

2003-0068390
2003 08 21

WO 2001/35833
2001 05 25

(74)

(54)

[illegible]

() ,
가 .
(hole), (puncture) (wound)

, (dilator) (seath)가

가
(blood thinning agent)
가
30
가
(手壓)
가
가
가

8 4,890,612 , 가 4,852,56

가 (hemostatic agent)가 5,342,393, 5,370,

660, 5,411,520 가 4,929,240 (clip applier jaws)

가 가

5,368,501 가 5,368,501 (tip) (point)

가 가 ()

가 가

가 가 5,4

17,699 가 5,431,666

가 1 2

5,766,183 가 가

5,431,666 가 ,

1 가

가 가 (sleeve)

5,766,183 가 가 2 가 2

1 가 180 가 가

가 가 가

(seath)

Figure 1 is a schematic diagram of a tubular securing sleeve member. The diagram shows a cross-section of a tube with a central lumen. The tube is divided into two main sections: a proximal section (left) and a distal section (right). The proximal section has a wider diameter and is labeled '1' and '2'. The distal section has a narrower diameter and is labeled '1' and '2'. The tube is shown in a bent configuration, with the proximal section at the top and the distal section at the bottom. The tube is labeled '가' (Ga) at various points. The diagram is labeled 'Figure 1' at the bottom.

가 . 1

가 :

1 ;

2 1 ;

2A 2 ;

3 1 ;

3A 3 ;

4 1 ;

4A 4 ;

4B 4C 4 ;

5 1 ;

6 1 ;

7A 1 , , , ;

7B 7A 가 1 ;

7C 1 ;

7D 7C ;

7E 7C , 1 ;

7F 7E ;

7G 1 ;

8 1 (engazing) ;

9A 8 9A-9A ;

9B 9A 9B-9B ;

9C 9F 8 9A-9A ;

10A 10D ; 8 9A-9A

10E 1 (tip) ;

11 ;

11A 11 .

12 11 ;

13 11 ;

13A 13 (distal end) ;

14 11 ;

15 13 ;

15A 15 15A-15A ;

16A 가 11A 16A-16A .;

16B 11A 16A-16A ;

16C 16A (attachment)
11A 16A-16A ;

16D 16A 11A 16A-16A ;

16E 16A 가 11A 16A-16 ;

16F 11 16A 11A 16A-
16A ;

16G 16C ;

17A 17M 11 1 ;

18 1 11 .

1 10D (10) . , 가 (10)
100) 가 ' 1' ' 2' 가 11 16F ((10) (100) ,
가 (10) (100) ' .

1 4 , (10) (12) , (16) , (13)
(16) (14) , (16) (18) .
(12) (12a) ,
(10) (12) (14) (16) 가
(20)(21) . (20)(21) (20a),(21

a)가 (20)(21) (20a),(21a) (20)(21)

(10) (12) (22) (12) (22a) (22) (23)

(12) (12) (12b) (22) (notch) (22) (24) (23)

(24) (26) 2 (23)

(12) (24)

(12) (23) (22) (22c)가 (22) (22c) 가 (23)

(15) (12a) (20a) (21a) (22e) (22d) (20a)(21a) (20)

(21) 3 (22f) (22) 가 (23)

(28) (28) (28a) (28c) (28e) (22) 4A (28)

(28d) (20)(21)

(20a)(21a) (28b) (28) (28f) (22) 가 (23)

(22) (28f)

(22) (20),(21) (10) (30) (34)

(12) (32) (32) (32a) (32c) (32) (34)

(34) (32c) 가 (34a) (34b) (34) (12)

(12c) (32) (32b) (30)가 (34b) (32b)

가 (30) (30c) (30) 4B 4C (30a),(30b) (20)

(20),(21) (30c) (20) (21) (21)

(20a) (20c) (21a) (28)(5) (20) (21)

(34)가 (20c) (20a) (28)(6 7A) (22)

7B (20) (28) (21) (21)

(34) (34c) (34c) (28)

(28g) (28g) (34c)가 (34c) (34)

(32) (21) 가 (30) (36)가 (36)

(20) (20),(21) (30a),(30b)

(14) (32) (shaft mount)(38) (14) (40) (42) (14) (12) (40) (32)

(14) (12) (40a) (40b) 가 (40b) (159)(17A)가

(16) (18) (159) (10) 가 (159) (14)

(159) (159) (159) (159) (4

0) (159a) (40b) , 가 (40a) (159)
 , (159a) (10) (12) (40a) (159) (159a) 가
 . (12) 가 . 가
 .
 (10) (12) (12a) (12d) (44) .
 (44) (12d) (36a) (14) (12) (16) (17)(4) ,
 (36)(4) 가 2 (44) , (62) (44)
 () (16) , , (44a)
 (43) (44) 2A (43b),(43c)
 (43a) 가 (43b),(43c) (44) (43) (43d)(43e) (43a)
 (63) , (62) (62a),(62b) , (62a)(62b)
 (43d)(43e) (43b)(43c) 가 (43d)(43e) (62a)
 (62b) , (43d)(43e) (43d)(43)
 e) (43) (10) (44) 가 ,
 (20),(21) , (62a)(62b)
 .
 7C 7E , (34) (22) (21)
 , 7C 7E (34) 가 .
 (35a) (22) (35) .
 , (34) (35c) (35b) .
 (35) (22)가 (19 19b) (35b) (35c)
 (34) (19b) (35) , 7E-
 7F 7C- 7D 가 , (34) (12)
 c) 가 (10)가 , (34) 가
 (20) (20) 가 (10) (21) . 가
 (30) (21) (34)가 , (20)
 (21) (28) , 가 (20)
 22) (20) (22c) (21) (22) ()
 (28) (22c) (20)(21) .
 7G (20)(21) (16) , (20)(21) ()
 12) (14) x-z (x 45) 가 , (14) (16)
 x-z y-z (y 46) , (14)
 (20) (21) , (14)
 (16)가 14b(4) y-z (x 46)
 (12) 가 (14a) (14) . (x-z
 . (14) (144) .
 .
 8 9A , (10) (16)가 . 2 (54)
 (16) (20) 1 (50) (48) , (21) 3 (57)
 (52) , (44)

(16) (16a) (14) , (56) (14) .
 (16) (58) (60) (58a)(60a) (64)(66) (50) (58a)(60a)
 (58a)(60a) 5,431,666 5,766,183 ,
 (58a)(60a) (20),(21)
 (58a)(60a) (58a)(60a) (44)(2)
 (62) (58)(60) (58b)(60b) ,
 (62)가 (58a)(60a) .
 (16) 1 (68) 2 (70) 1 (68) (16)
 , 2 (60) (16) 1 , 1
 (68) (71)(72) , (50) (71)
 (58) (64) (50) 72 , 2
 (70) (74)(76) , (54) (68)(70)
 74) (60) (66) (54) (76) . 1
) 가 가 (74) (16) (16)
 (72) 2 (74) (16) (61)(9B)
 (72)(74) (16) (62)가 (60)
 (68)(70) (72)(74) (44) 9A (60a)(58a) (21)
 a) (20) (tip) (60a)(58a) ,
 16a)(16b) , (18)
 (16) (16b) 9A (10)
 (58a)(60a) (62) 가 가 (16) (57)
 (12)(2) (44) (43)(2A) (43c)(43b) (44a)
 (16) (biocompatible)
 (16) , ,
 9A-9A .
 (22), (34) (28) (12)
 9C 9D (58a) , (78) (68)
 9E 9F (20) (48) 80 (58a)
 10A 10B (21) (21a) (60a) (82) (70)
) 10C 10D (21) (52) 84 (20),(21) ,
 60a) 17A- 17H (22)
 (20) 21 (20b)(21b) 가 10E , 10E (19)
 (196) (20),(21) (20b)(21b) , (198) (58a)(60a) (204) 가 가 (19)
 6) (202) (200) 가 (200) (202) (206) (207)
 (196) (205) (202) (200) (206) (210)
 (196) (206) (208) (198) (207)
) 0.14-0.18 (207)
 0.002-0.004 ,
 (20b)(21b) , 9A, 9C-9F, 10A-10D (20b)(21b)
 (200) (204)

(18)가 (16) (16b)(9) (18b) 3 (18) (18d)
(18c) (18c) (18a) (18b) (18a)
, (18a) (biocompatible)
11 14 (100)가 (100)
(10) (12) (102), (103) (102) (104),
(104) (106) (106) (108) (108a) (102) (110)
04) (110) (110) (113) (115)
) (112) (102) (112)
(102) (114) (110)
(102) (116) (114)가 (112)
(110)가 (102) (110)
(104)
(108) (108a) (109) (109)
109) (120) (122) (124) (120)
(110) (123) (120) (122b)
20a) (122) (122a) (122) (122b)
, (122b) (102) (124)
(109) (122b)가
(124) (122b) (108) (109) (109) (109)
124)가 (109) (122b) (108)가 (102)
(102) (120) (110)
, (108)가 (113) (123a)
(110) (113)가 (110)
, (120)가 (108)가
(108) (118) (104) (126) (126)
(10) (32) (104) (10) (36)-(42)
(125) (108)
(126) (118)
(118) (108) (120)
(106) (128) (128) (108) (108b)
, 가 (116) (127) (102a) (108) (108b)
(108)가 (108) (108b)
(106) (128)
13A, 15, 16A (106) (108) (108a) (108)
(108a)가 (electron discharge machining)
(108b) (130)
(ledge)(130a)
(130b) (130b) (106) (106a)
132) (130) (130) (130a) (108) (108b) (108b)
(134) (134) (134) (108) (108b) (132)
(128) (128) (134) (106) (106a) 16A
16A (136) (134) (134a)
(137) (compartment) (106a) (138)
(stop)(141) (138) (140)가
(140) (134)
(136) (135) (140)

Ti-Knot 16B
 (140)가 (136) (134)가 (142) (106a)
 (138) 16B (134)가 (142) (128b)가 (143) (128a) (128b)가 (136) (140) 15A
 (140) (100) 140a 가 (144) (146) (128) (146) (128)
 (148) (144) (144a) (144a) 'U' (144c) (144c) 가 (144b)
 (144d) (144e) (144a) (140) (144b)가 (130a) (128b) (ramped surface)(144f)
 ((128)) (128a) 가 (128b) (128b) (128c)
 16C 16G ((150)) (106) (150) (152) (154) (154) (140) (140)
 (130) (150c) (150) 가 (128b) (150a) (156)
 (140) (150b) (150) (128b)
 가 (136) (140)가 (100) (128b)
 (163) 가 (10) (134)가 (136) 가 (108) 16D
 (108) 가 (140) 가 가 (108) (144)가
 (130a) 가 (130a) (144) 16E
 (144) 가 (144) (144e) (108) (140)
 (144) (140)가 (100) (140)
 (106) (136) 가 (100) 가 5,7
 66,183 가 가 가 (1
 00) (100) 17K 17M
 17A- 17M (10) (100) (tract of tissue) 17A (158)가 (159)
 (157) (160) (163) (162) (162)
 (613) (159) (158)
 (10) (159) (162) (158)가 (20)
 가 (34) (20) (159)
 (10) (18)(17) (18d) (158) (10) (18) 가
 (18b)(17B 17C) (10) 가 (16)가 (162) (159)
 (163) 40(1) (10) (17D) (159a)
 (16) (159) (10) 가 (16a) (16b)
 (162a)가 (68)(17E)

(10) (58a) (20) (162) (164) (22) 가 (162b)가 (70)(17G) (163)
 1 (17F) (21) 가 (162) (164) 2 (163)
 34) (10) (60b) (22) 가 (43)가 (10) (10)
 (17H) 가 (62a) (62b)(2A) 가), (10) (10)
 (18) (10) (159)(17I) (20)(21) (164) 가 (162)(7J) 가
 (10) (16)가 (162) (163) 90 가 (16) (159) 가
 (164) (150) 16C (17K) (164) (110) (166)
 (40)가 (100) (104)가 (159) (159) (140) (164) (163)
 가 , 16D 16E (100) (159) 16D (162)(17L) (159) (17M) T
 (10)(100) (159) (14) (16) (100) (106) 가 6 (114)
 2mm) , (10) (16) (10) 3mm 가 (20)(21)
 (163) (10) (16) (10) (10) (10) (68)(70)
 (10) (10)
 (10)(100)
 18 , (10)(100) (17) (167) (dialato
 r) (172) (159) 가 (100), (159) (159b) (159c) (168),
 (170) (168) (602)
 (TYVEK)
 , , 가 (20)(21) 가 가
 (10) , 가 (134) (130) 가 가
 (16) 가 가 (pledget) (bolster) ,

가

(57)

1.

;

1

;

1

2

,

1

2

.

2.

1

,

1

2

.

3.

2

,

1

2

.

4.

1

,

가

.

,

5.

1

,

.

6.

1

,

1

2

.

7.

6

,

1

2

가

.

8.

1

,

1

1

2

1

,

2

2

.

9.

8

,

1

15

,

2

15

.

10.

1

,

1

2

.

11.

10

,

1

2

가

.

12.

1

,

1

2

.

- 12 13. , .
- 13 14. 가 .
- 1 15. 1 , 2 , 가 .
- 1 16. , .
- 1 17. , 1 , 2 .
- 1 18. , 1 2 가 .
- 1 19. , 2 1 가 .
20. ;
1 ;
1 2 ,
1 2 .
- 20 21. , 1 2 가 .
- 20 22. , 2 1 가 .
- 20 23. , 1 2 .
24. ,
;
가 ;

25.

24

, 가 , , .

26.

25

, 가 , , 가 , .

27.

24

, .

28.

24

, .

29.

24

, .

30.

24

, .

31.

;

1 ;

2 ,

1 2 가

32.

31 2 , 1 2 1 , 1 1 2 2 .

33.

;

가 , 1 2 , .

34.

33

, 1 1 2 2 .

35.

34

, 1 2 , 1 2 1 2 1 2 가 .

36.

33

, 가 가 , 1 2 .

37.

33 , 1 2 2 가 , 1
1 1 2 , .

38.

1 , 1 1 , 2 , 2 2
;
 , ,

39.

,
 ,
 1 1 가 ,
 1 가 1 1 ,
 1 1 ,
 1 가 1 1
 ,
 2 2 가
 ,
 2 가 2 2 ,
 2 2 ,
 2 가 2 2
 .

40.

39 , 1 2 가
 .

41.

39 , 2 가
 .

42.

39 , 2 2 가
 .

43.

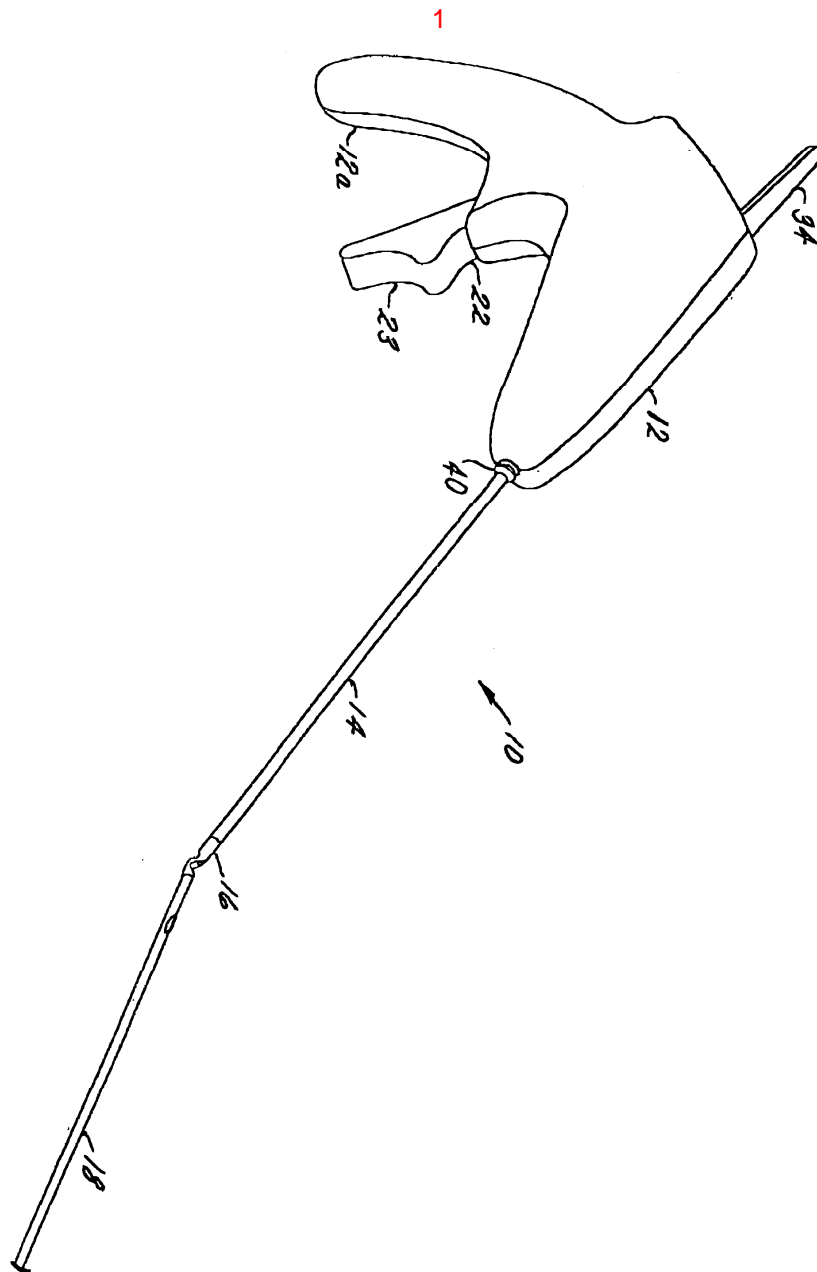
39 , 가
 .

44.

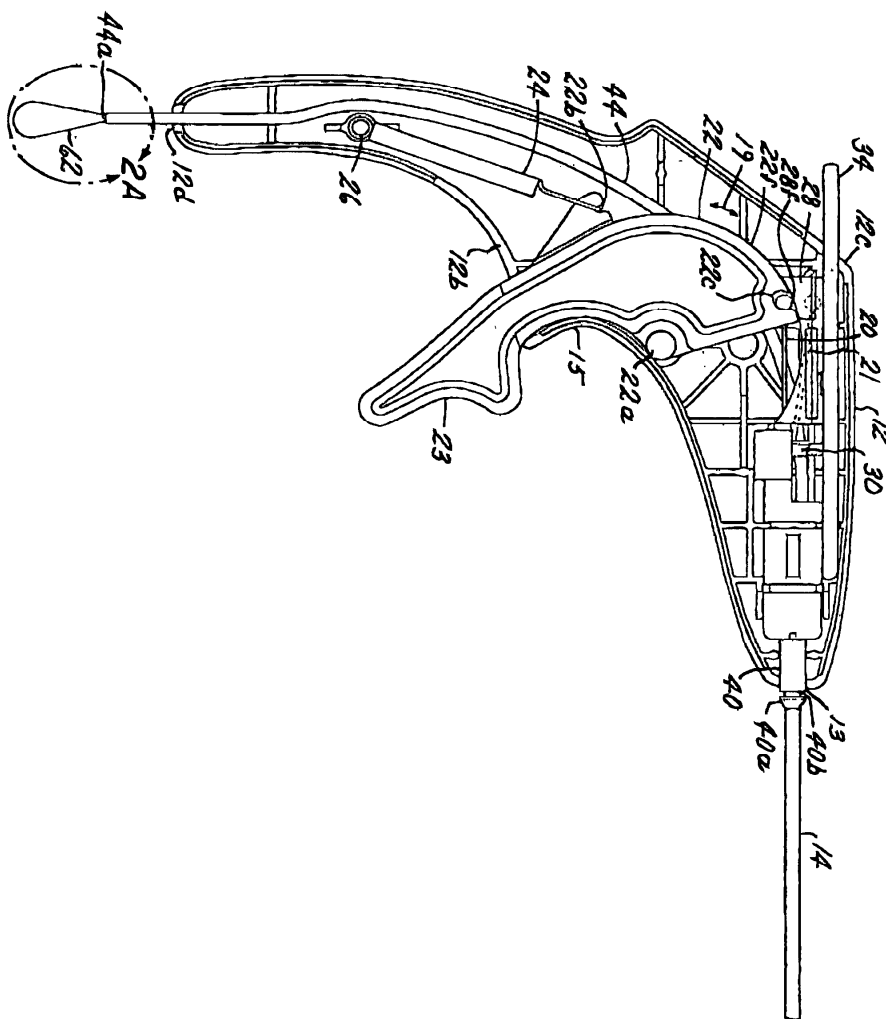
43 , , 가
 .

45.

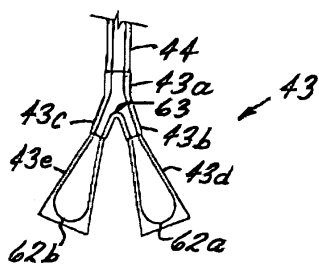
44 , ,
가 , .
46.
39 , 3
0 45 .
47.
;
1 ;
2 ;
1 2 ;
1 2 가 , .
48.
47 , 가 .
49.
47 , .
50.
;
가 , ;
가 ;
가 ,
가 가 ,
51.
50 , 가 ,
.

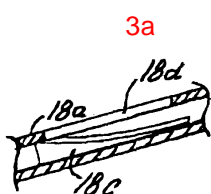
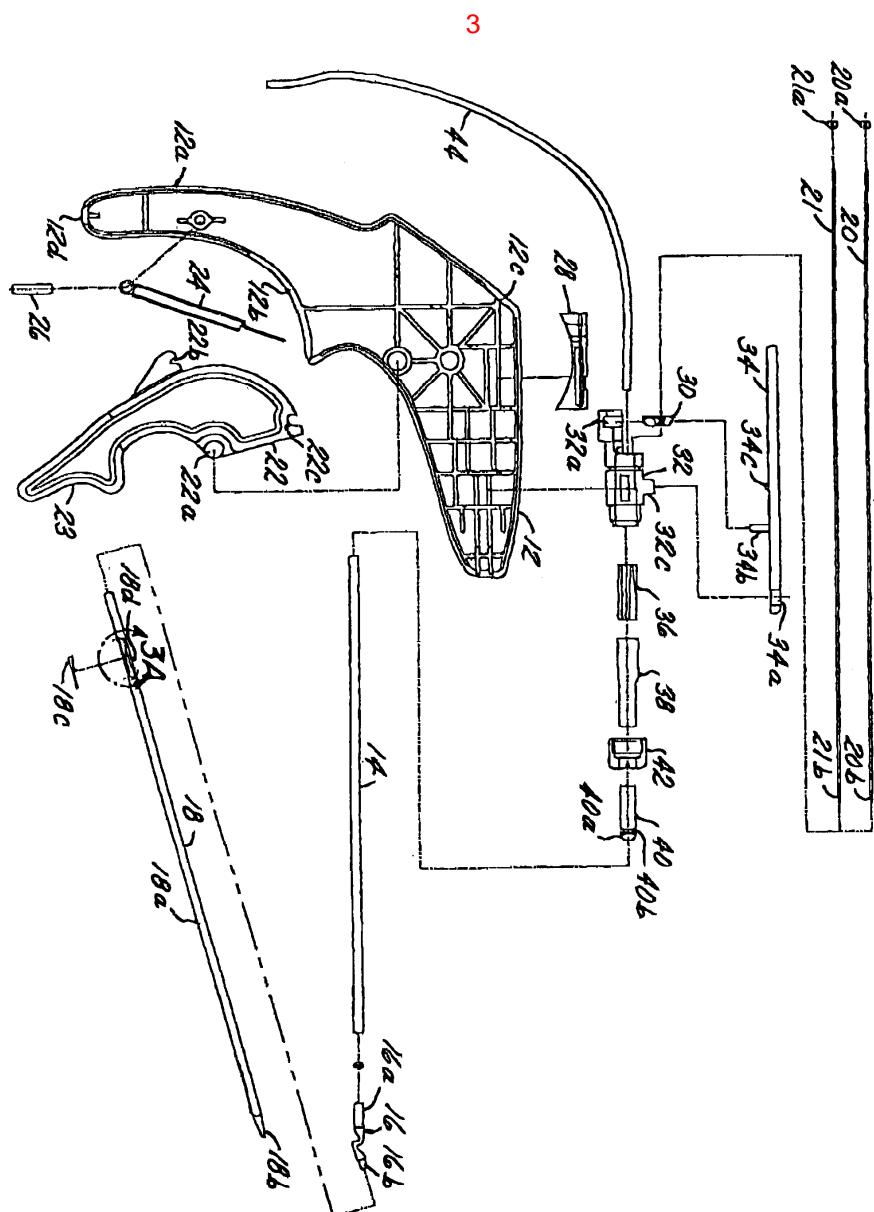


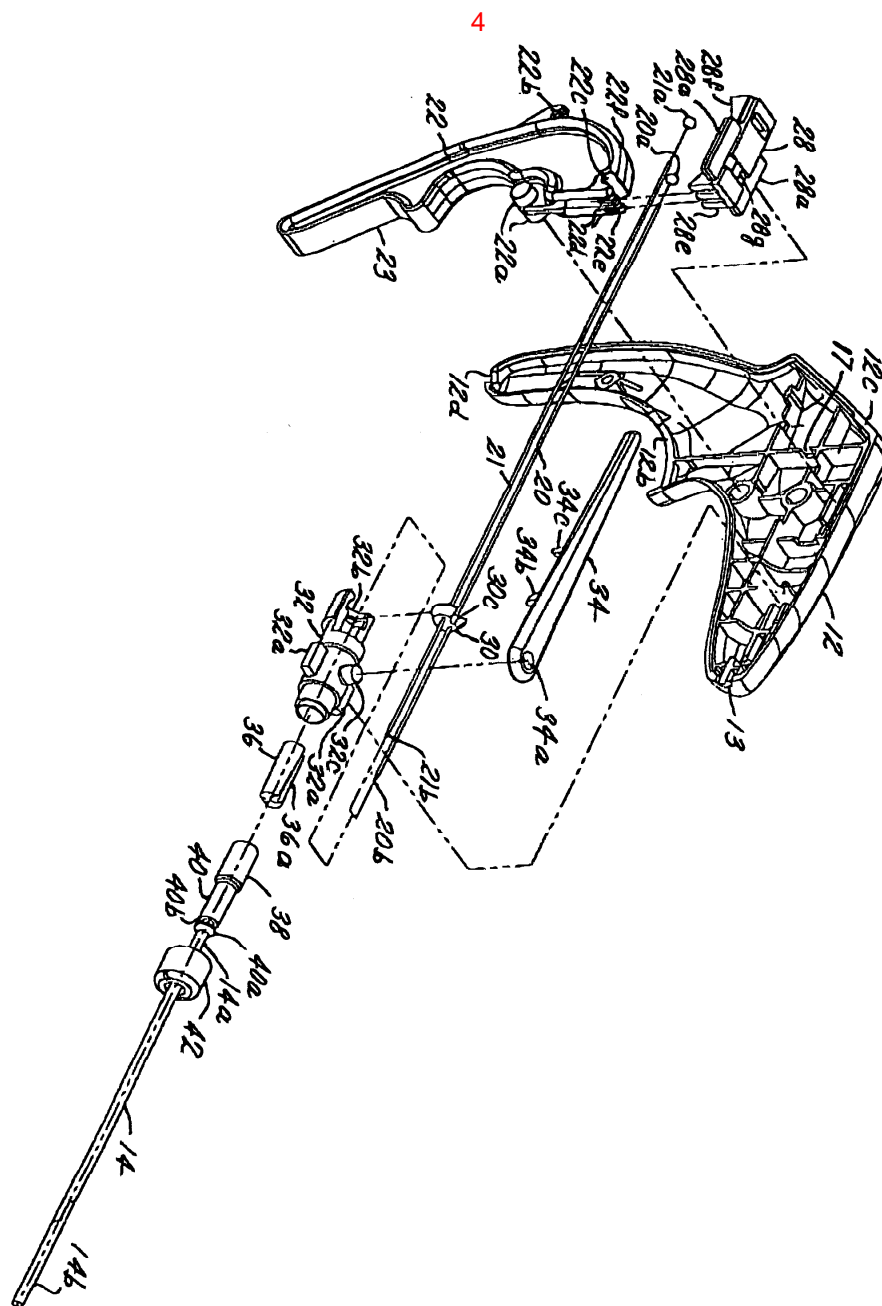
2



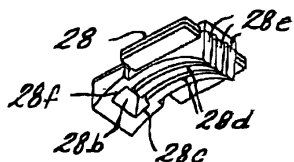
2a



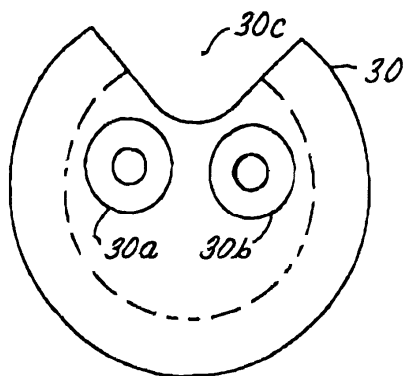




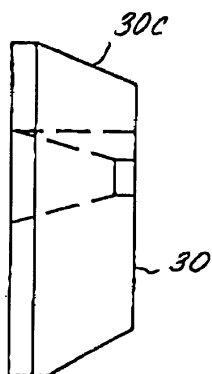
4a



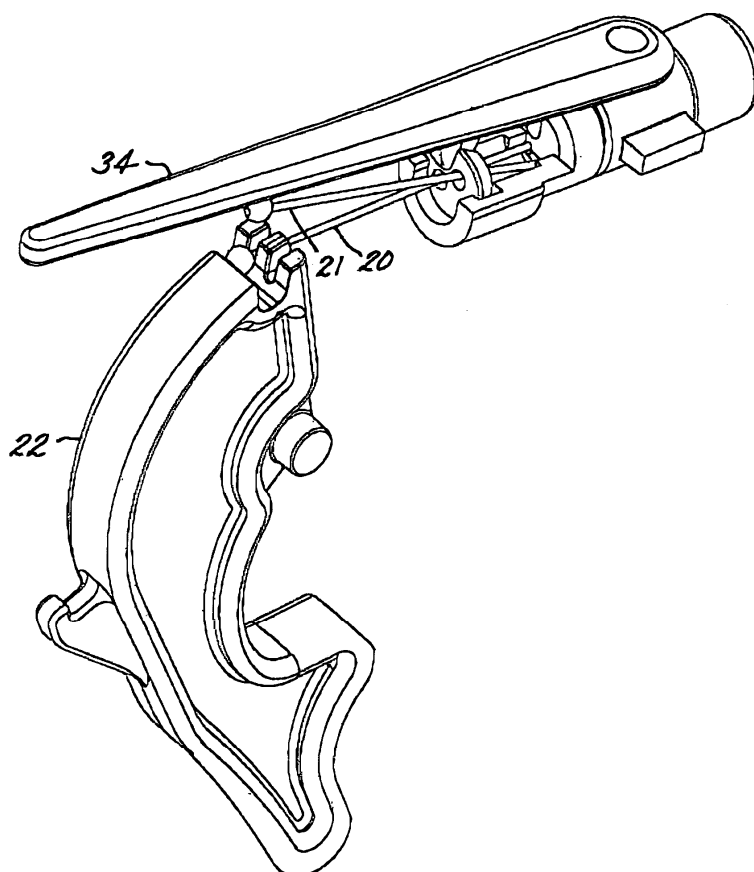
4b

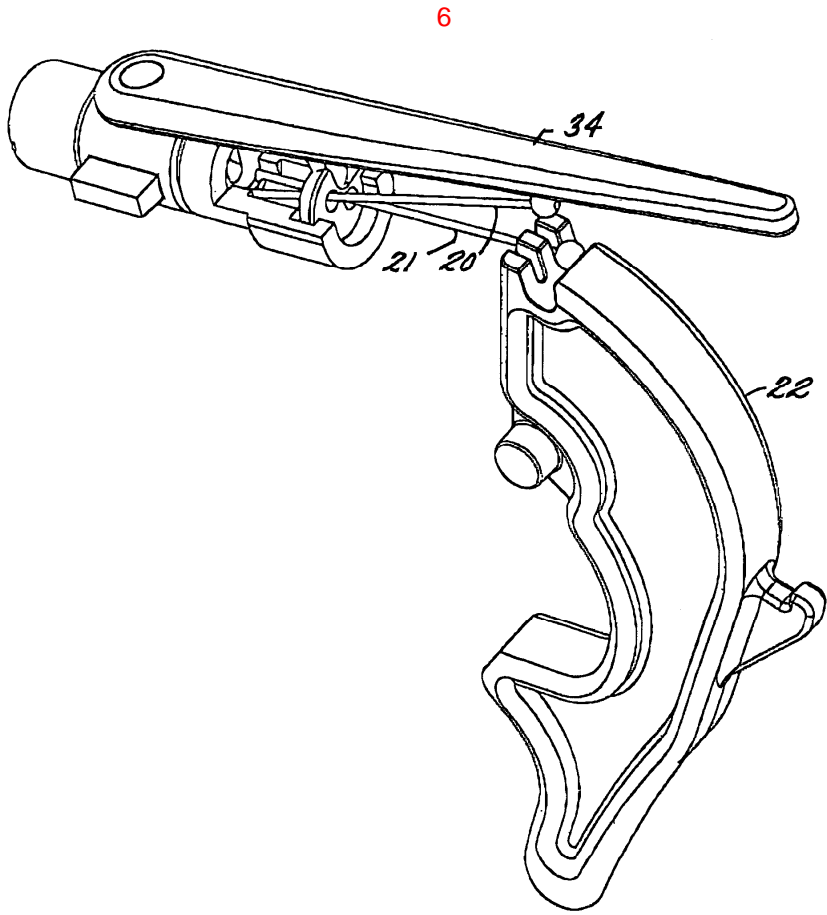


4c

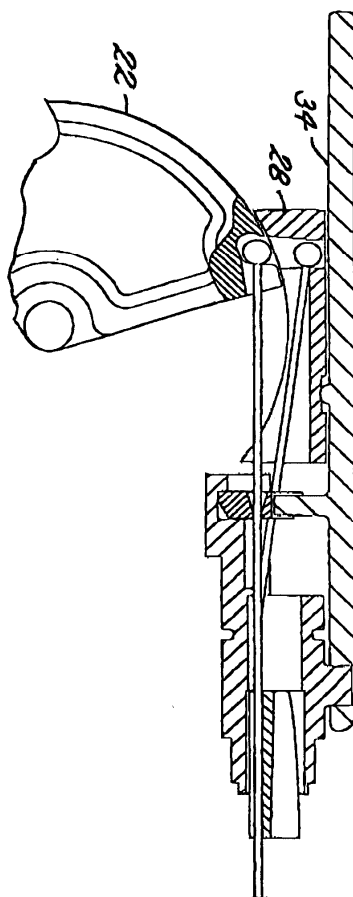


5

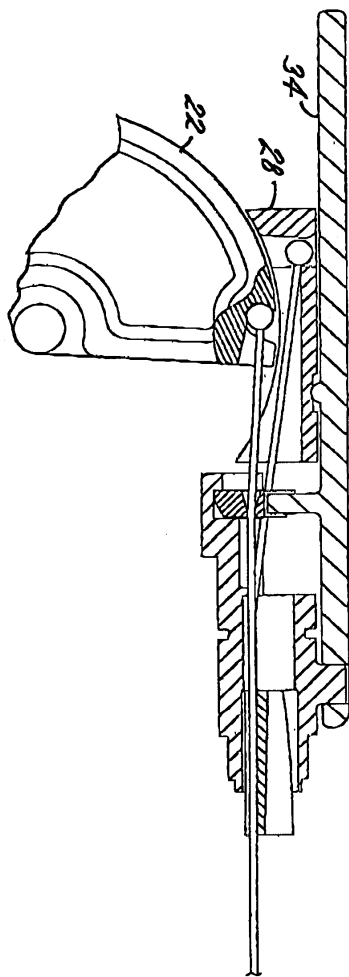




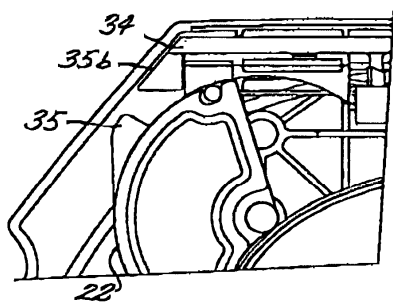
7a



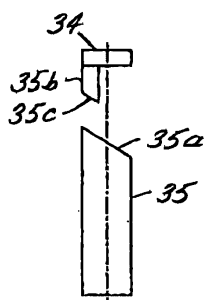
7b



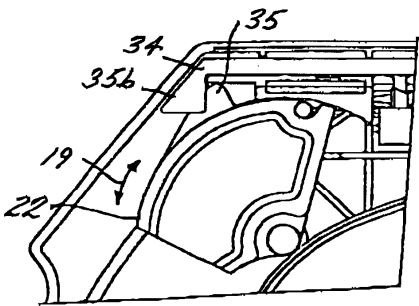
7c



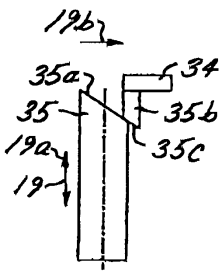
7d



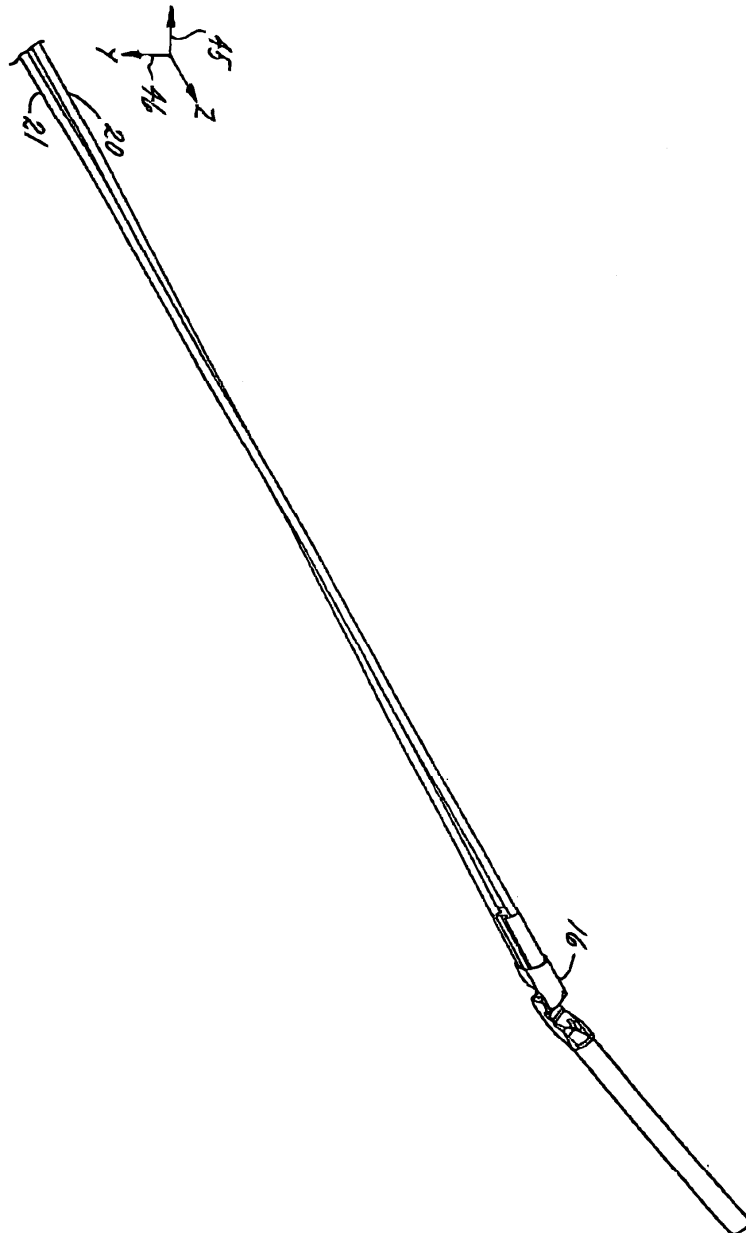
7e



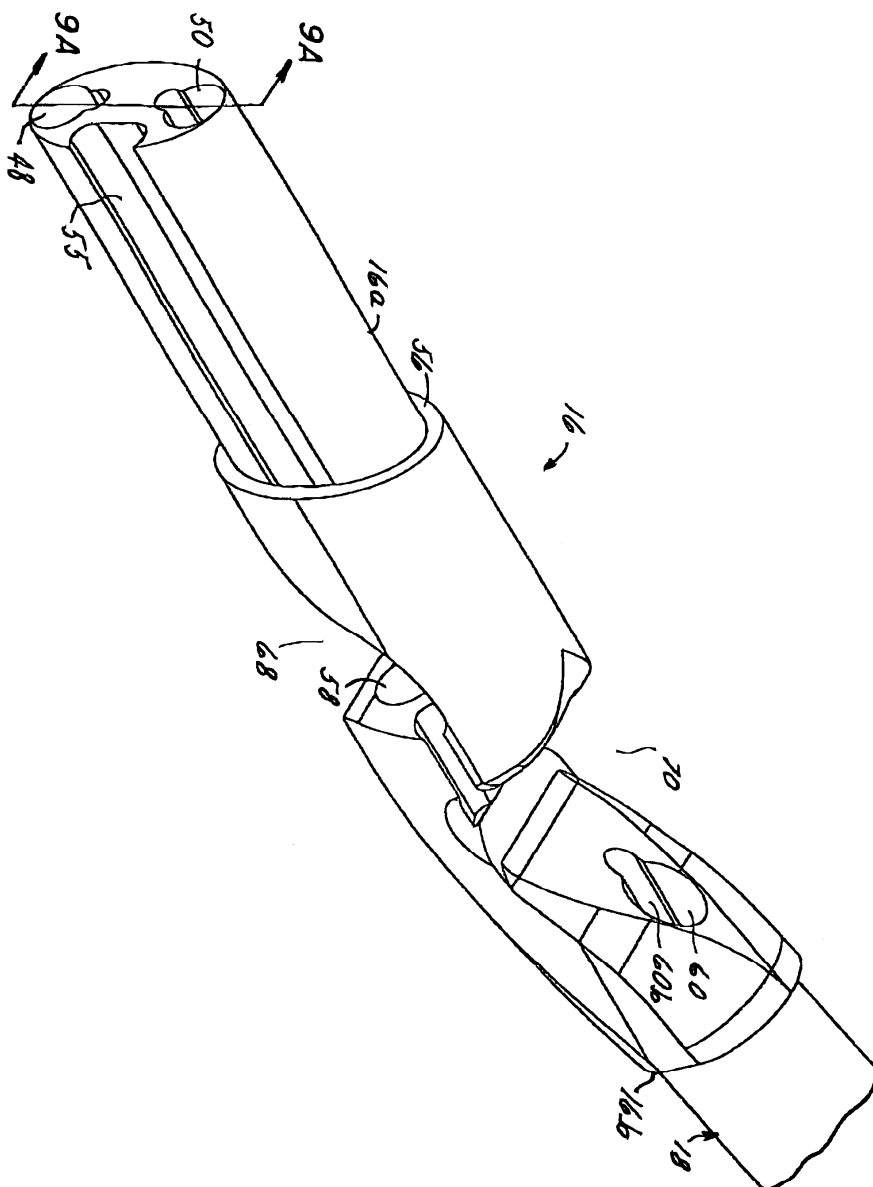
7f



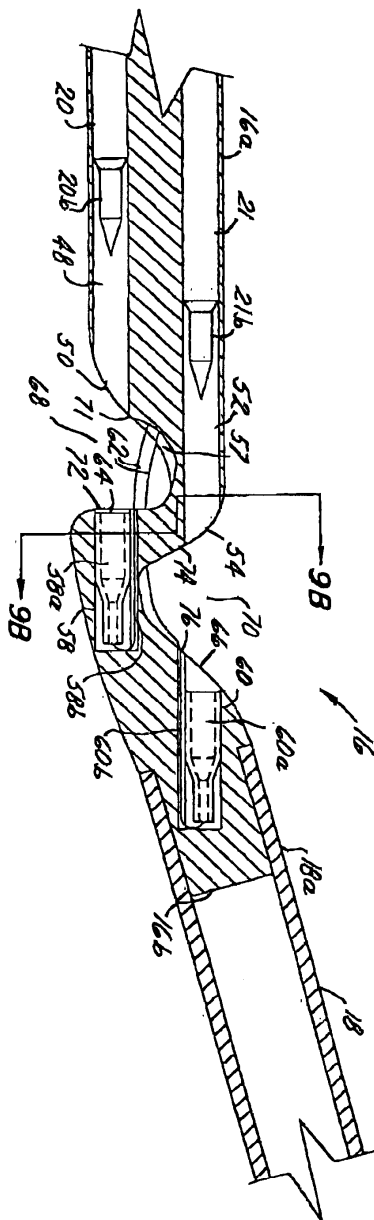
7g



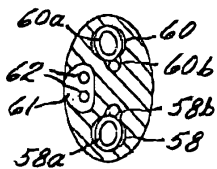
8

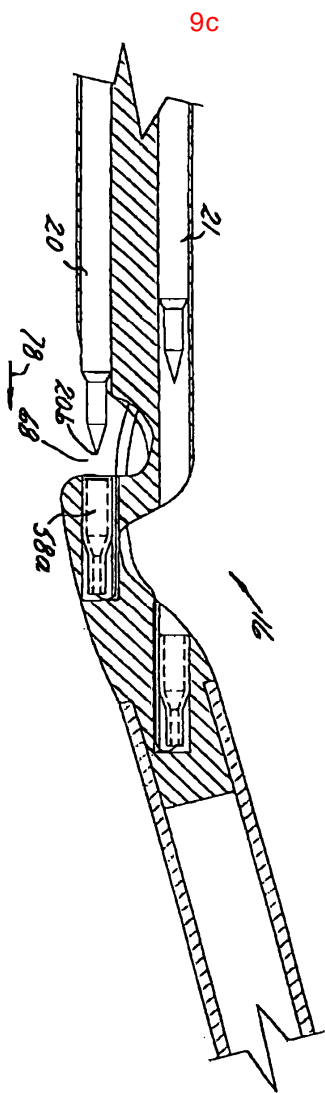


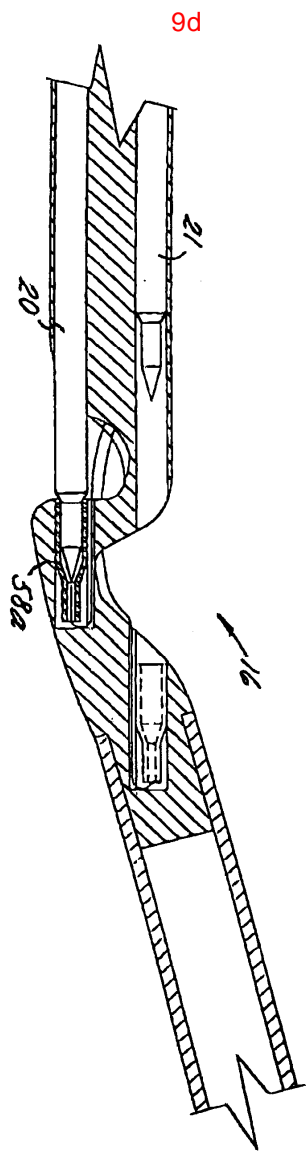
9a

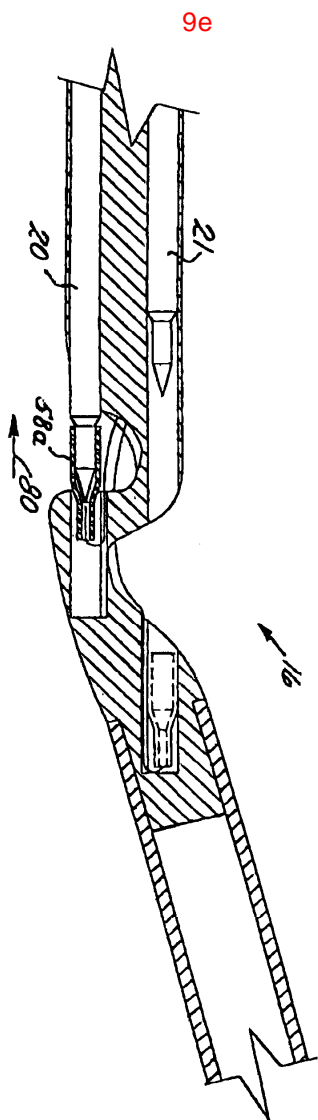


9b

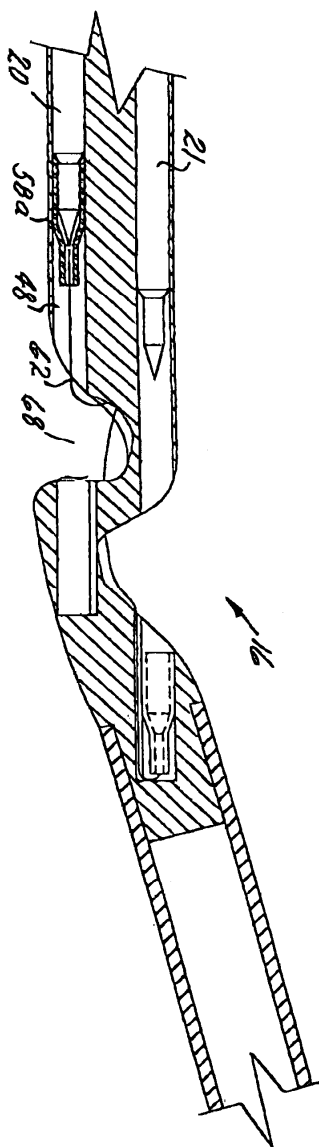




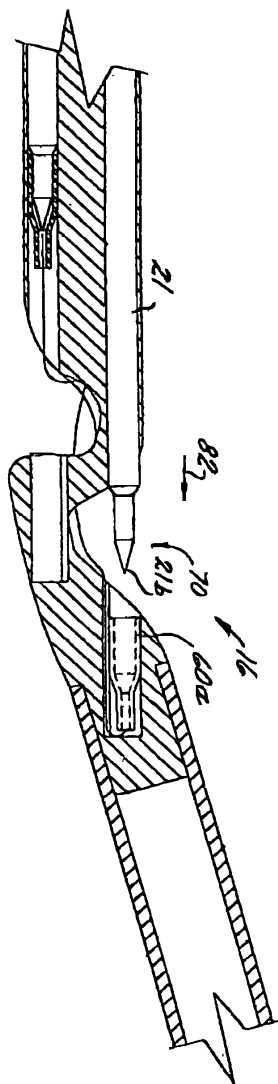




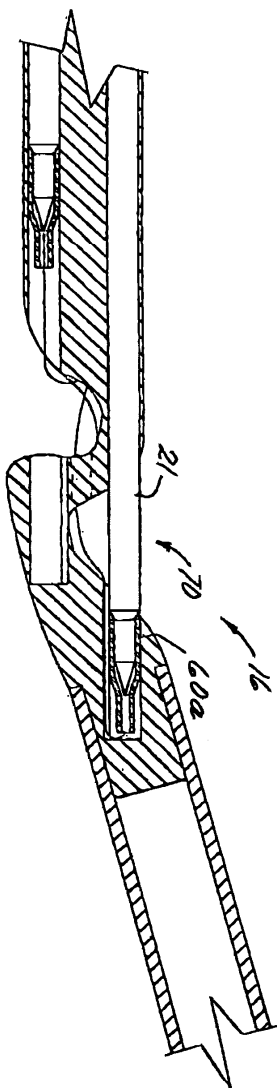
9f



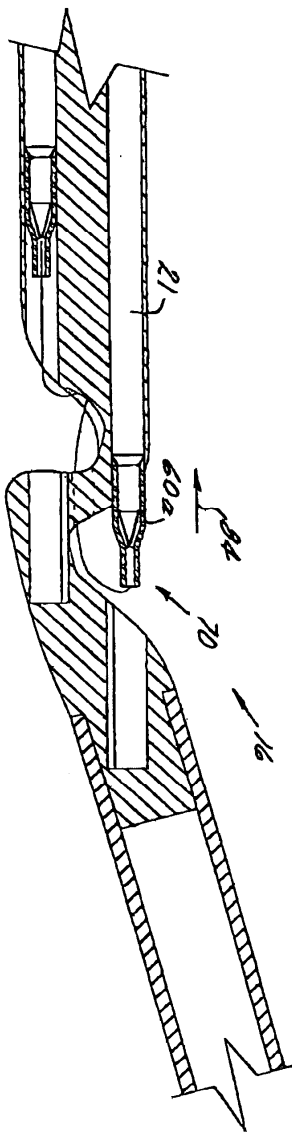
10a



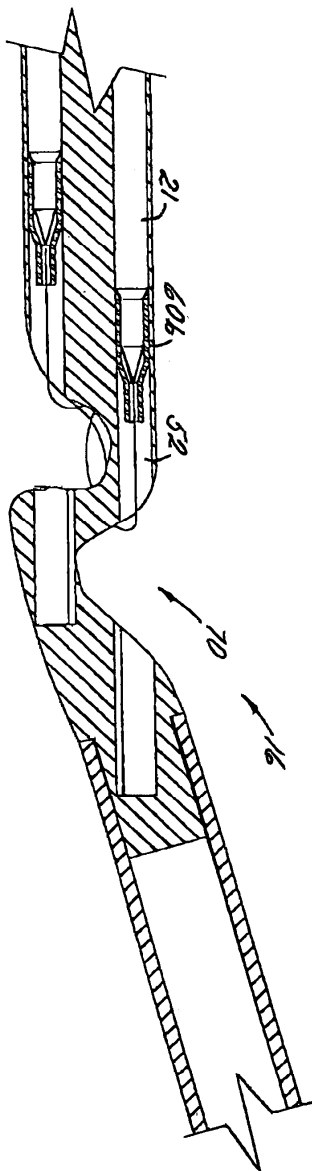
10b



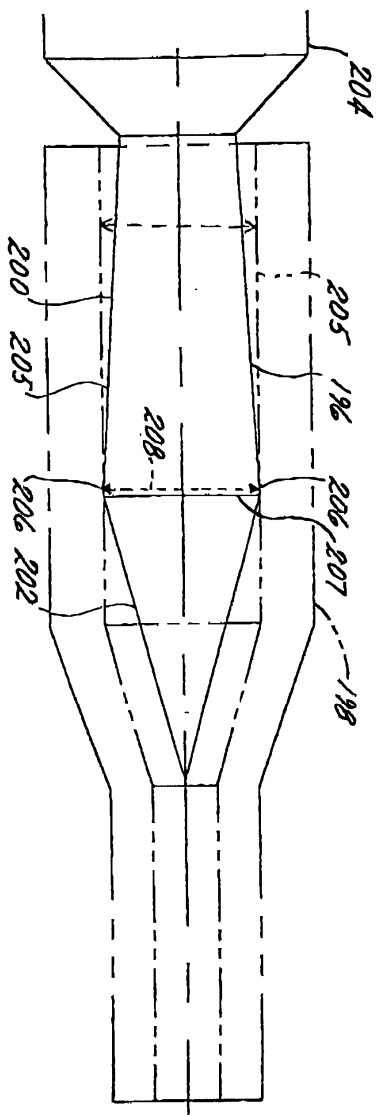
10c



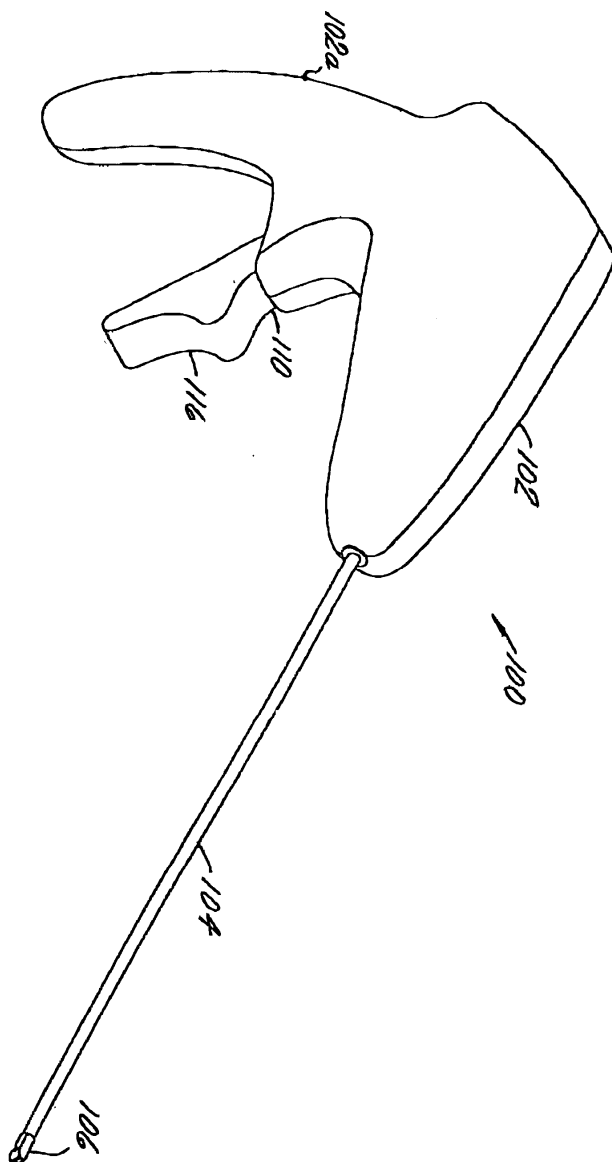
10d



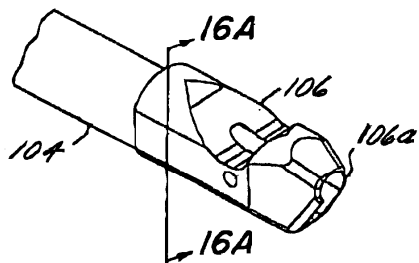
10e



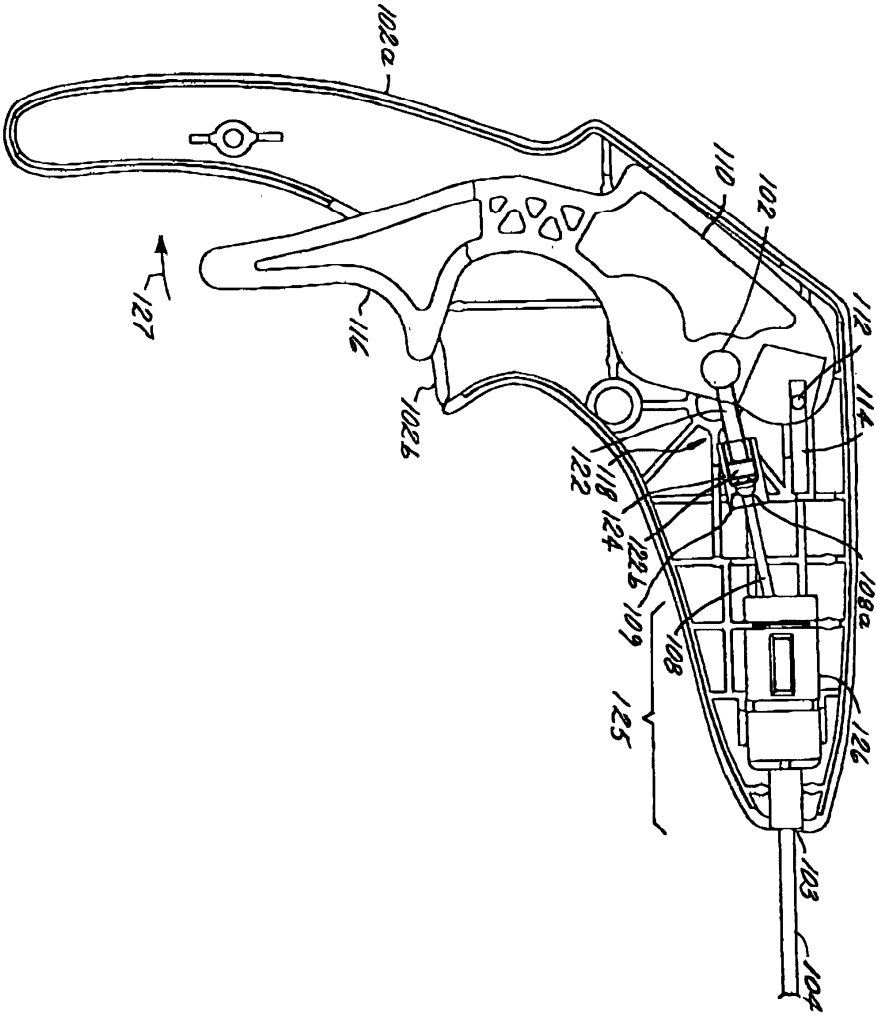
11



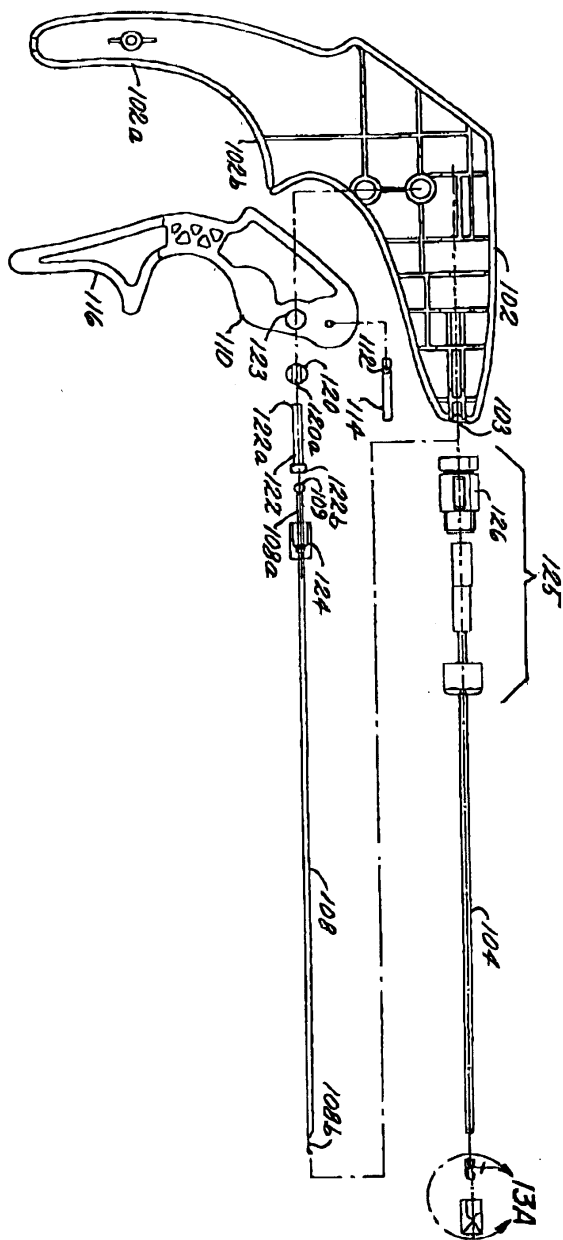
11a



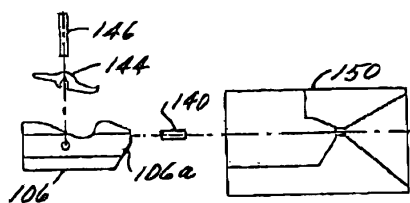
12

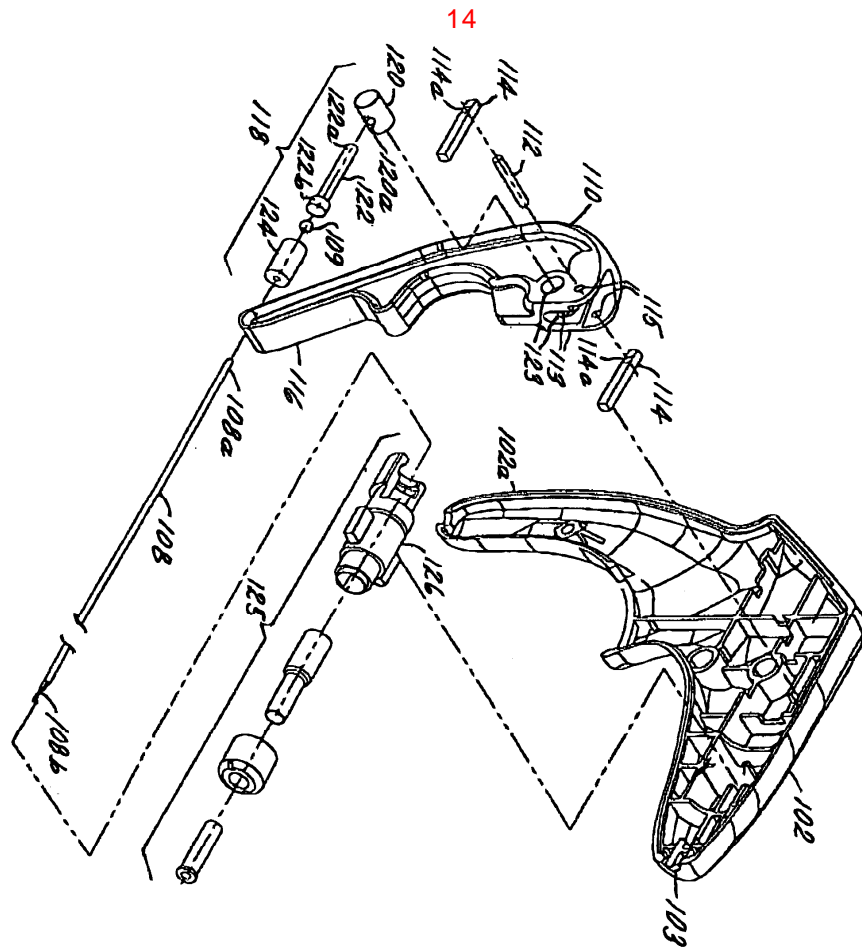


13

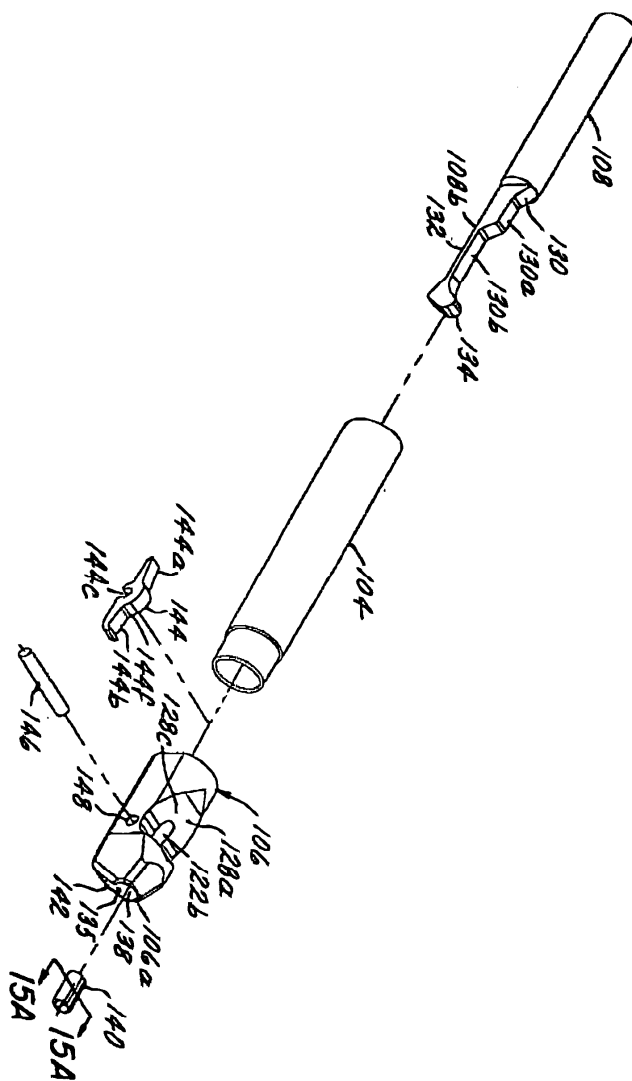


13a

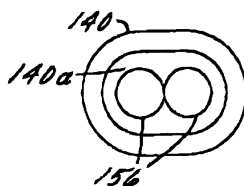




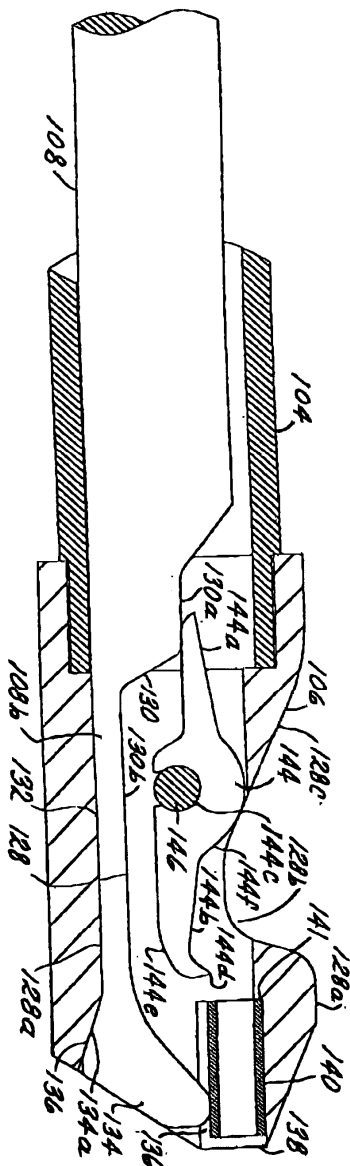
15

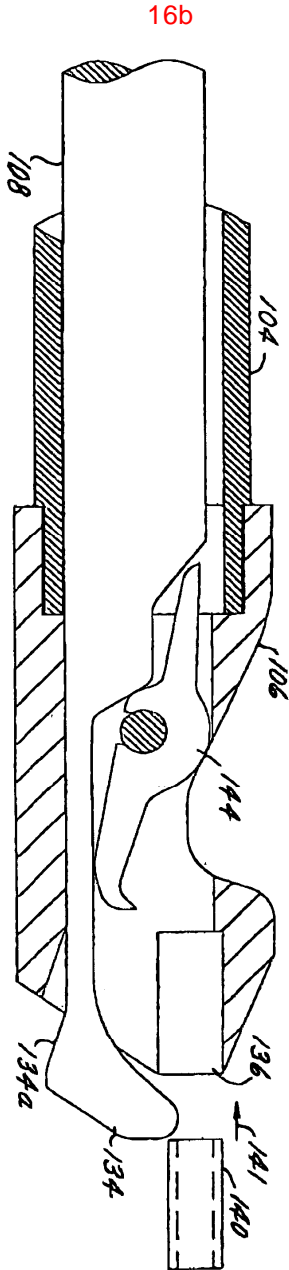


15a

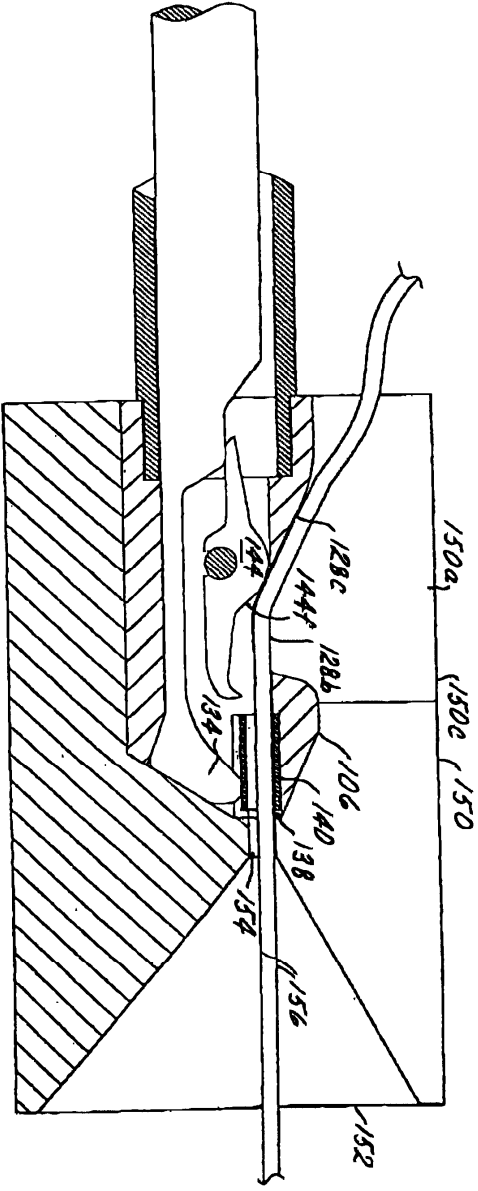


16a

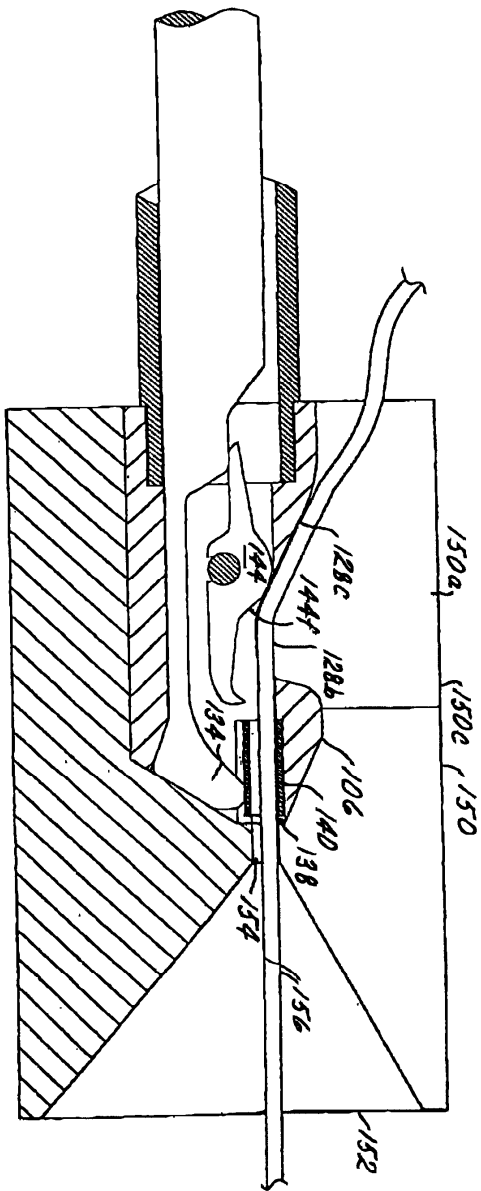


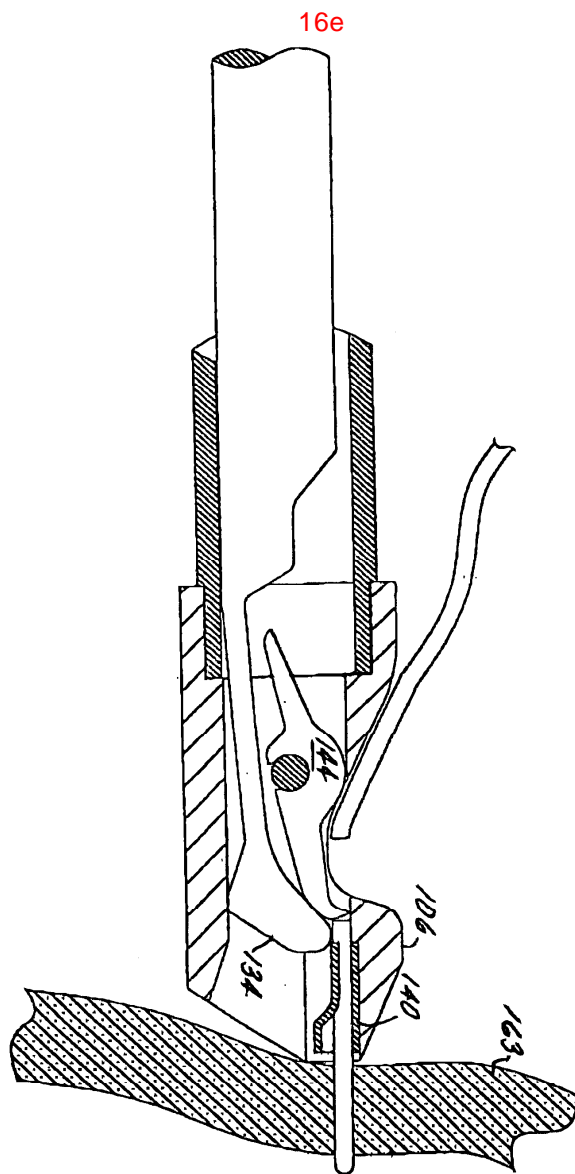


16c

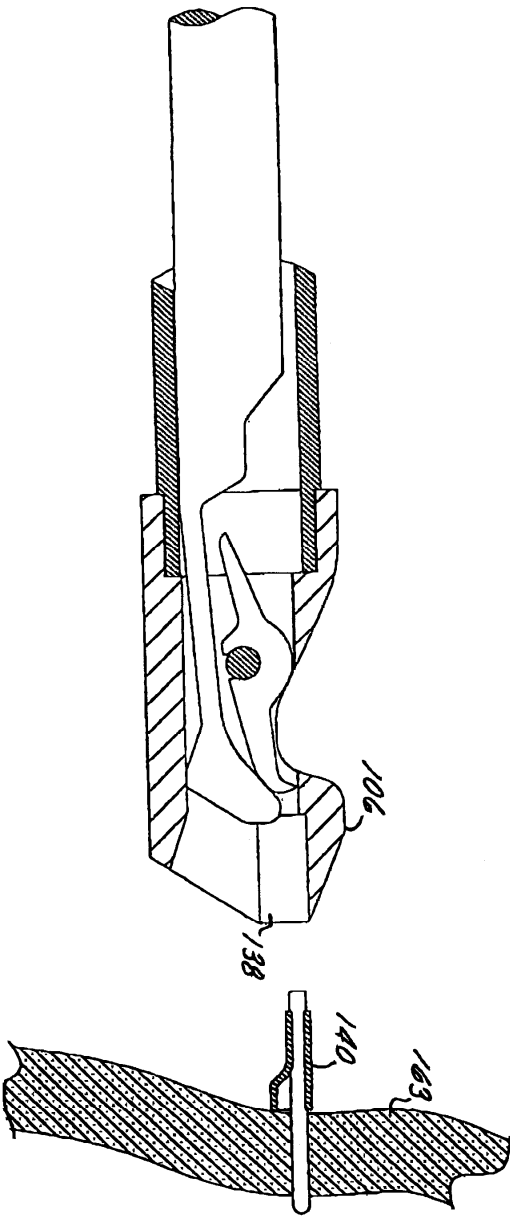


16d

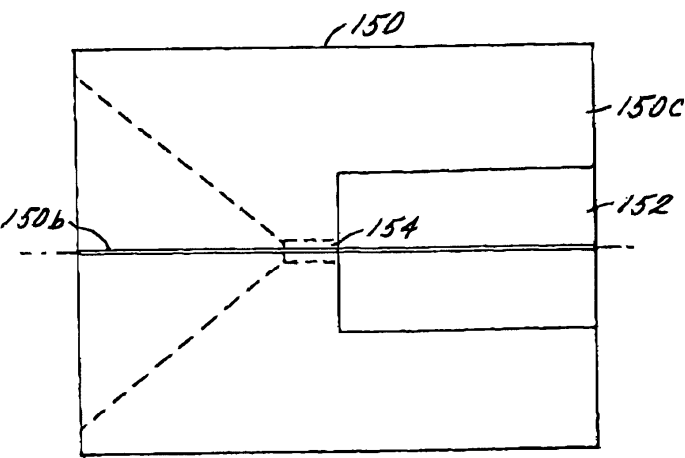




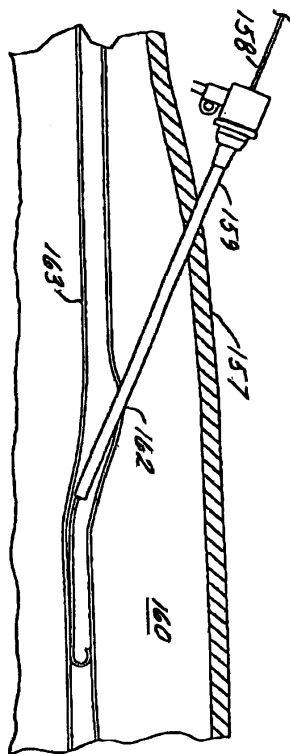
16f



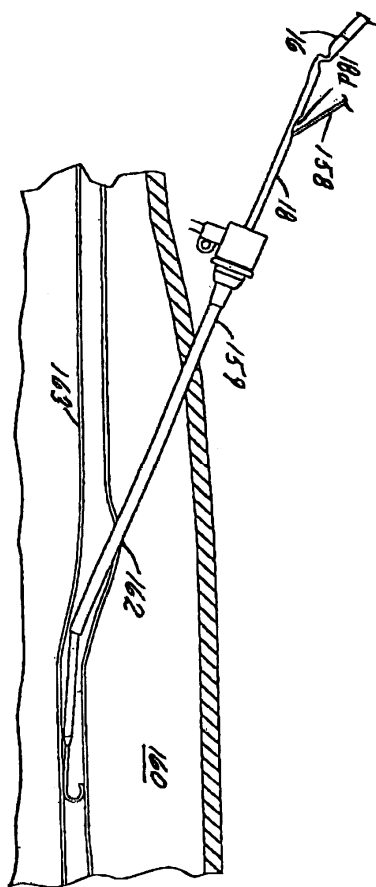
16g



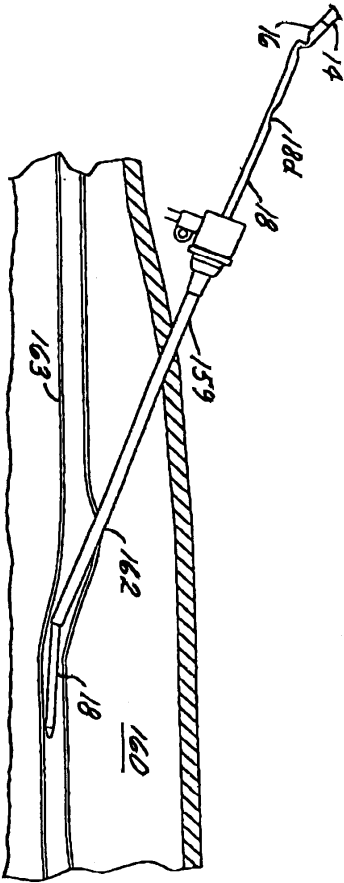
17a



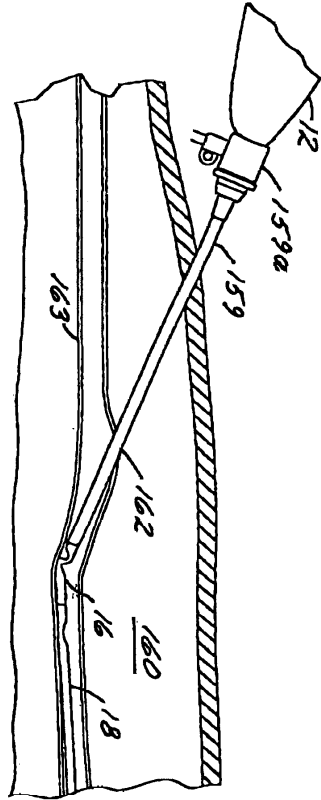
17b



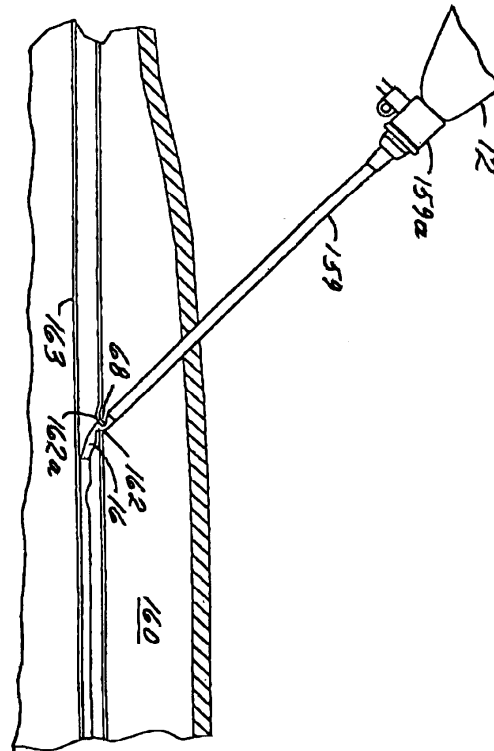
17c



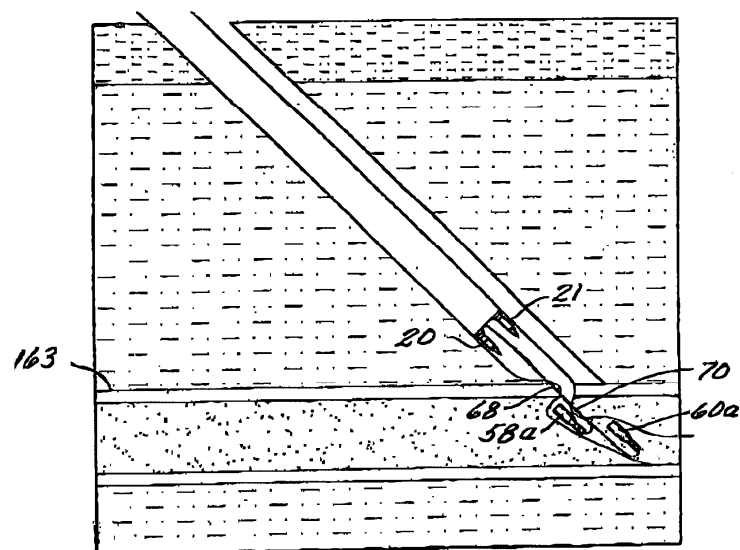
17d



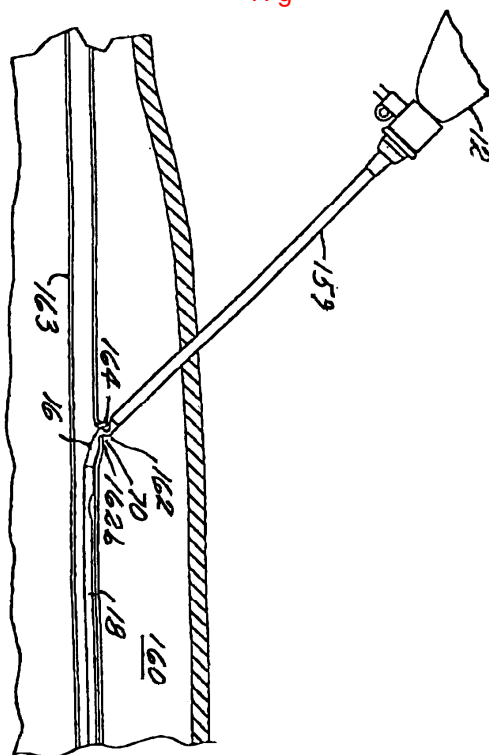
17e



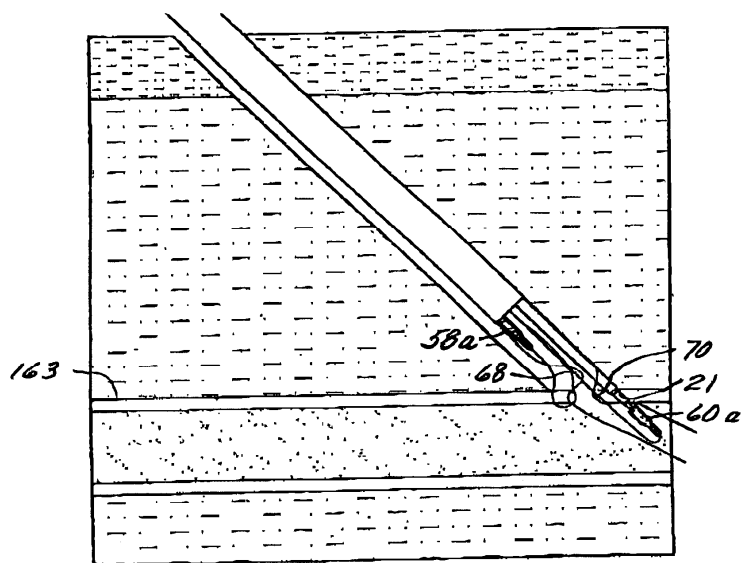
17f



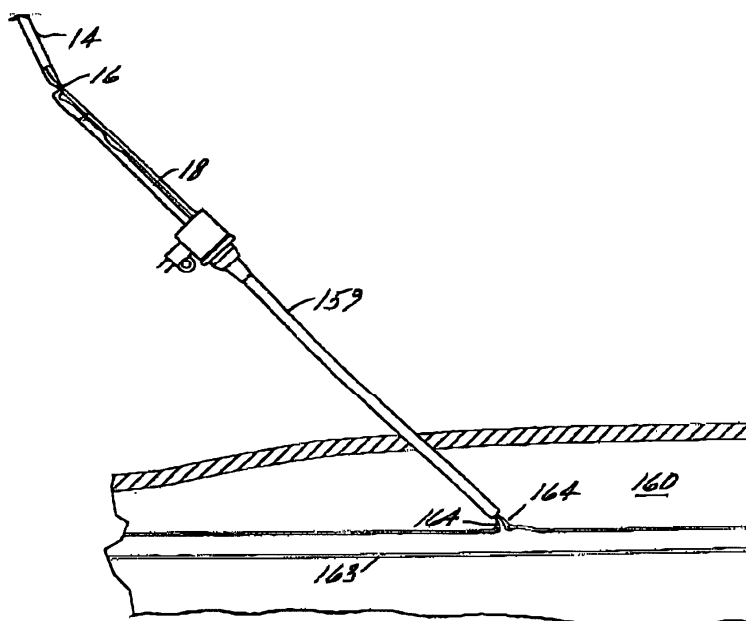
17g



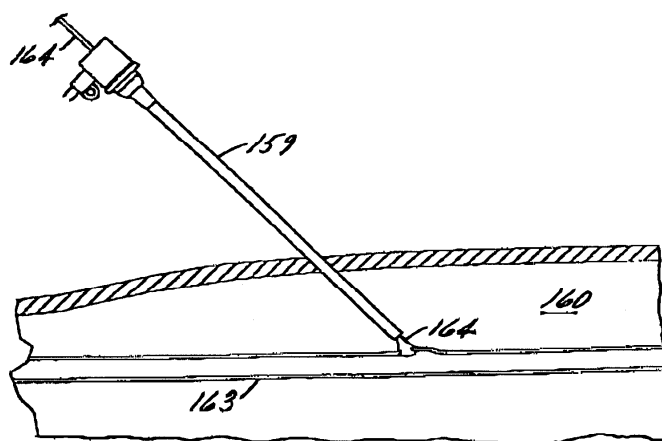
17h



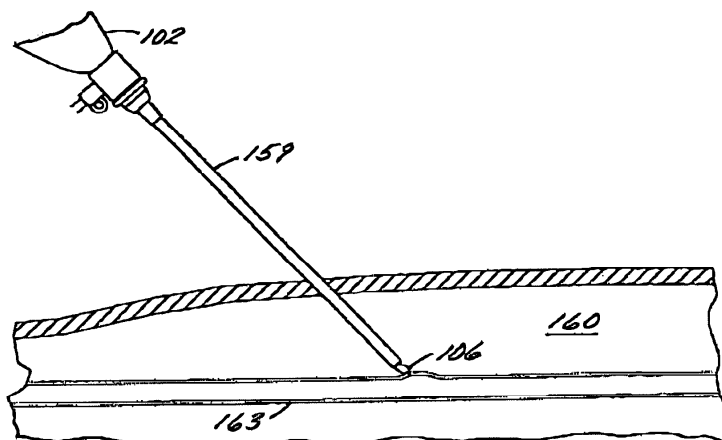
17i



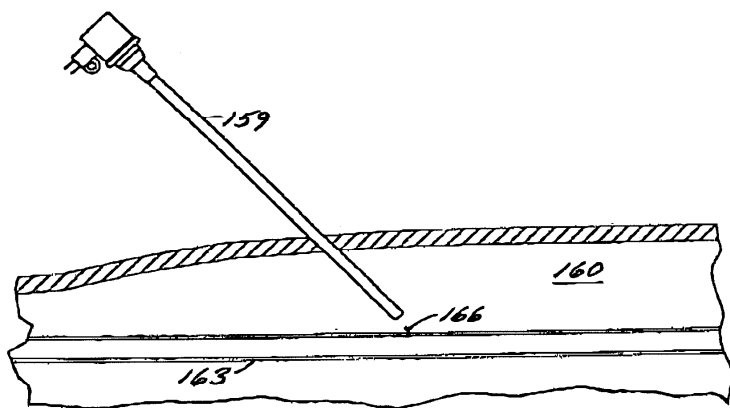
17j



17k



17l



17m

