

FIG. 1

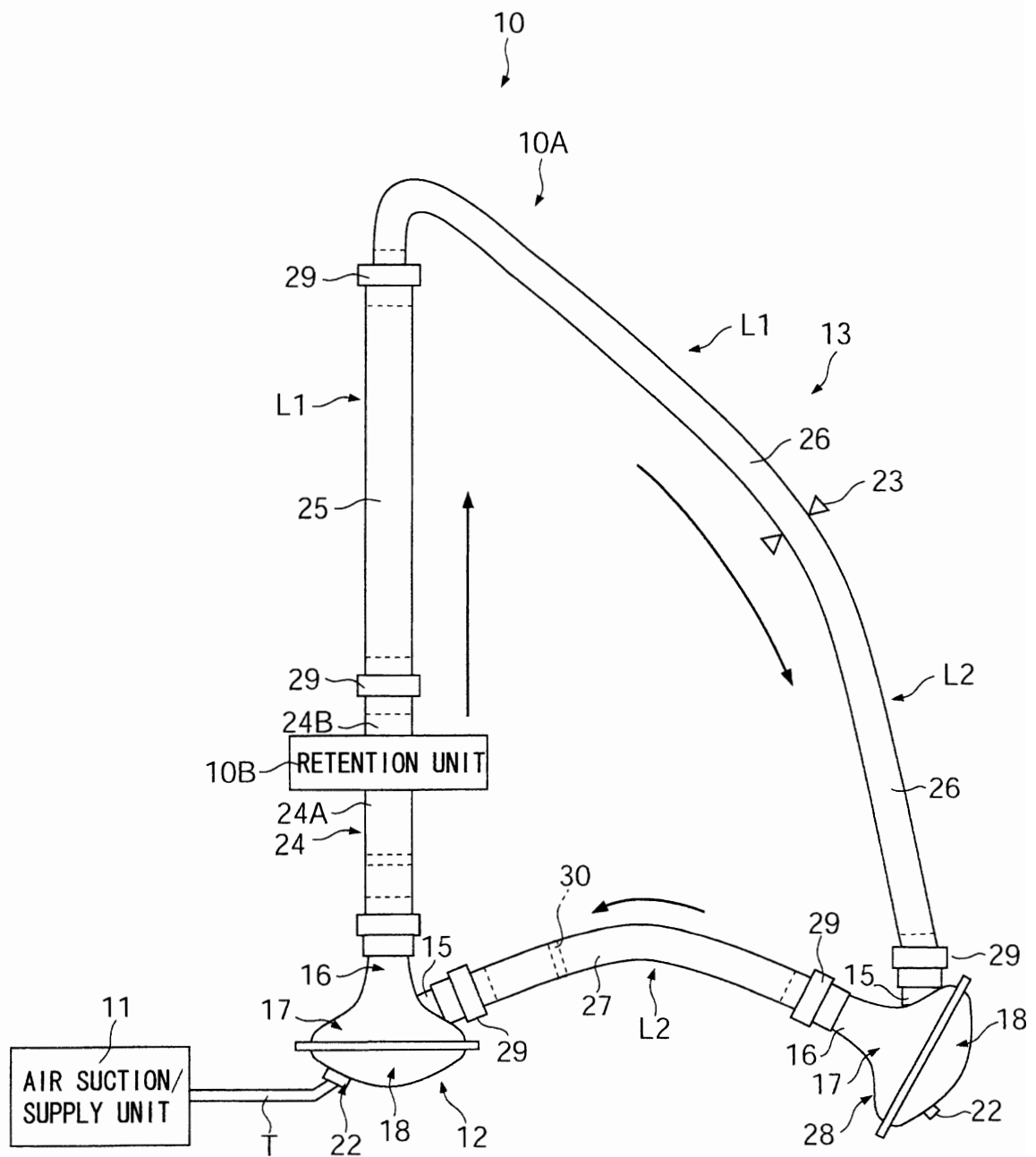


FIG. 2

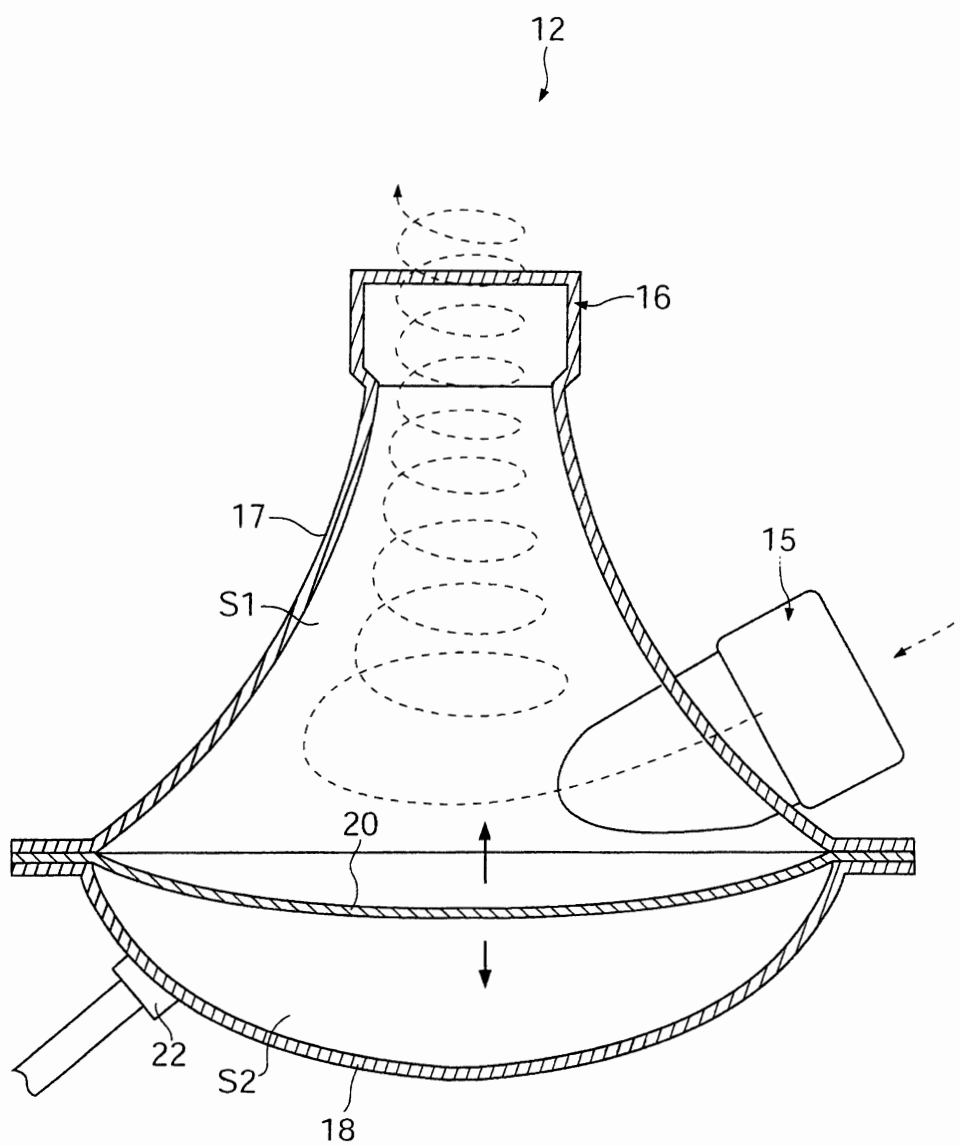


FIG. 3

The diagram illustrates a cross-sectional view of a semiconductor device assembly. It features a substrate 33 with a central octagonal region 38. Within this region, there are several layers and structures labeled with reference numerals: 61, 66, 78, 88, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200. The assembly includes a top layer 10B, a bottom layer 10A, and a central core 10C. Various electrical contacts and interconnects are shown, including 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200. The entire assembly is mounted on a base 33.

FIG. 4

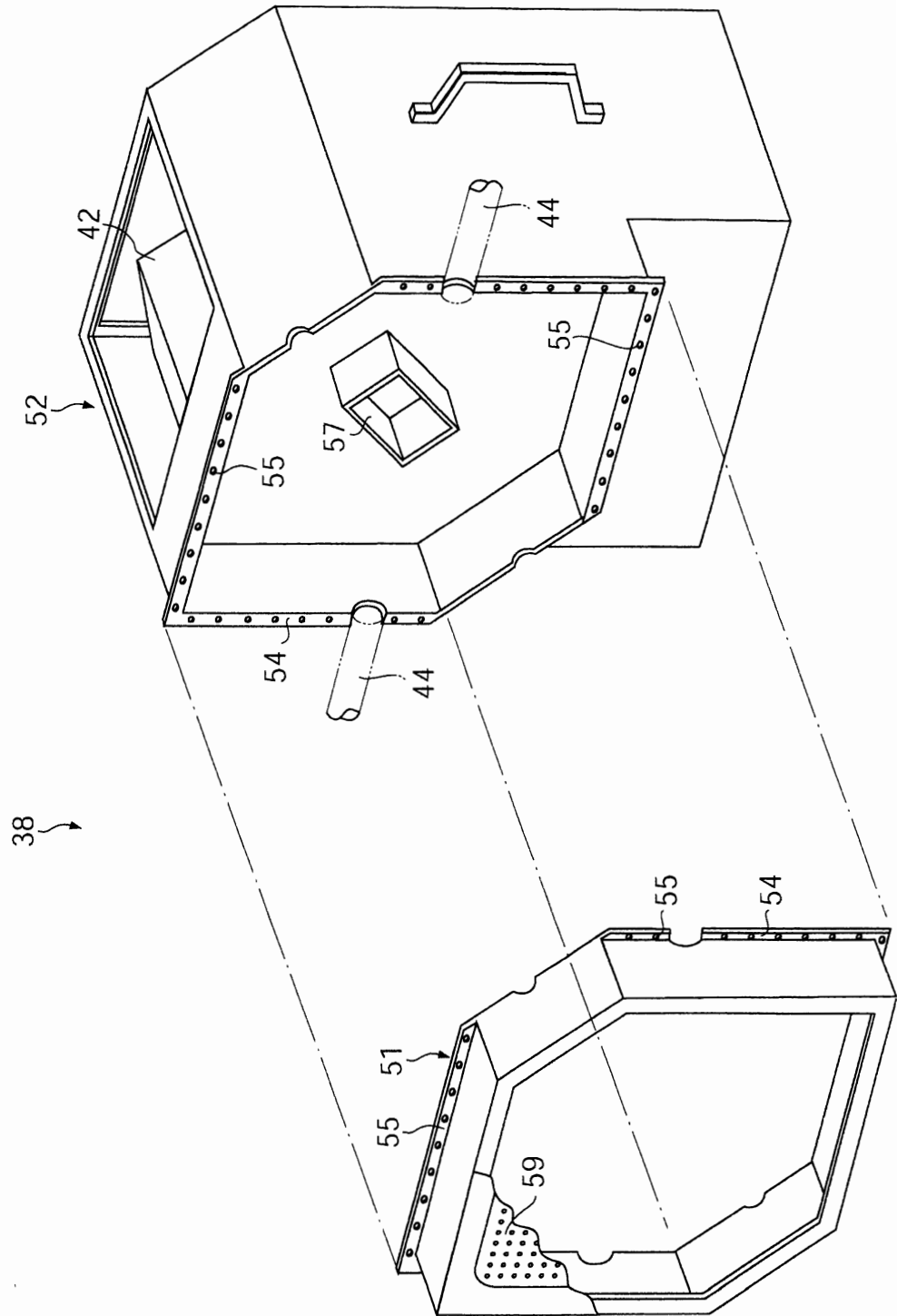


FIG. 5

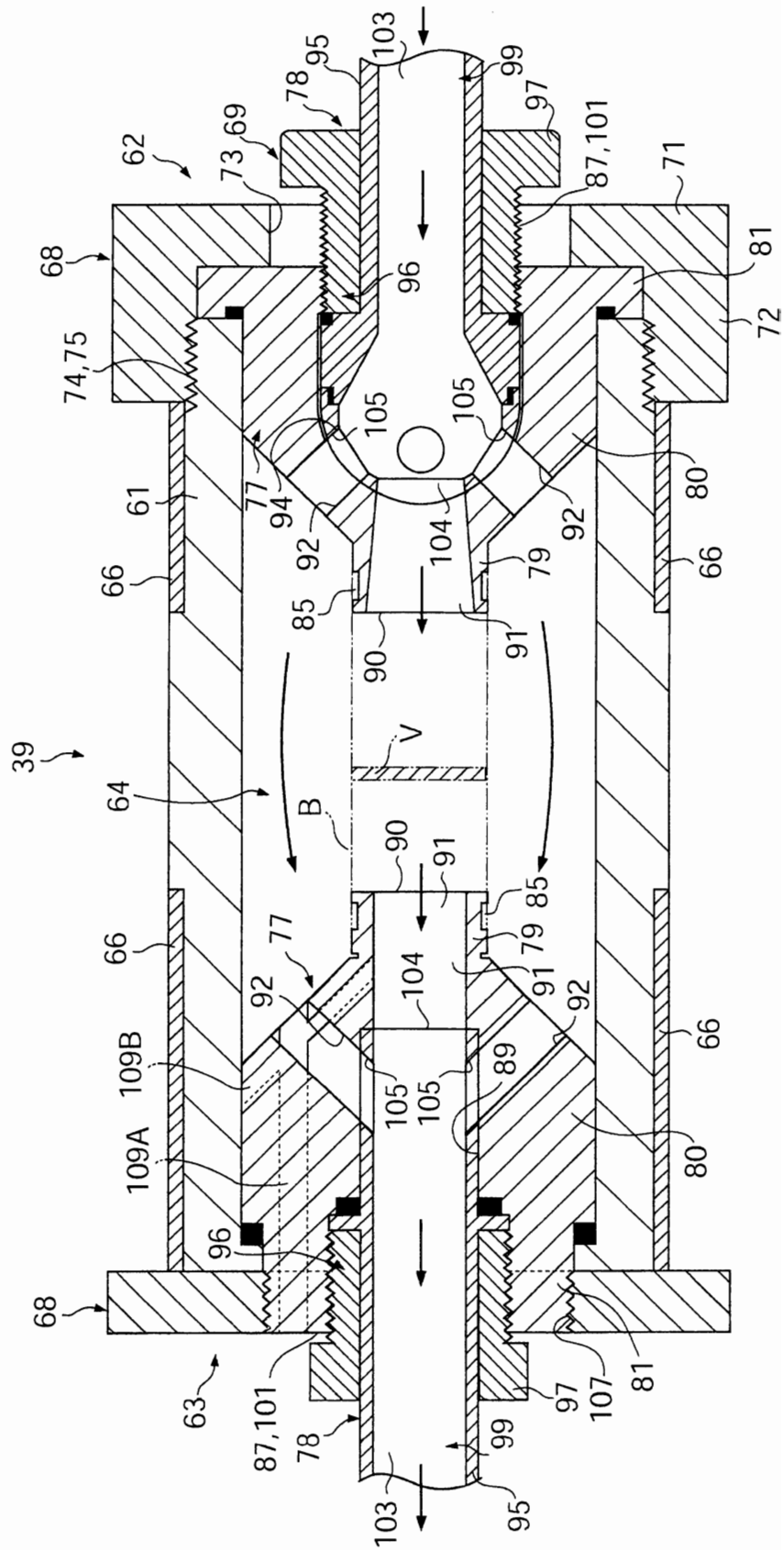


FIG. 7

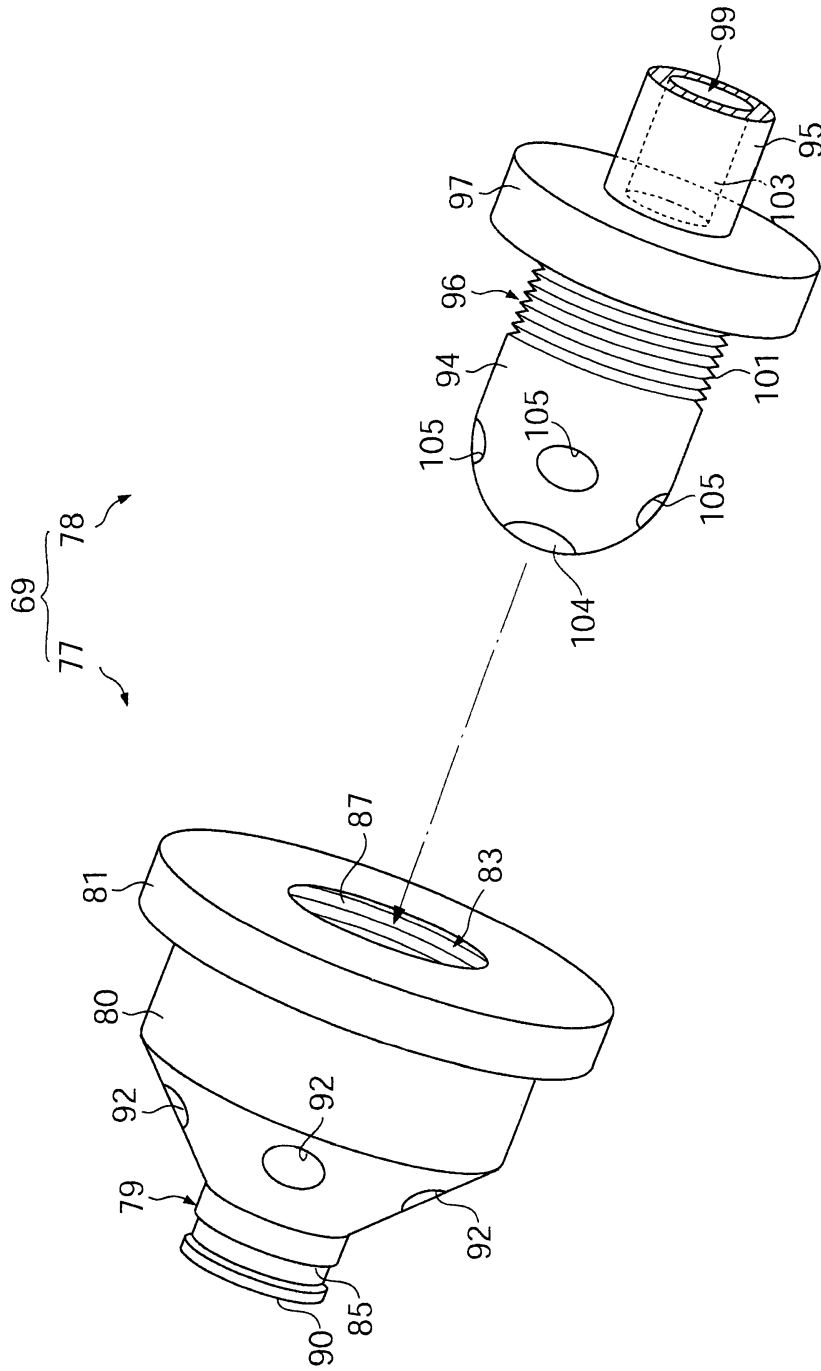


FIG. 8

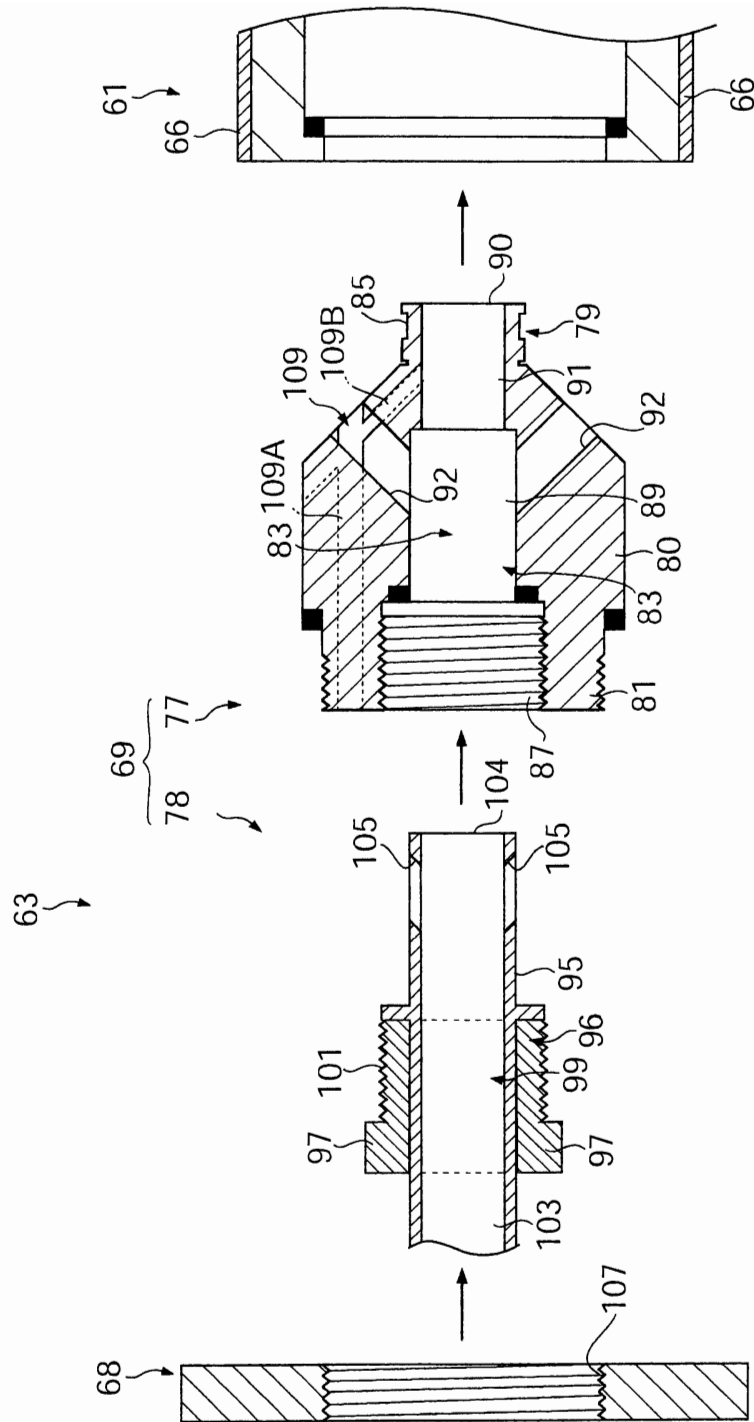


FIG. 9

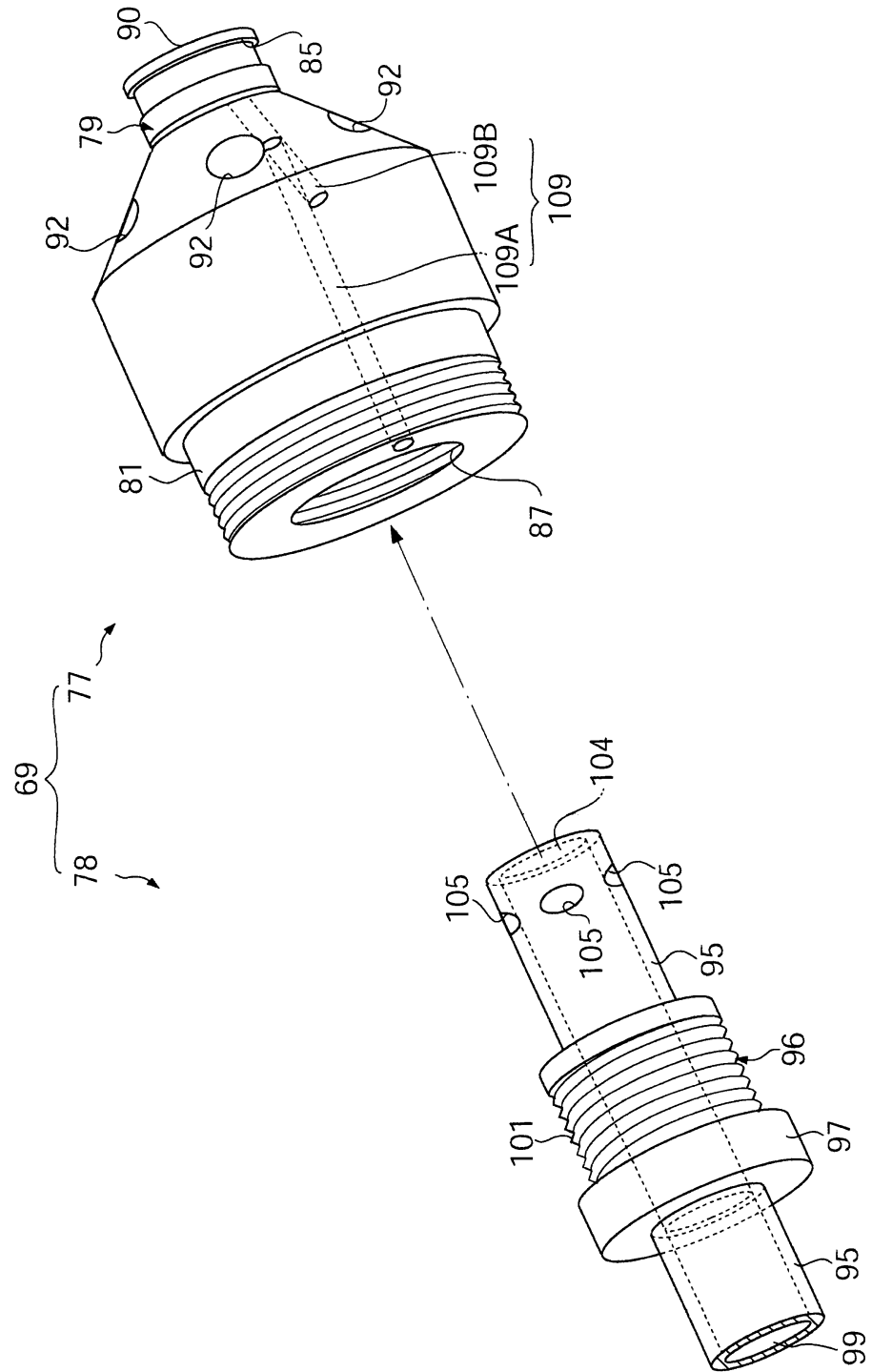
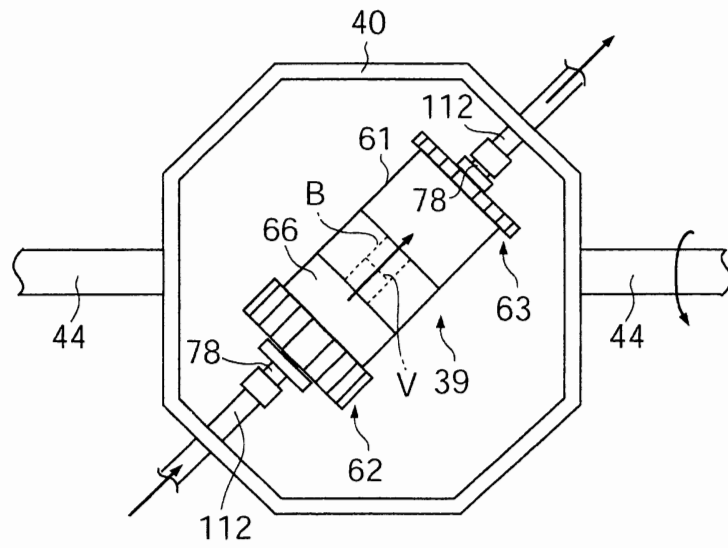


FIG. 10

(A)



(B)

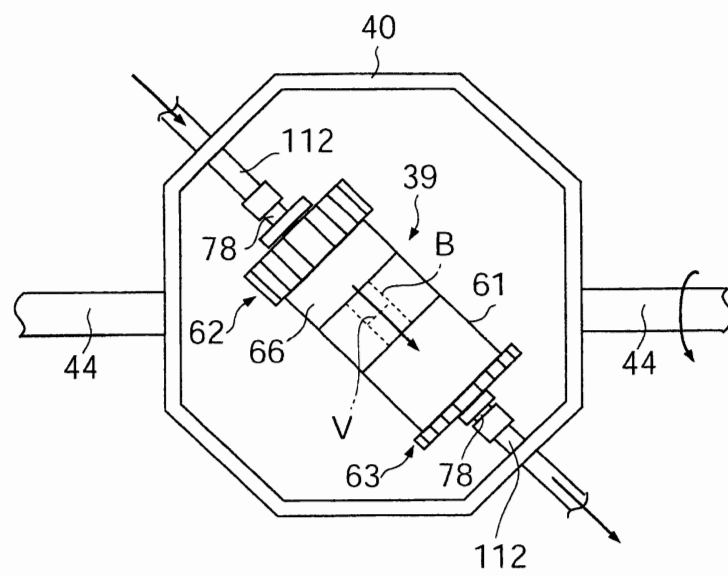


FIG. 11

	CONDITIONS	REMAINING NUMBER PER UNIT AREA (number /mm ²)
EXAMPLE1		850
EXAMPLE2	100W 8 HOURS	380
	500W 12 HOURS	0
	500W 24 HOURS	0
COMPARATIVE EXAMPLE1		970
NO PROCESSING		1880

FIG. 12



FIG. 13

