

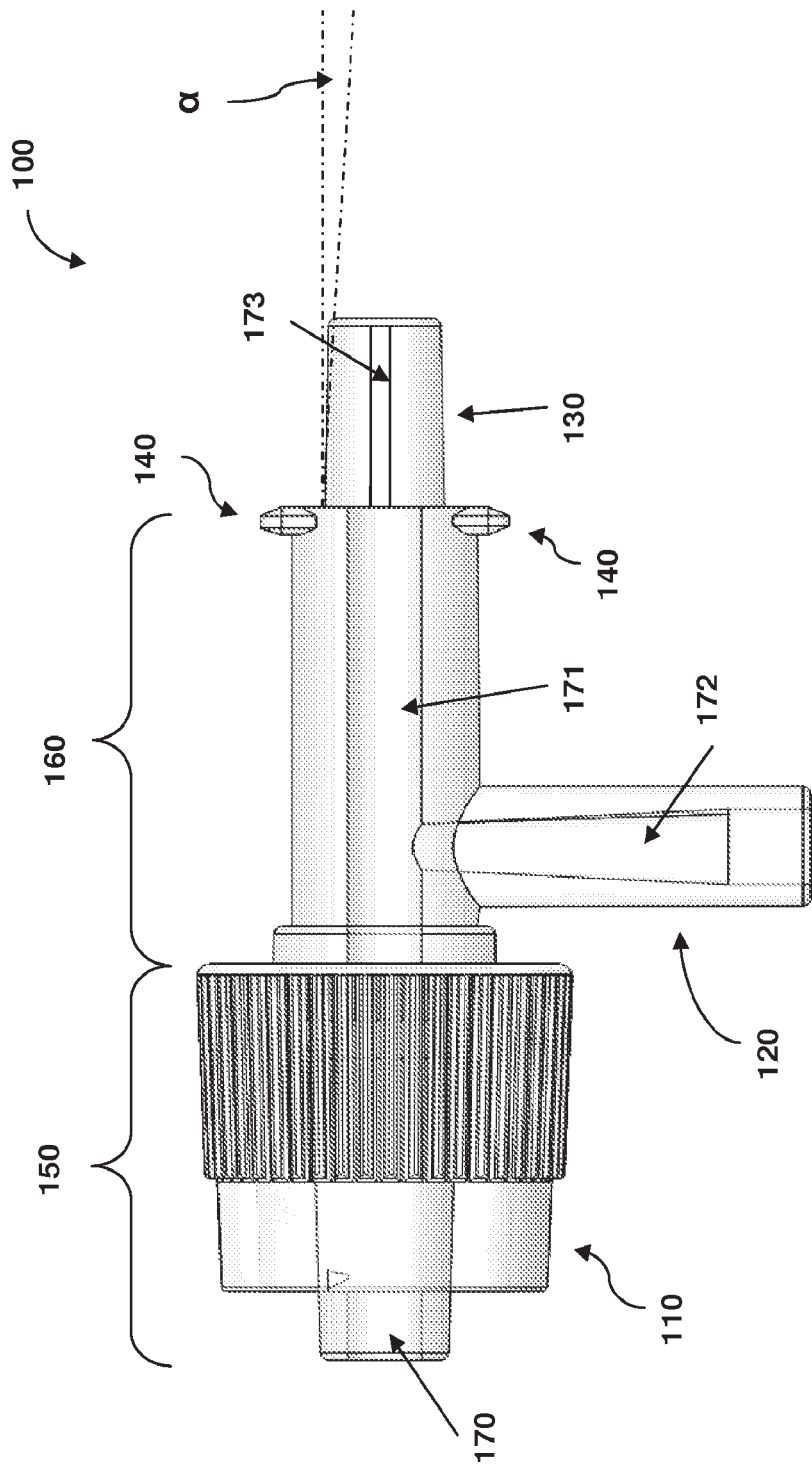


Figure 1

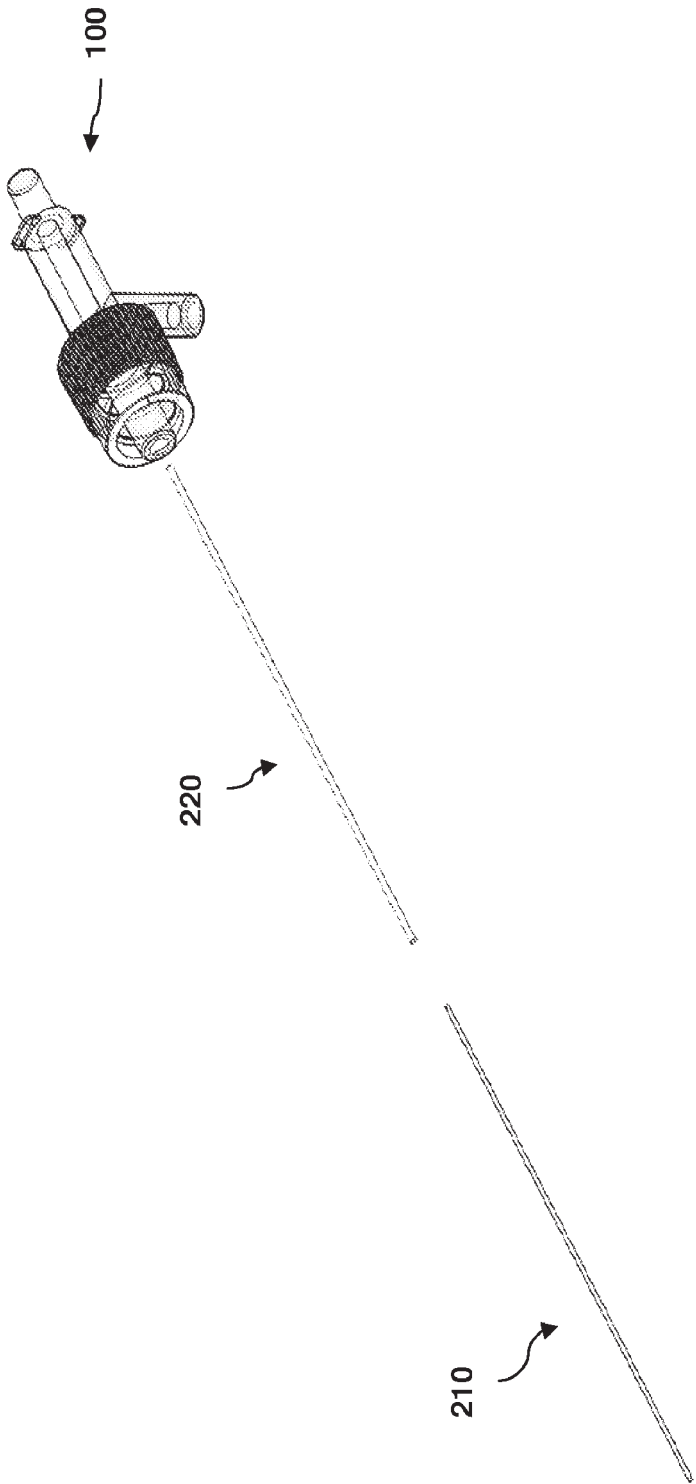


Figure 2

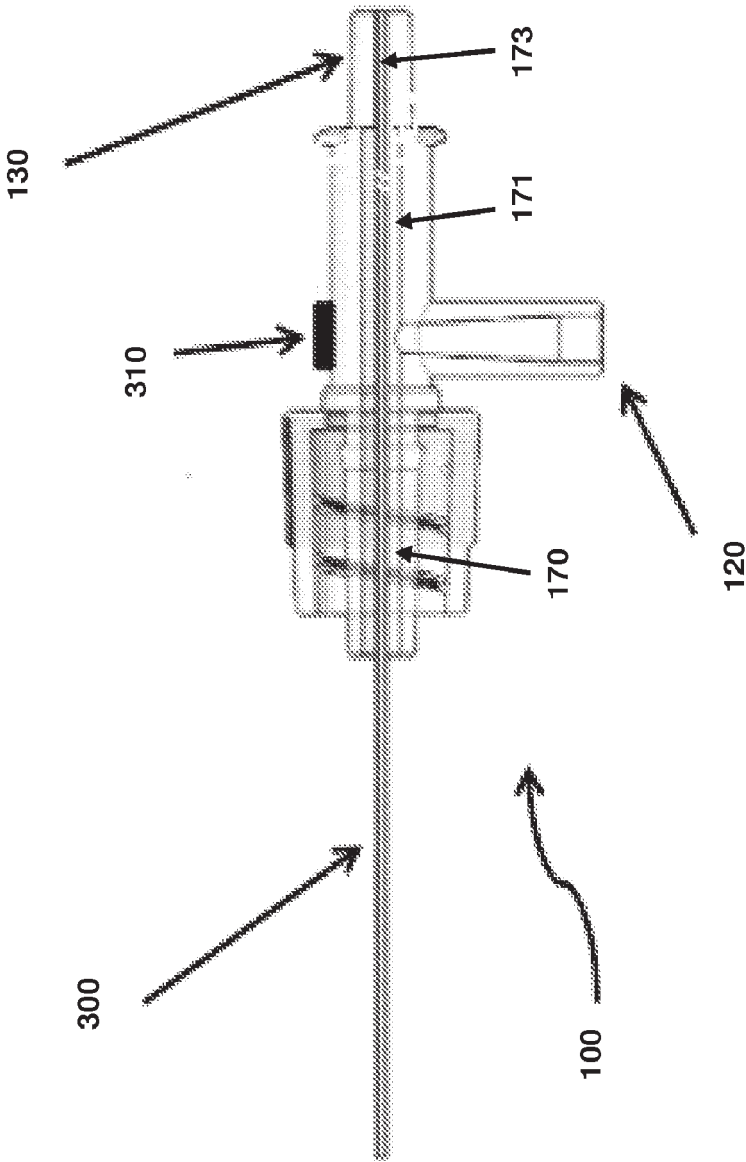


Figure 3

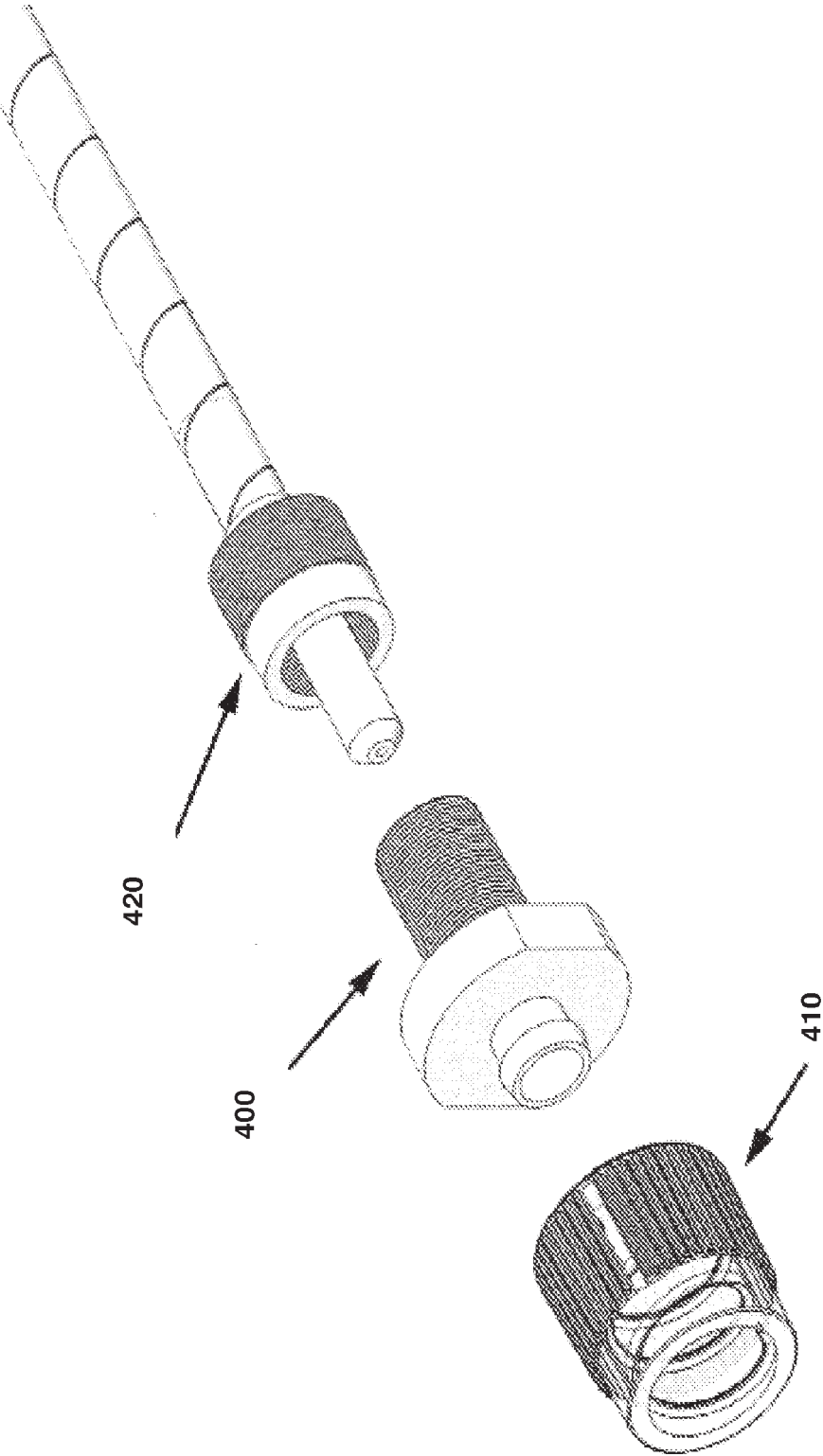


Figure 4

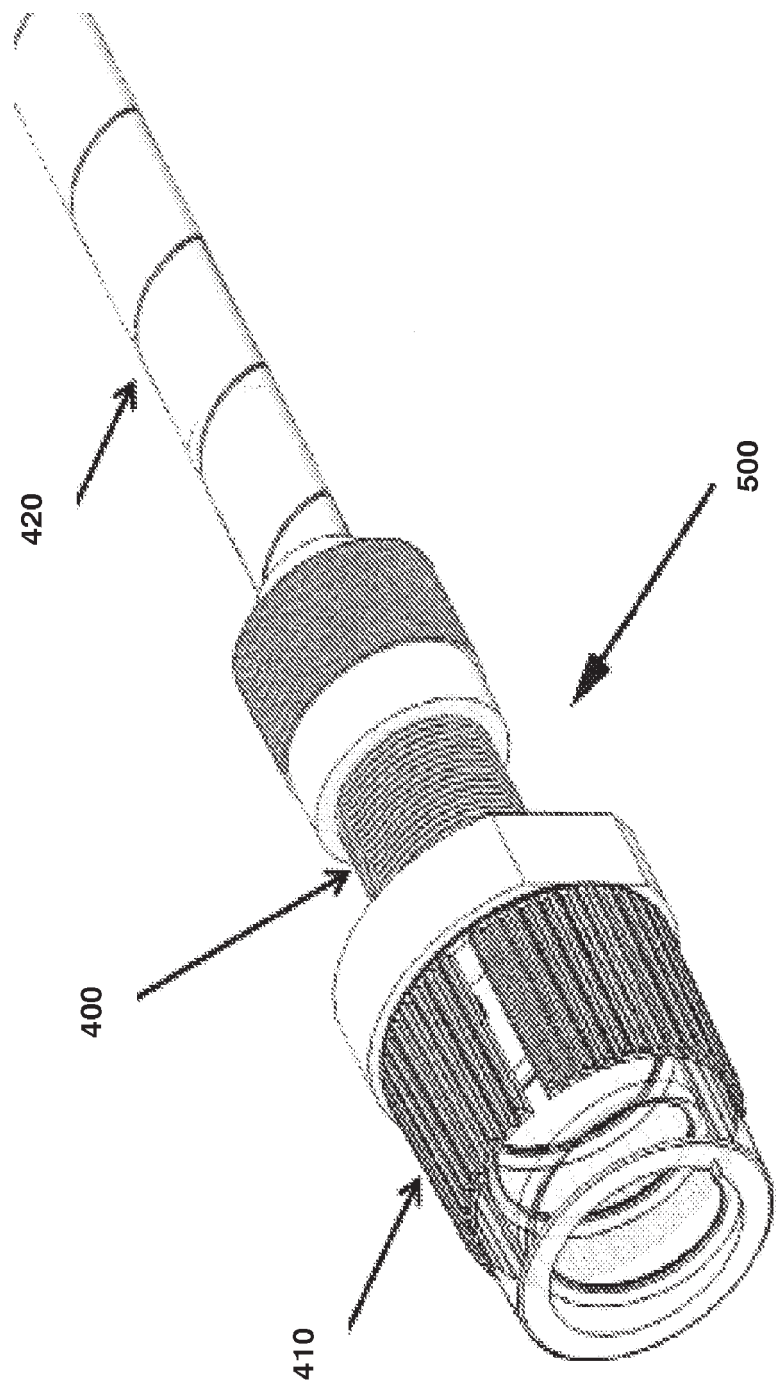


Figure 5

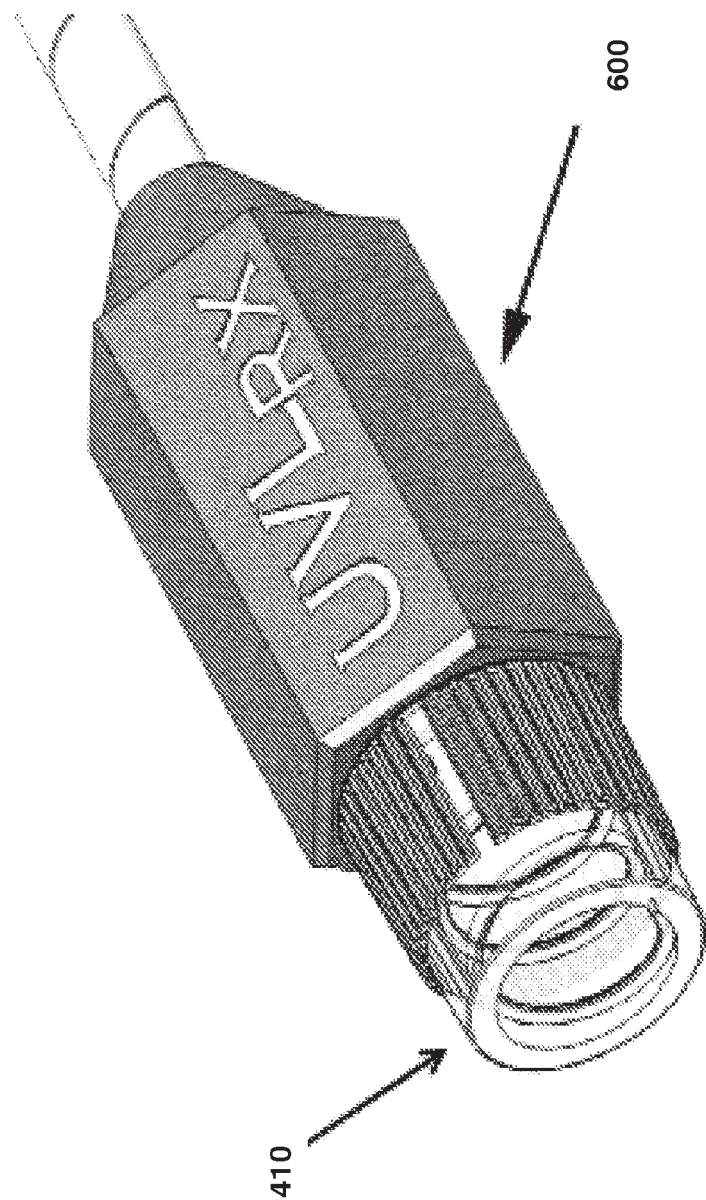


Figure 6

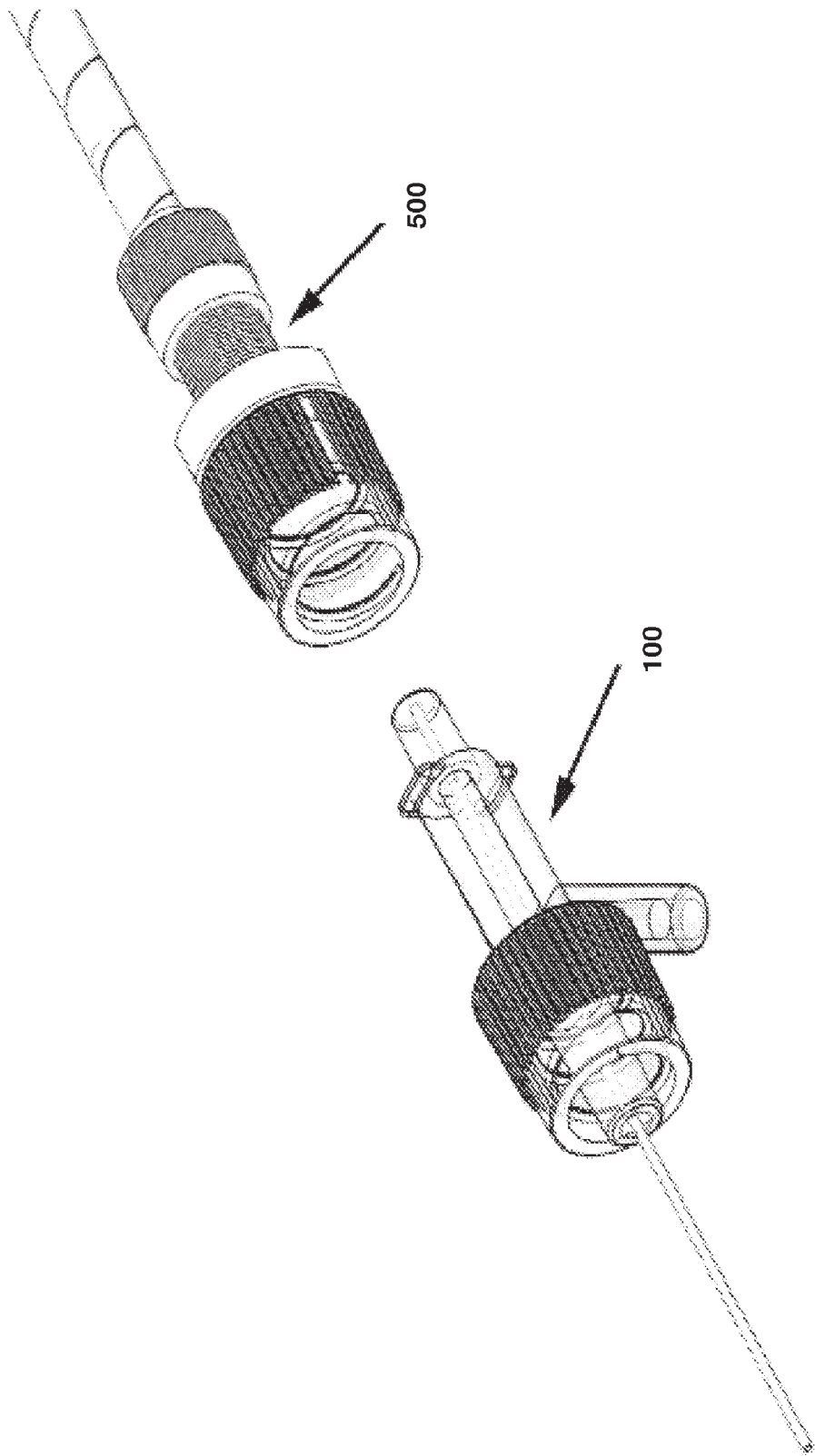


Figure 7

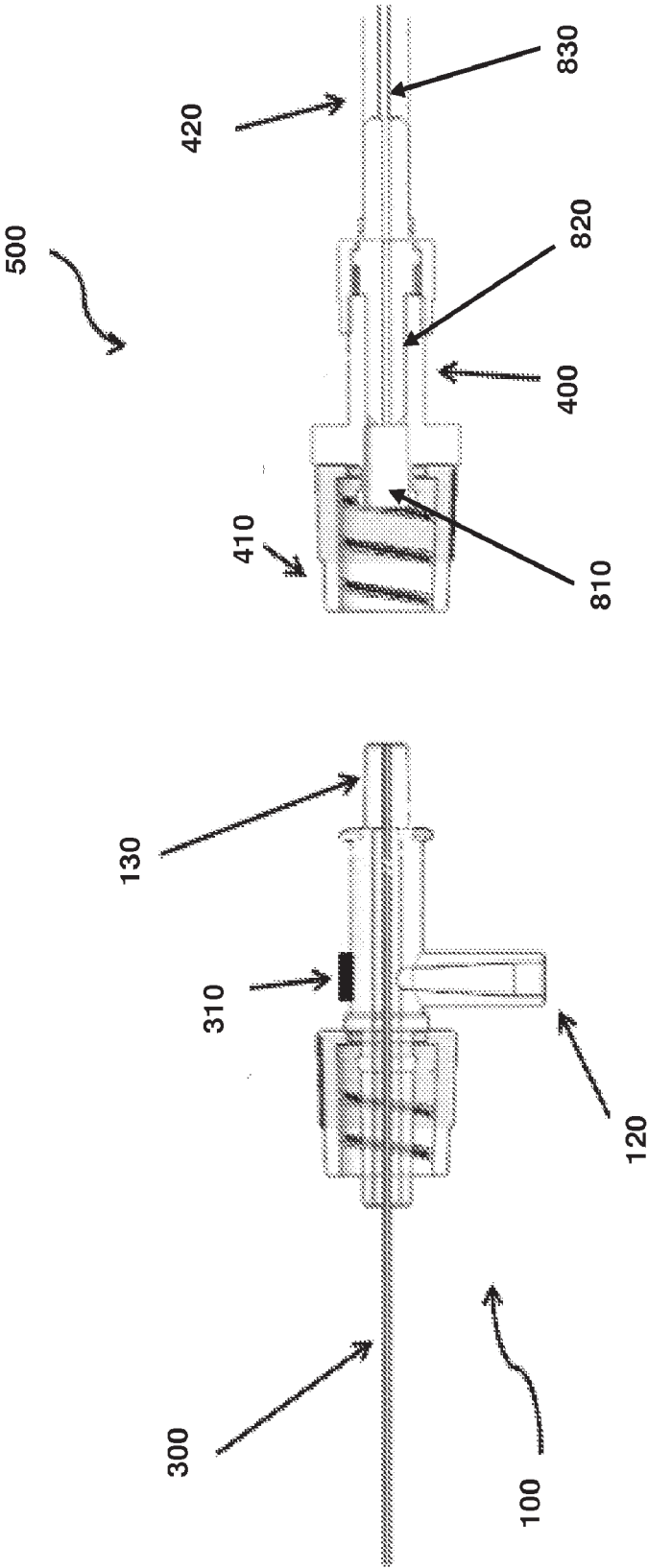


Figure 8

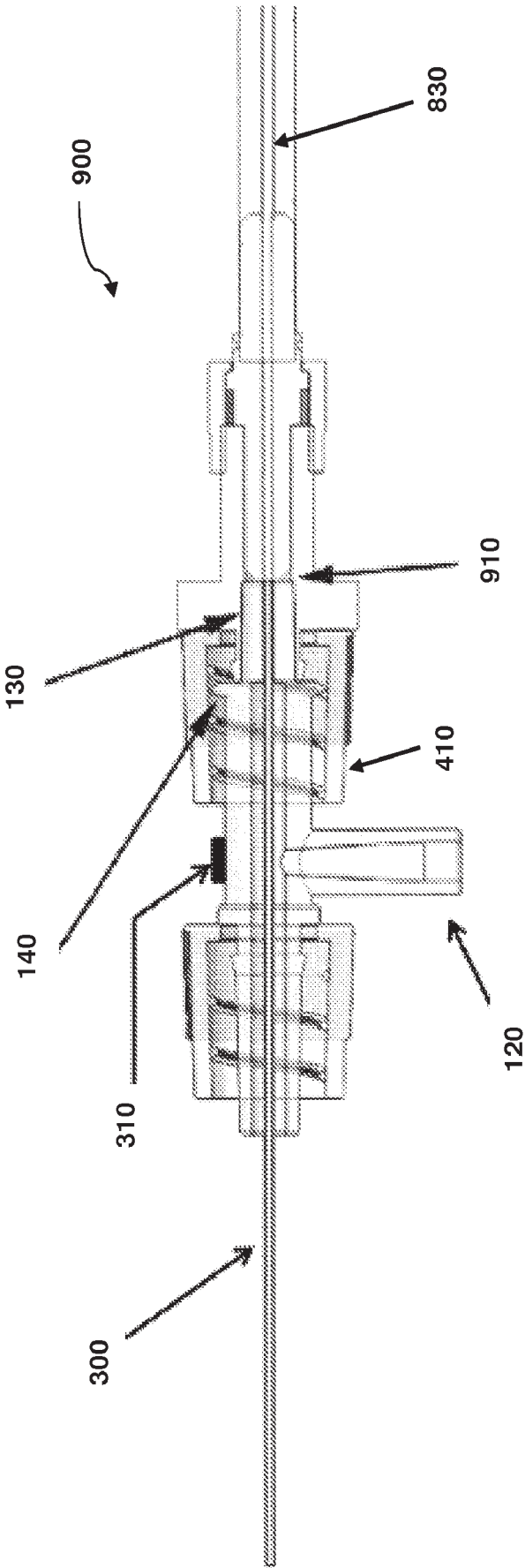


Figure 9

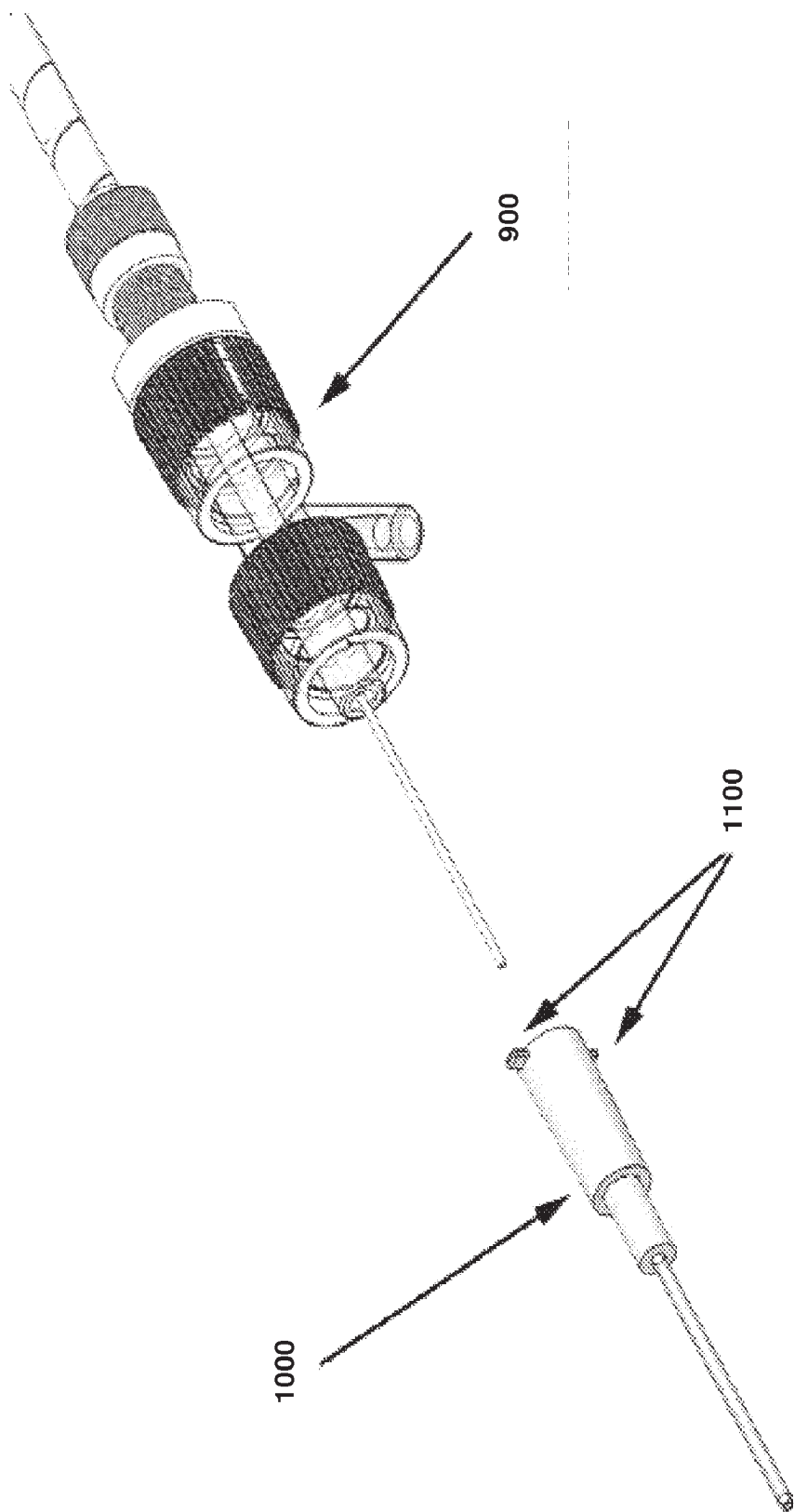


Figure 10

18 gauge catheter			20 gauge catheter			22 gauge catheter		
	in	mm		in	mm		in	mm
Catheter ID	0.0360	0.9144	Catheter ID	0.0280	0.7112	Catheter ID	0.0220	0.5588
Catheter ID area	0.0010	0.0259	Catheter ID area	0.0006	0.0156	Catheter ID area	0.0004	0.0097
ID of a 24 gauge catheter (desired flow rate)	0.0120	0.3048	ID of a 24ga catheter (desired flow rate)	0.0120	0.3048	ID of a 24ga catheter (desired flow rate)	0.0120	0.3048
Sectional area of a 24 gauge catheter	0.0001	0.0029	Sectional area of a 24 gauge catheter	0.0001	0.0029	Sectional area of a 24 gauge catheter	0.0001	0.0029
Residual sectional area remaining	0.0009	0.0230	Residual sectional area remaining	0.0005	0.0128	Residual sectional area remaining	0.0003	0.0068
Calculated maximum allowable sheath radius	0.0170	0.4311	Calculated maximum allowable sheath radius	0.0126	0.3213	Calculated maximum allowable sheath radius	0.0092	0.2342
Calculated maximum allowable sheath diameter	0.0339	0.8621	Calculated maximum allowable sheath diameter	0.0253	0.6426	Calculated maximum allowable sheath diameter	0.0184	0.4684
21 gauge XTW type tube: OD	0.0320	0.8128	23 gauge XTW type tube: OD	0.0250	0.6350	26 gauge XTW type tube: OD	0.0280	0.7112
21 gauge XTW type tube: ID	0.0250	0.6350	23 gauge XTW type tube: ID	0.0190	0.4826	26 gauge XTW type tube: ID	0.0140	0.3556
Optical fiber with effective OD of 600µm	0.0236	0.6000	Optical fiber with effective OD of 480µm	0.0189	0.4800	Optical fiber with effective OD of 330µm	0.0130	0.3300
						Optical fiber with effective OD of 240µm	0.0094	0.2400
Cap diameter	0.0014	0.0350	Cap diameter	0.0001	0.0026	Cap diameter (330µm)	0.0010	0.0256
Cap spacing	0.0007	0.0175	Cap spacing	0.0001	0.0013	Cap space (330 µm)	0.0005	0.0128
						Cap diameter (240µm)	0.0046	0.1156
						Cap space (240µm)	0.0023	0.0578

Figure 11

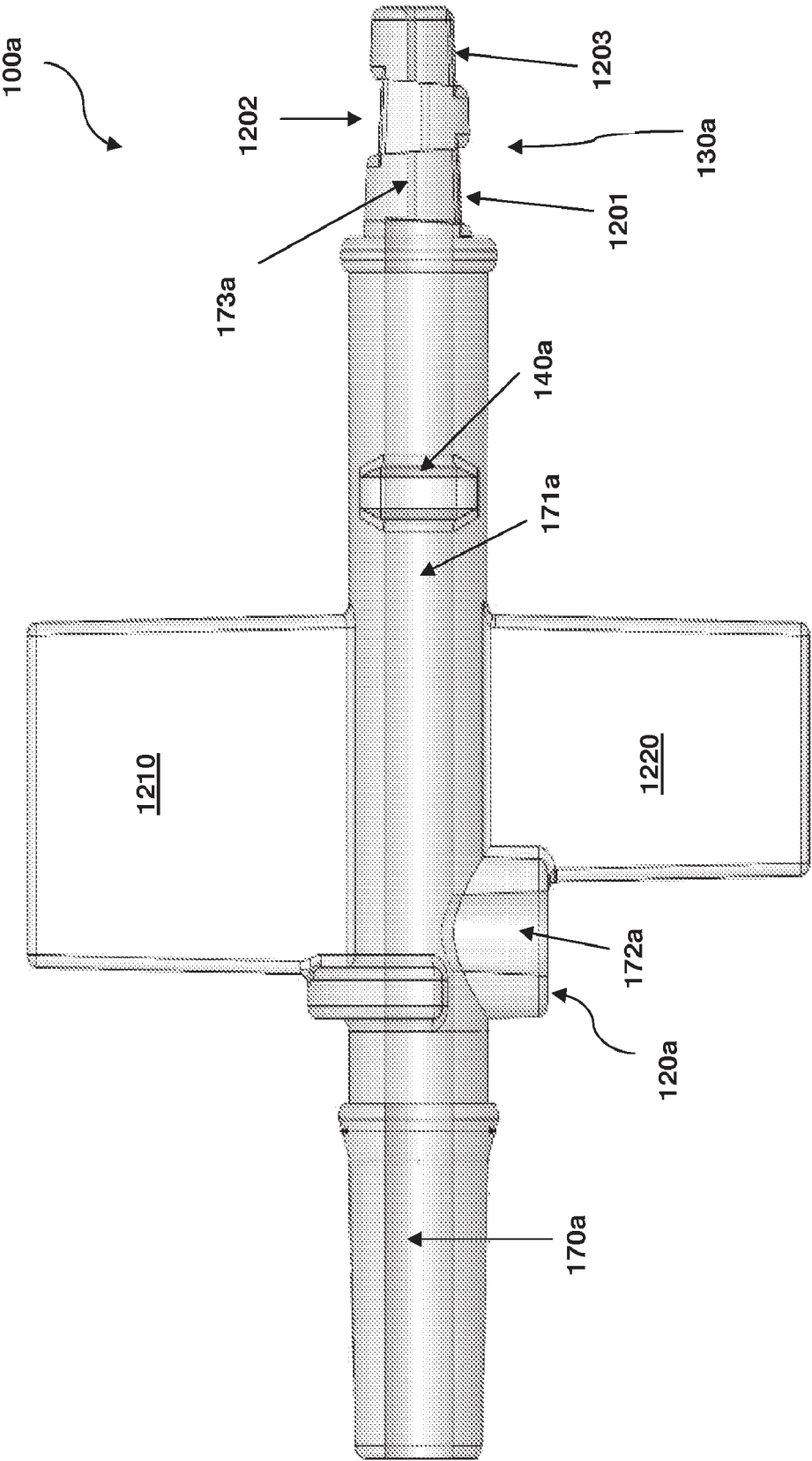


Figure 12

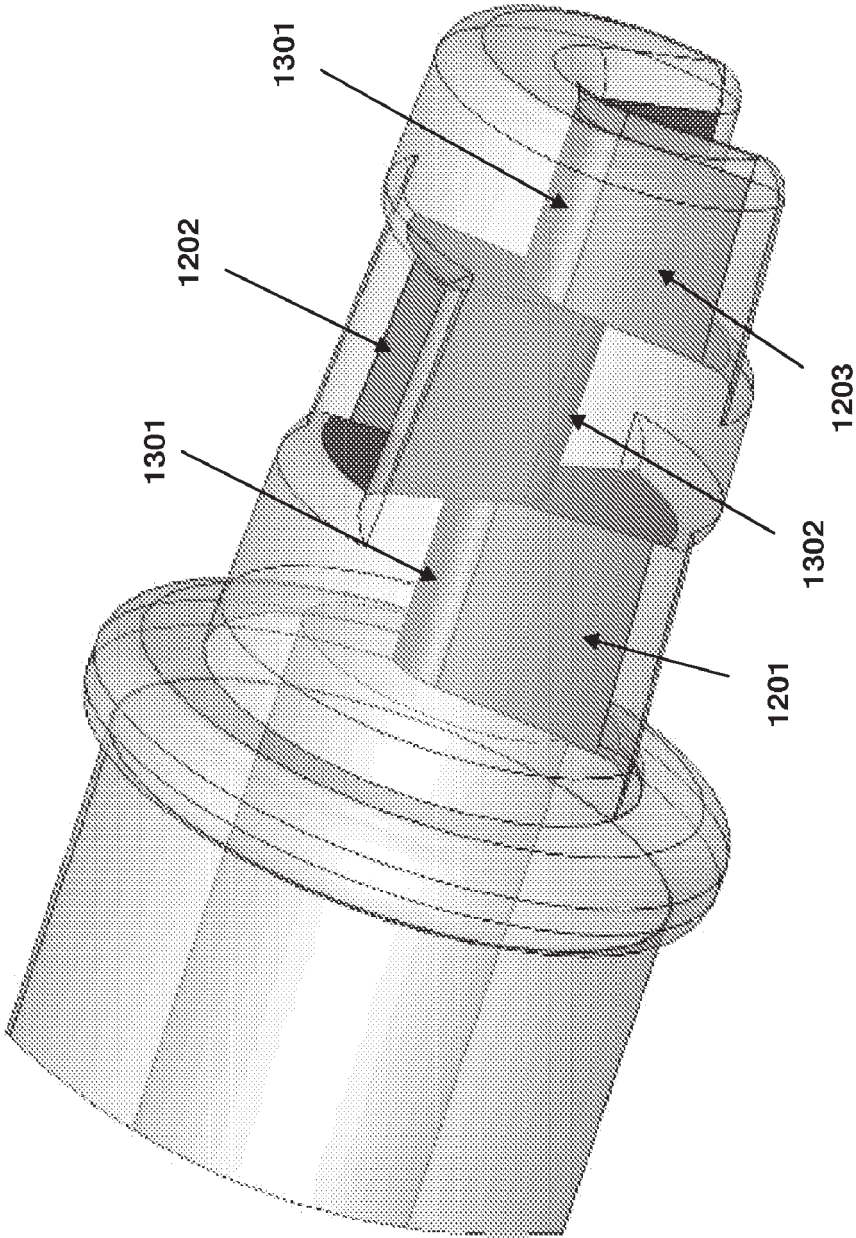


Figure 13

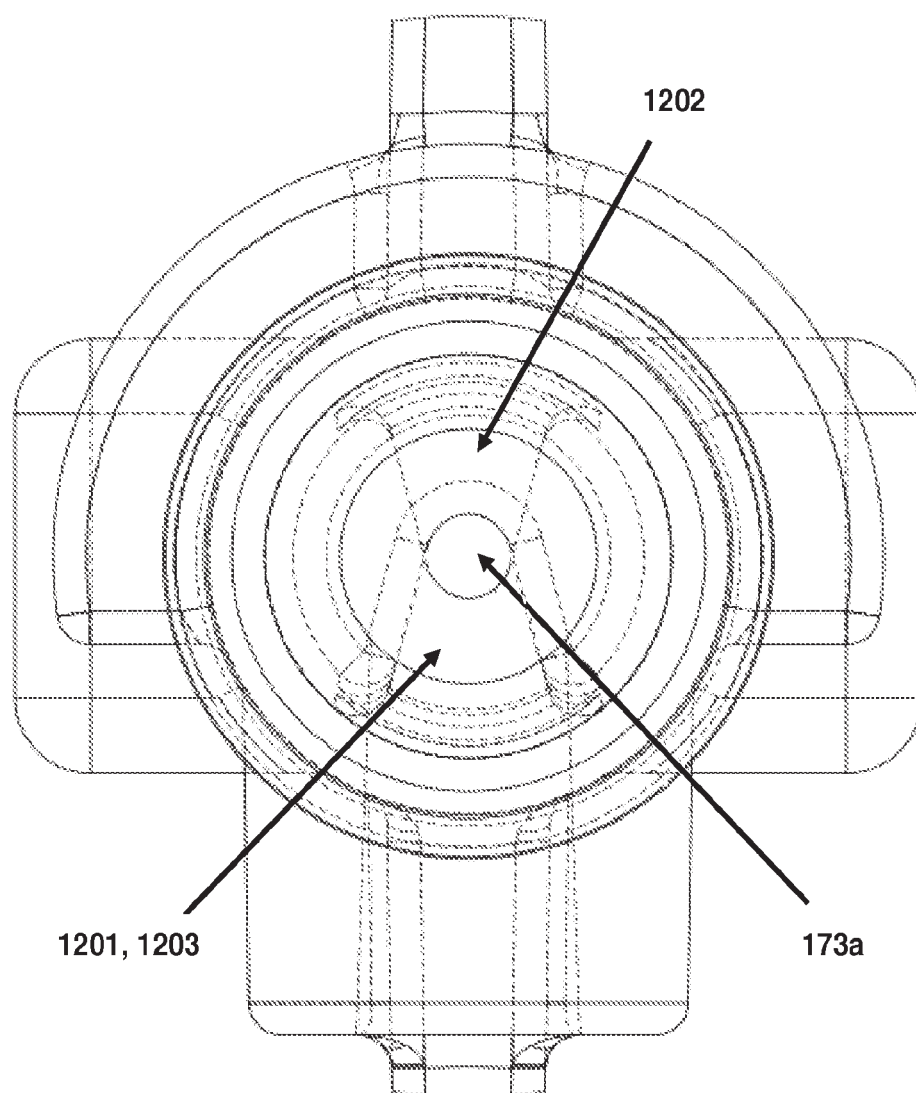


Figure 14

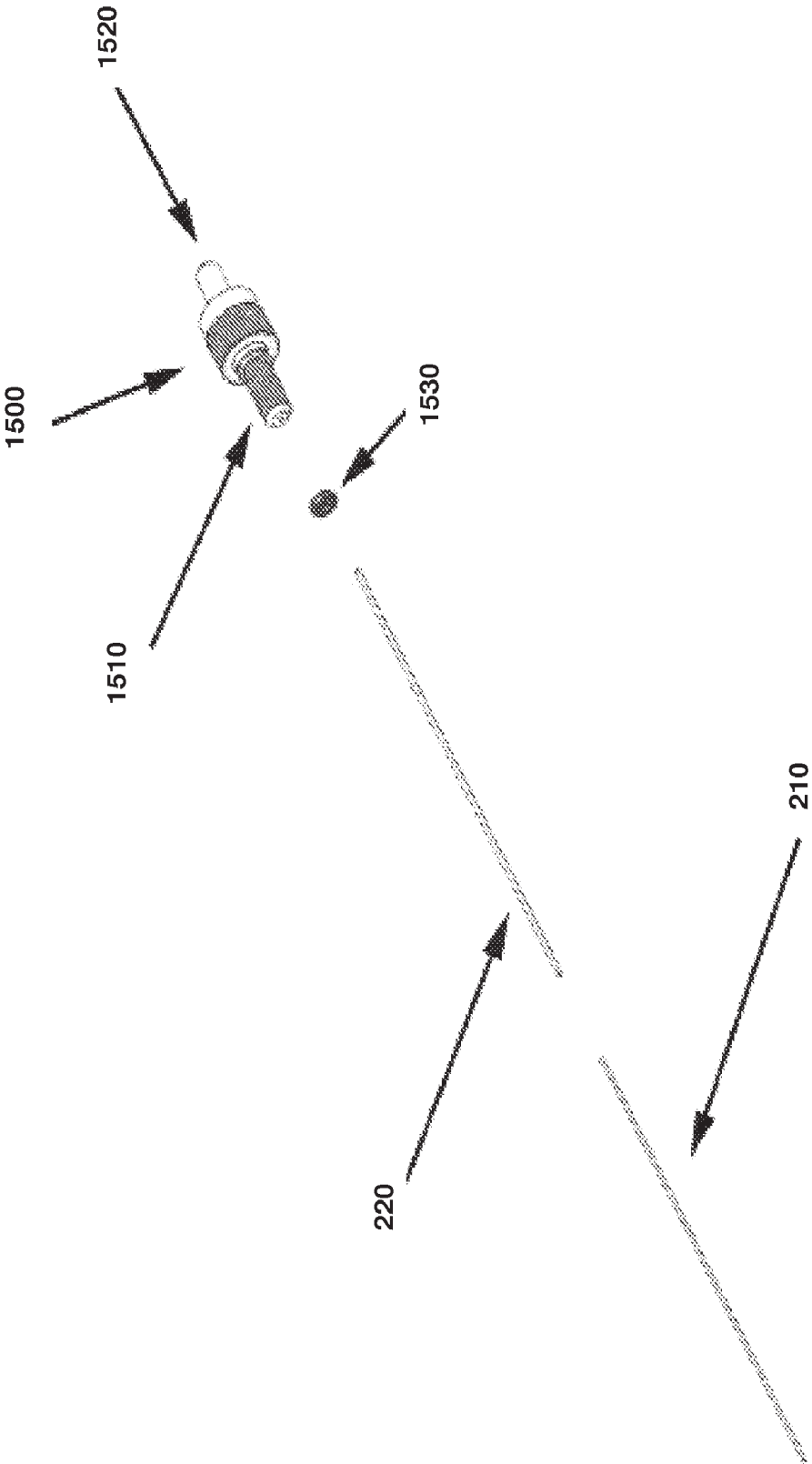


Figure 15

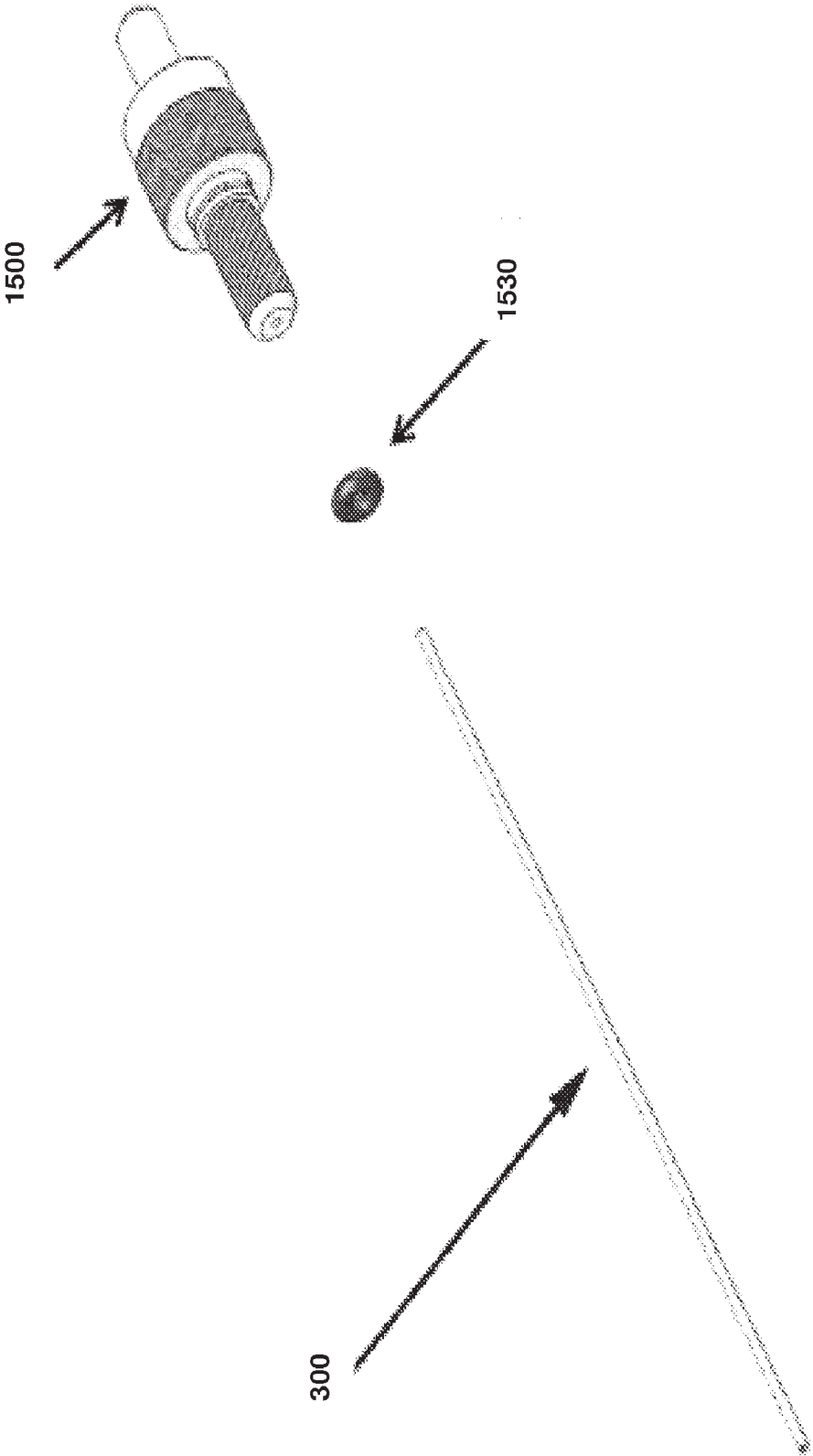


Figure 16

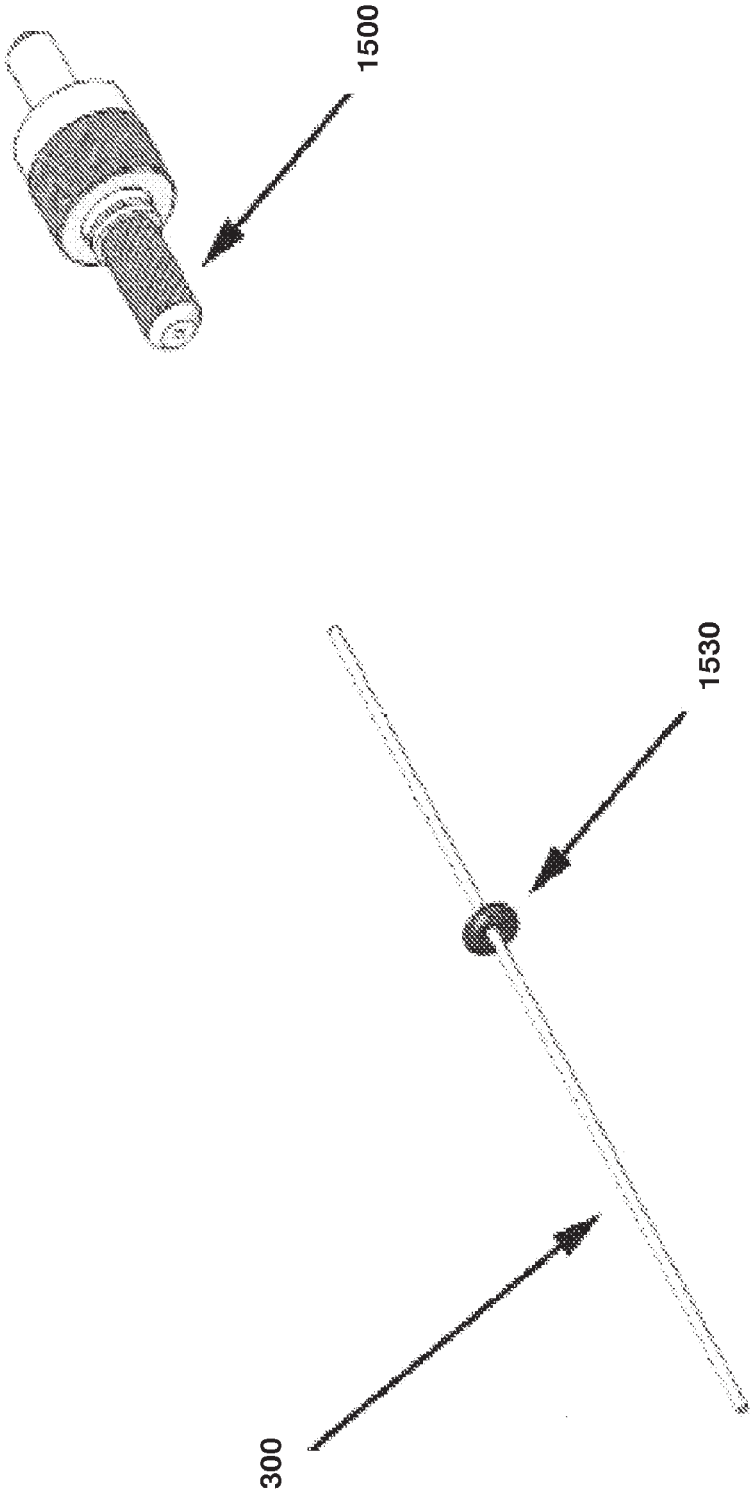


Figure 17

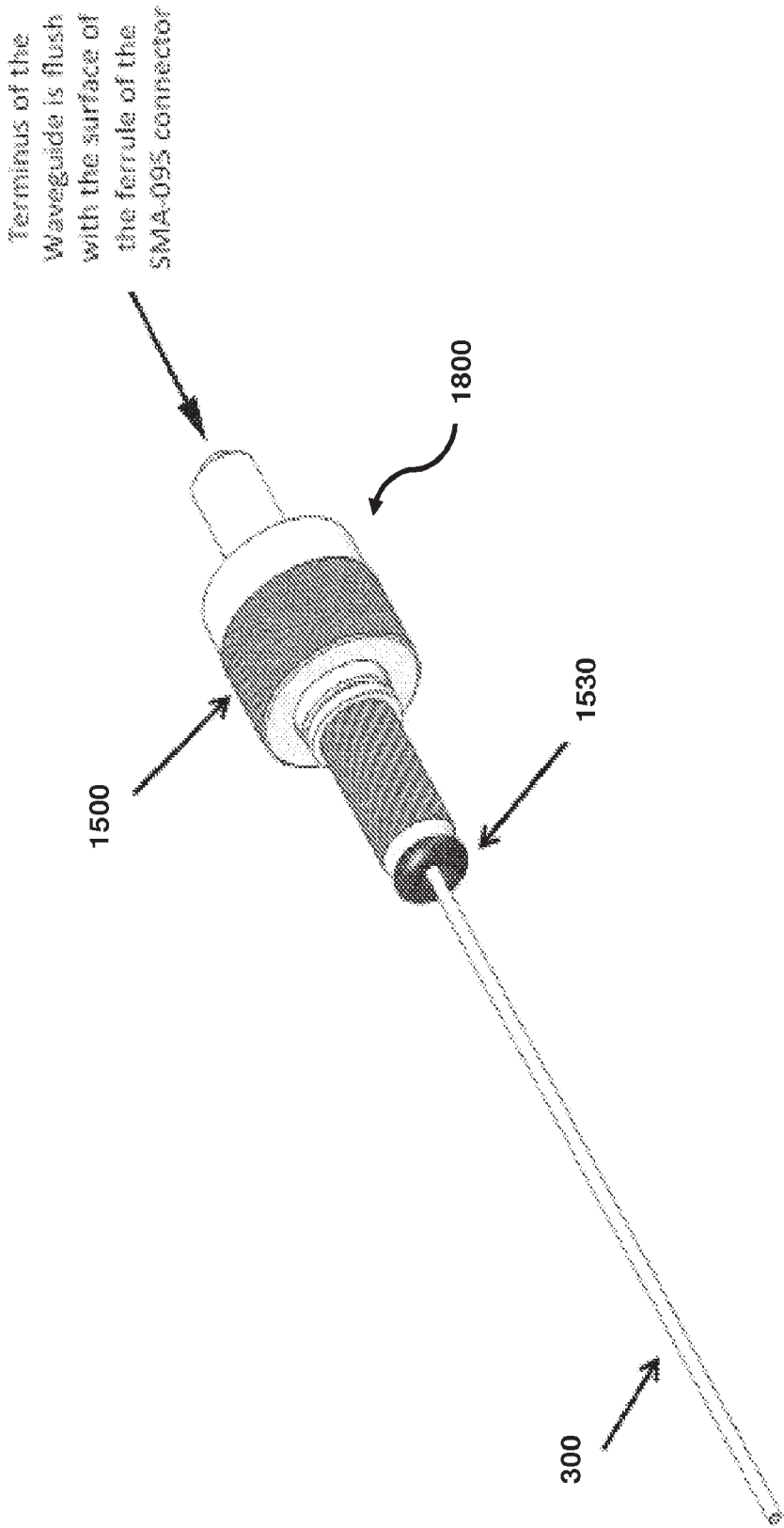


Figure 18

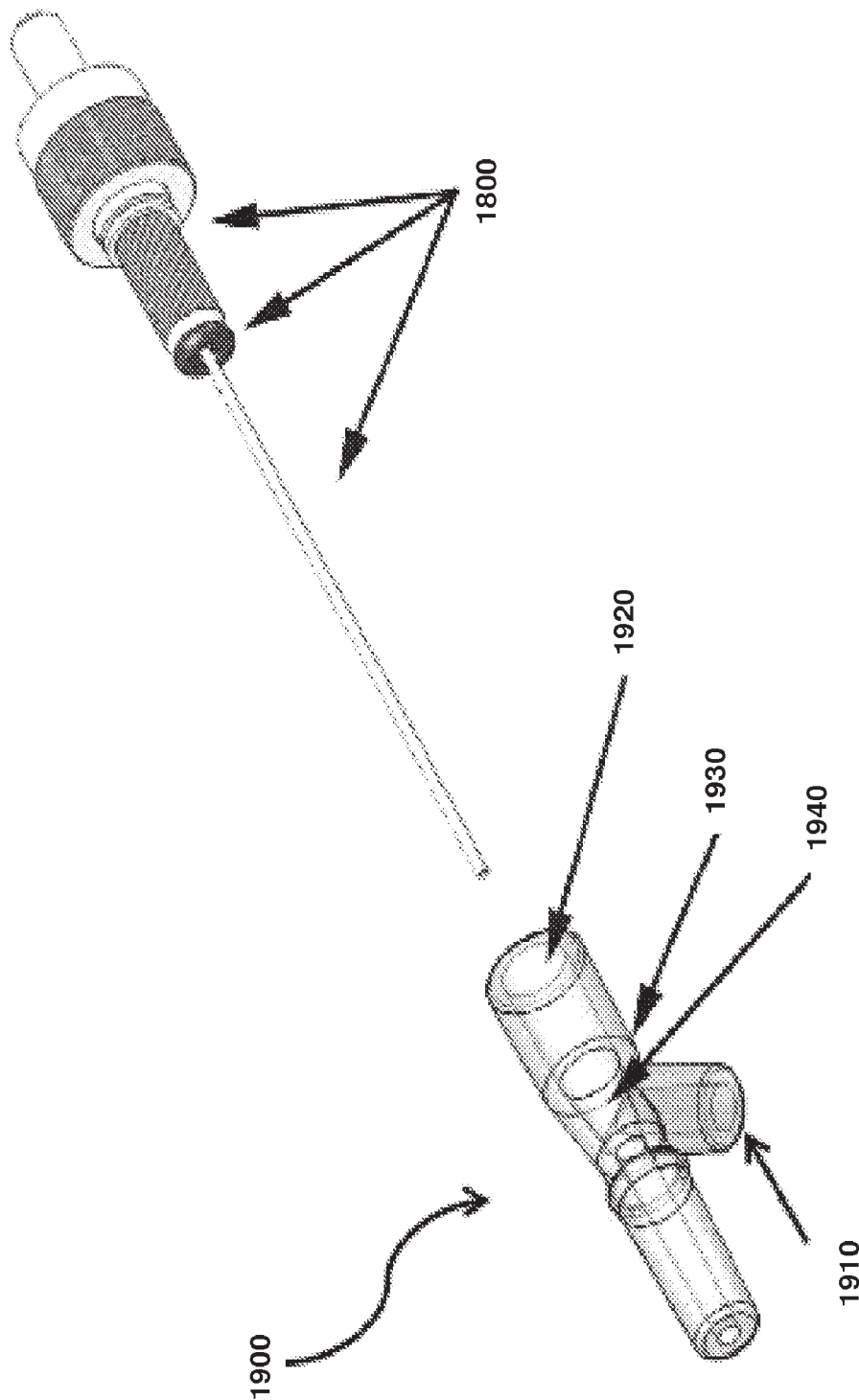


Figure 19

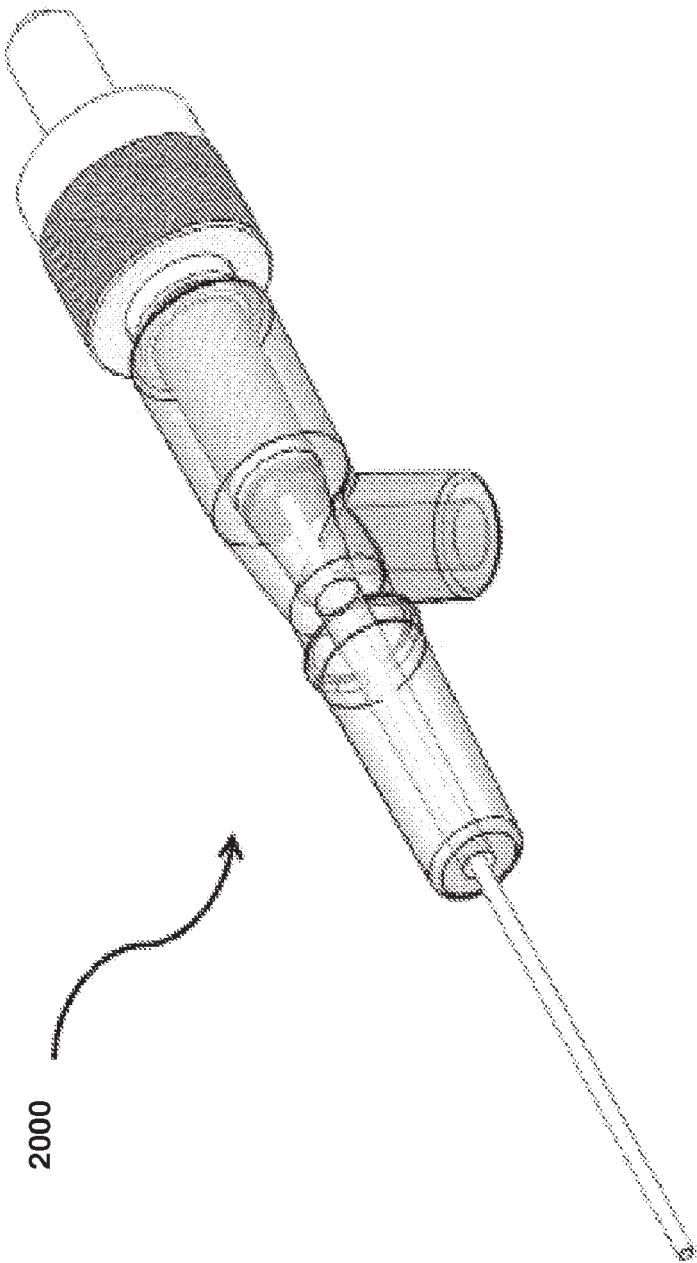


Figure 20

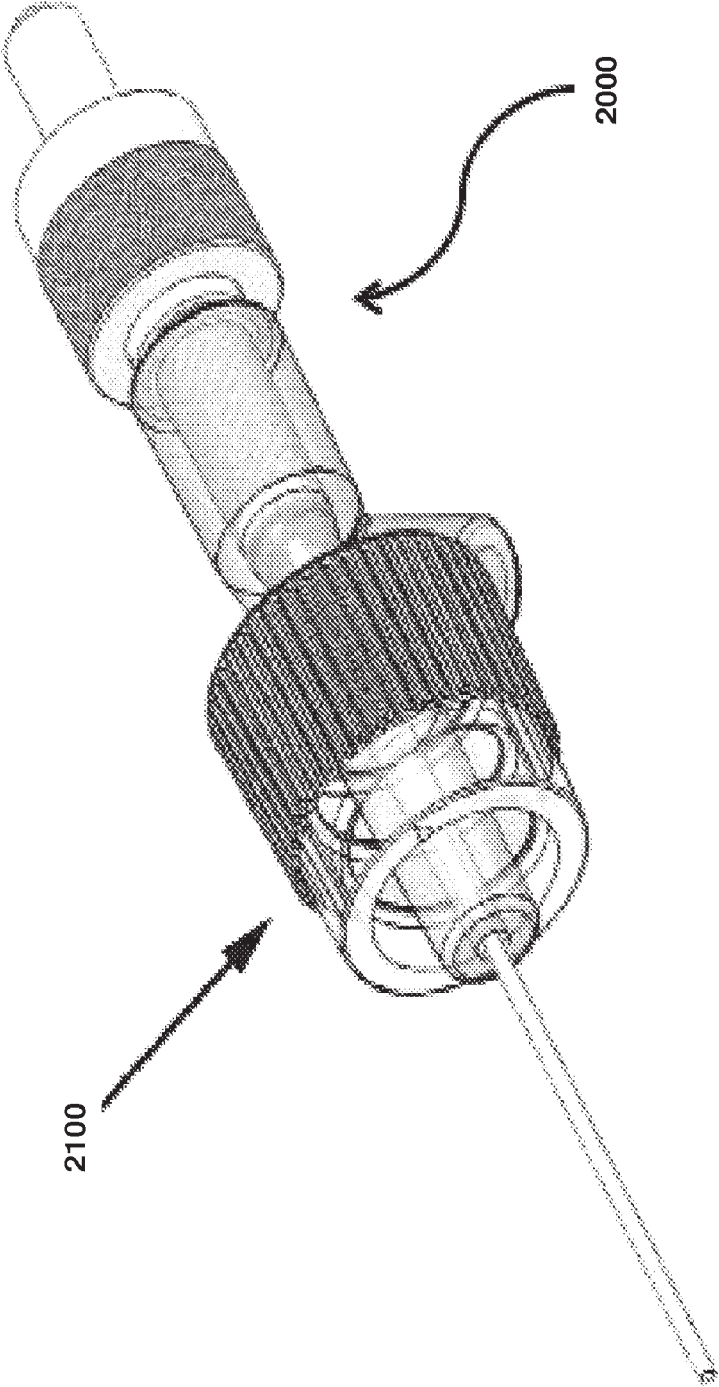


Figure 21

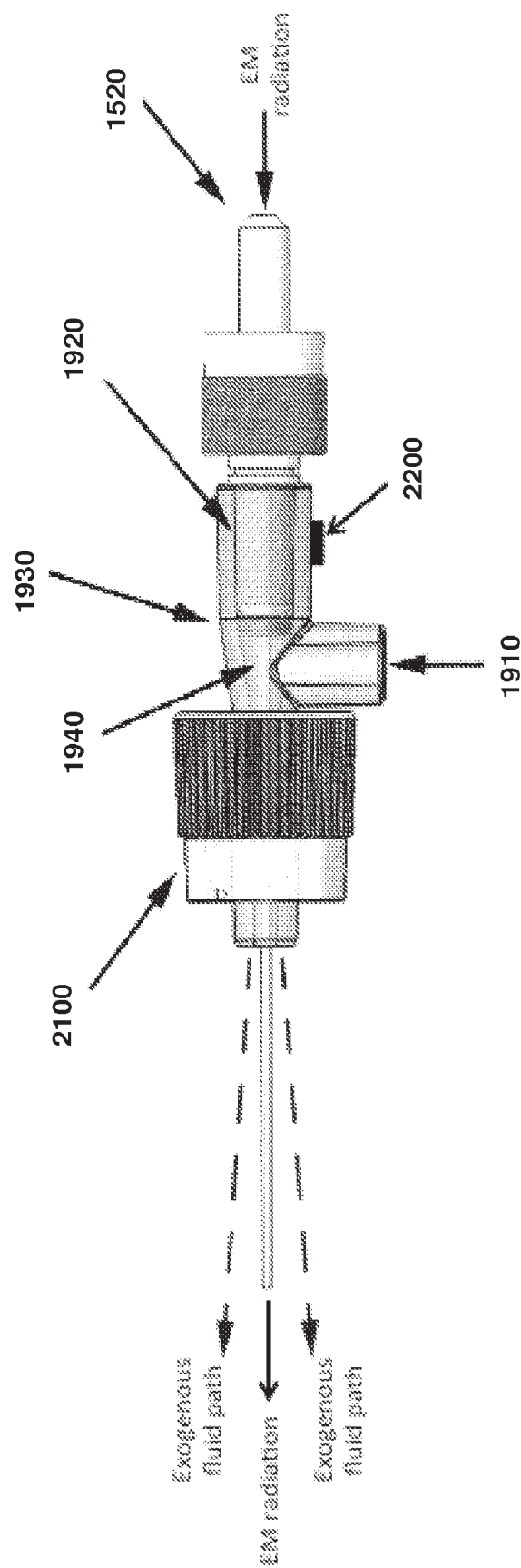


Figure 22

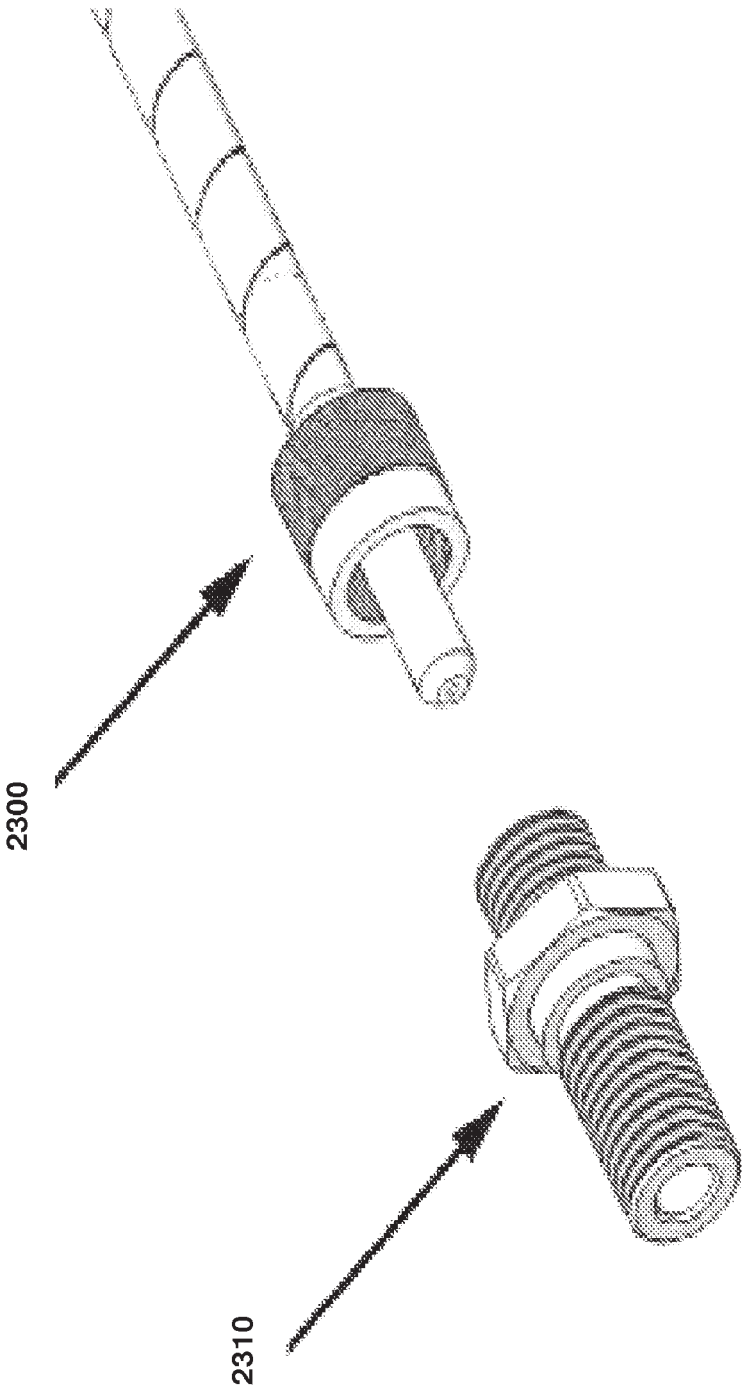


Figure 23

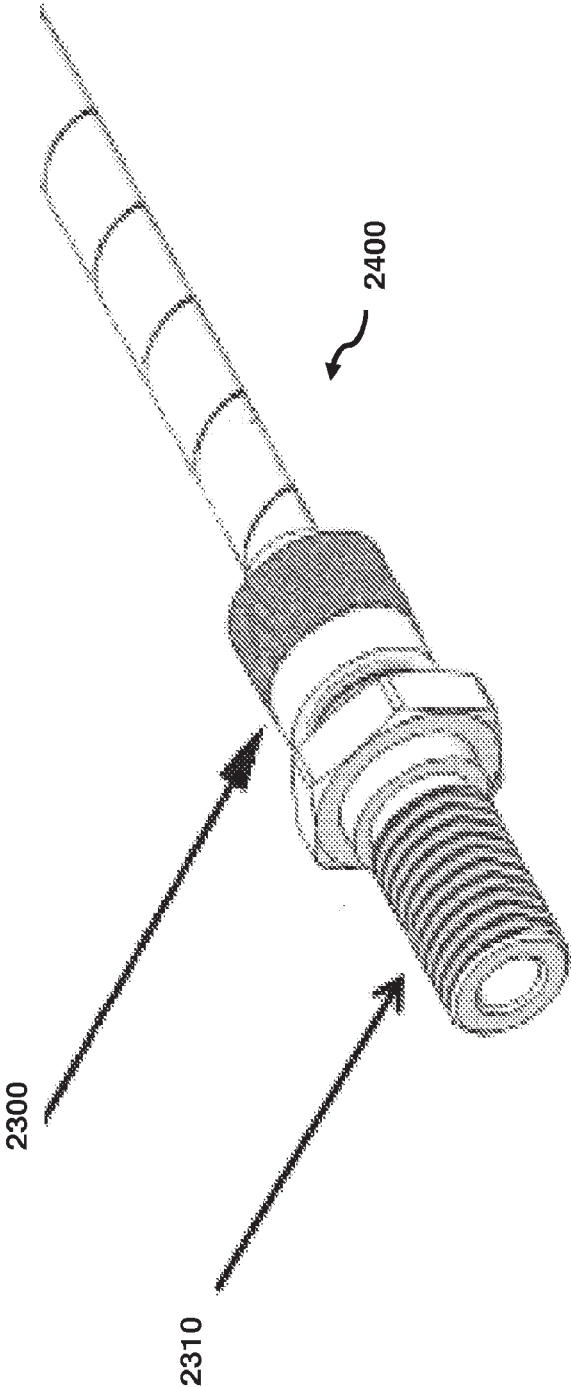


Figure 24

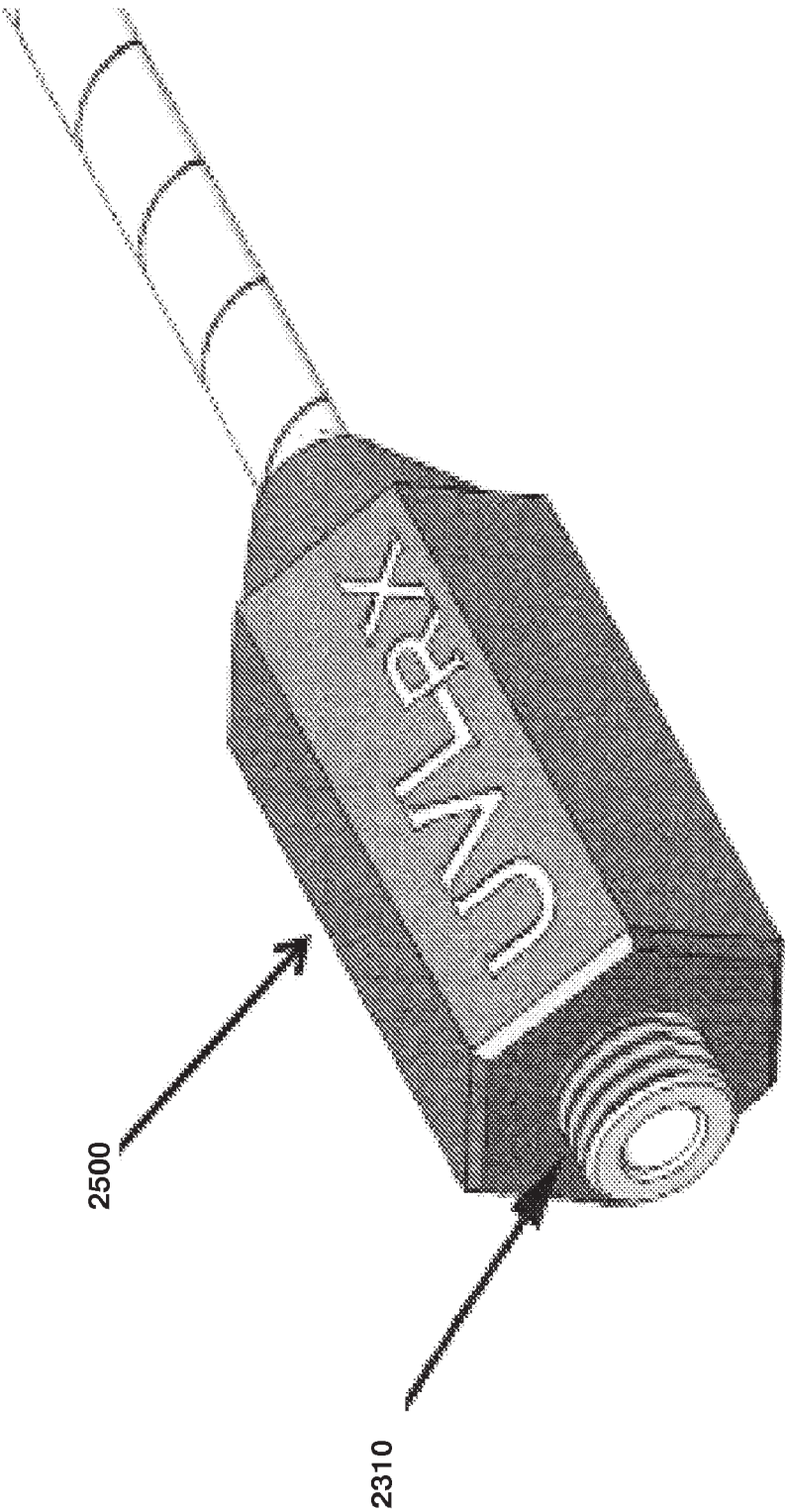


Figure 25

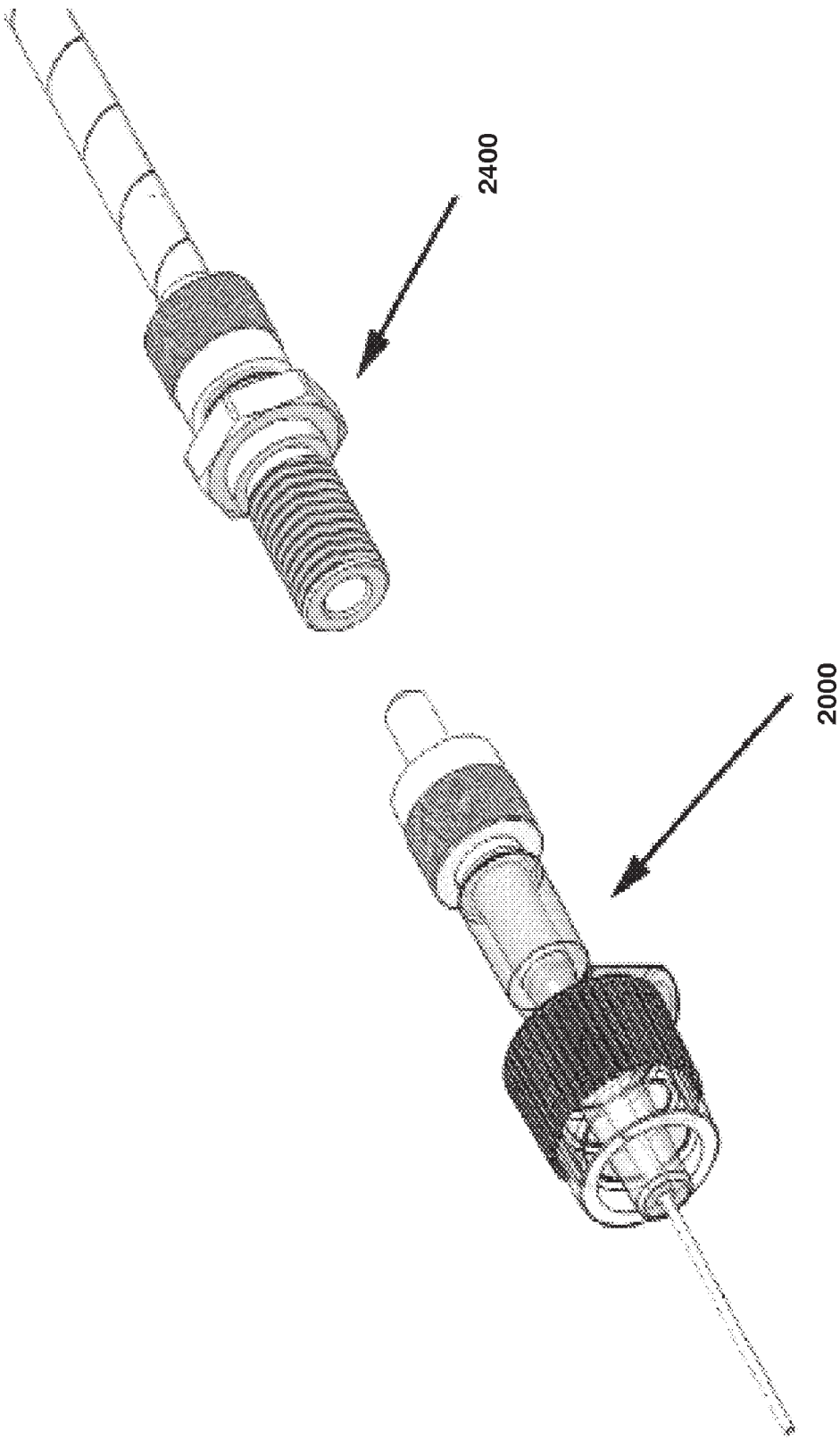


Figure 26

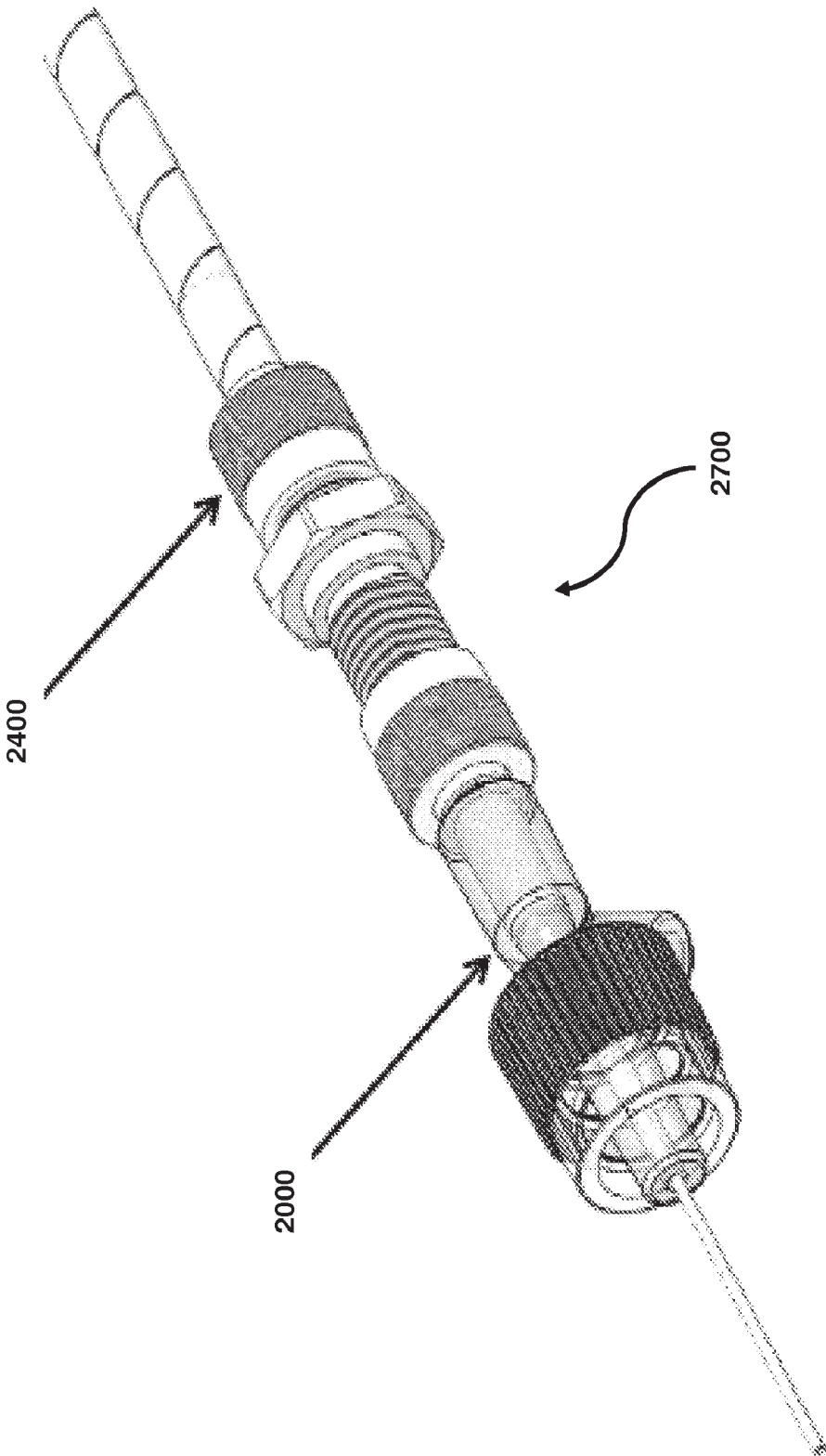


Figure 27

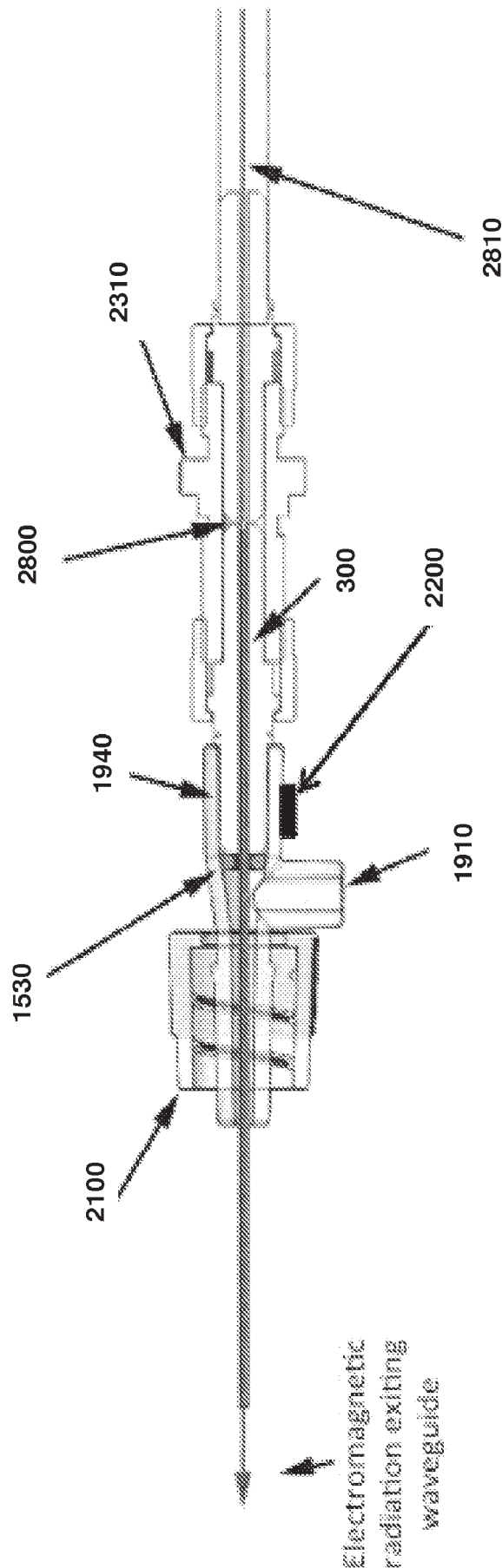


Figure 28

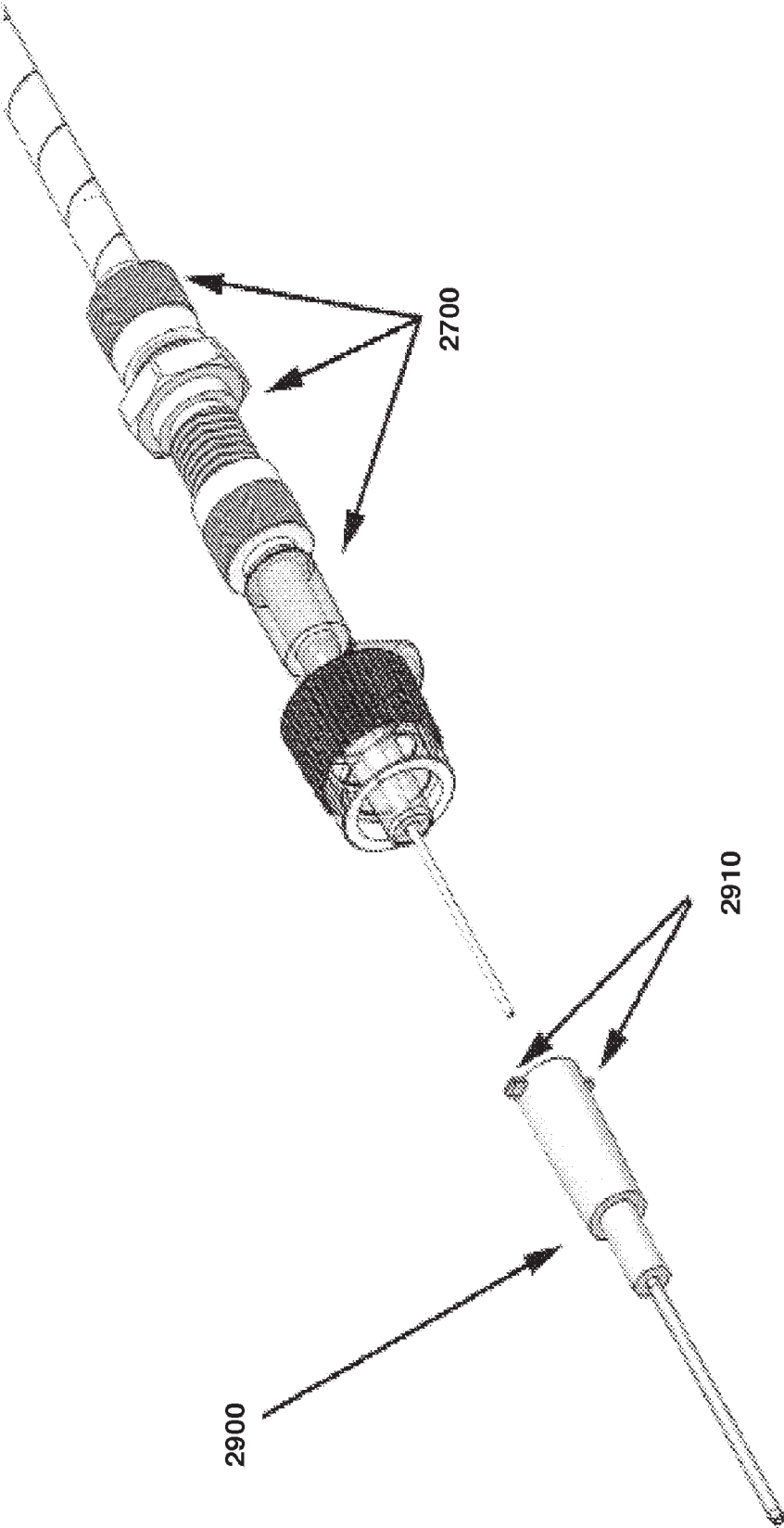


Figure 29

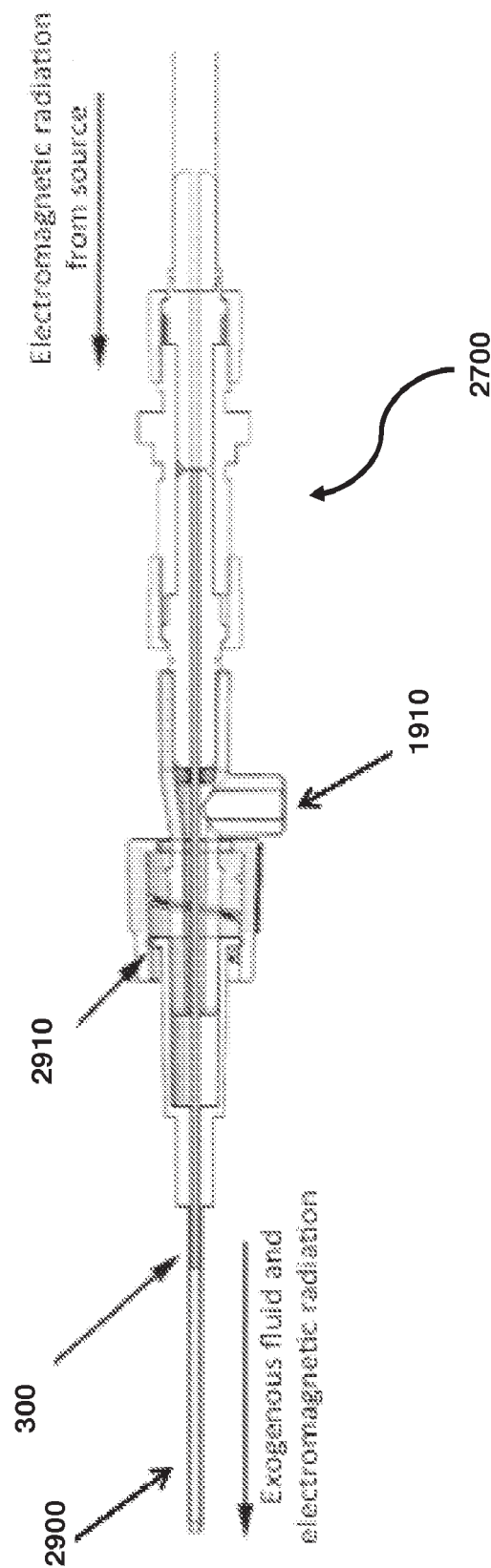


Figure 30

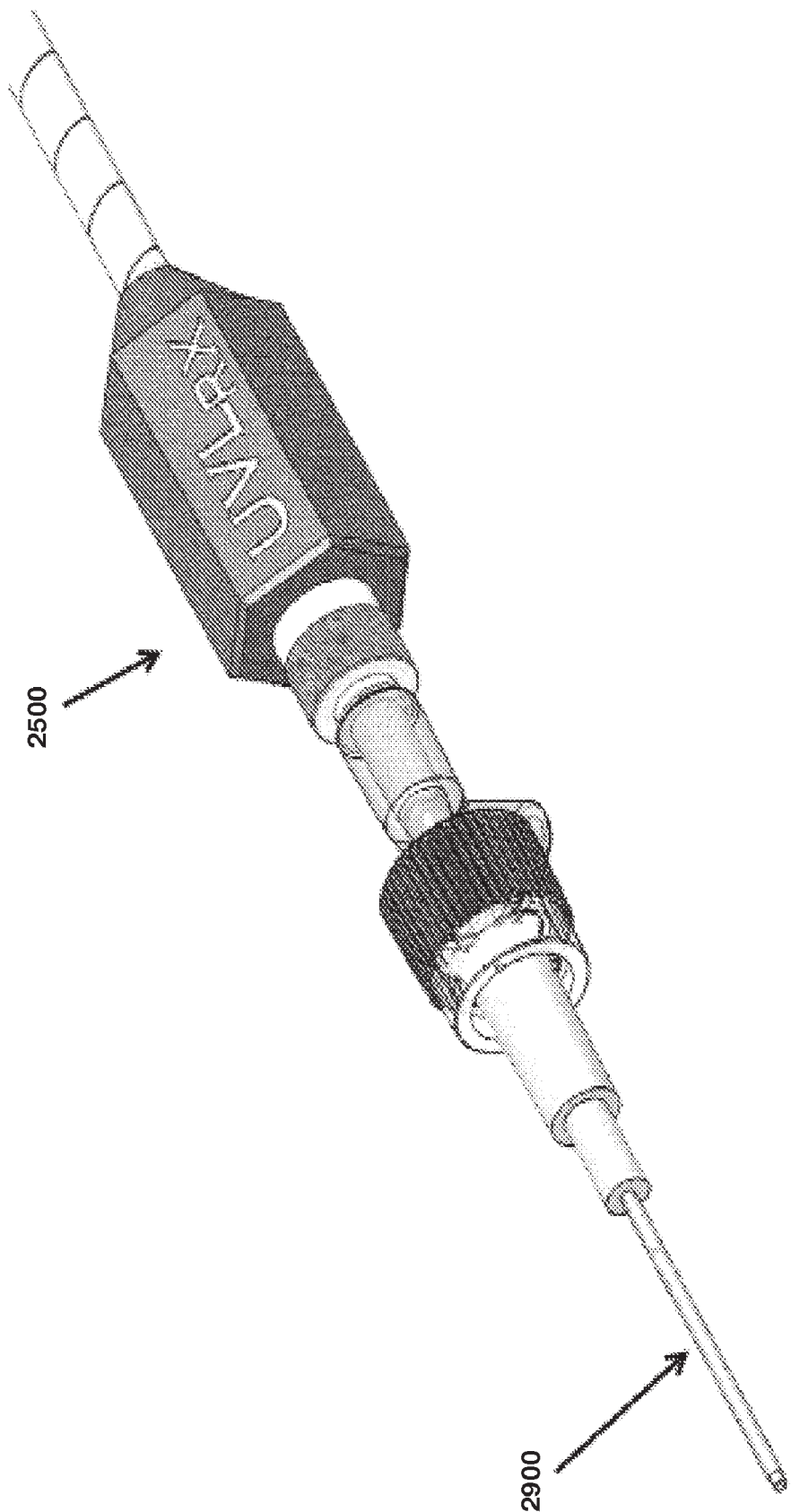


Figure 31