

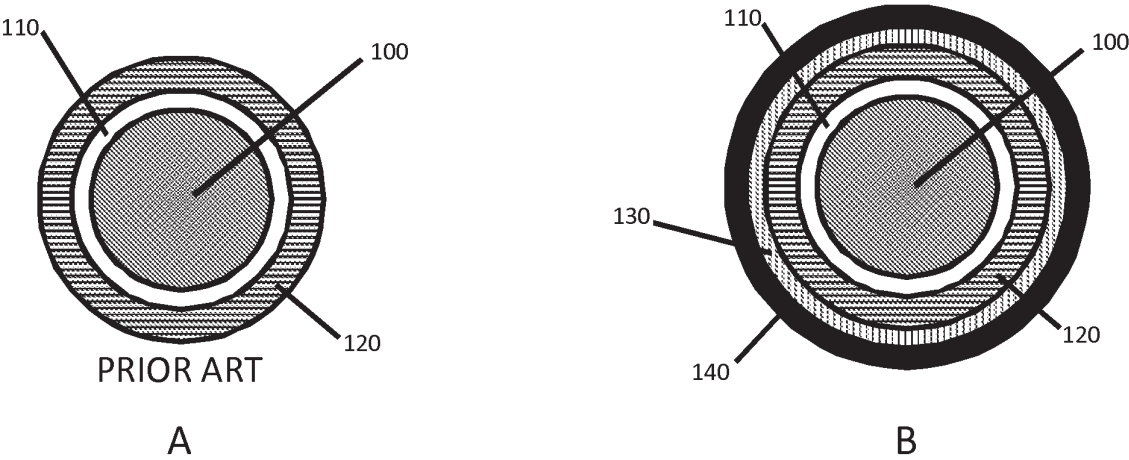


FIG. 1

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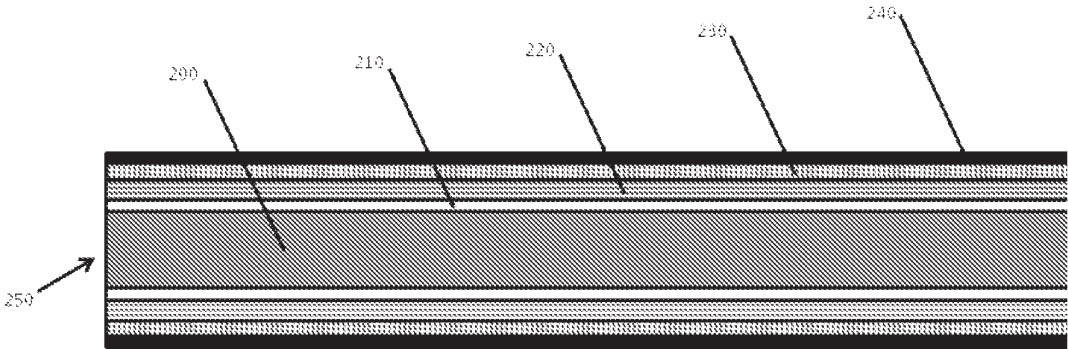


FIG. 2

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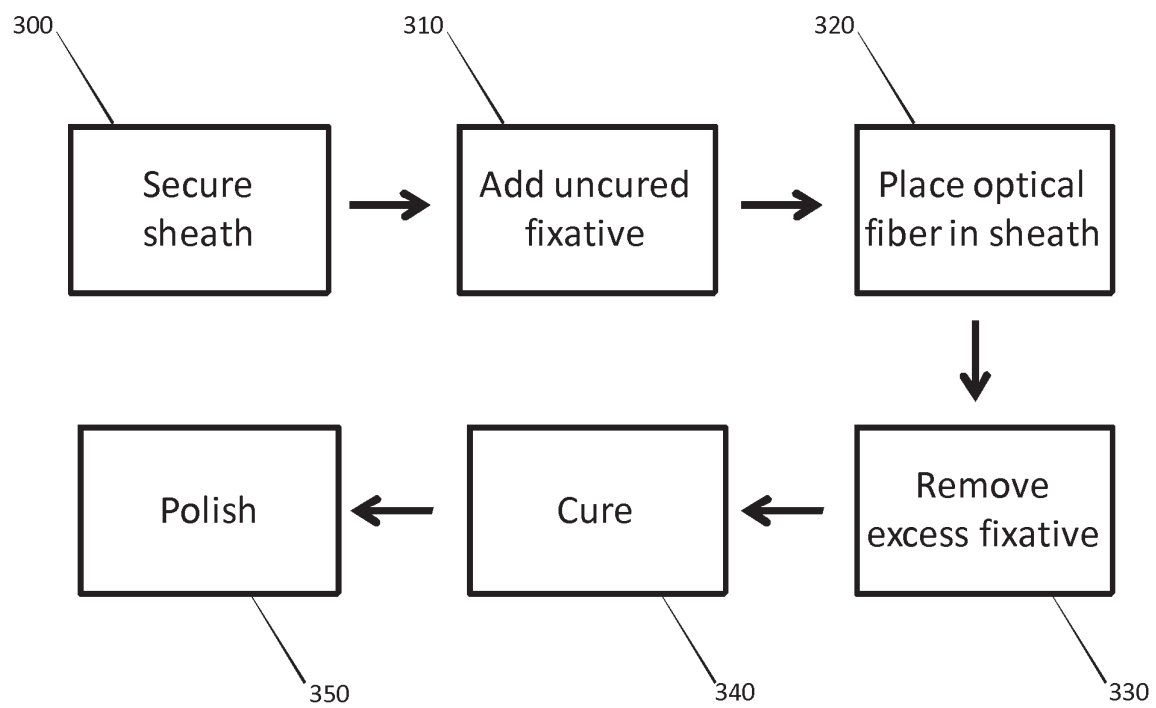


FIG. 3

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
Gap diameter	0.0014	0.0350	Gap diameter	0.0001	0.0026	Gap diameter (330µm)	0.0010	0.0256
Gap spacing	0.0007	0.0175	Gap spacing	0.0001	0.0013	Gap space (330 µm)	0.0005	0.0128
						Gap diameter (240µm)	0.0046	0.1156
						Gap space (240µm)	0.0023	0.0578

FIG. 4