10

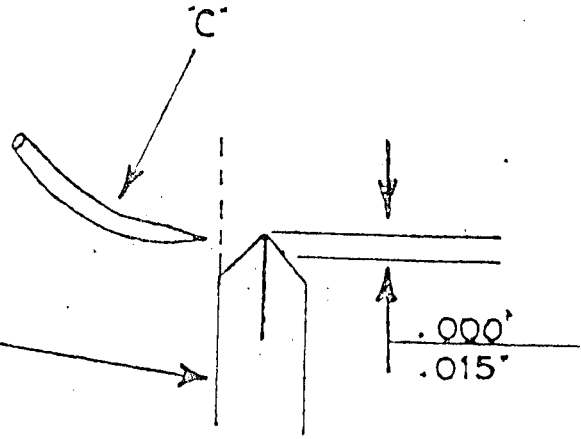


FIG12

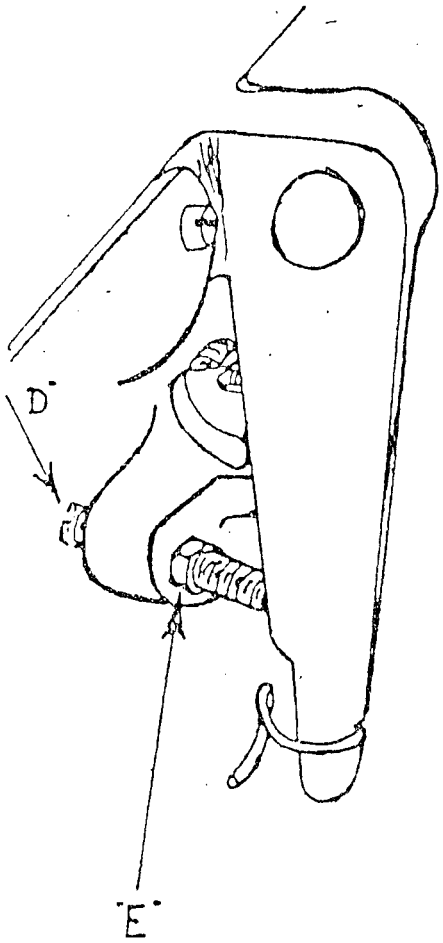


FIG.11

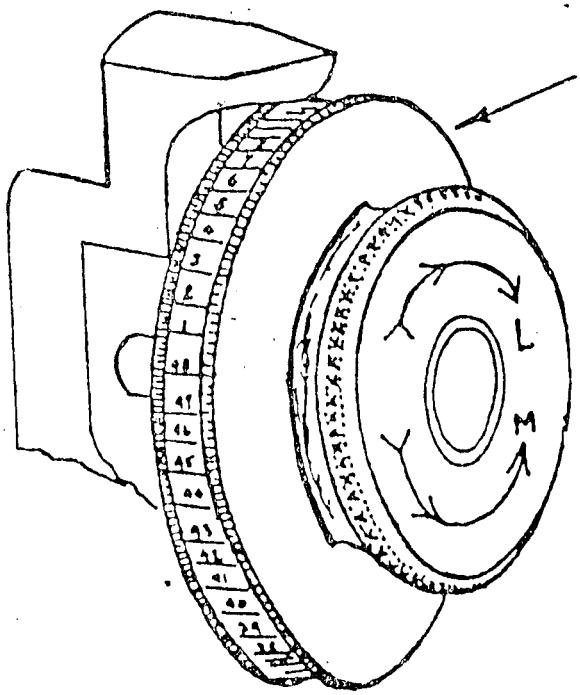


FIG.9

Adjusting Needle and Needle Shaft Stroke

To properly adjust the needle and needle shaft stroke proceed as follows:

Step No. 1 Turn machine hand wheel and bring needle stitch eccentric "A" Page 17 Fig. 13 to its highest position.

The needle stitch eccentric is found at the back of the machine when side covers are removed.

Step No. 2 Loosen needle shaft clamp screw "B" and with the use of a screw driver in screw driver slot of the needle ball stud "C" turn the ball stud which is eccentric as shown in Fig 14 to bring the eccentric to its highest position when facing back of machine.

Step No. 3 Once the eccentric was brought up to its highest position, turn screw driver to the left to bring the slot at approximately 45% as shown at "C" Fig. 13 when facing back of machine. That position is the approximate setting position.

Once this position is obtained, line up the needle shaft connection "D", making sure that the ball stud will not be too deep in its bearing in order to assure free running of the machine, tighten set screw "B" tight. Turn hand wheel clockwise to check free running.

Step No. 4 Once the above adjustment is completed, again turn hand wheel clockwise to bring the needle stitch eccentric "A" at its highest position.

When facing front of machine the needle lever "E" Fig. 15 Page 17 must be at the highest position possible.

At that position the needle eye "F" must clear the edge of the presser foot for ease of threading the needle.

The point of the needle must always remain over the needle guide slot on presser foot. Under no circumstances should there be a clearance as shown at Fig. 17.

Step No. 5 If it is required to adjust the needle lever "E" to provide clearance at the needle for threading or to close the gap as shown at Fig. 17 proceed as follows:

Always keeping the needle lever "E" at its highest position loosen set screw "G" Fig. 15 and move lever up or down to the desired setting.

Before re-tightening set screw "G" care must be taken that no end to end play, took place in the needle shaft. If play took place tap needle lever slightly on shaft to push it back slightly to take up the end play between the end of the bearings and tighten set screw home tight.

Step No. 6 Once the left hand side adjustment is completed, turn hand wheel clockwise and bring needle to the further it will go at the right hand side of the presser foot, as shown at Fig. 16.

Under no circumstances the needle should protrude over the edge of the presser foot.

If needle protrudes over the edge, the final adjustment must be made by using the needle ball stud and by loosening set screw "B" Fig. 13 turn very slightly the ball stud either way left or right to obtain the final setting.

Once proper adjustment is made re-tighten the screws and re-check the left hand side position to be positive that the two settings are correct .

Note: It may happen that while doing one of the settings either right or left side that one adjustment be

disturbed, therefore it will be necessary to repeat the adjustment starting at step one (1) until the necessary adjustment is obtained.

FIG. 14

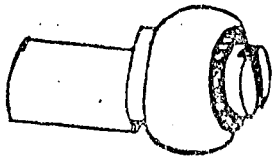
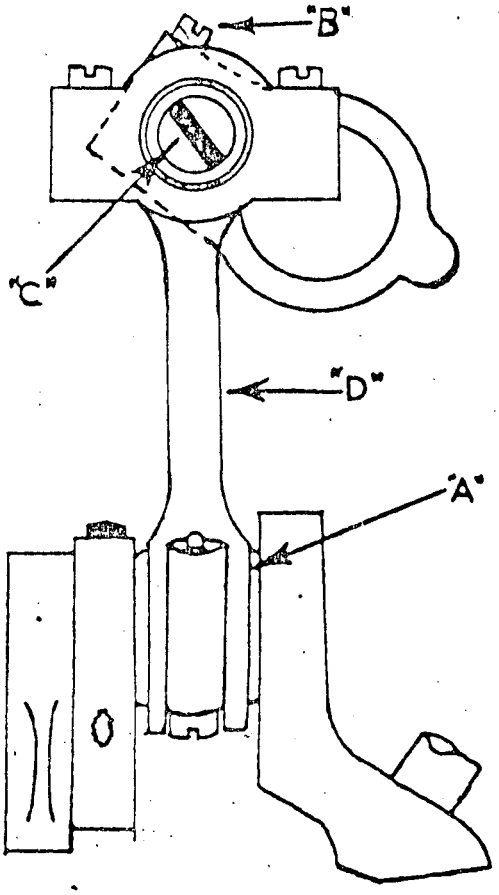


FIG. 13



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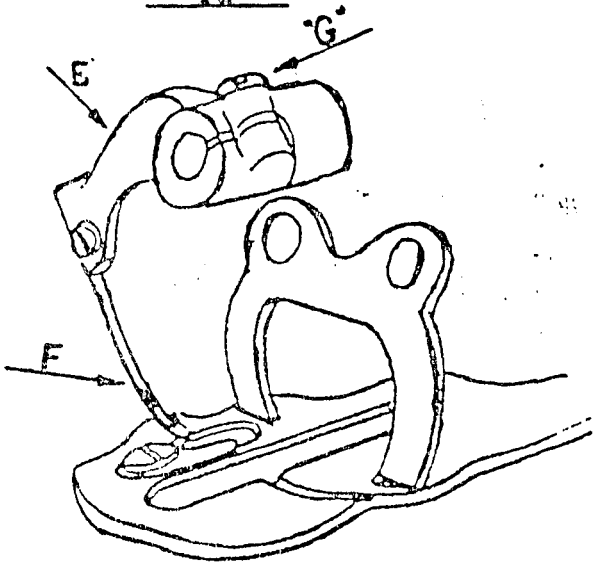
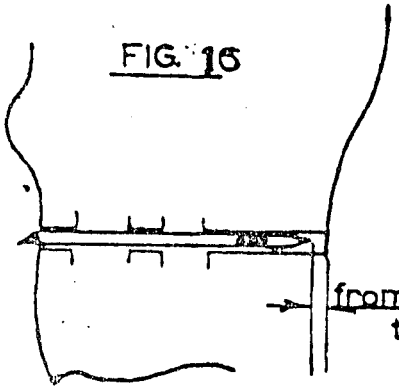
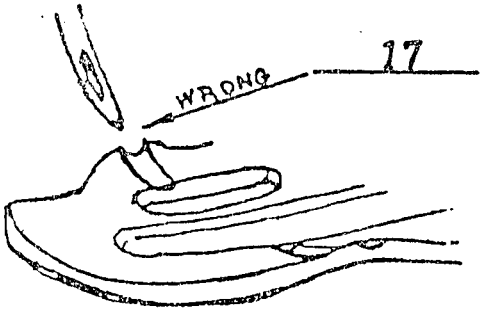


FIG. 16





17

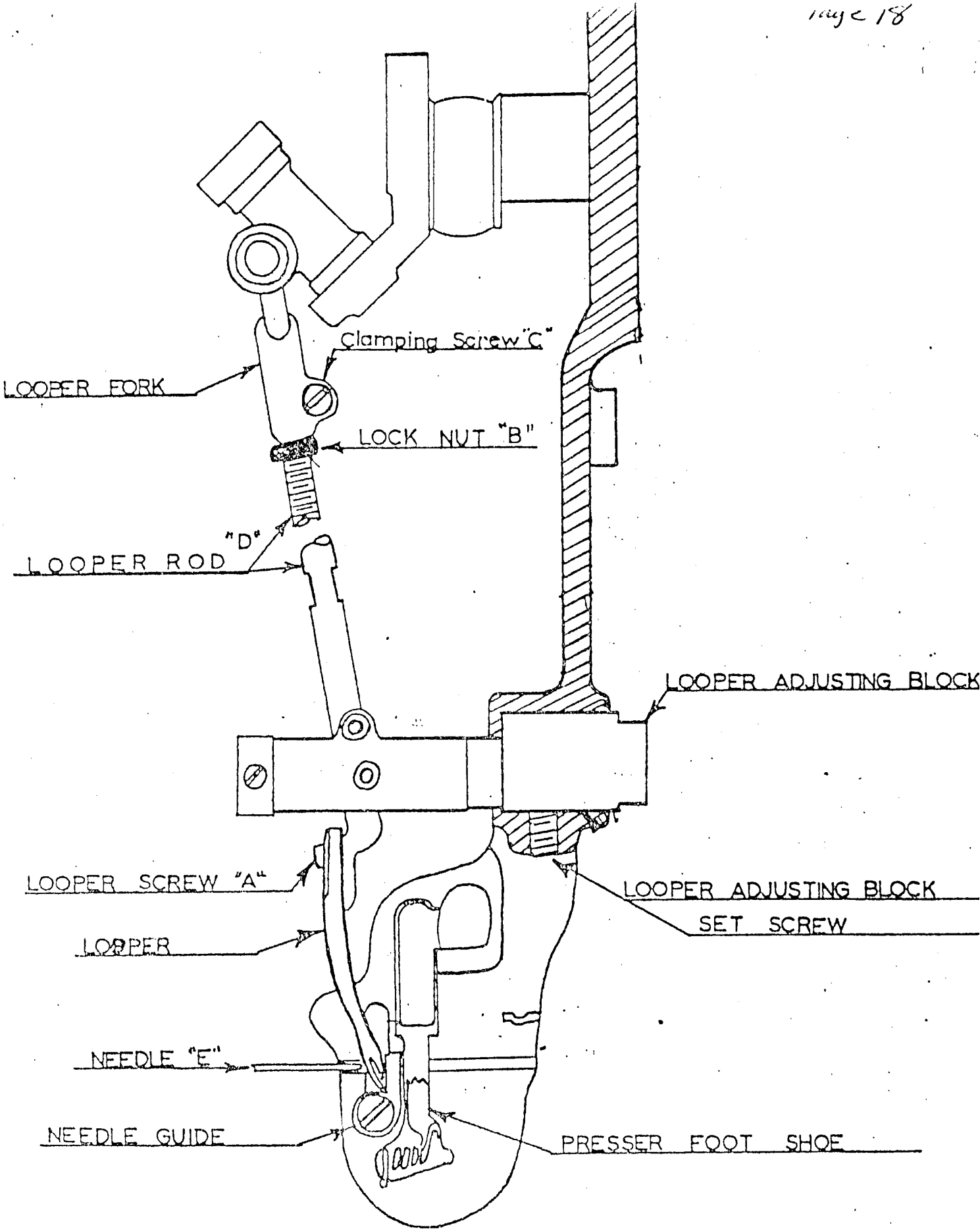

Clamping Screw "C"
LOOPER FORK
LOCK NUT "B"
"D"
LOOPER ROD
LOOPER ADJUSTING BLOCK
LOOPER SCREW "A"
LOOPER ADJUSTING BLOCK SET SCREW
LOOPER
NEEDLE "E"
NEEDLE GUIDE
PRESSER FOOT SHOE

FIG. 18

Looper setting and timing to needle

To properly time a looper to the needle the following steps must be followed:

Step No. 1 The needle and needle shaft must be adjusted as stated at item 6 Pages 14-15-16-17.

Once this setting is checked and agrees with the instruction sheets proceed as per following steps.

Step No. 2 Turn hand wheel clockwise to bring the needle to its full stroke or to the edge of right hand side of the presser foot, keep turning hand wheel to return the needle to approximately 1/8" from the presser foot edge as shown at Fig. 20 Page 21. At that position the looper long prong must be located at the start of the needle scarf and approximately over the center of the needle blade.

Step No. 3 Check if looper timing is fast passed needle or slow (behind needle)

Turn hand wheel clockwise to take the looper away from the needle and position it approximately as shown at the looper rod assembly diagram Fig. 18 Page 18.

Step No. 4 Loosen looper set screw "A" Fig. 18 and remove looper from the looper rod.

Loosen lock nut "B" and also loosen clamping screw "C".

Turn looper rod "D" either right or left e.g. if timing is slow looper rod must be turned to left to unscrew it to bring it out or to bring the looper nearer to the needle.

Note: It must be noted that since the looper rod is of the screw type it must be turned one full turn

which represents approximately 1/64".

Once the looper rod is turned in or out as per the required setting, reposition it at its approximate position as shown at Fig. 18 and tighten clamp screw "C" slightly just enough to keep looper rod in position until the setting is completed.

Step No. 5 Insert one looper in position, make sure the looper is pushed against looper screw "A" and tighten. Turn hand wheel clockwise to its position over the needle as shown at Fig.20 Page 21.

Note: While turning the hand wheel to bring the looper to its position care must be taken to avoid striking the looper prong against the needle or to hit the presser foot since that at this point the looper rod setting is only approximate.

If looper strikes, move the looper rod slightly to provide the proper clearance.

Once the looper is returned over the needle as shown at Fig. 20 Page 21 check if setting is at the desired position.

If the timing is at the correct position, check the distance between the top of the needle to the looper long prong as shown at Fig. 21 Page 21 the looper must be as indicated from .000 to .005".

Once the adjustment is obtained re-tighten clamp screw "C" first and then tighten lock nut "B" Fig. 18 Page 18.

Step No. 6 Turn hand wheel one full turn to check if the looper will follow its path without striking, also check if the needle will pass in between the looper prongs as shown at Page 24 Fig. 24.

LOOPER SETTING AND TIMING TO NEEDLE

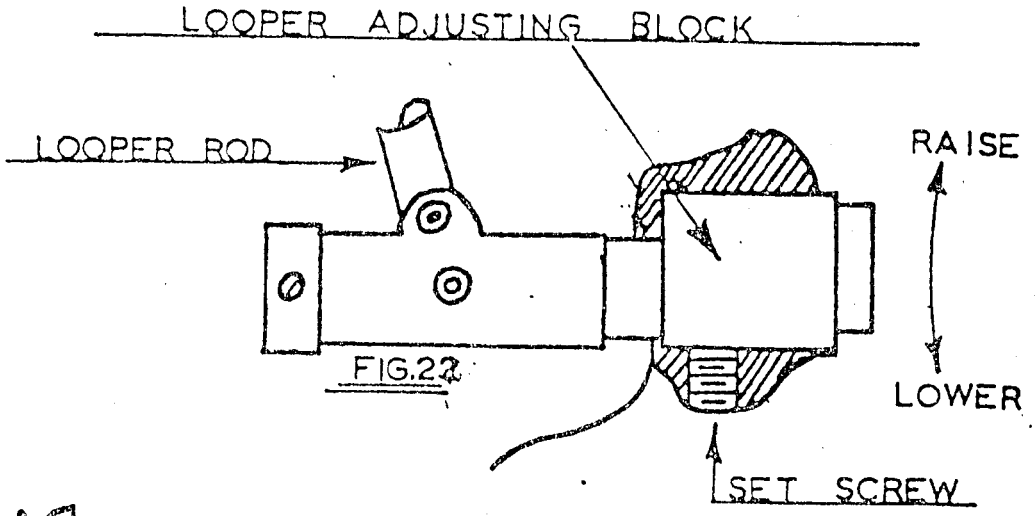


FIG.22

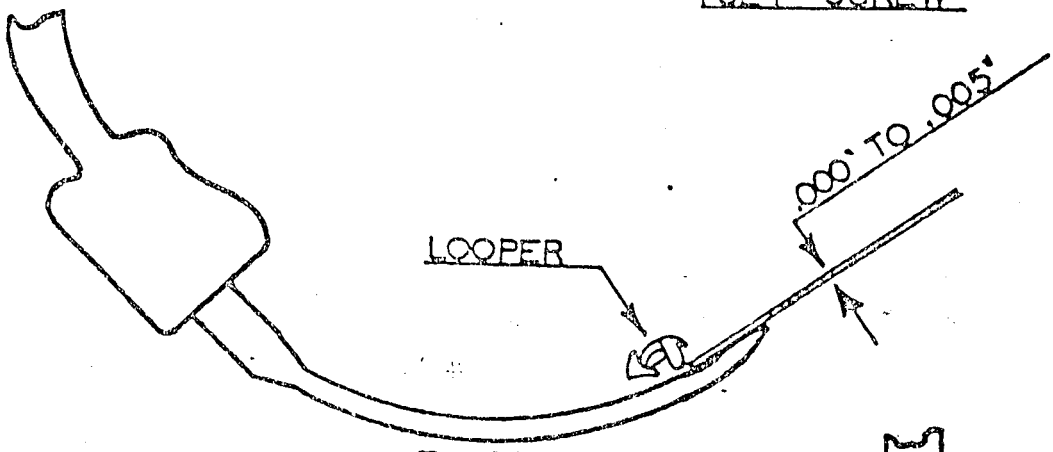


FIG. 21

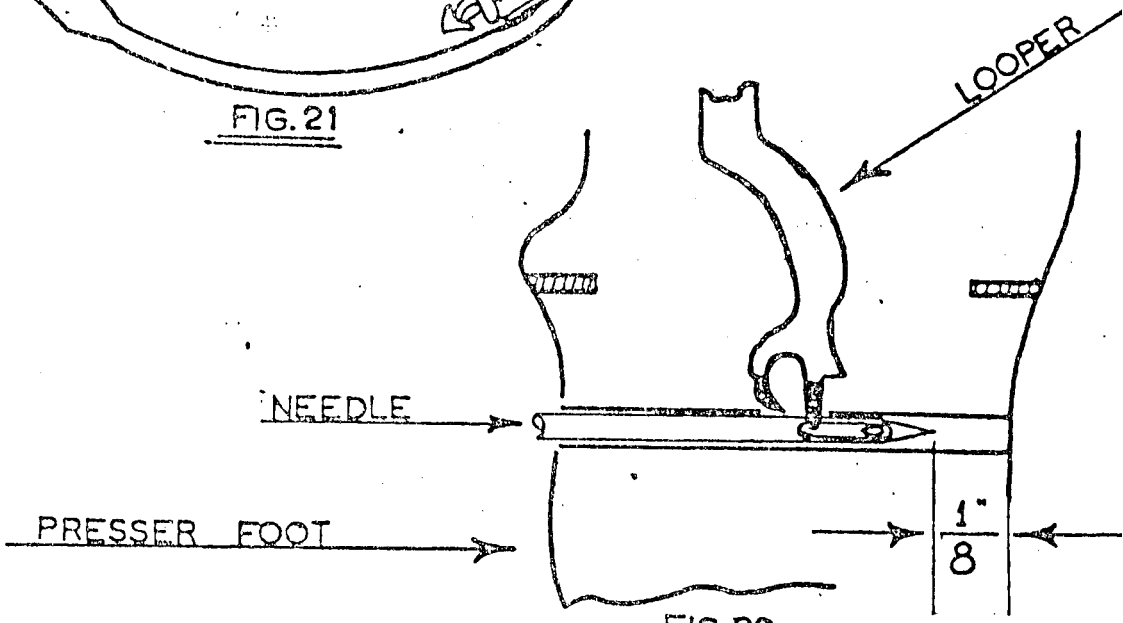


FIG. 20

Setting looper with presser foot and needle

For good performance of the Blind stitch machine the looper must follow its path without rubbing at any spots on presser foot clearance or needle. To adjust it properly the following steps must be followed:

Step No. 1 Turn hand wheel clockwise to bring looper down in the presser foot clearance as shown at Fig. 23 Page 24.

At that position the needle must enter between the looper prongs as shown at Fig. 24 it must have clearance on each side to properly pick up thread.

If needle strikes or that there is not enough clearance, adjustment must be made as follows:

Step No. 2 Loosen set screw "A" Fig. 23 Page 24 and with the use of the special wrench supplied with the machine raise or lower as required the looper adjusting block, "B" Fig. 23 Page 24.

It will be noted that this block may be slightly hard to move. This is to avoid any slackness in the fit.

Once the desired adjustment is obtained retighten screw A.

Side clearance Adjustment

Step No. 3 Turn hand wheel clockwise to bring the looper down in the presser foot clearance as shown at Fig. 23.

At that position the looper must clear each side of the slot, if clearance is required on one side or the other proceed as follows:

Step No. 4 Loosen set screw "A" Fig. 23 Page 24 and tap gently on the end of the looper block point "C" or if clearance is required on the left hand sidetap at point "E".

Once the proper clearance is obtained tighten screw "A" tight.

Step No. 5 Turn hand wheel clockwise to bring the looper over the needle as shown at Page 21 Fig. 21 and check the distance as shown, it must be between .000 to .005".

As this clearance may have been disturbed at that position a slight adjustment of the looper rod may be required.

Therefore it must be made, as shown and explained, at Step 5 Page 20 Paragraph 4.

The two looper pronge must pass over the needle and near the chain off pin on presser foot without touching.

Note: It is possible that for very close and accurate setting that the operation of resetting may have to be repeated once or twice.

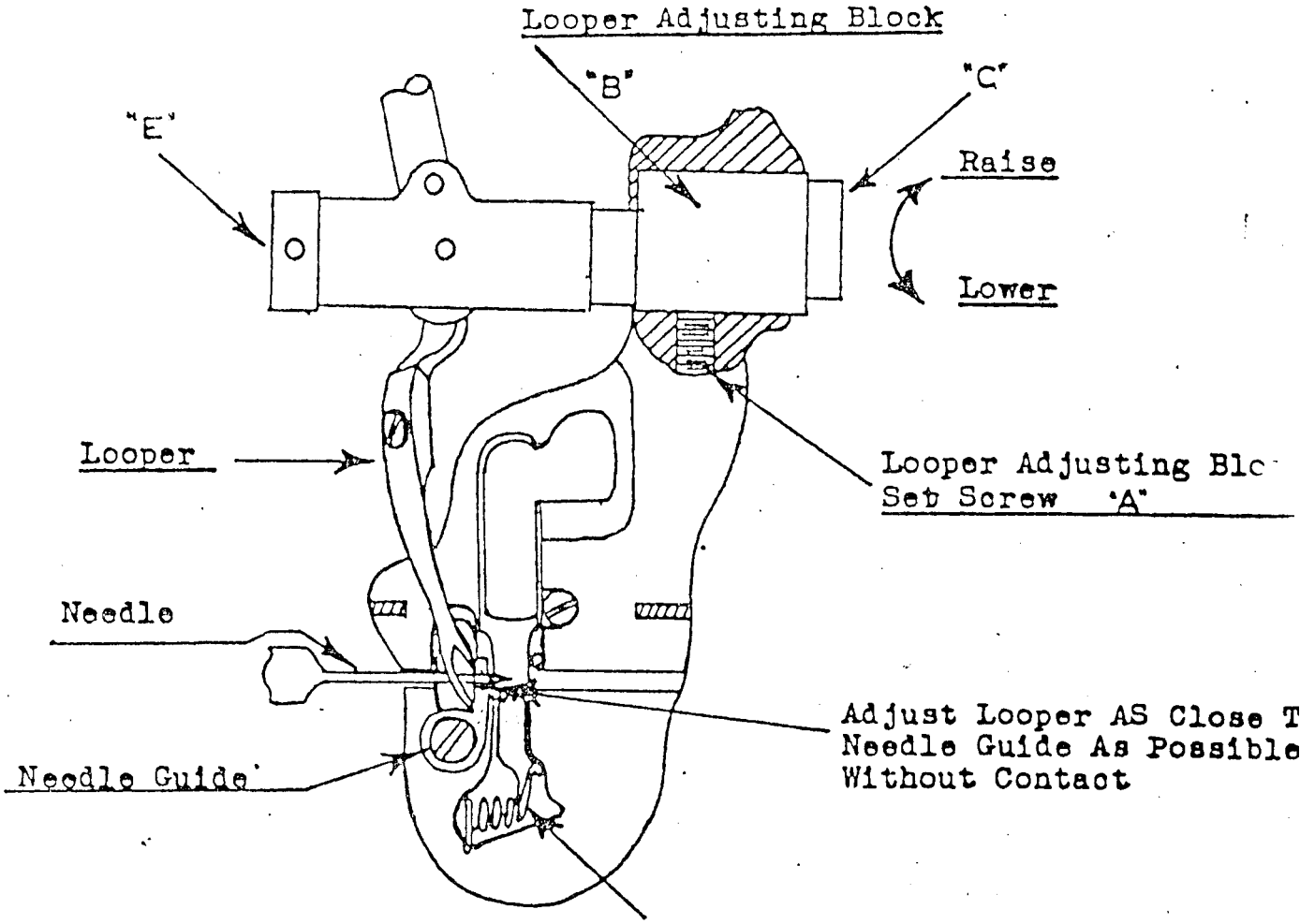


Fig. No. 23

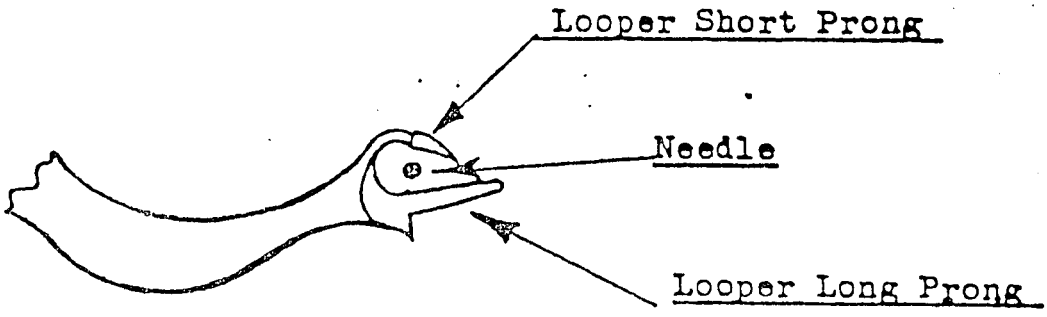


Fig. No. "24

NOTE; Needle Must Clear Looper Prongs

Setting Feed Dog Height

Step No. 1 Turn hand wheel clockwise to bring needle point in line with top of rib "B" Fig. 25 page 27.

At that point the feed dog "D" must be resting on top of the feed platten "E" it must not have any pressure on the platten since skip stitching may cause flagging of the fabric.

To reset the feed dog or to install a new one proceed as follows:

Step No. 2 Turn hand wheel clockwise until the feed dog comes forward to its full stroke and loosen the two screws "C" Fig. 25 Page 27.

Note: If feed dog must be removed, loosen the screws and remove the front screw completely.

Insert new feed dog and turn in the screws home but not tight.

Step No. 3 Turn hand wheel clockwise ½ turn to bring needle "A" Fig 25 in line with top of rib "B" as shown at Fig. 25.

Step No. 4 With index finger of left hand, apply pressure on feed dog "D" exactly where the indicating arrow is located at Fig. 25 over feed dog "D".

Tighten first screw "C" very tight.

Turn hand wheel to bring out the second screw and

tighten very tight.

Use one piece of fabric and run machine slowly to check if proper feed is obtained.

Note: In some cases it may be required that the pressure of the feed dog be increased.

Therefore when setting as per Step 4 a slight pressure may be put with the finger to compress slightly the feed platten E.

Care should be taken not to put too much pressure in order not to damage the light fabric.

However for very heavy fabric more pressure may be desirable.

Diagram for setting Feed Dog Height

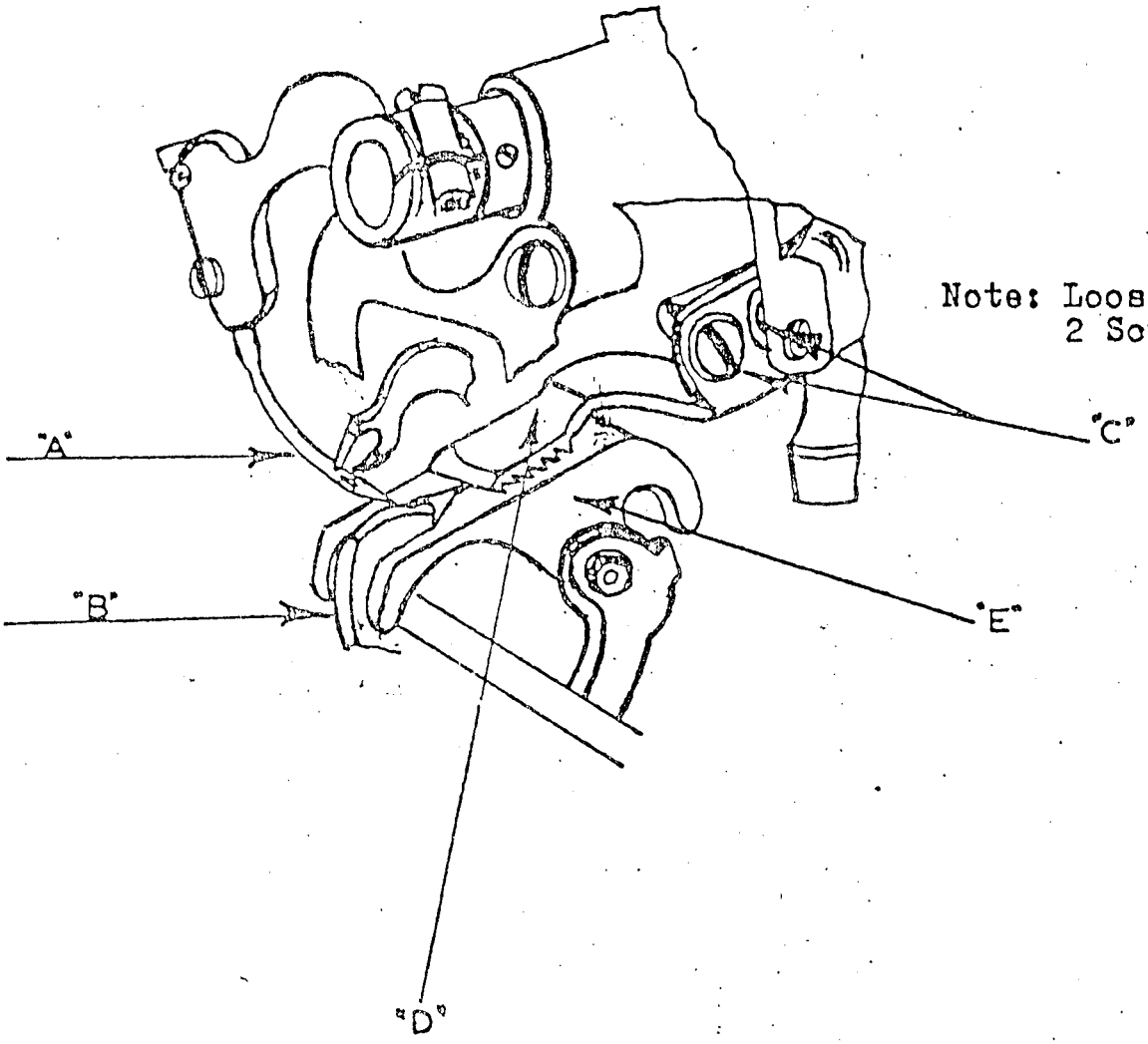


FIG. 25.

Setting length of stitch

5 to 10 stitches per inch may be obtained. This adjustment at the Factory and very rarely needs readjustment.

The needle stitch eccentric ring "A" Fig. 26 is found at the back side of the machine on the main shaft.

To set the stitch length proceed as follows:

Step No. 1 Remove side top cover, and when facing back of machine turn hand wheel clockwise until the figures on the stitch eccentric ring "B" may be seen as shown at Fig. 26.

Step No. 2 Loosen needle shaft crank clamping screw "A" and move the needle stitch eccentric ring "B" to the desired length of stitch.

Note: Care must be taken to line up the feed timing slot on the needle stitch eccentric ring "B" with the feed timing slot shown on the needle stitch eccentric as shown on Fig. 26.

Re-tighten clamping screw "A" tight.

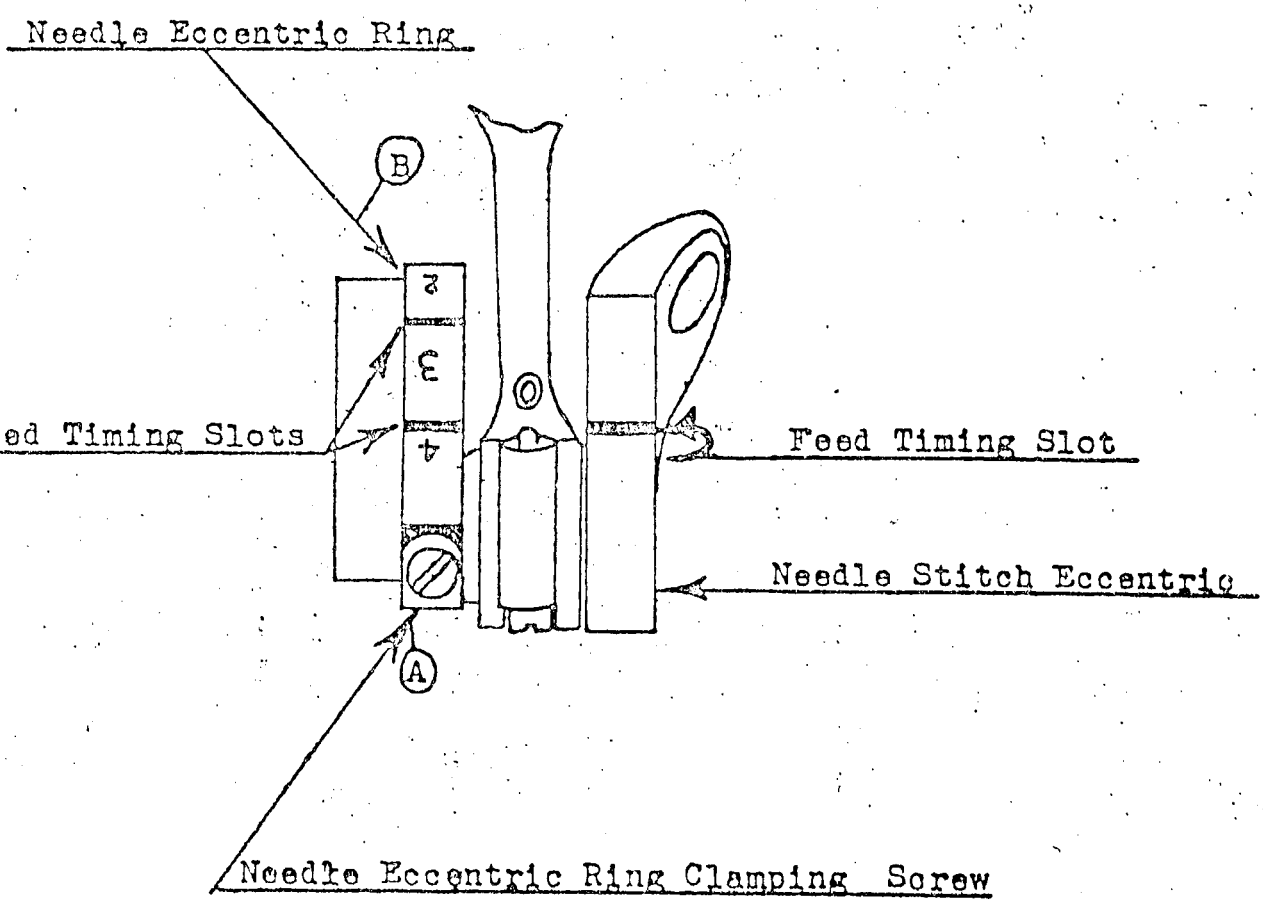

Needle Eccentric Ring
B
2
3
4
Feed Timing Slots
Feed Timing Slot
Needle Stitch Eccentric
A
Needle Eccentric Ring Clamping Screw

FIG. 26