

Fig. 1.1 Interweaving.

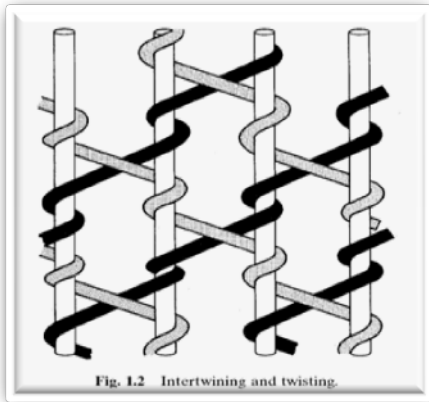


Fig. 1.2 Intertwining and twisting.

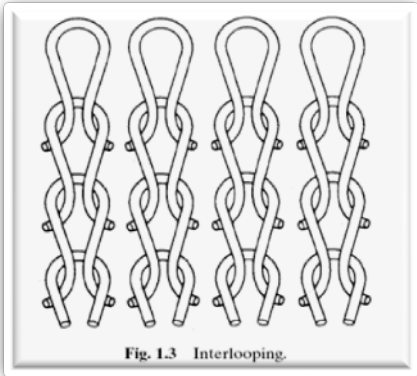
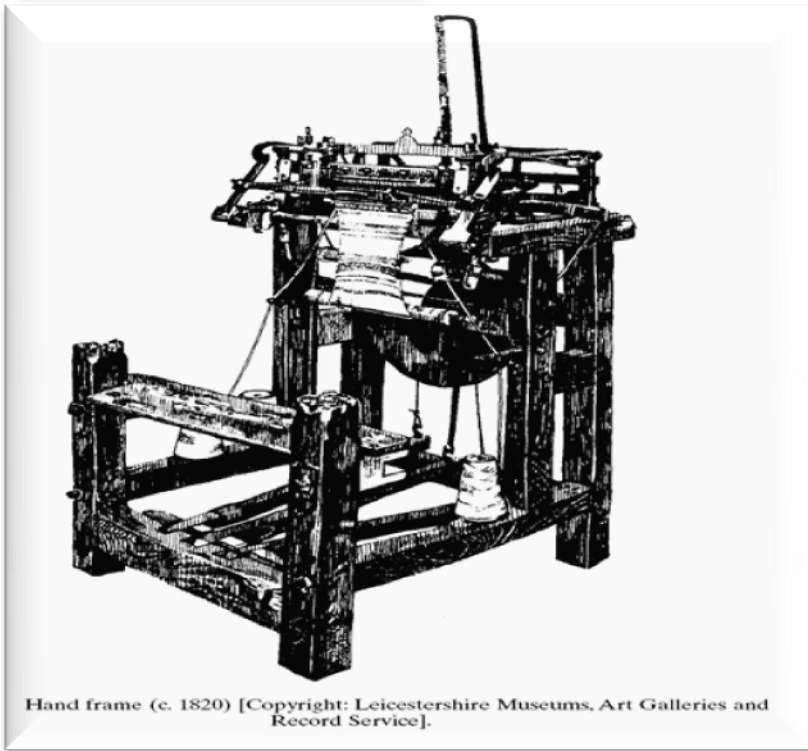


Fig. 1.3 Interlooping.



Hand frame (c. 1820) [Copyright: Leicestershire Museums, Art Galleries and Record Service].

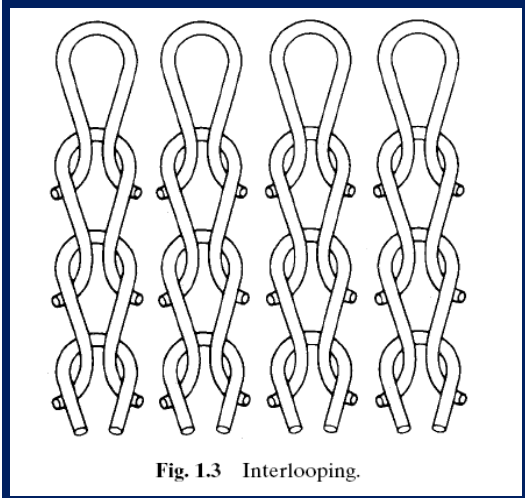
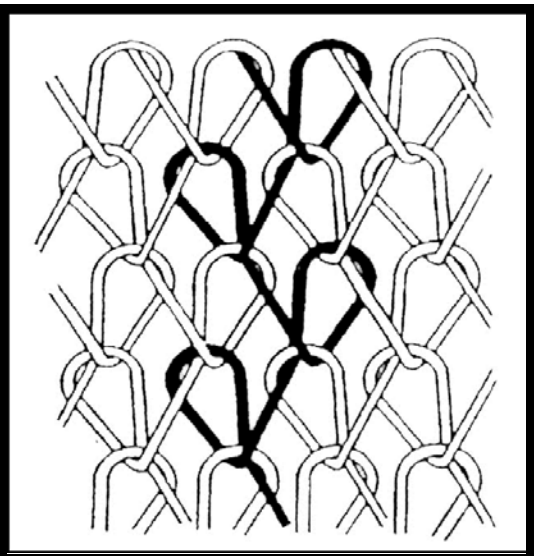
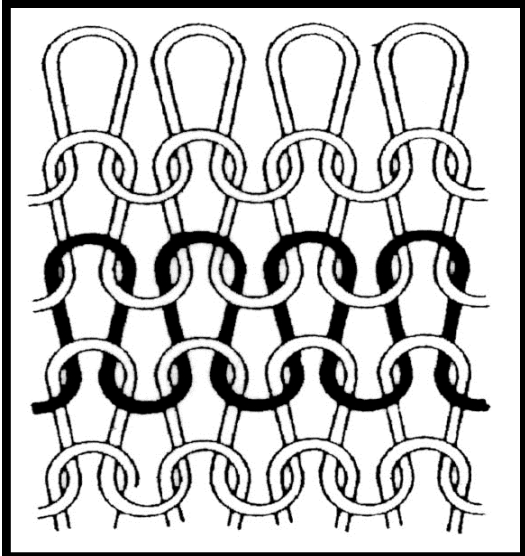
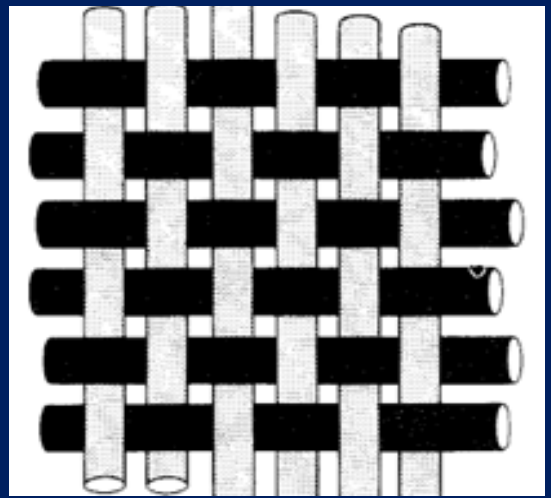
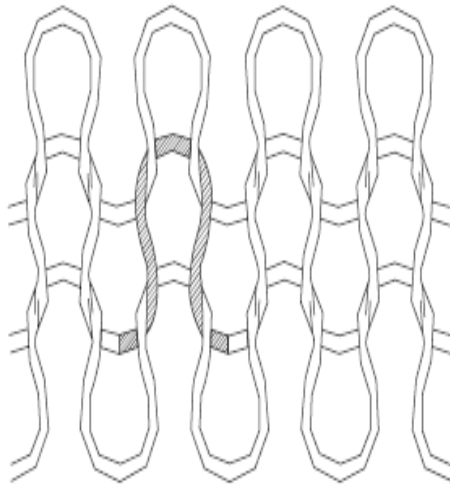
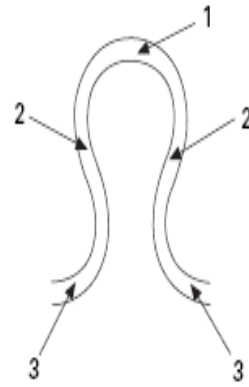


Fig. 1.3 Interlooping.

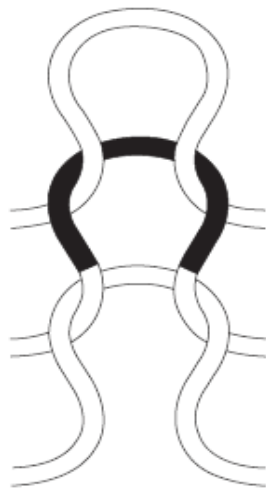




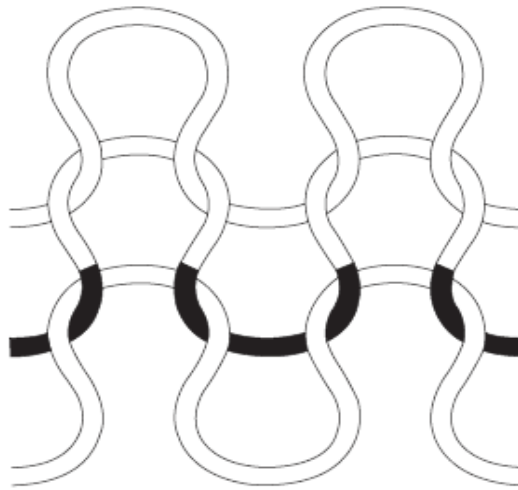
9.1 Knitted fabric surface.



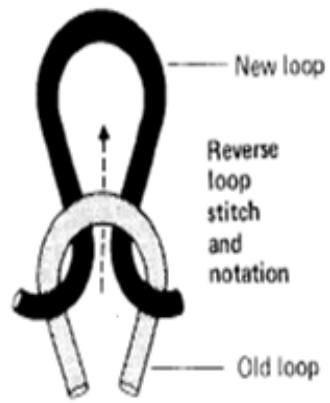
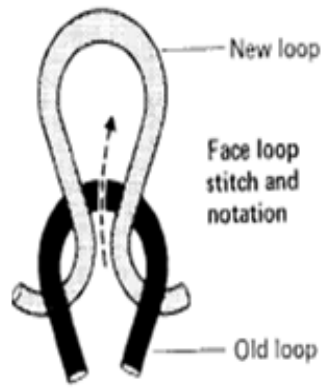
9.2 Loop. 1. loophead; 2. loop leg; 3. loop feet.

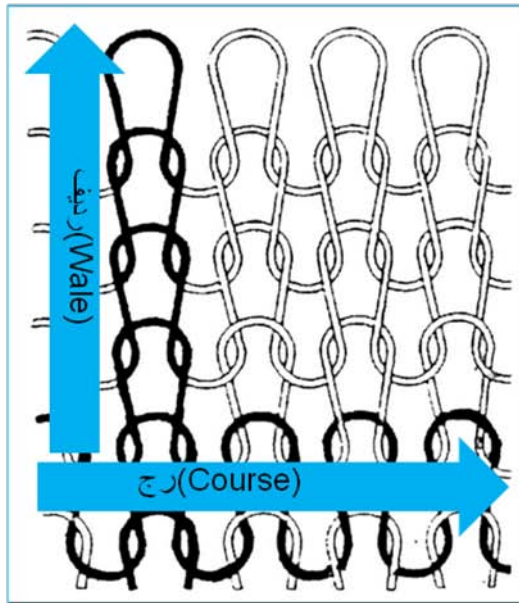


9.5 Needle loop.

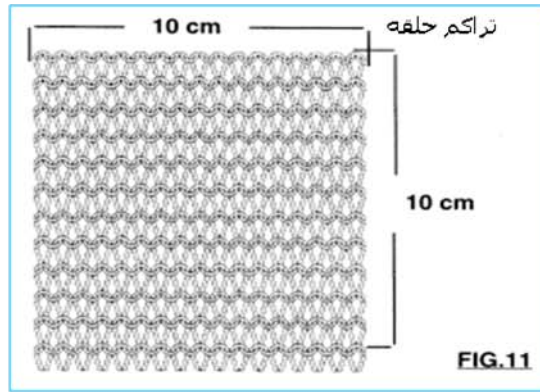


9.6 Sinker loop.

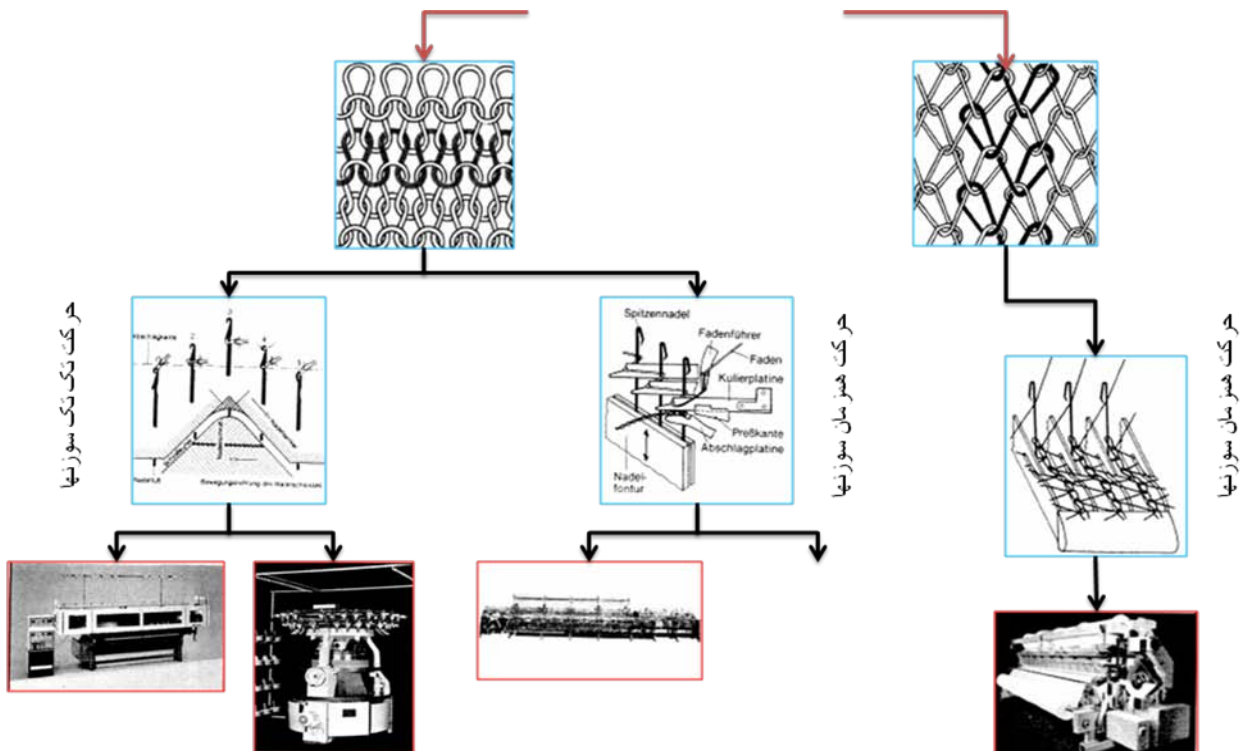
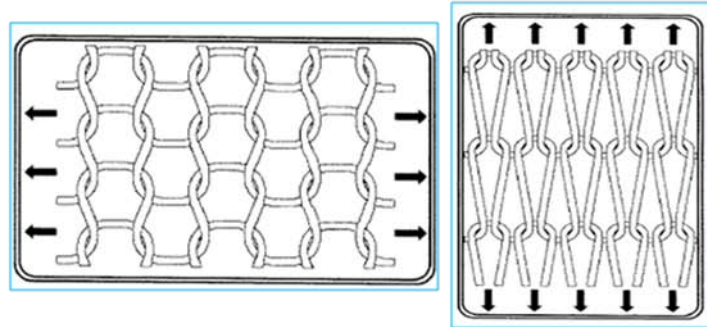


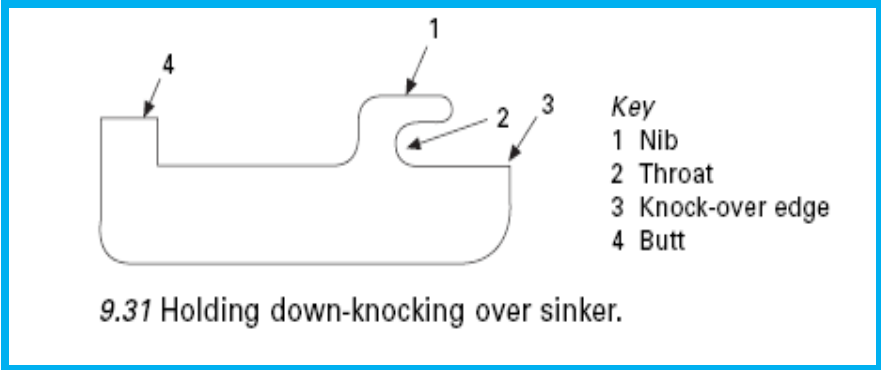
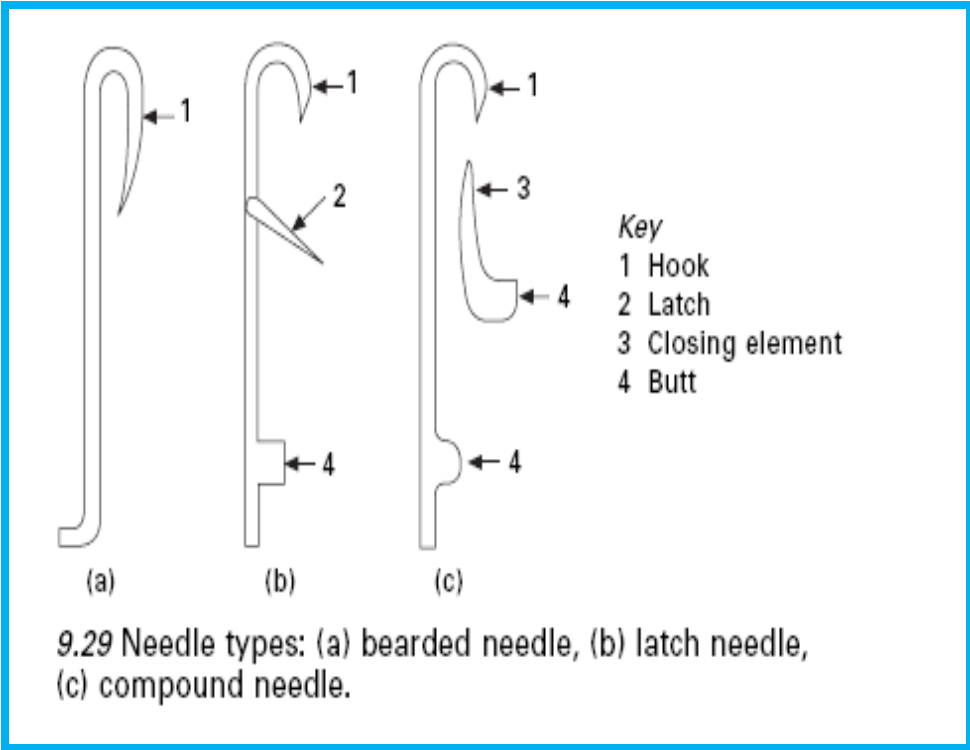


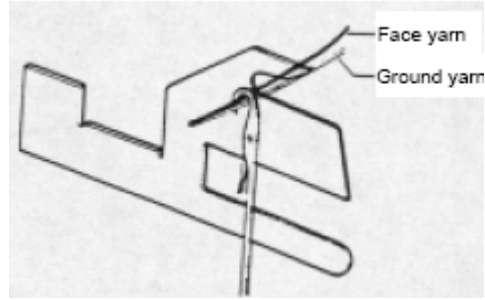
Course & Wale



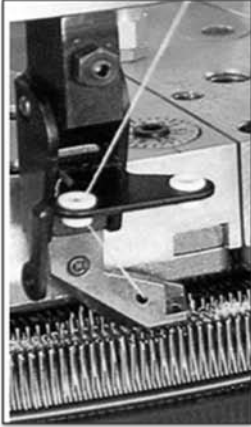
Stitch Density



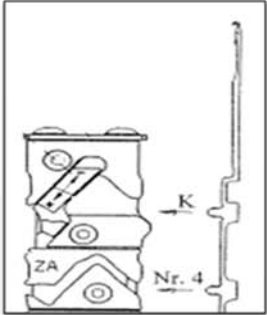
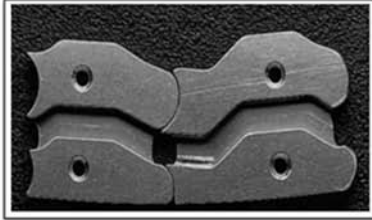
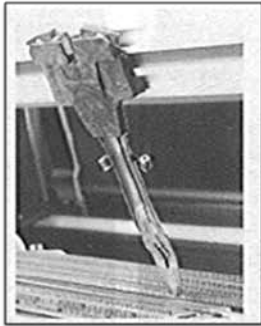




نخبر : برای تغذیه نخ به سوزن بمنظور تشکیل حلقه مورد استفاده قرار می گیرد



Yarn Carrier



Cam

بادامک : برای هدایت سوزن و یا سینکر بمنظور تشکیل حلقه مورد استفاده قرار می گیرد

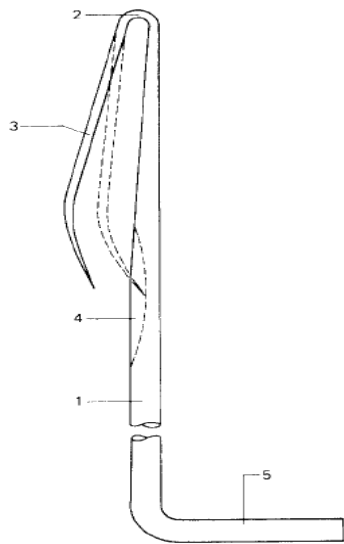


Fig. 3.2 Main parts of the bearded needle.

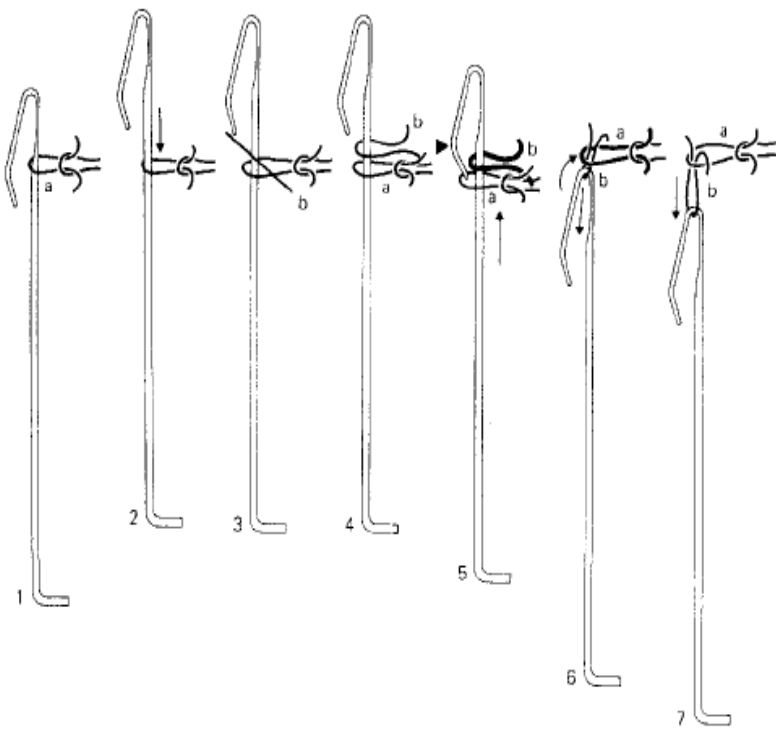
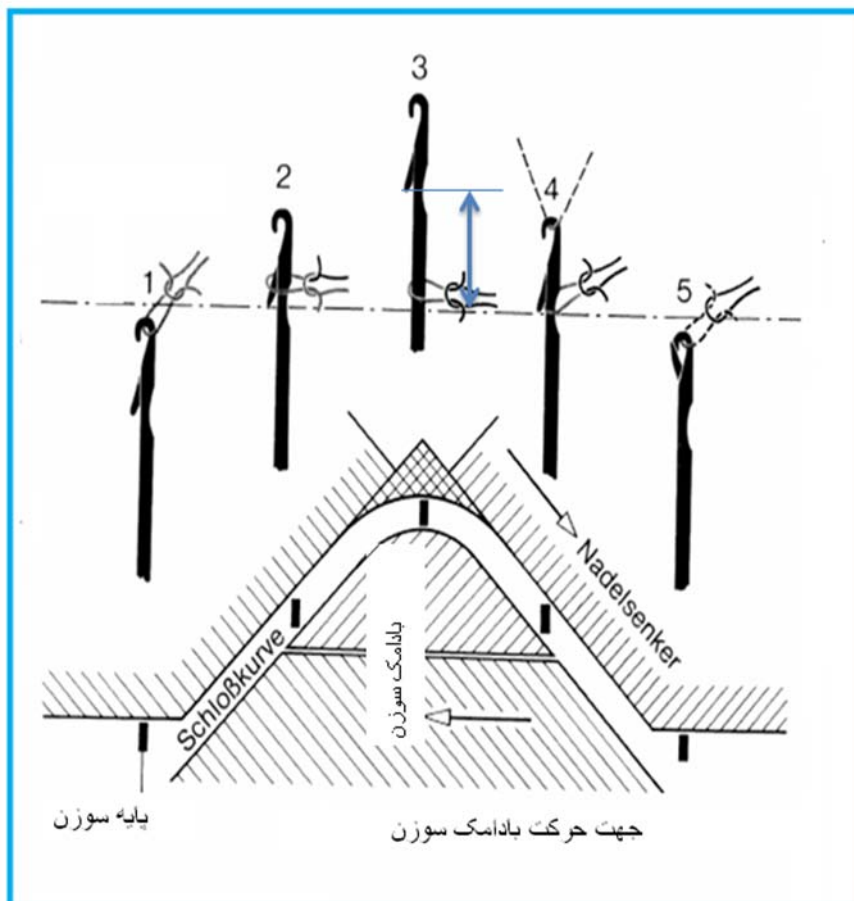
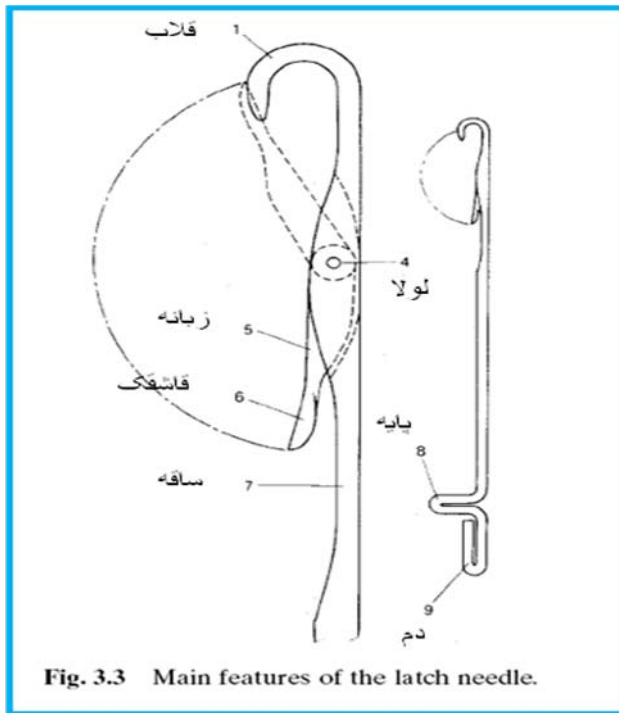
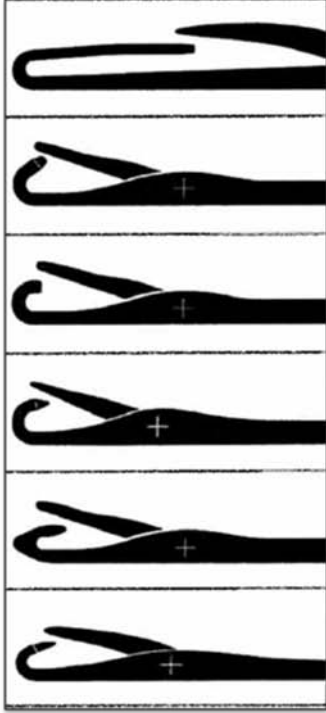
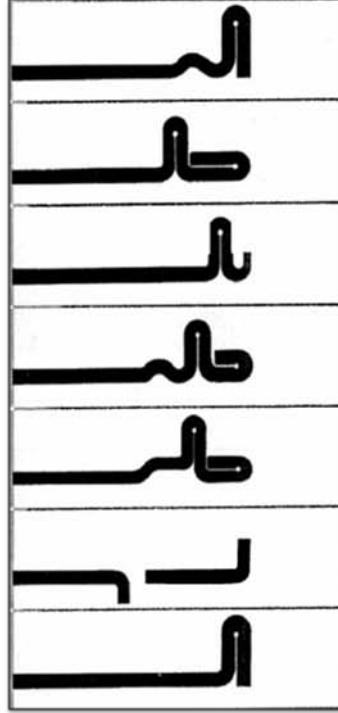


Fig. 3.1 Basic knitting action of a needle.

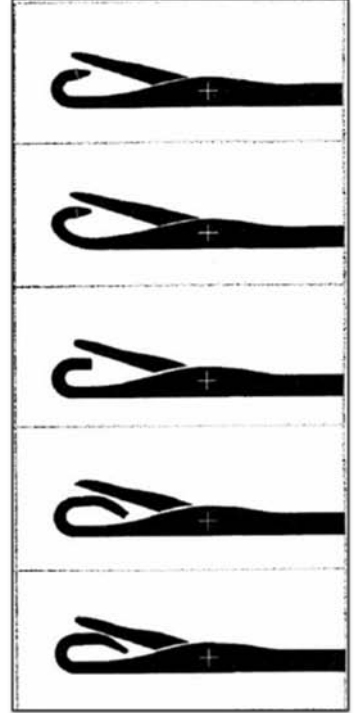




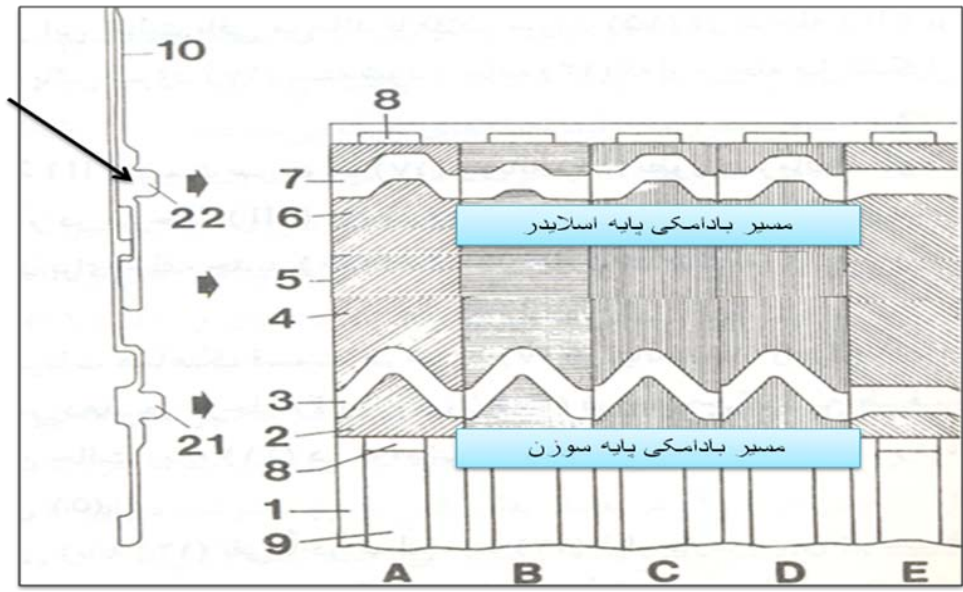
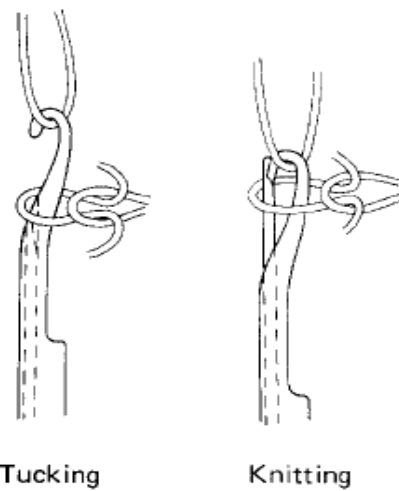
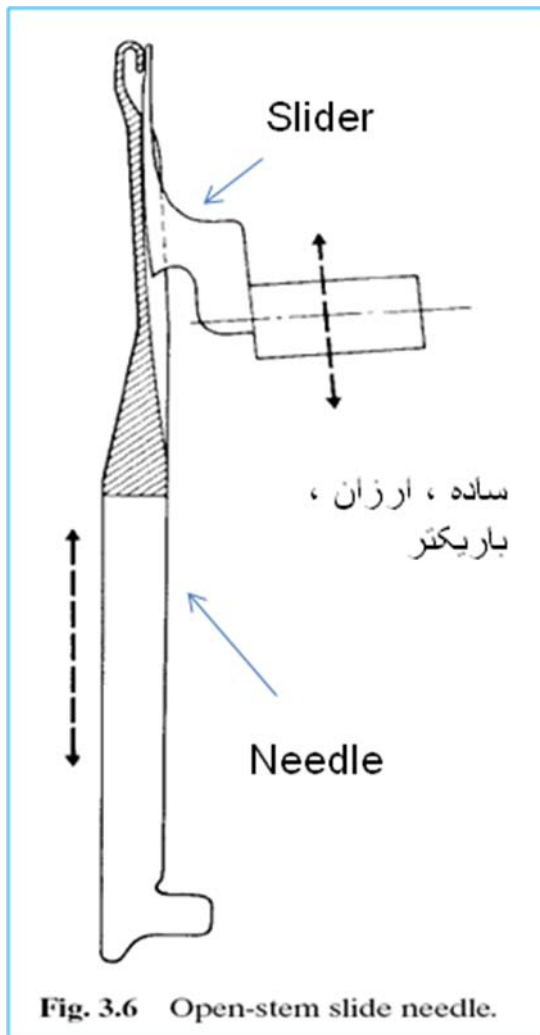
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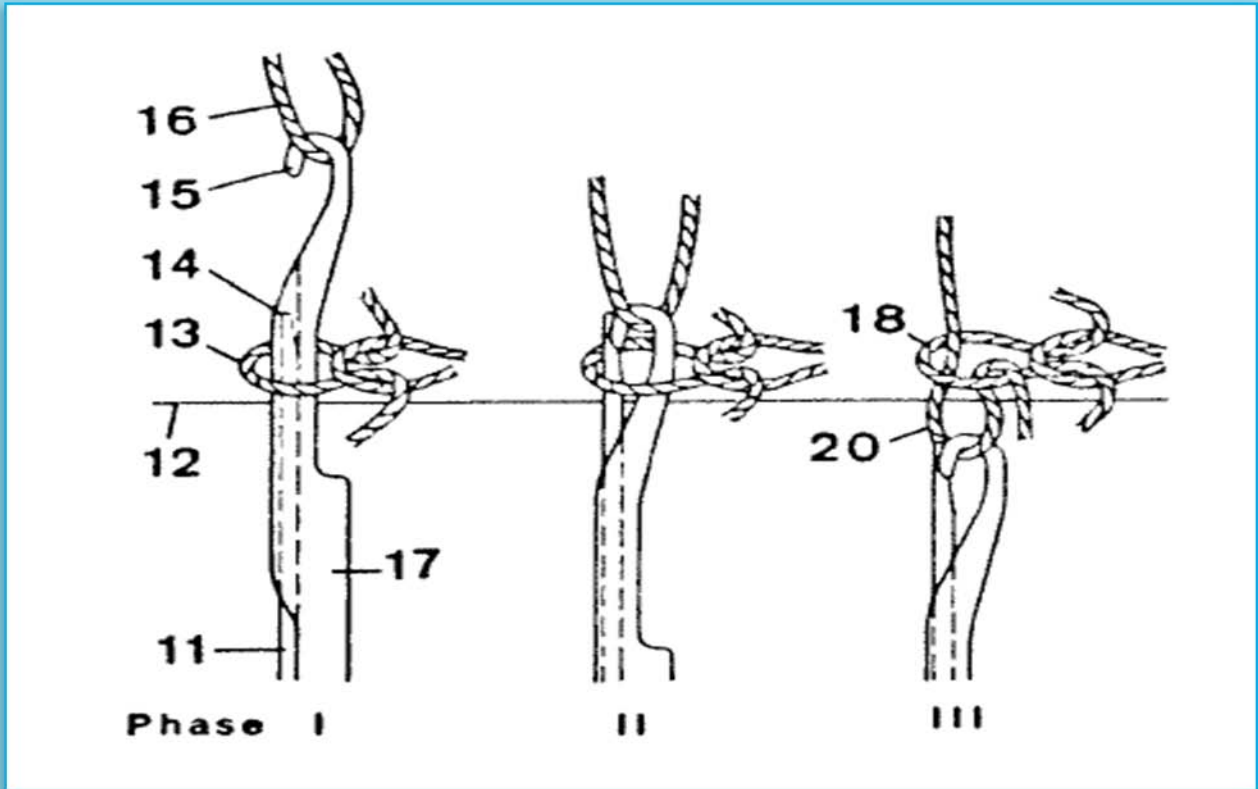


نوع پایه و دنباله سوزن



نوع شکل ریانہ سوزن

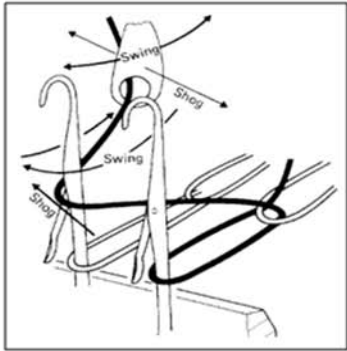
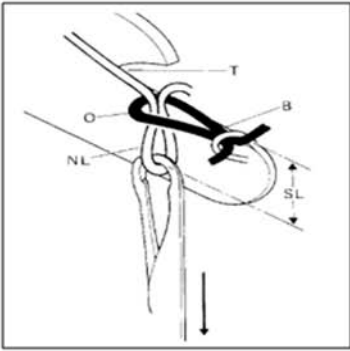
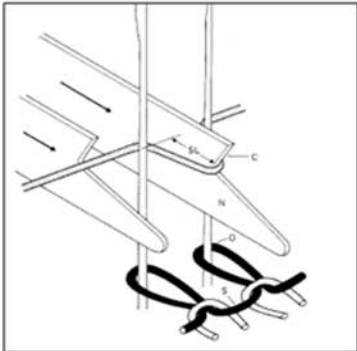




تشکیل حلقه در بافندگی حلقوی

بافندگی حلقوی بودی

بافندگی حلقوی تار ی



سوزن فنری

سوزن زبانه دار

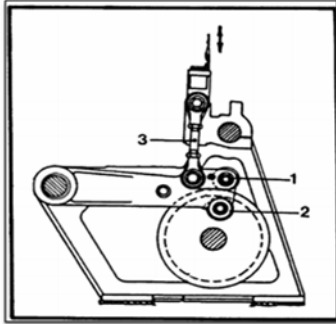
سوزن فنری و زبانه دار

بادامکها حرکت گردشی ماشین را به عملیات مناسب بر روی سوزن و عناصر بافندگی دیگر تبدیل میکنند

بادامکهای خارجی خارج از مرکز که بطور غیر مستقیم عناصر بافت را کنترل میکنند

بادامکهای سه گوش که مستقیماً روی پایه های سوزن عمل میکنند

حلقوی تاری



حلقوی پودی

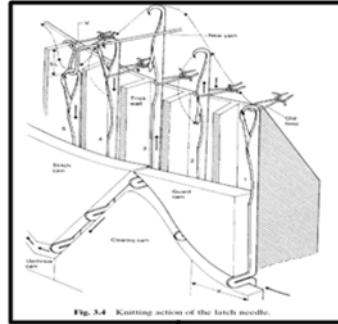


Fig. 3.4 Knitting action of the latch needle.

بادامکها ثابت و بستر سوزن متحرک ماشینهای گردنیاف

بادامکها متحرک و بستر سوزن ثابت ماشینهای تخت باف

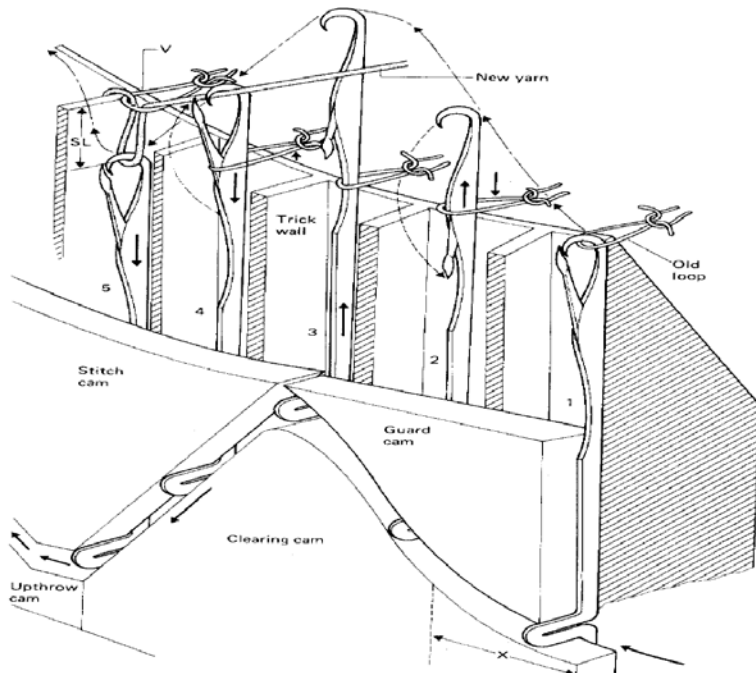
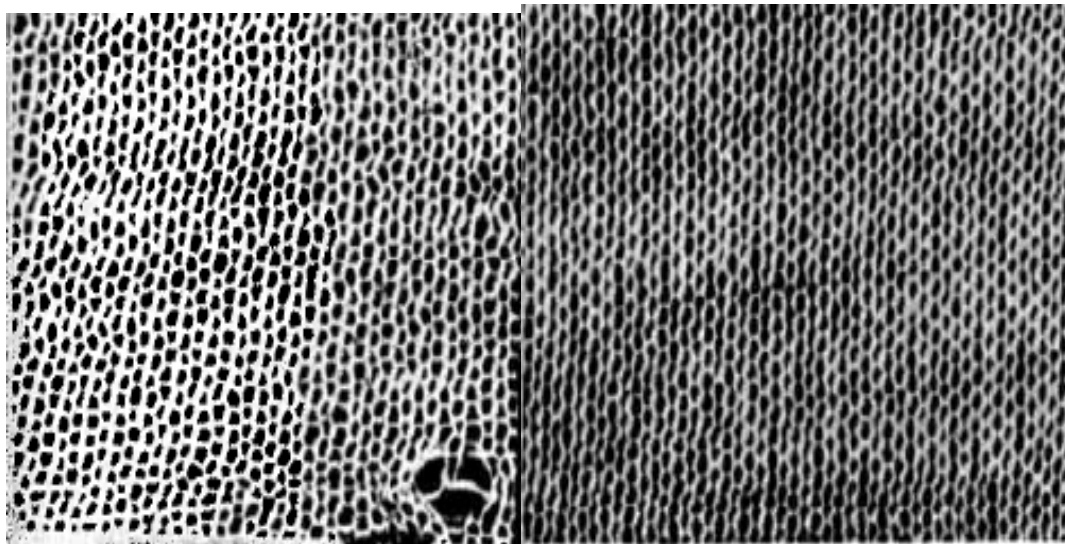
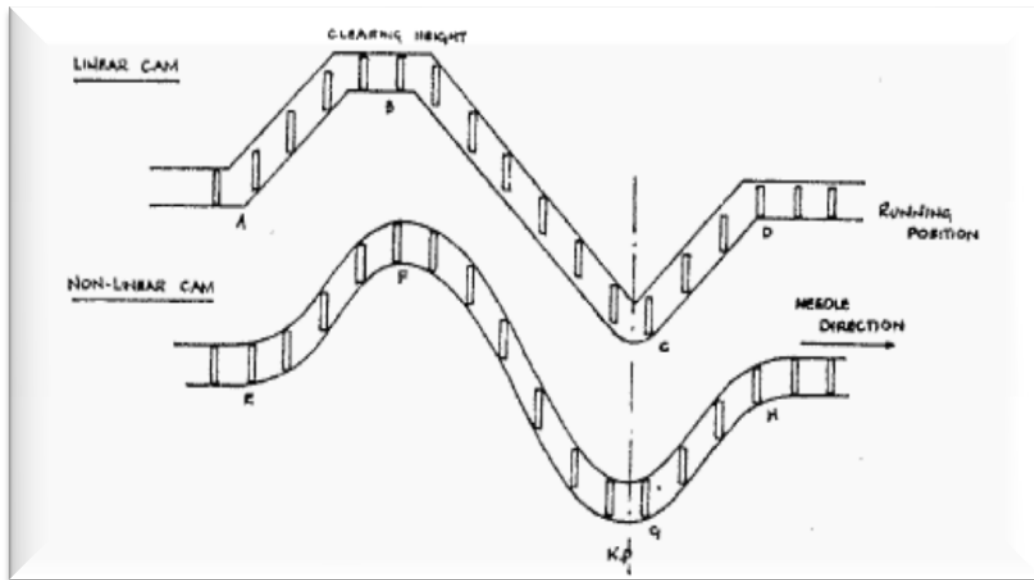
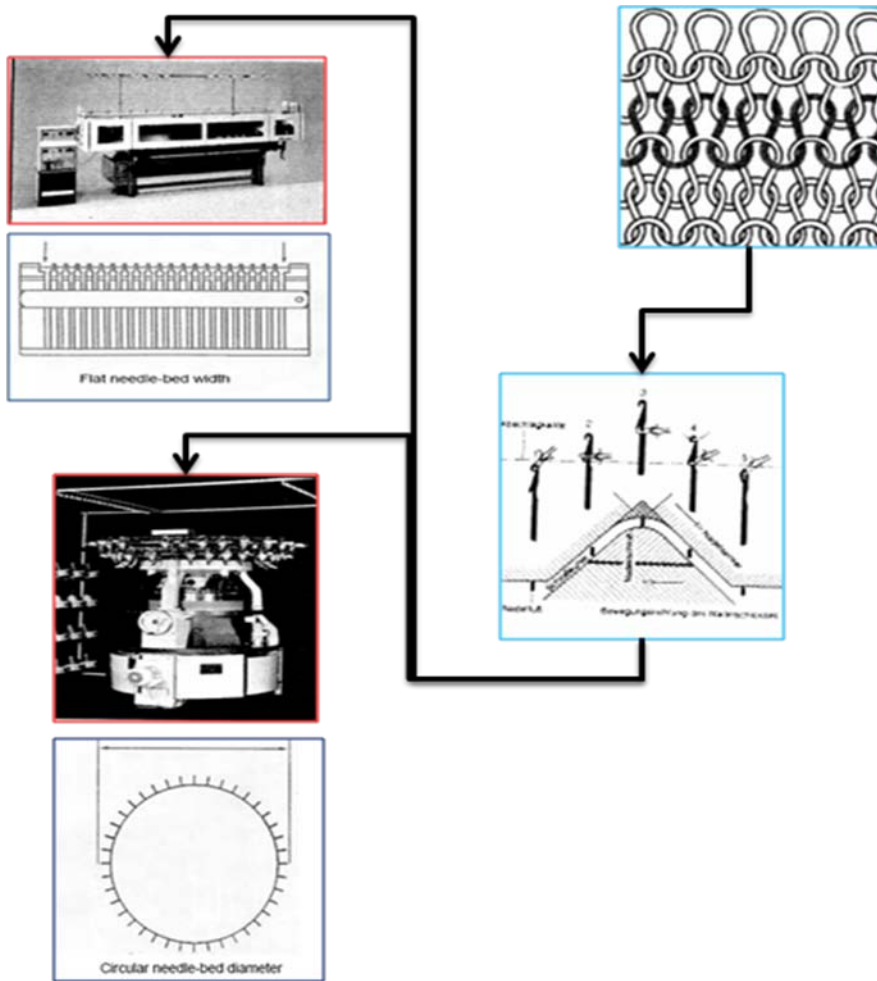
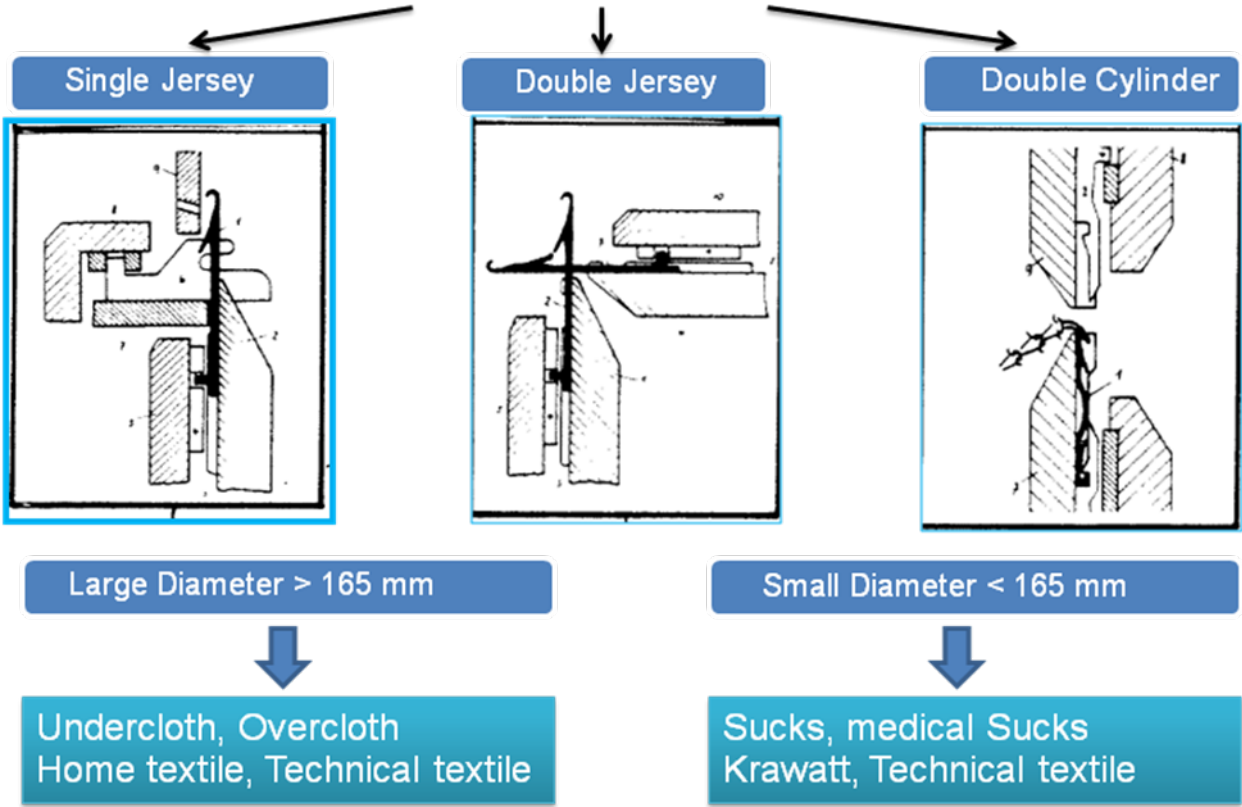


Fig. 3.4 Knitting action of the latch needle.



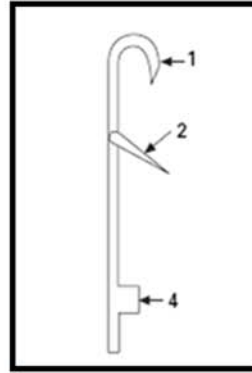
Teilung t (mm)	16,93	12,70	11,29	10,16	8,47	7,26
(Feinheit E)	1,5	2	2,25	2,5	3	3,5
Teilung t(mm)	6,35	5,64	5,08	4,62	4,23	3,63
(Feinheit E)	4	4,5	5	5,5	6	7



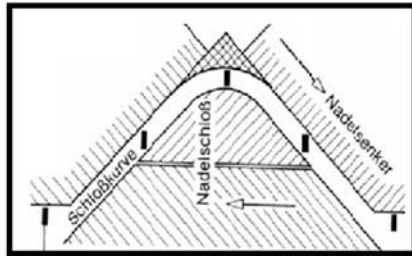




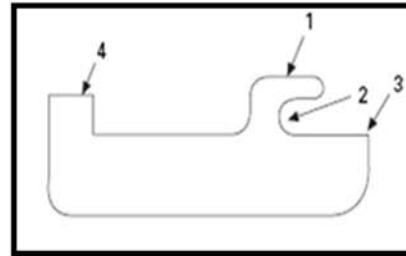
نخبر



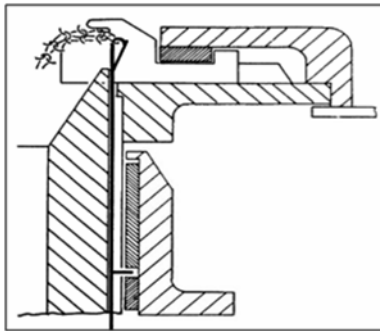
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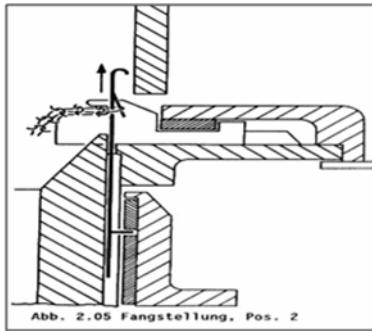
بادامک



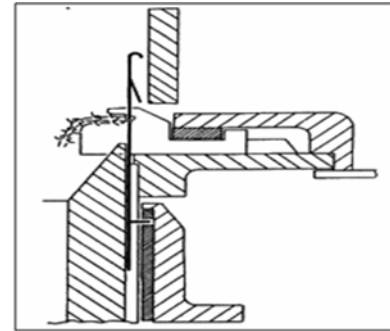
سینکر



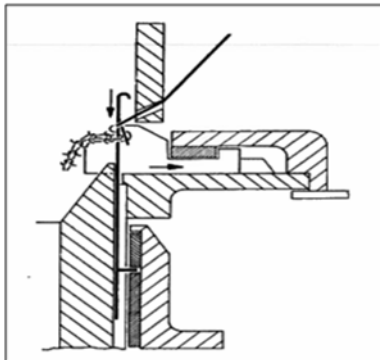
1 مرحله استراحت



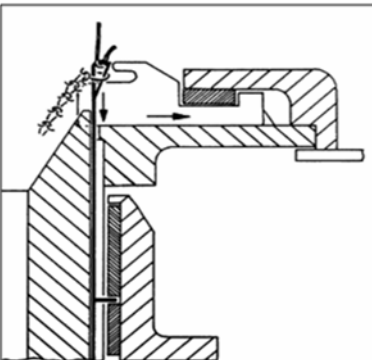
2 مرحله نیم بافت



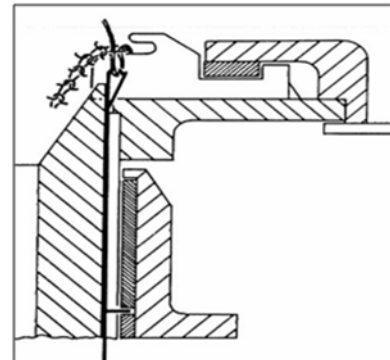
3 مرحله قرار گیری حلقه روی ساقه



4 مرحله تغذیه نخ



5 مرحله آزاد شدن حلقه



6 مرحله تعیین طول حلقه

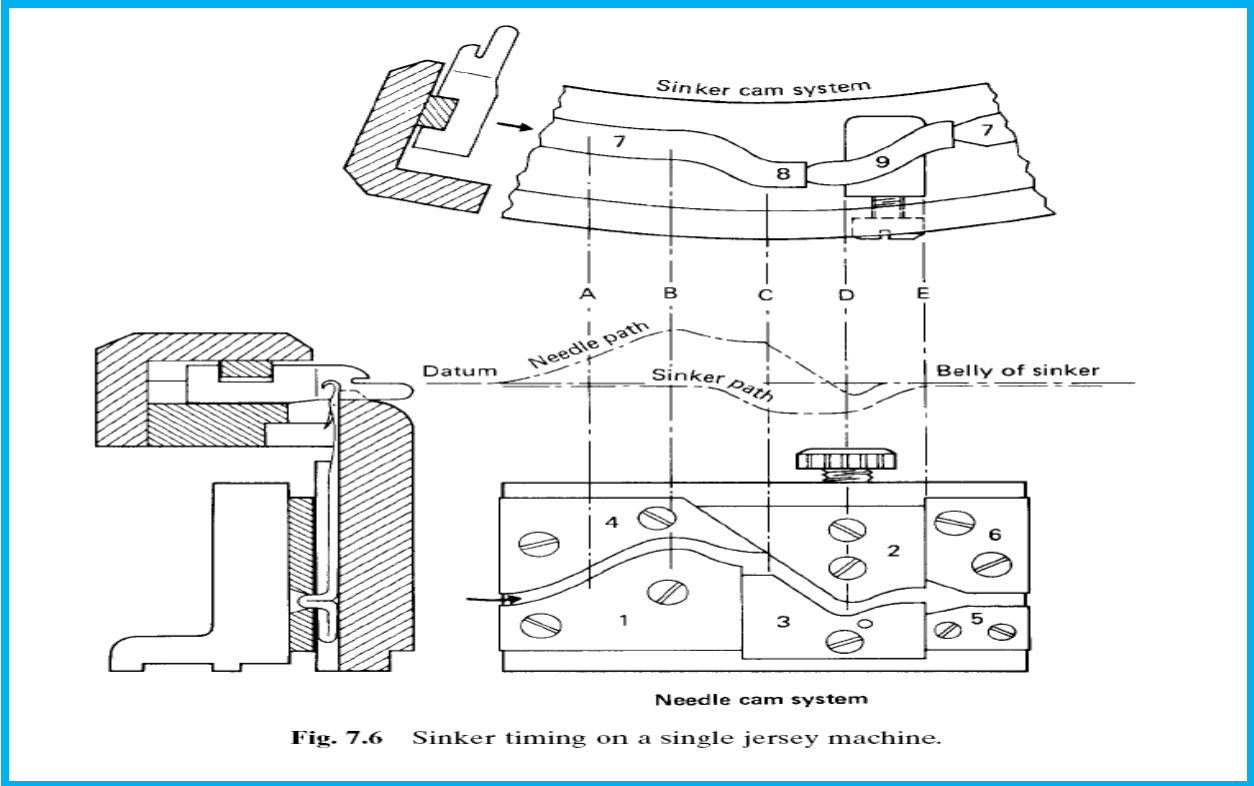
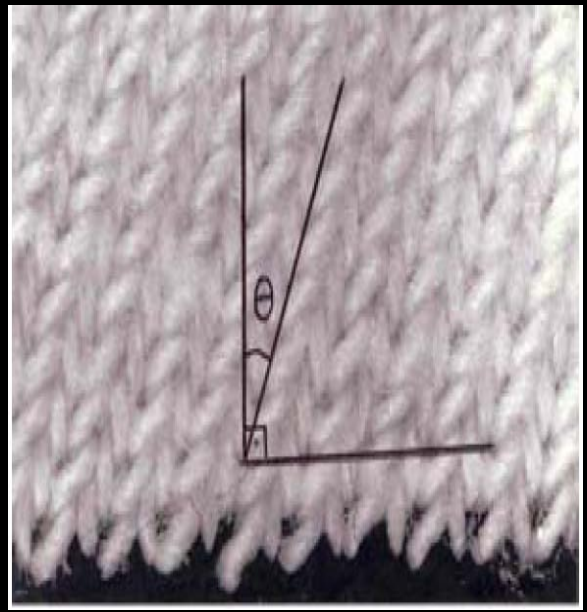
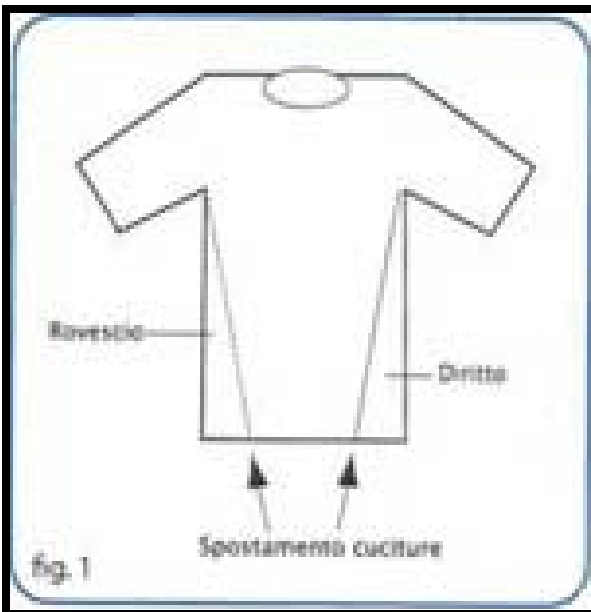
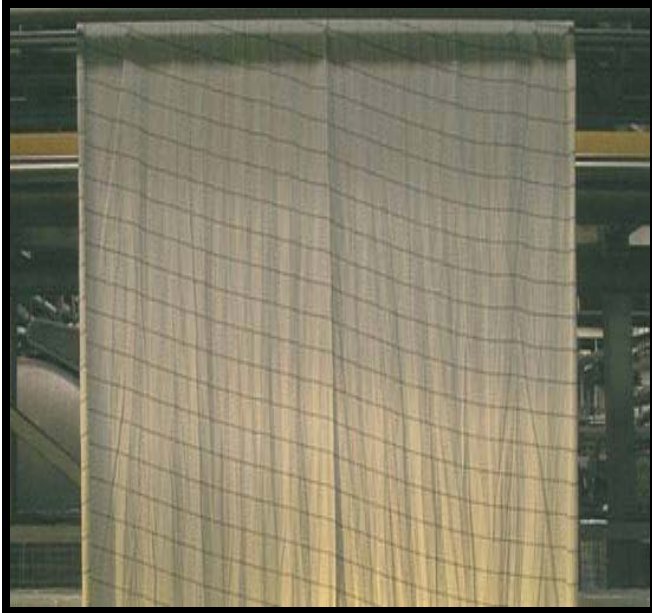
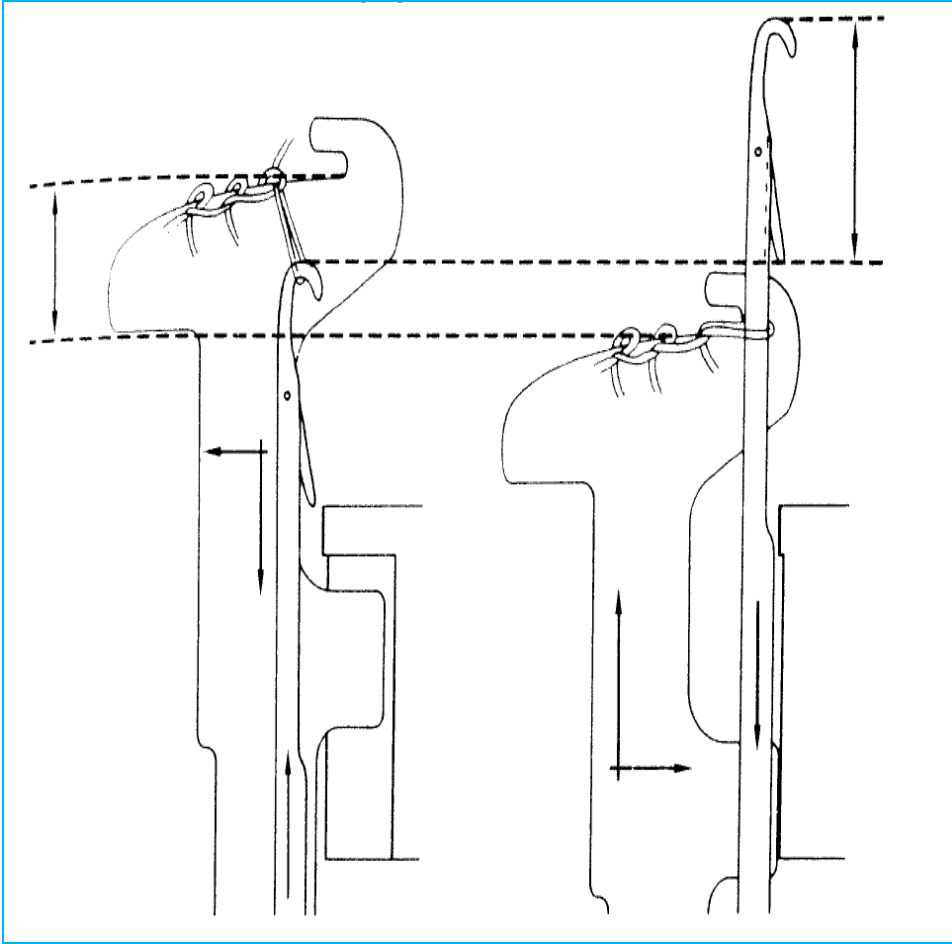


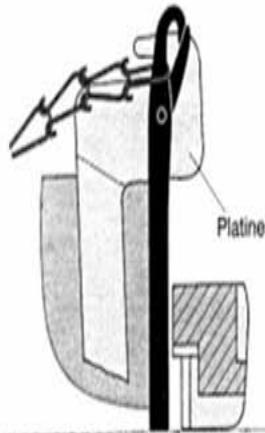
Fig. 7.6 Sinker timing on a single jersey machine.





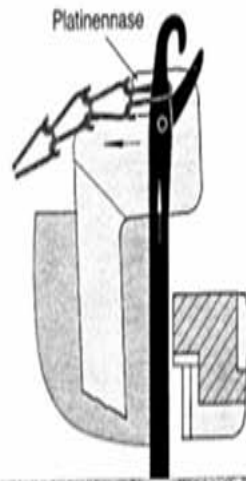
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مرحله اول



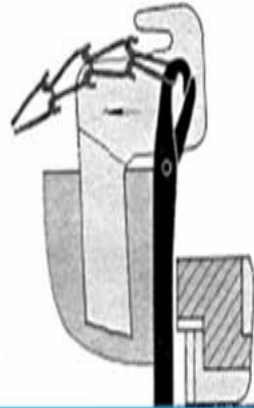
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مرحله دوم



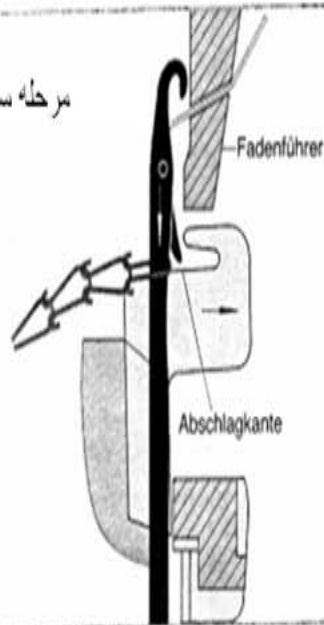
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Sicherungsstellung



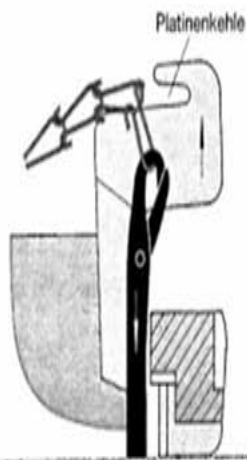
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مرحله سوم



4

مرحله چهارم



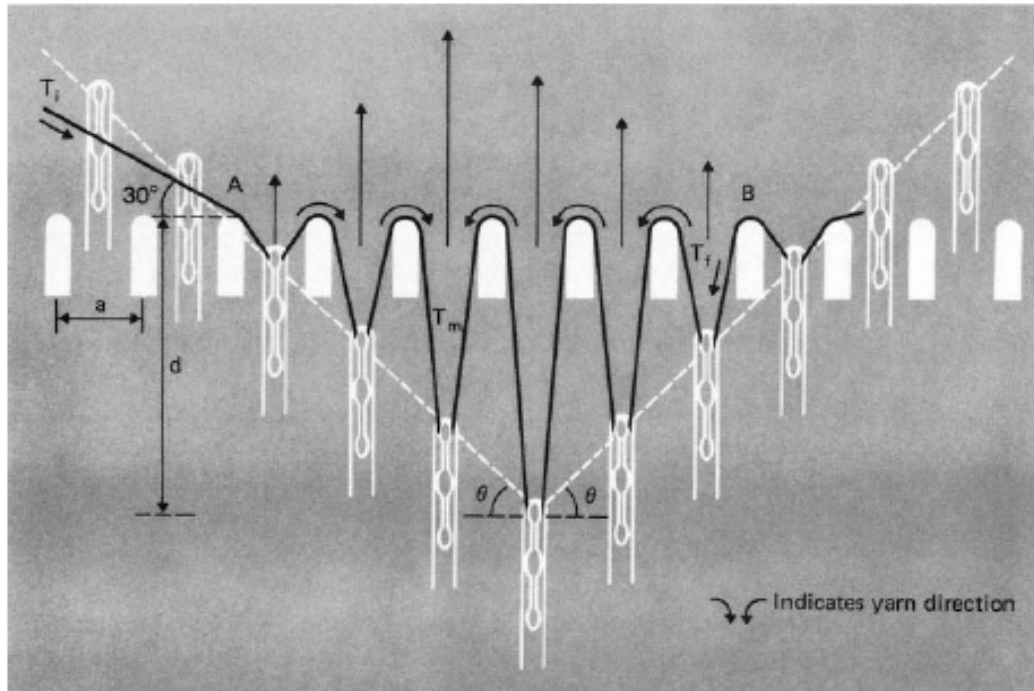
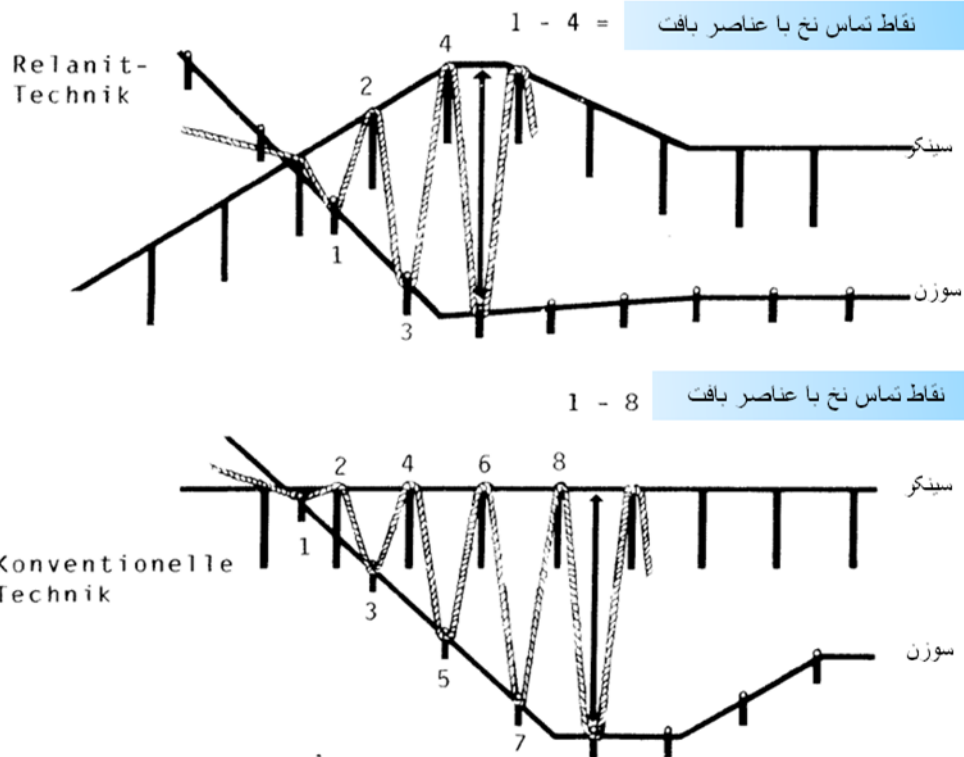
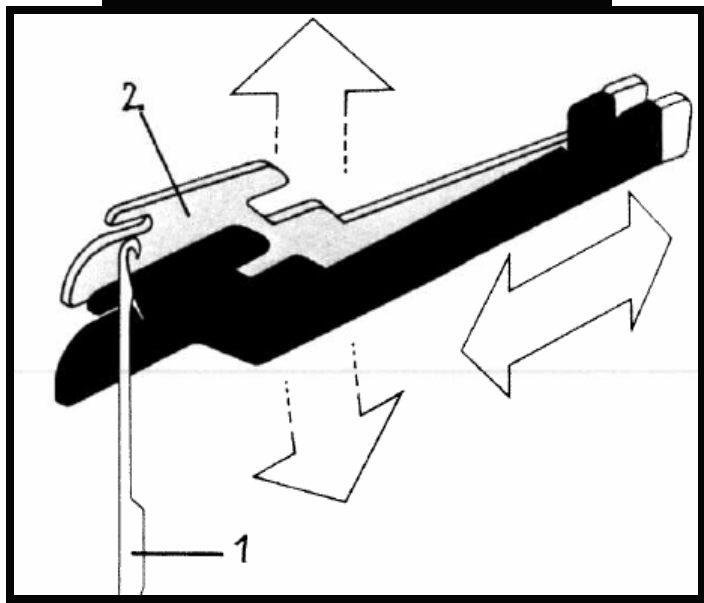
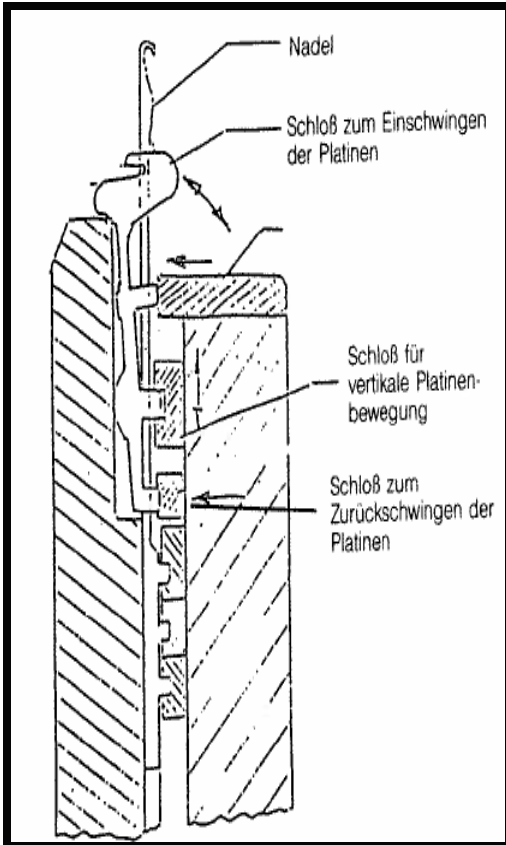
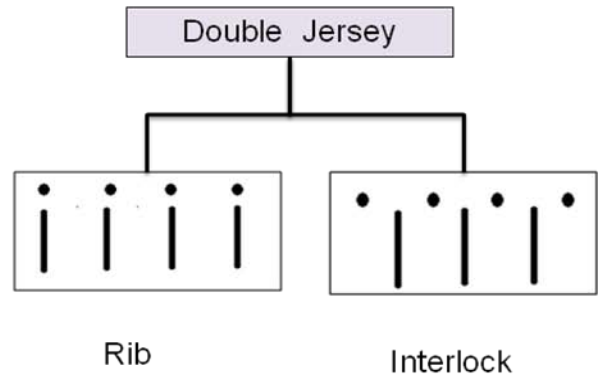
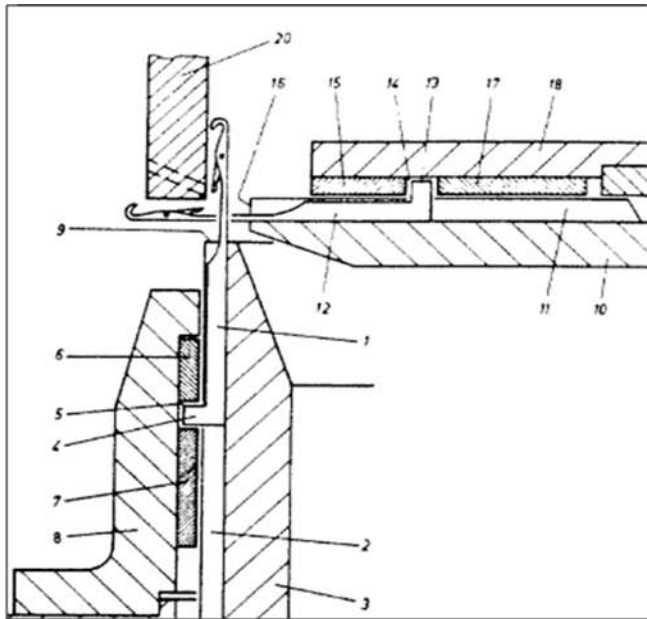
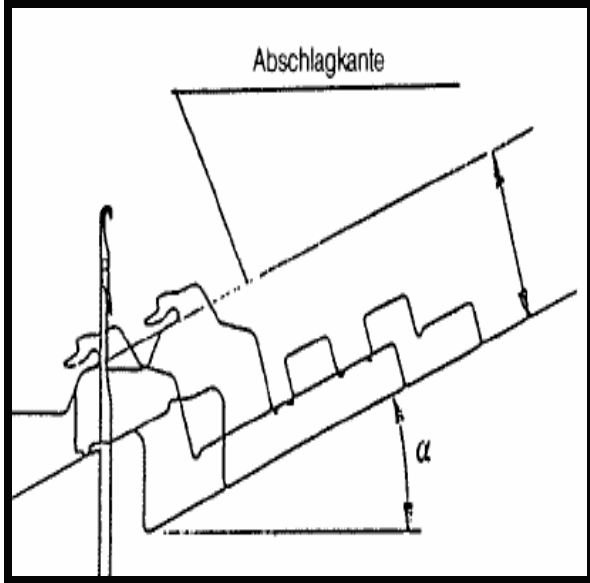


Fig. 22.3 Model of weft-knitted loop formation indicating the mechanism of 'robbing-back' and the build-up in yarn tensions acting on the needles.

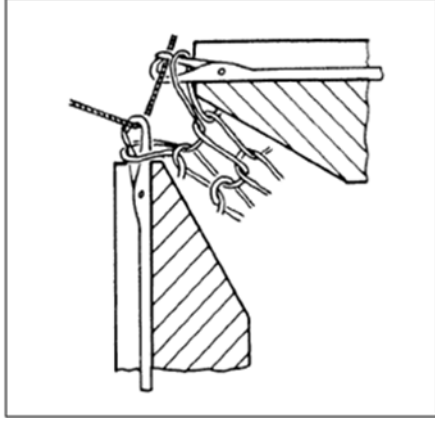




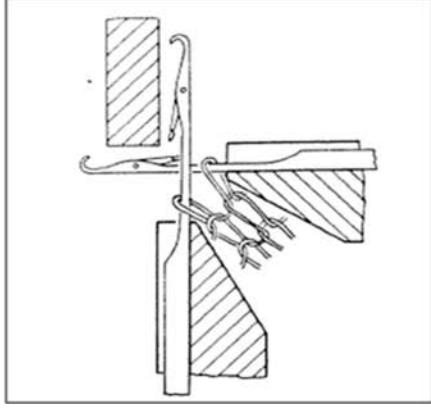


عناصر بافت
 بستر سوزن صفحه و سوزنهای صفحه
 بستر سوزن سیلندر و سوزنهای سیلندر
 نخیر
 بادامکهای صفحه و سیلندر

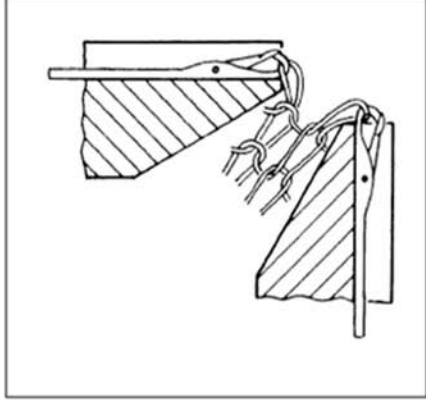
مرحله رها سازی حلقه



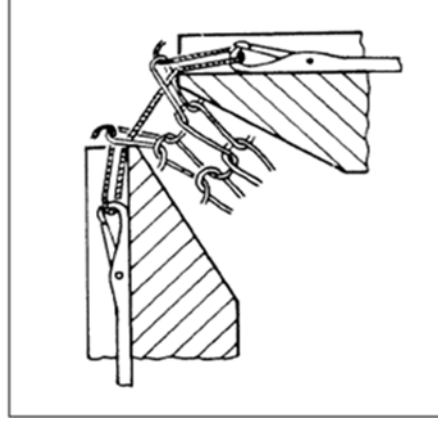
مرحله وضوح صفحه



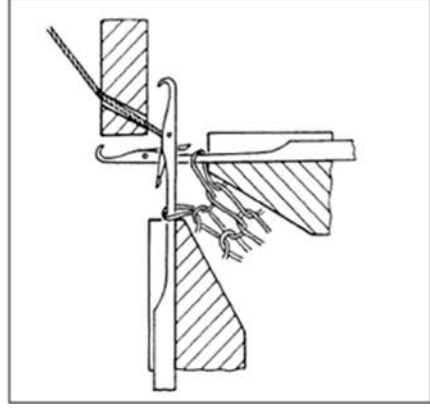
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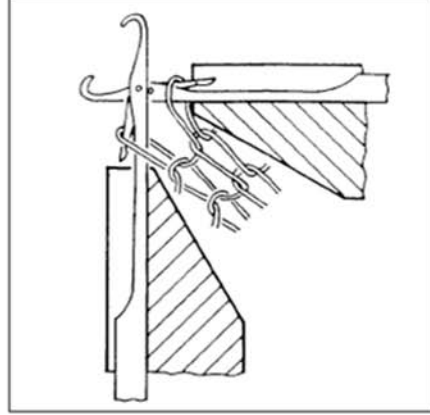
مرحله تعیین طول حلقه



مرحله تغذیه نخ



مرحله نیمیافت



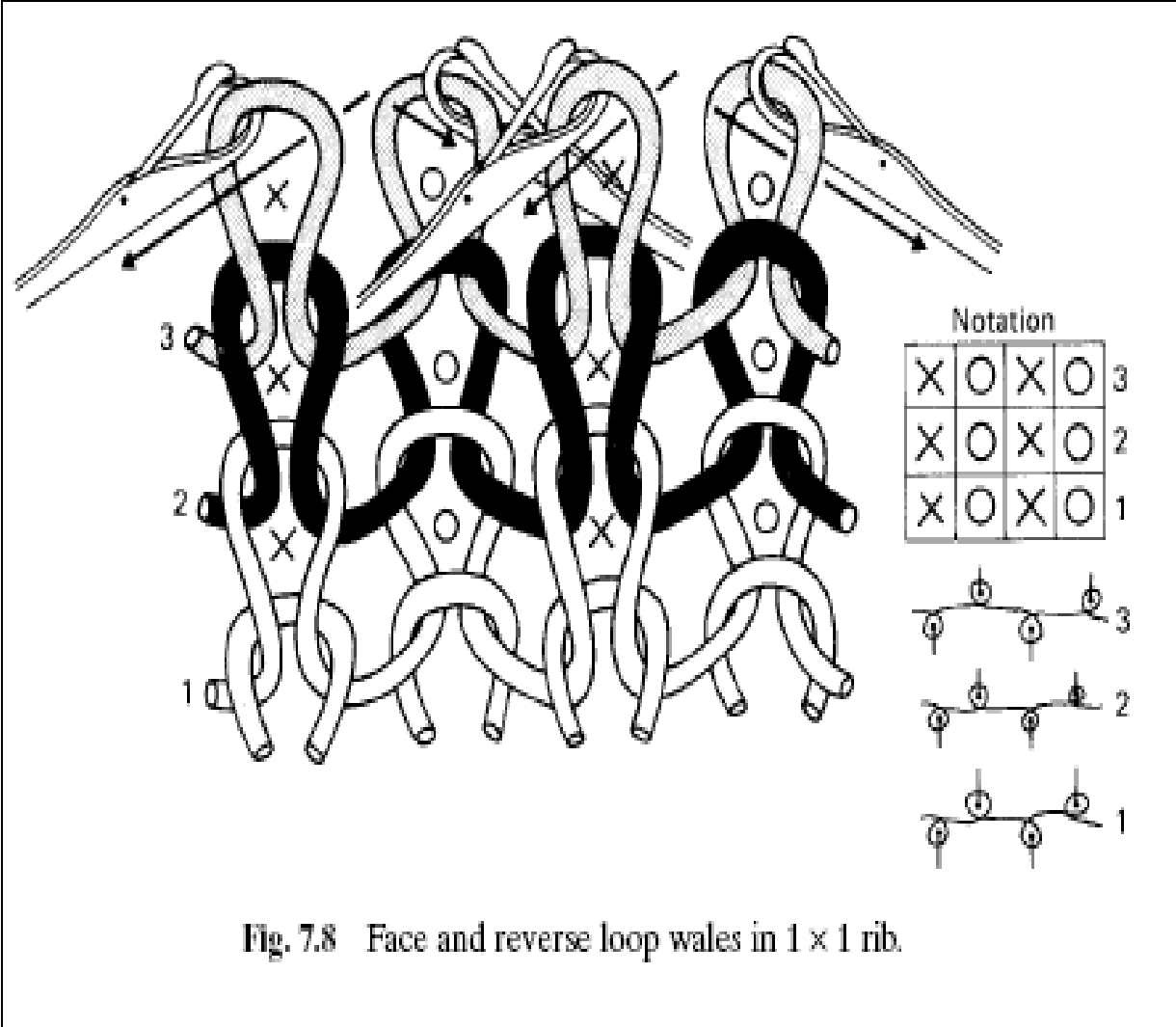
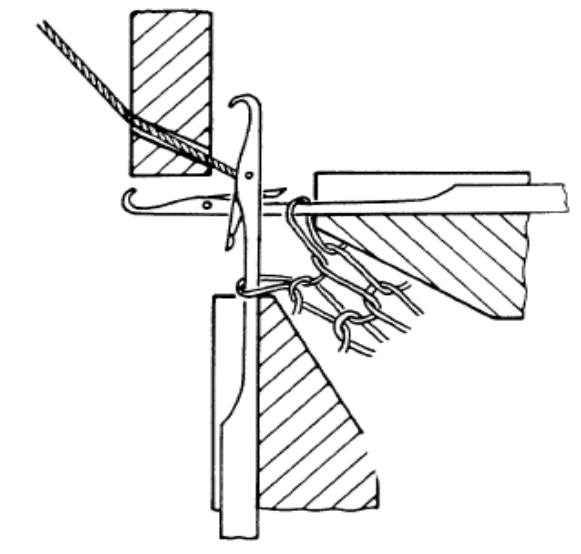
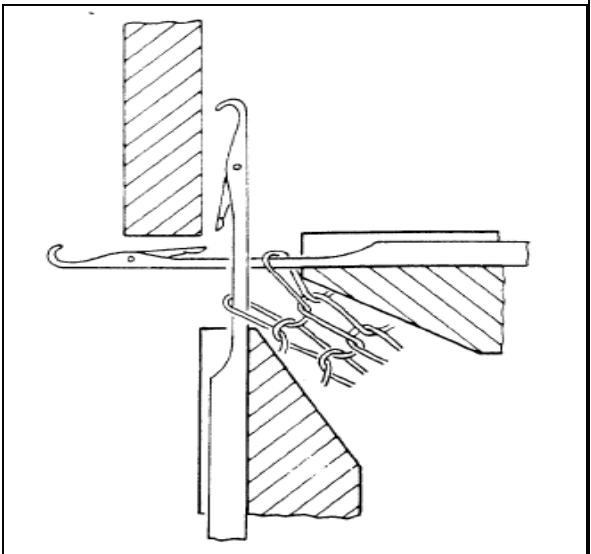
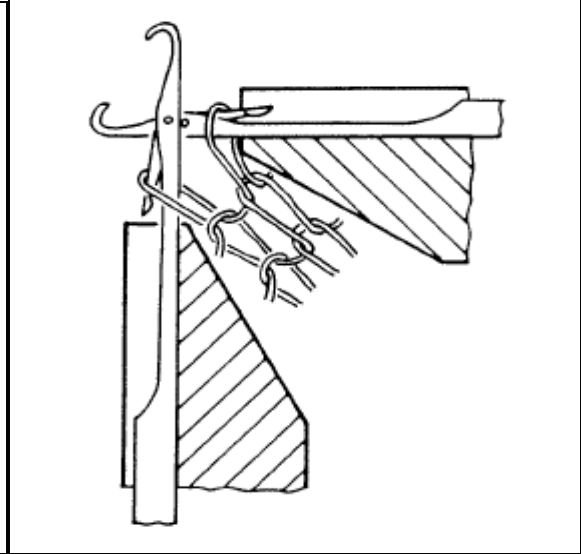
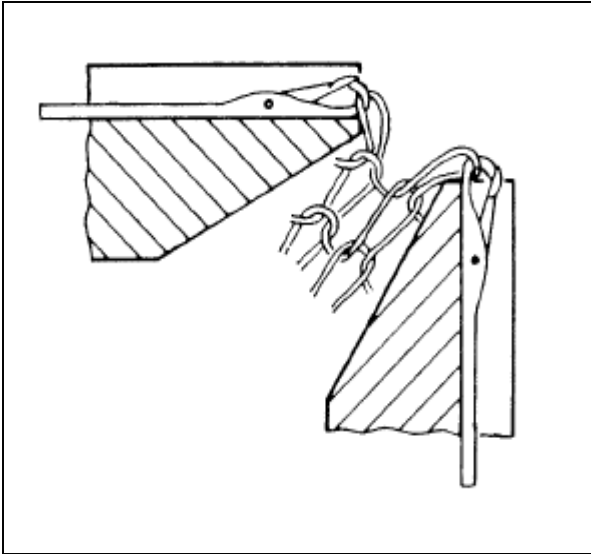
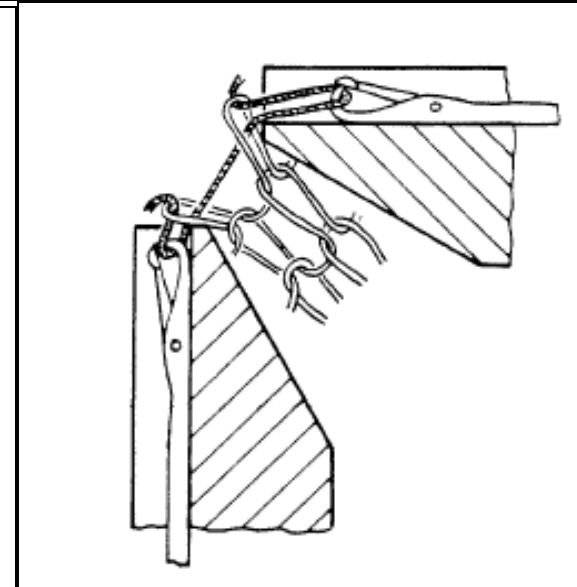
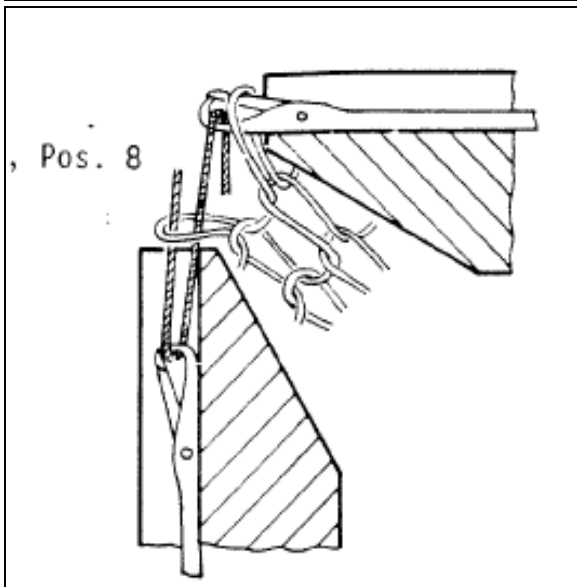
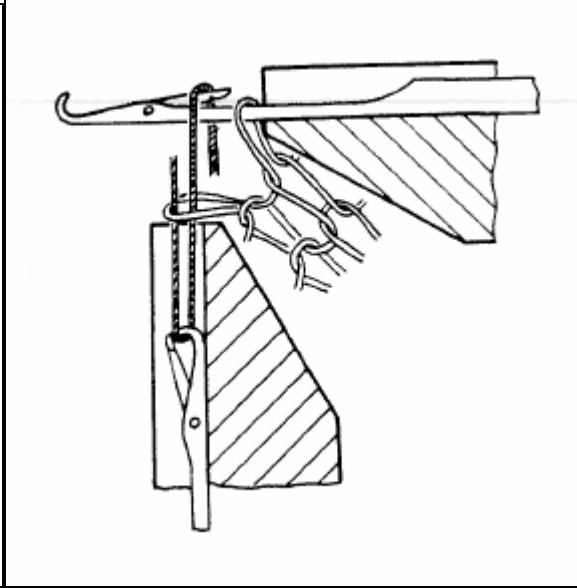
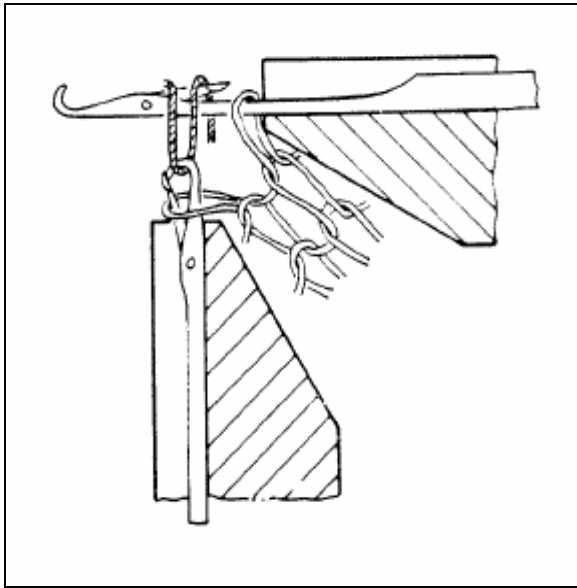
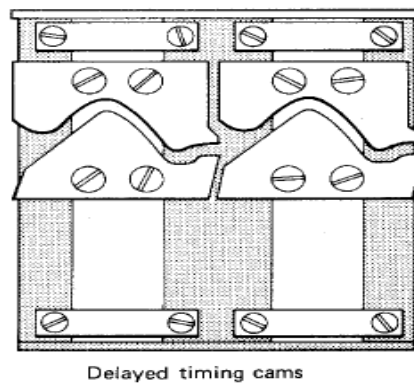
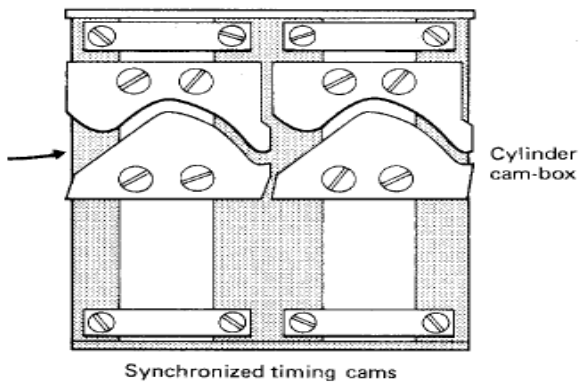
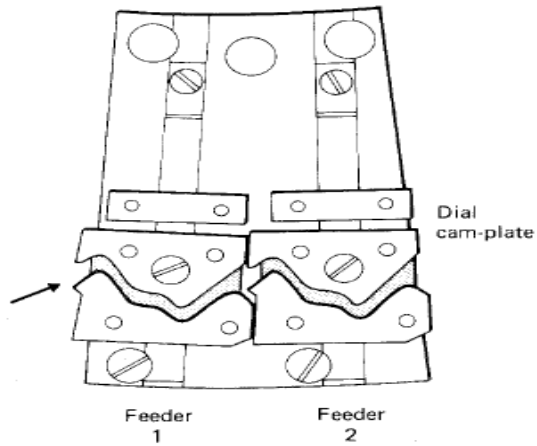


Fig. 7.8 Face and reverse loop wales in 1 x 1 rib.







Interlock Gating

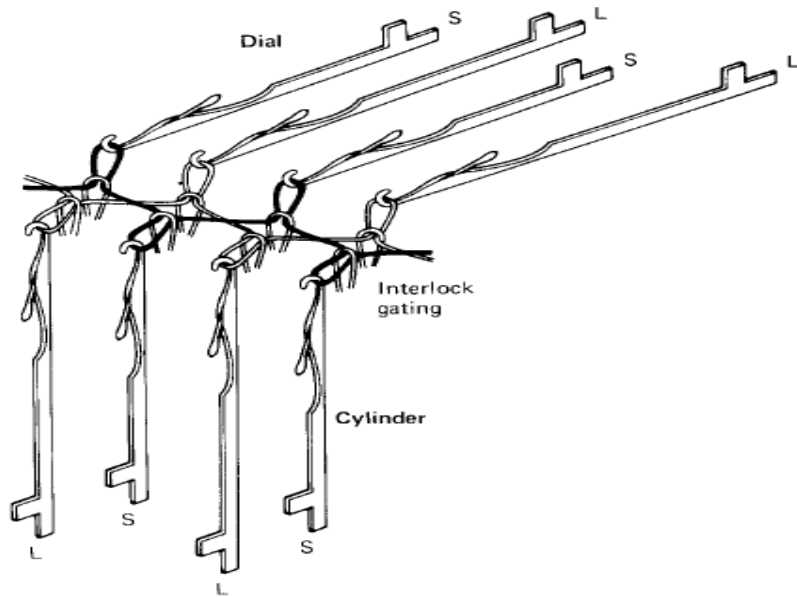


Fig. 7.15 Knitting interlock.

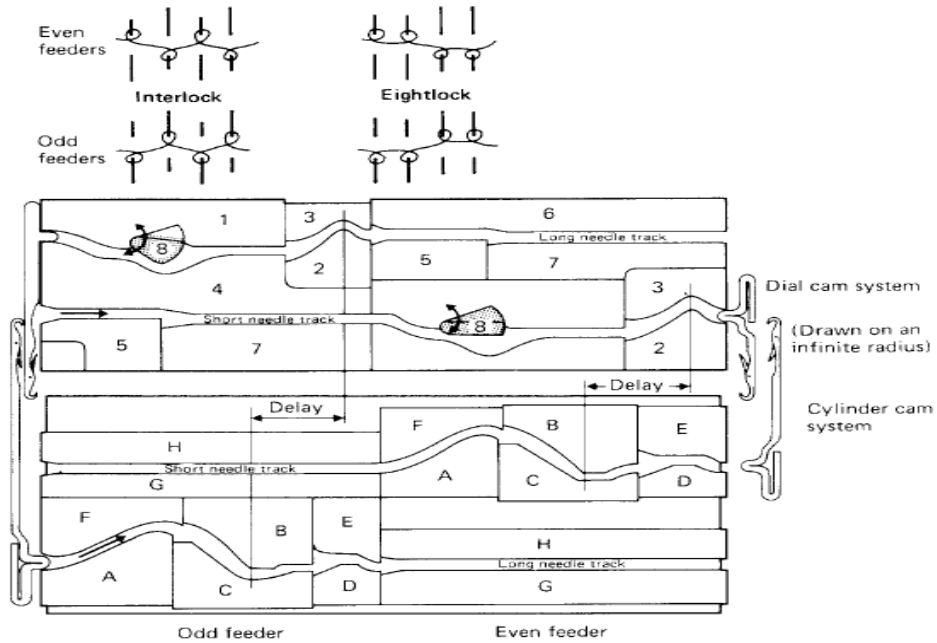


Fig. 7.16 Interlock cam system.

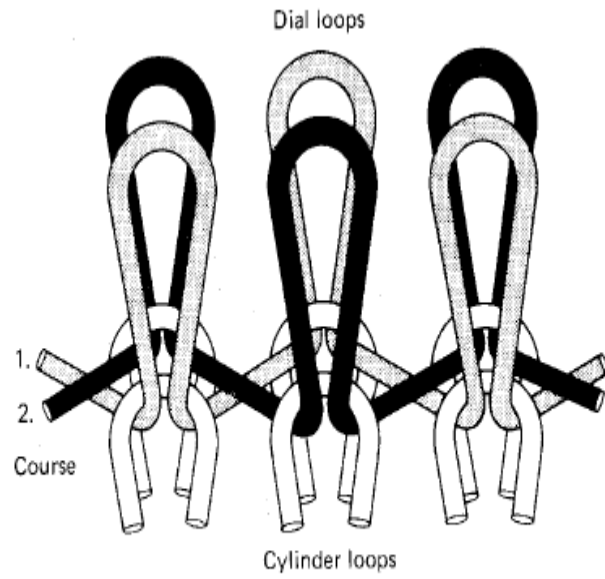
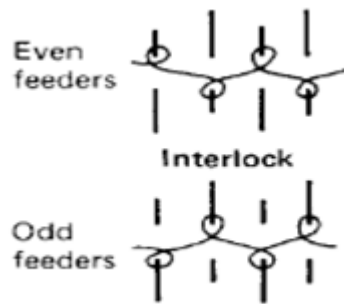
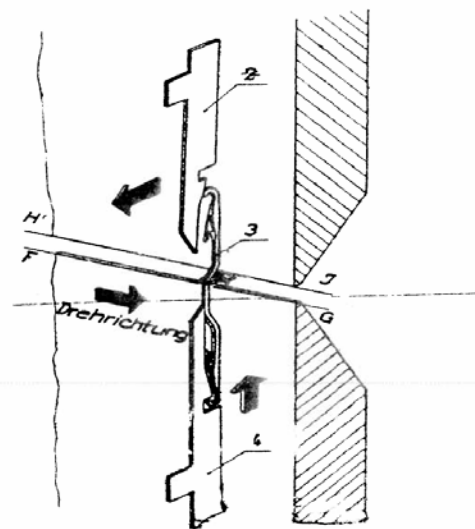
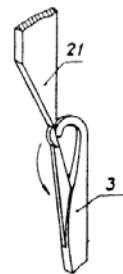
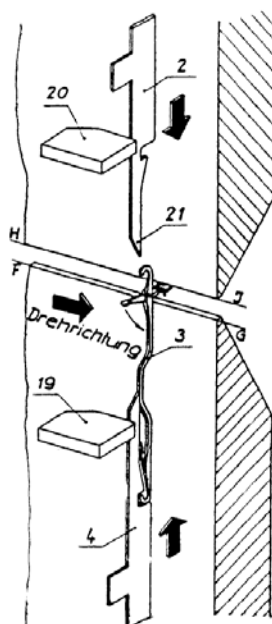
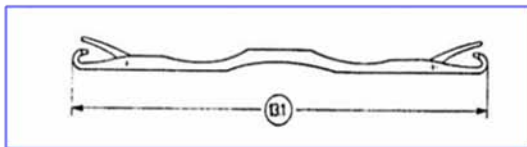
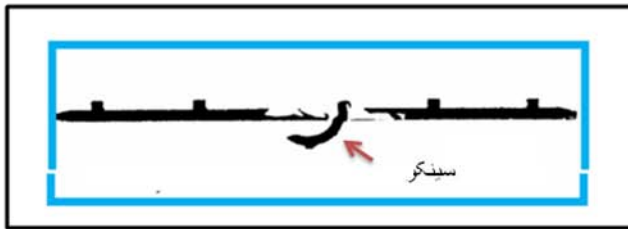
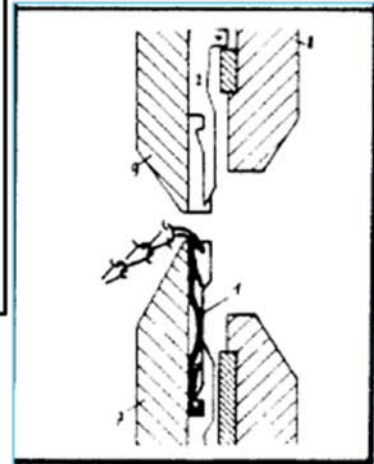
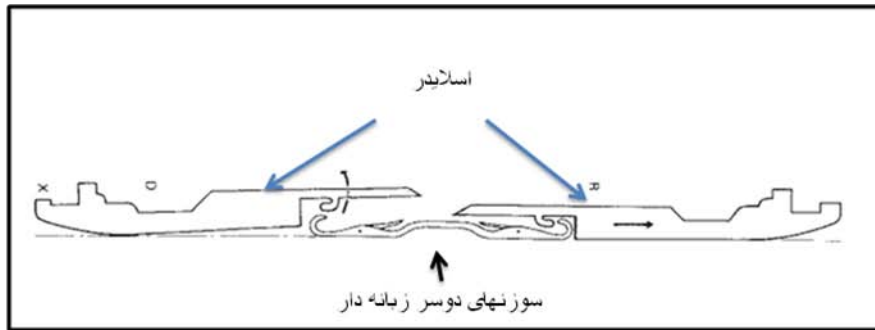
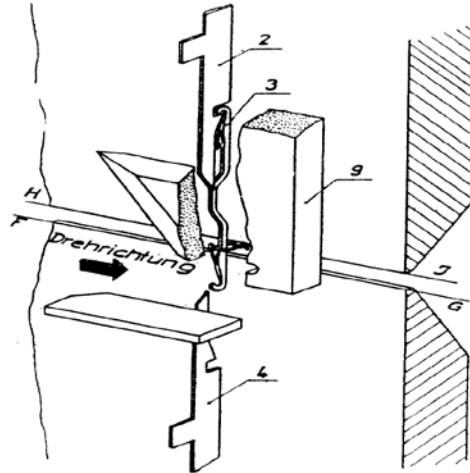
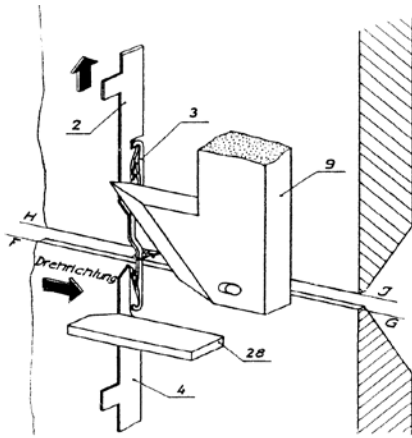
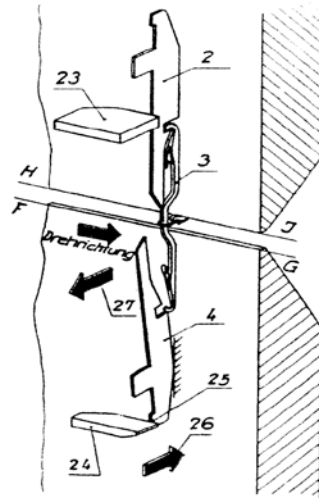
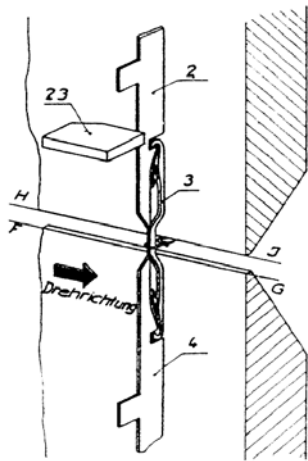


Fig. 7.14 Interlock fabric structure.







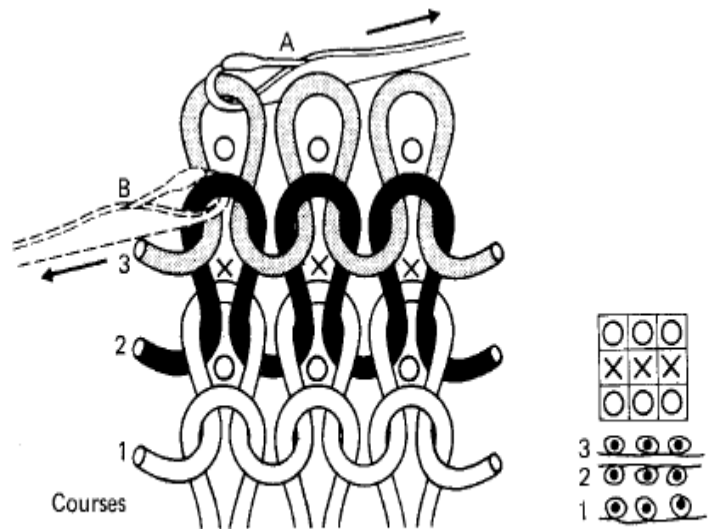
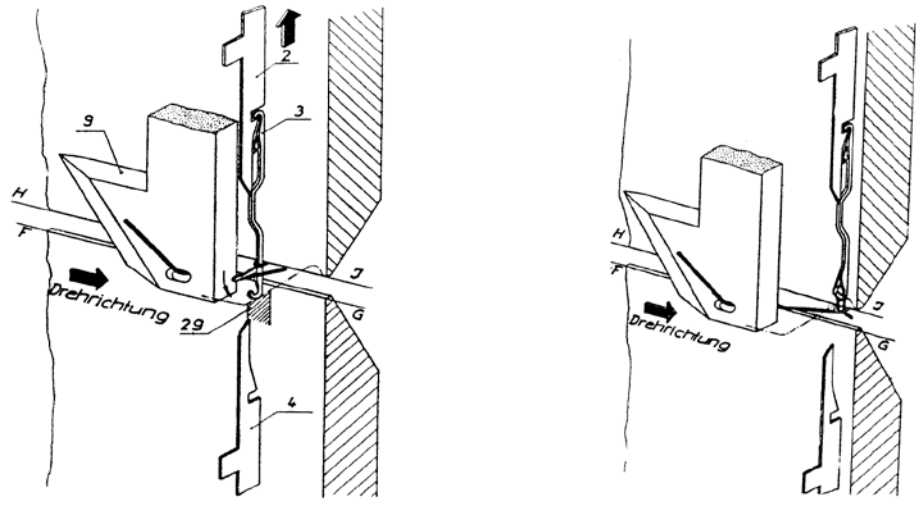


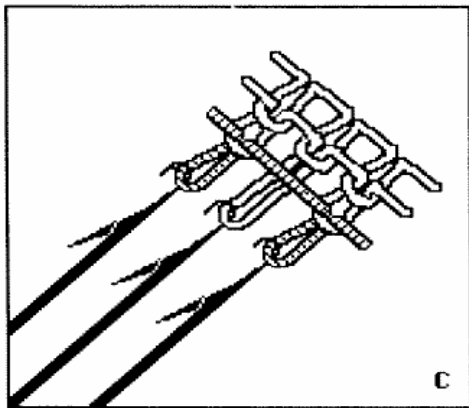
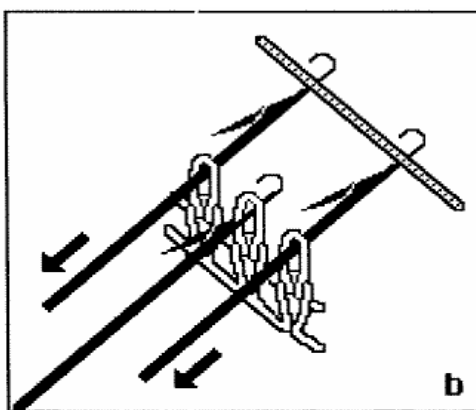
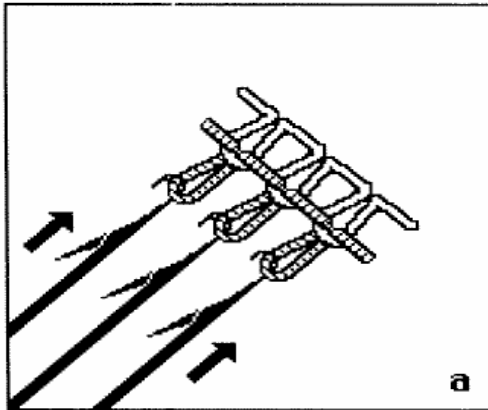
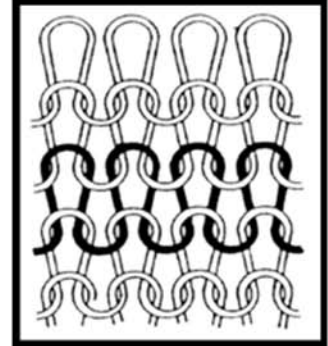
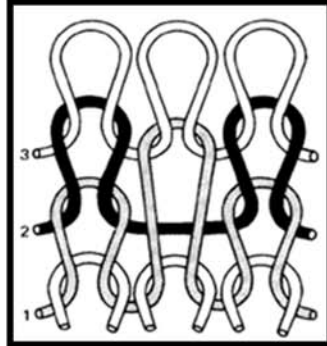
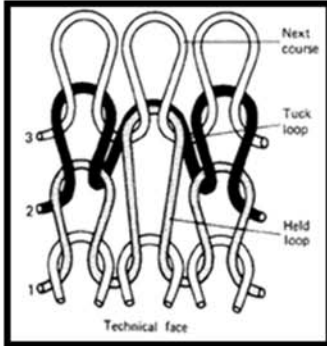
Fig. 7.18 Purl fabric structure.

انواع حلقه

حلقه نیمبافت

حلقه نبافت

حلقه بافت



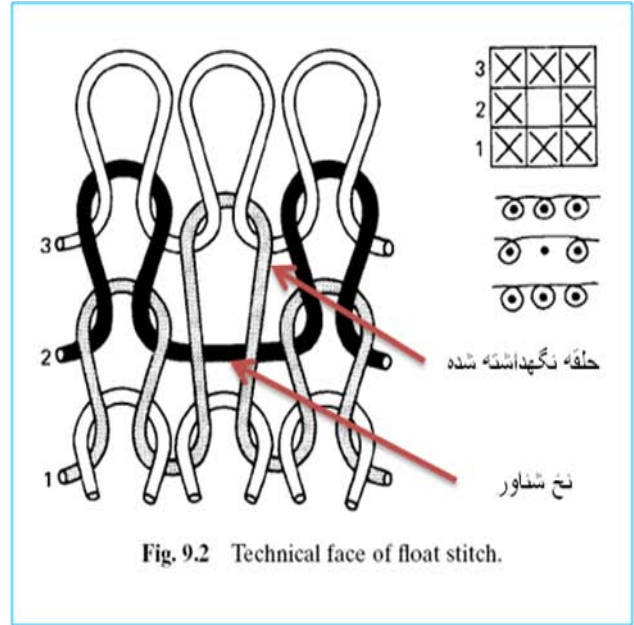
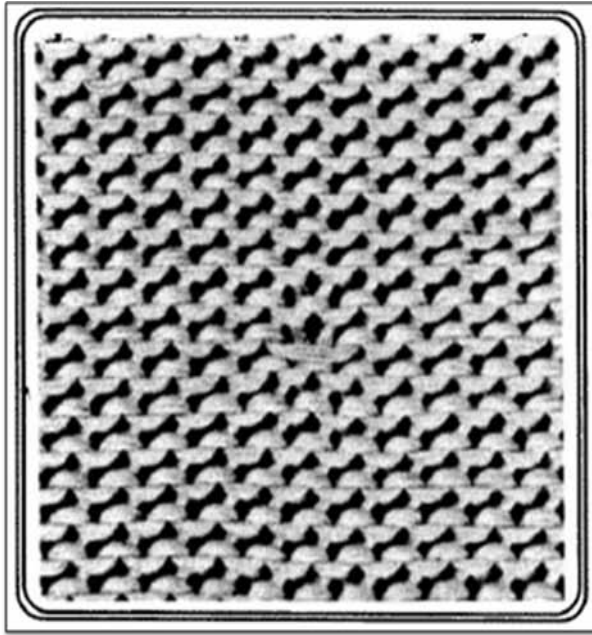
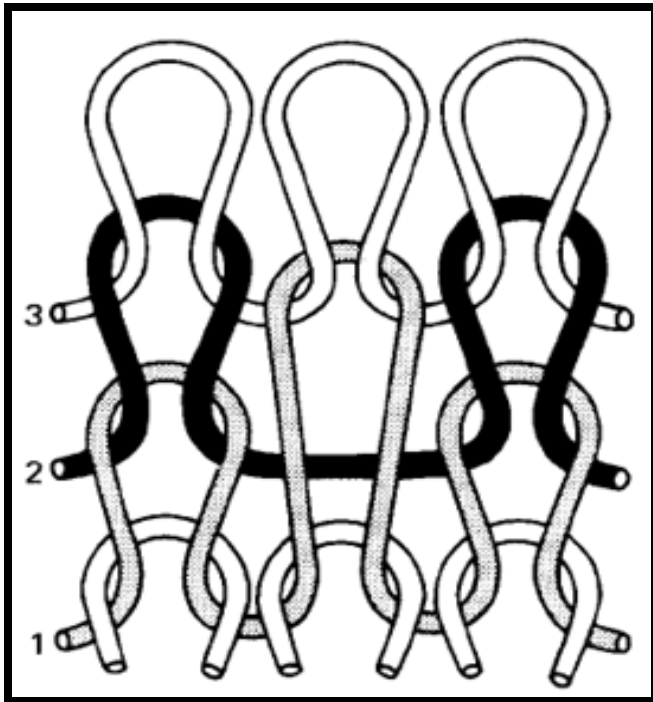
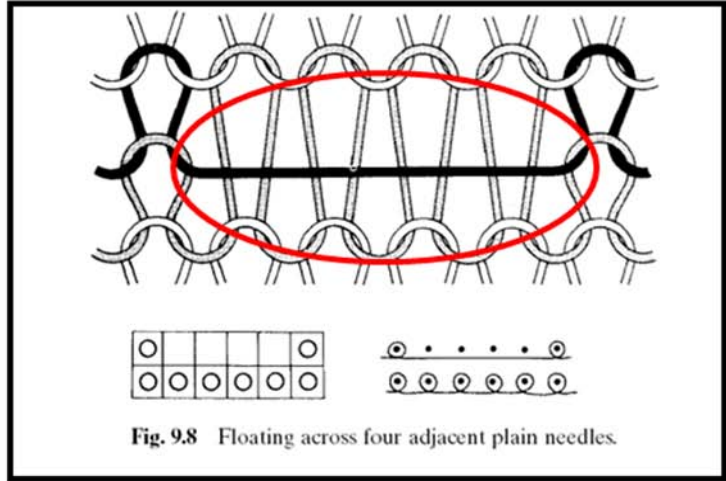
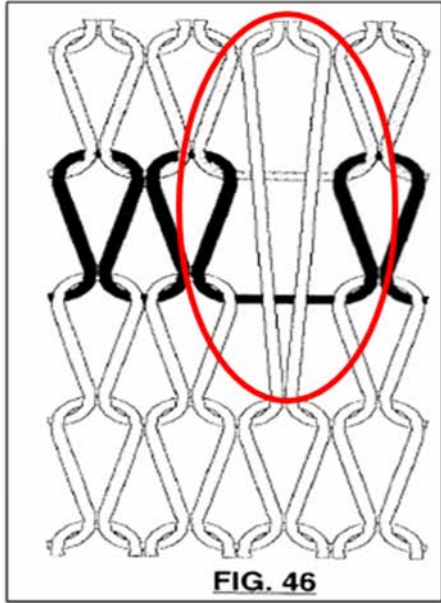


Fig. 9.2 Technical face of float stitch.





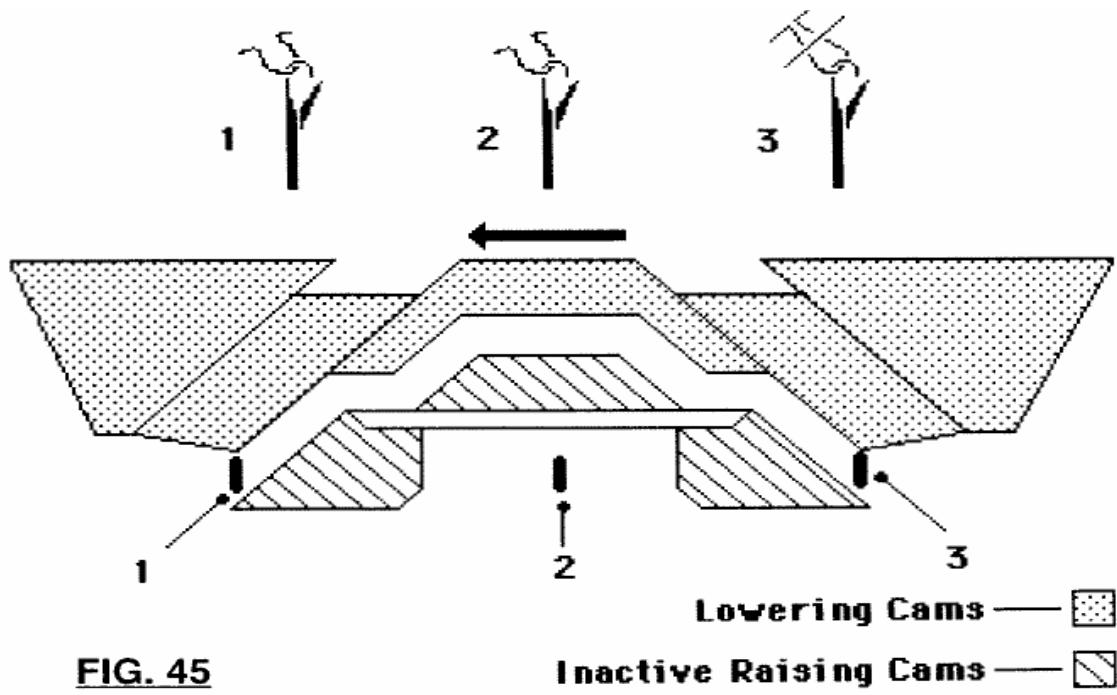
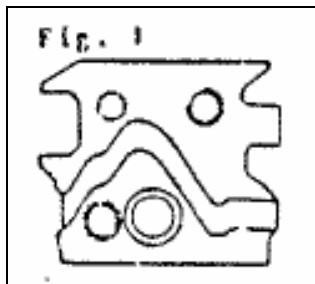
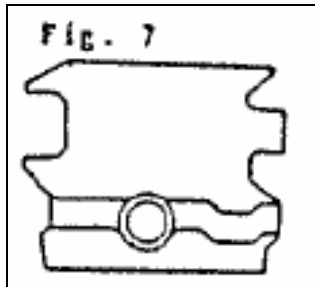
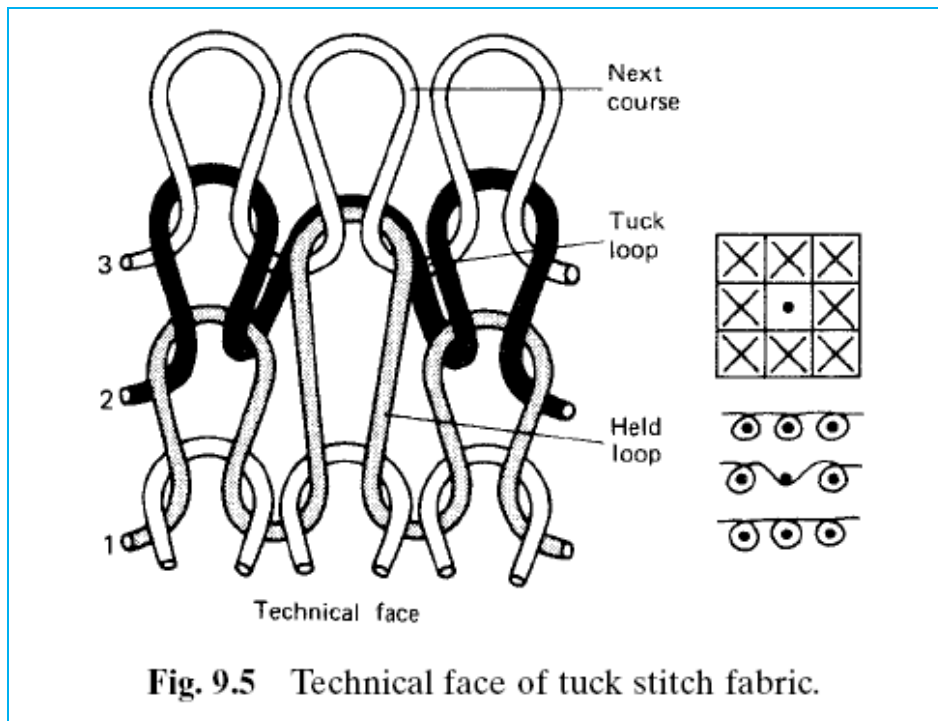
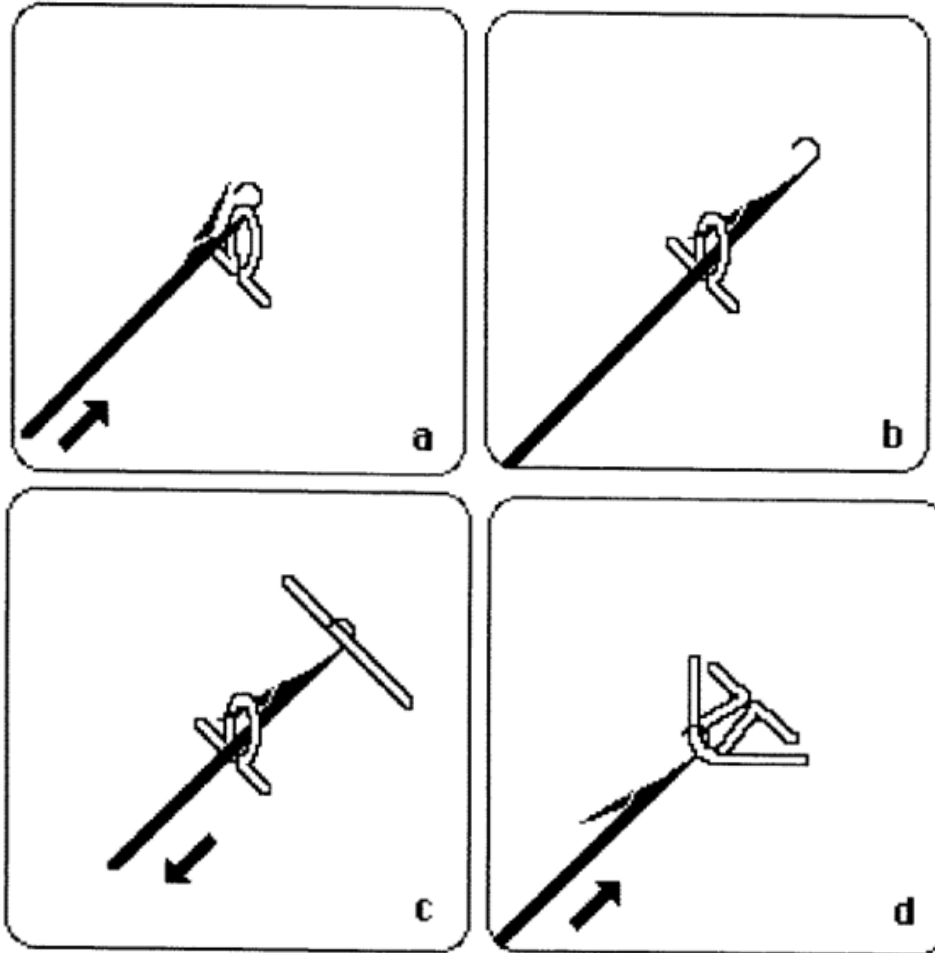


FIG. 45





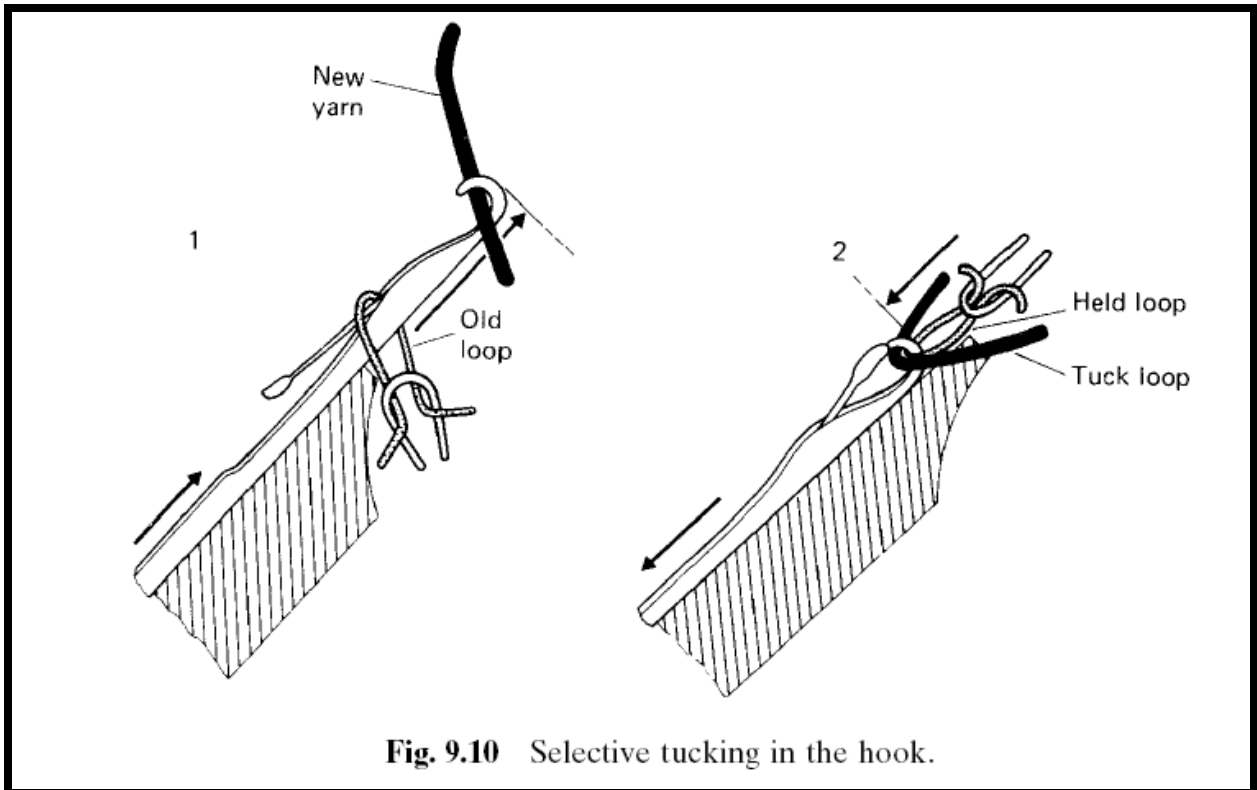
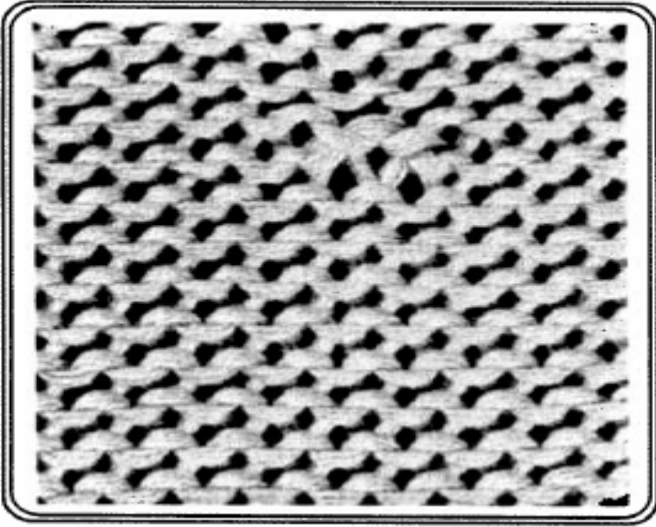
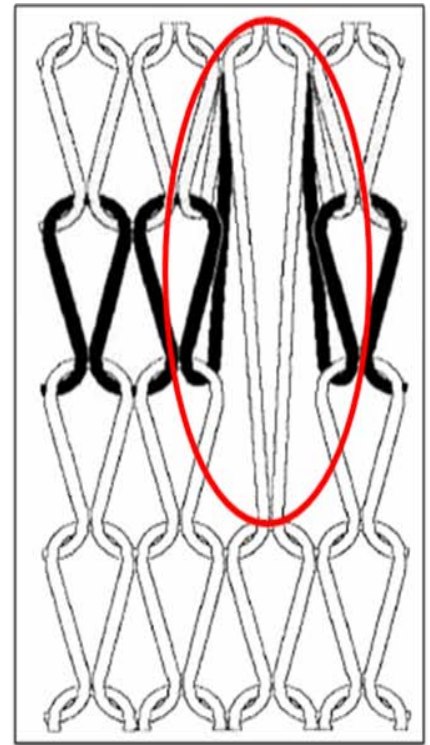
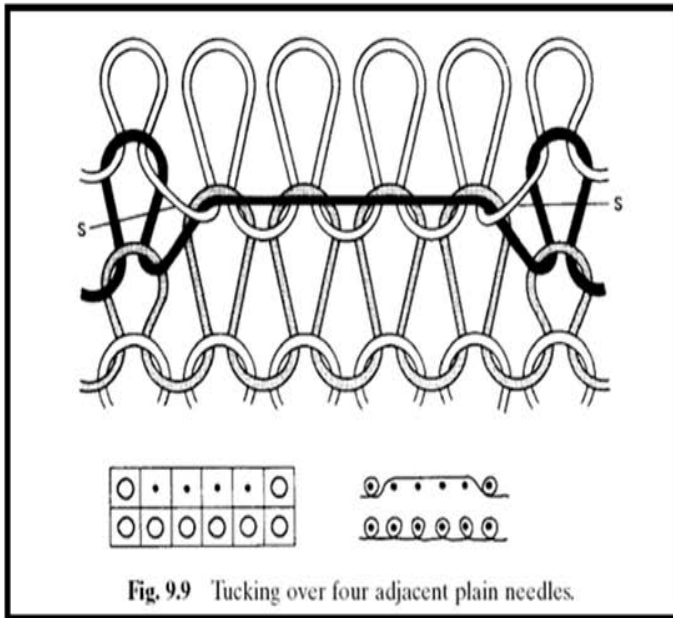
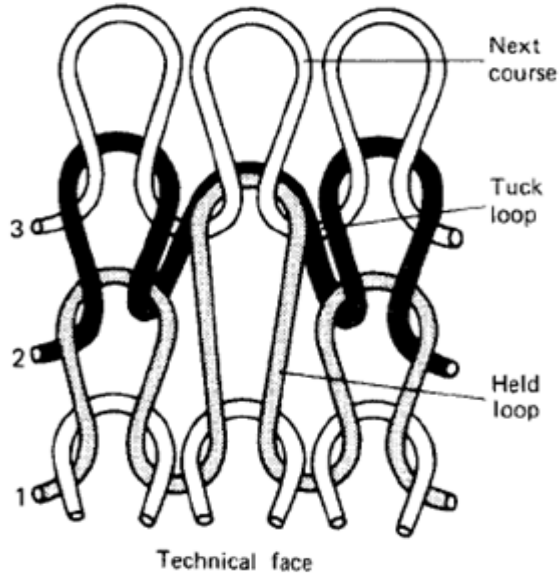
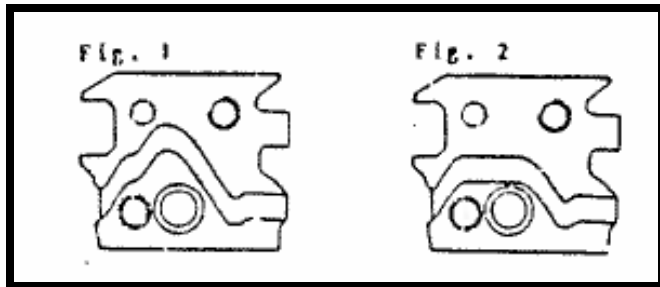
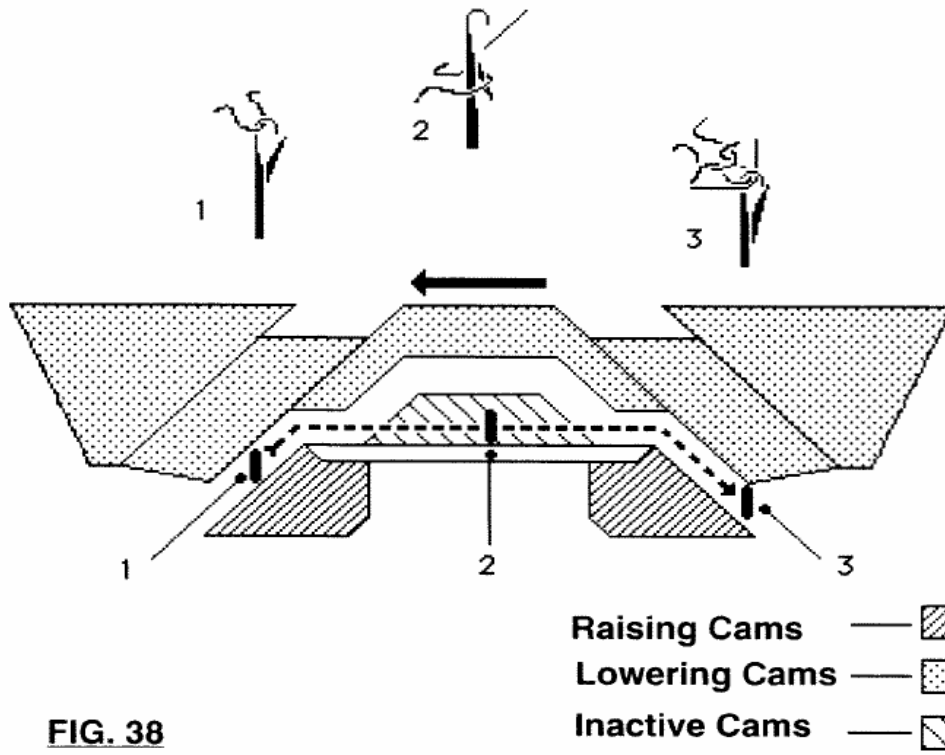


Fig. 9.10 Selective tucking in the hook.





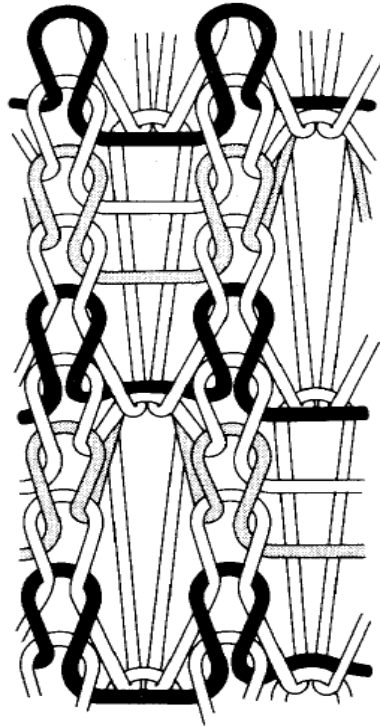
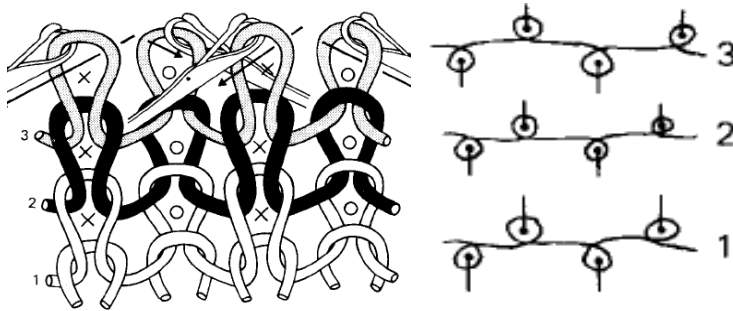




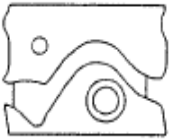



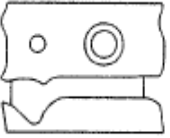


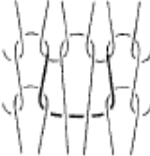


Fig. 9.7 Successive tucks and floats on the same rib needle.

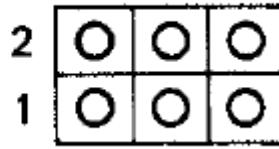


Notation

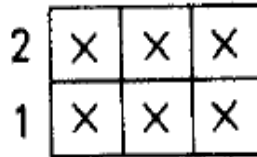
X	O	X	O	3
X	O	X	O	2
X	O	X	O	1

Wechsel- schloßteil	Symbol/ Strickkurve	Fadenlauf	Bindungs- element	Nadelstellung
ZA 				Stricken
ZB 				Fang (Futter)
ZC 				Rundlauf

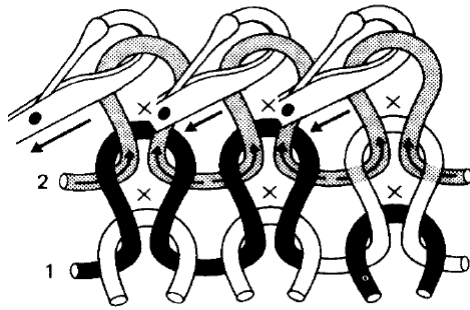
Notation



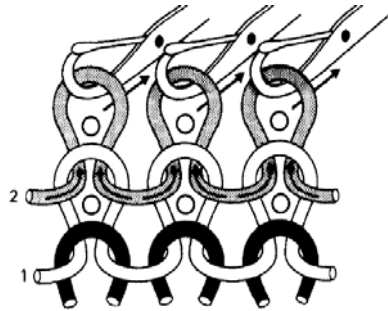
Feeder or course



Notation

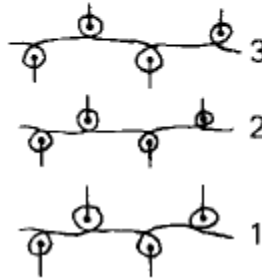
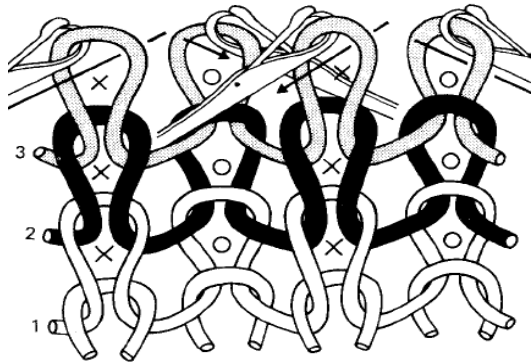
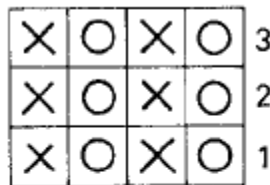


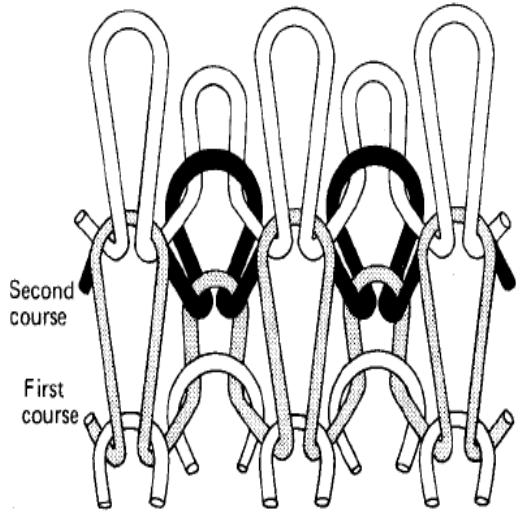
The technical face of plain



The technical back of plain

Notation





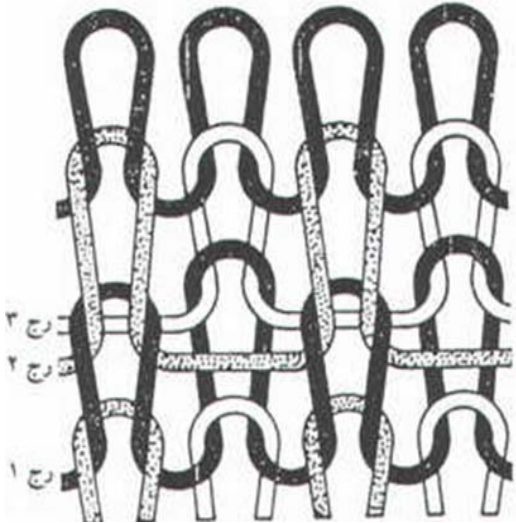
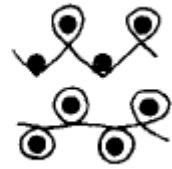
Second course

First course

Second course

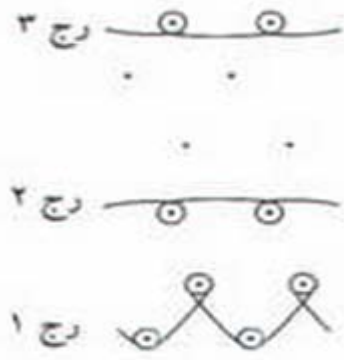
First course

●	○
×	○

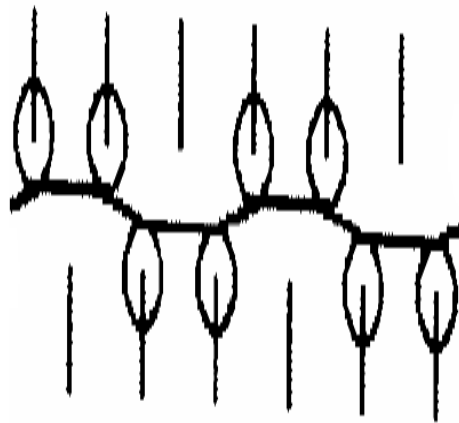
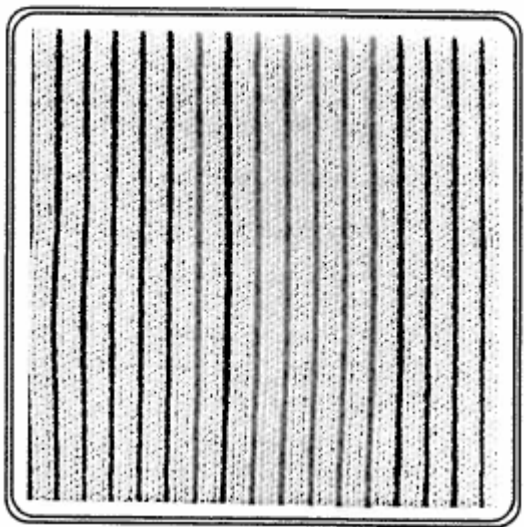
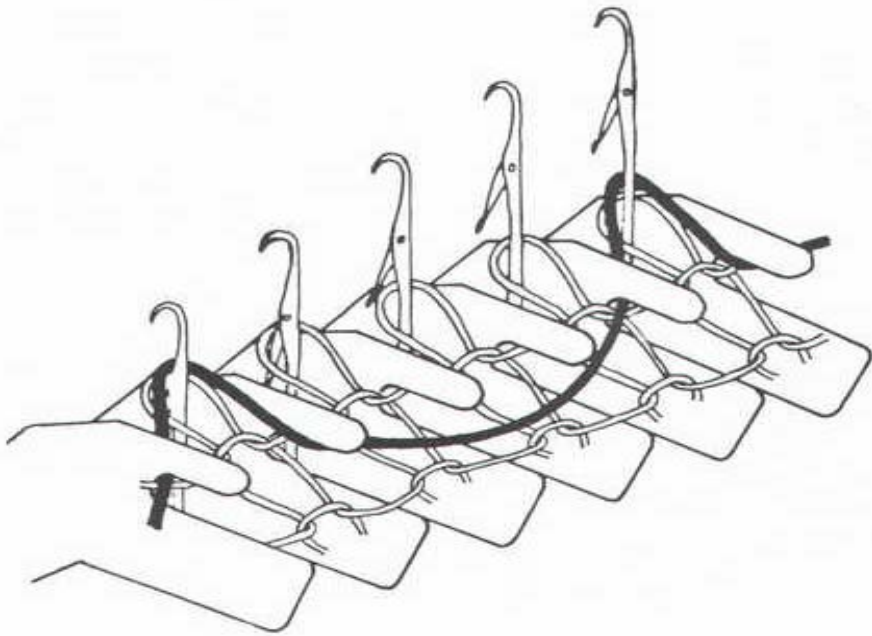


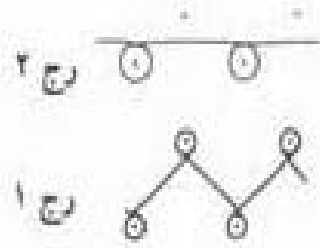
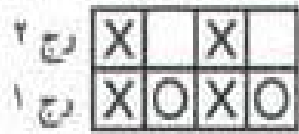
1
2
3
4

1
2
3
4

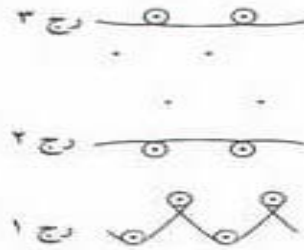
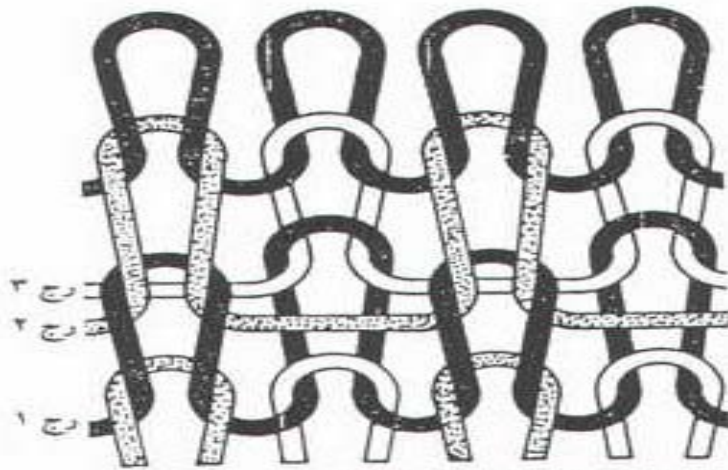


	○		○
×		×	
×	○	×	○





شکل (۱۰-۲۴) ساختمان بافت هاف میلانو



شکل (۱۰-۲۵) - ساختمان بافت فول میلانو

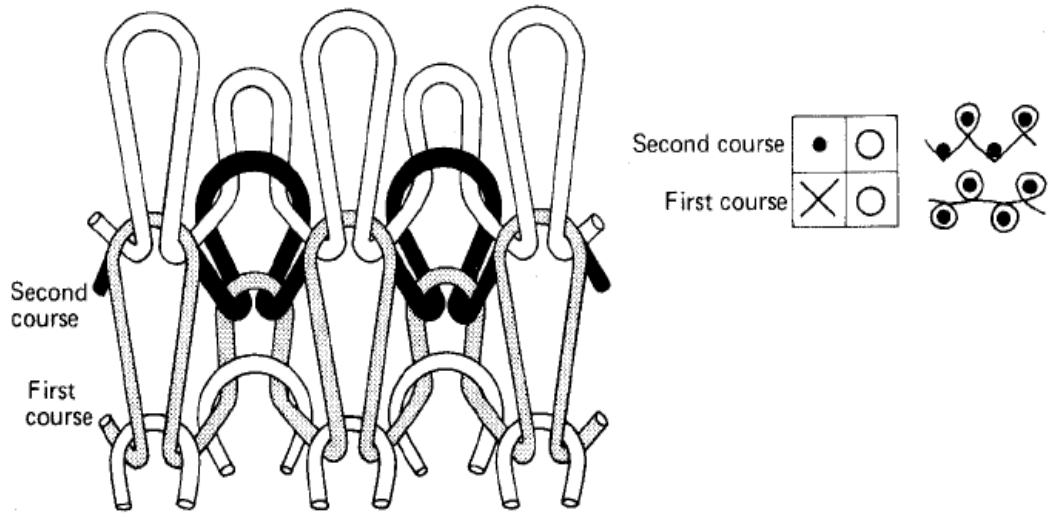


Fig. 18.5 Half-cardigan loop structure.

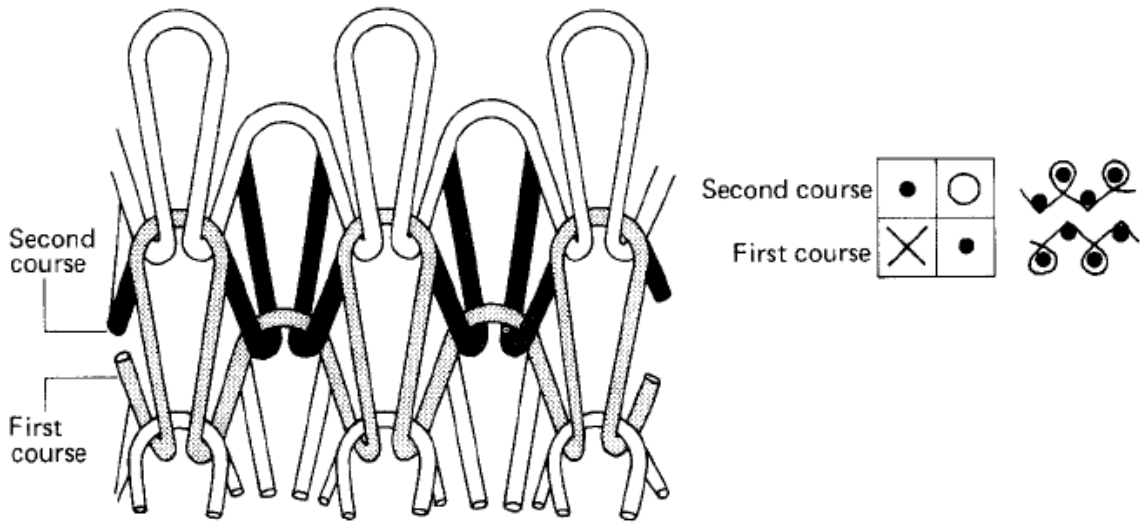
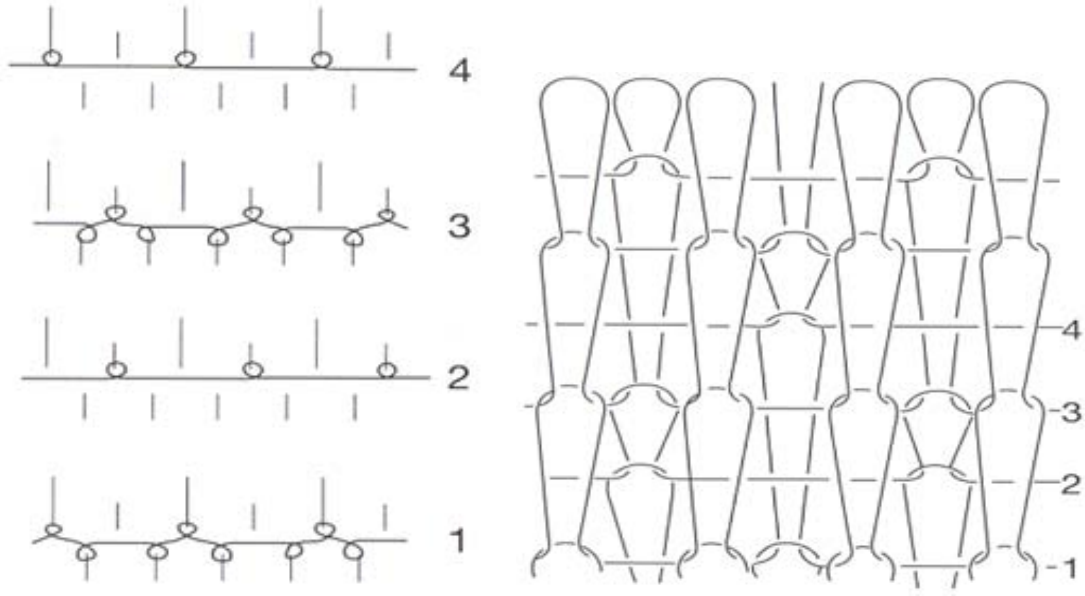
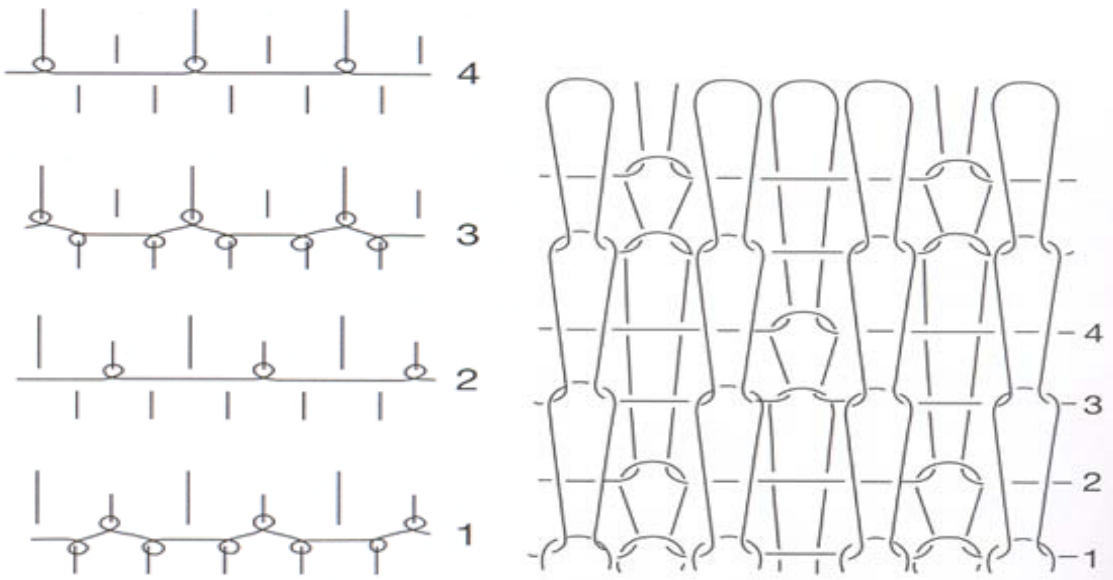


Fig. 18.6 Full cardigan.



French Double Pique



Swiss Double Pique

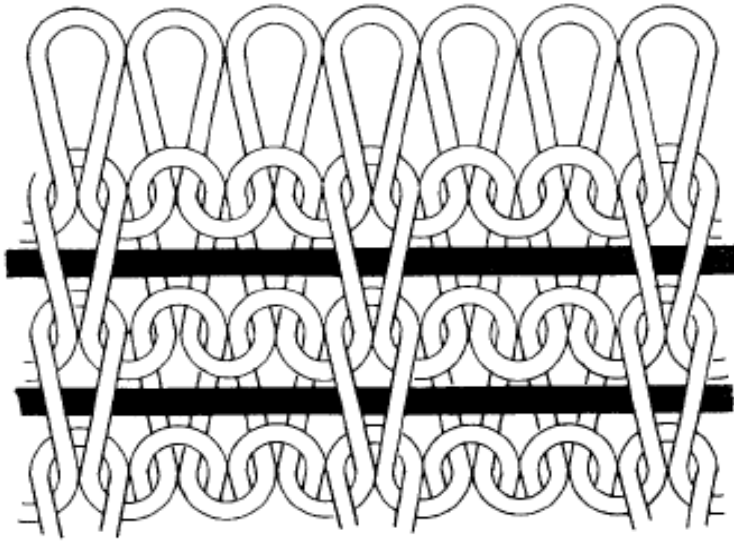
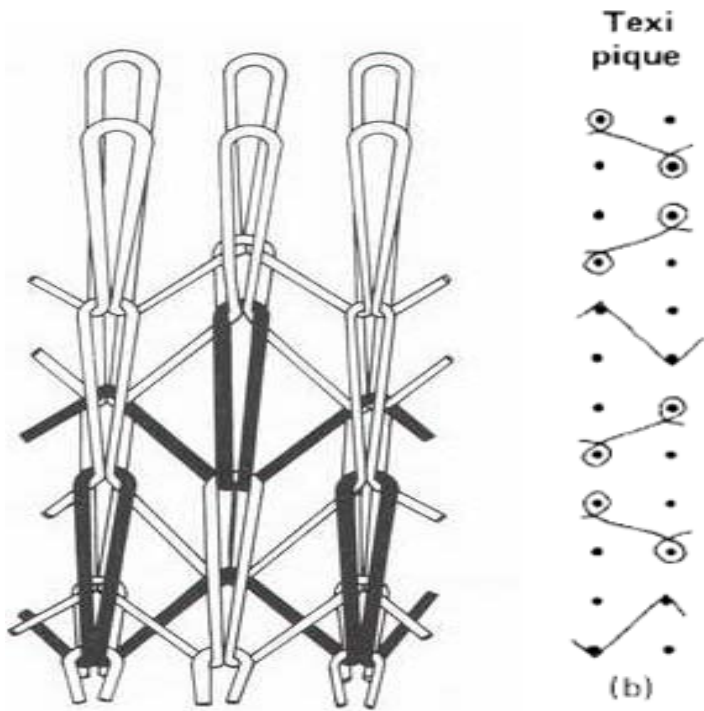
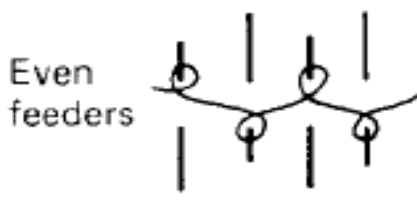
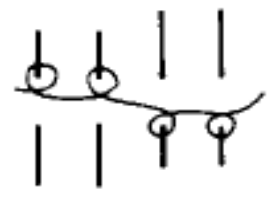


Fig. 13.10 Tunnel inlay.

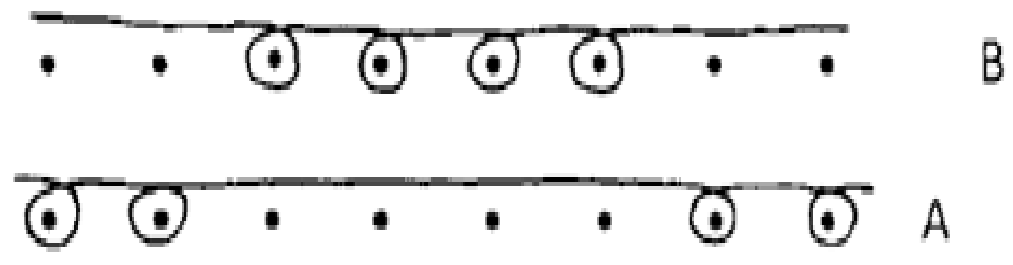
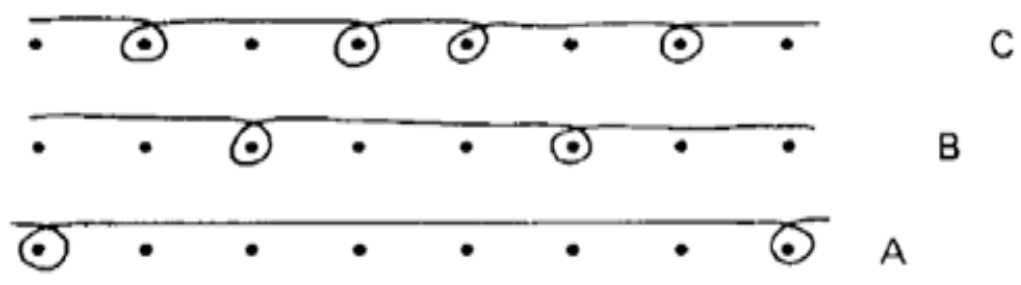
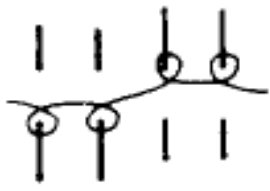
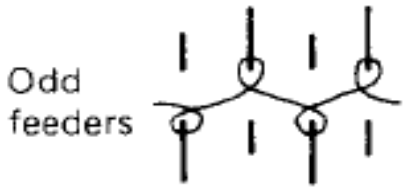


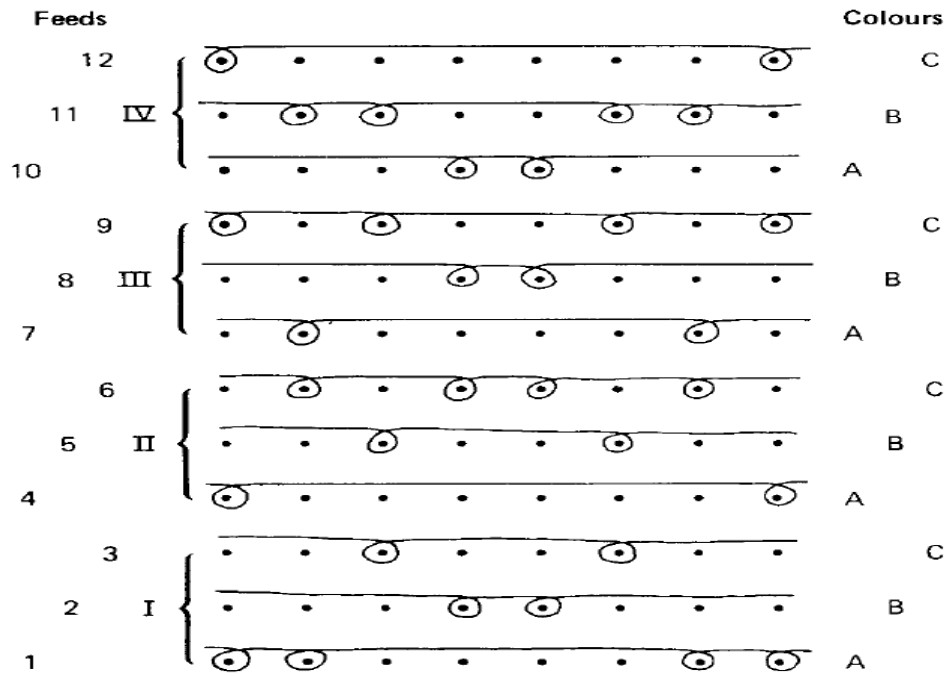


Interlock

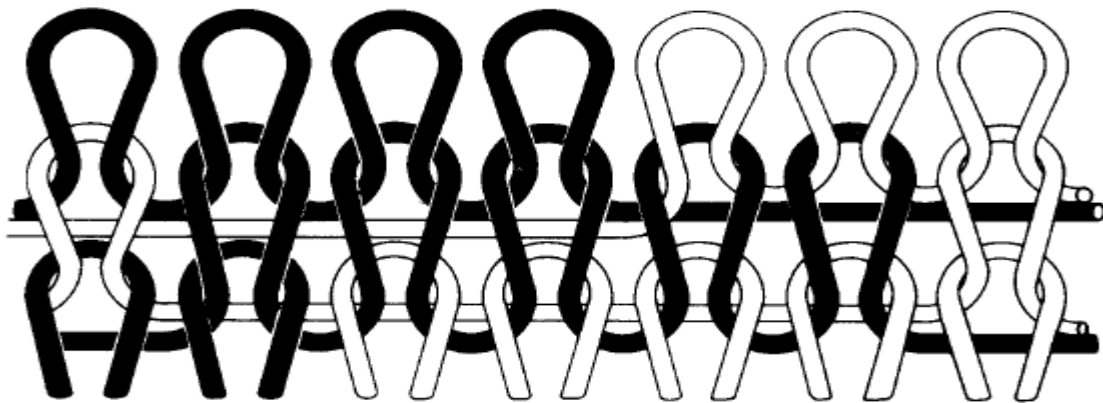


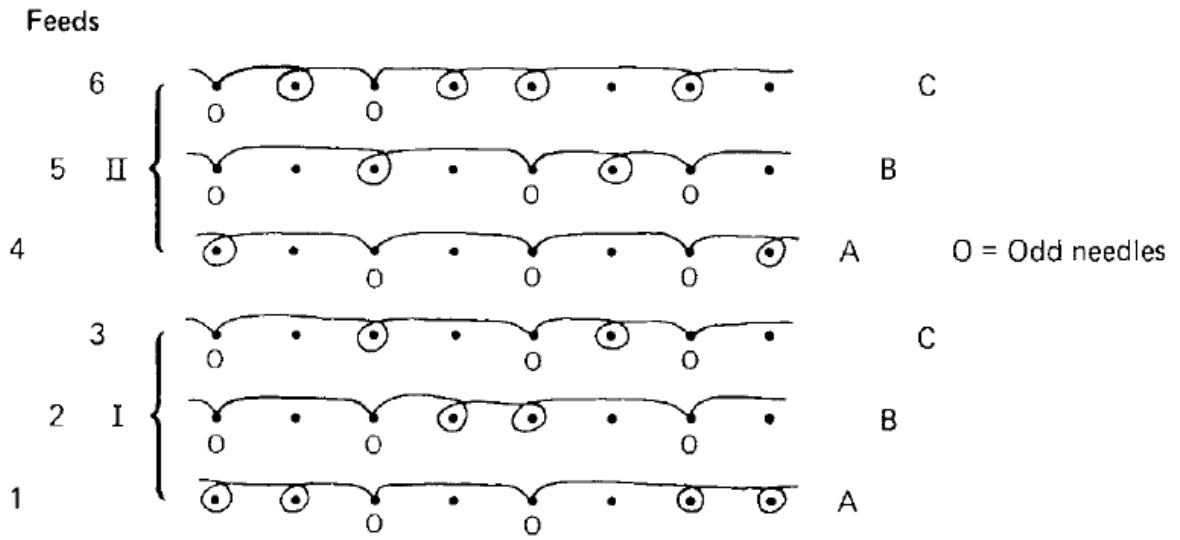
Eightlock



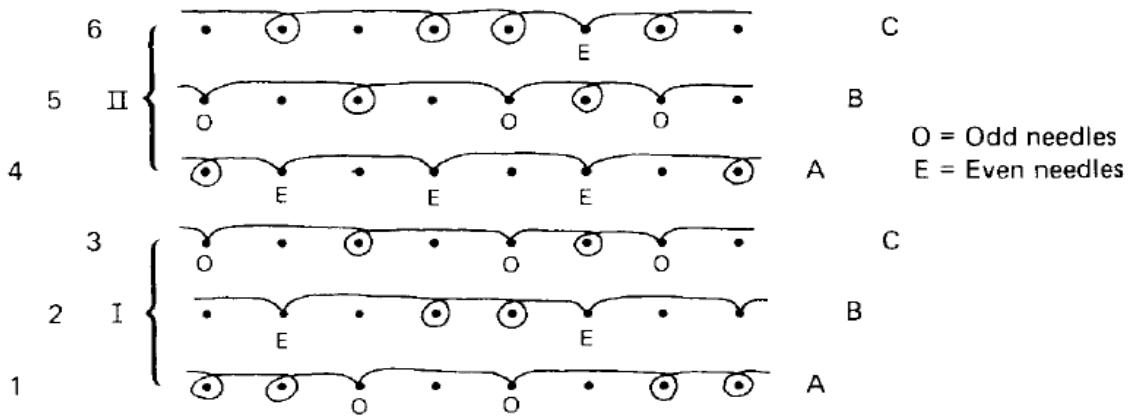


(a) Single jersey knit/ miss Jacquard

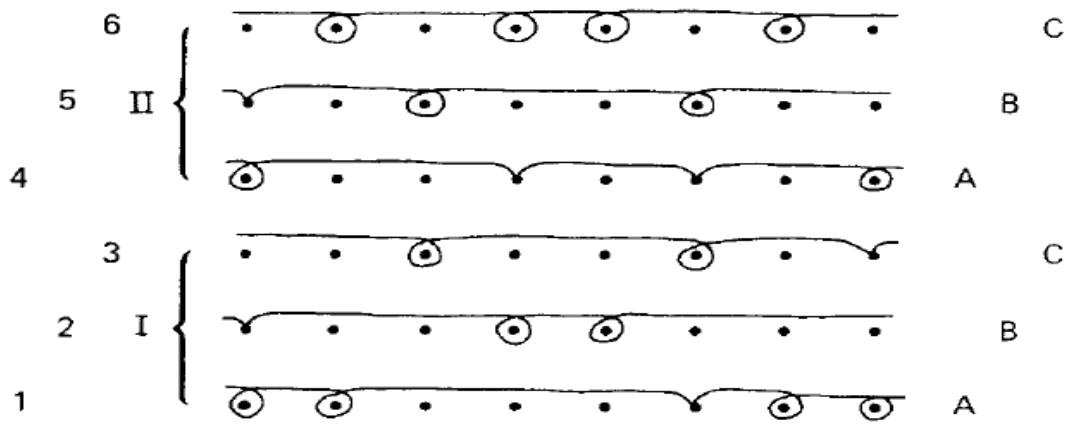




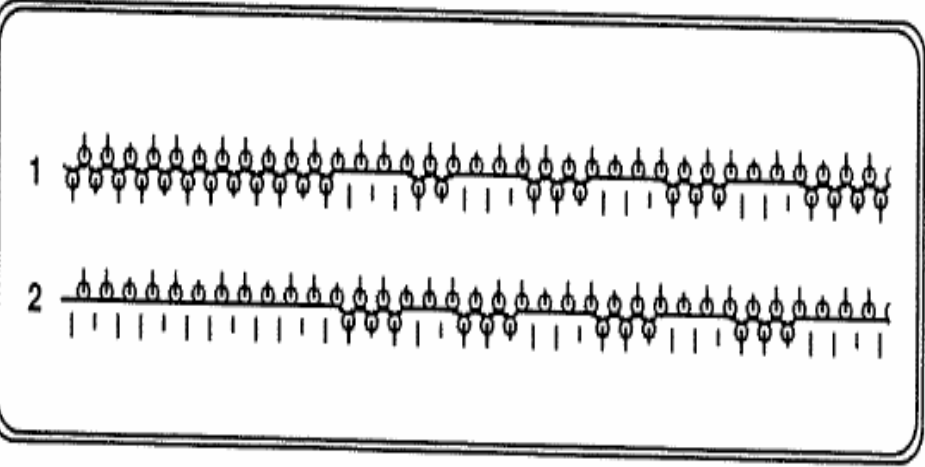
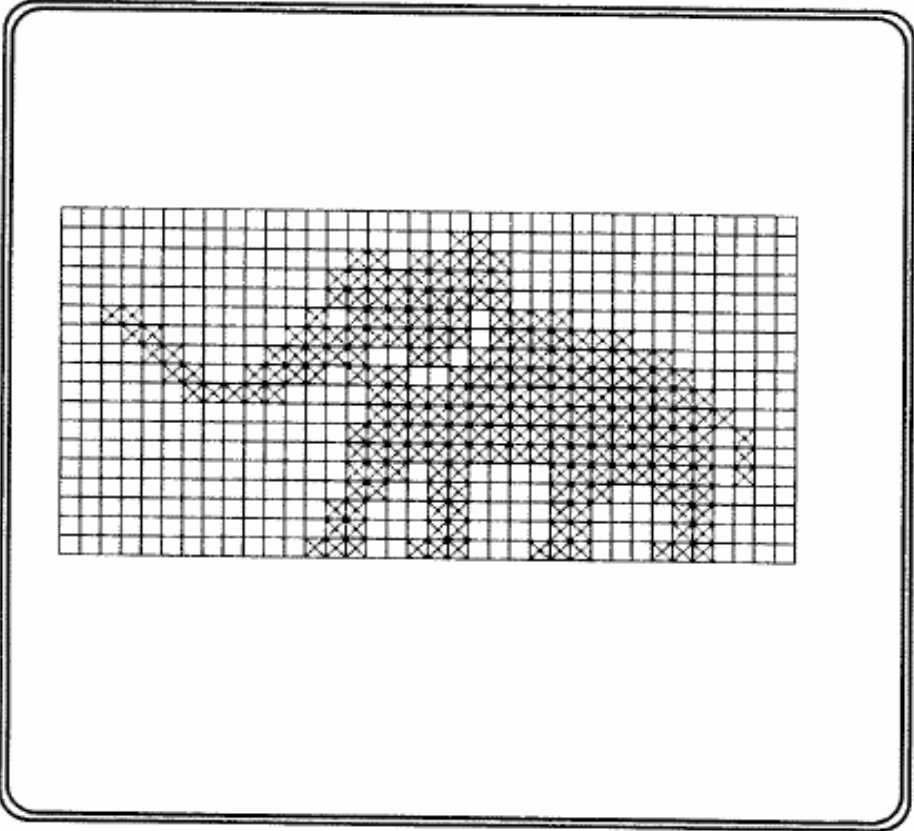
(b) (i) **Straight accordion** (tucking on non-knitting odd needles)



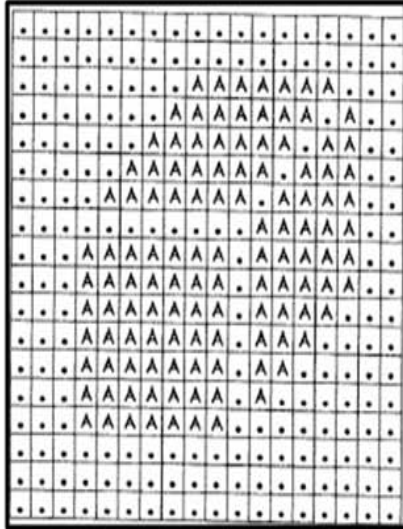
(b) (ii) **Alternate accordion** (tucking on odd needles at odd feeders and even needles at even feeders when non-knitting)



(b) (iii) **Selected accordion**
 (tucking only on carefully
 selected non-knitting needles)

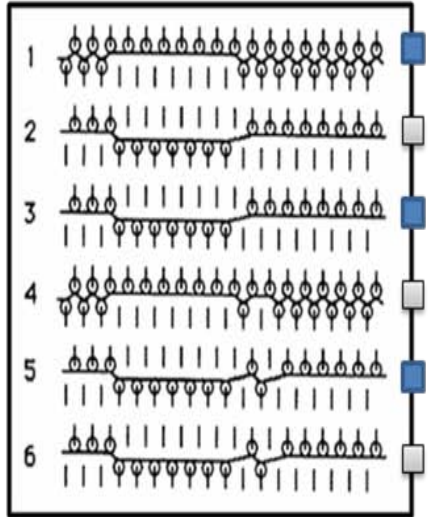


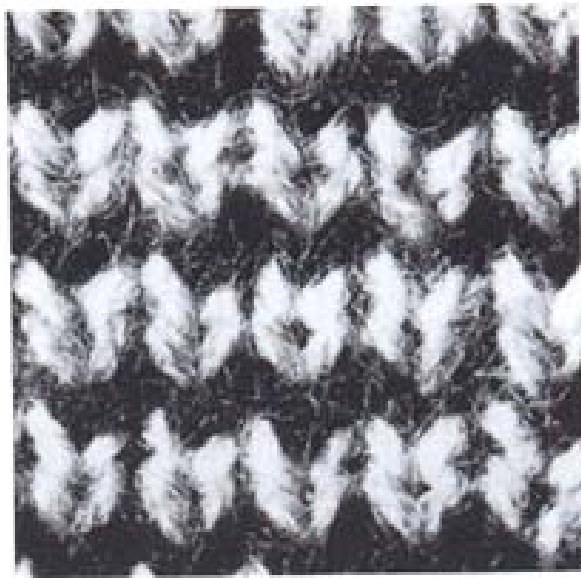
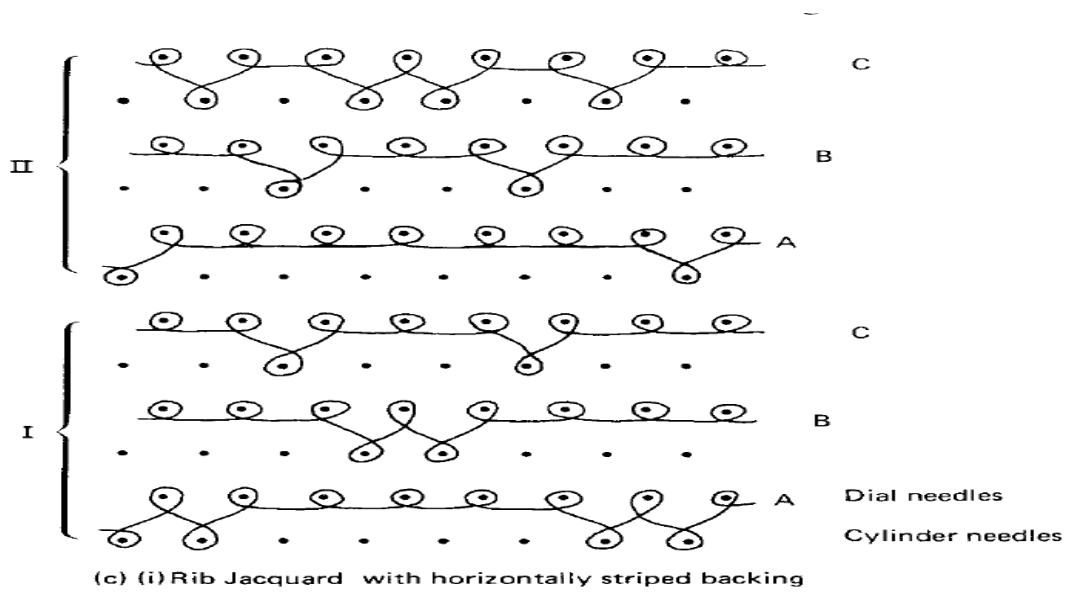
نمای اصلی بافت

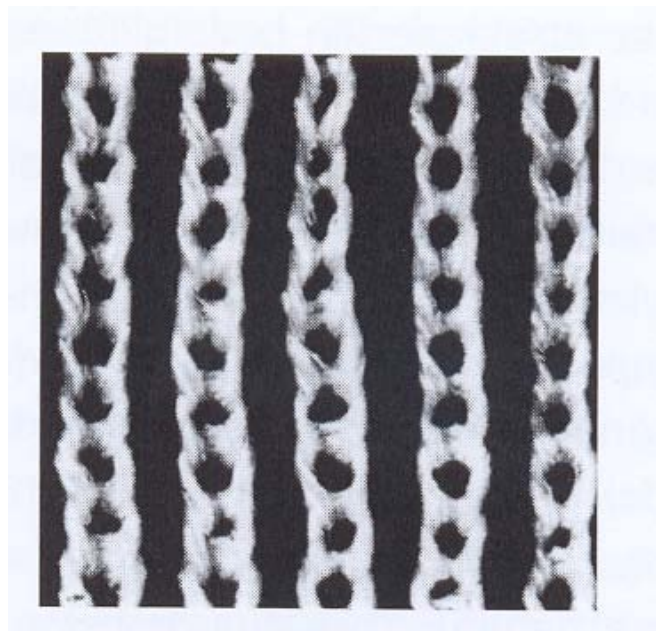
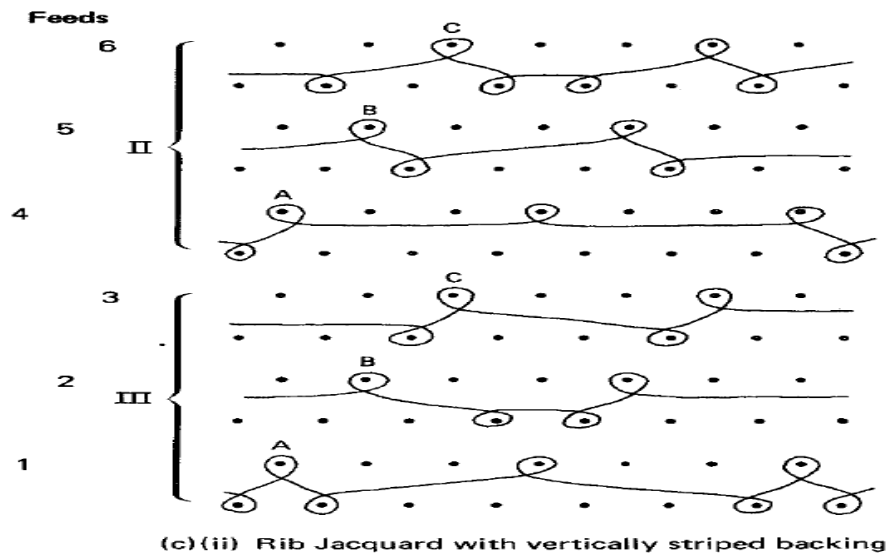


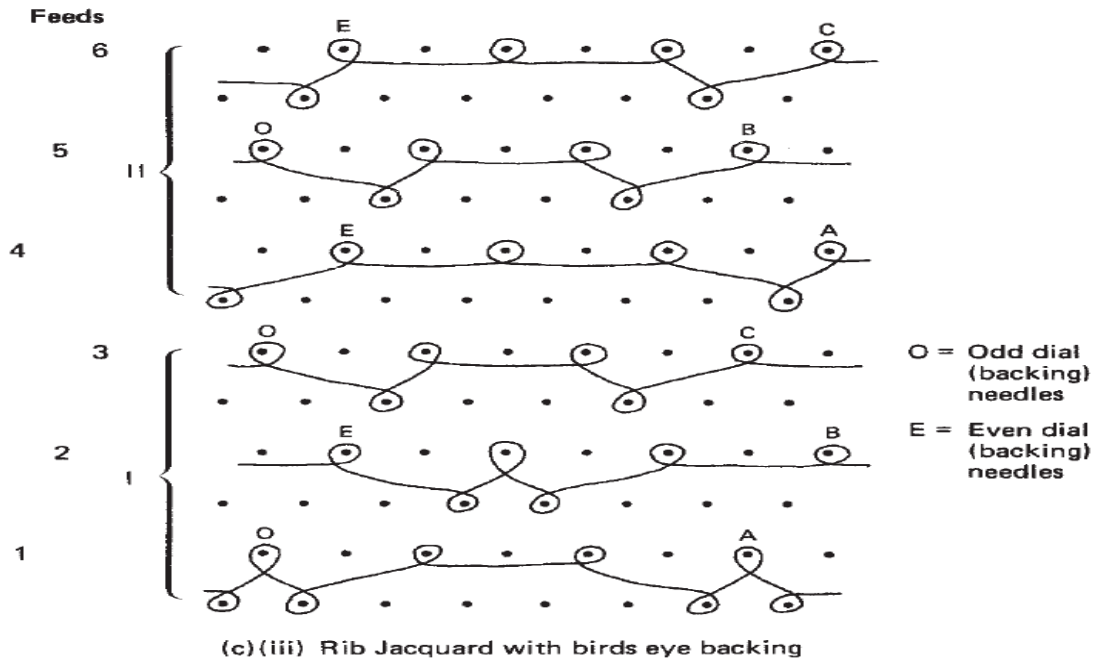
نمایش شطرنجی

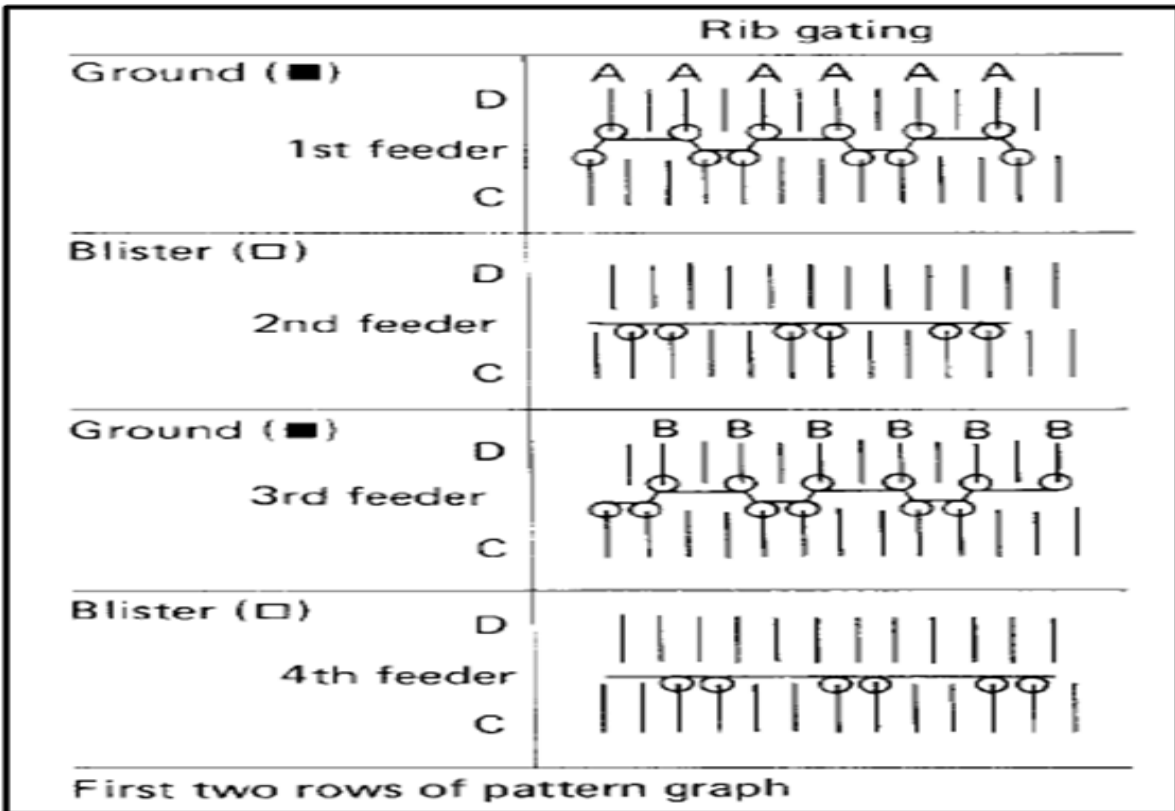
نمایش سوزنی



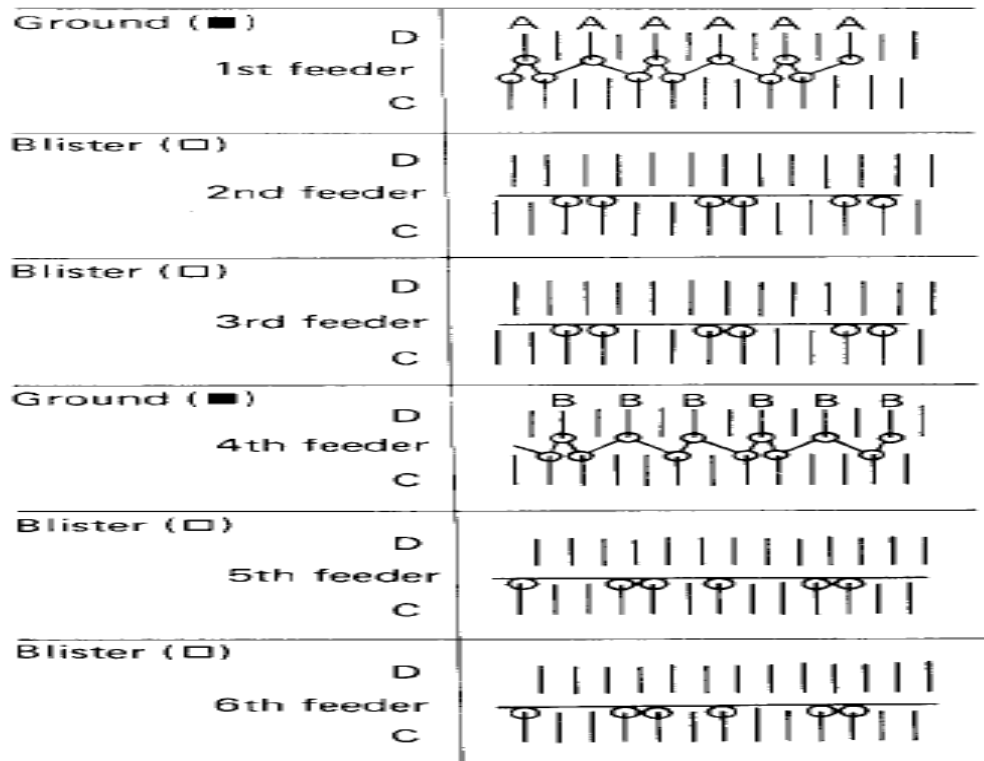






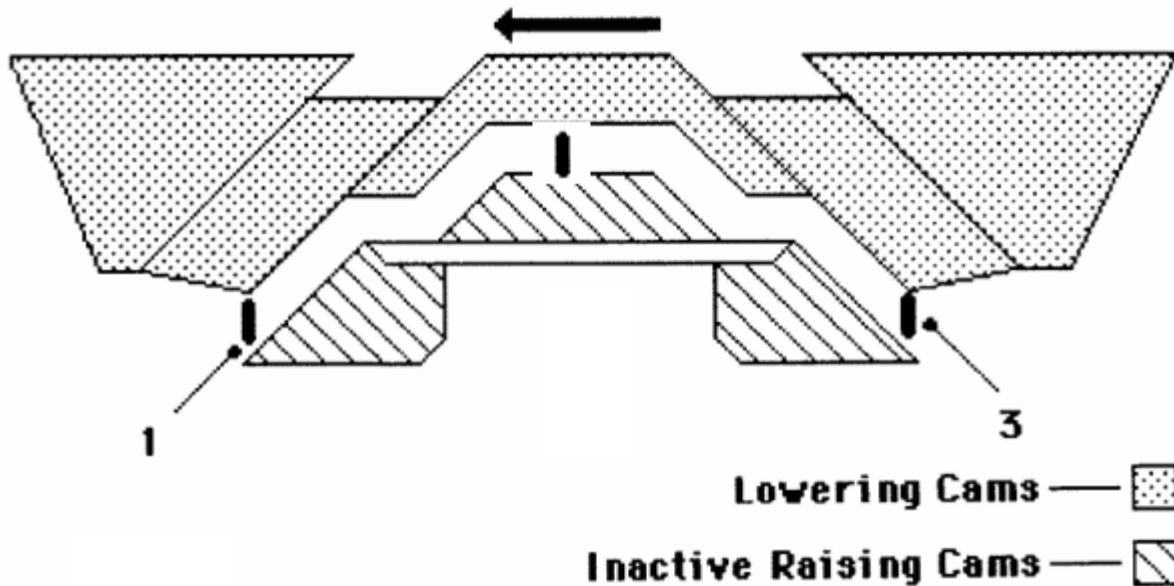


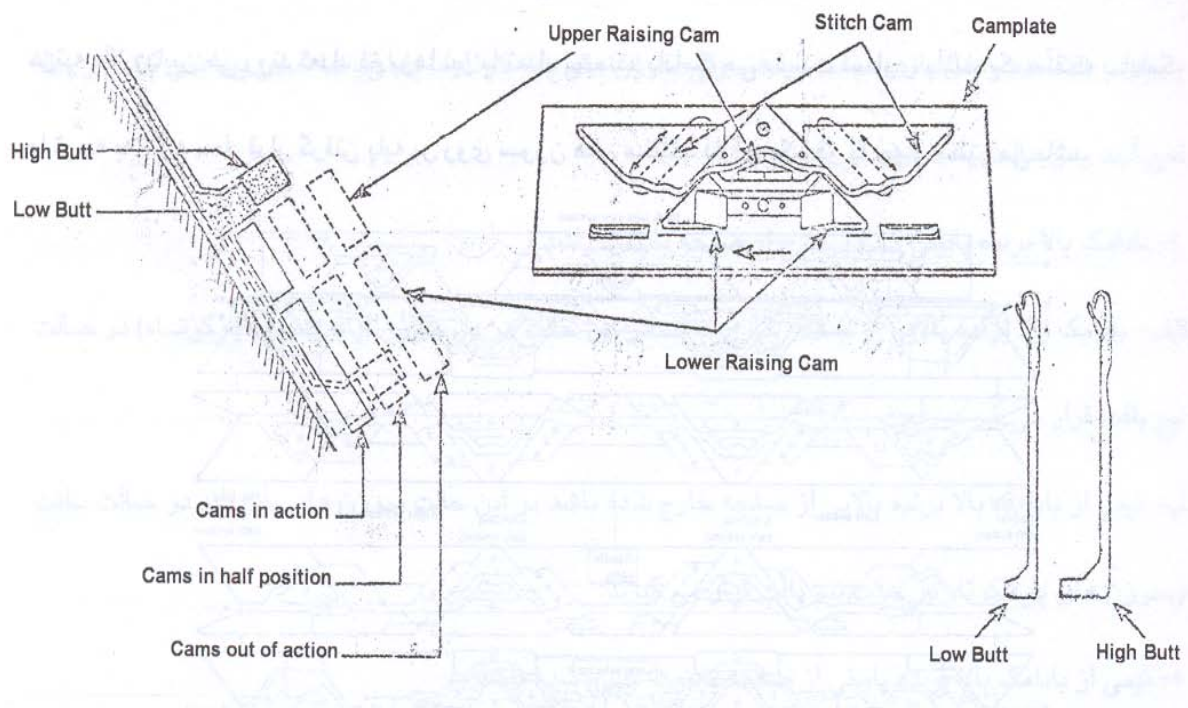
(b)



First two rows of pattern graph

Row 2-feeders 4, 5 & 6
Row 1-feeders 1, 2 & 3





Abdeckung

Kulierteil, einstellbar
am Stellknopf
+ = große Maschen
- = kleine Maschen

Nadelbahn für die
Kulierfüße

Nadelbahn Nr. 4
Wechselschloßteil
Stricken ZA *)

Nadelbahn Nr. 3
Wechselschloßteil
Fang ZB *)

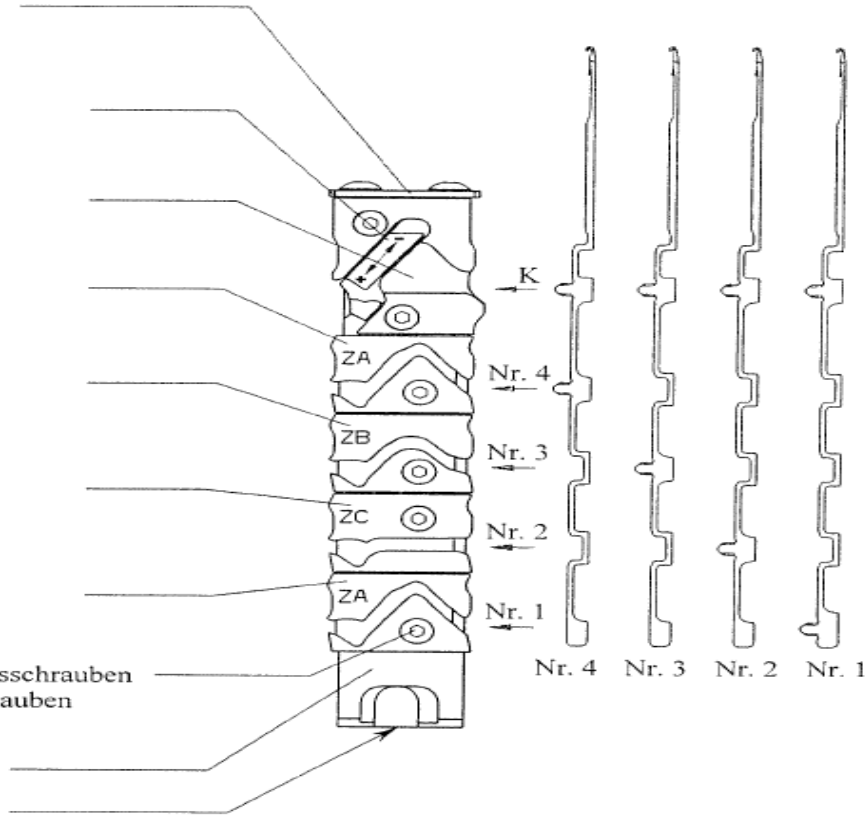
Nadelbahn Nr. 2
Wechselschloßteil
Rundlauf ZC *)

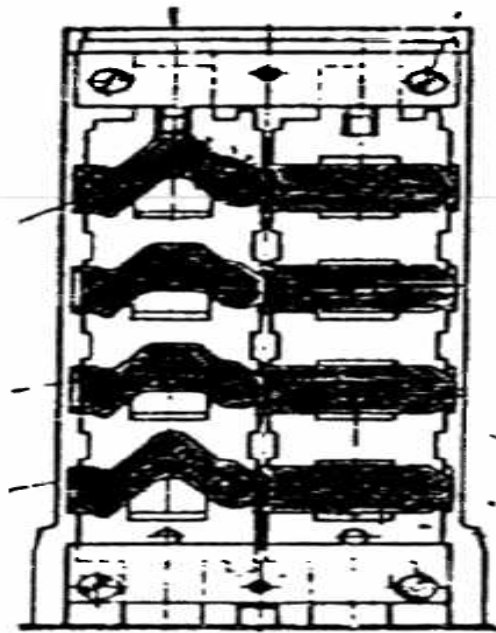
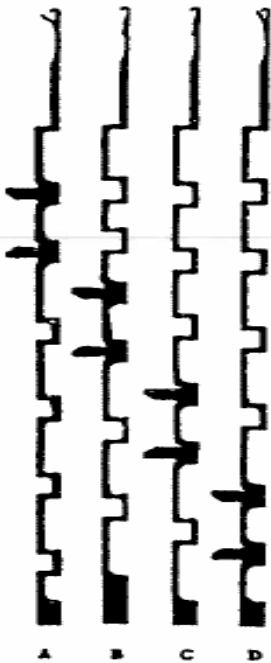
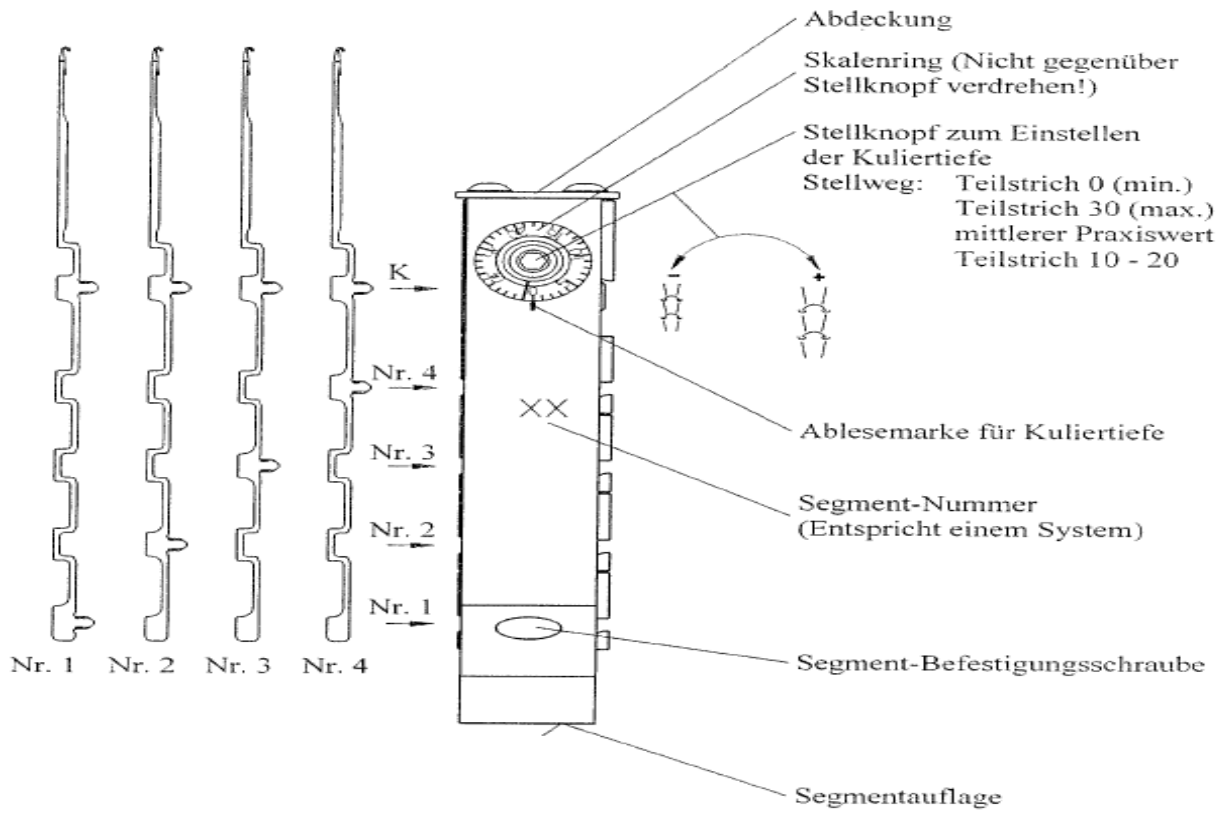
Nadelbahn Nr. 1
Wechselschloßteil
Stricken ZA *)

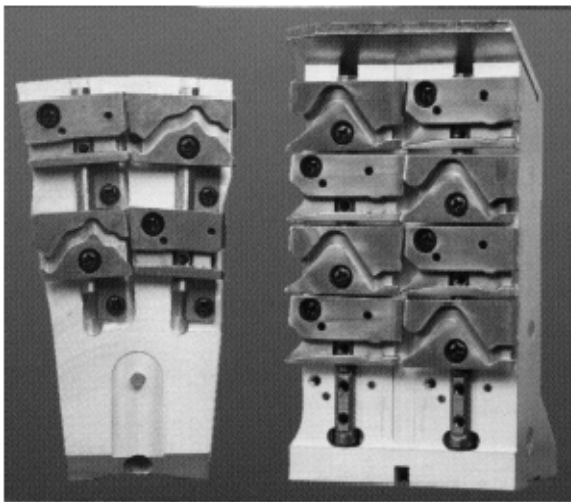
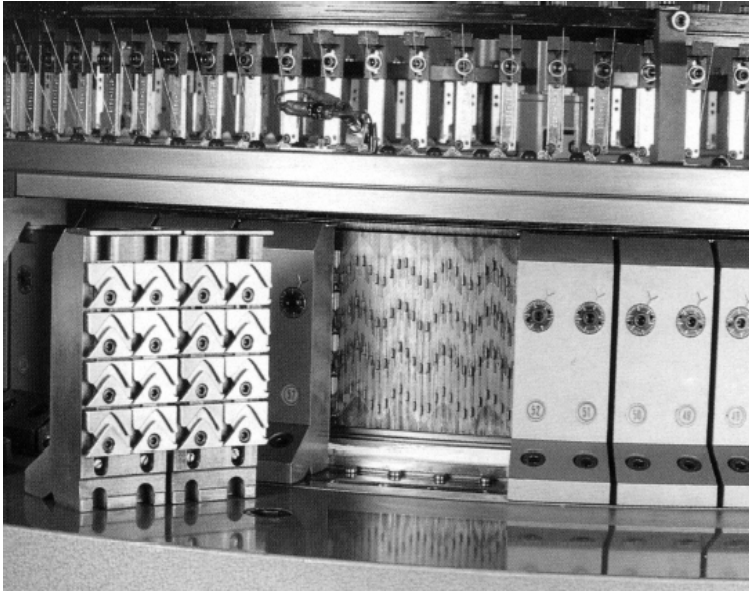
Schloßteil-Befestigungsschrauben
Nur MCT-Originalschrauben
verwenden!

Segmentanlage

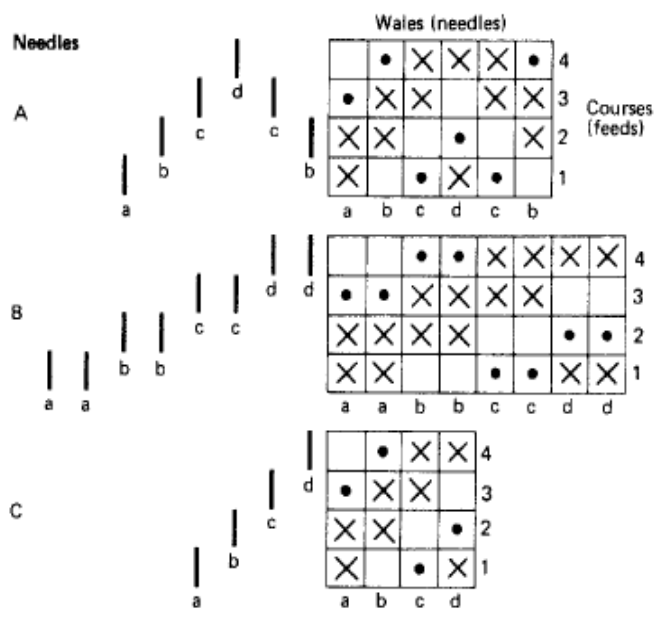
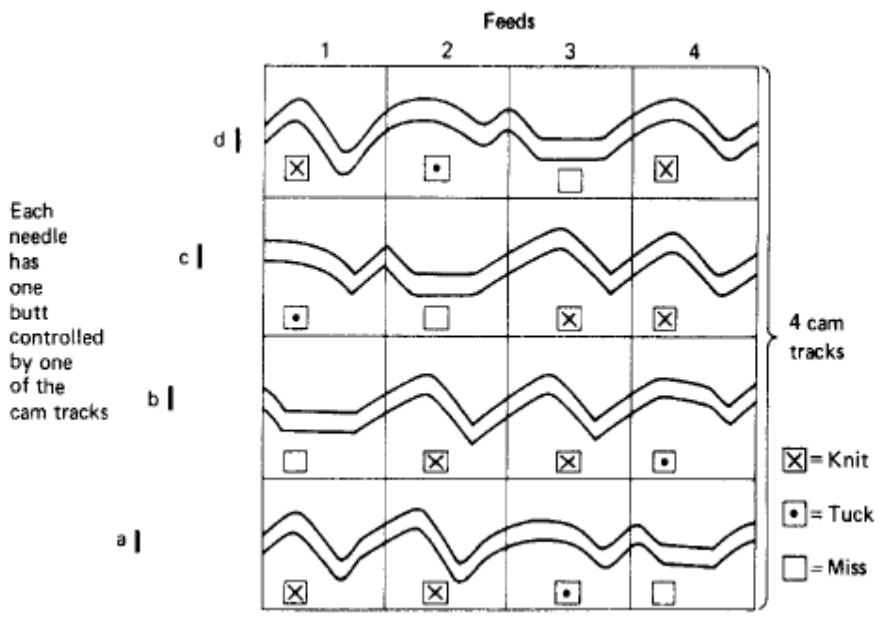
Segmentauflage







Picture 89 – Cam tracks for double-bed machines: 2 tracks for the dial and 4 tracks for the cylinder



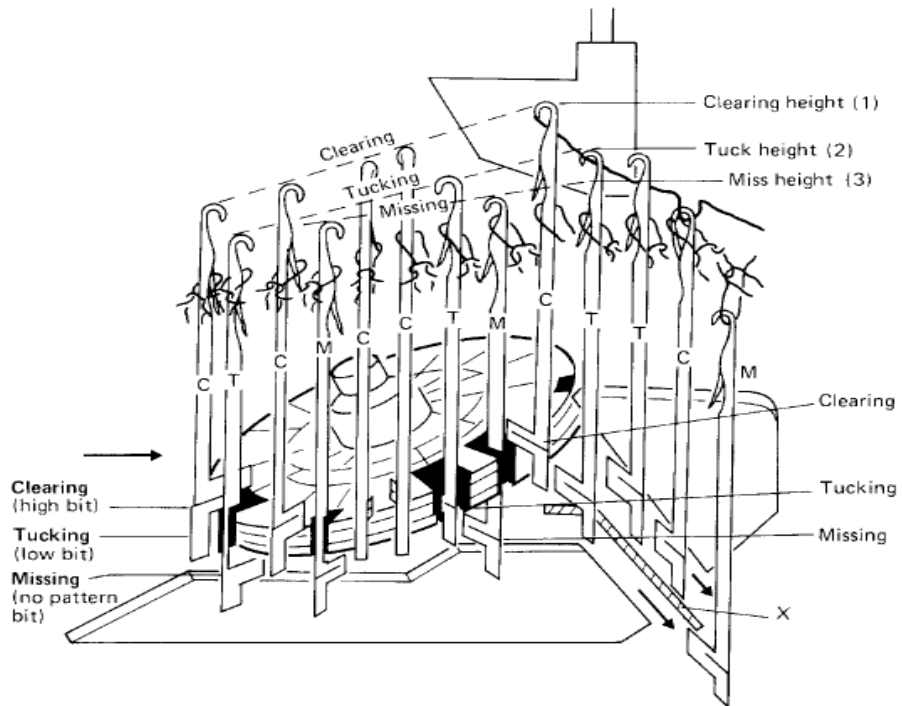
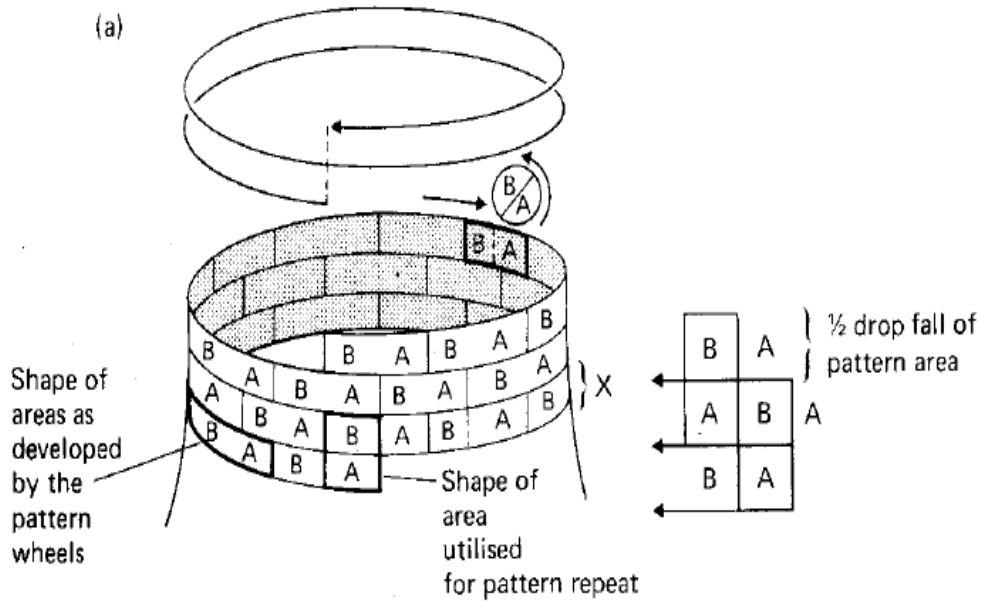
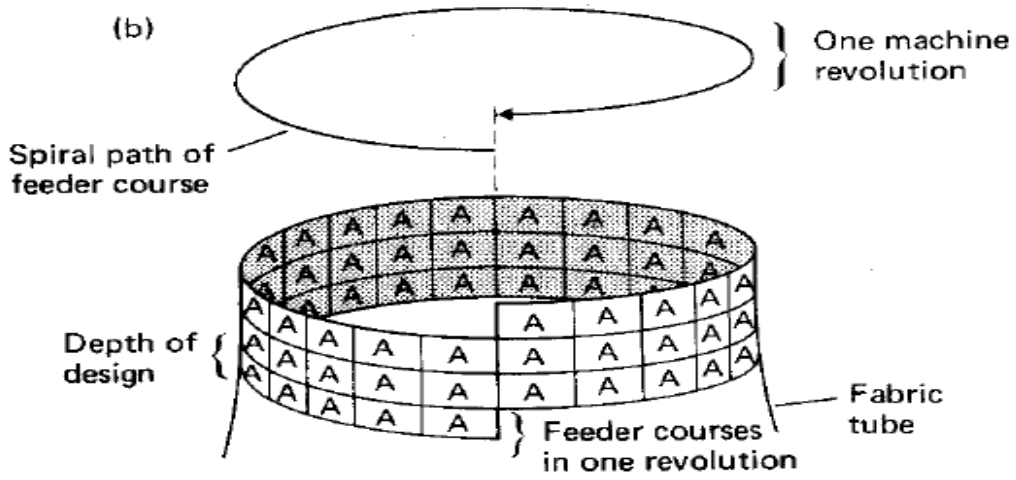
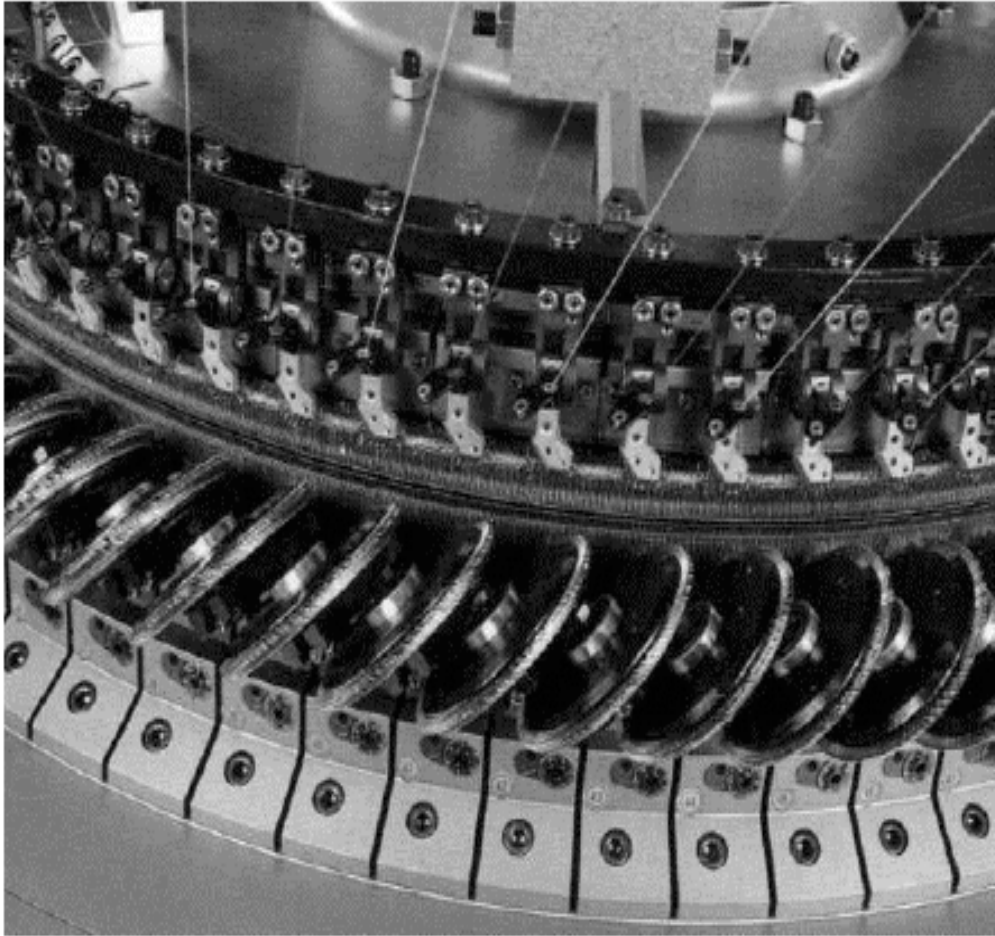
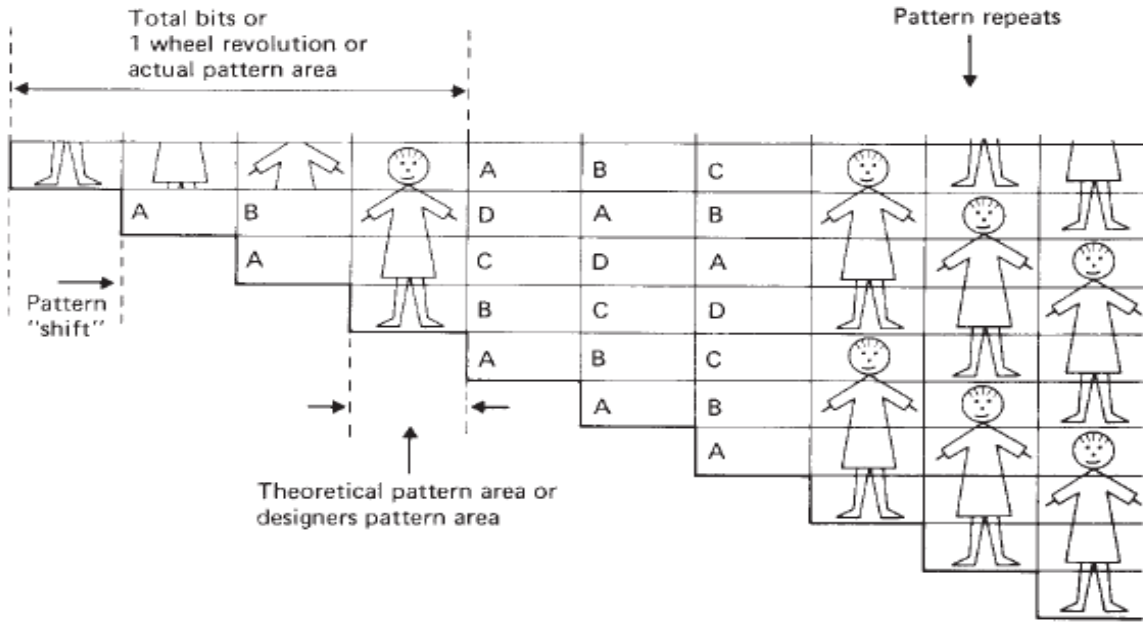


Fig. 11.9 Three-step needle selection using a pattern wheel.





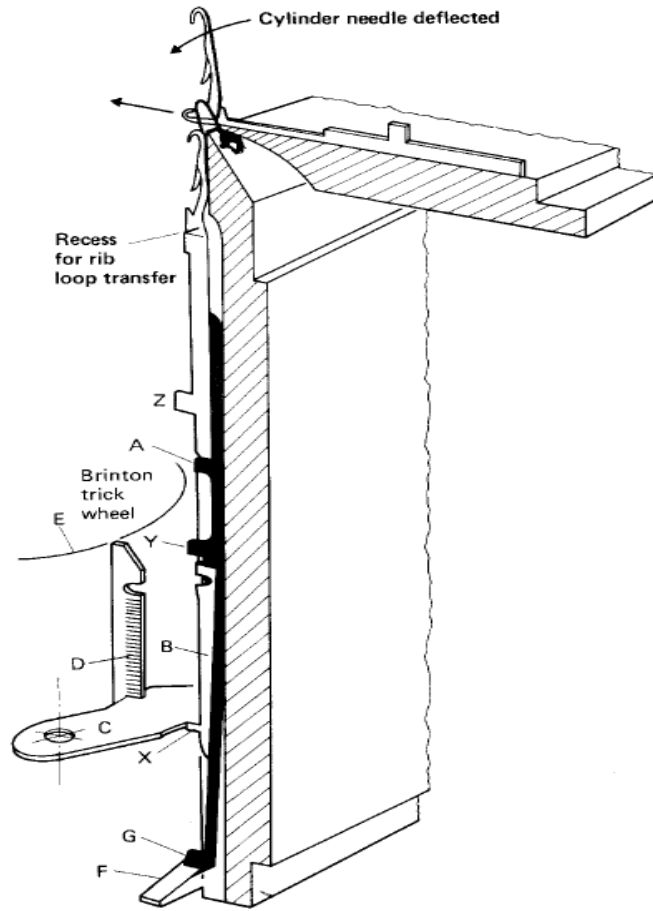


Fig. 11.6 Geometric selection using Brinton trick wheels.

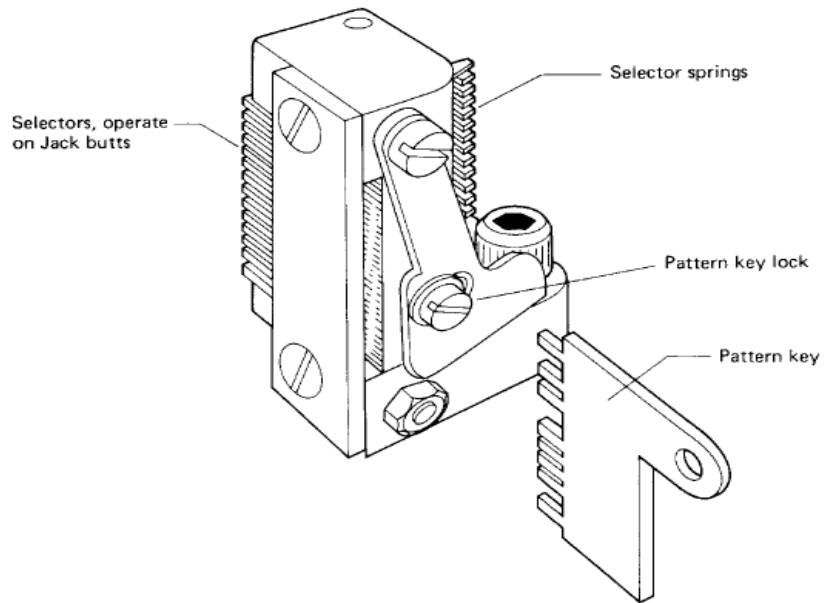


Fig. 11.5 Fixed pattern key selection.

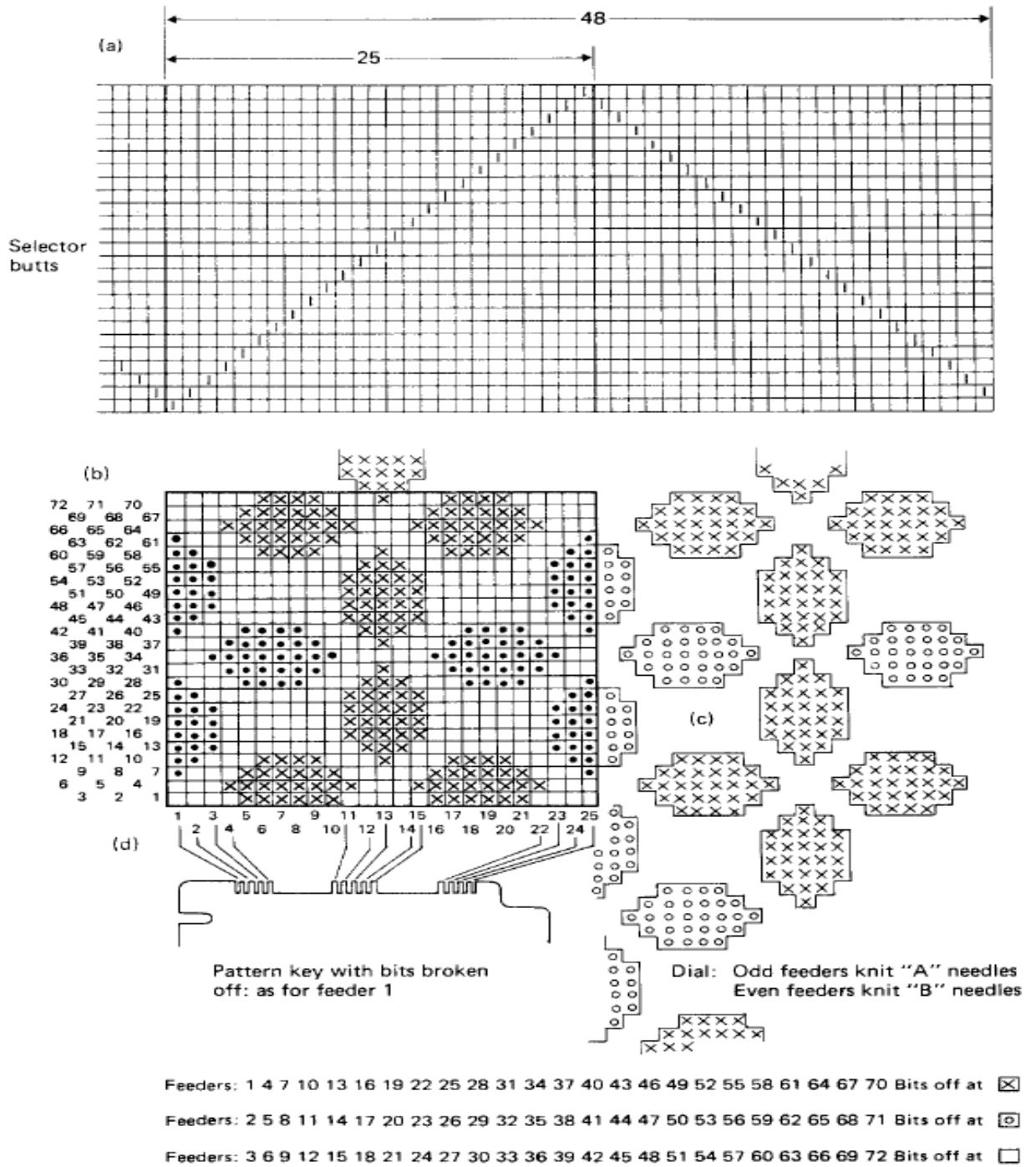
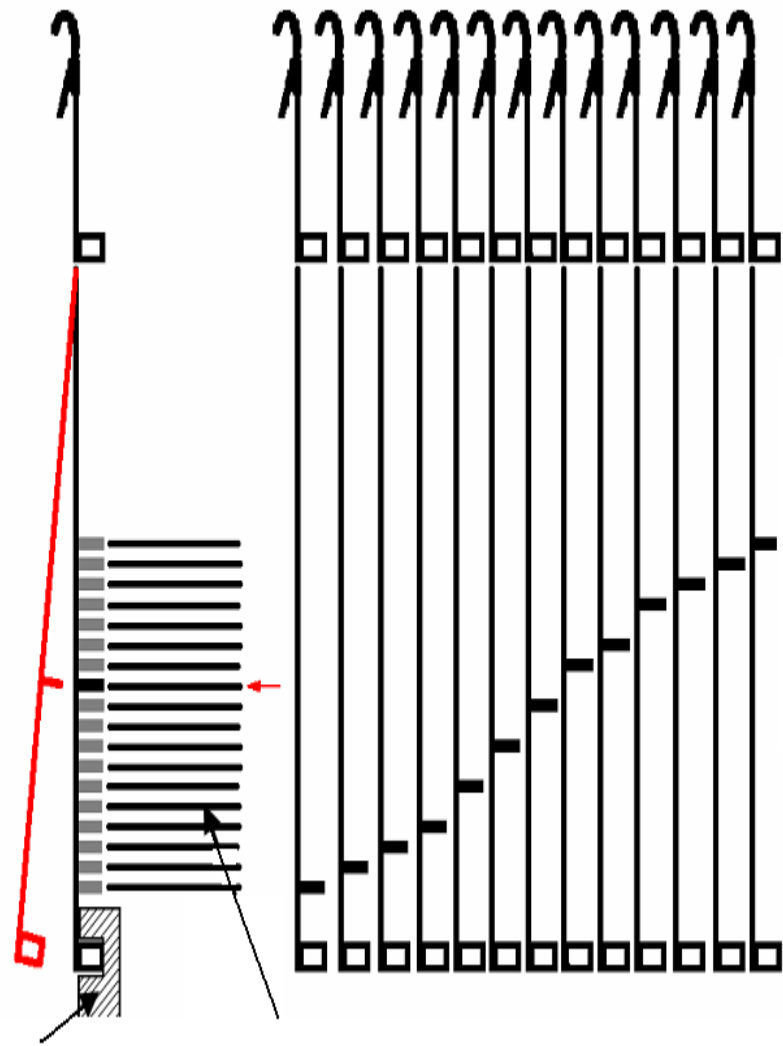
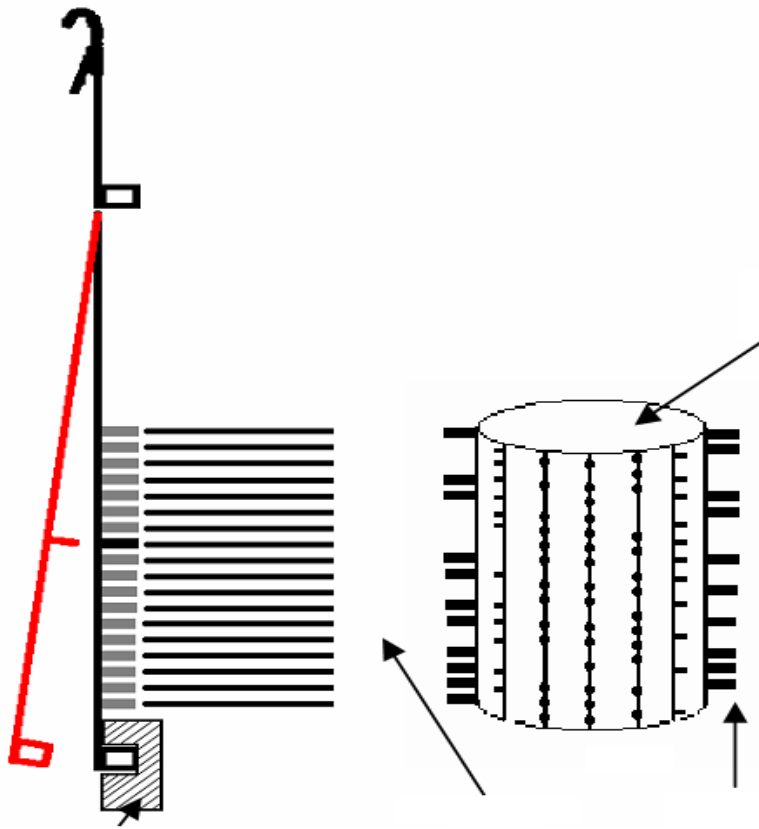
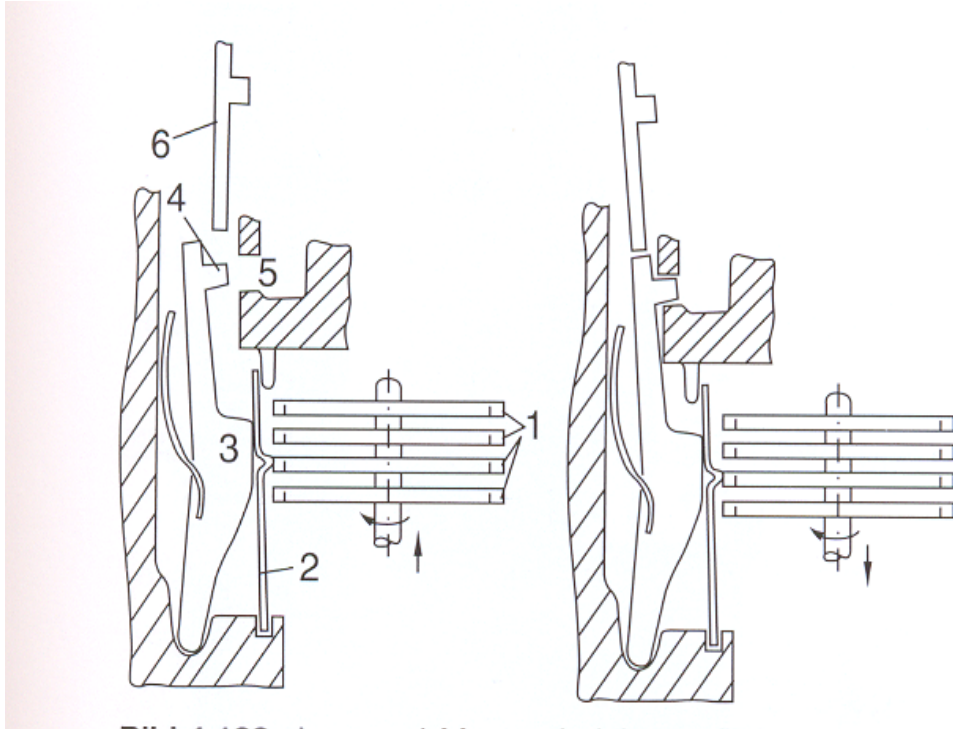


Fig. 11.3 Mirror repeat needle selection.





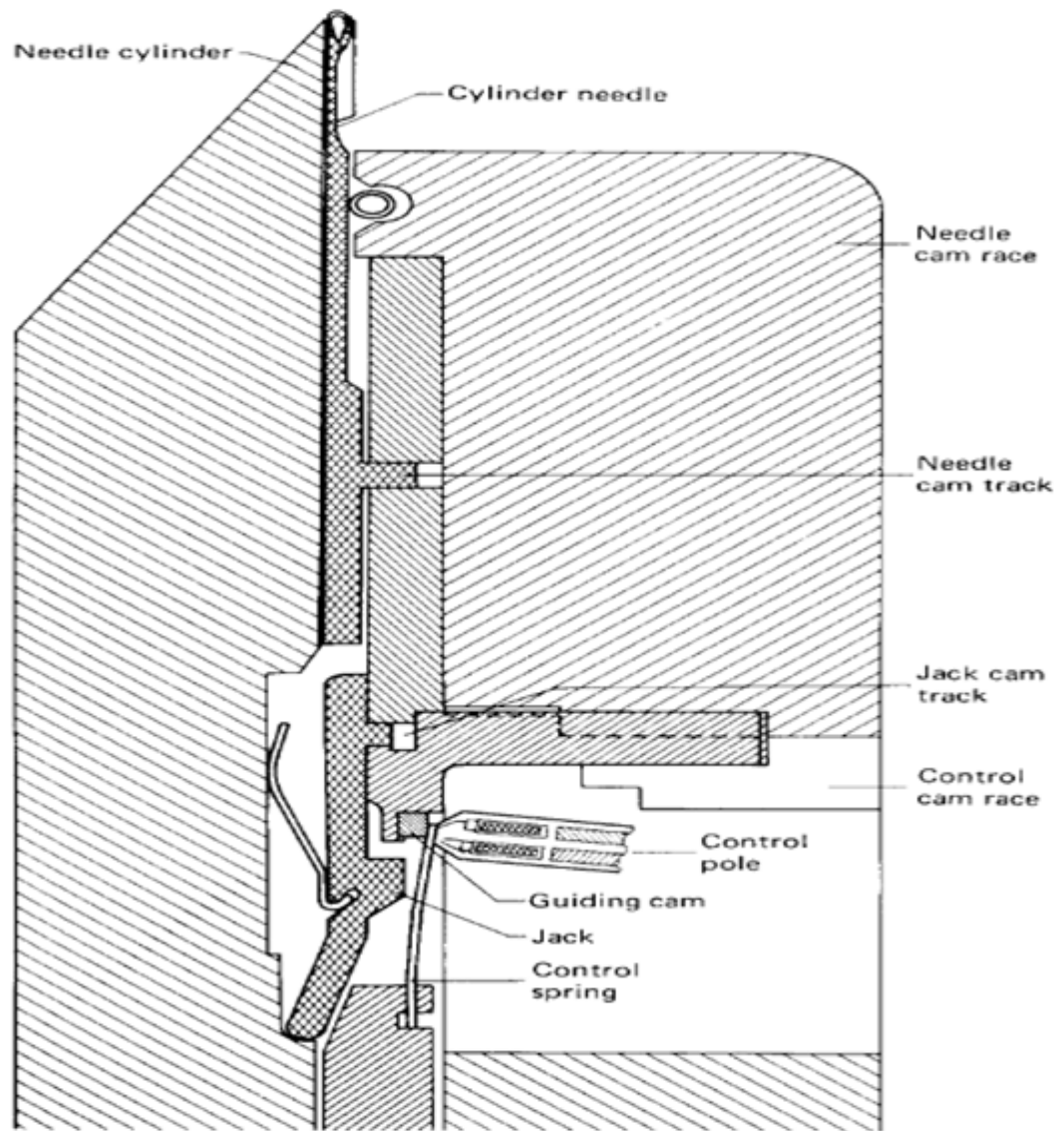
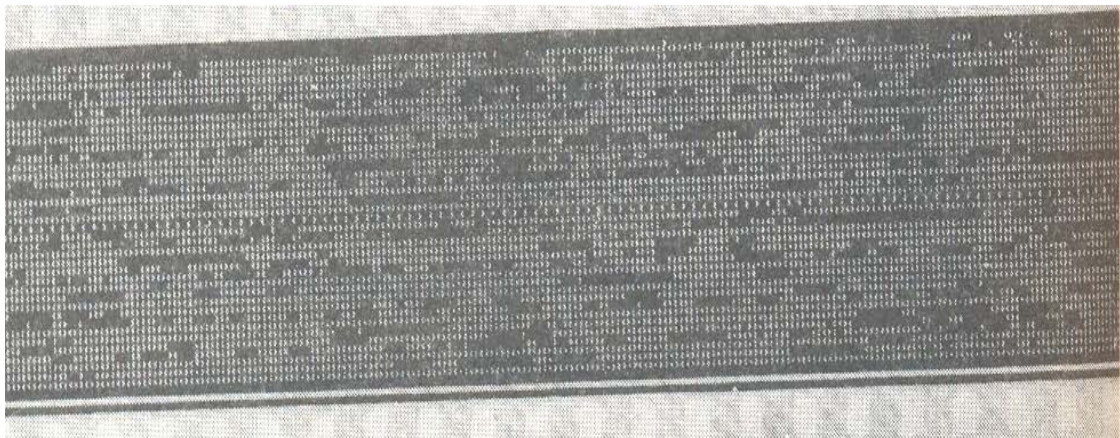
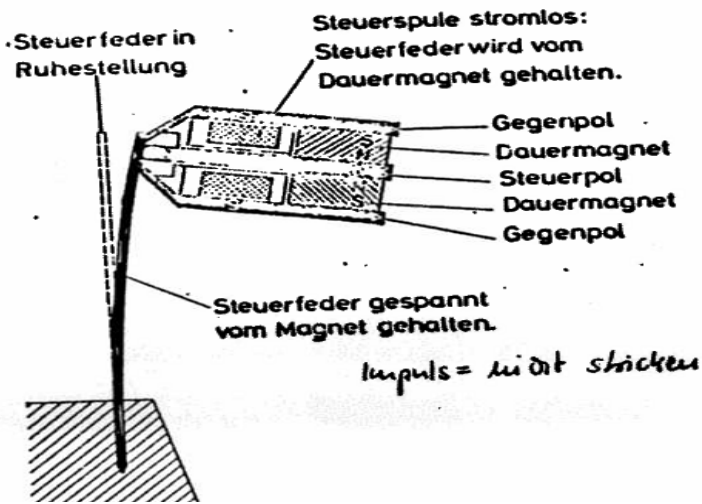
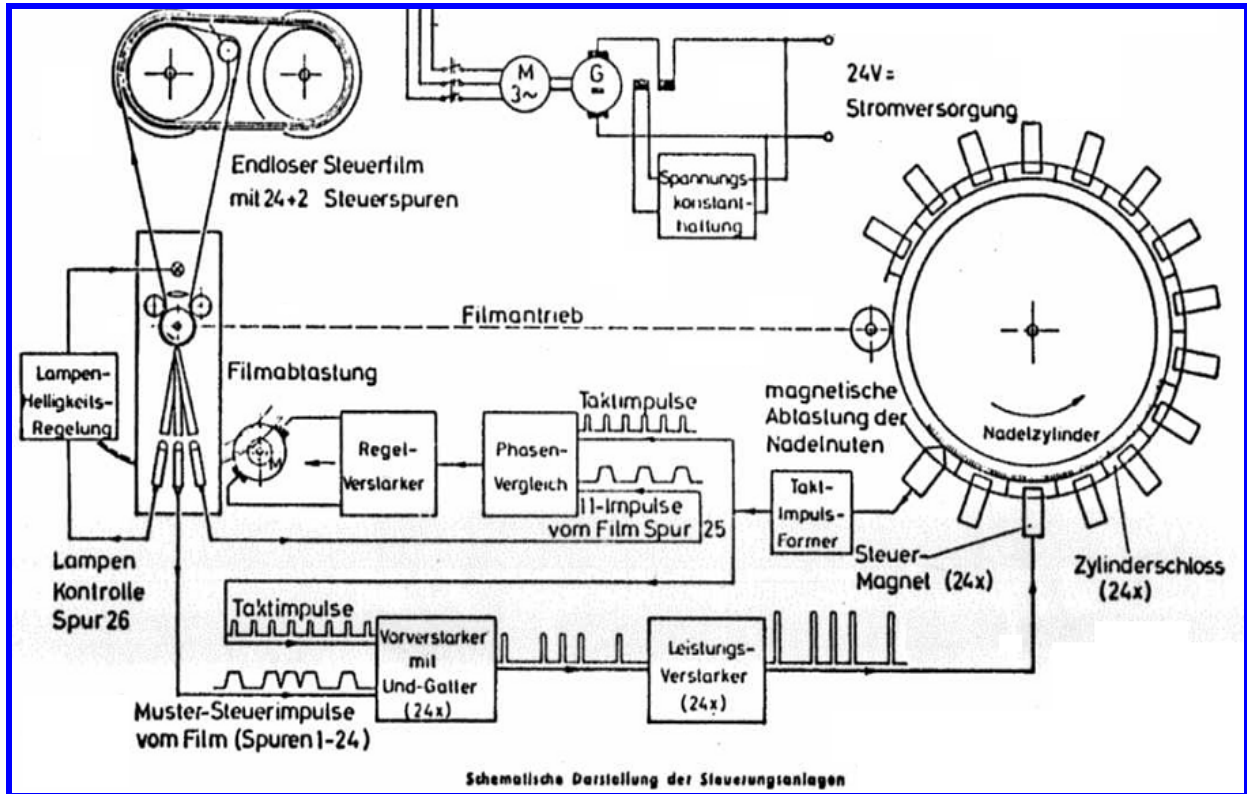
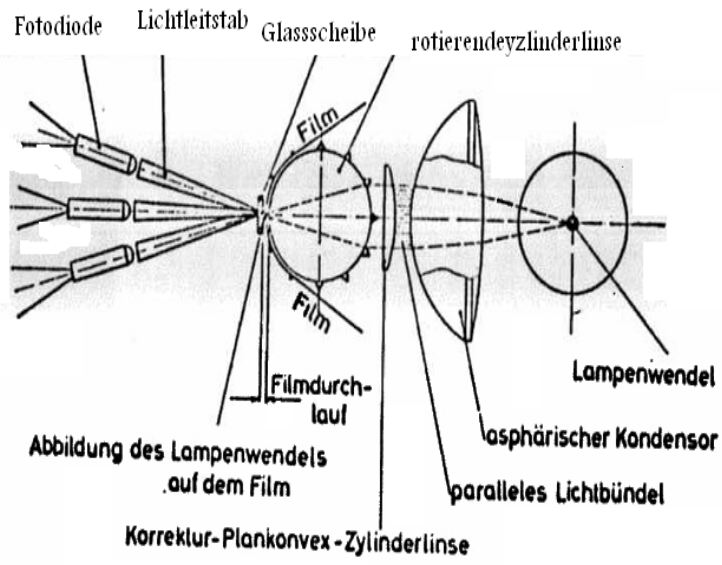


Fig. 11.12 Moratronic needle selection.





Bewegungsphase: 1

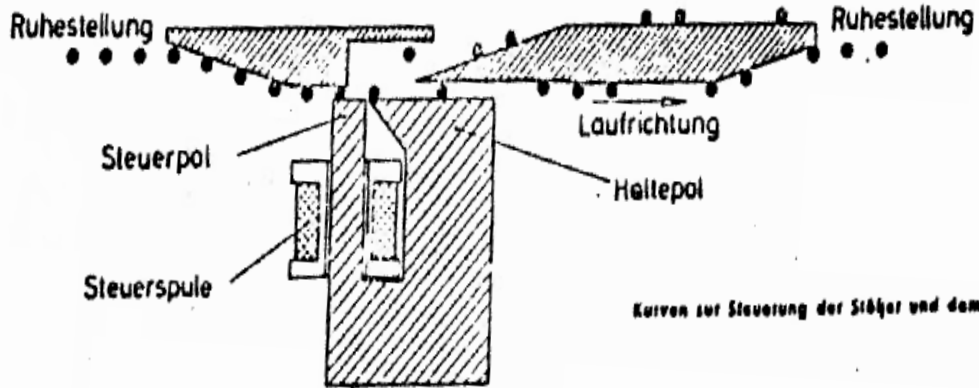
2

3

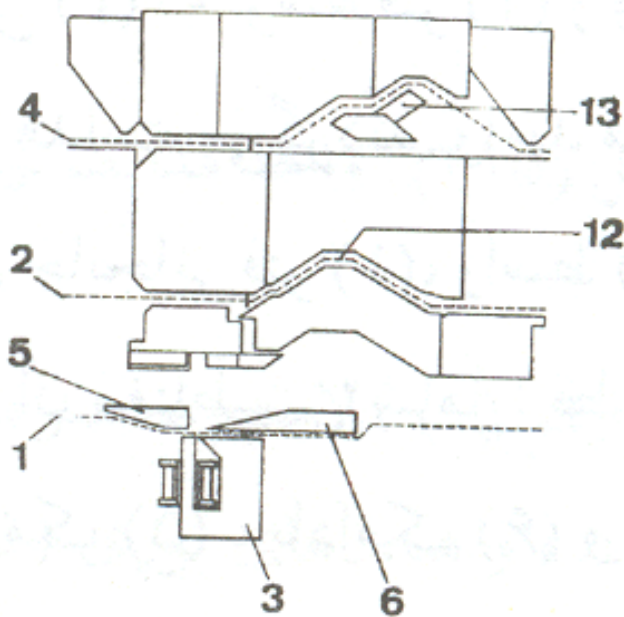
4

Magnet und Kurven sind am Zylinderschloss befestigt.

In diesem Abschnitt geschieht der von den Steuerfedern ausgelöste Nadelvorschub.



Kurven zur Steuerung der Stäbe und damit der Nadeln



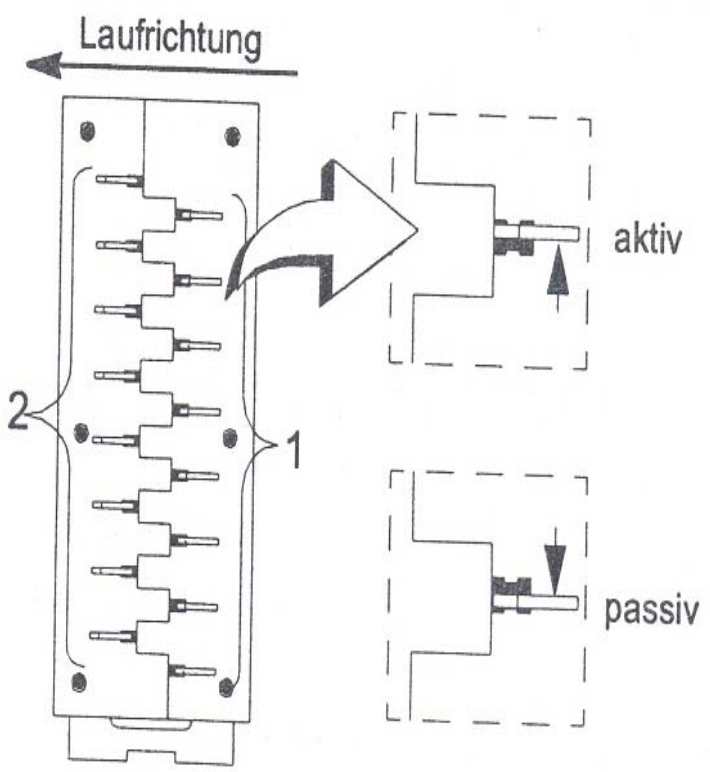
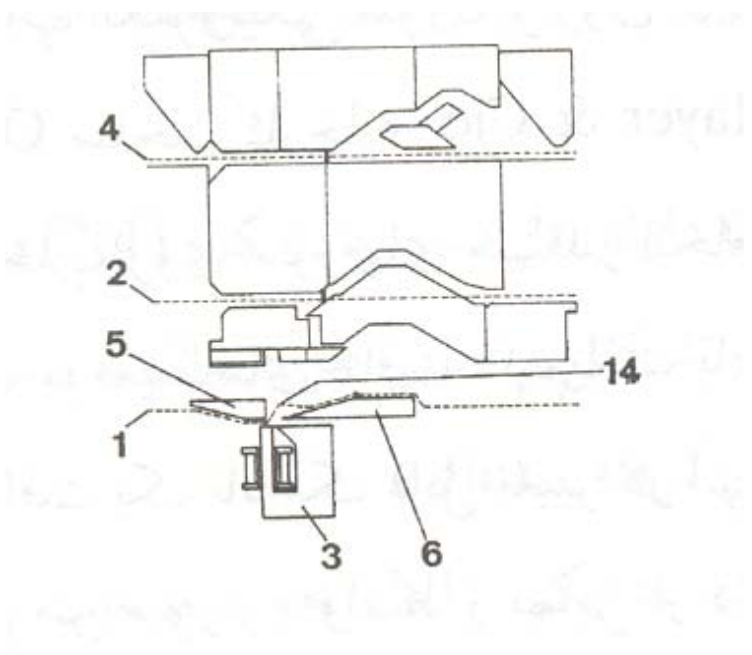
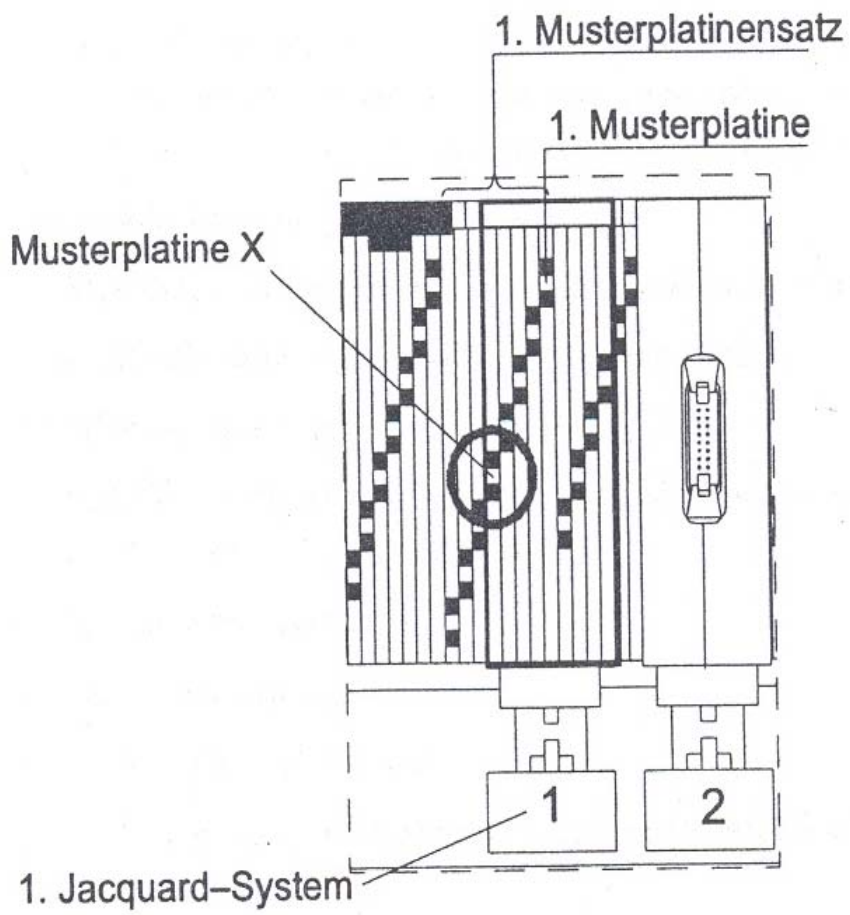


Abb. 4-24: Jacquard-System, Ansicht Wählhebel

Laufrichtung Zylinder →



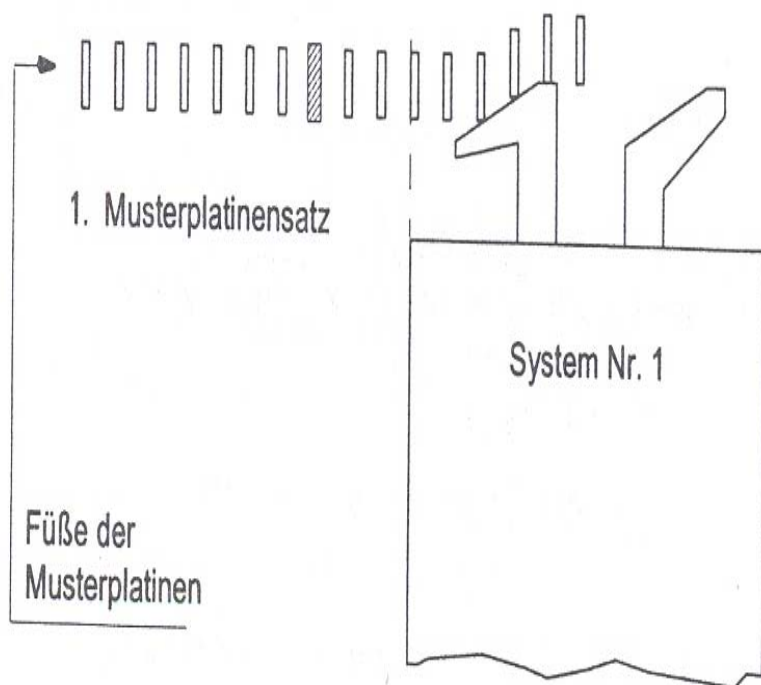
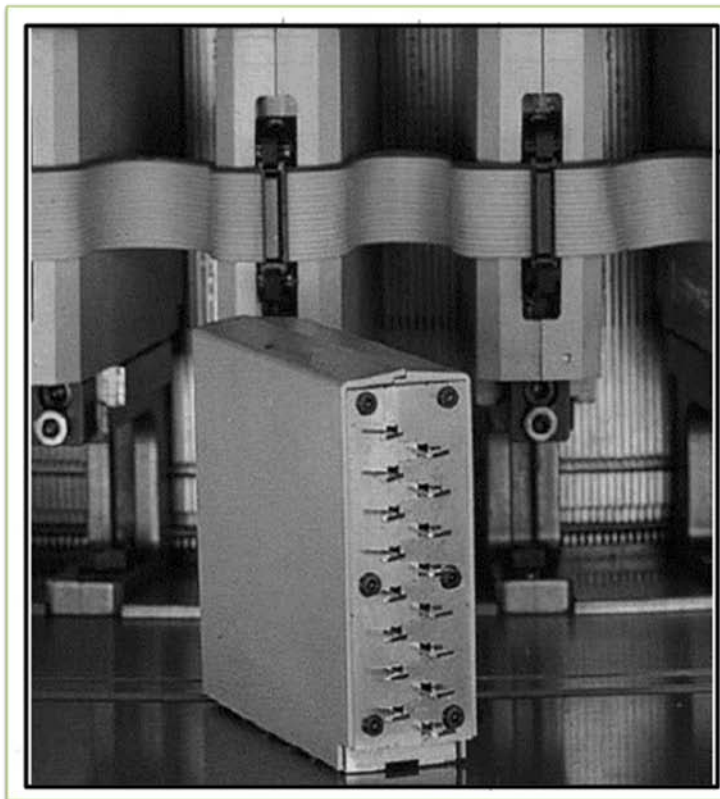
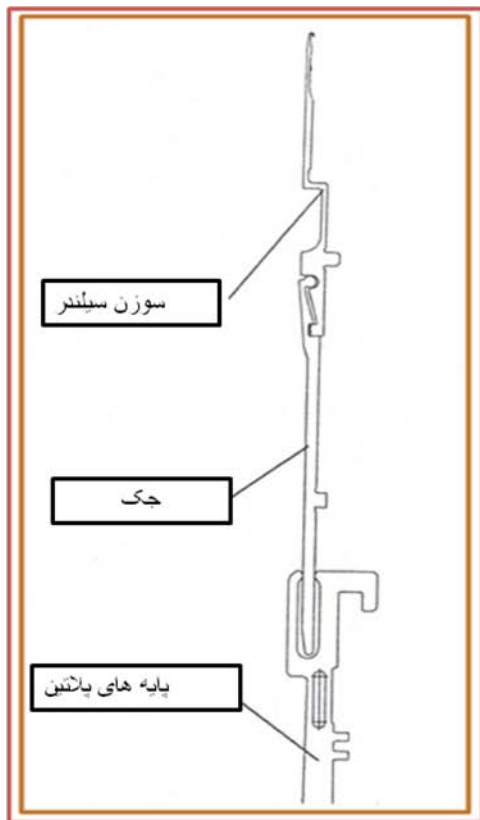


Abb. 4-31: Musterplatine X, Nadelzylinder in Grundstellung

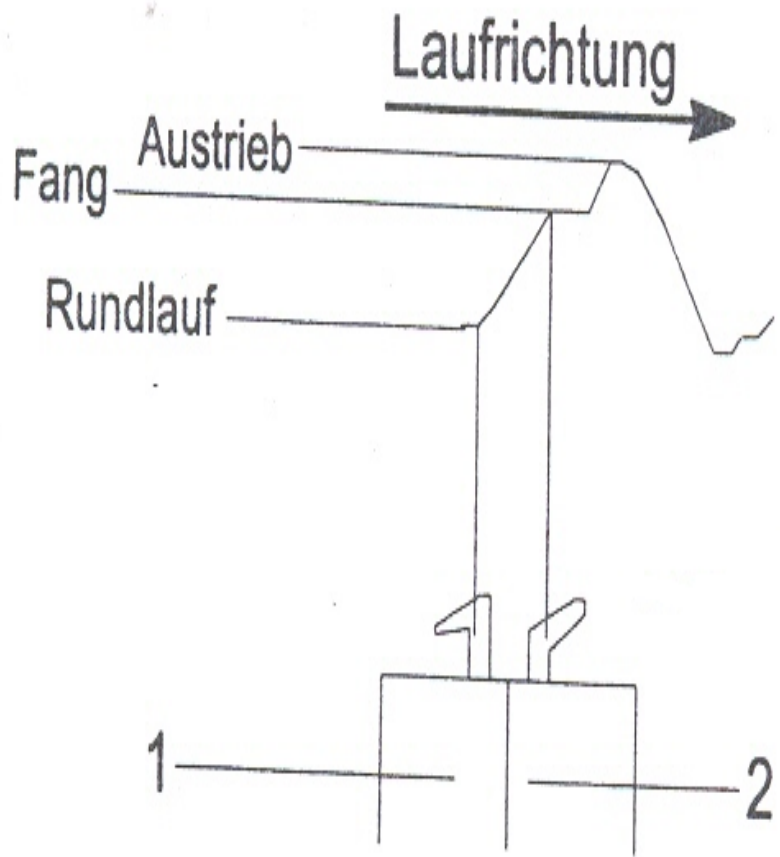
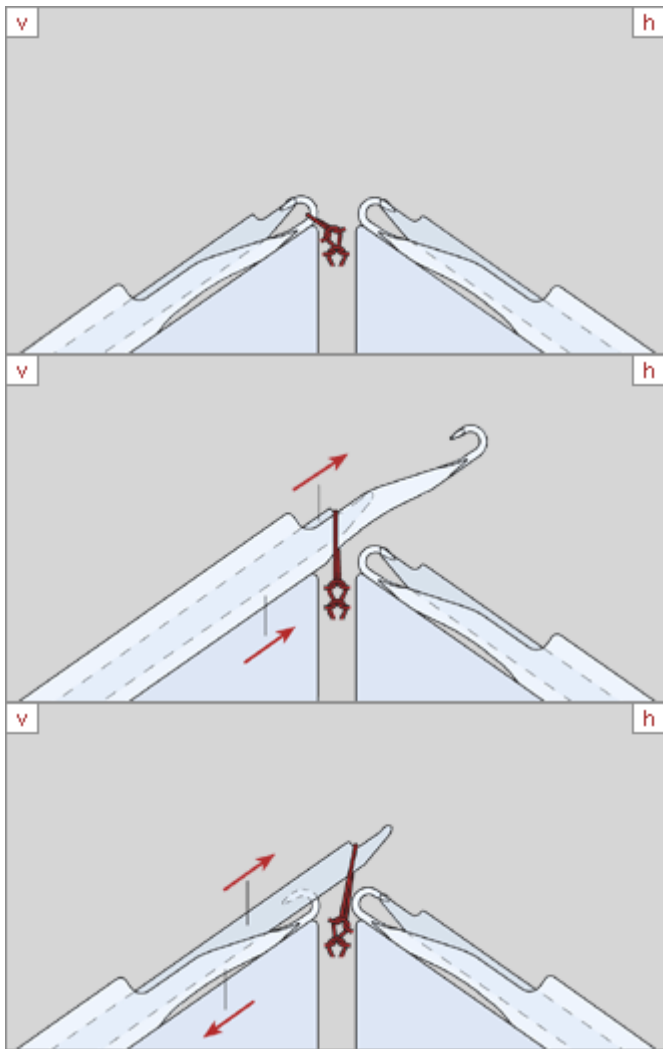
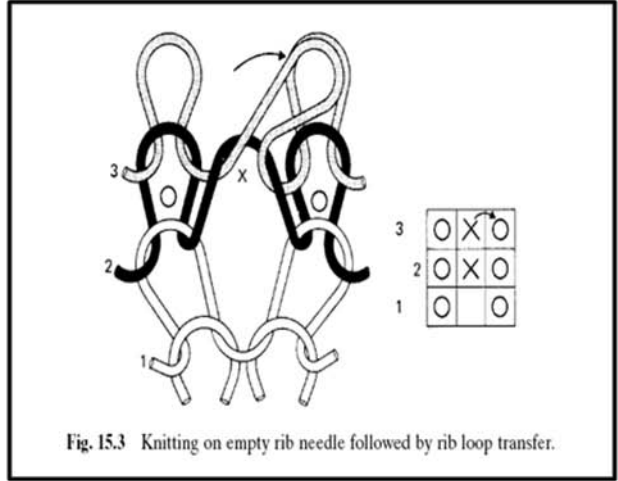
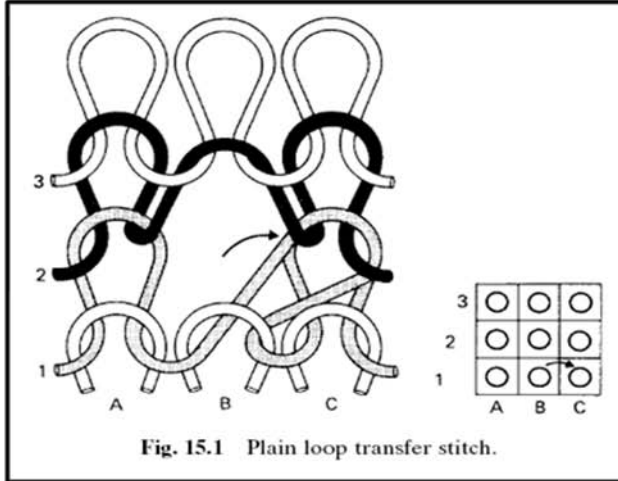
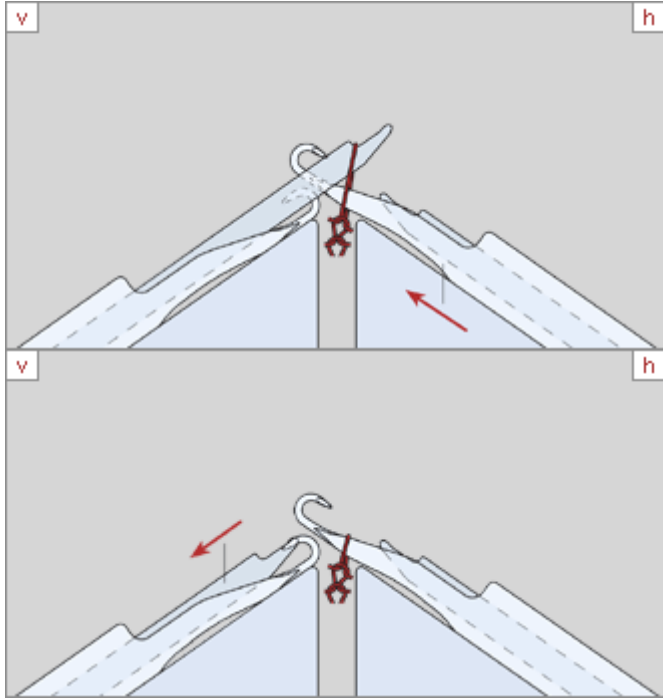
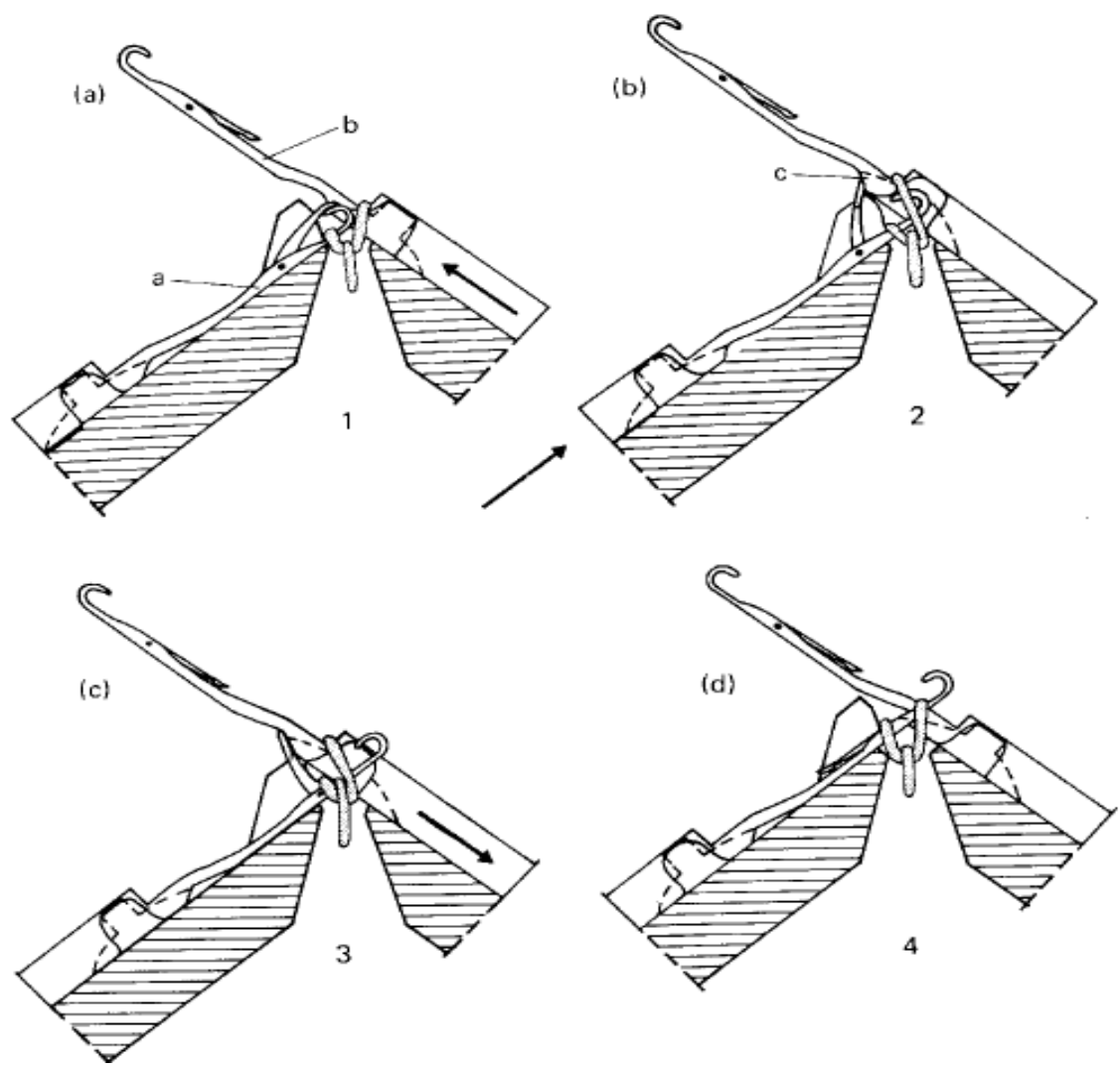
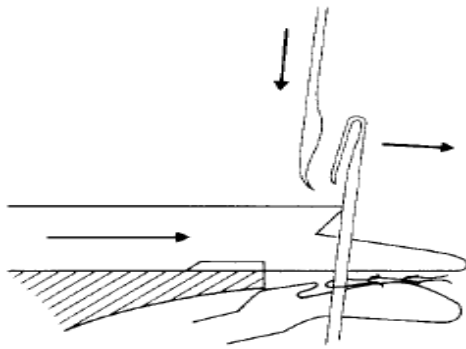


Abb. 4-25: Jacquard-System mit Wählhebel, Ansicht von oben

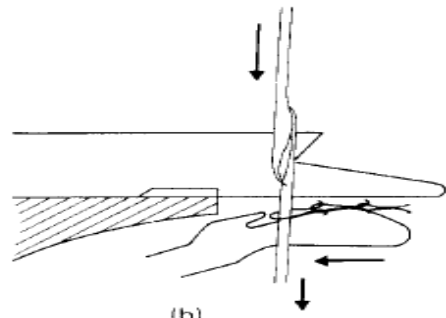




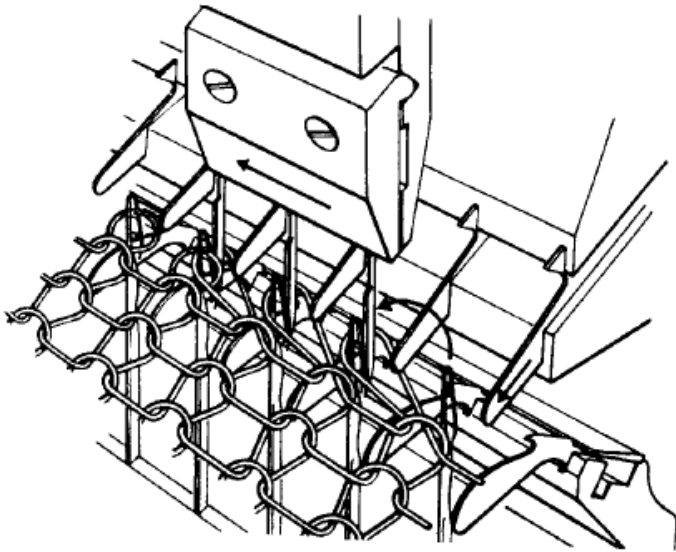


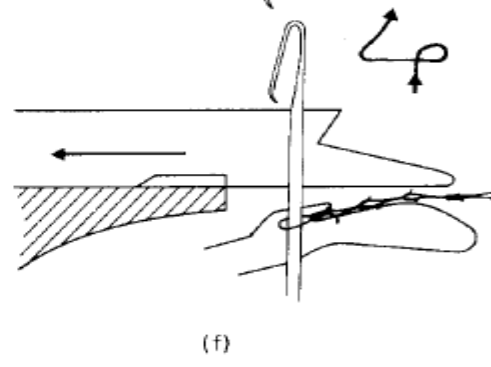
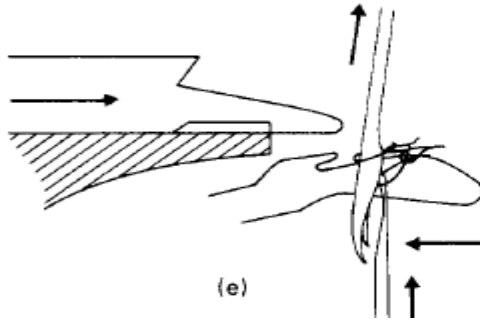
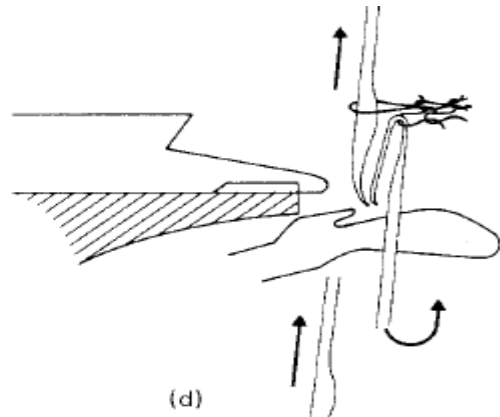
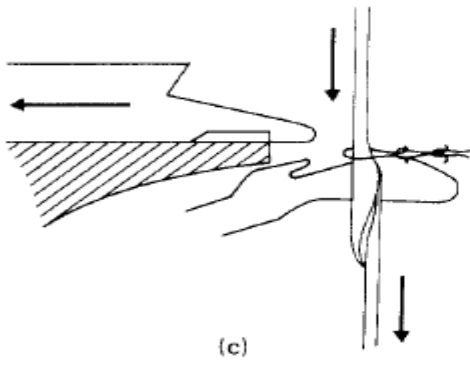


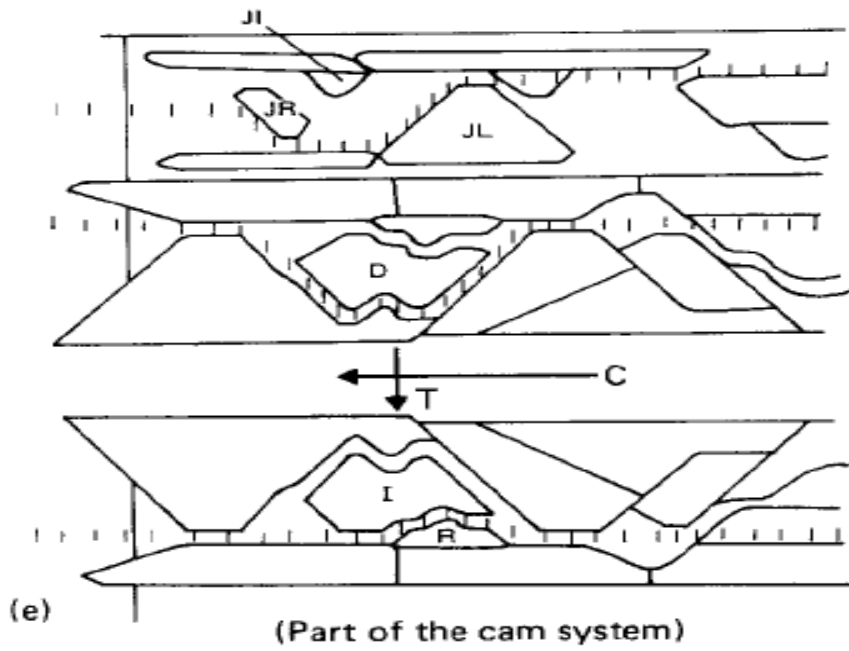
(a)



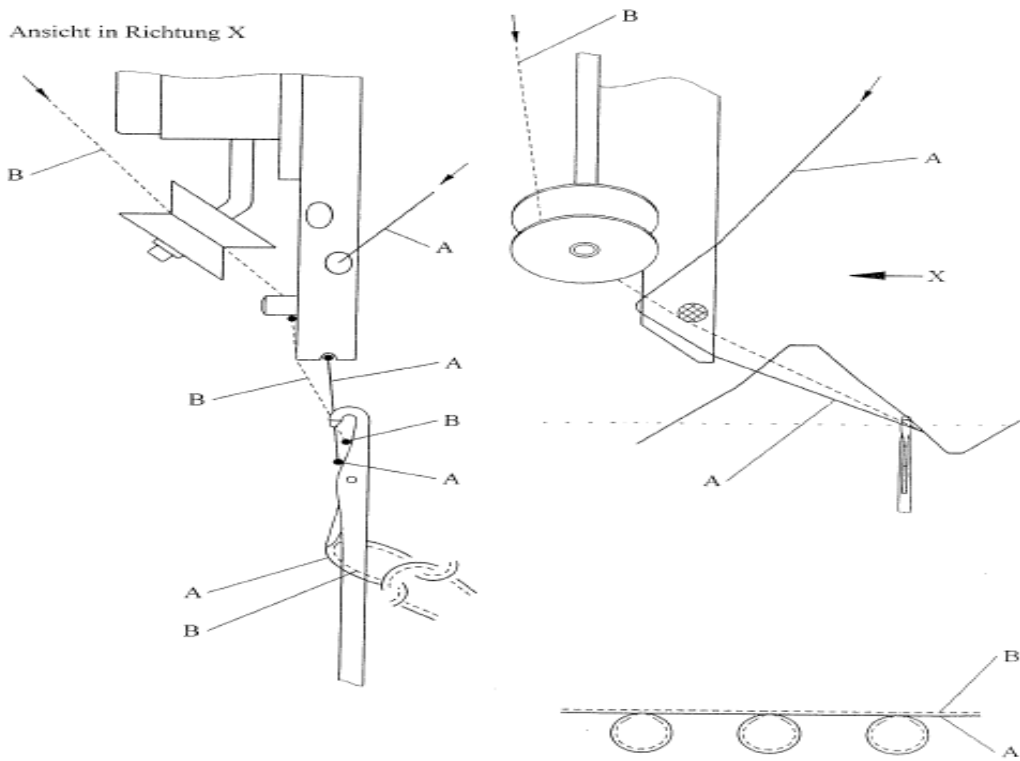
(b)

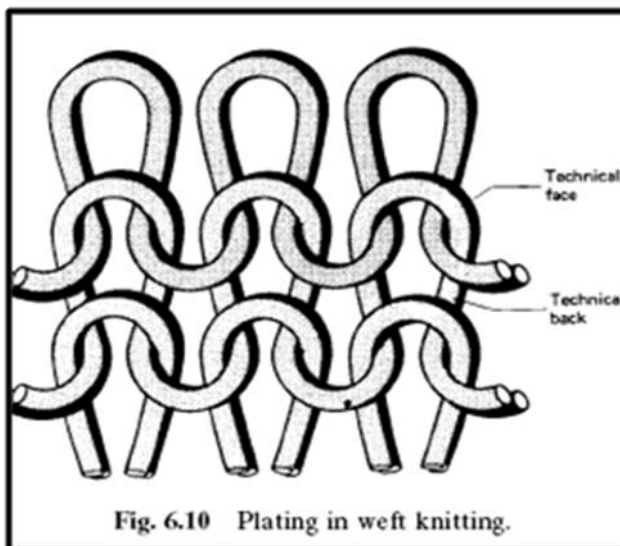
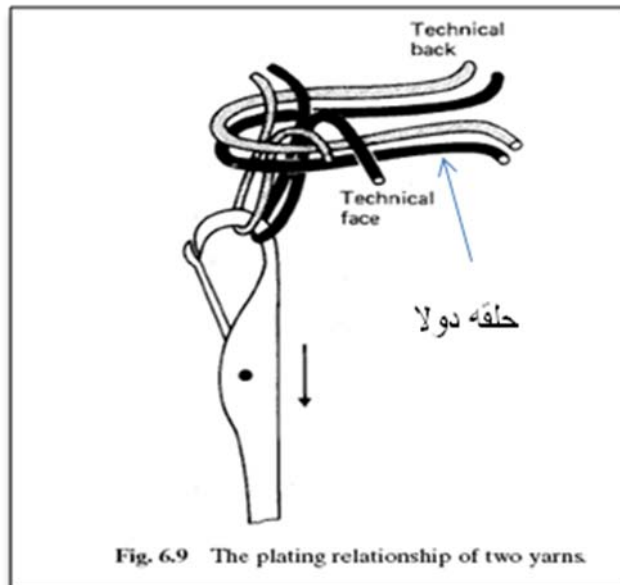




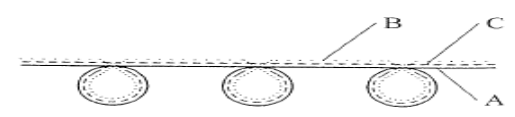
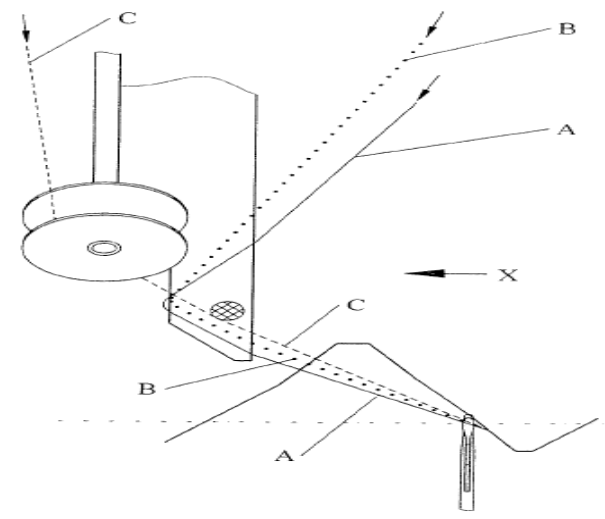
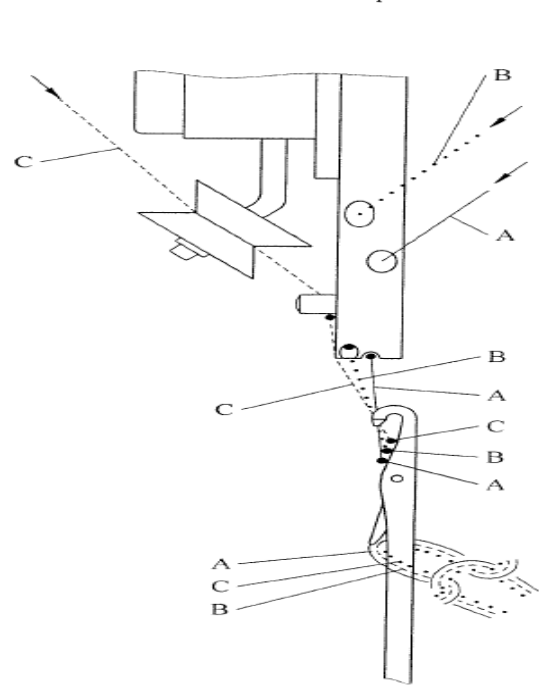


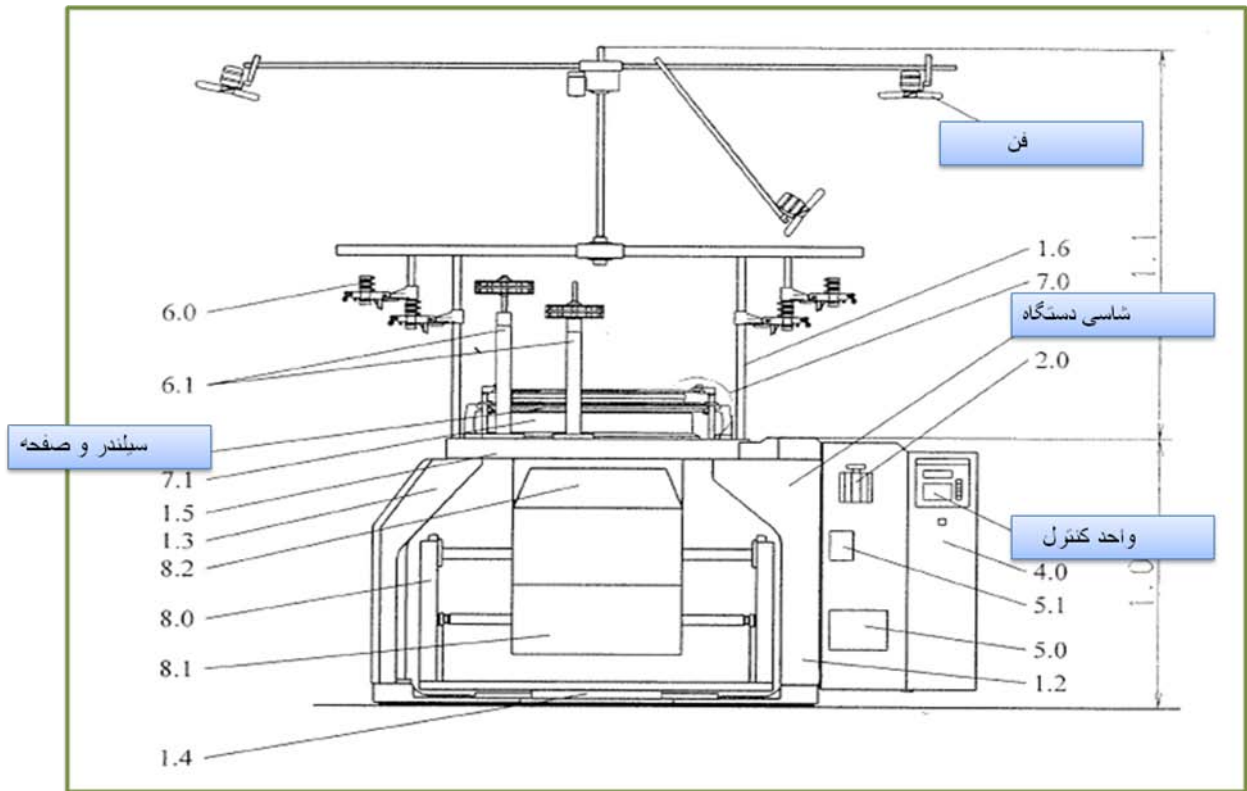
Ansicht in Richtung X

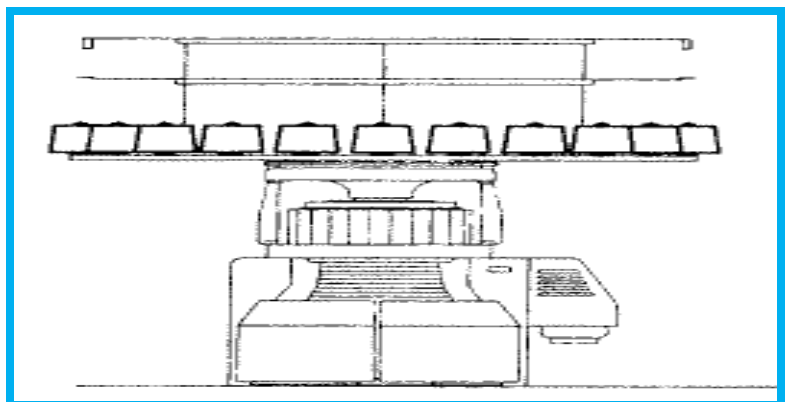
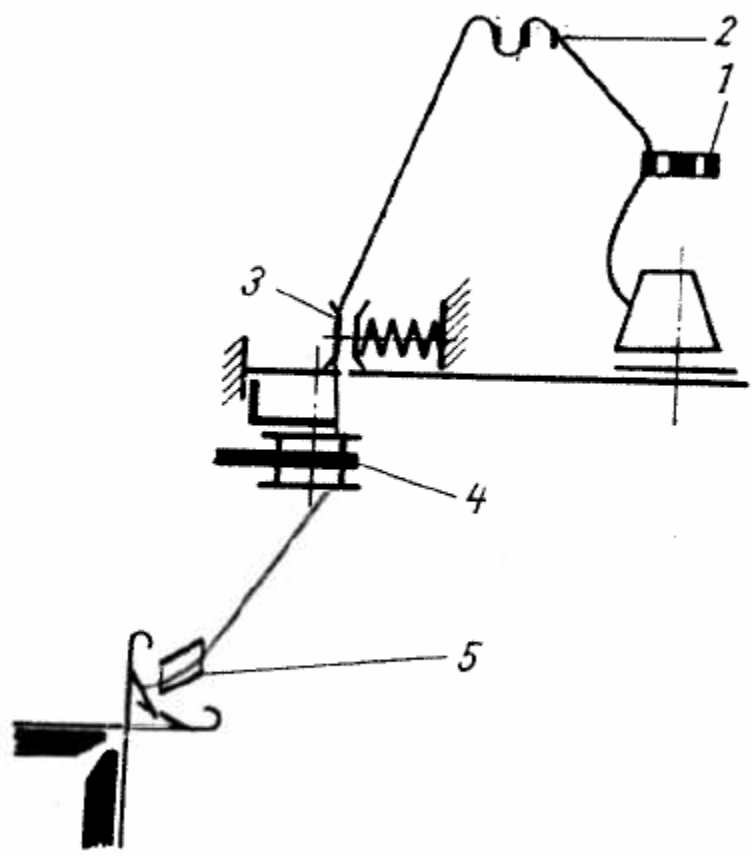


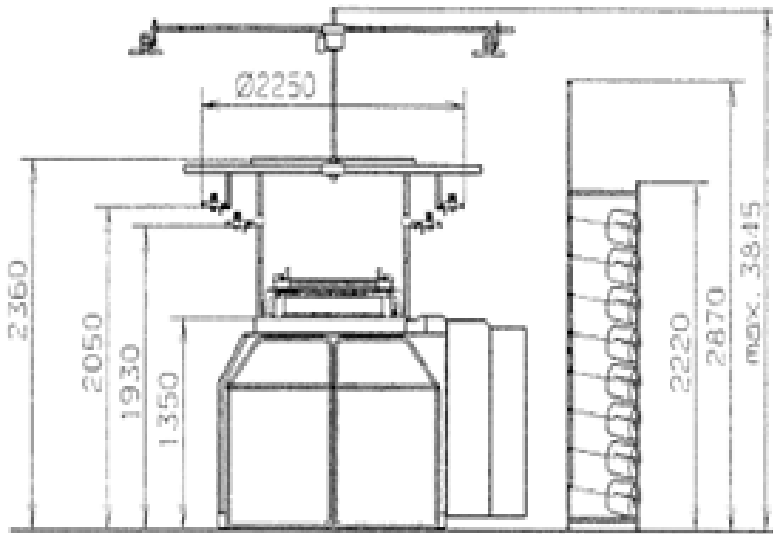
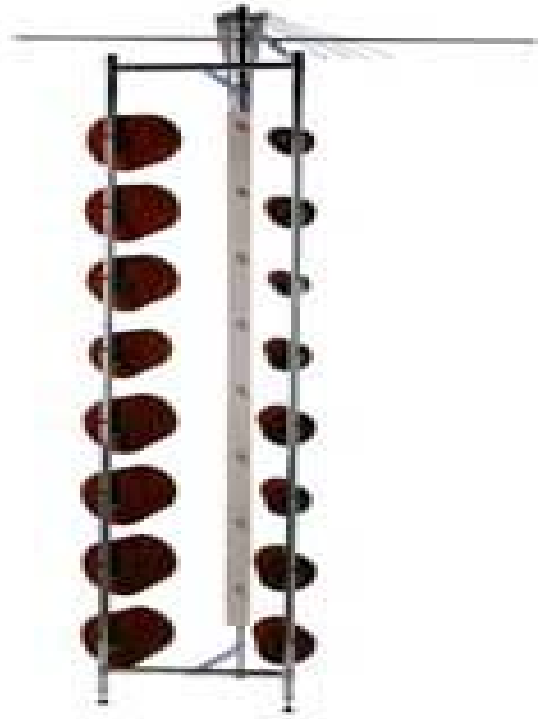


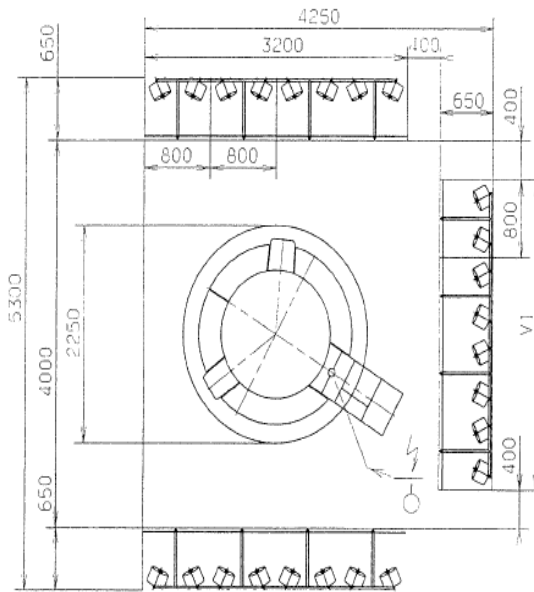
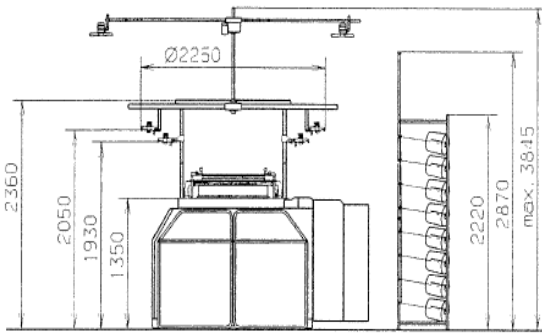
- = A = zum Beispiel Synthetik, rechte Maschenseite
- = B = zum Beispiel Baumwolle, linke Maschenseite
- - - - = C = zum Beispiel Elastomer





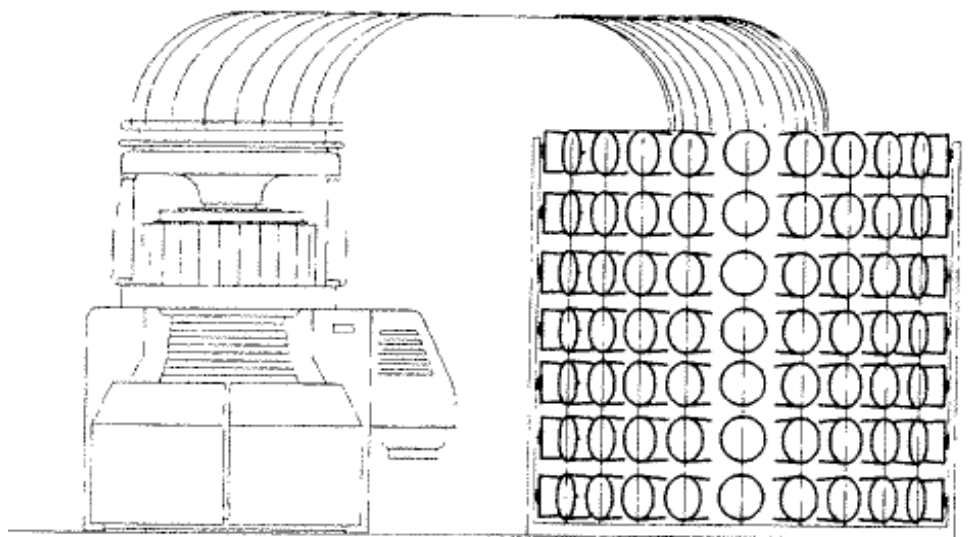






⚡ = Netzanschluß
 ○ = Luftanschluß

Maßangaben in mm,
 dargestelltes Beispiel 30"





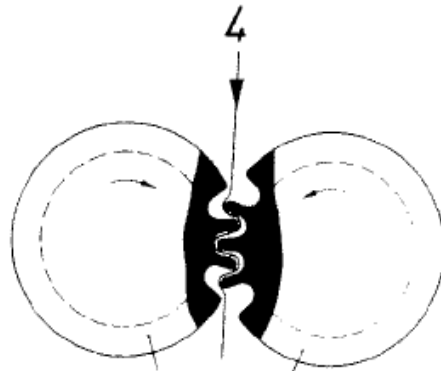
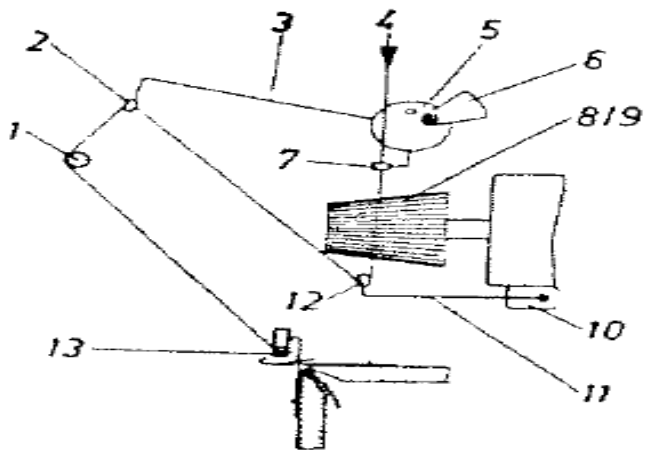


Abb. 3.62 8 9



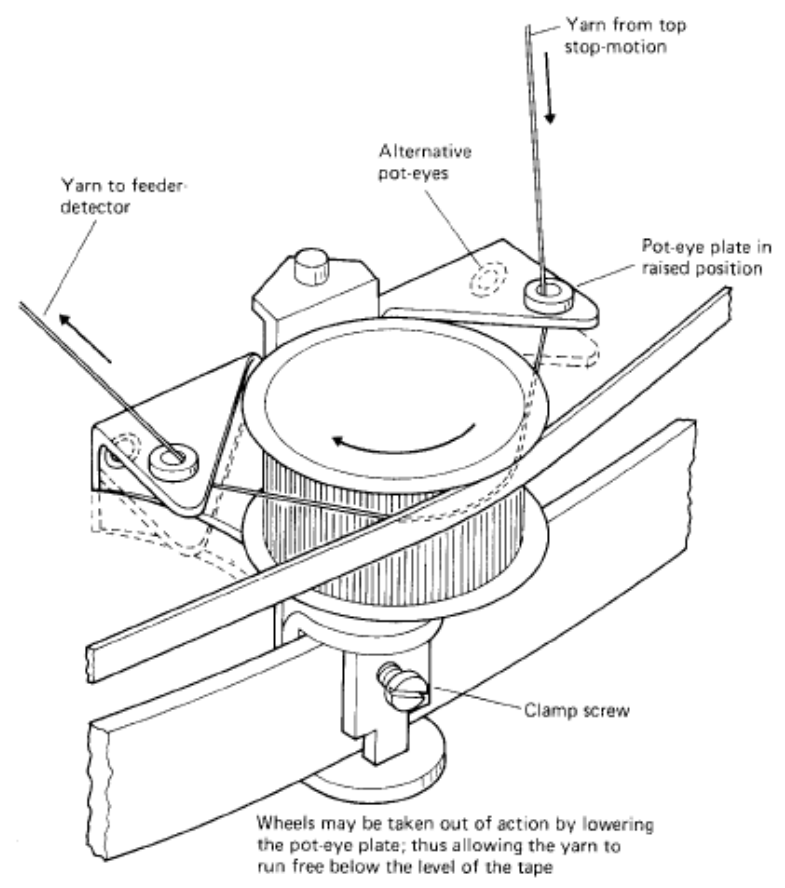
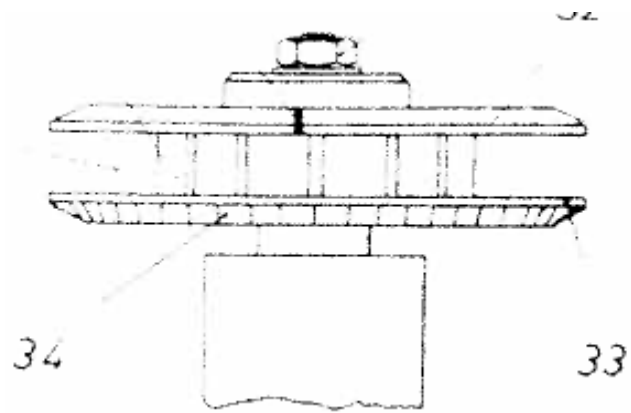
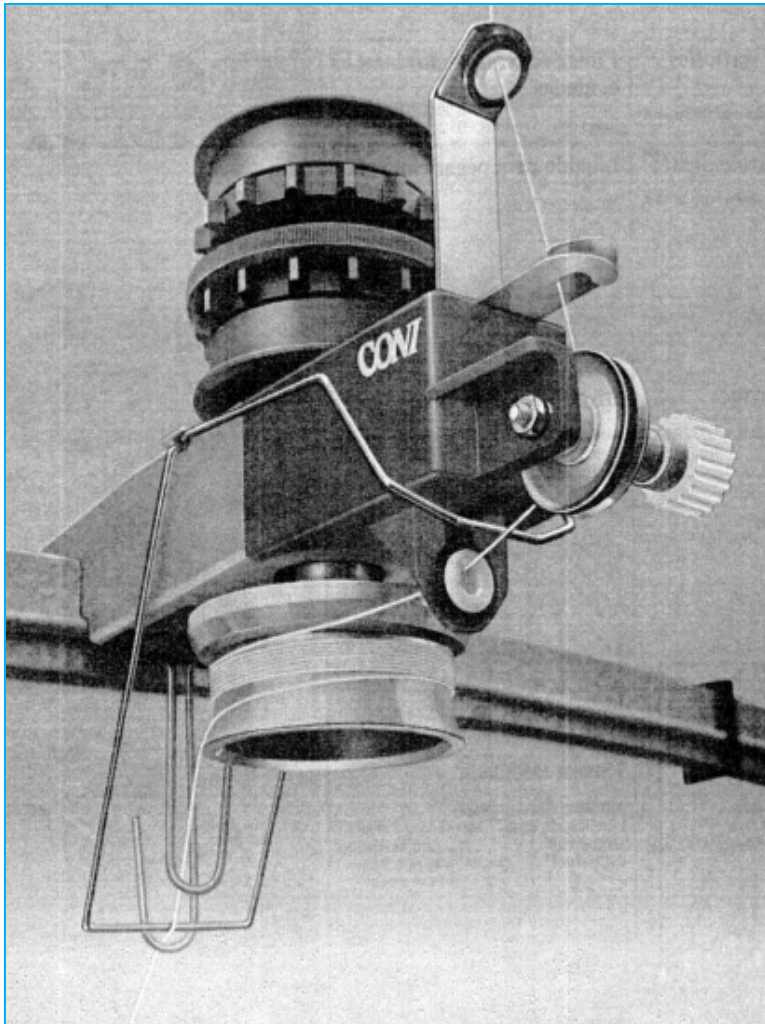
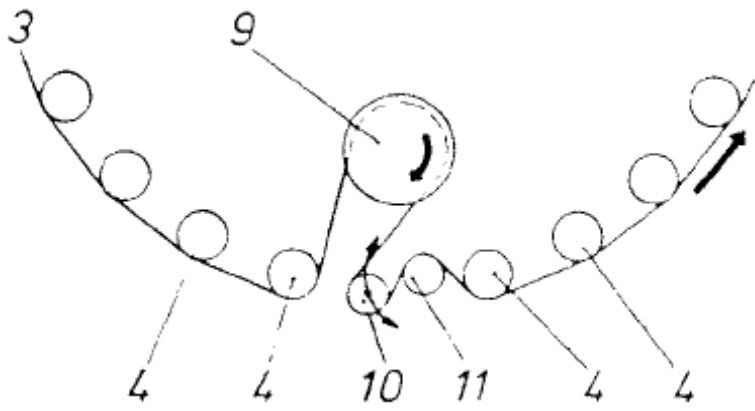
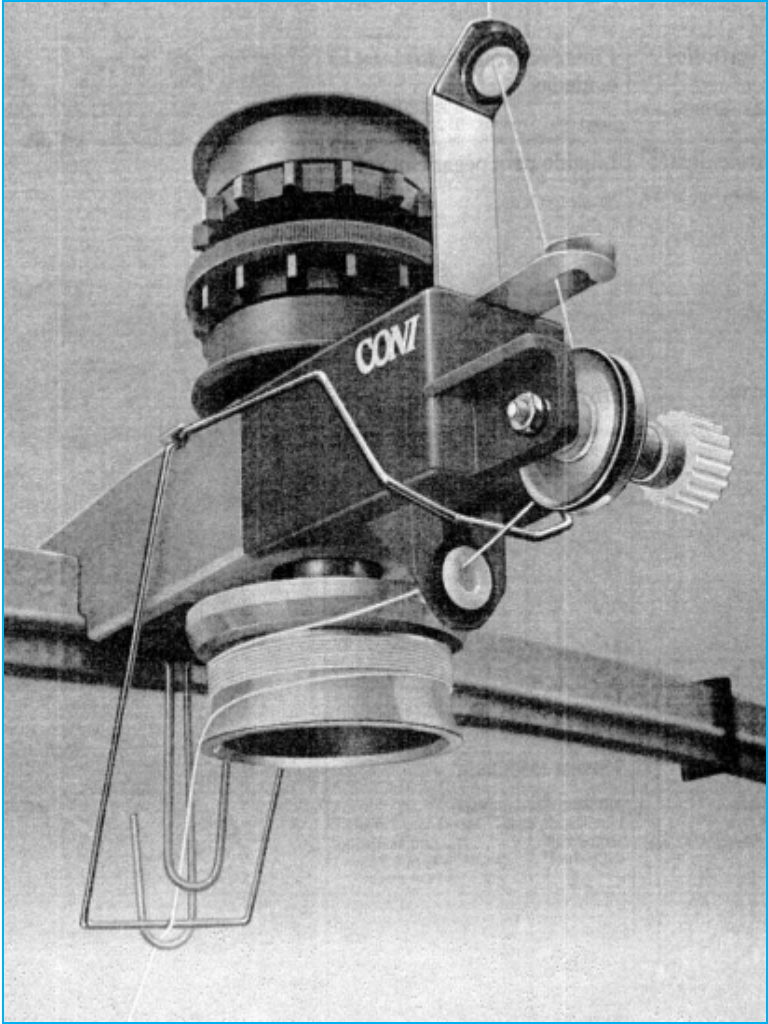
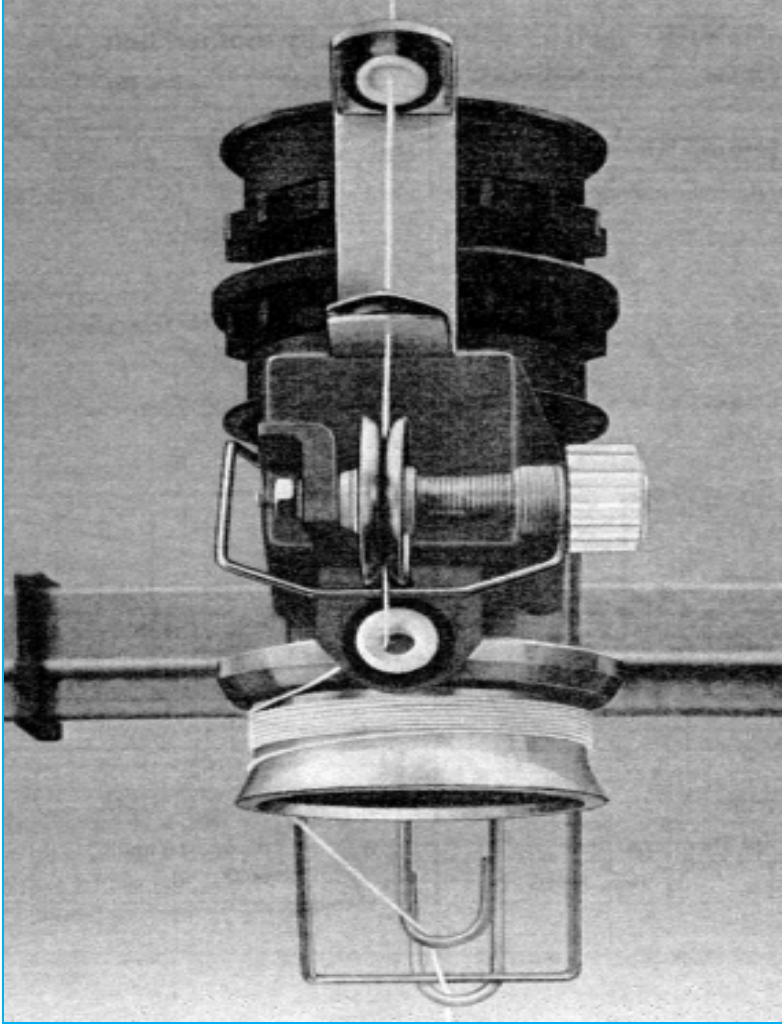
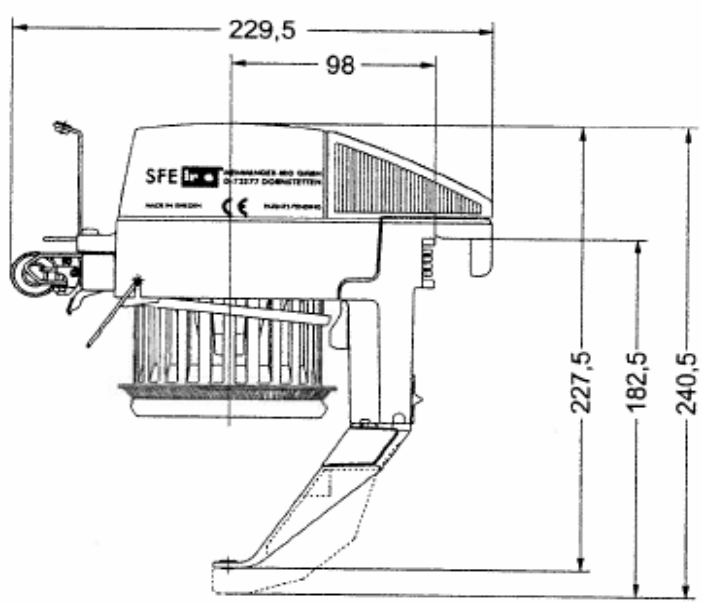
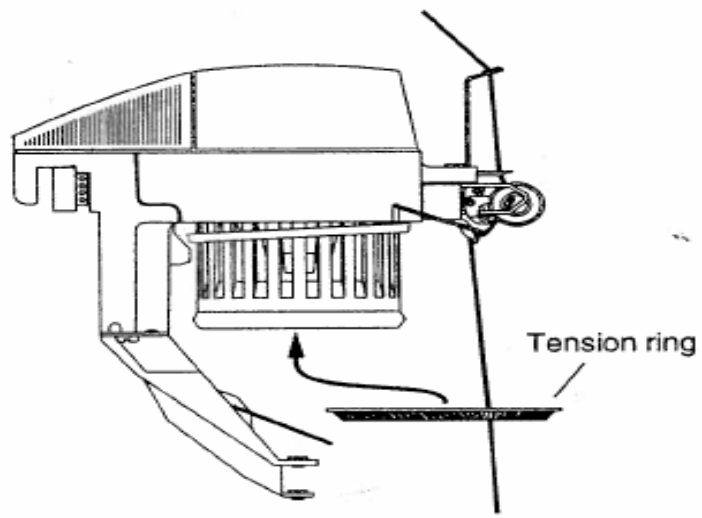


Fig. 22.1 Trip-tape positive feed.

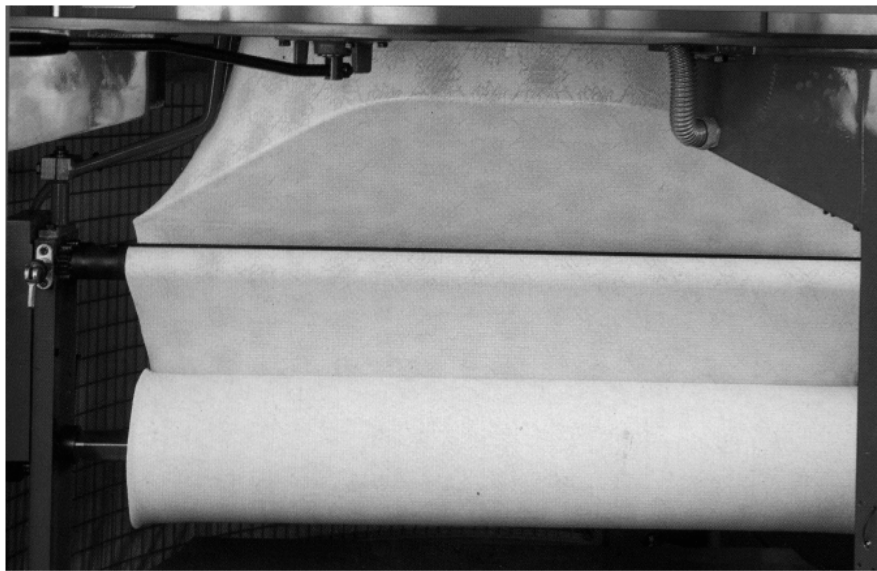
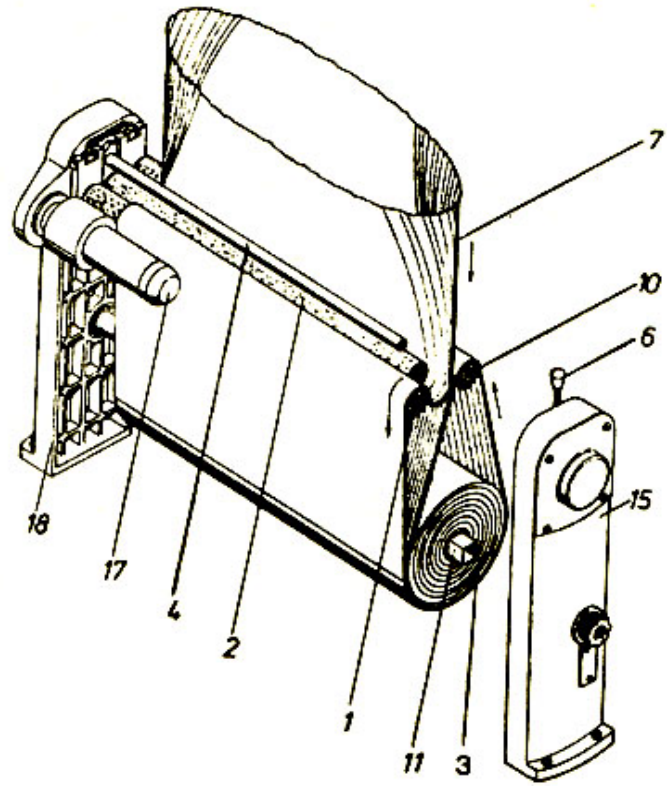




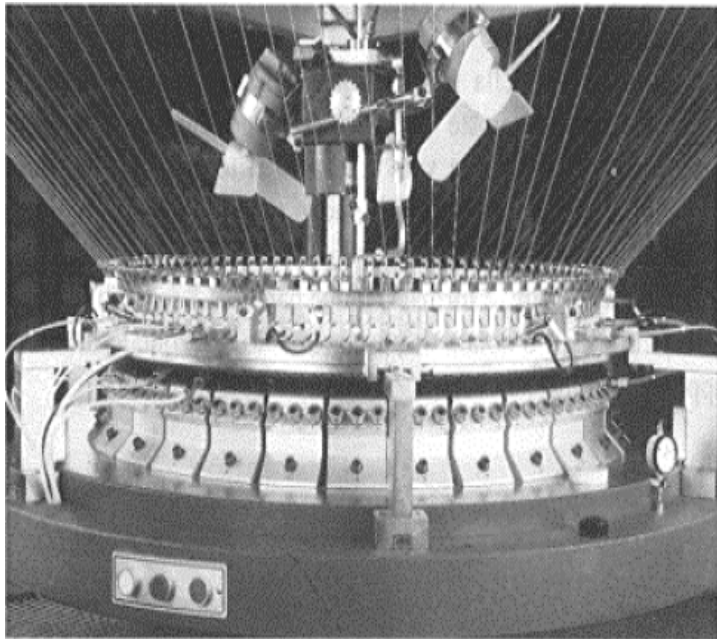
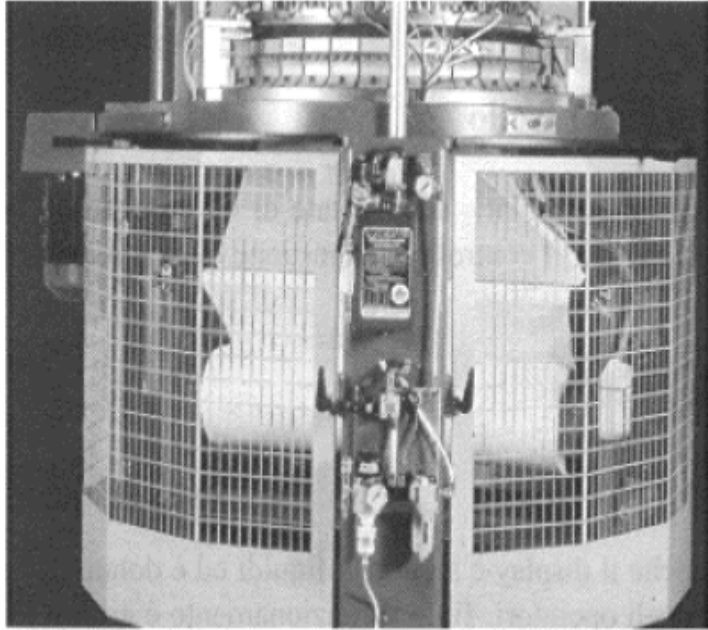








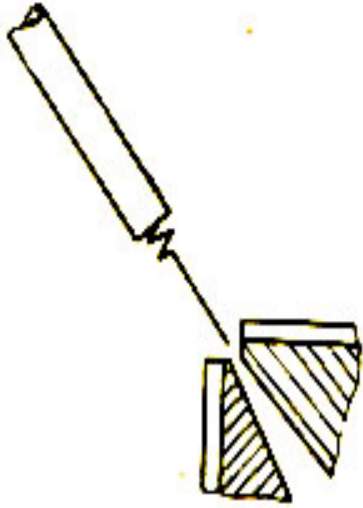
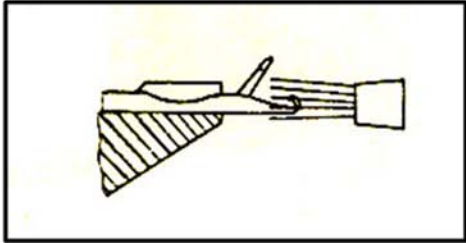
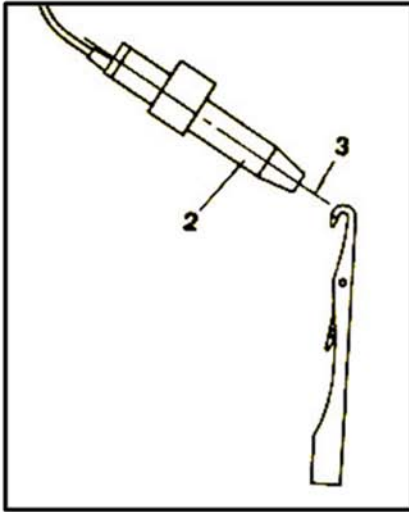






LMW 3 Fabric Scanner

وظیفه واحد مراقبت و کنترل:
مراقبت از عناصر بافت بخصوص سوزن
مراقبت از پارچه
مراقبت از وضعیت نخ در حال تغذیه



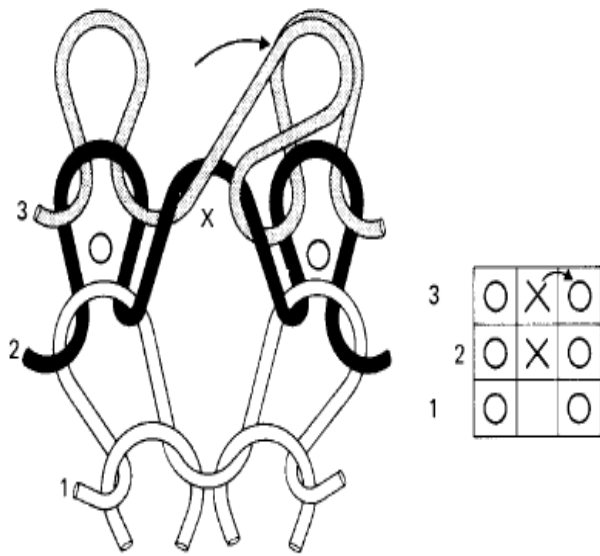


Fig. 15.3 Knitting on empty rib needle followed by rib loop transfer.

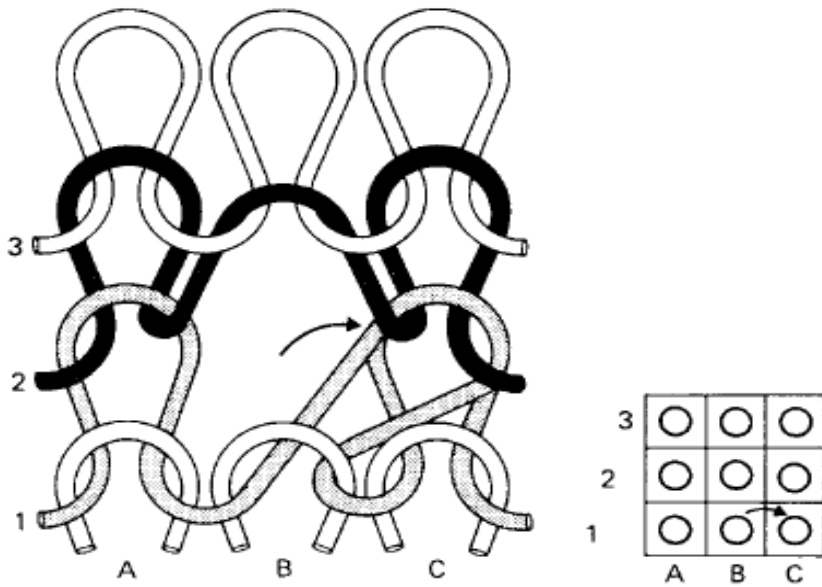
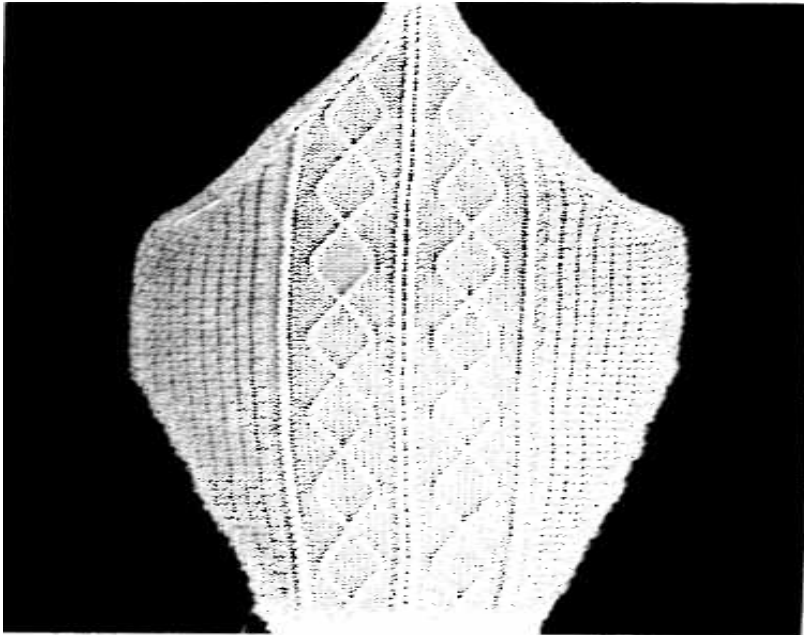
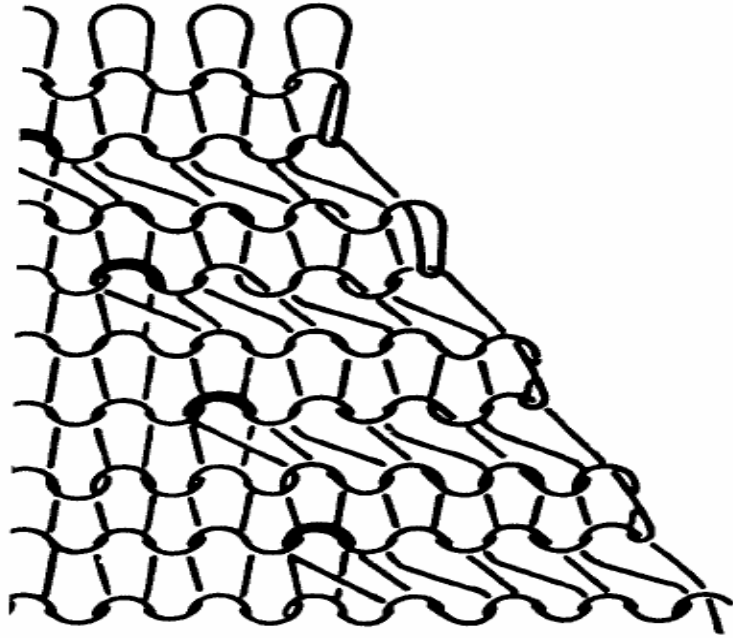
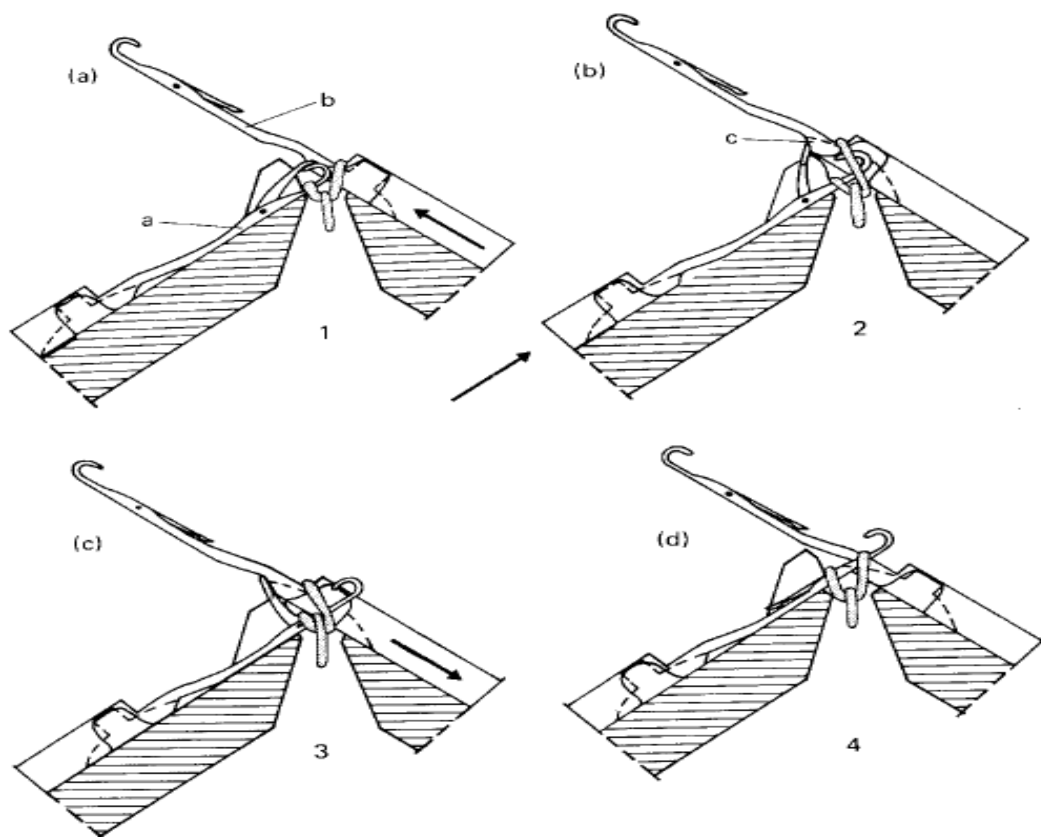
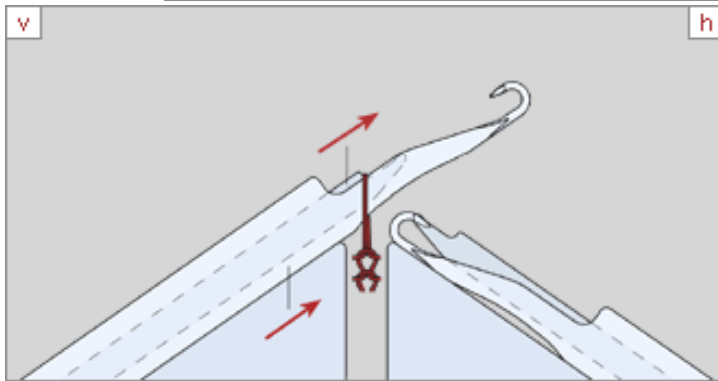
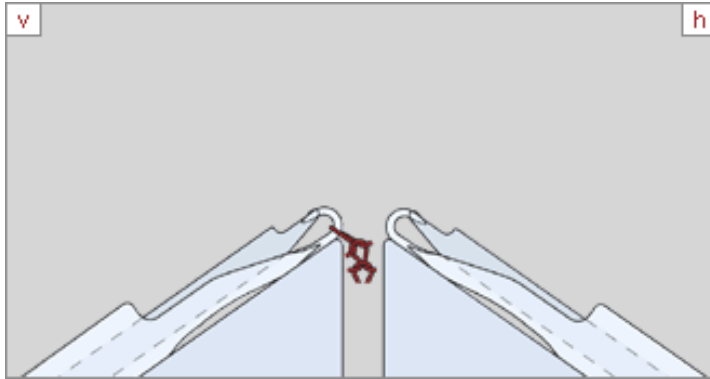
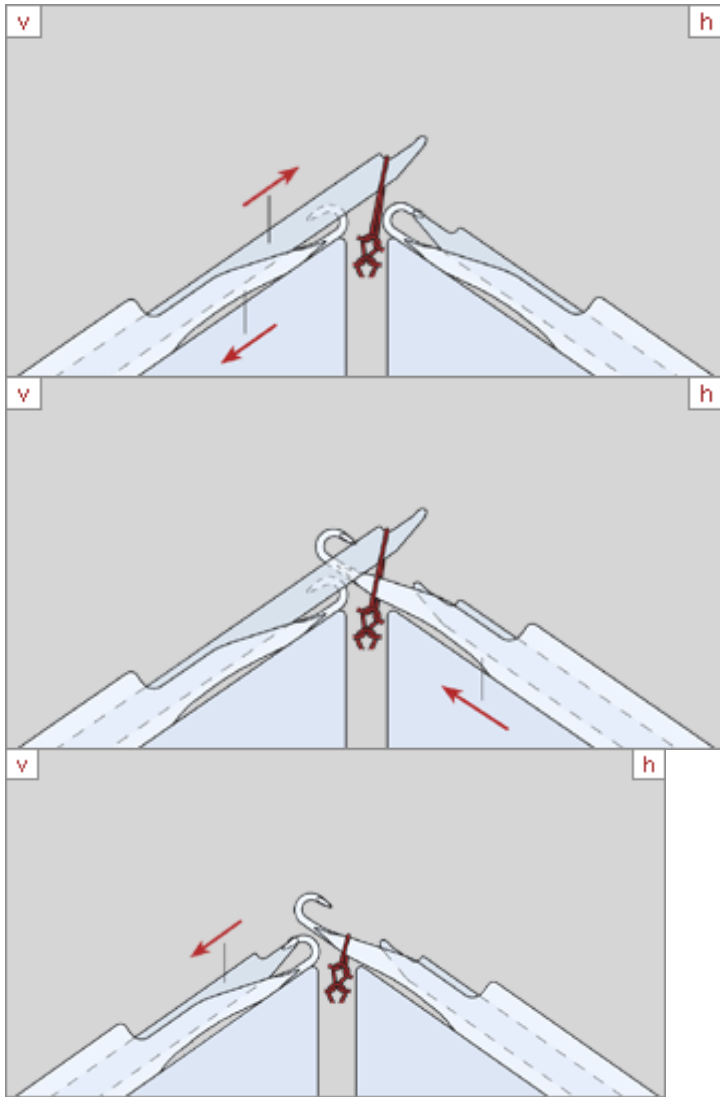


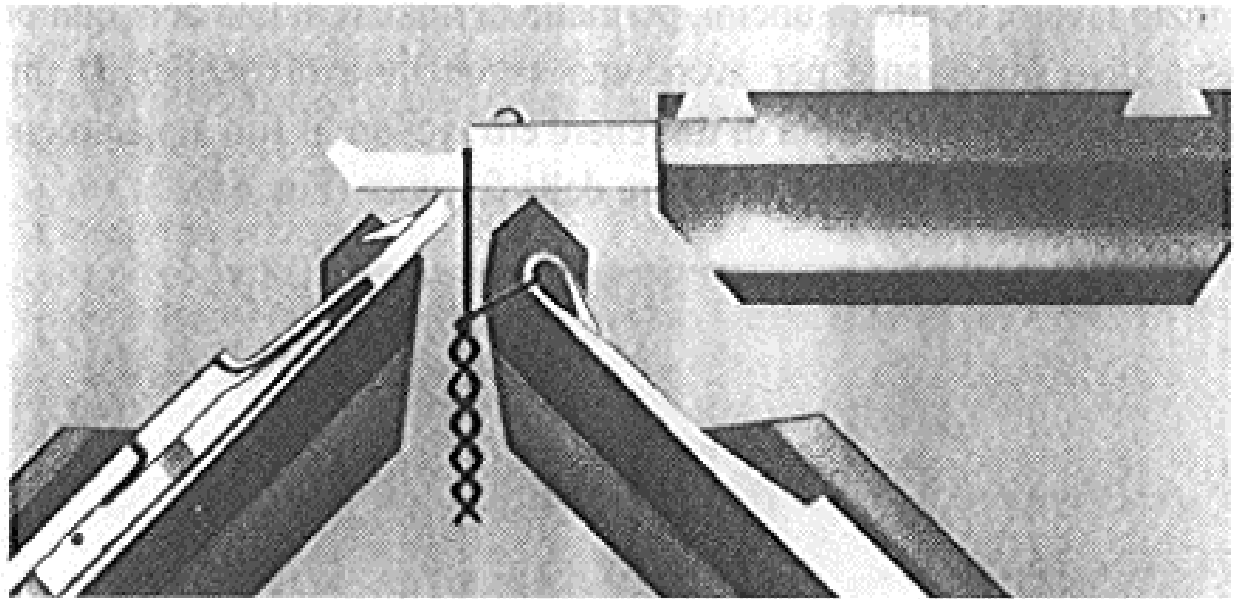
Fig. 15.1 Plain loop transfer stitch.



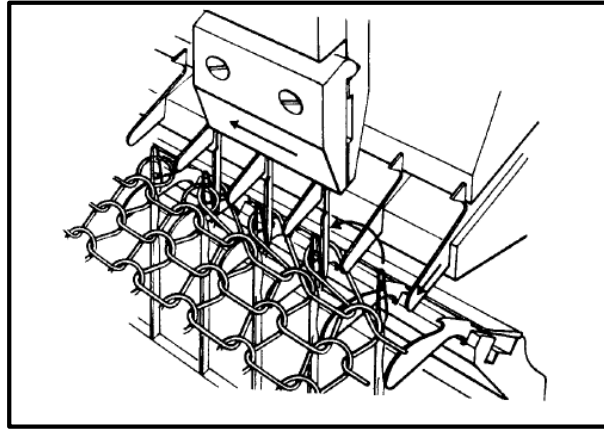




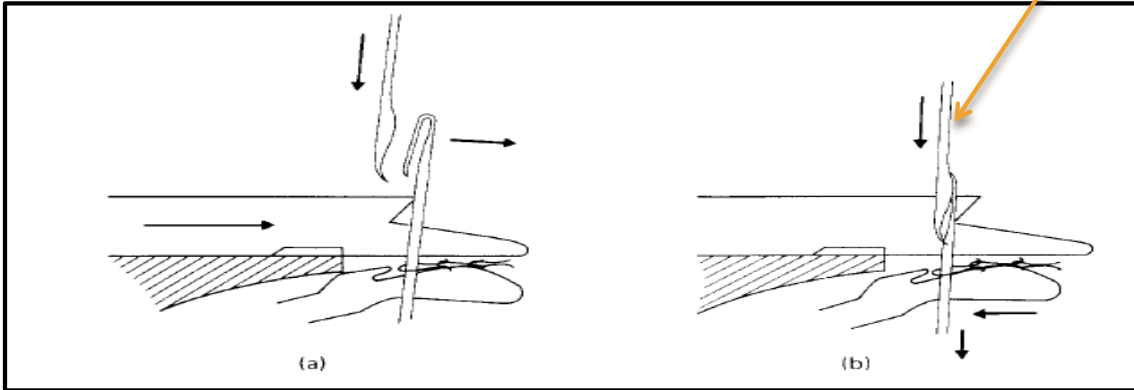


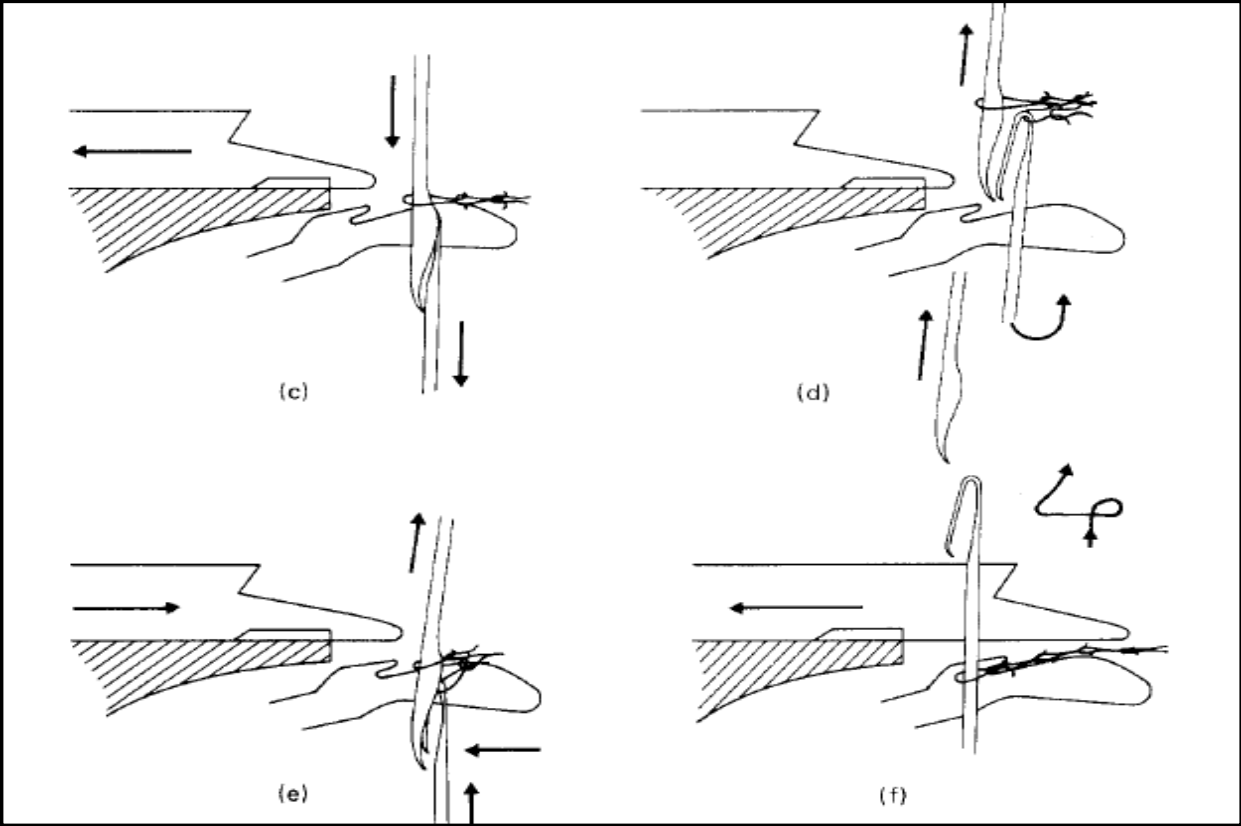


Picture 68 - The auxiliary bed for the lateral transfer of stitches



ابزار دانه گیری





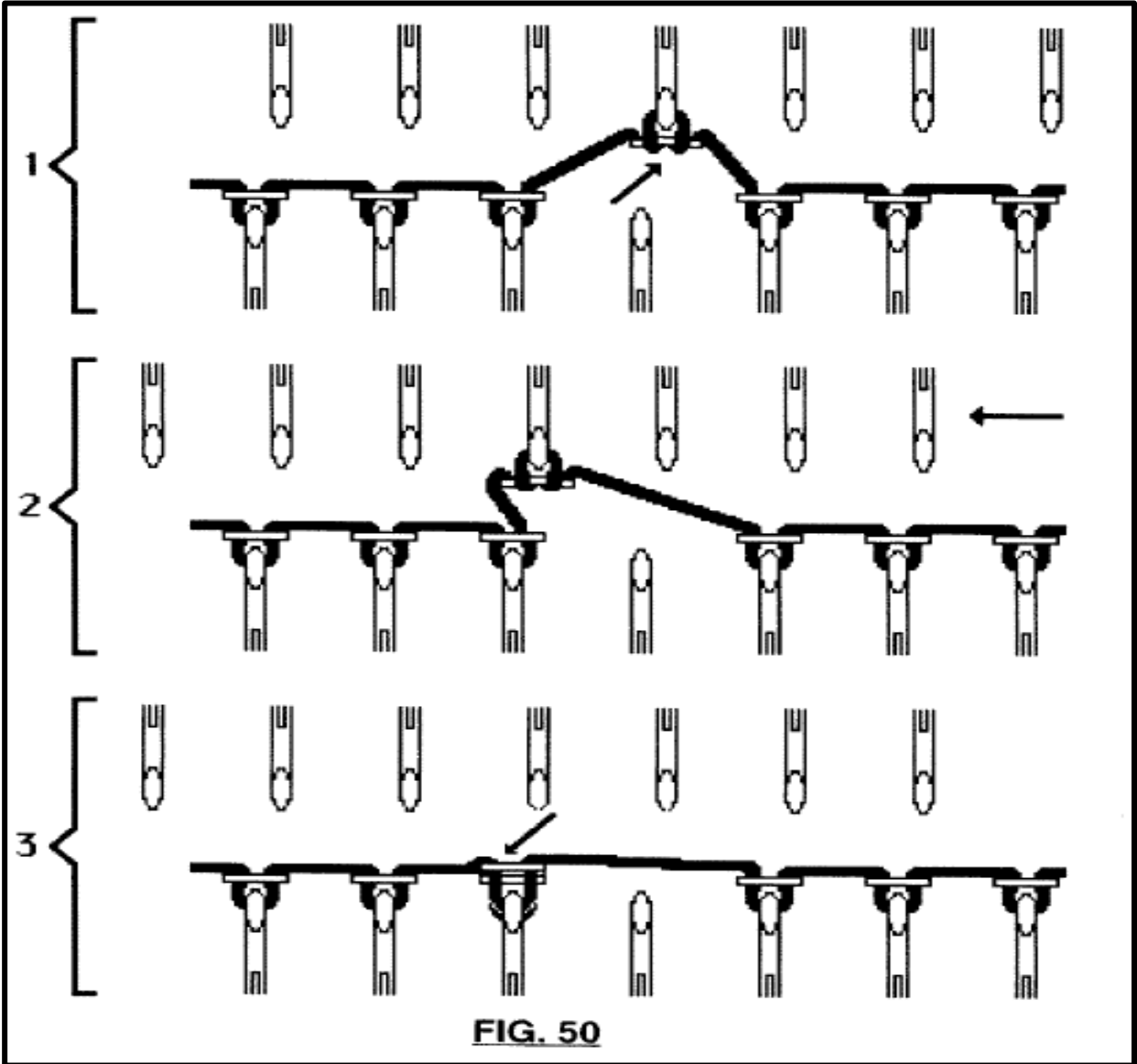
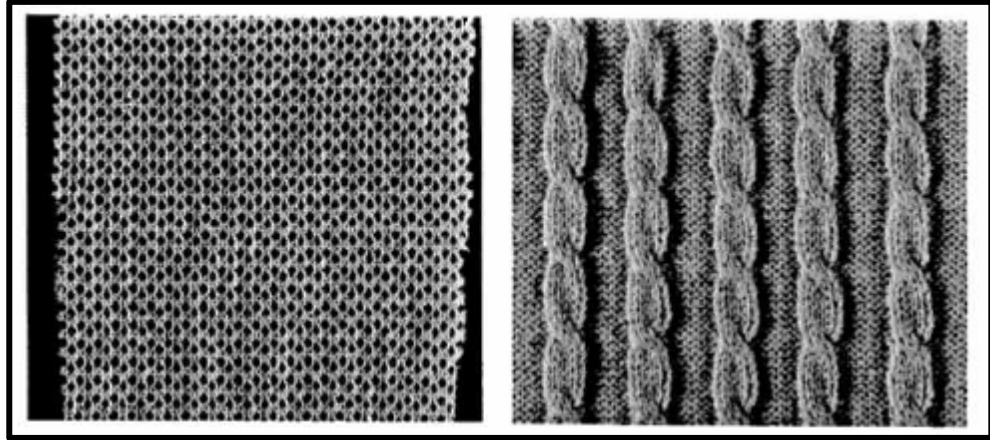
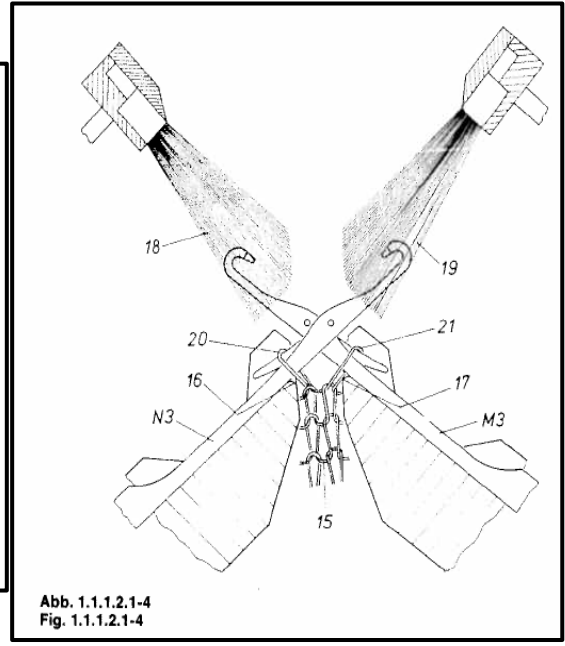
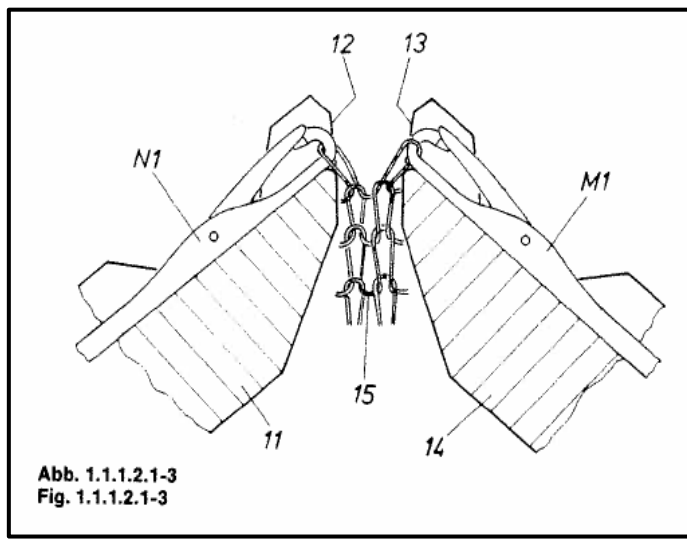
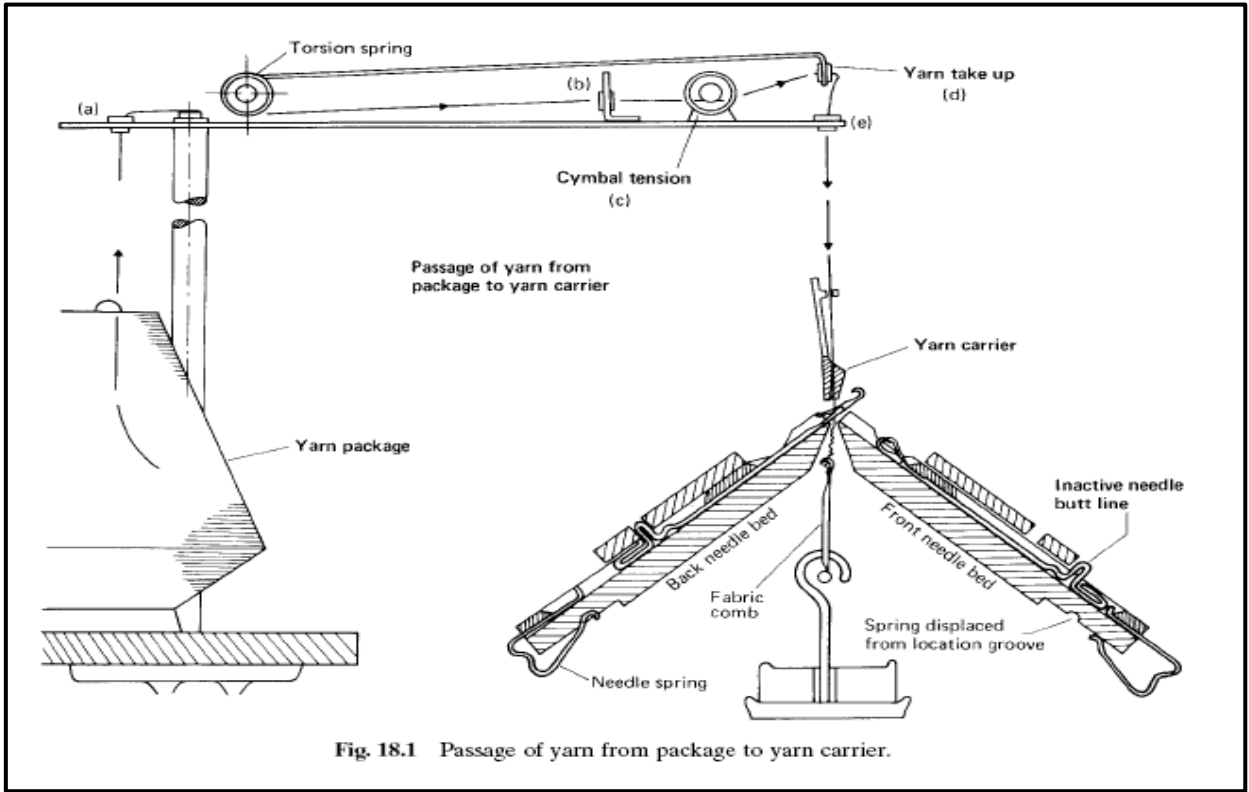
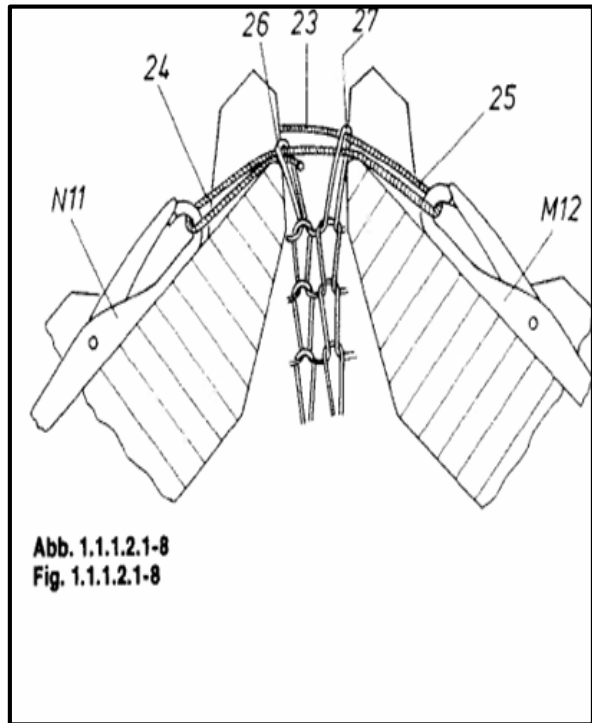
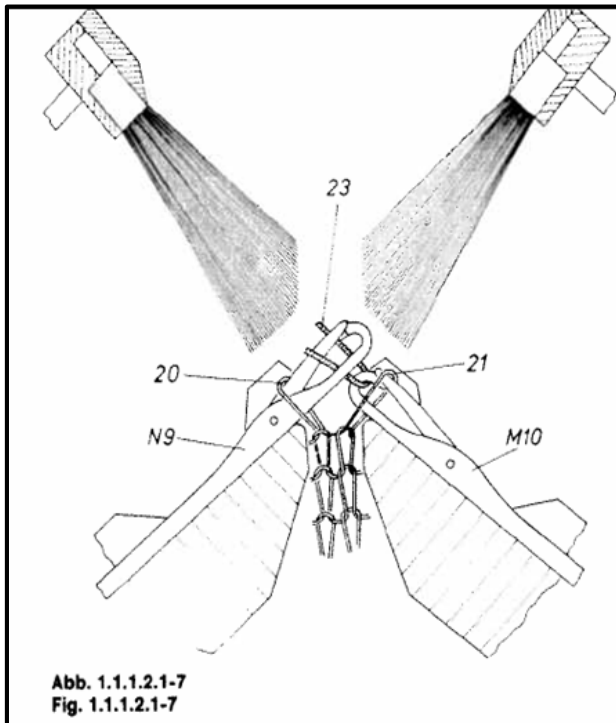
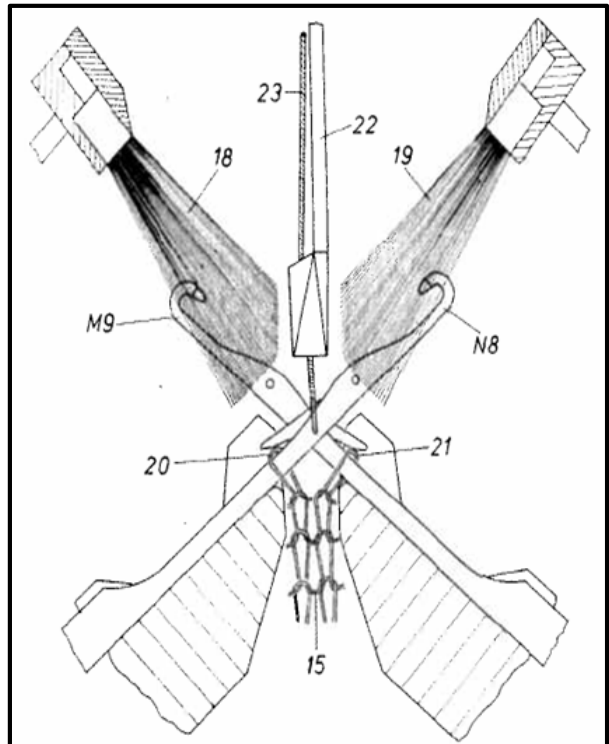
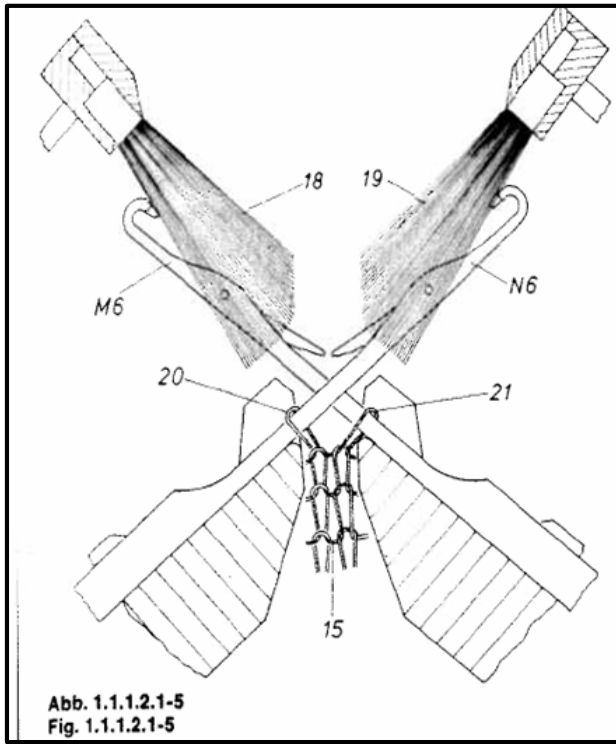
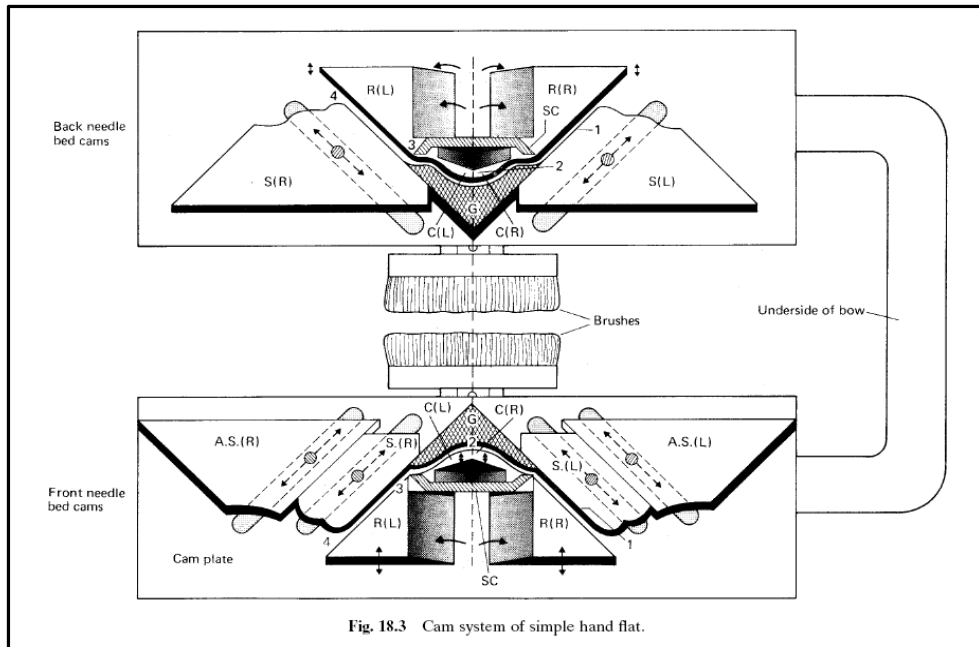
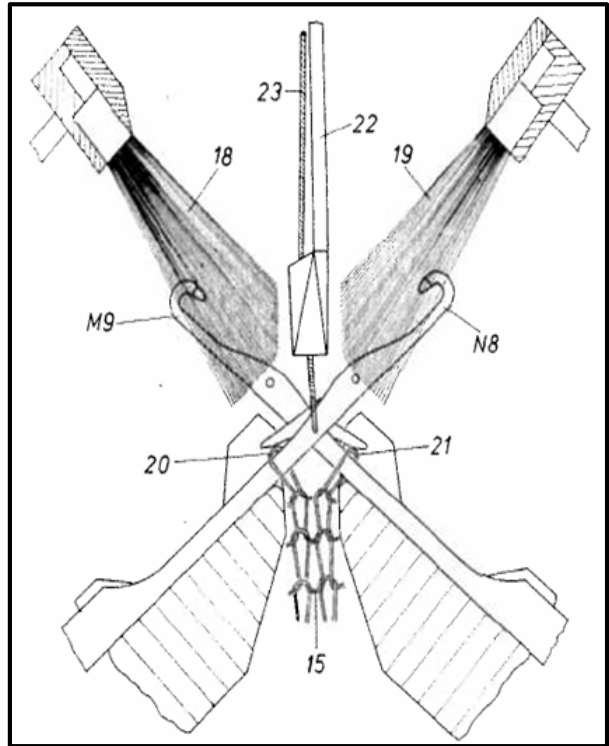
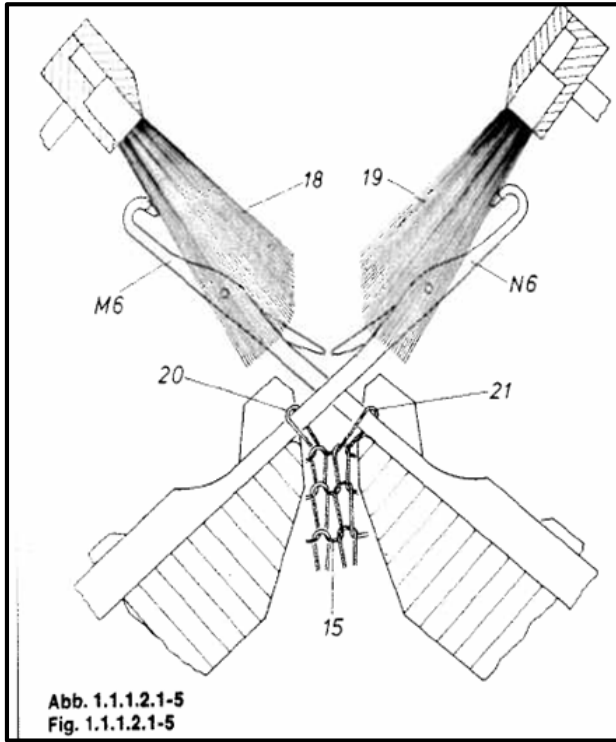


FIG. 50









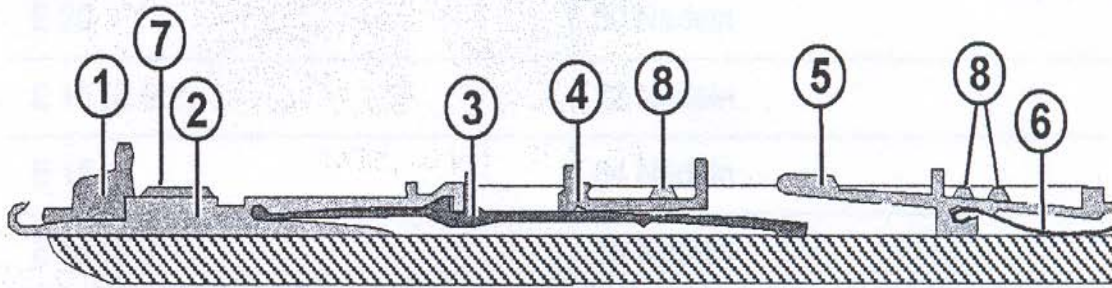
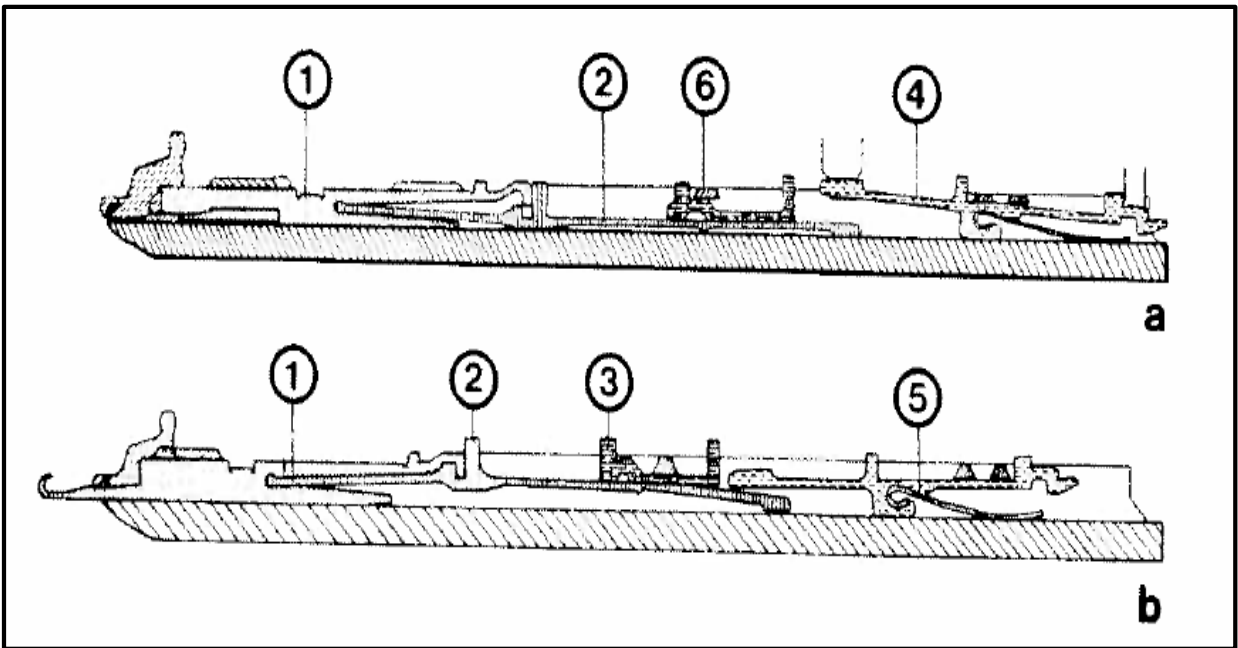
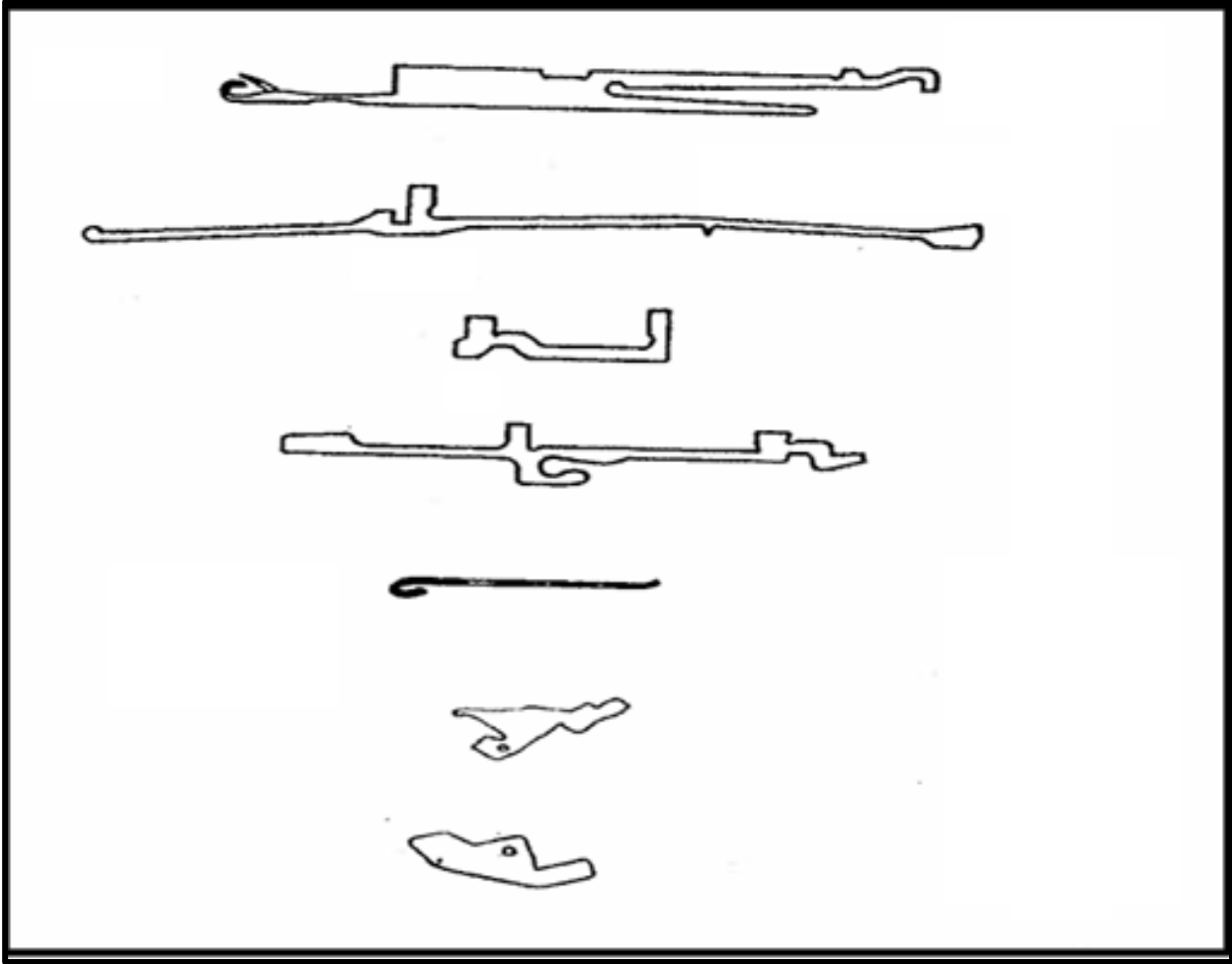


Fig. 3-24 Nadelbett

- 1 Niederhalteplatine
- 2 Nadel
- 3 Kupplungsteil
- 4 Zwischenschieber

- 5 Auswahlplatine
- 6 Platinenfeder
- 7 Nadelschiene
- 8 Deckschiene



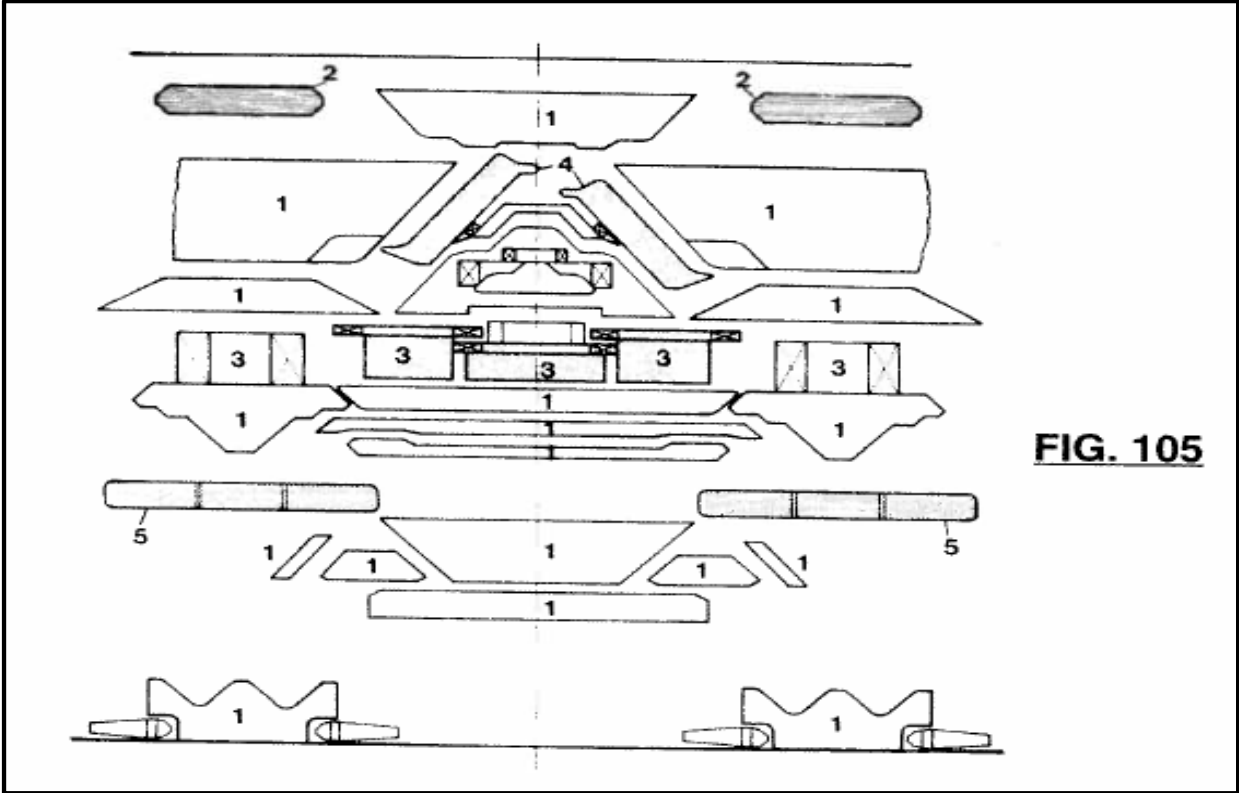
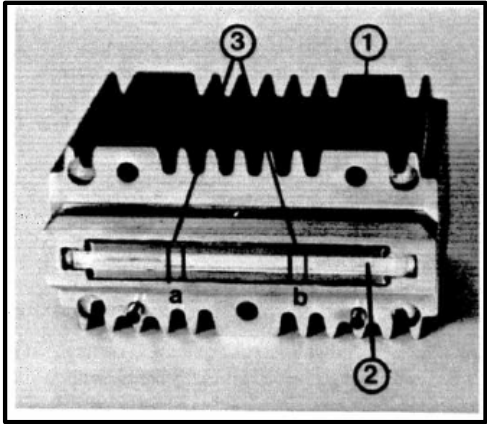
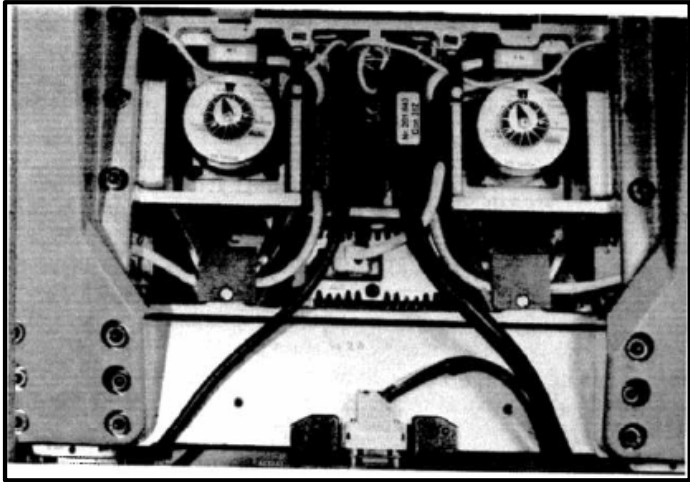
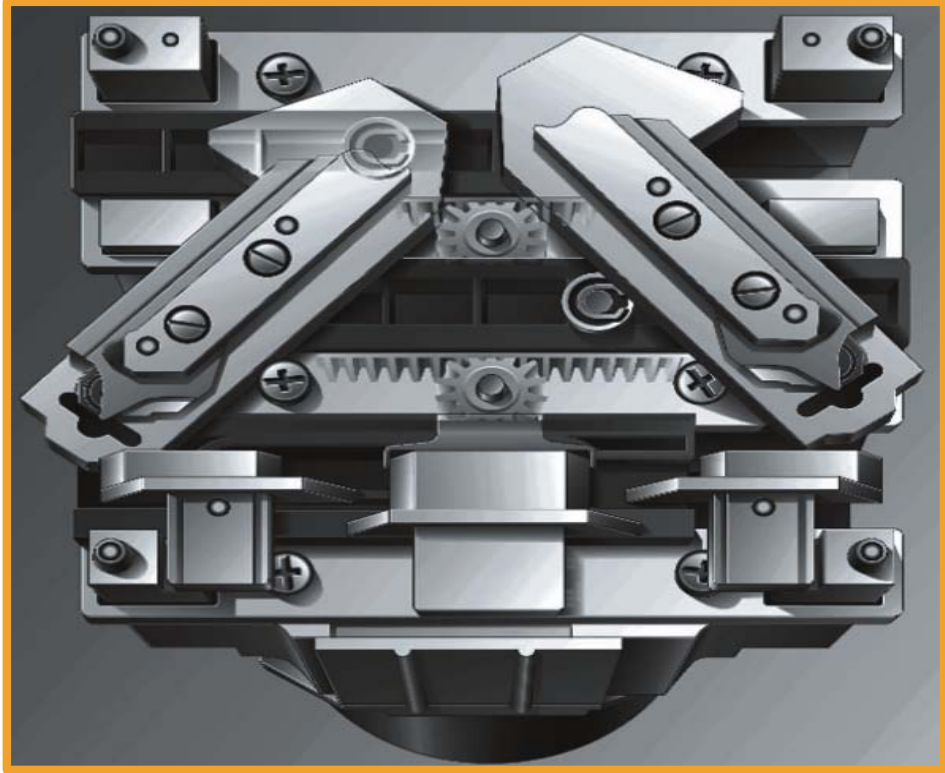
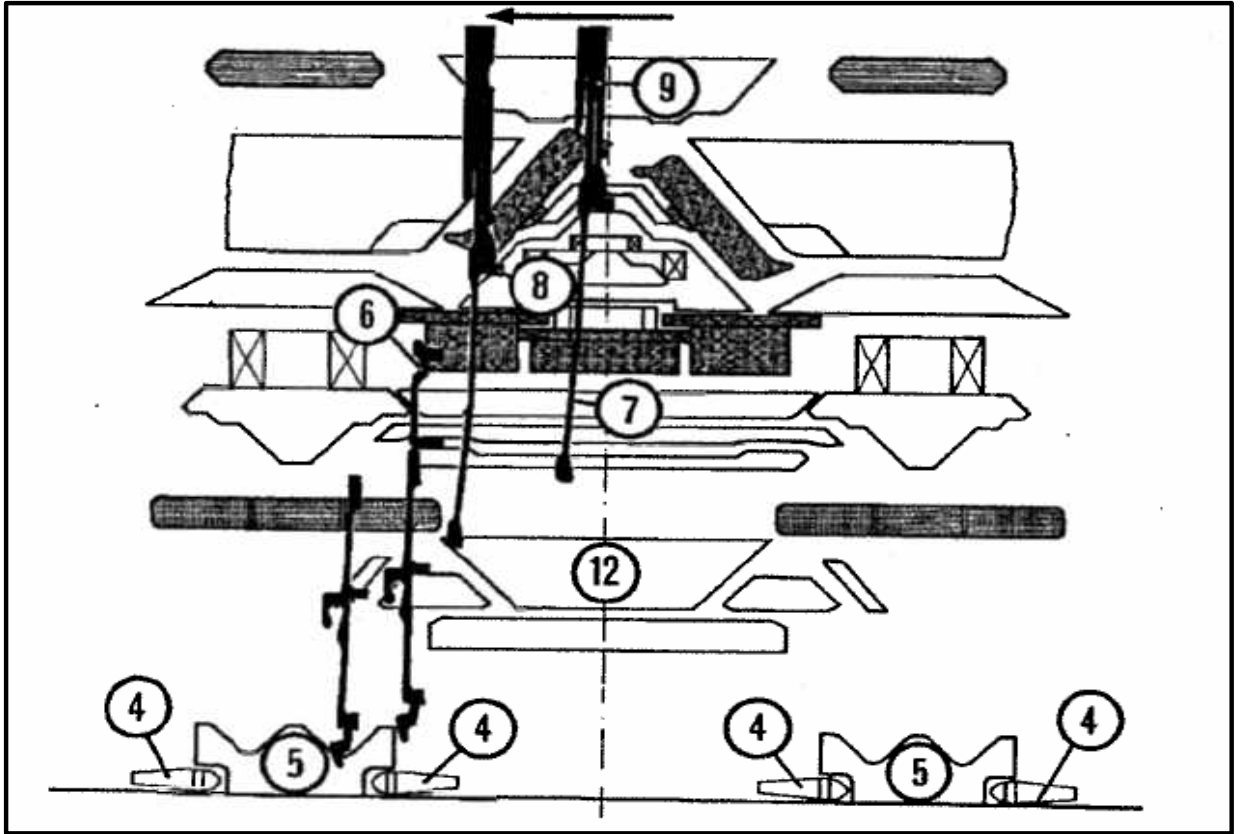


FIG. 105





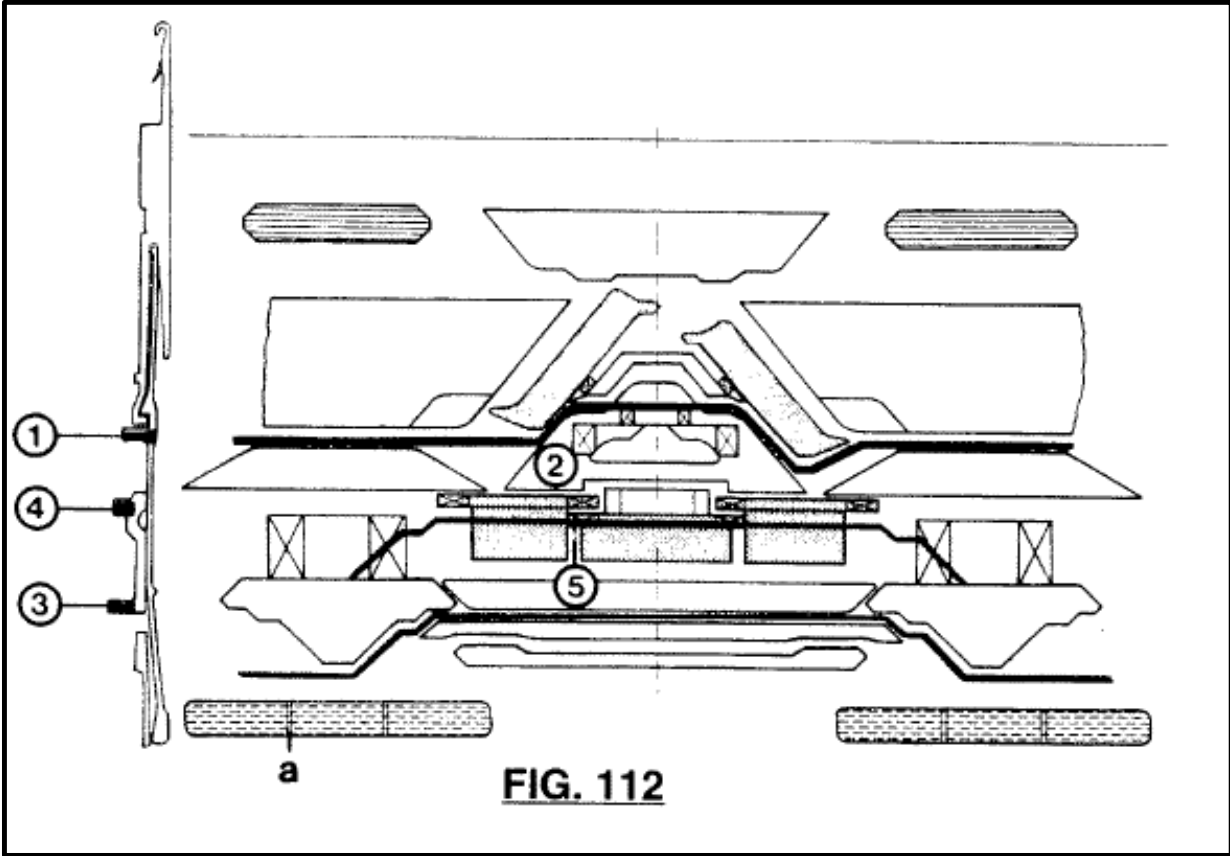
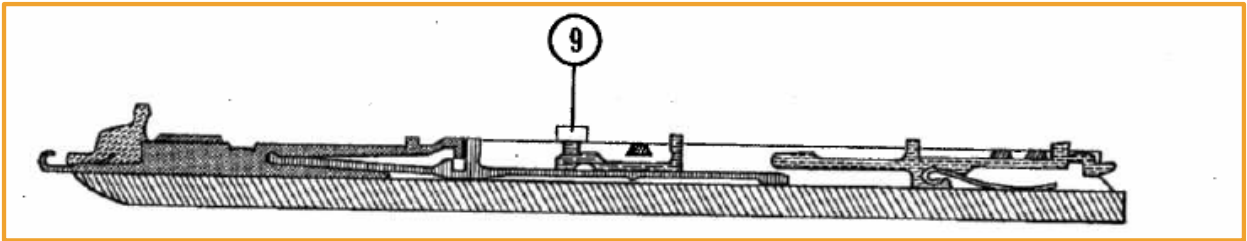
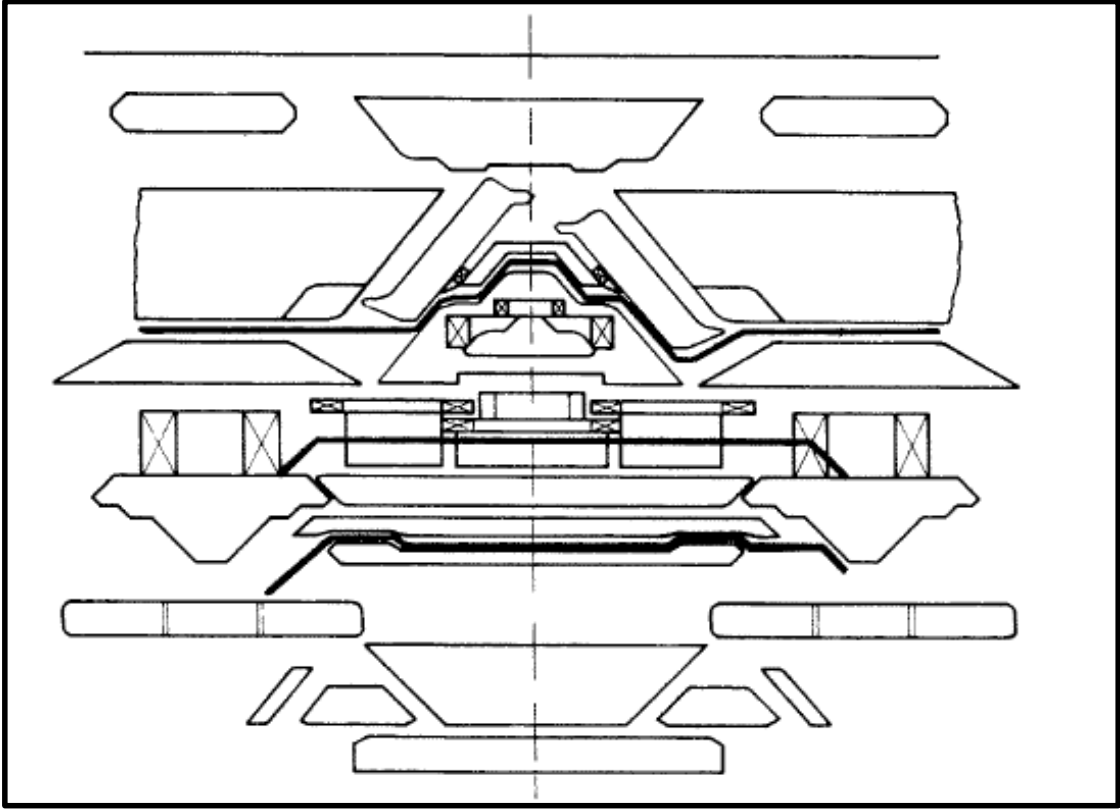
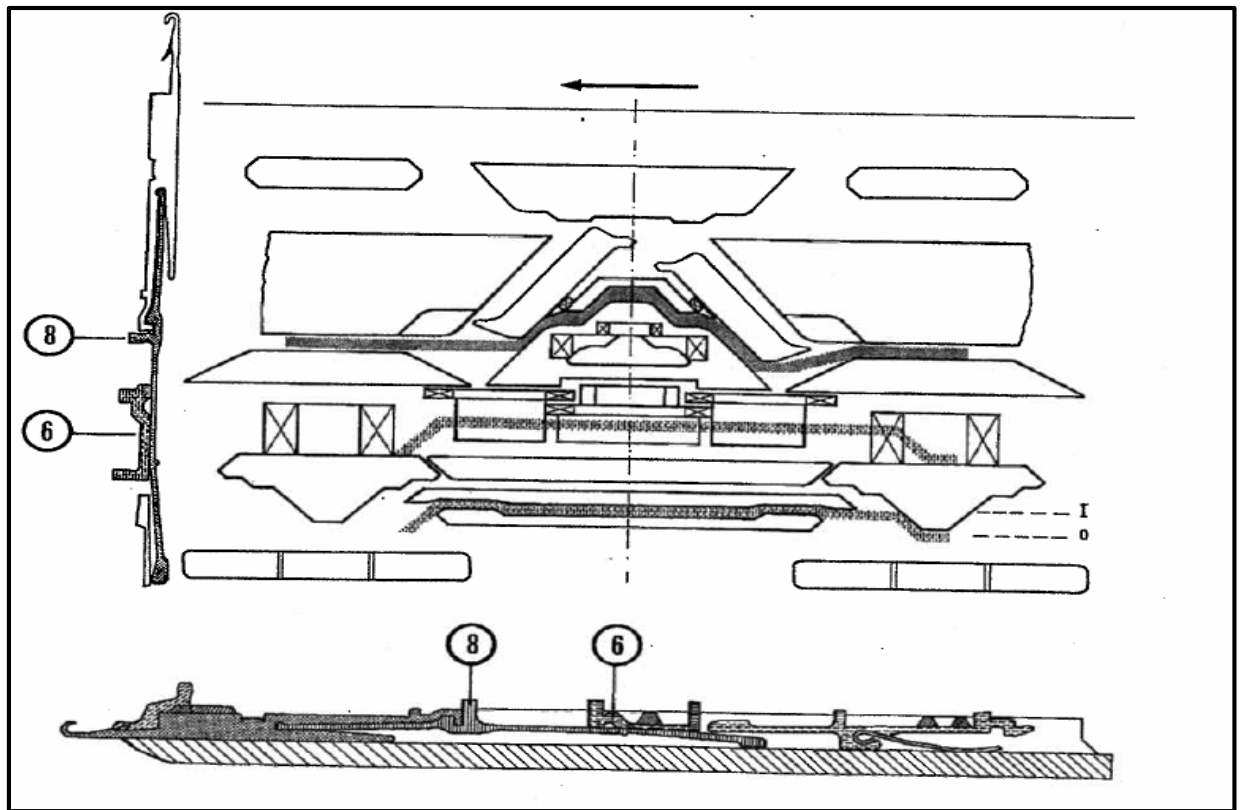
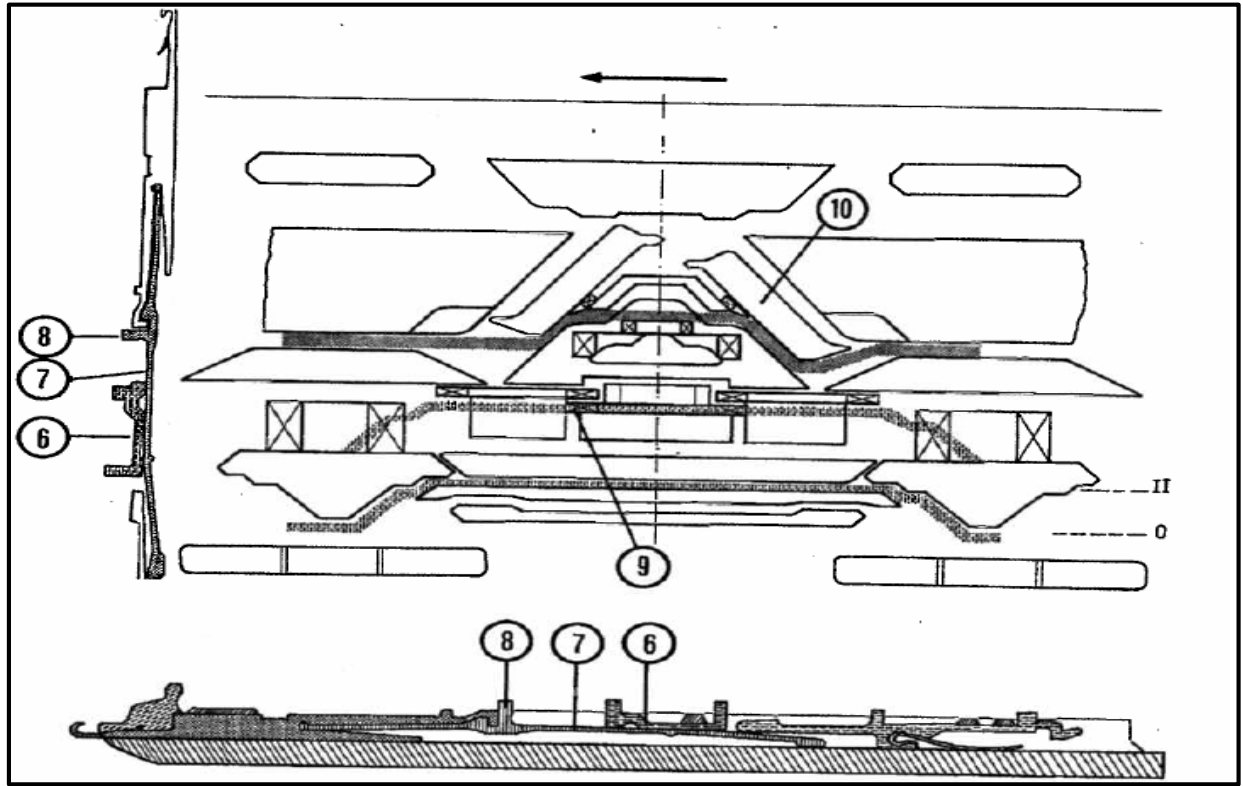
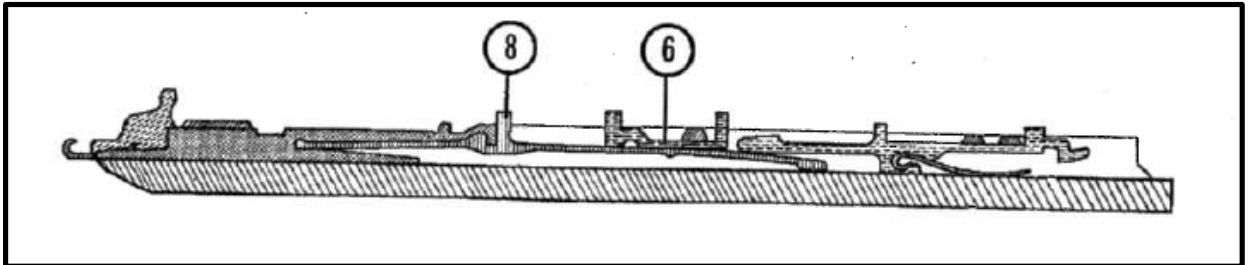
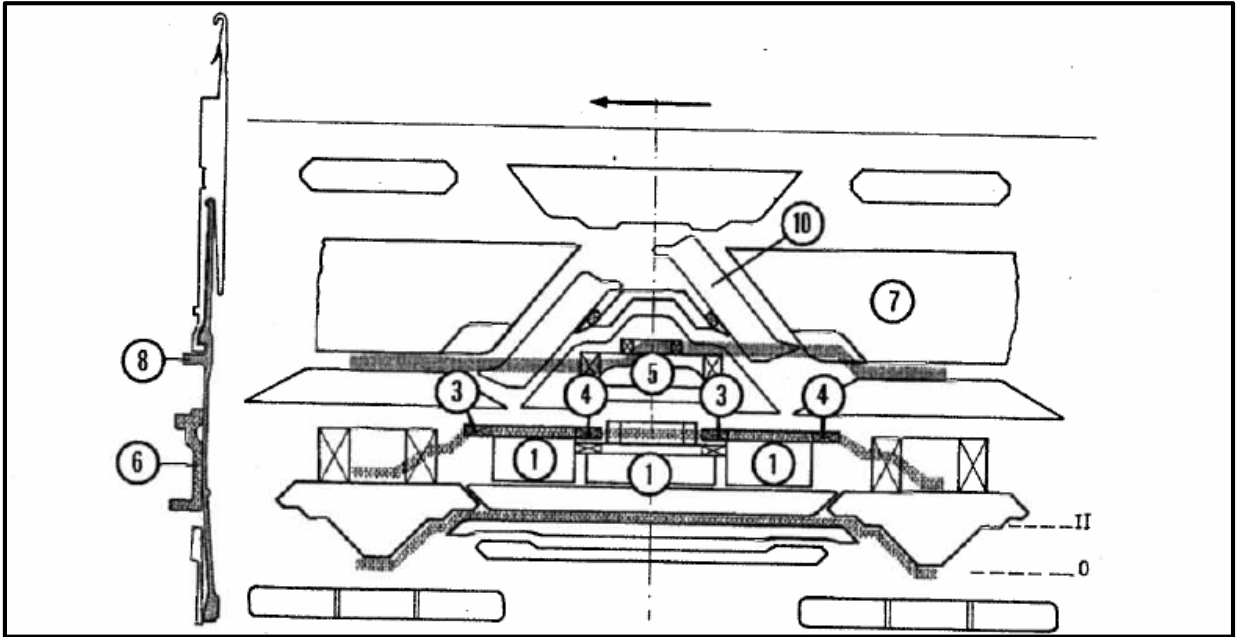
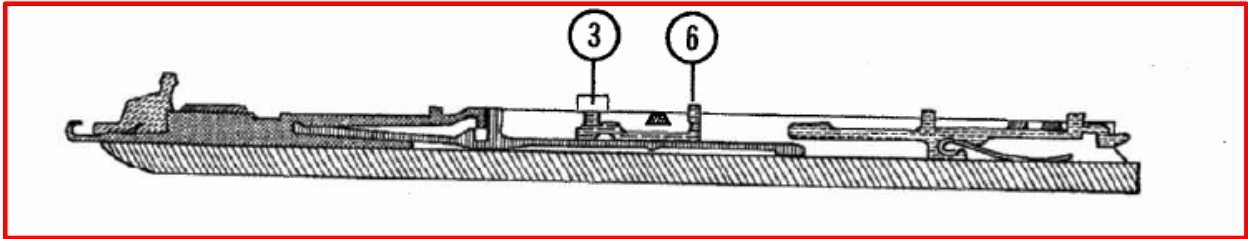


FIG. 112







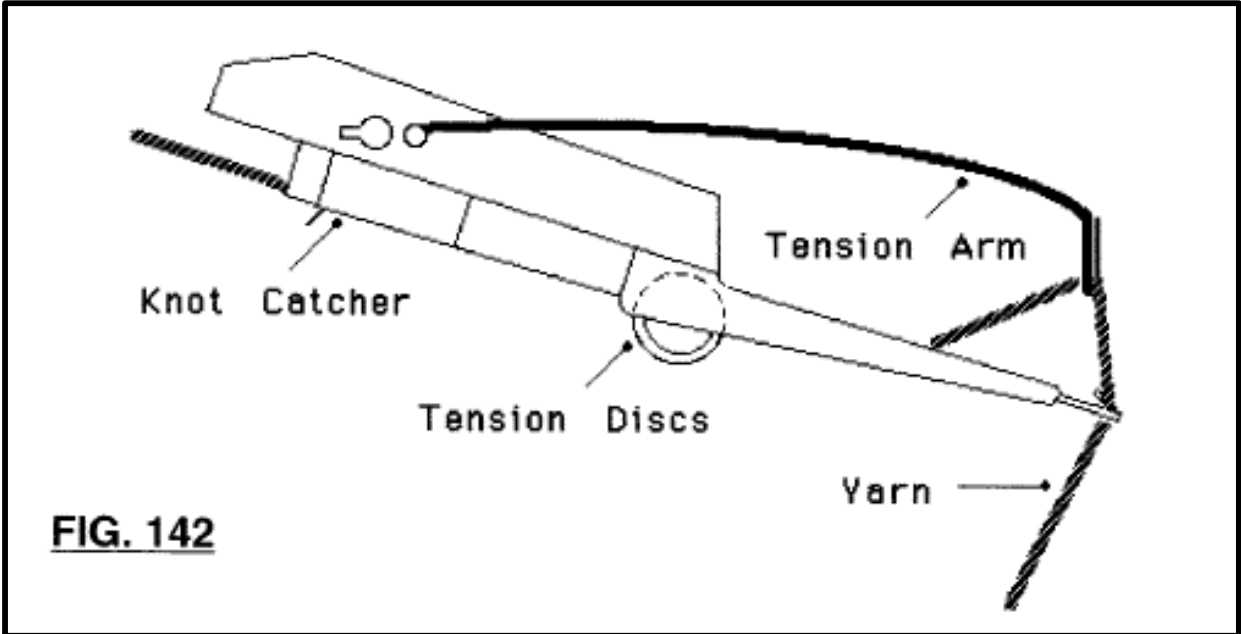


FIG. 142

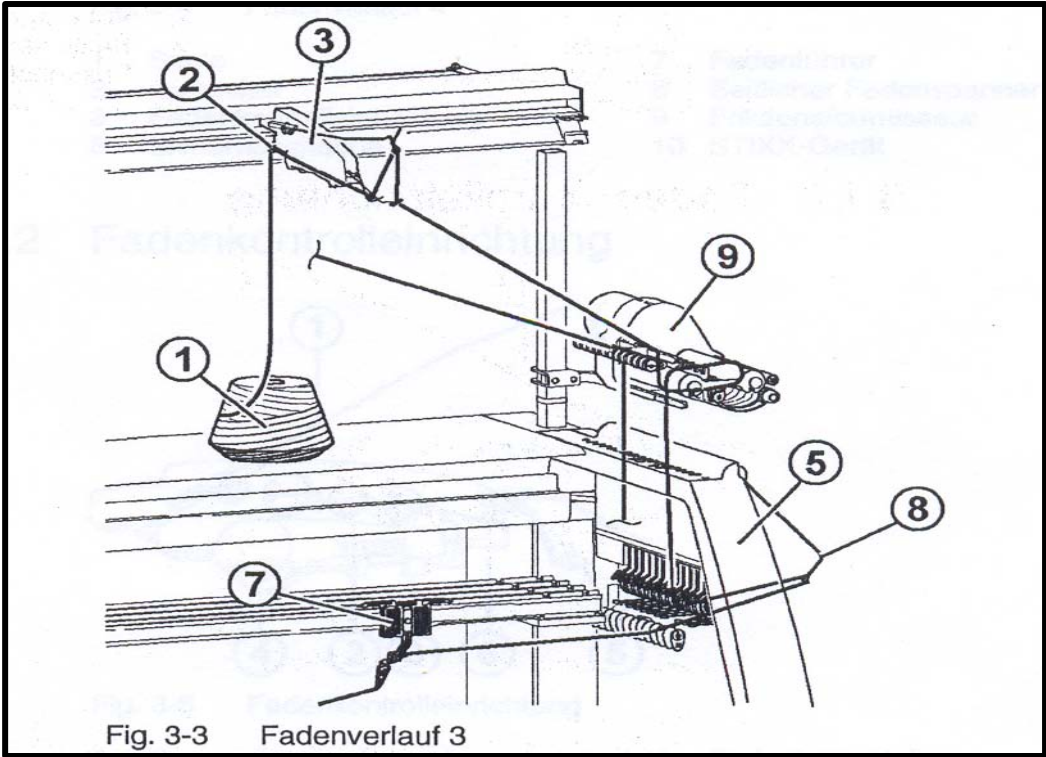
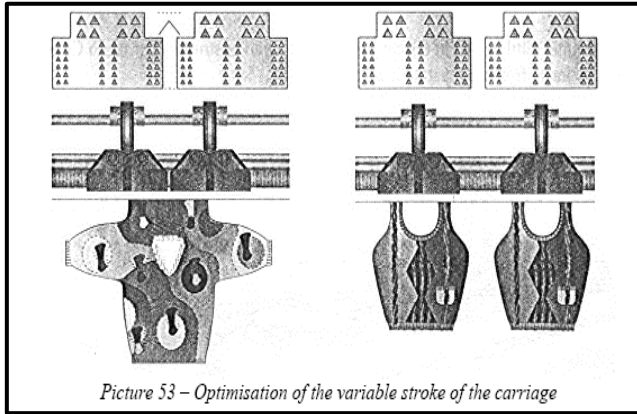
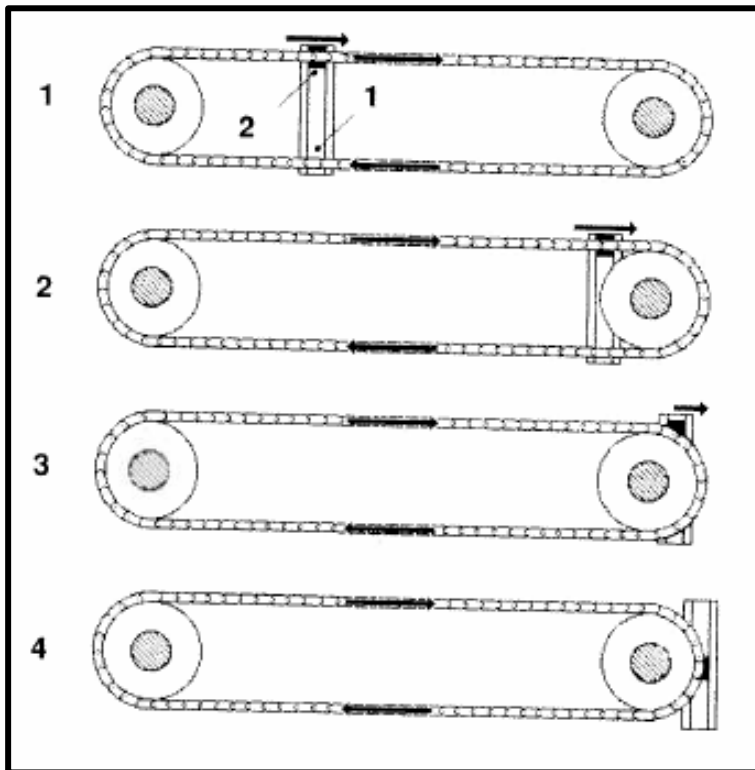
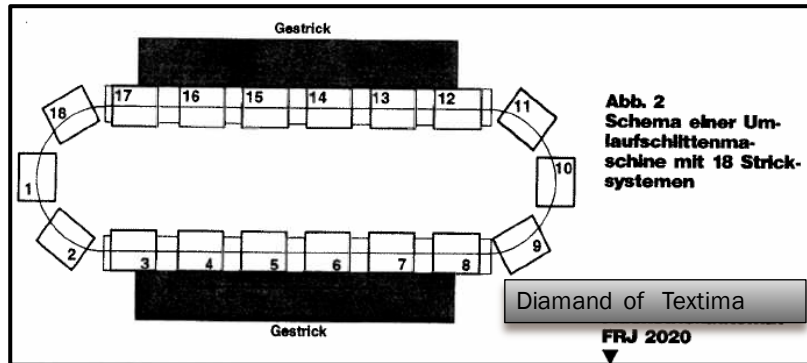
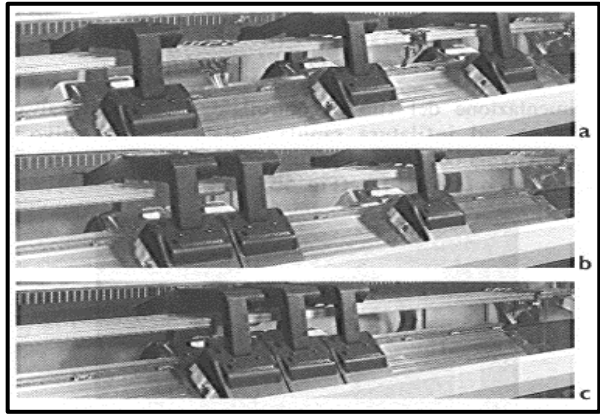


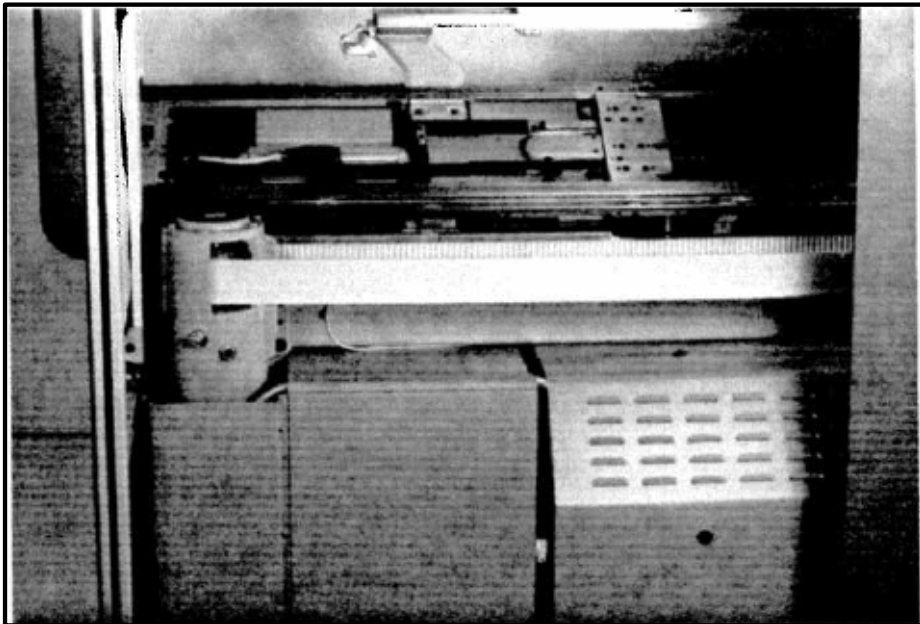
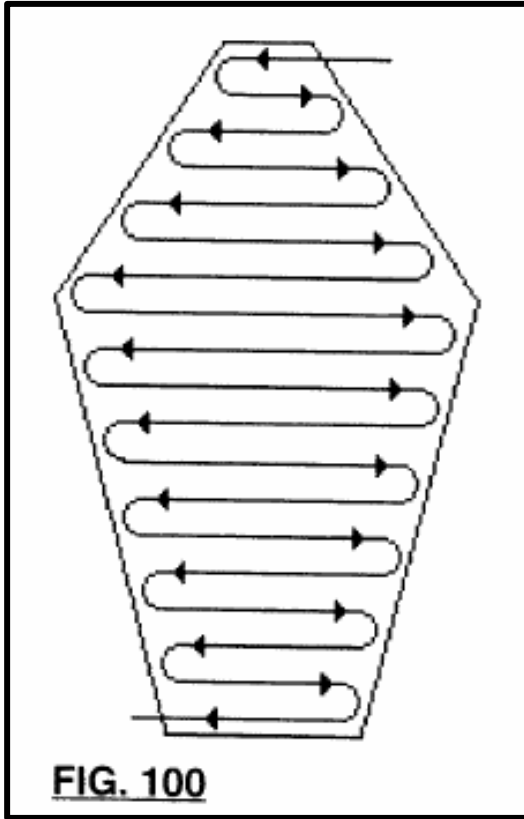
Fig. 3-3 Fadenverlauf 3

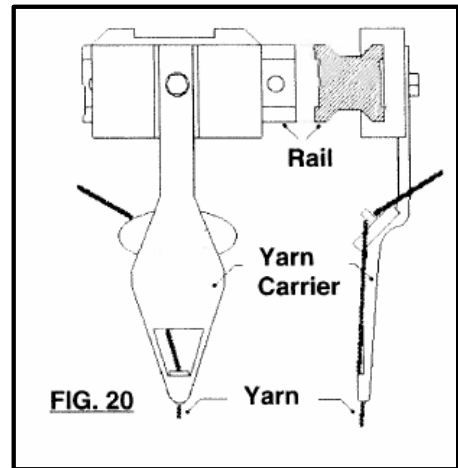
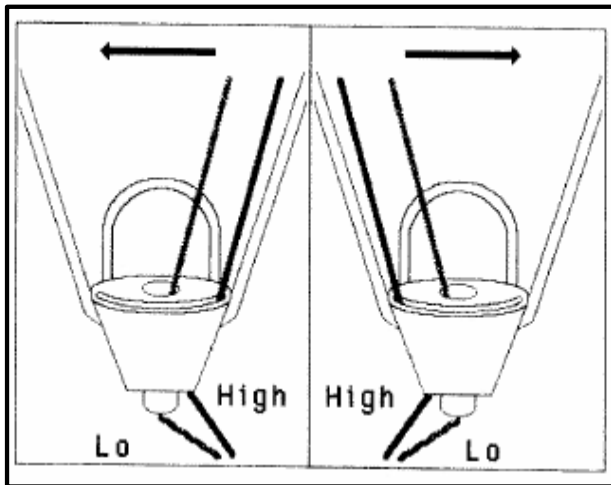
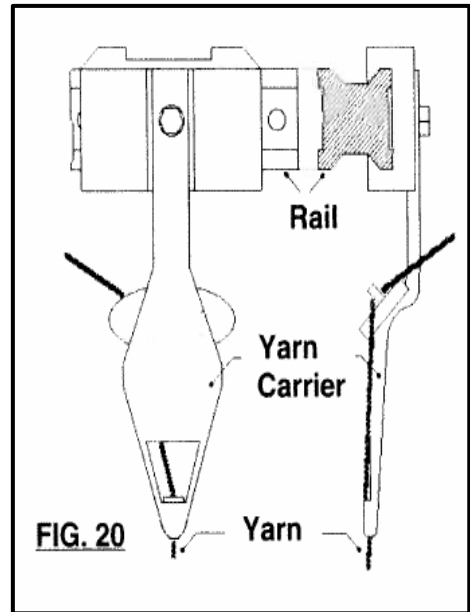
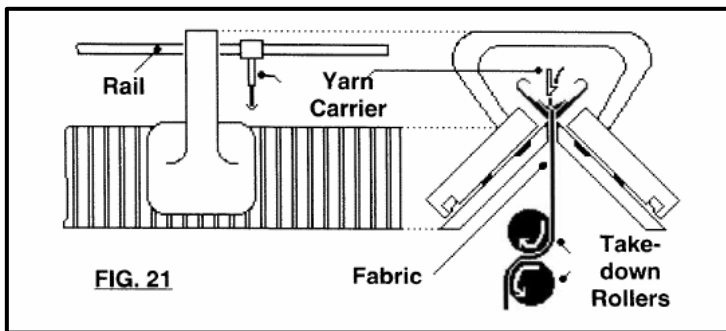
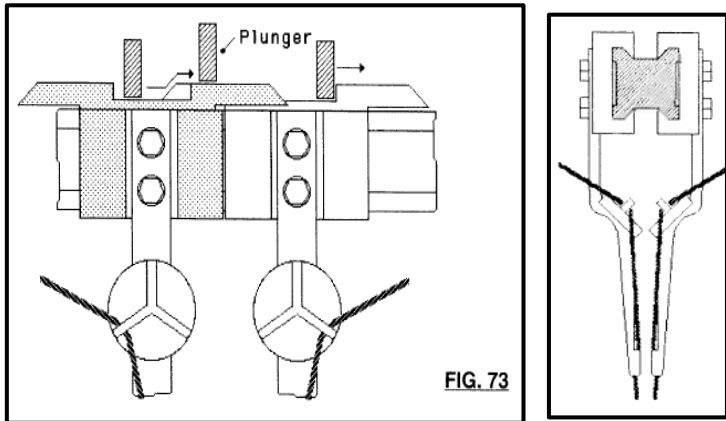


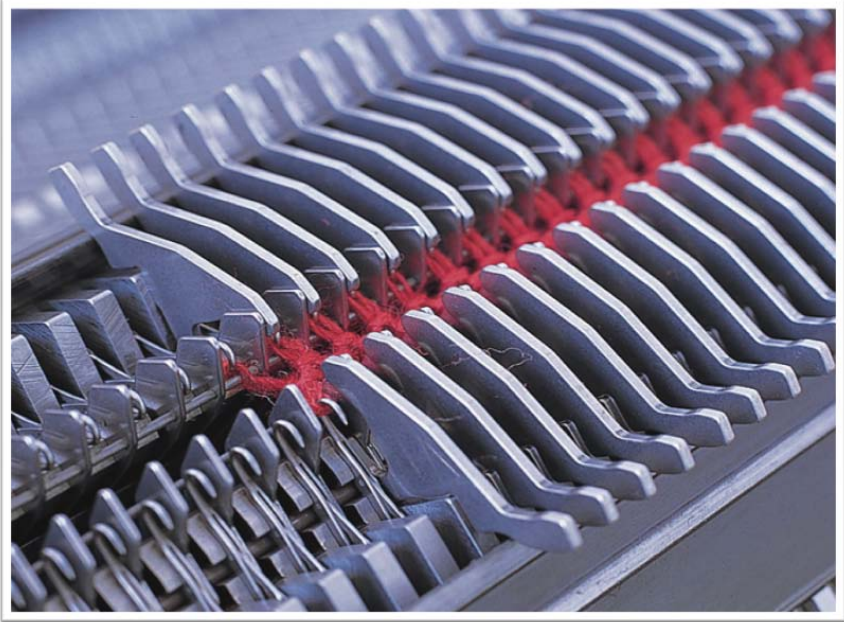
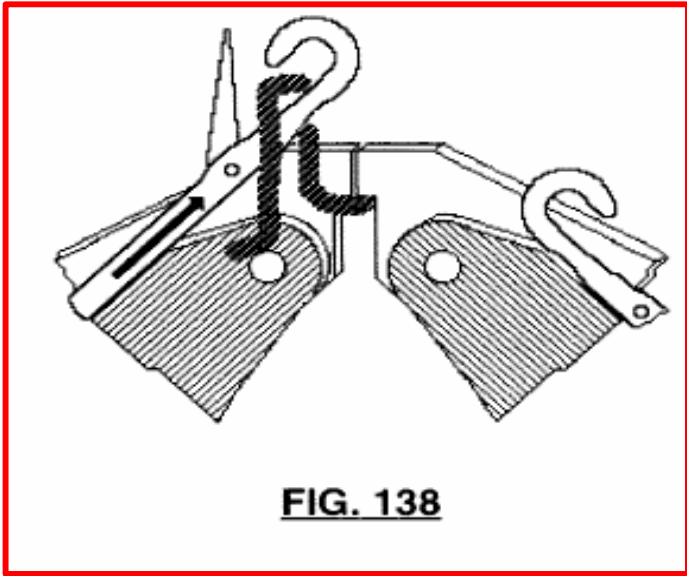


Picture 53 – Optimisation of the variable stroke of the carriage





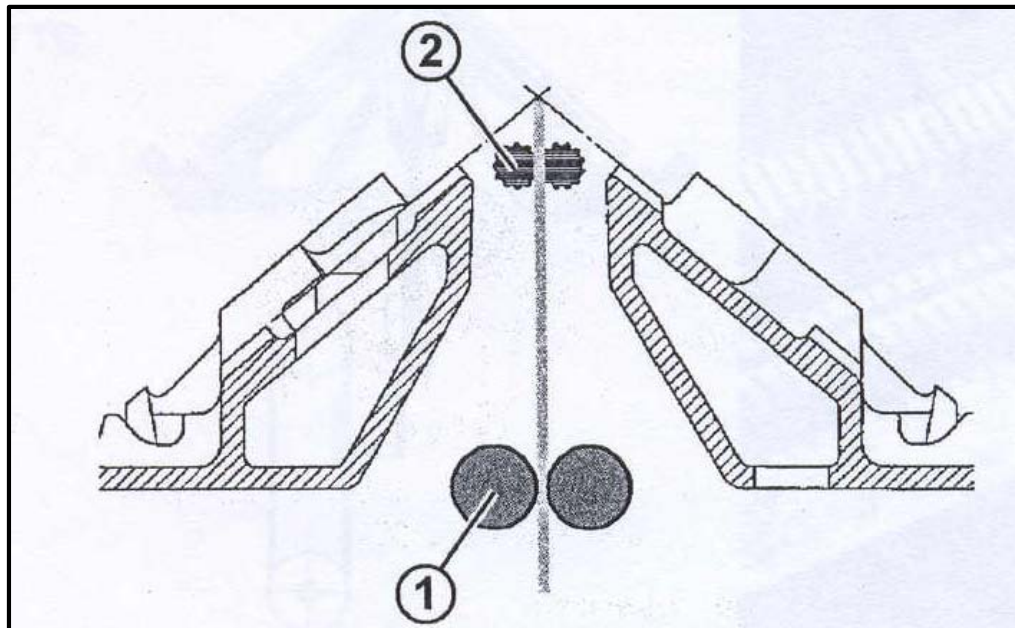


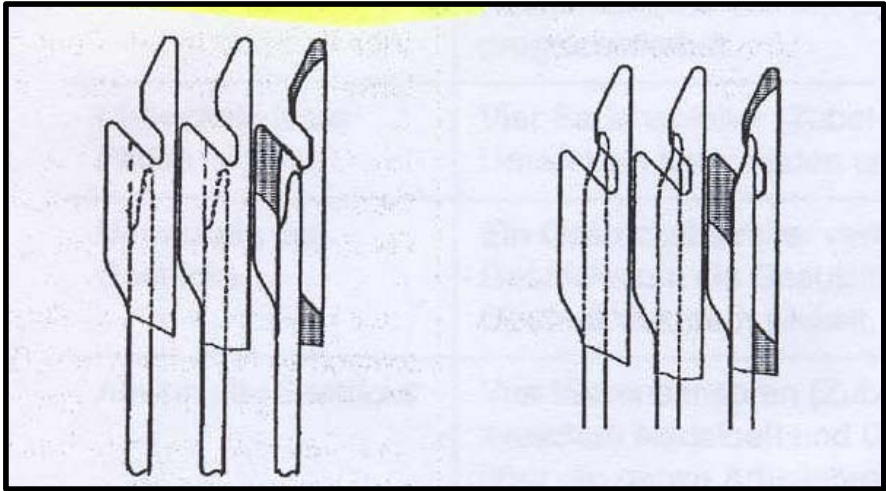
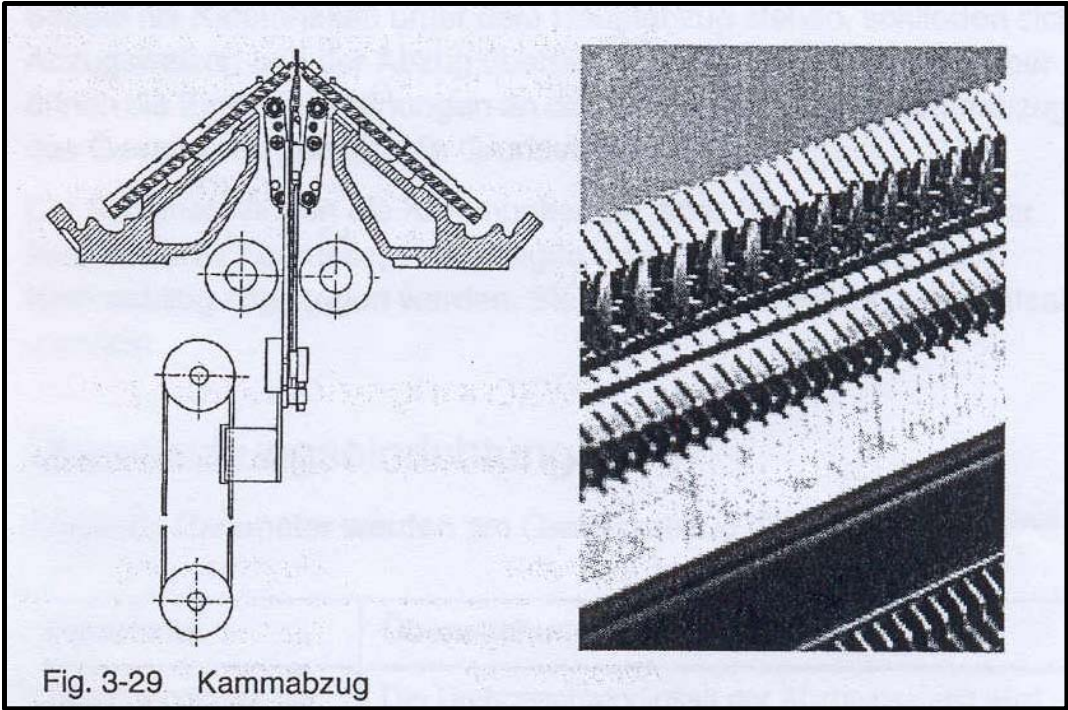


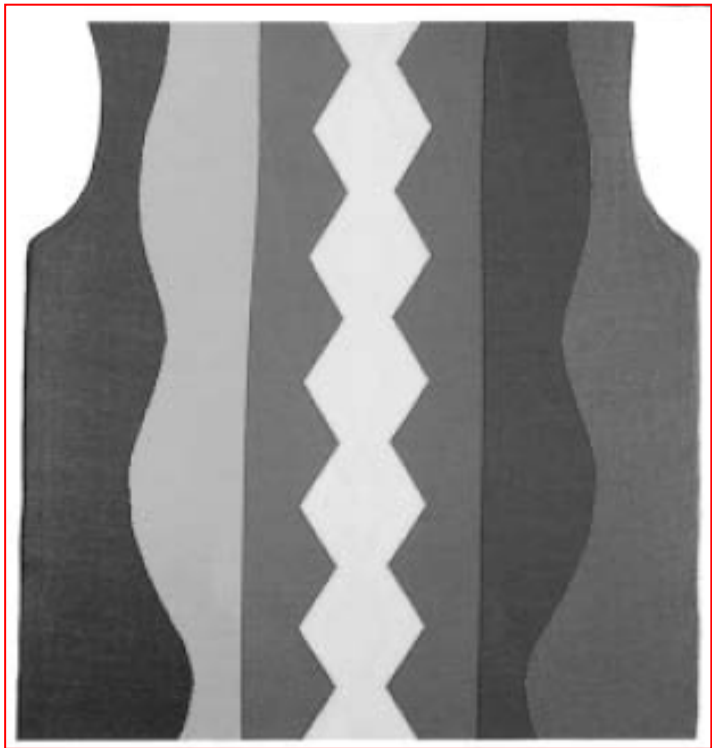
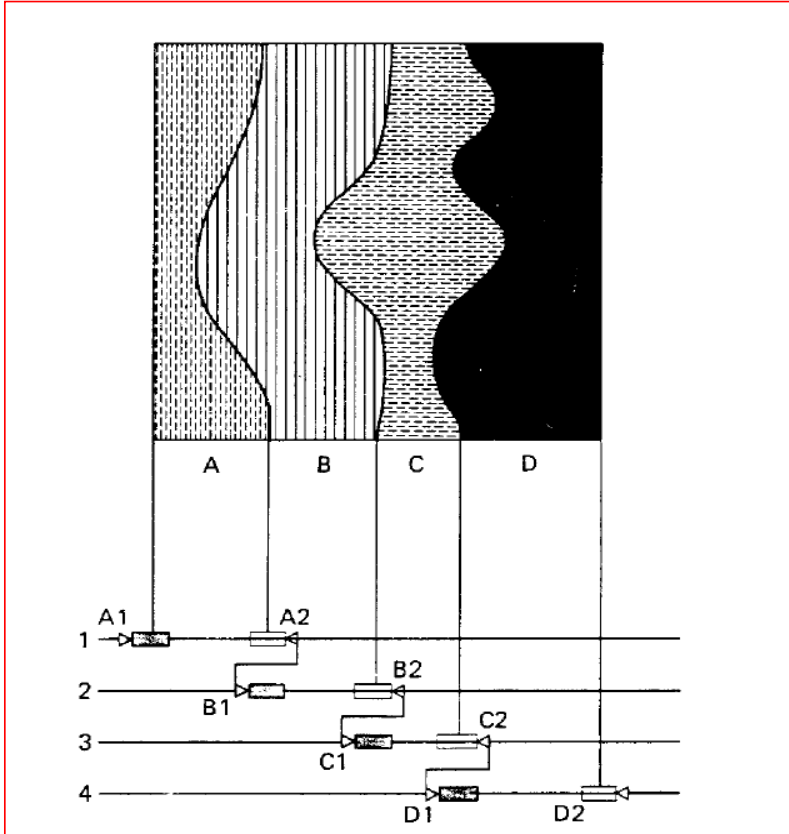
THE NUMBER OF NEEDLES IN EACH NEEDLE BED	
Machine Gauge	The Number of needles
2 N.P.I.	180
2.5 N.P.I.	225
3 N.P.I.	270
3.5 N.P.I.	315
4 N.P.I.	260

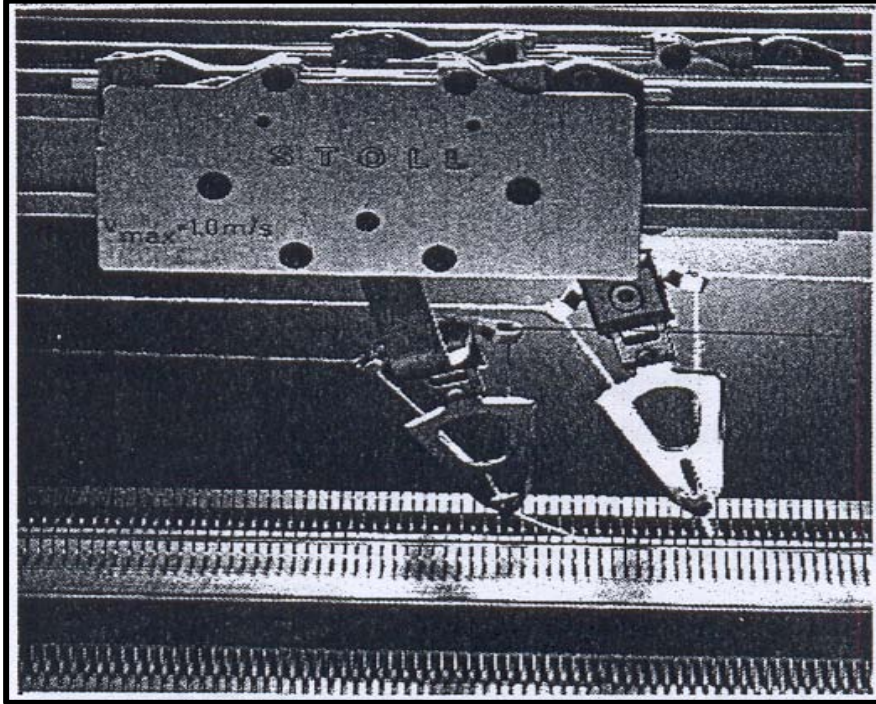
THE NUMBER OF NEEDLES IN EACH NEEDLE BED	
Machine Gauge	The Number of needles
4 N.P.I.	359
5 N.P.I.	449
6 N.P.I.	539
7 N.P.I.	629
8 N.P.I.	719
10 N.P.I.	899
12 N.P.I.	1079

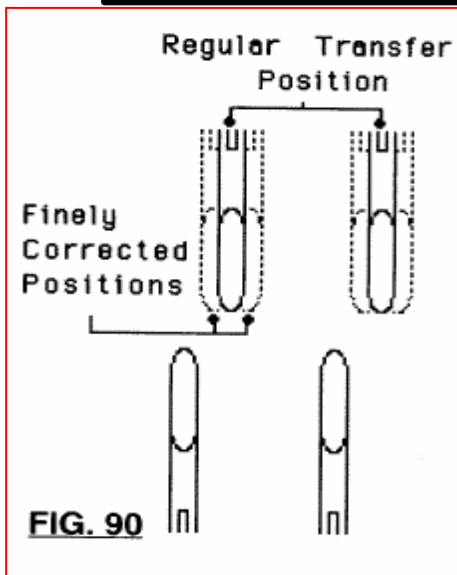
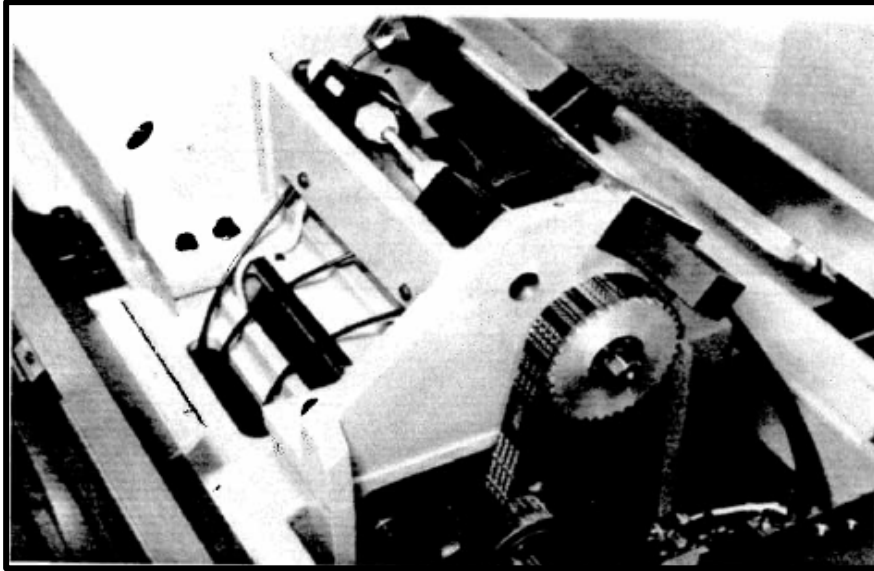
FIG. 88











1.1 Abgepaßte Teile



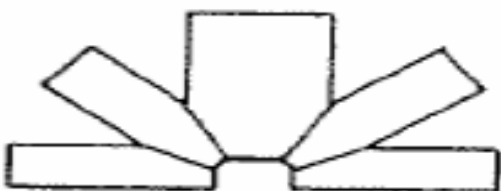
بافت پارچه هایی با عرض ثابت ، برش و سپس دوخت پارچه ها

2.1 Fully-Fashion Einzelteile



بافت قطعات قواره بافی شده یکمک انتقال حلقه و سپس دوخت آنها

3.1 FF-Integral-Gestrick

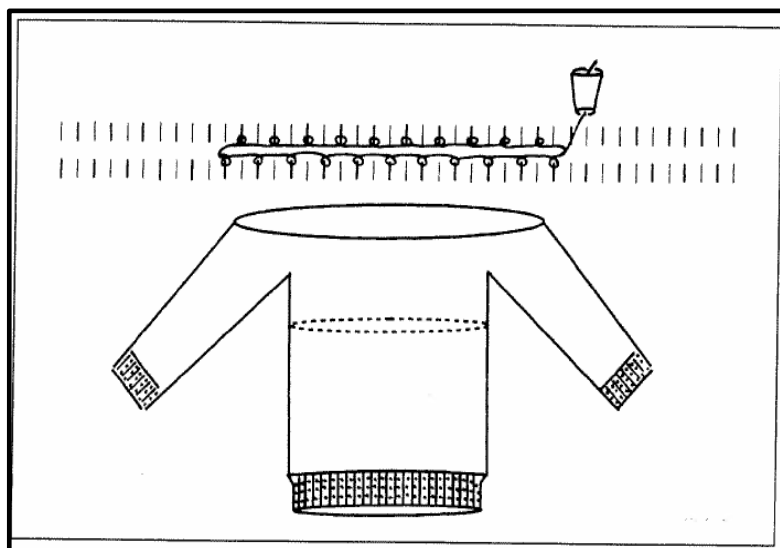


بافت قطعات قواره بافی شده بهم پیوسته یکمک انتقال حلقه و سپس دوخت آنها

4.1 FF-Komplett-Fertig-Körper mit FF-Arm



بافت البسه کامل بدون درز
Whole Garment, Knit & Wear



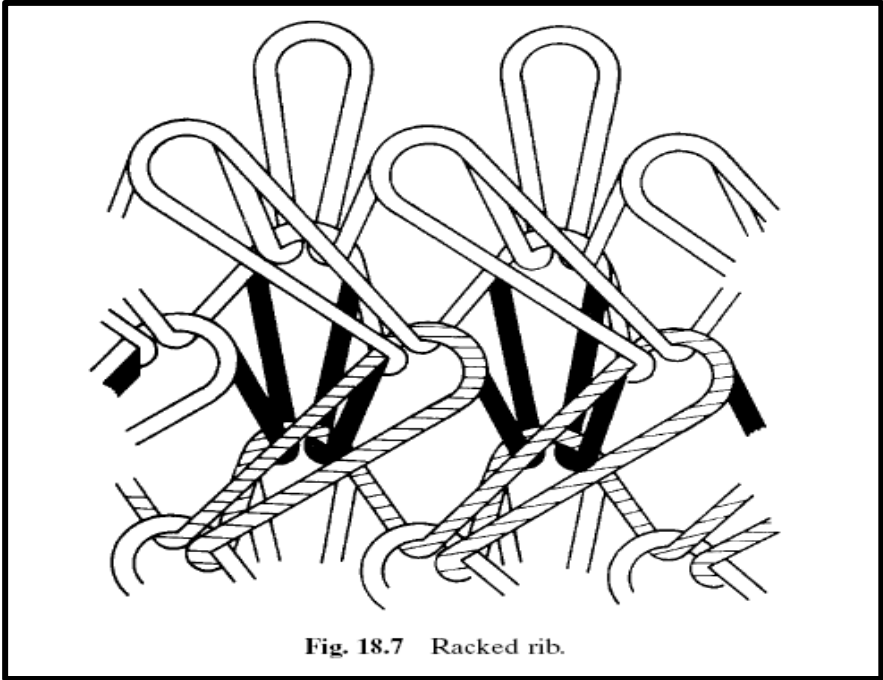
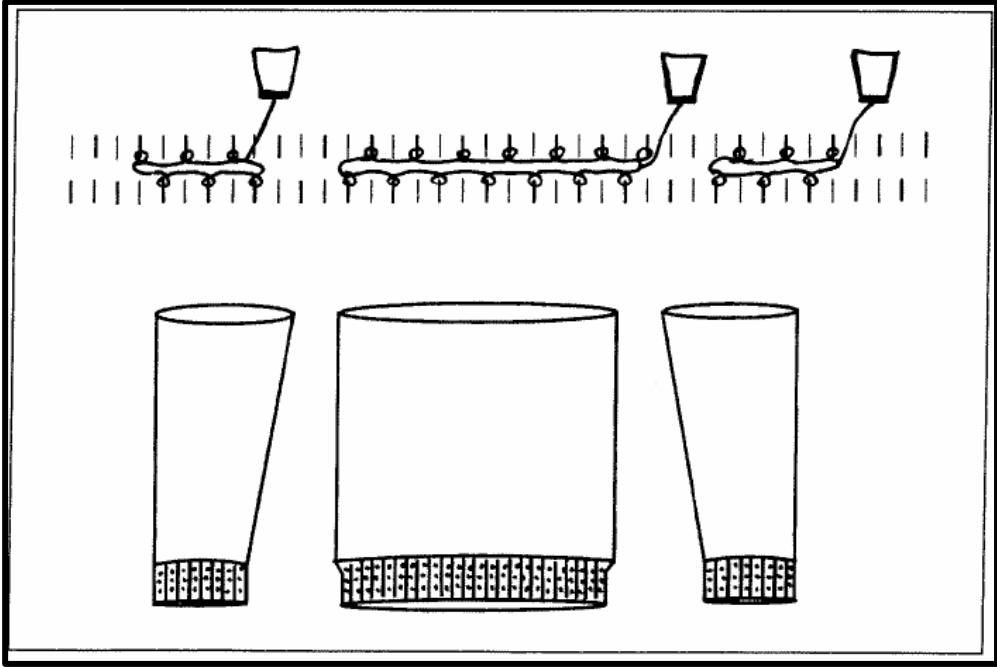


Fig. 18.7 Racked rib.

2 Farben Jacquard mit 2x1 Anfang

```

1   C CMS-400.JAC-2-FARBIG
2   C
3   C WM KORREKT EINSTELLEN
4   C NP KORREKT EINSTELLEN
5   C RS1 = 2X1 RAPPORT
11  C RS2 = MUSTER RAPPORT
11  NP1=10.0 NP2=11.0 NP3=12.0 NP4=13.0 NP5=13.5
30  START
50  YG:8/335566;
51  C FADENFUEHRER GRUNDSTELLUNG
52

```

```

-----
53  C < ! > ! JAC-SYMBOL ! FADEN
54
-----
55  C 8 ! ! ! TRENNFADEN
56  C ! 3/3/6/6 ! ! GRUNDFARBE
57  C ! 5/5 ! ! BEIFARBE
58
-----

```

```

100 SEN=1-#138
105 JA1=1130(1100-1130)
110 PA:JA1;
115 FA=1-16
120 PM:<FA>;

```

```

125 F:2X1
130 F:R-R
135 F:JAC-2-C*RS2
140 END

```

```

1100 .....A.....
1102 .....AAA.....
1104 .....AA.AA.....
1106 .....AA...AA.....
1108 .....AA...AA.....
1110 .....AA...AA.....
1112 .....AA...AA.....
1114 .....AA...AA.....
1116 .....AA...AA.....
1118 .....AA...AA.....
1120 .....AA...AA.....
1122 .....AA...AA.....
1124 .....AA.AA.....
1126 .....AAA.....
1128 .....A.....
1130 .....

```

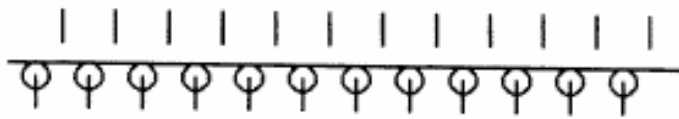
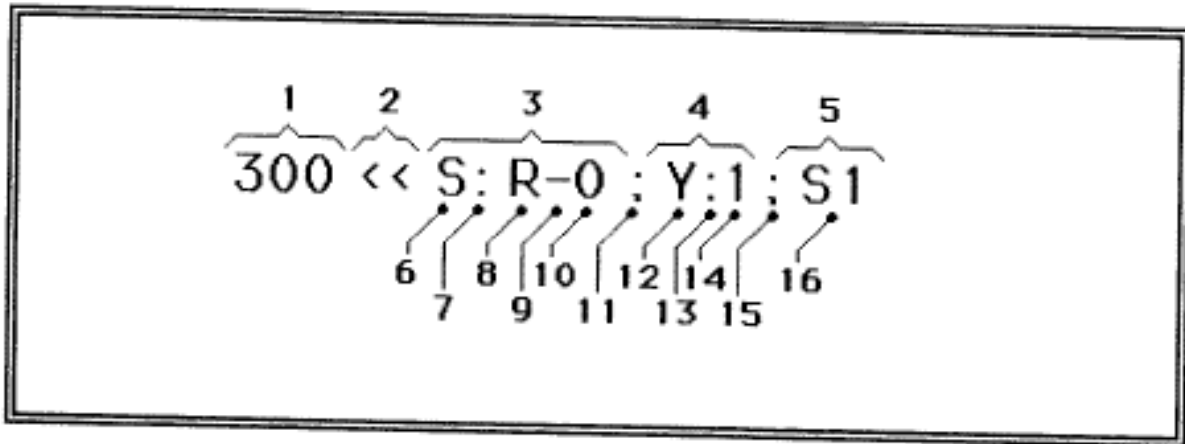


FIG. 183

A "Sintral" sentence instructing the machine to knit the fabric is shown in Fig. 184 and the following notes are presented to clarify the different symbols:

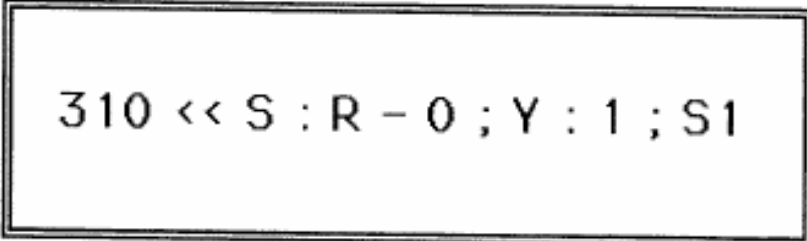


FIG. 184

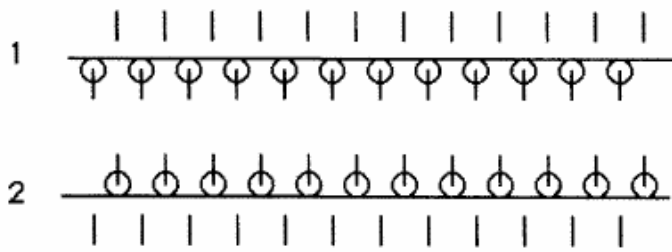


FIG. 189

```

300 << S : R - 0 ; Y : 2 ; S1
310 >> S : 0 - R ; Y : 2 ; S1

```

FIG. 190

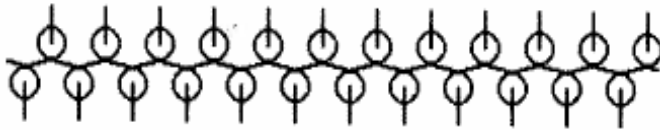


FIG. 192

```

300 << S : R - R ; Y : 2 ; S1
310 >>                               S1

```

FIG. 193

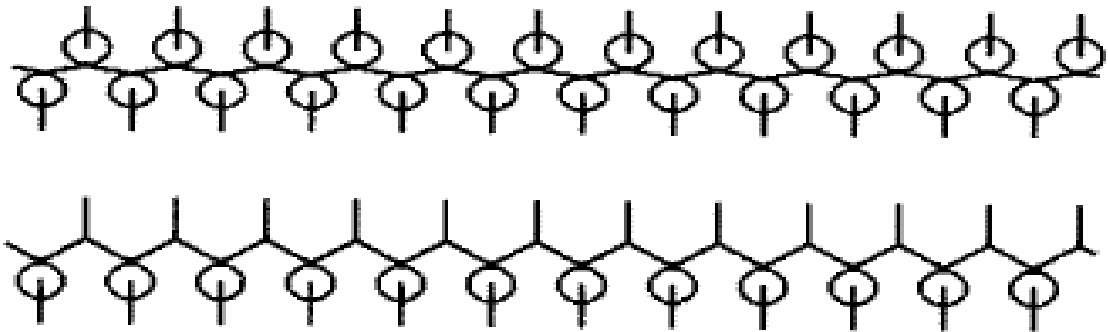
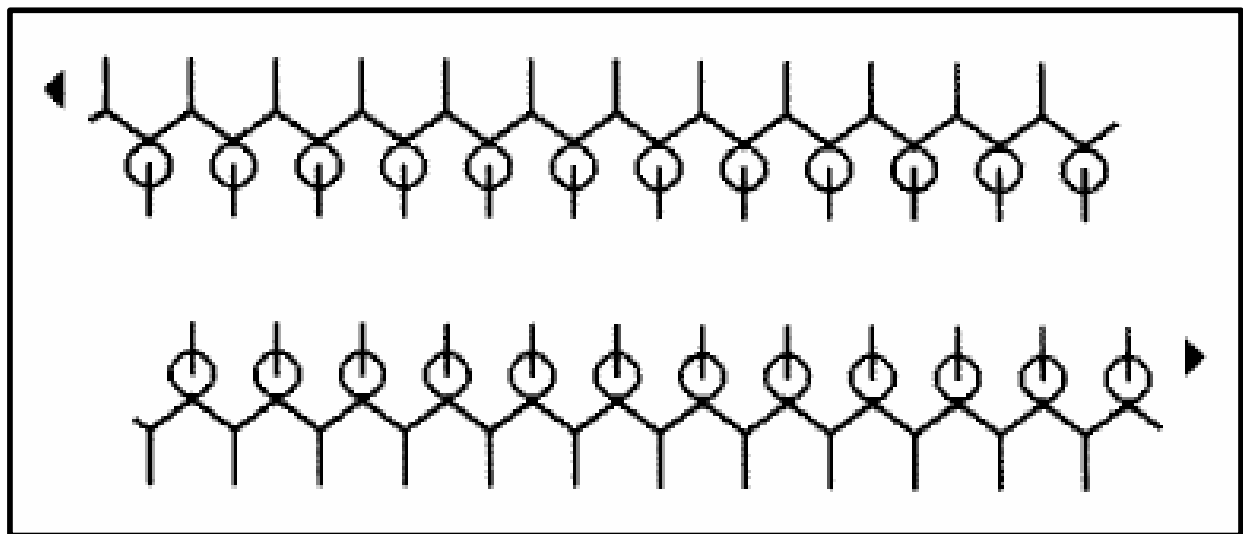


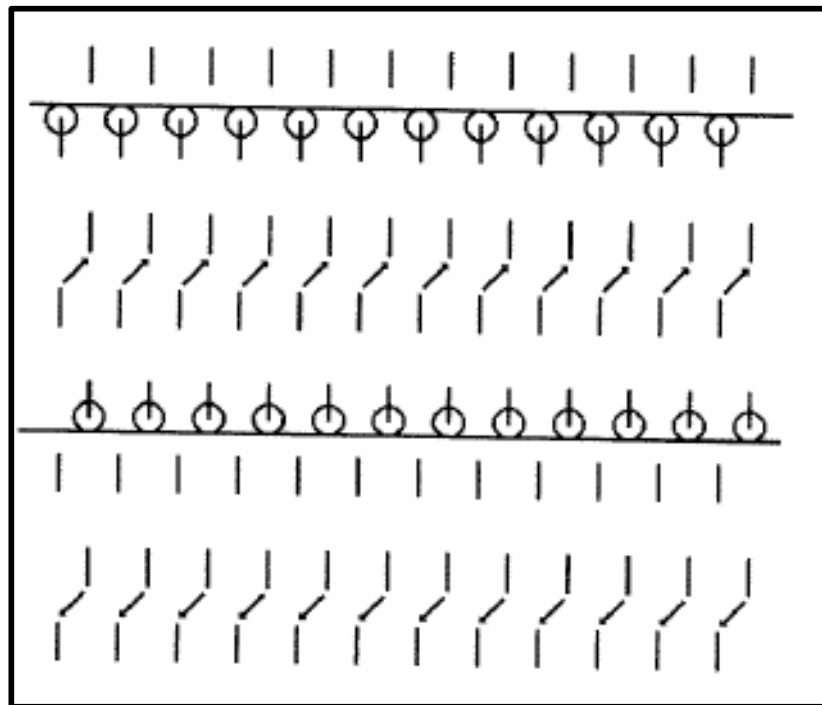
FIG. 196

300 << S:R-R;Y:2;S1
 310 >> S:R-F;Y:2;S1

300 << S:R-R/R-F;Y:2/3/4/5;S1 S2 S3 S4
 310 >> S1 S2 S3 S4



```
300 << S:R-F;Y:2;S1 V0  
310 >> S:F-R;Y:2;S1 VR1
```



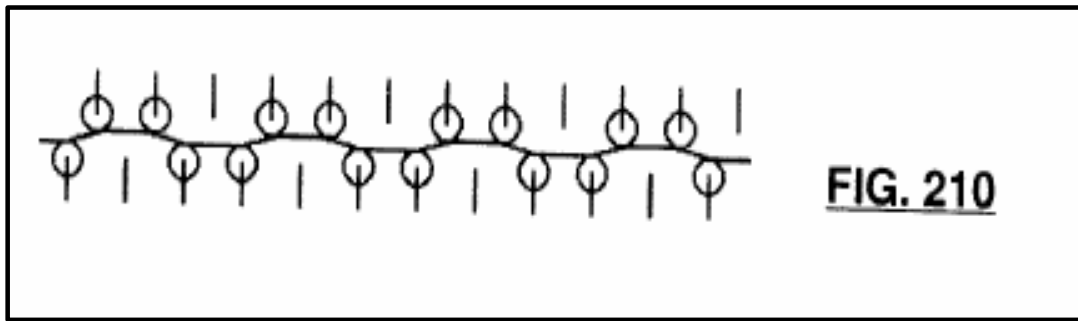
300 << S:R-0;Y:2;S1

310 >> S:UAR;Y:0;S1

320 << S:0-R;Y:2;S1

330 >> S:UVR;Y:0;S1

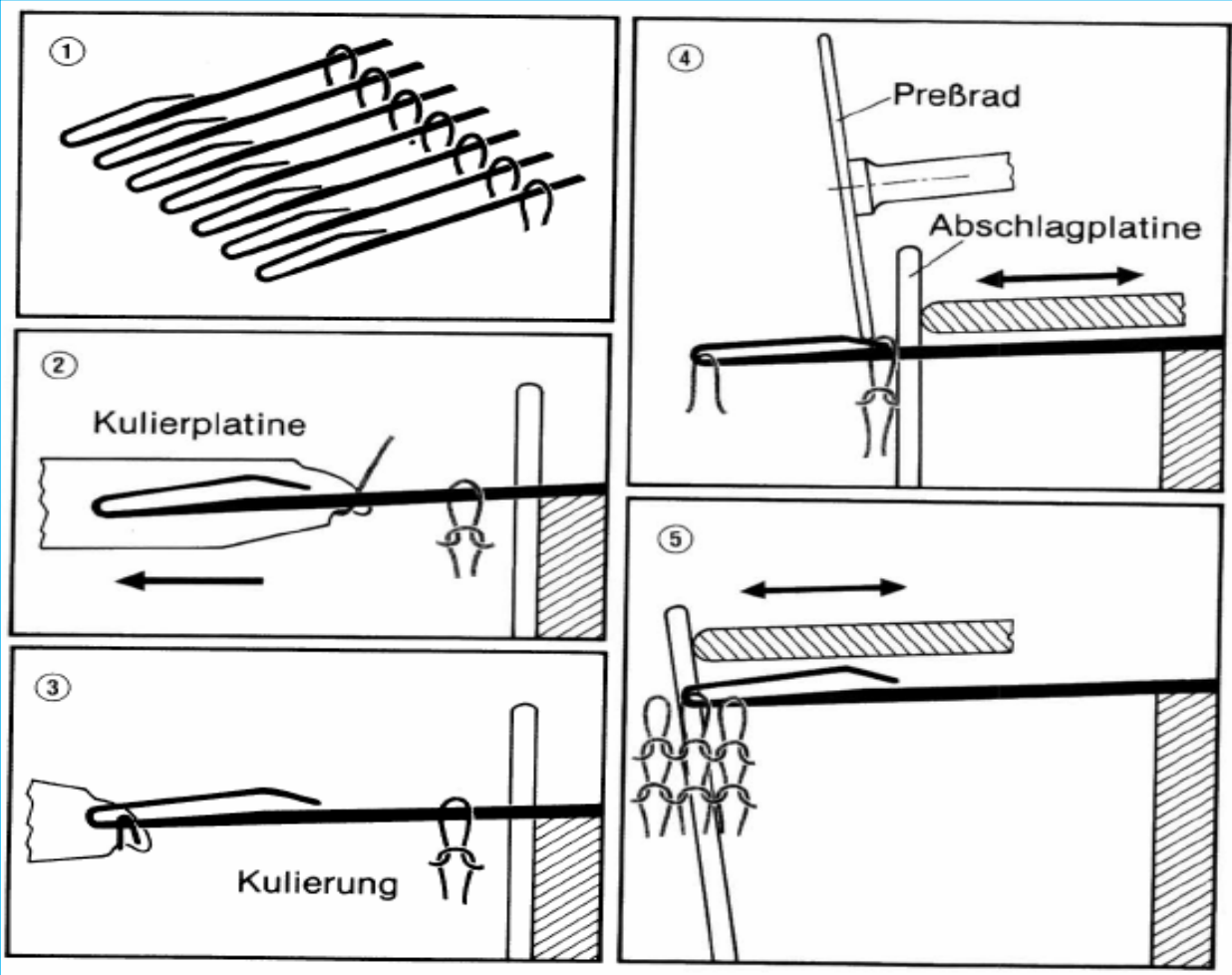
300 <> S:R-0/UAR/0-R/UVR;Y:2/3;S1 S2 S3 S4



```

300 << S:DI.I-DII.;Y:2/3;S1 S2 S3 S4
310 >>                S1 S2 S3 S4

```



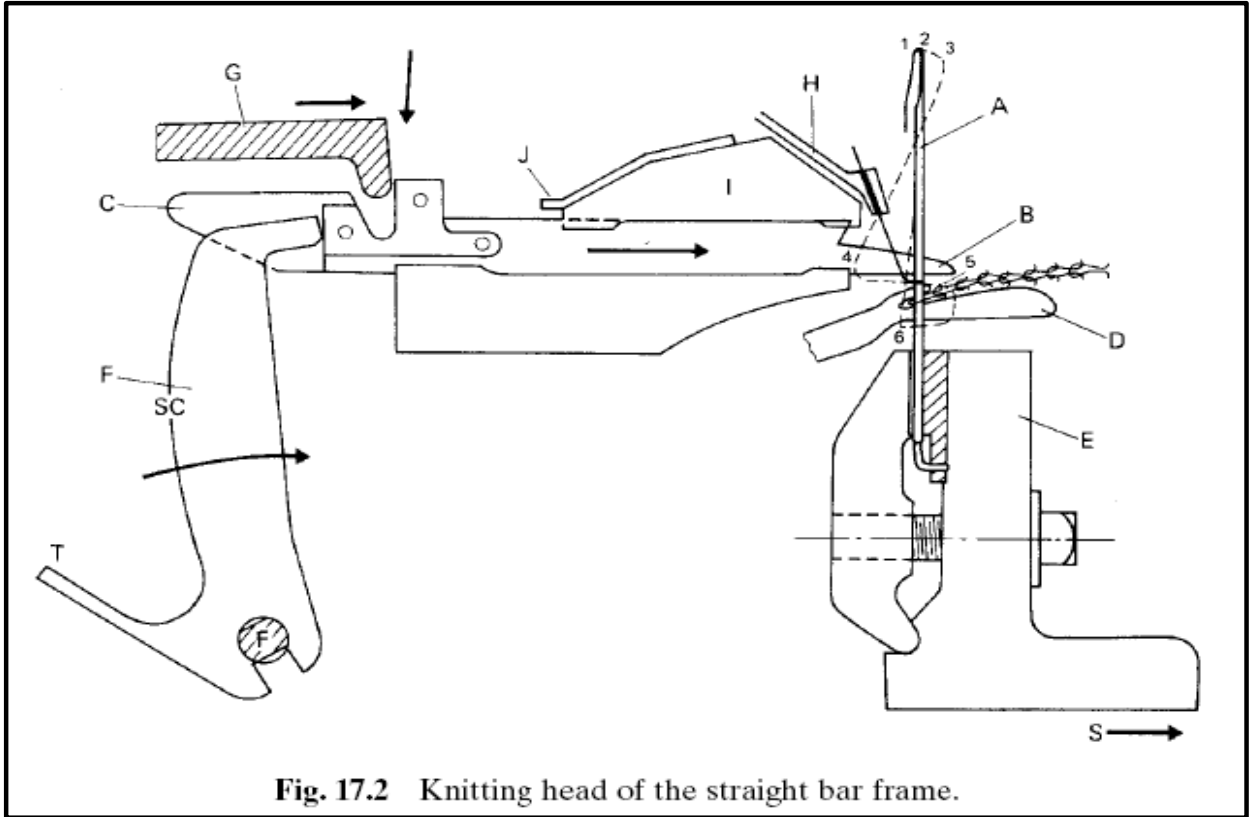
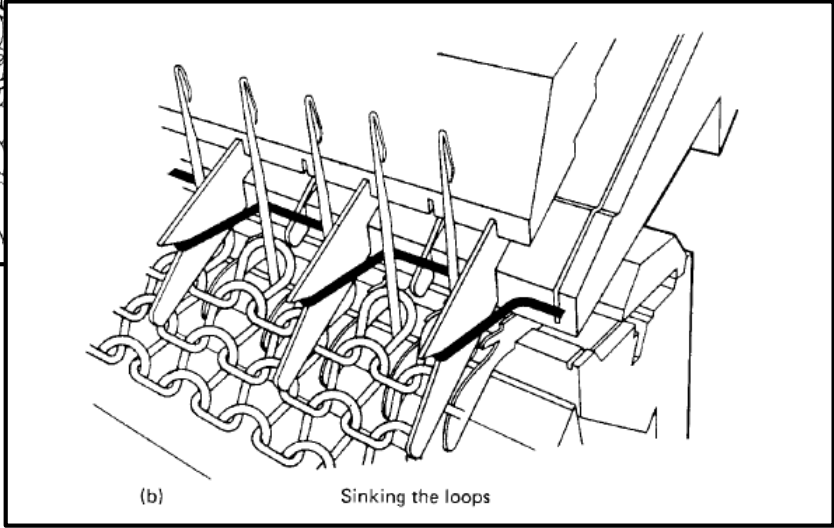
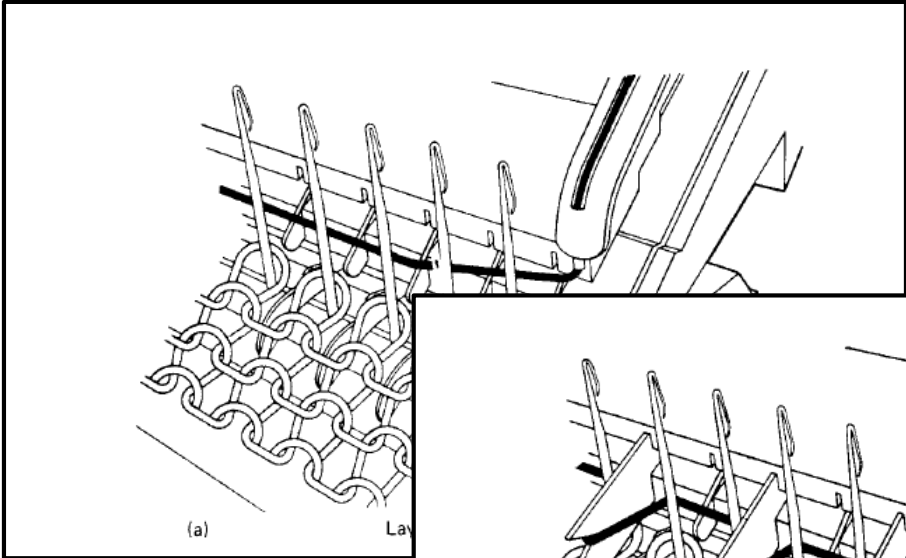
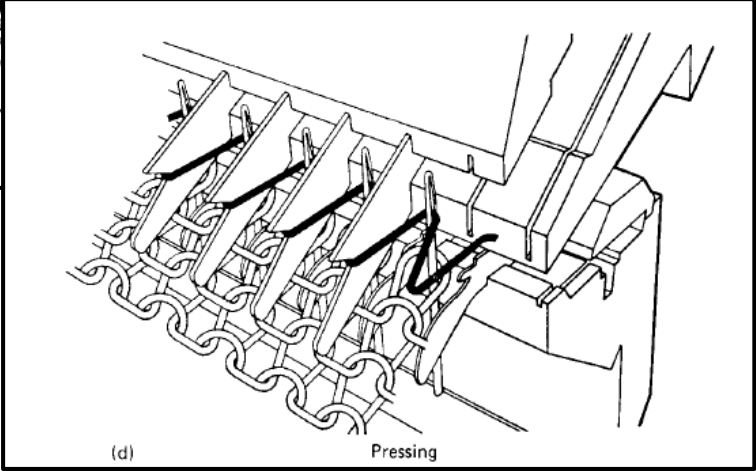
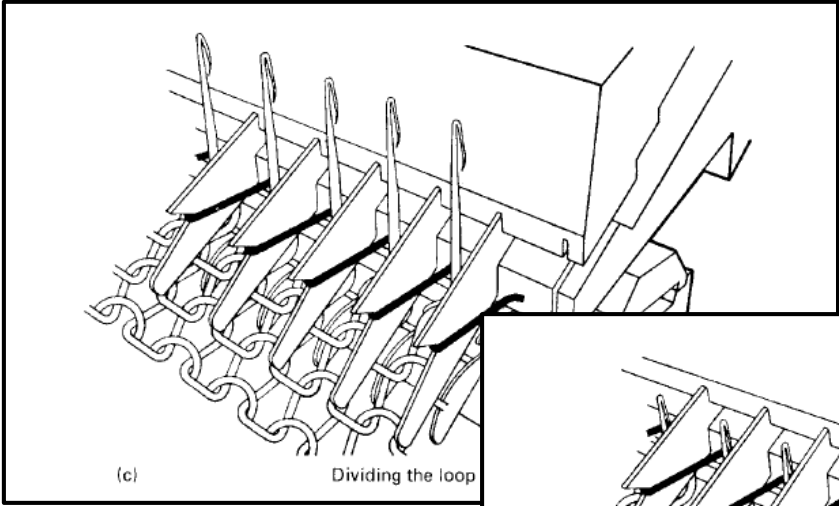
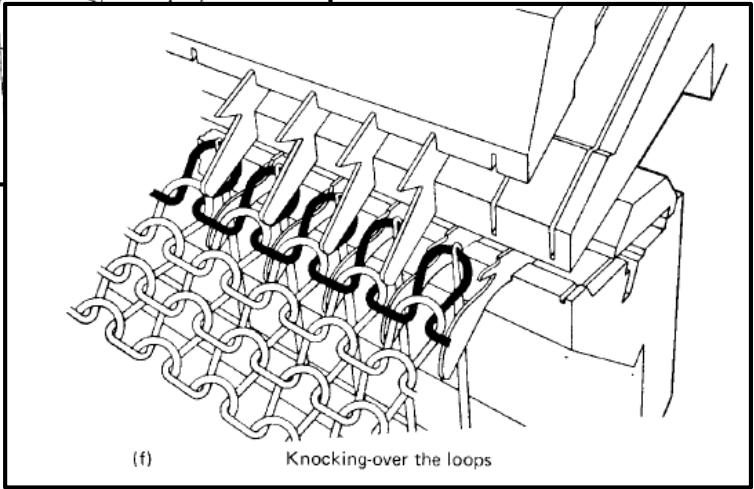
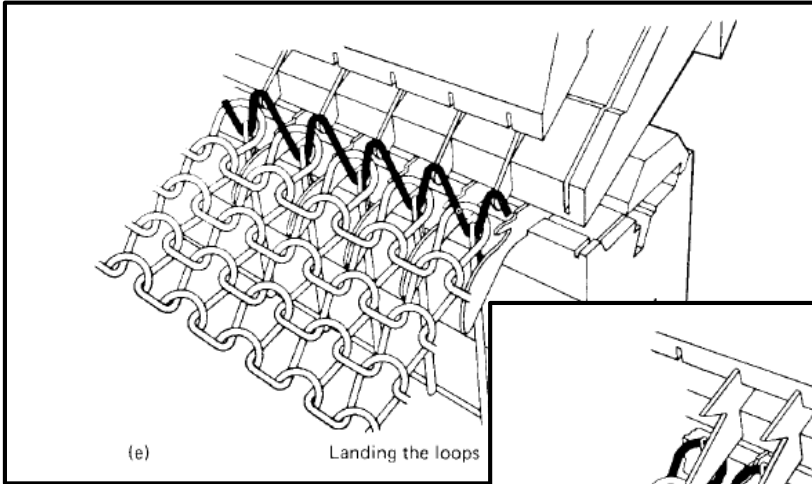


Fig. 17.2 Knitting head of the straight bar frame.







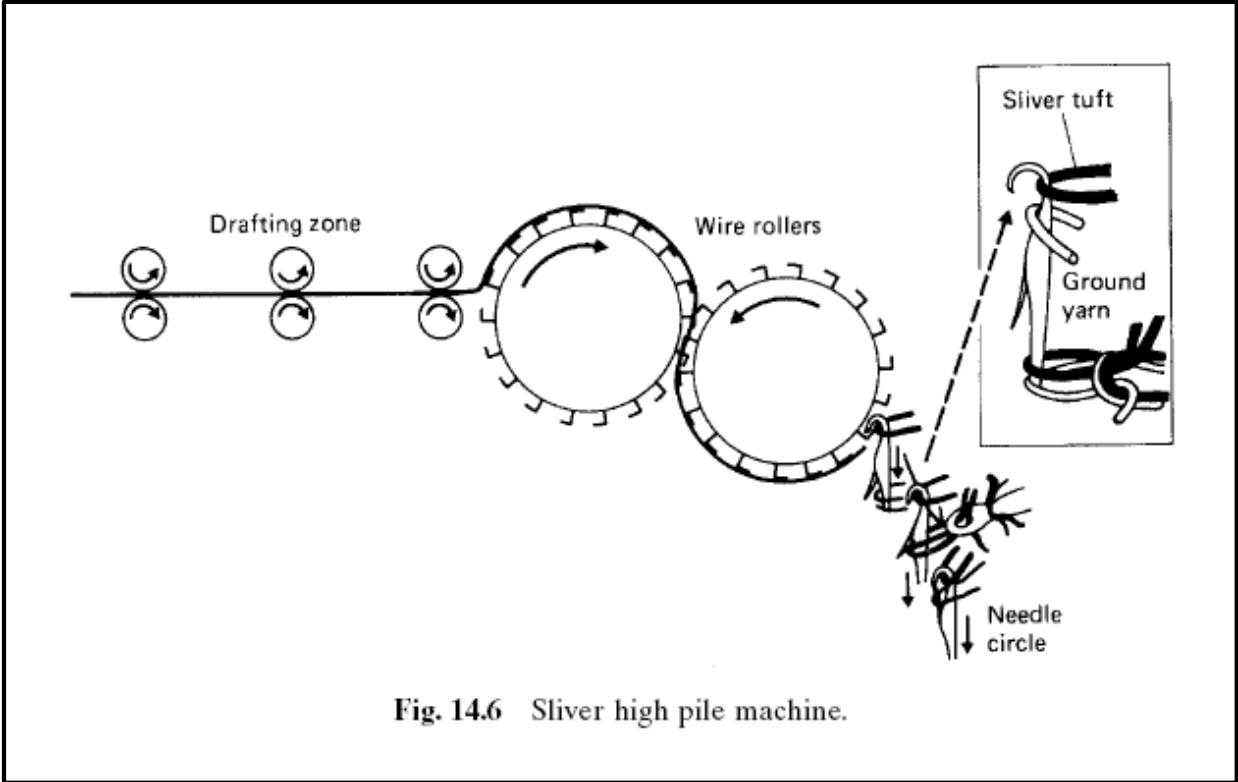


Fig. 14.6 Sliver high pile machine.

