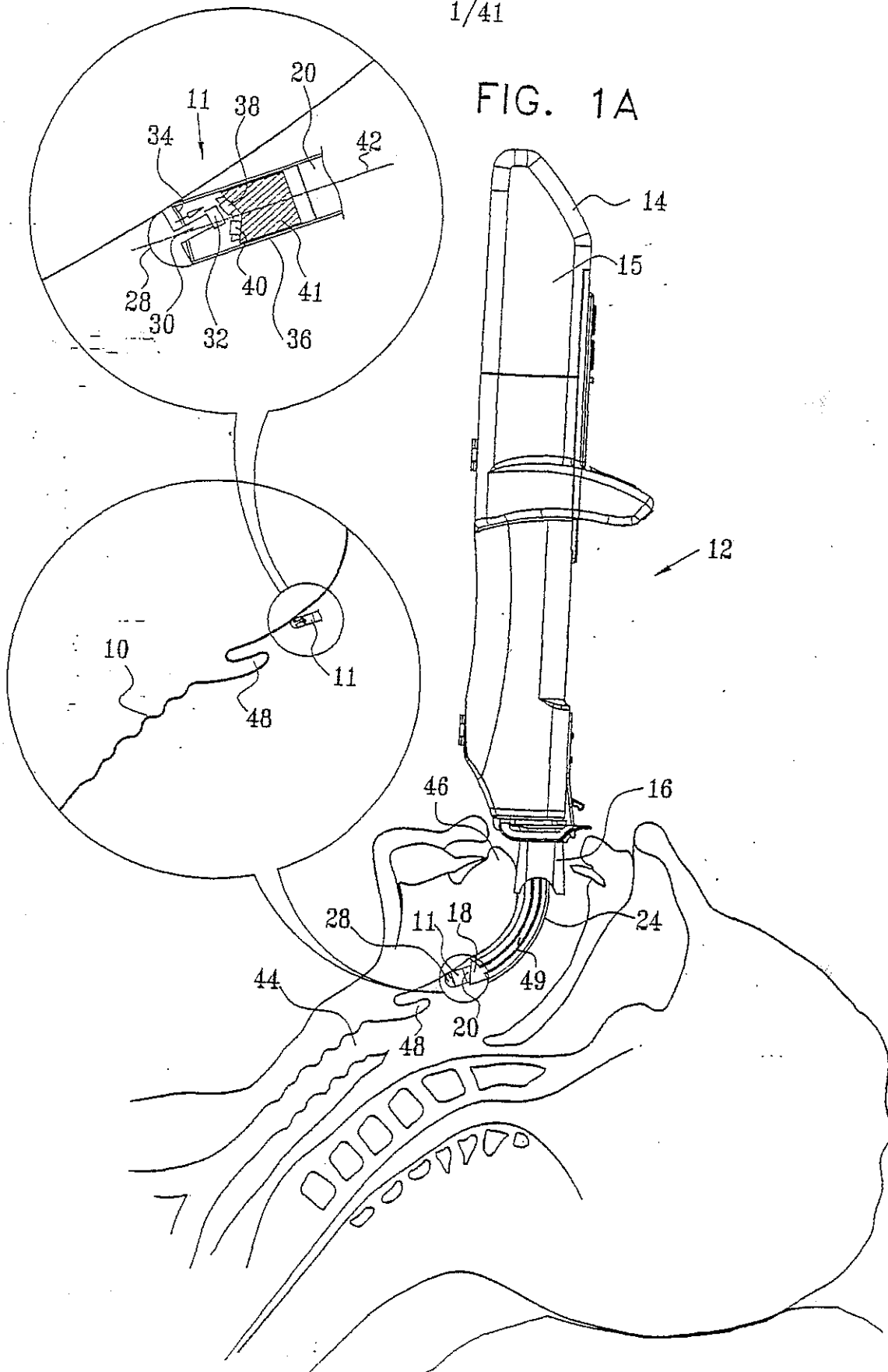


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FIG. 1A



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FIG. 1B

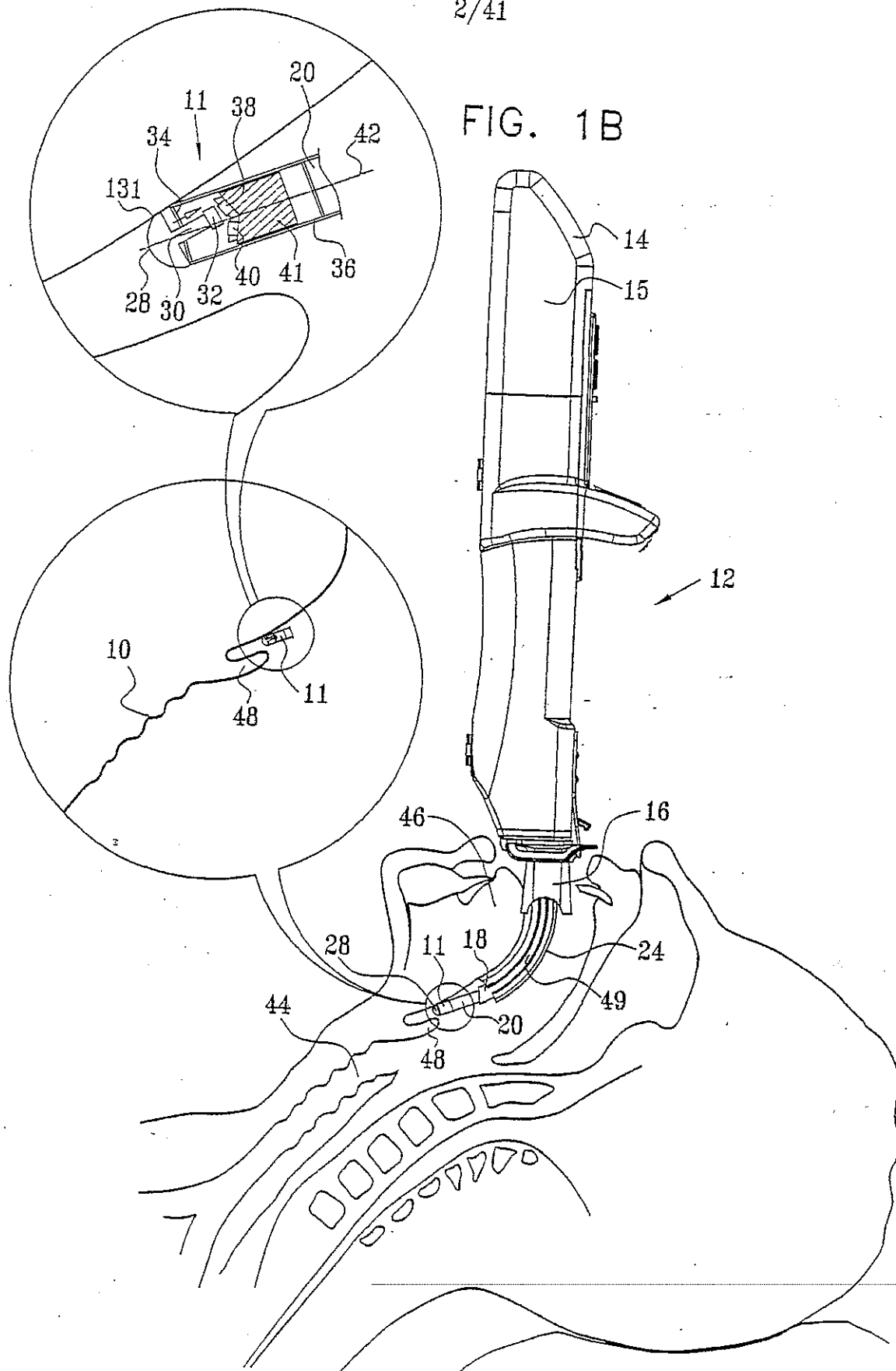
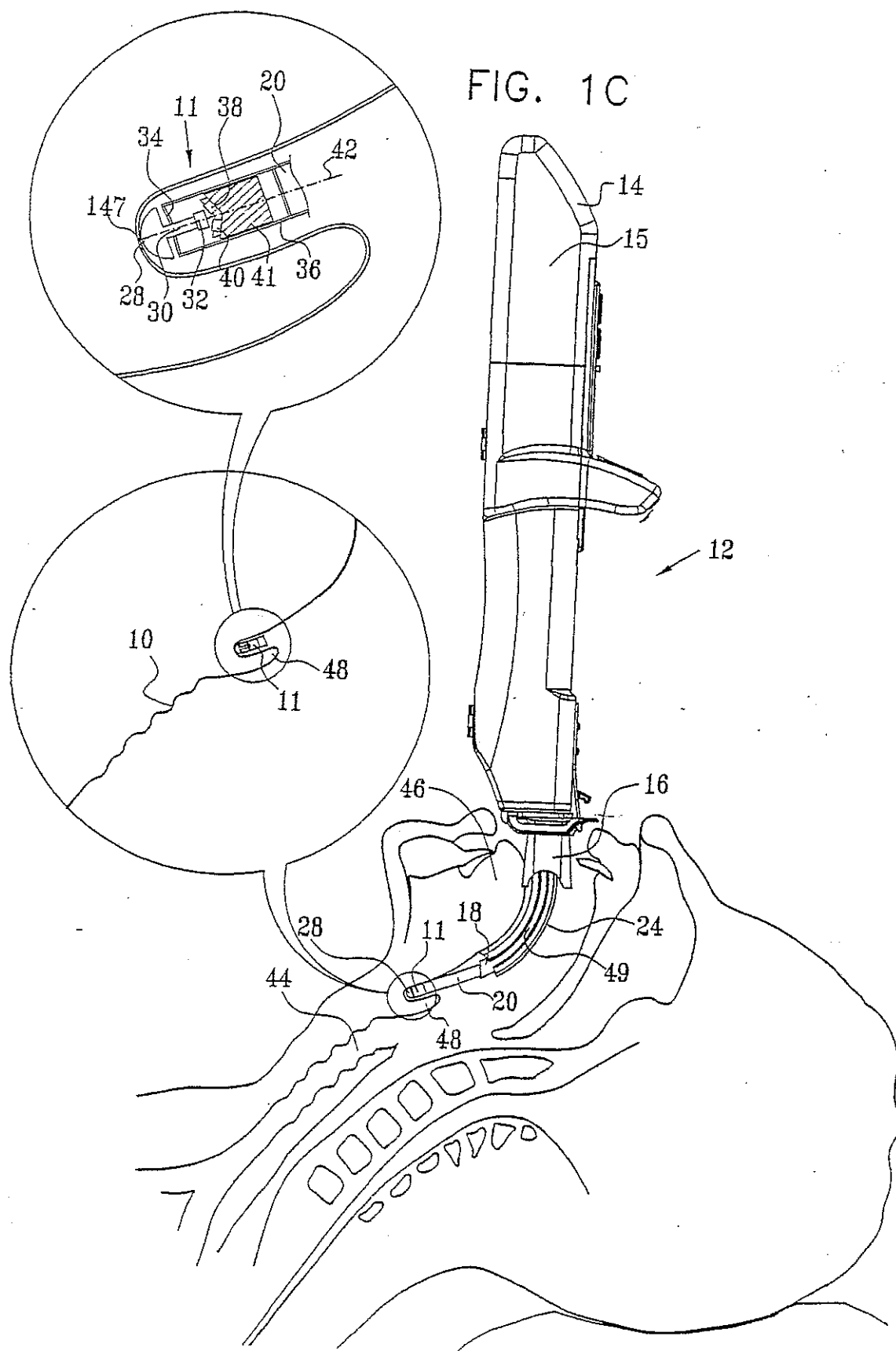
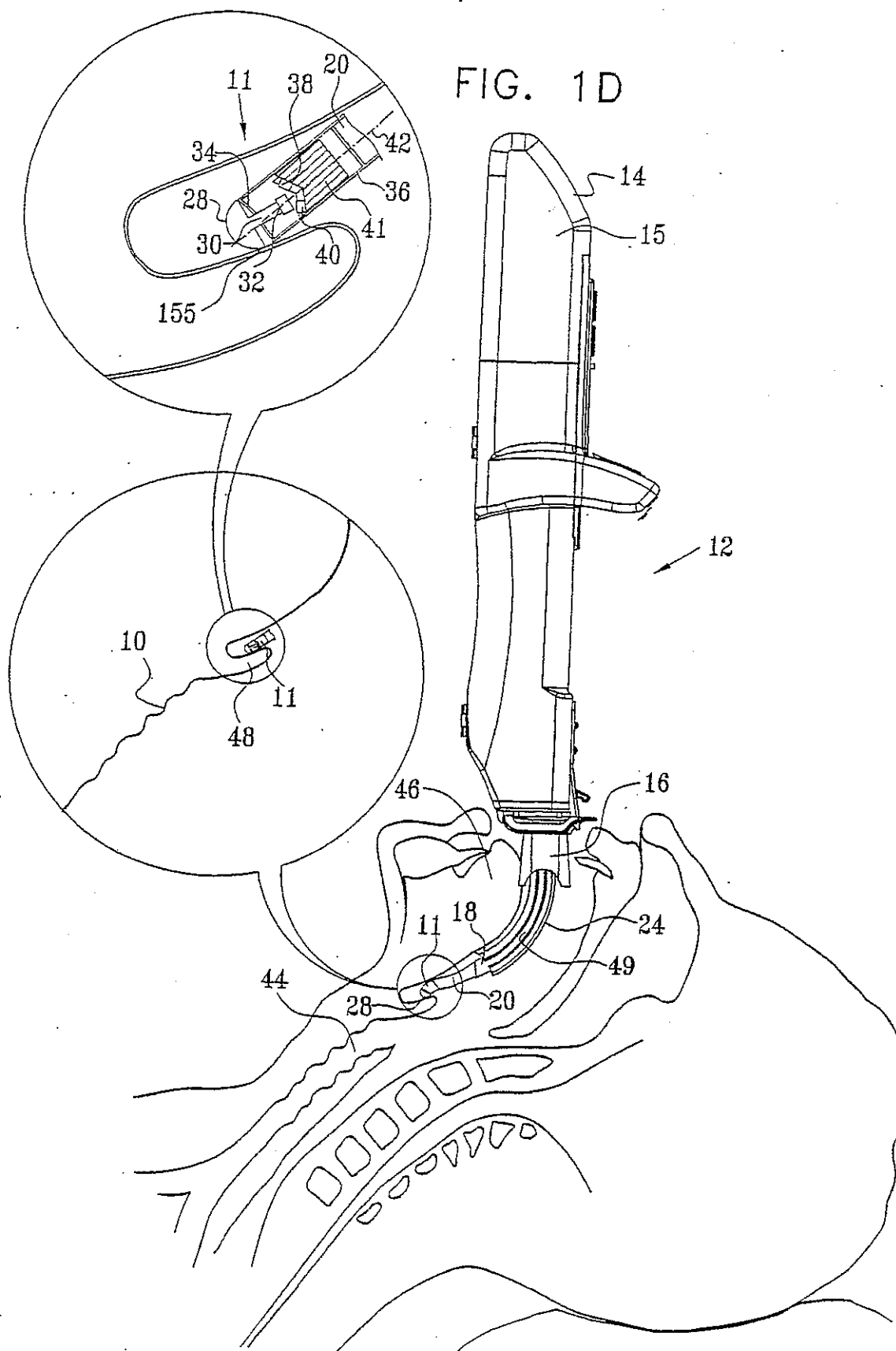


FIG. 1C



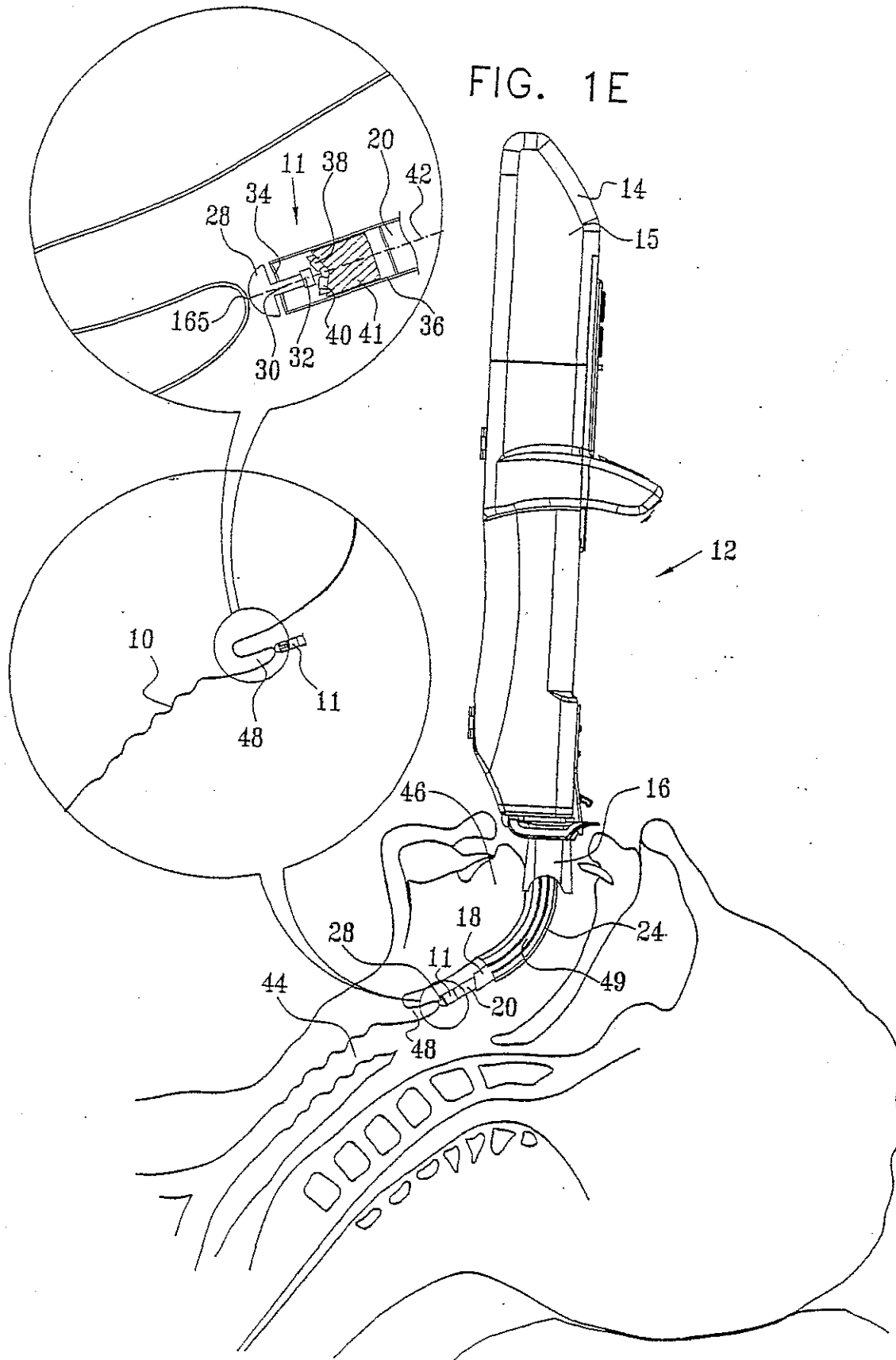
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FIG. 1D



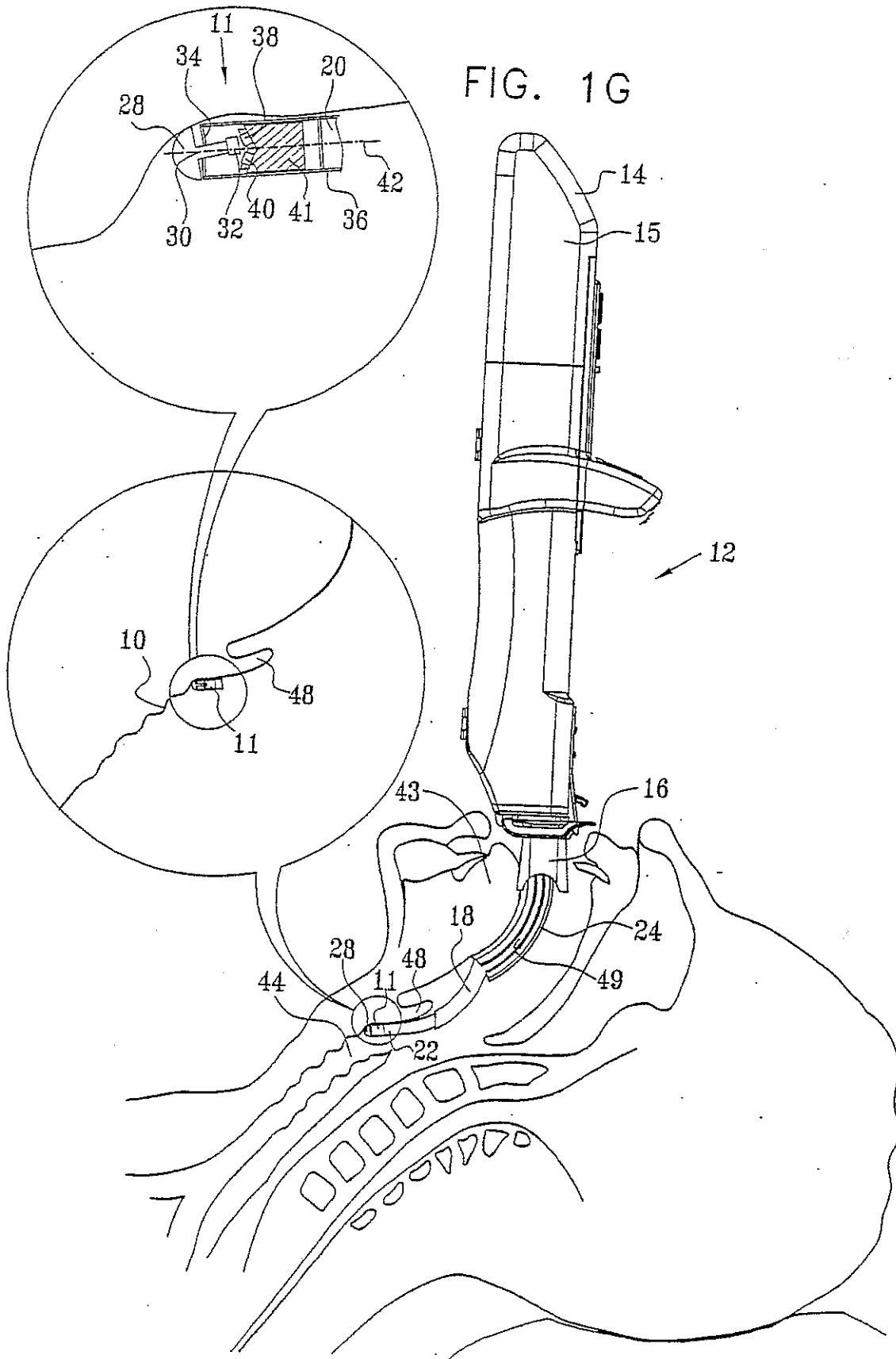
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FIG. 1E



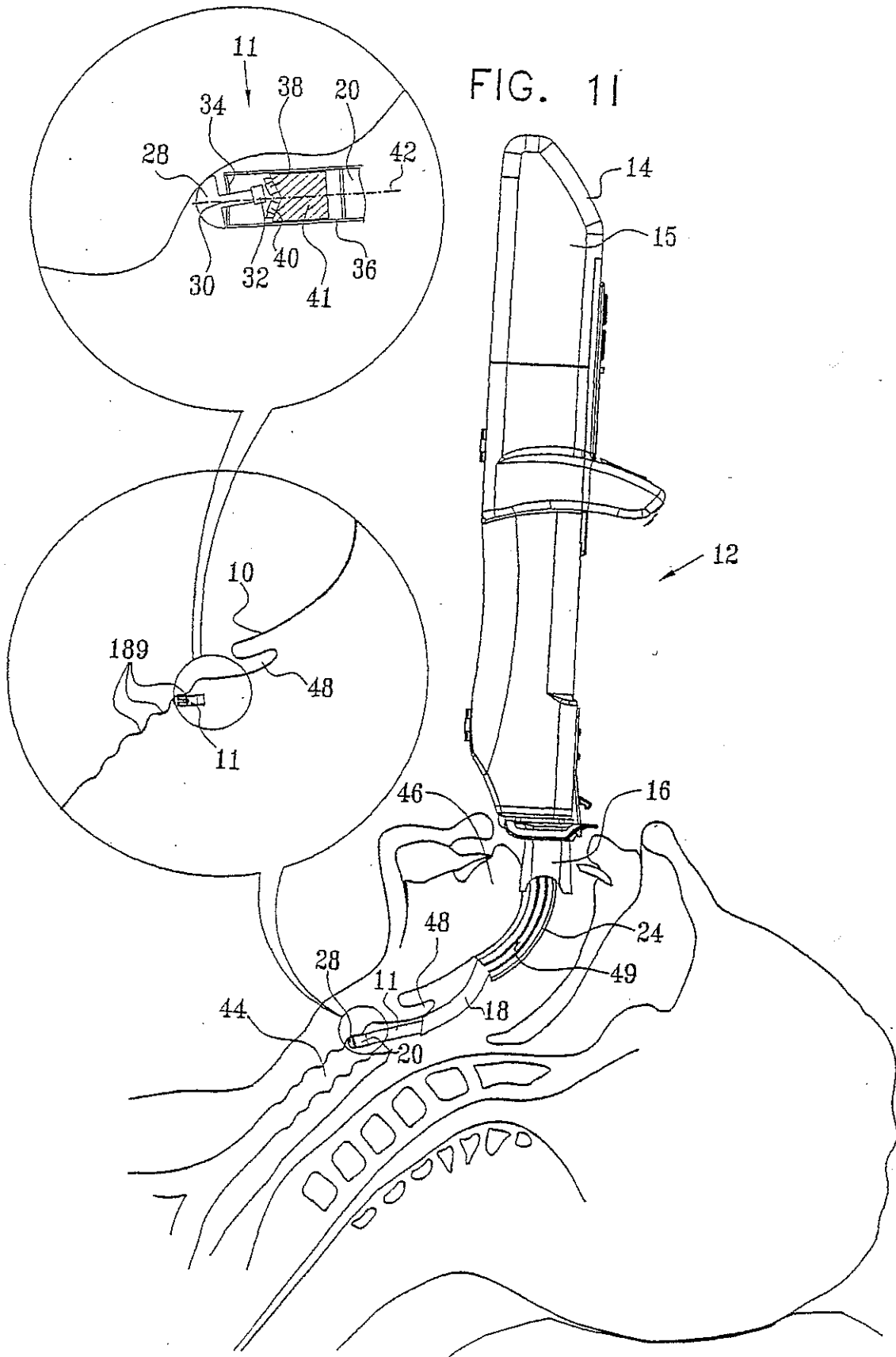
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FIG. 1G



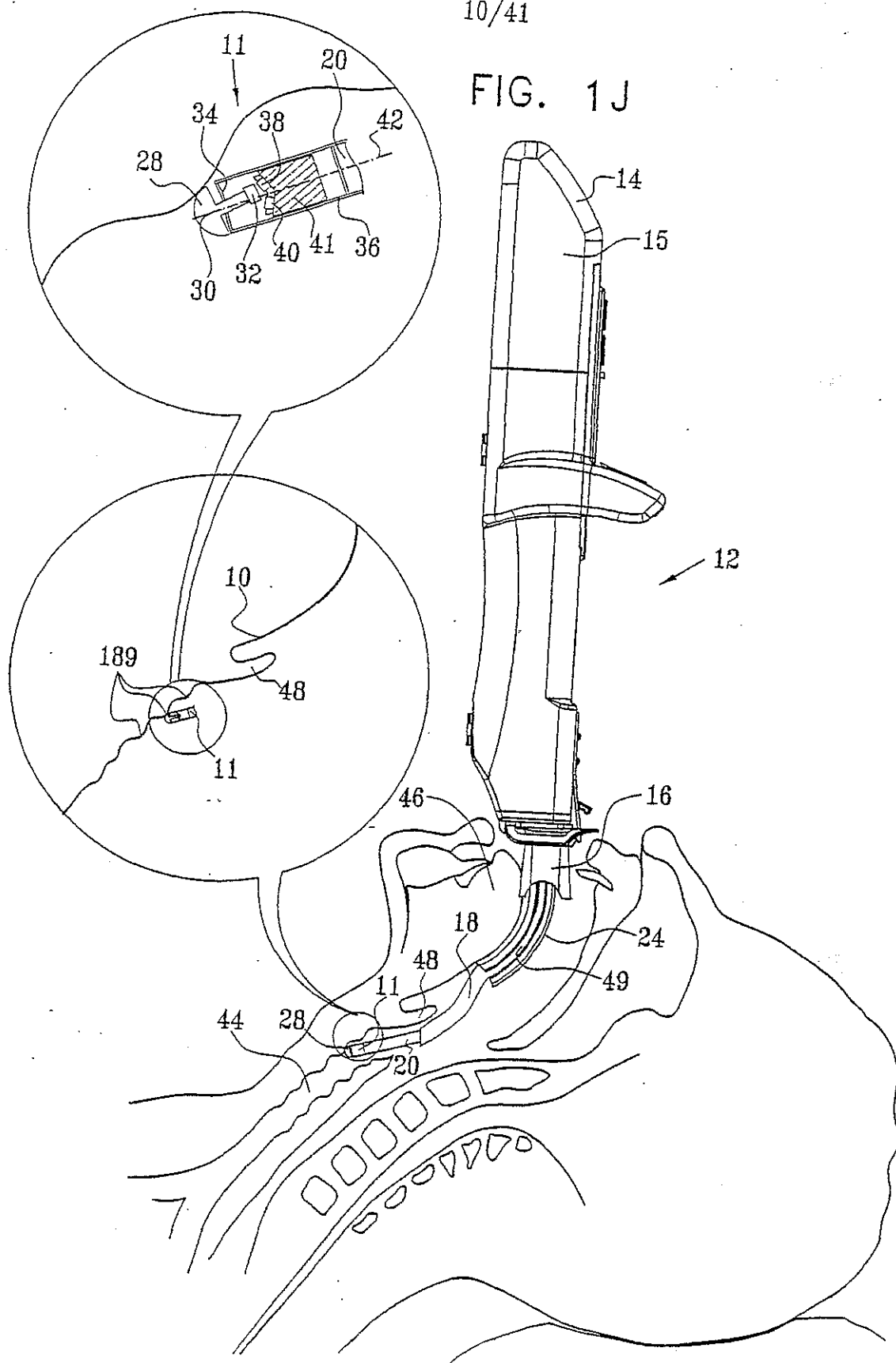
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FIG. 11



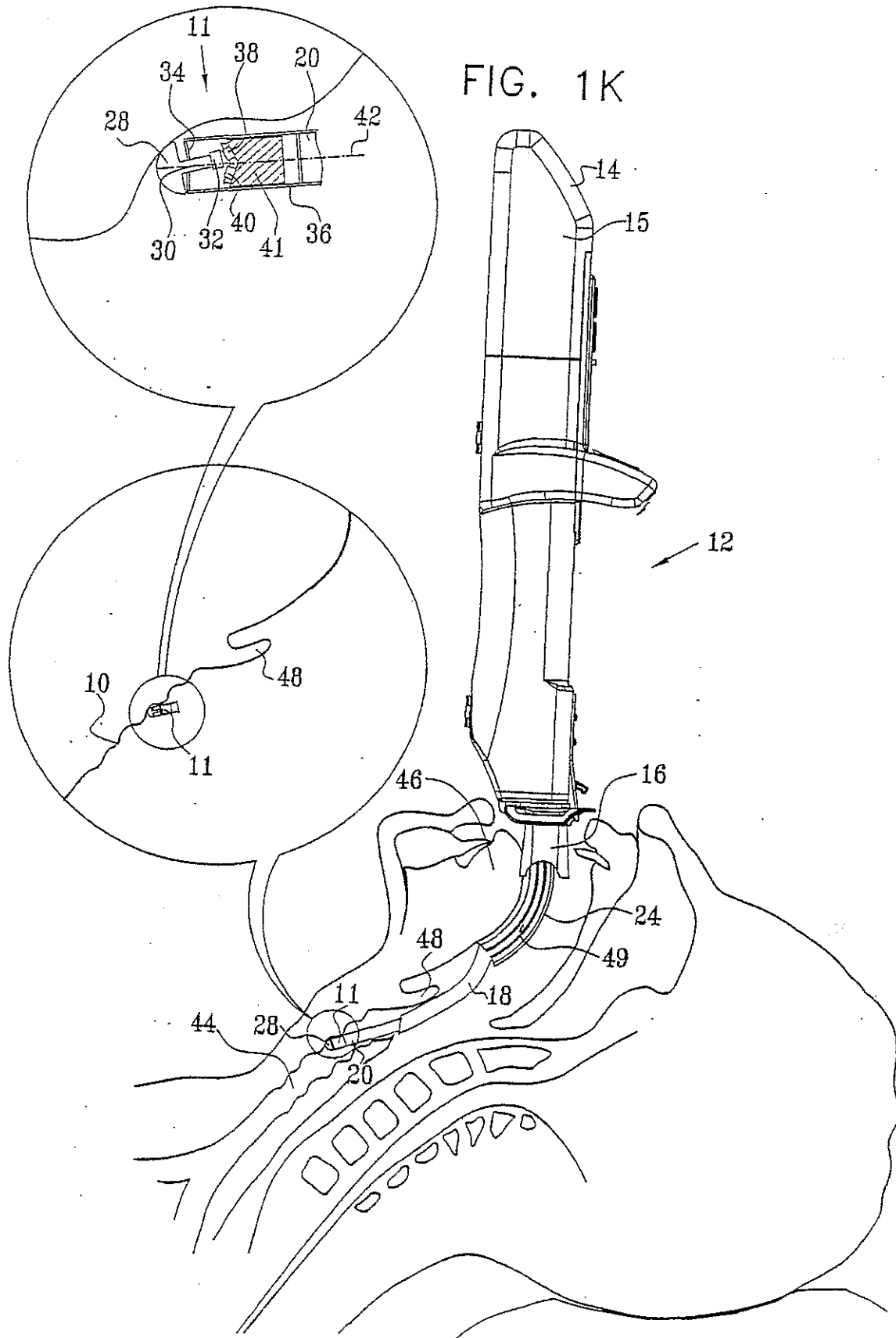
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FIG. 1J



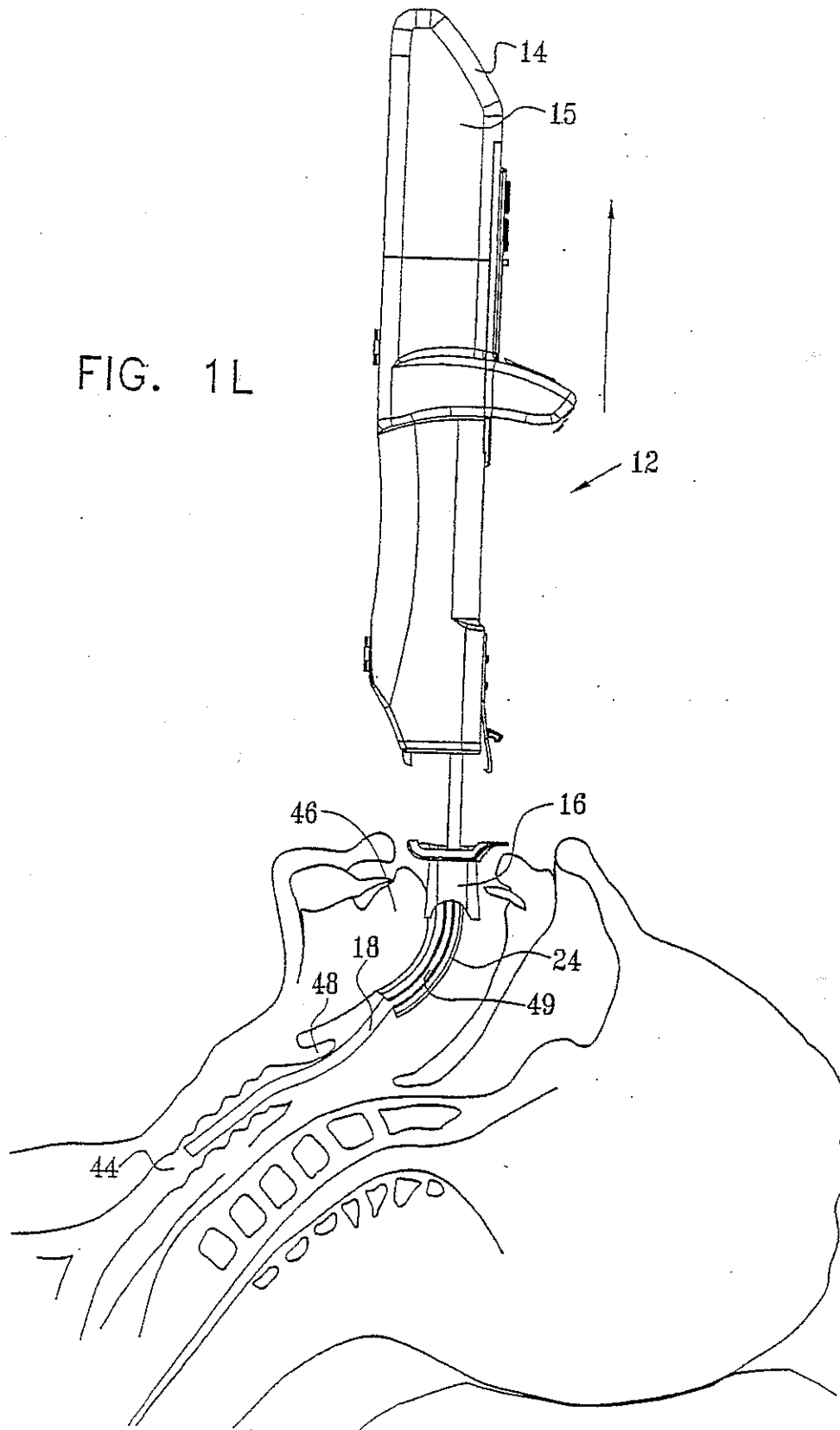
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FIG. 1K



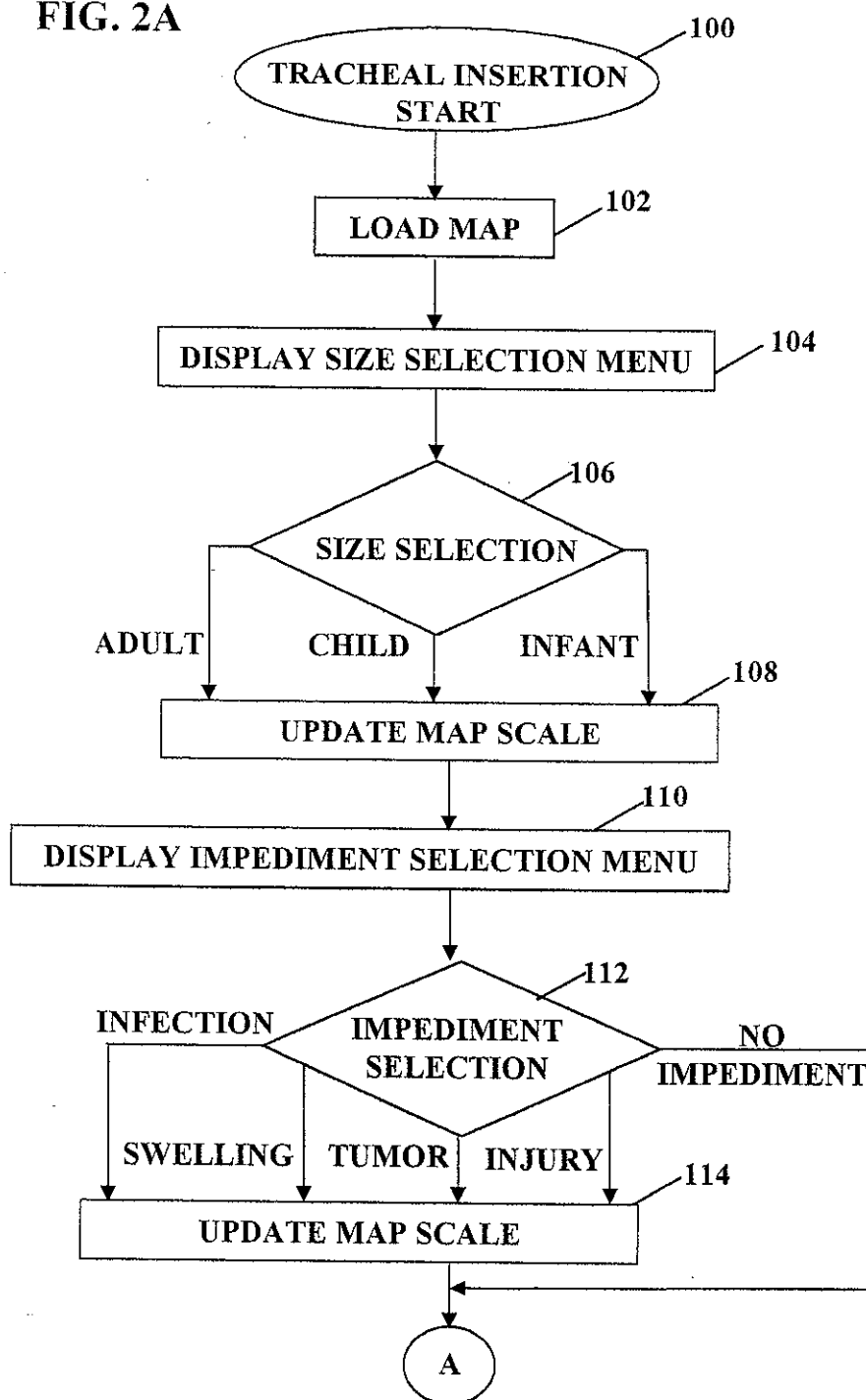
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FIG. 1L



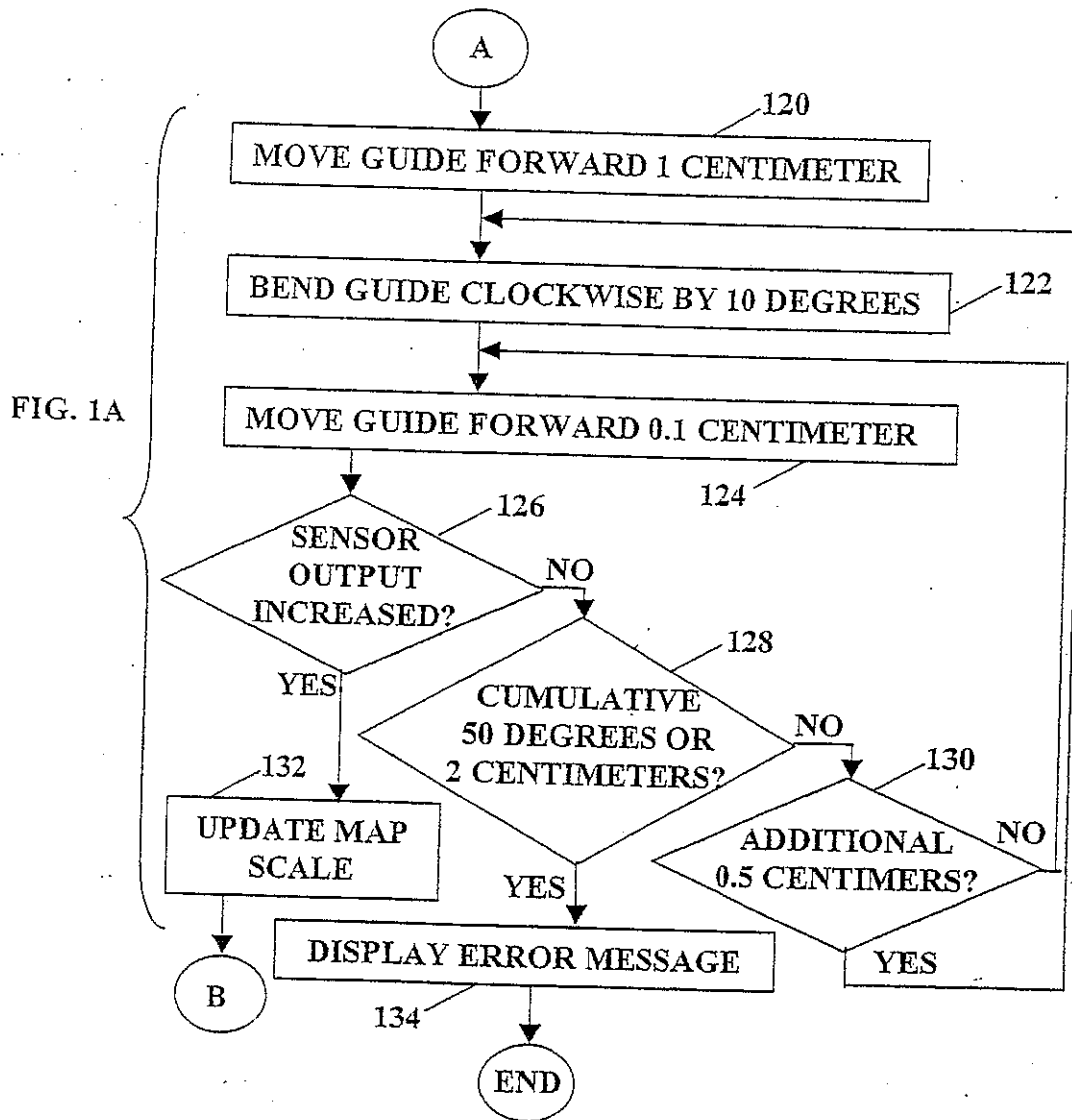
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FIG. 2A



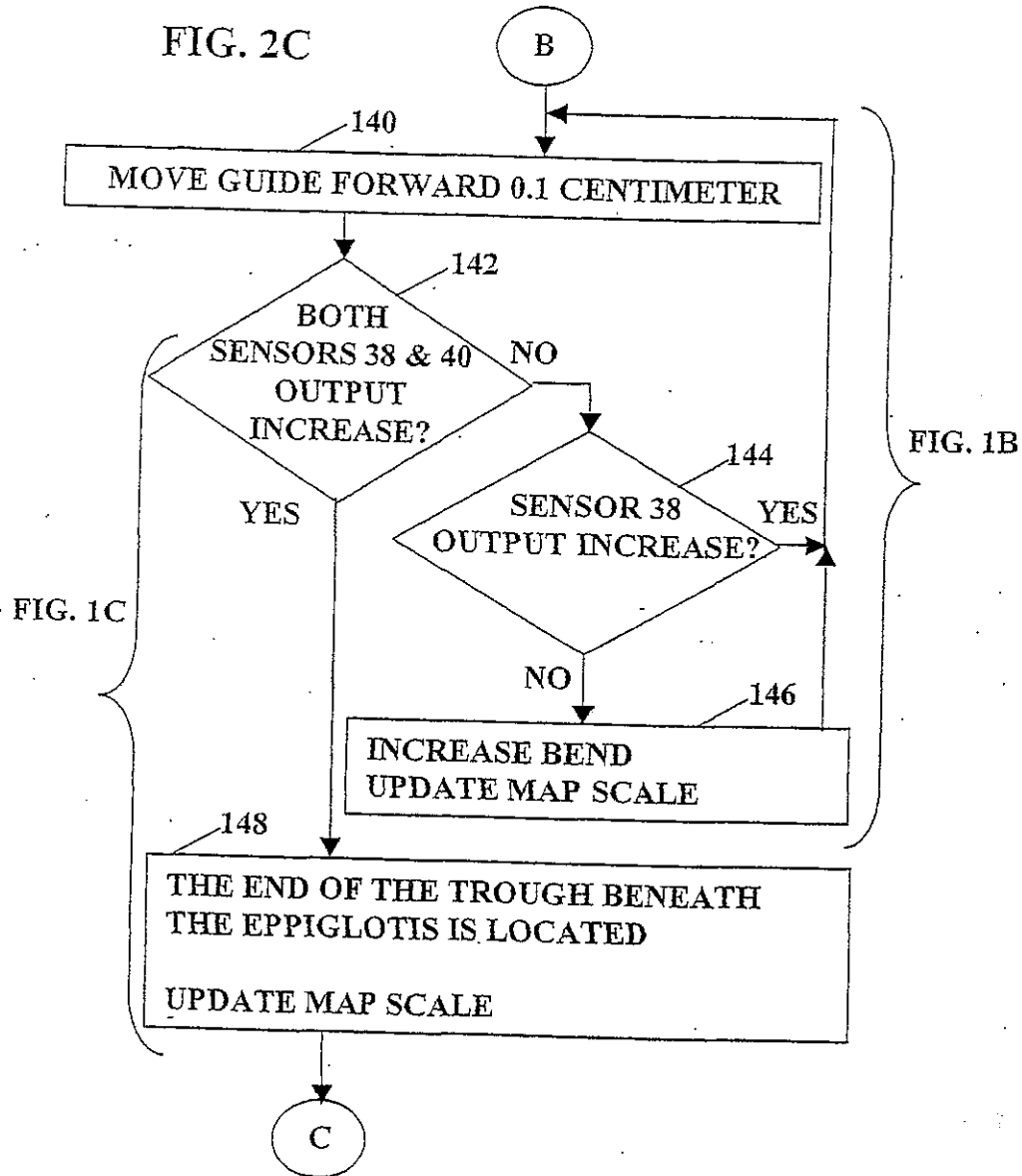
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FIG. 2B



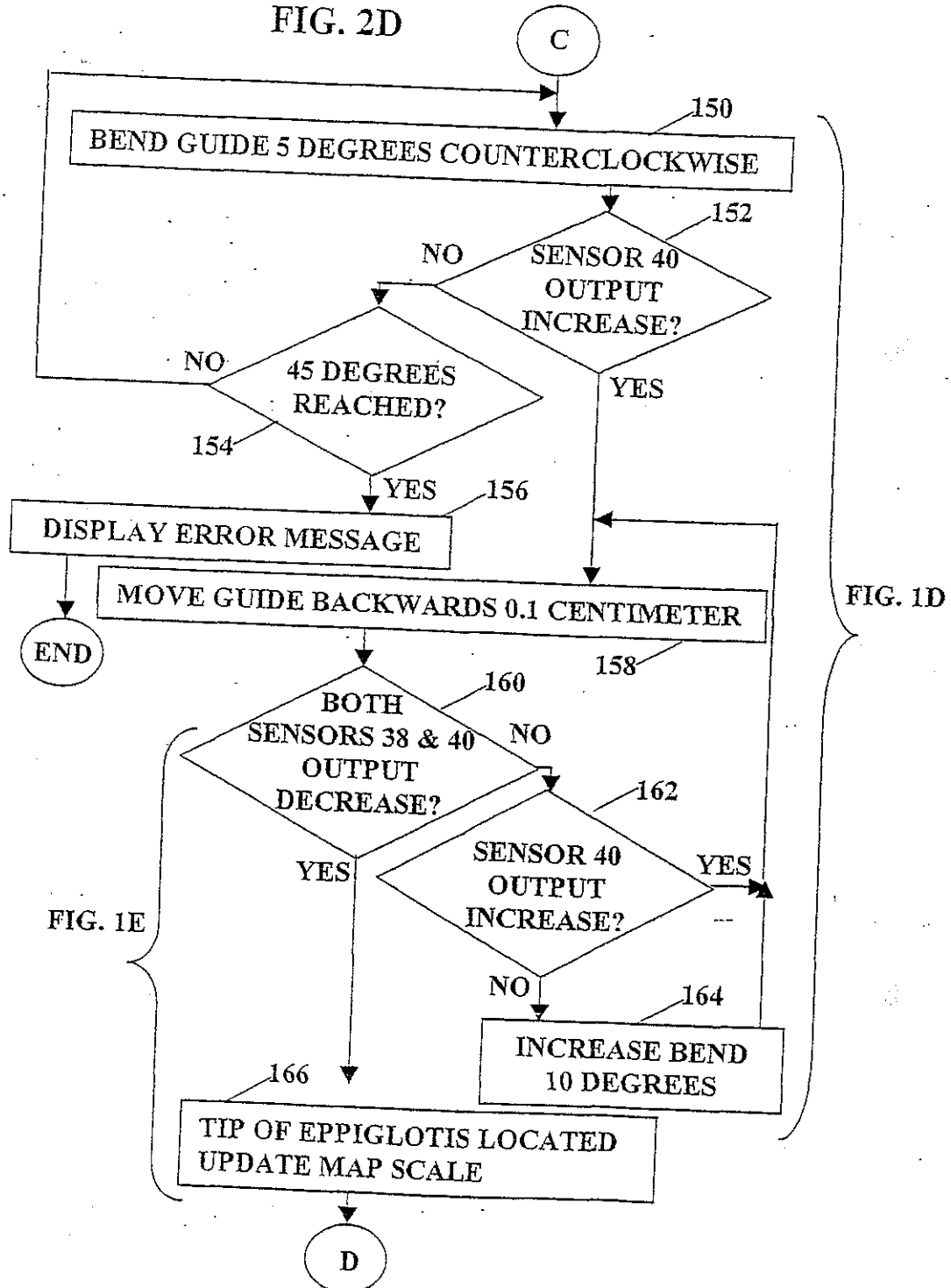
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FIG. 2C



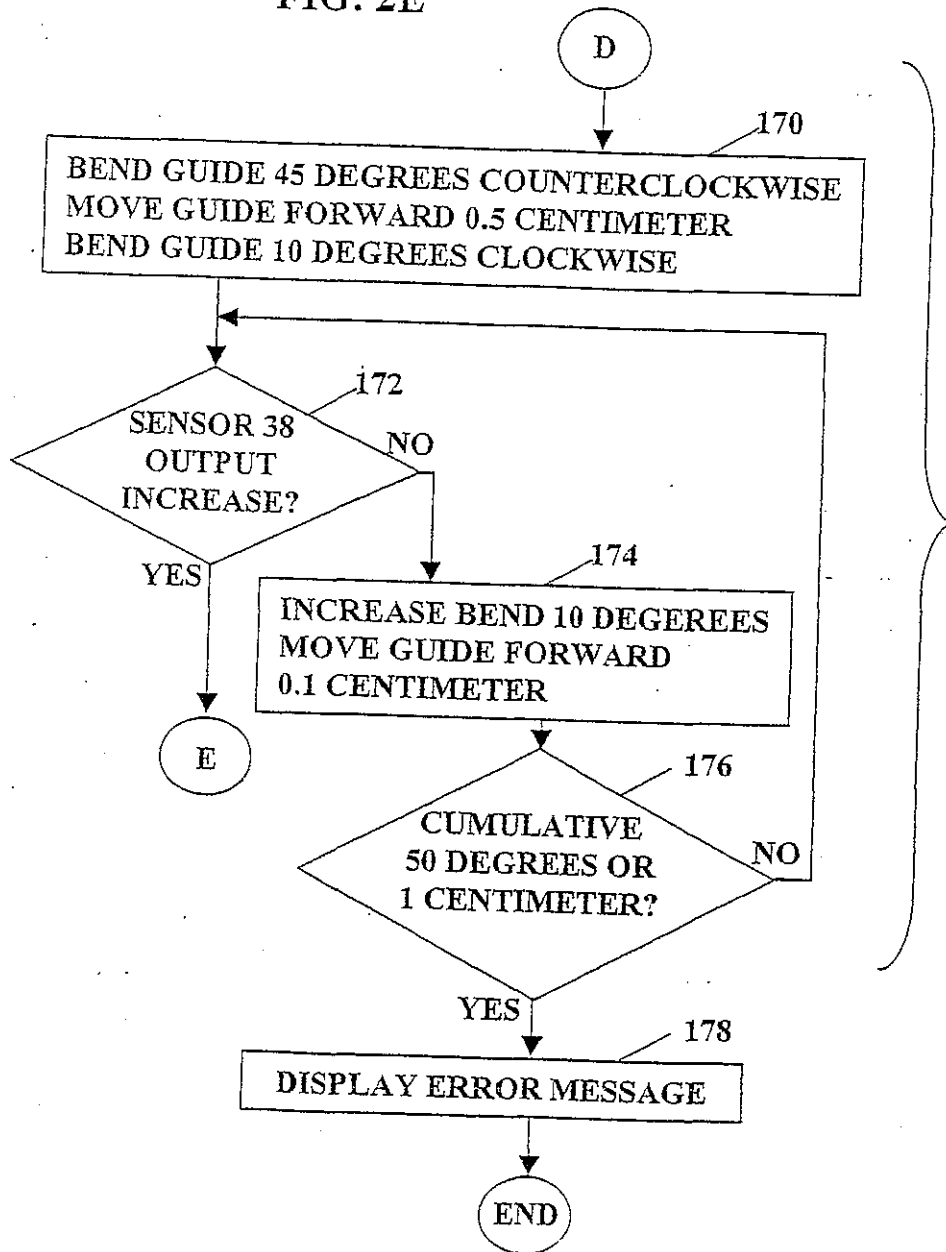
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FIG. 2D



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FIG. 2E



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FIG. 2F

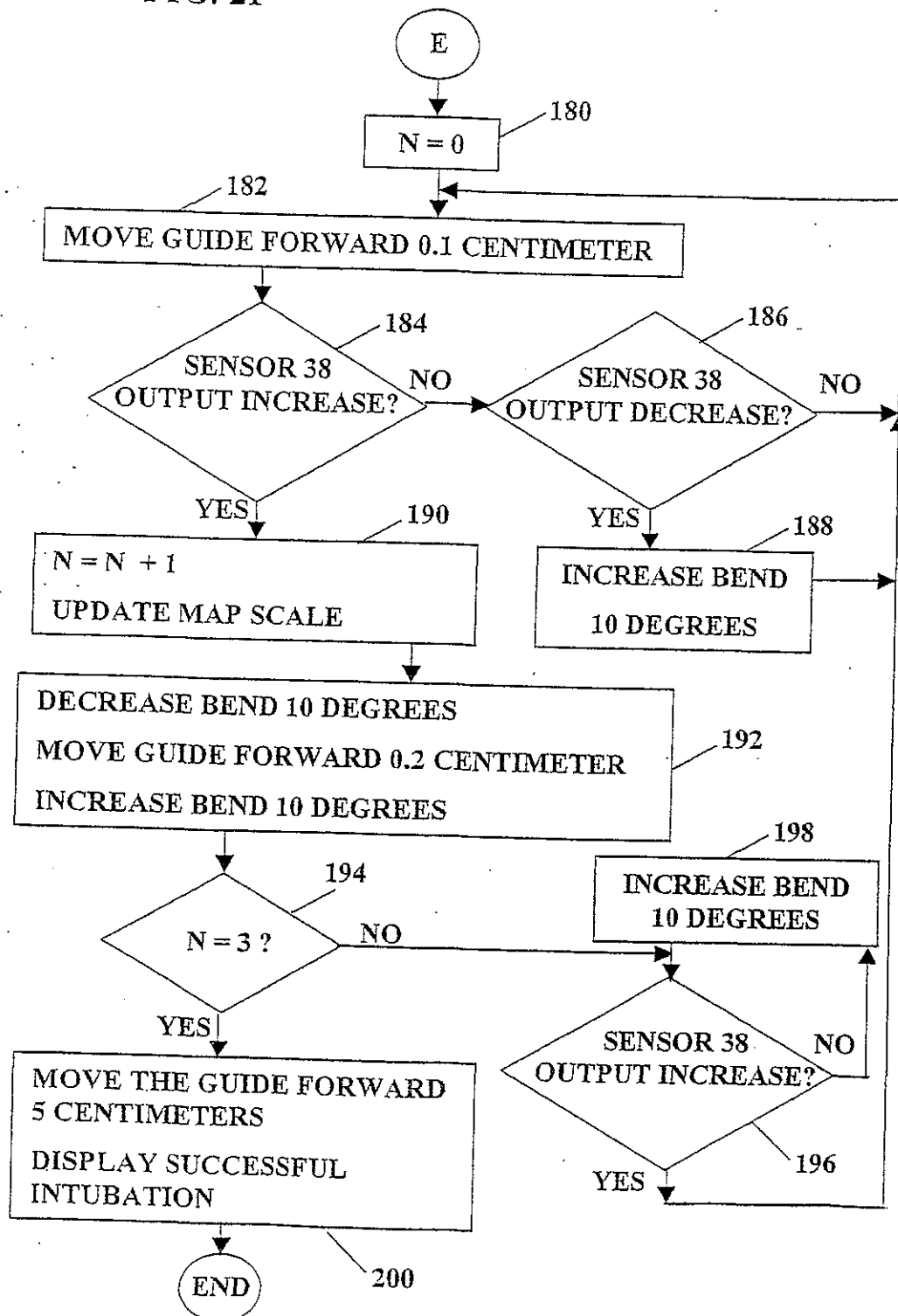
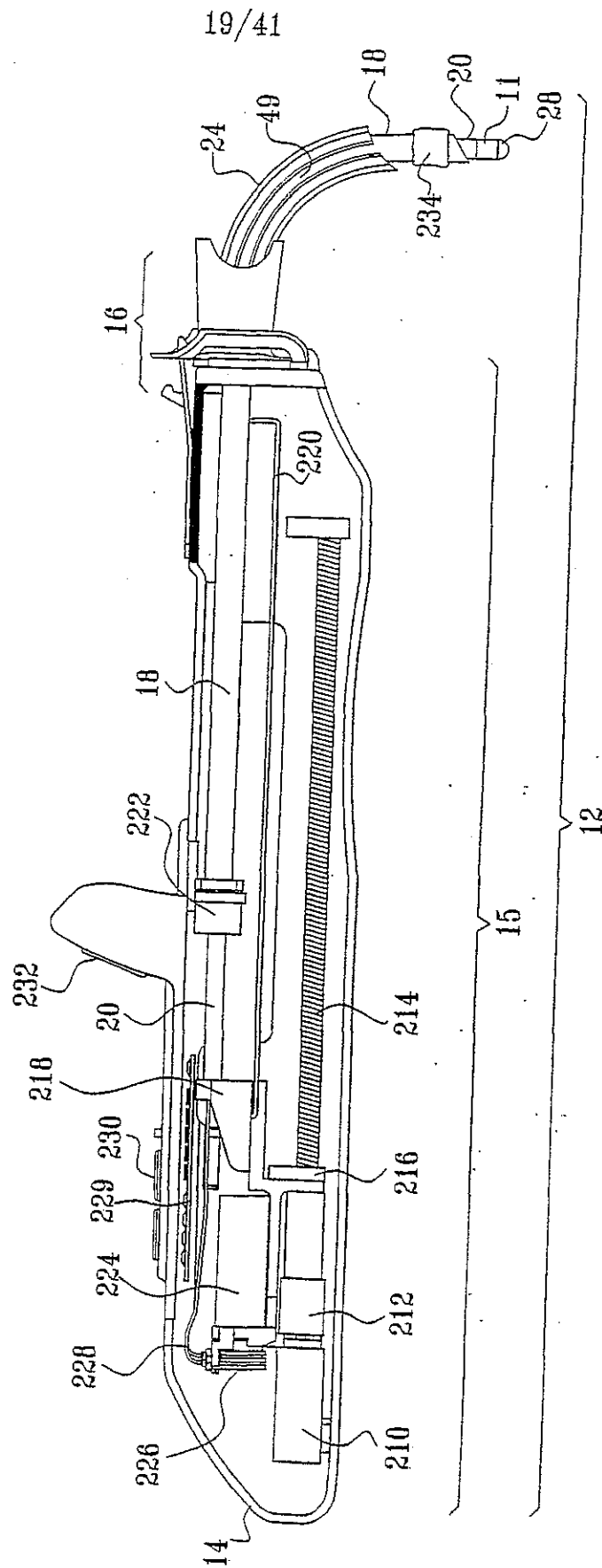


FIG. 3



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FIG. 5A

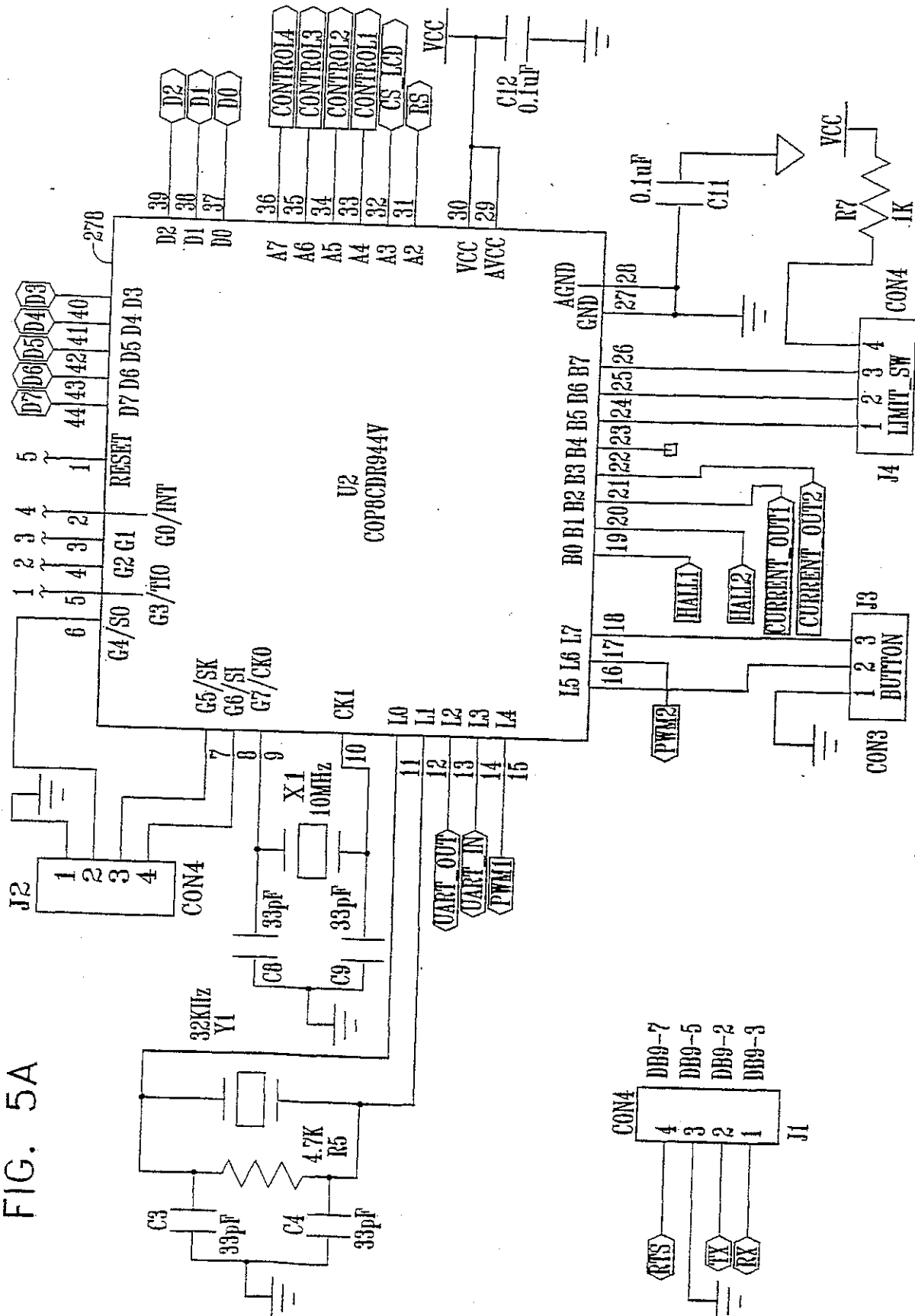
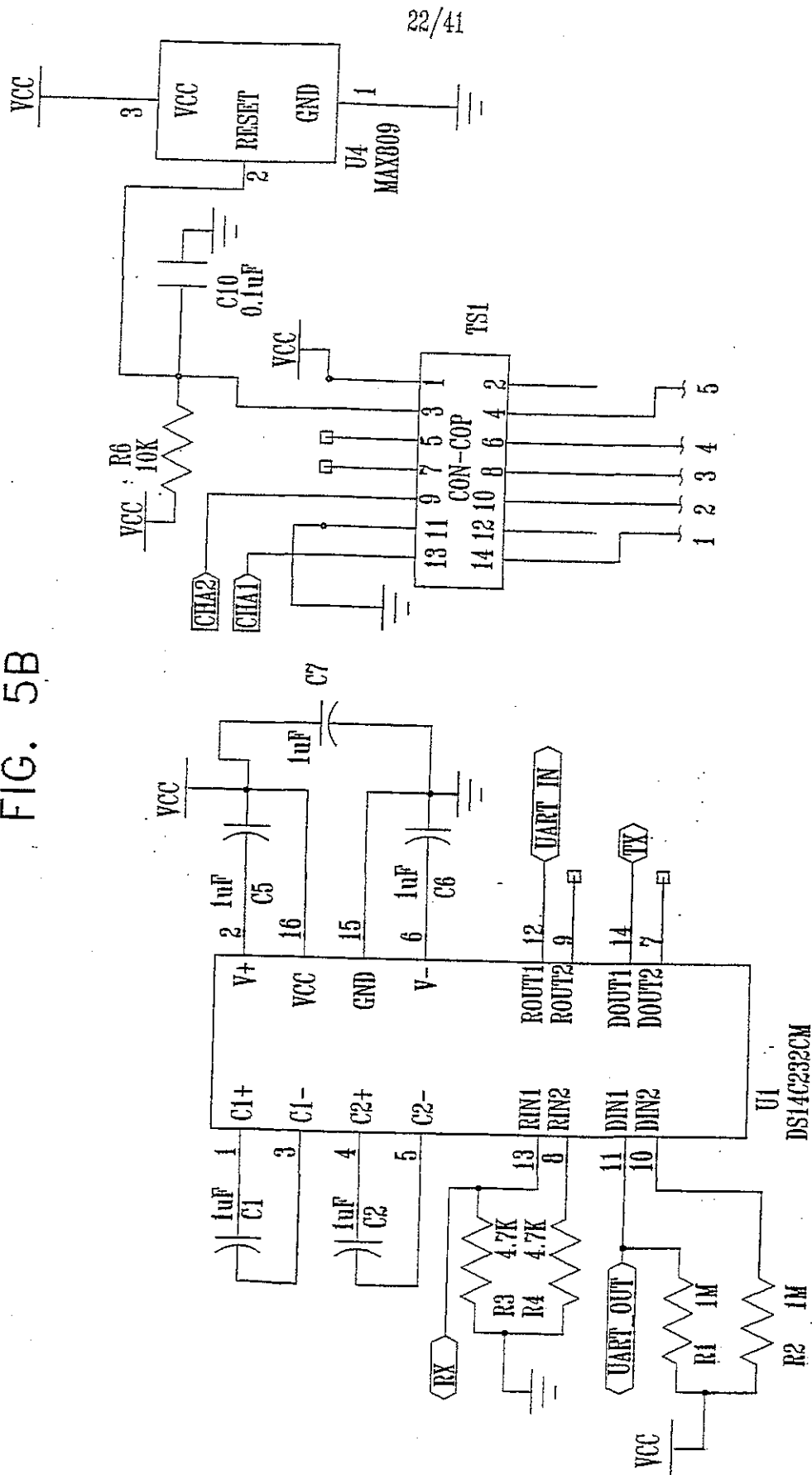
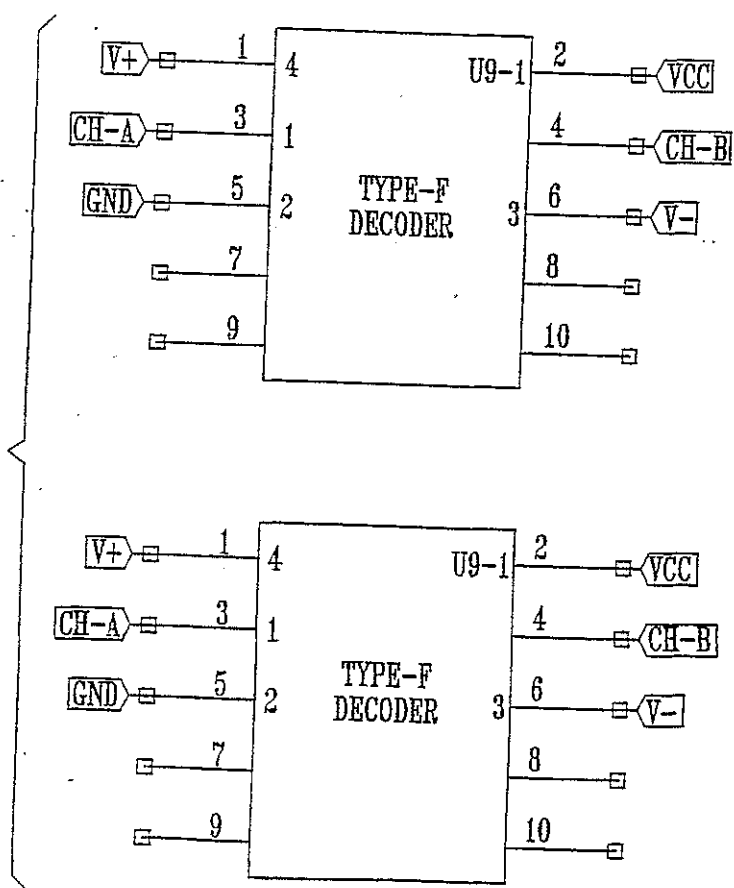


FIG. 5B



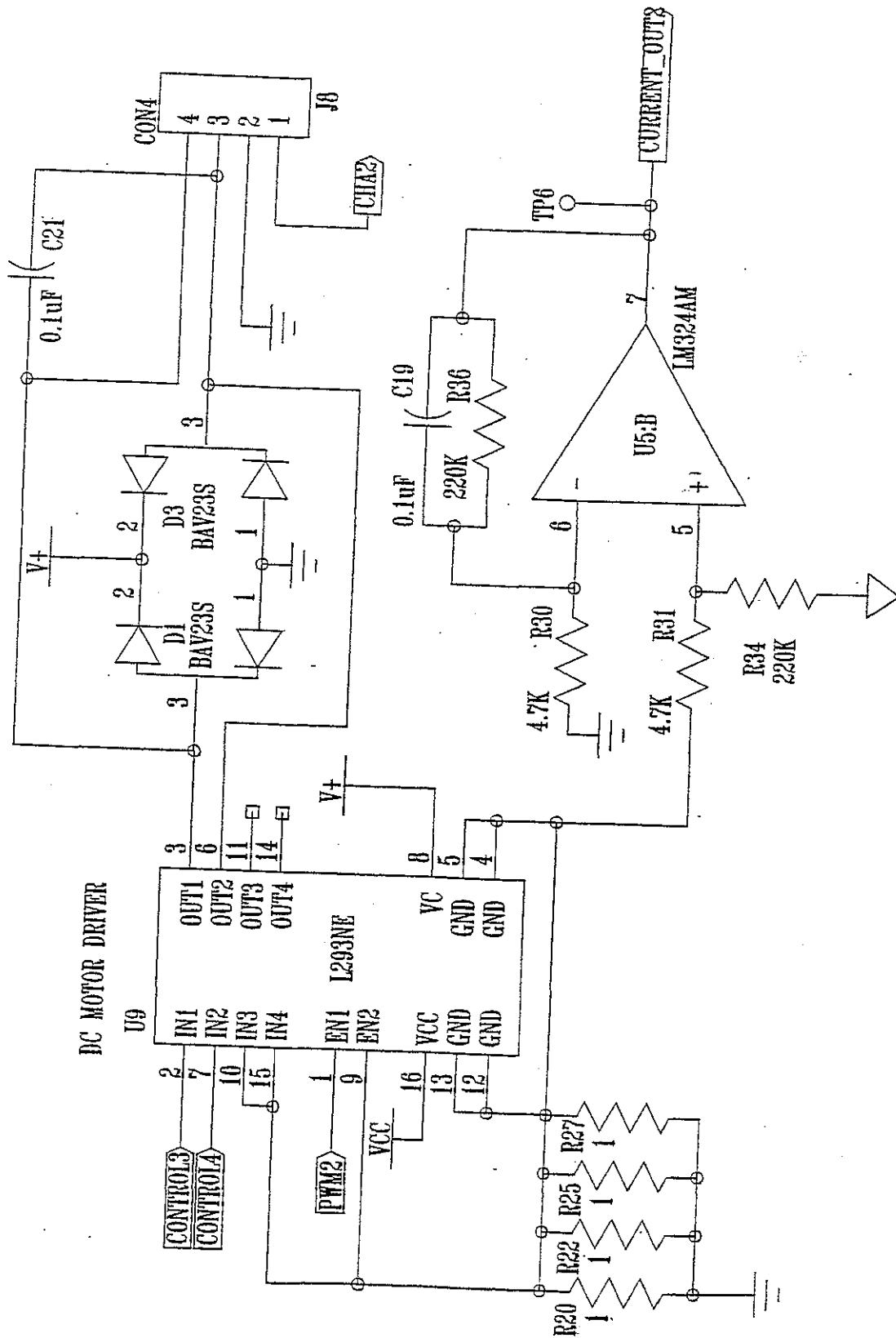
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FIG. 5C



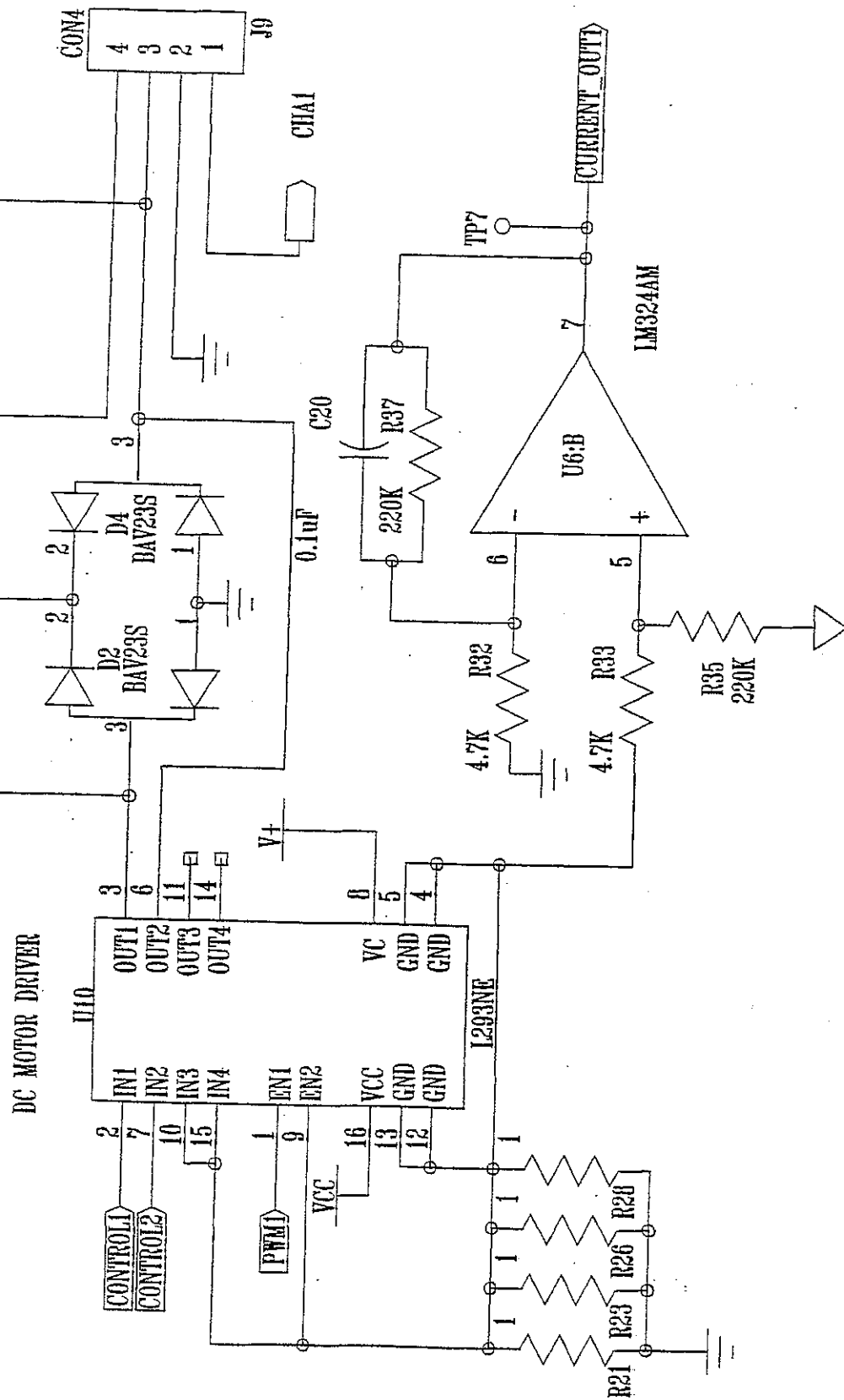
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FIG. 5D



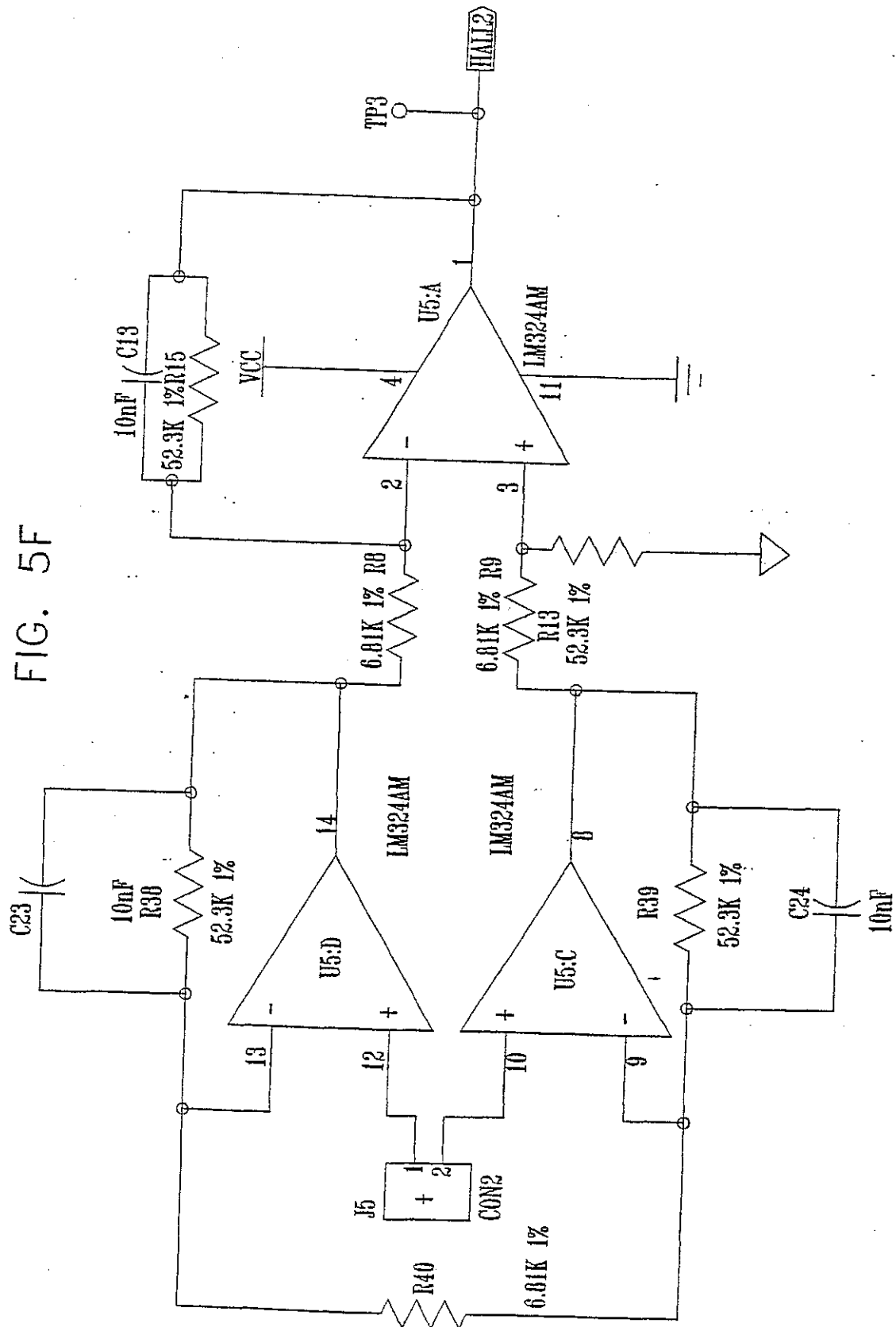
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FIG. 5E

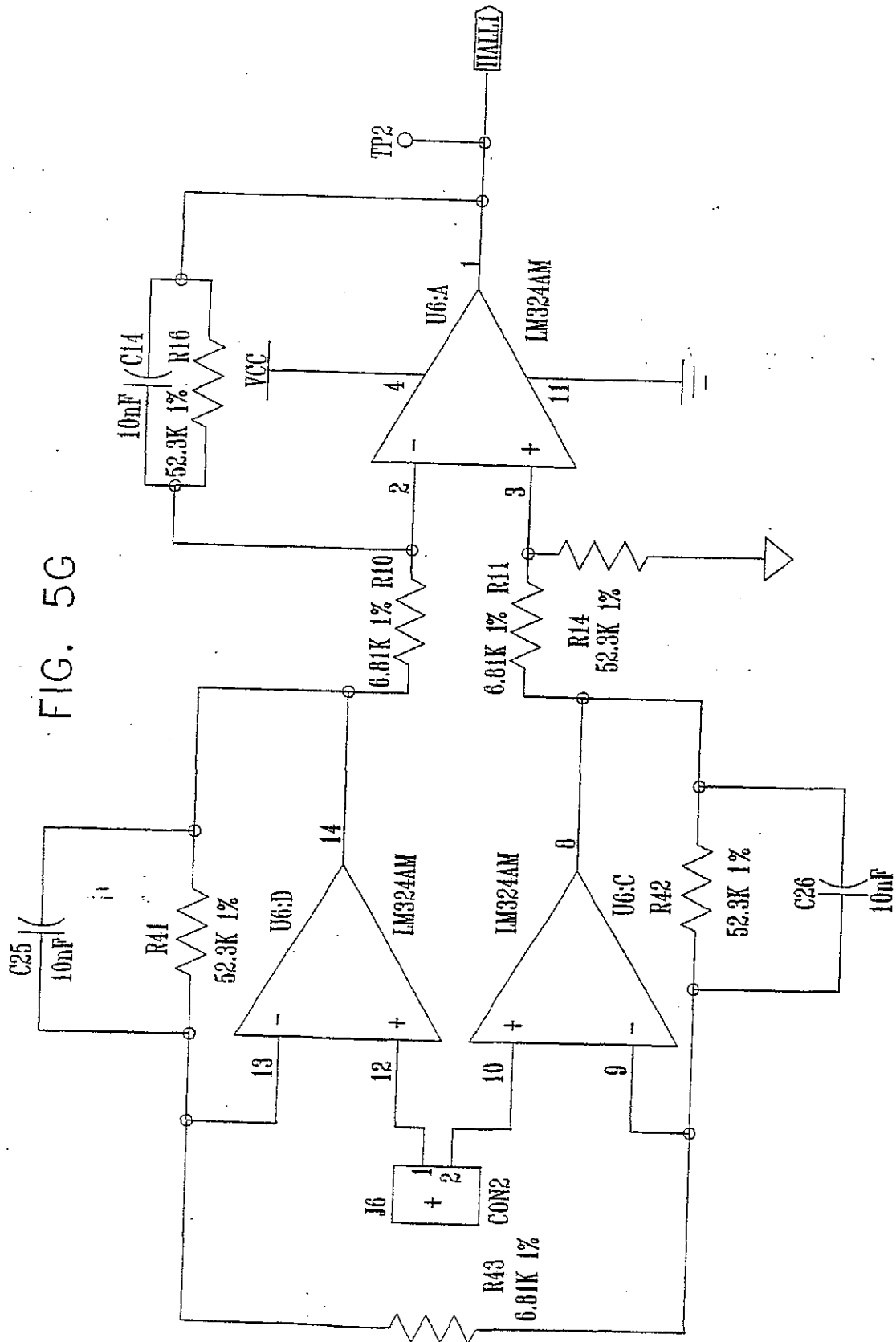


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FIG. 5F

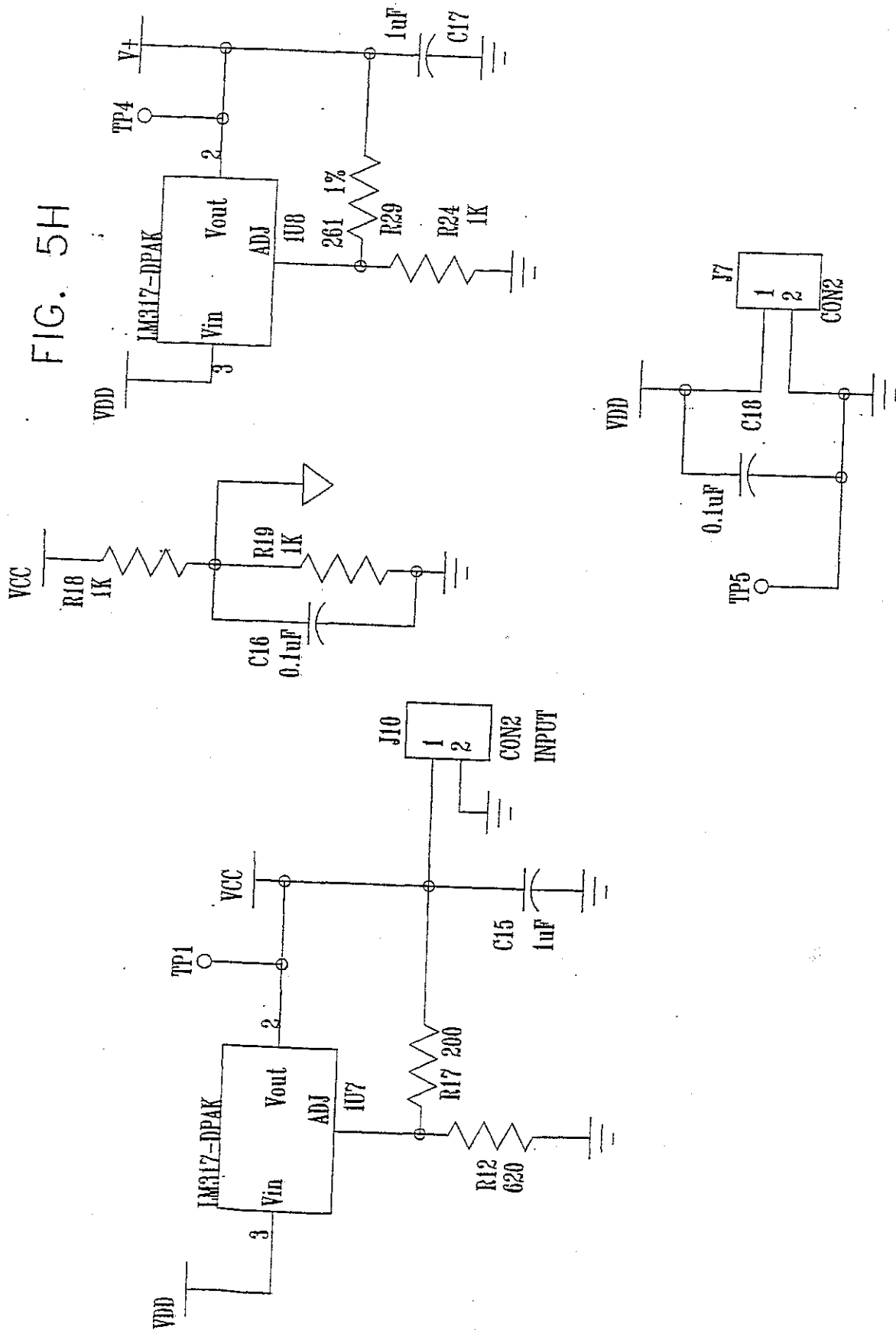


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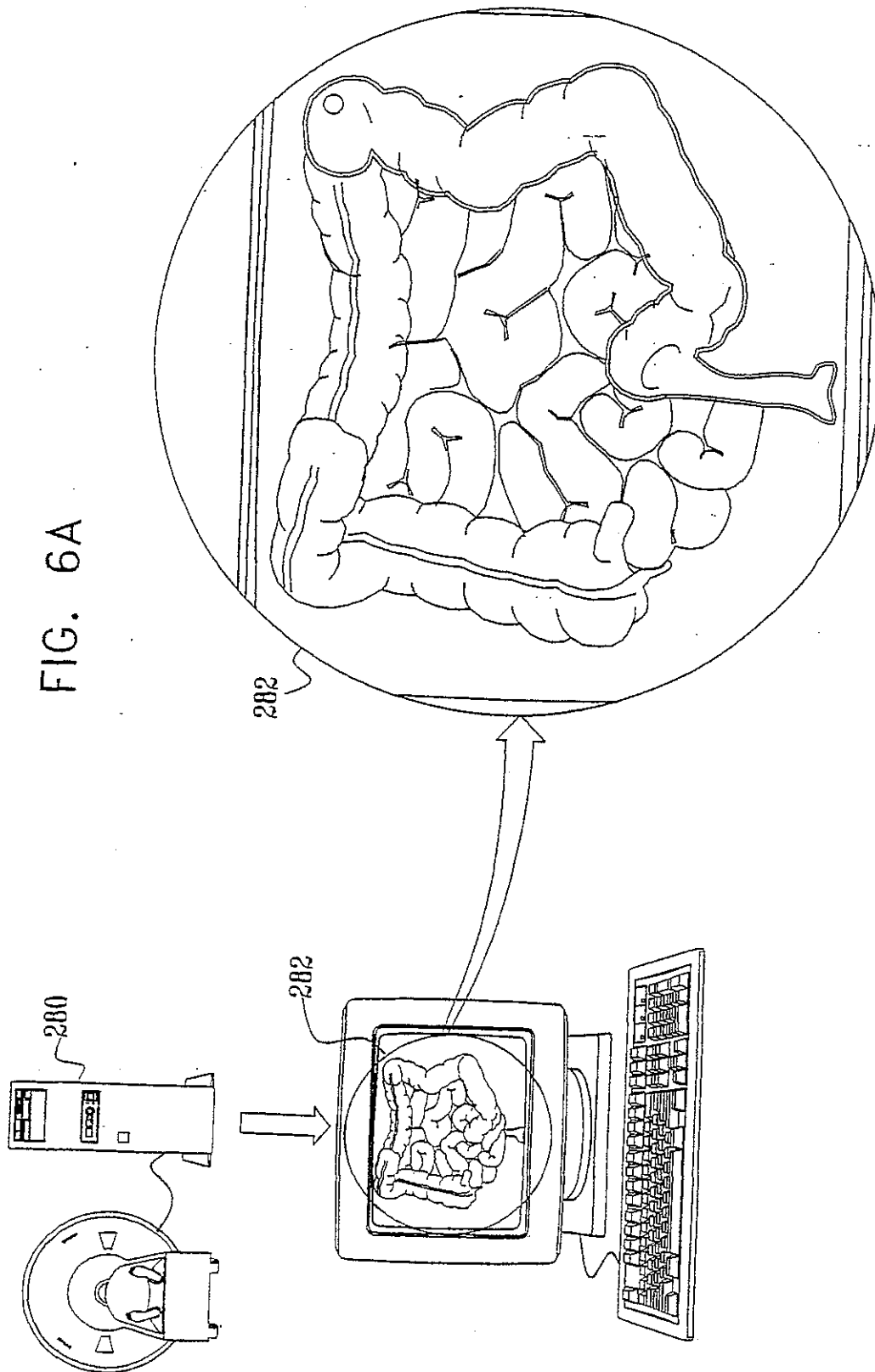
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FIG. 5H



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FIG. 6A



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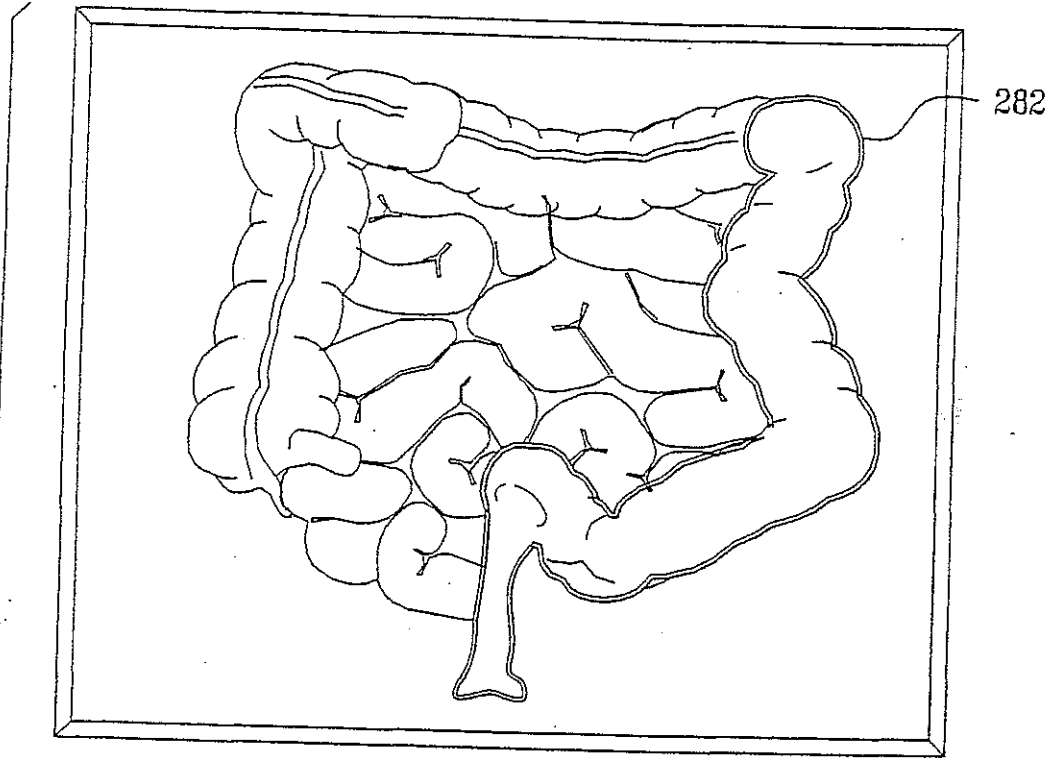
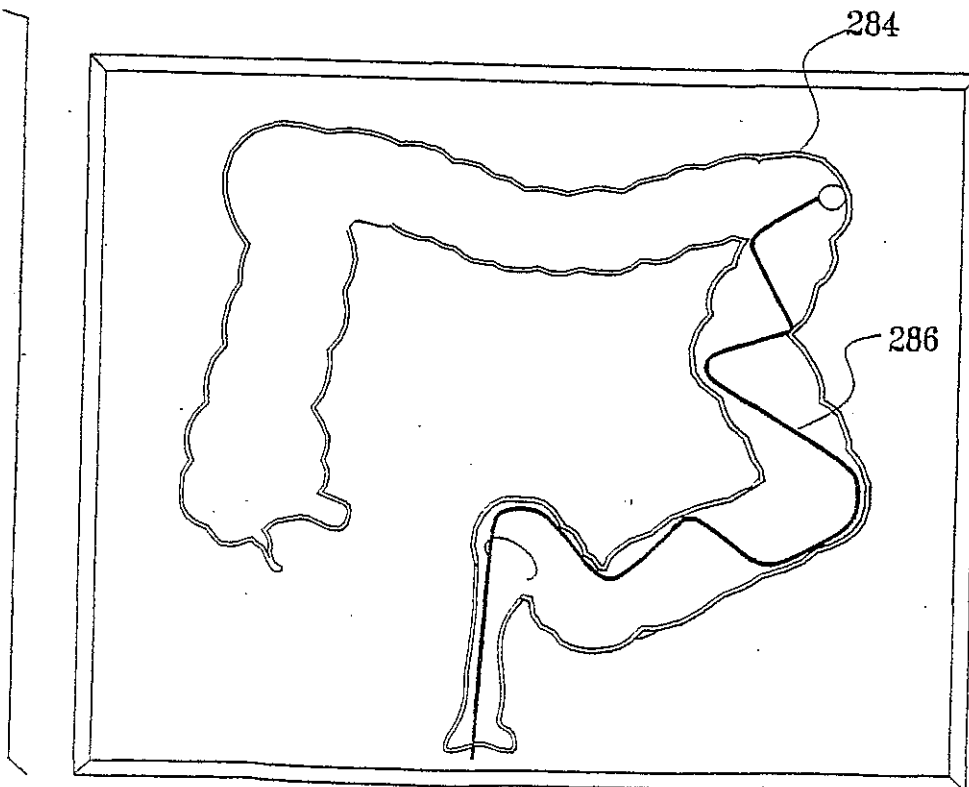


FIG. 6B



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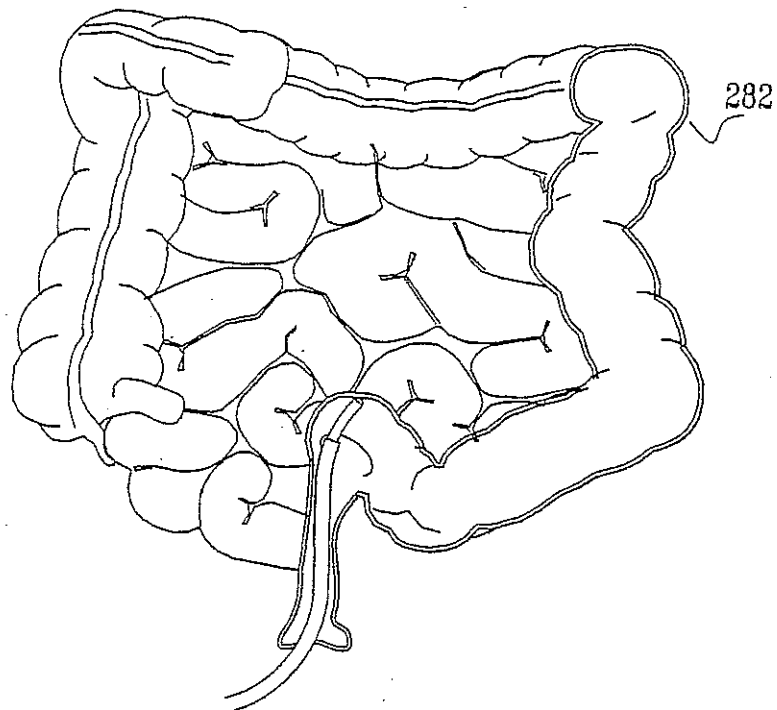
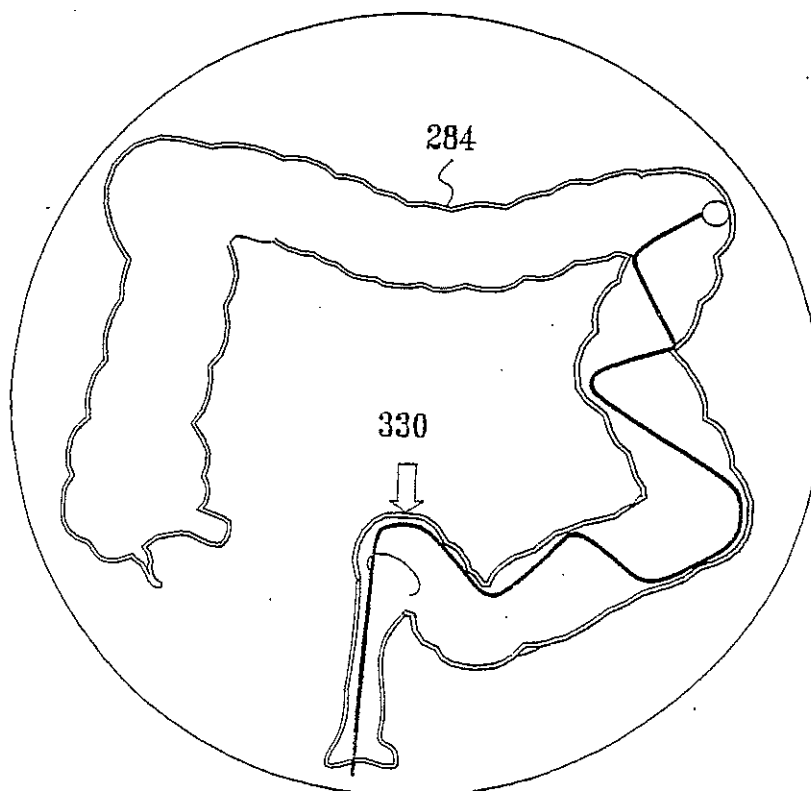


FIG. 6C



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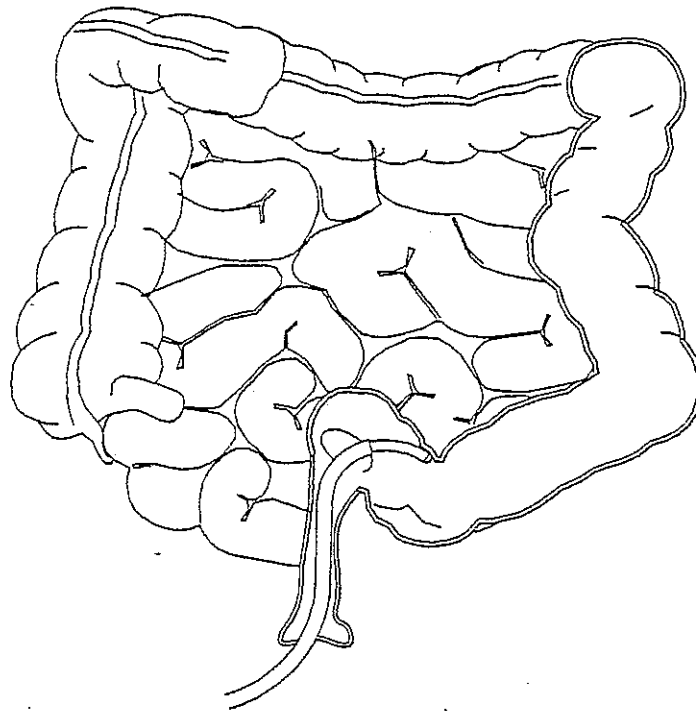
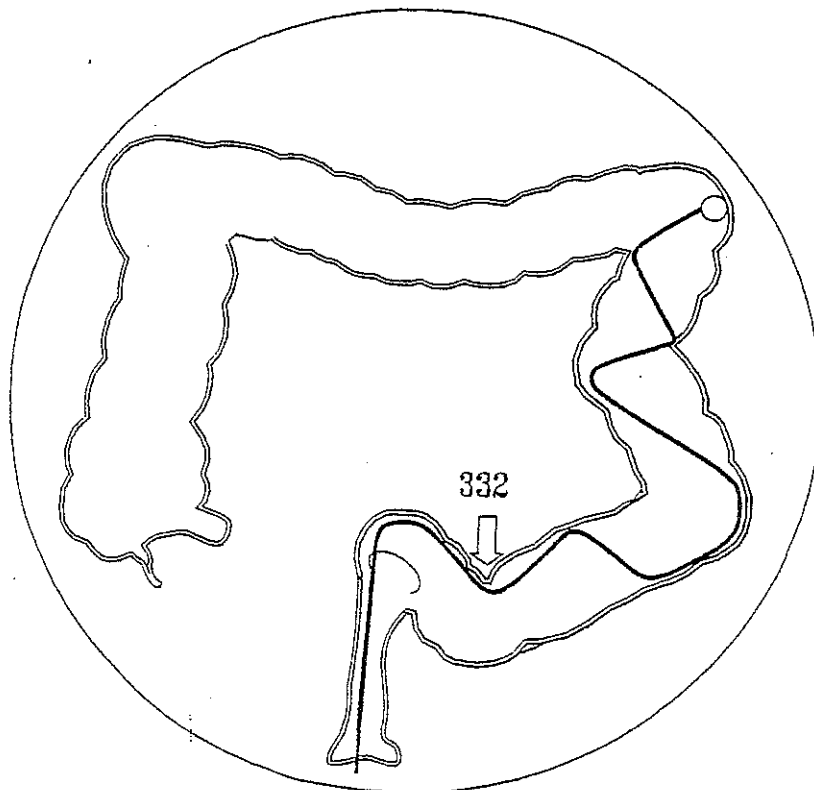


FIG. 6D



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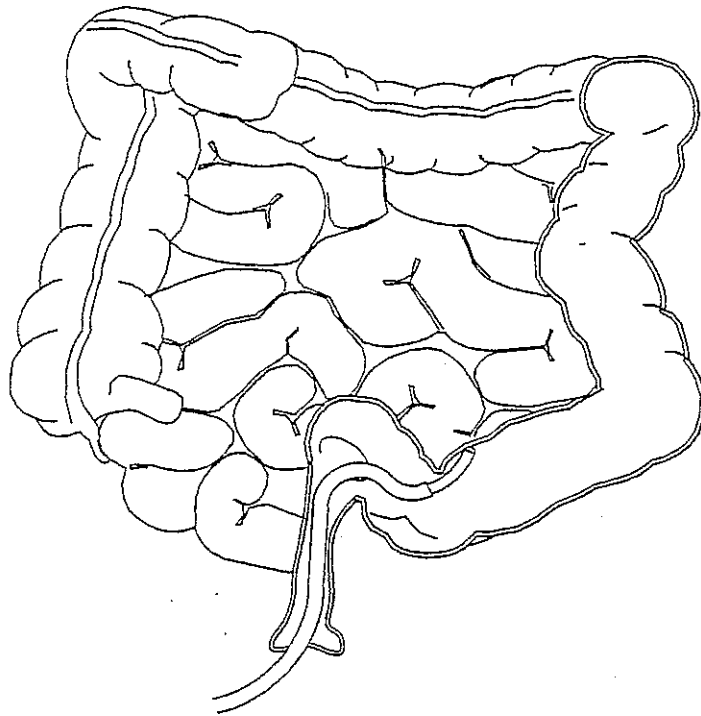
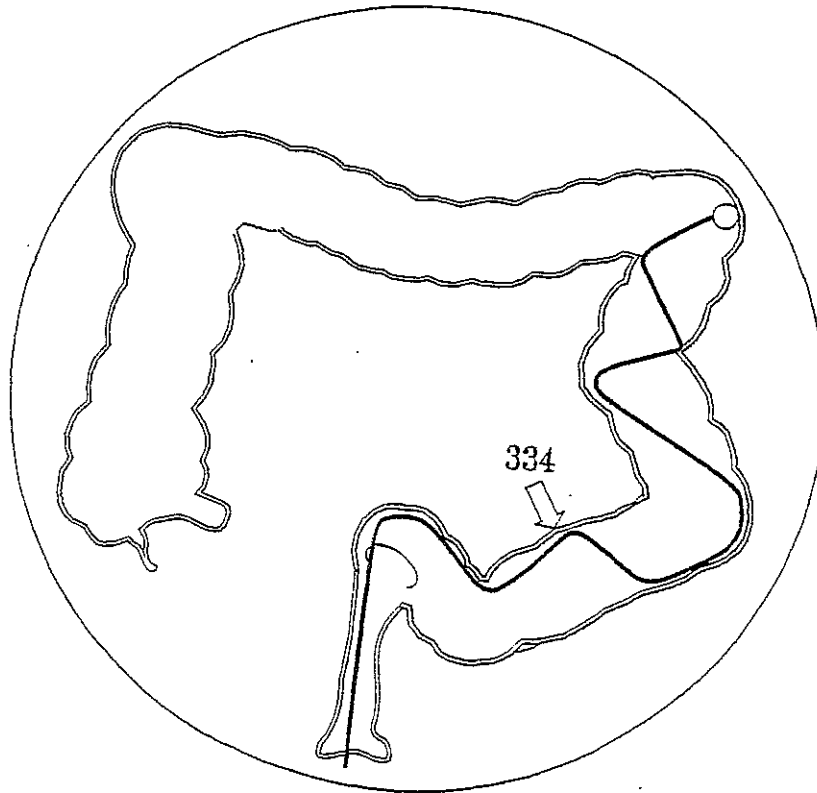


FIG. 6E



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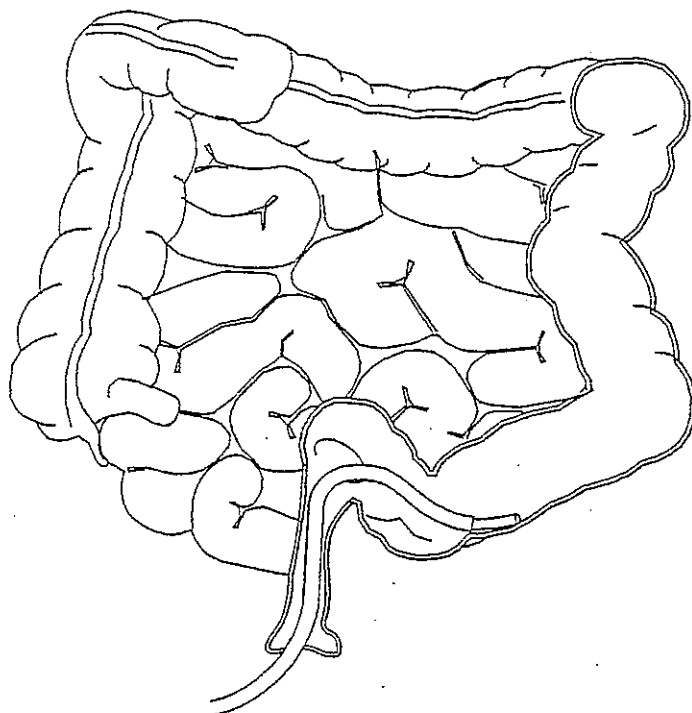
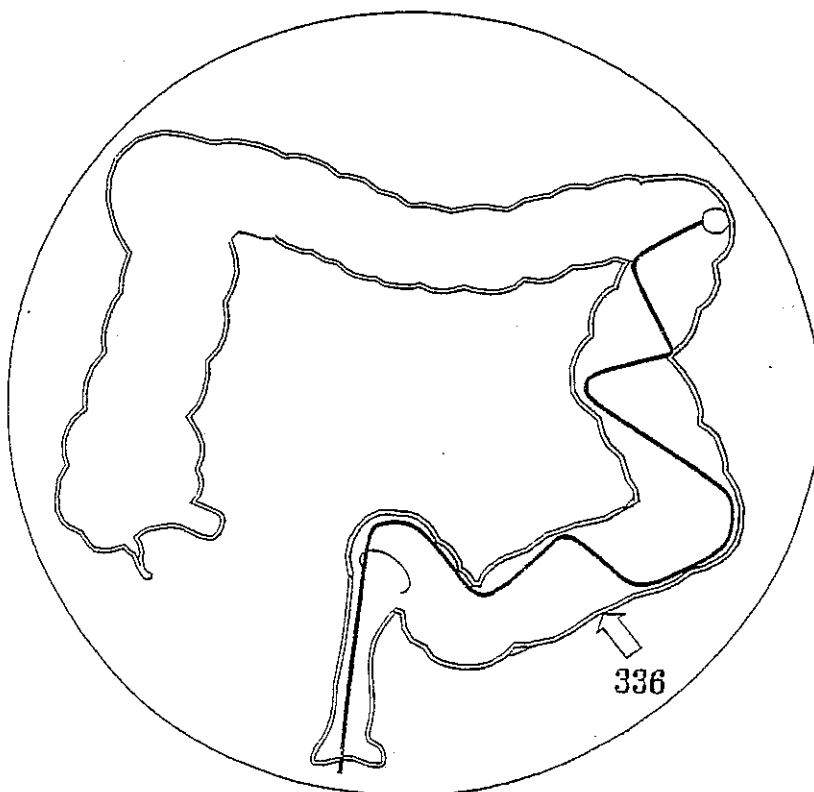


FIG. 6F



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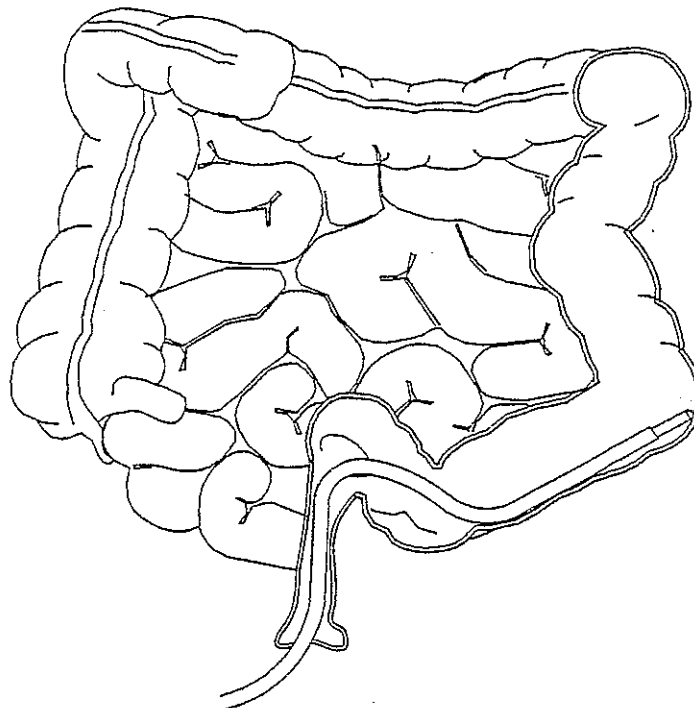
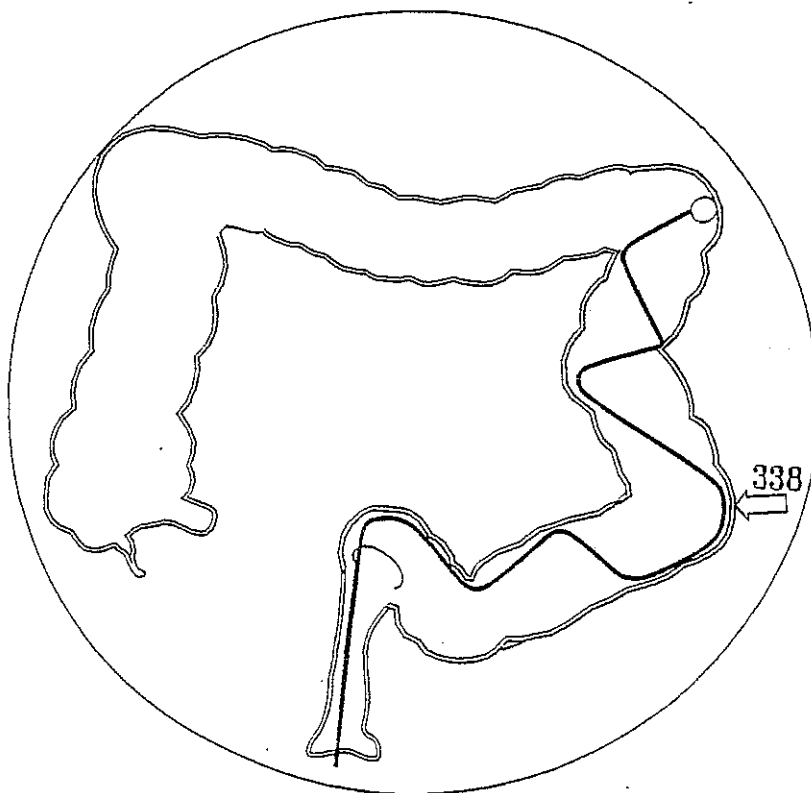


FIG. 6G



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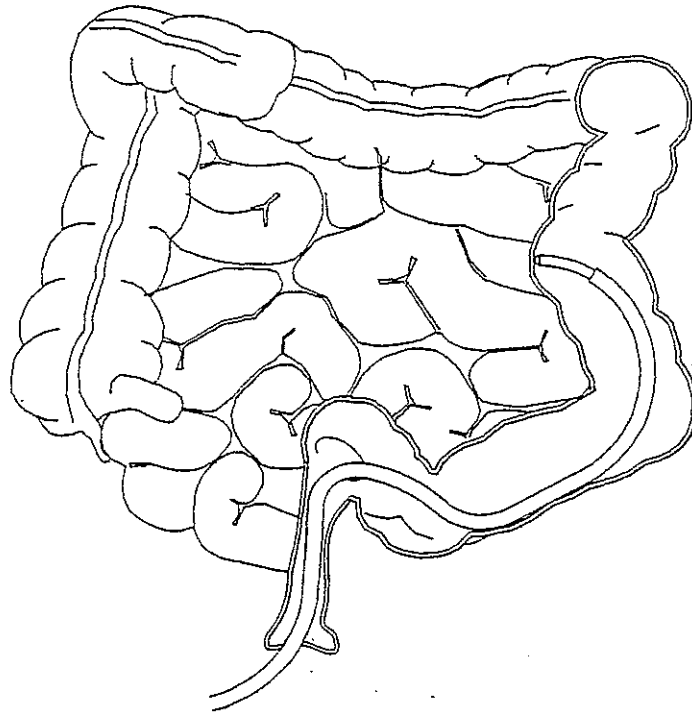
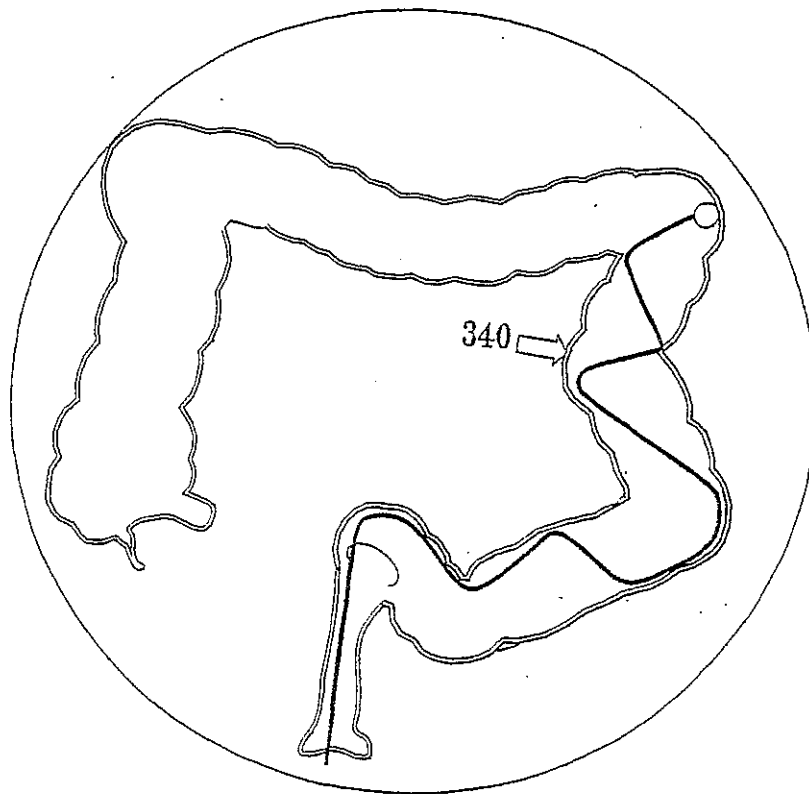


FIG. 6H



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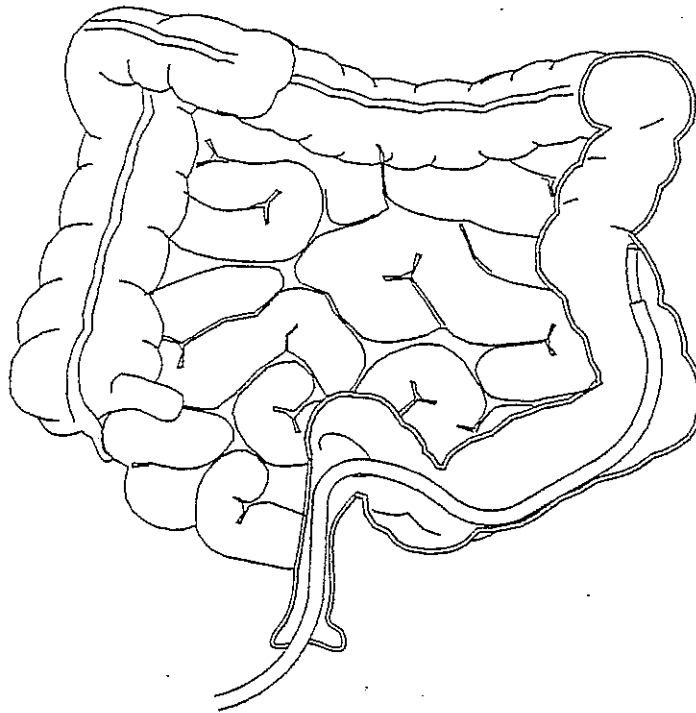
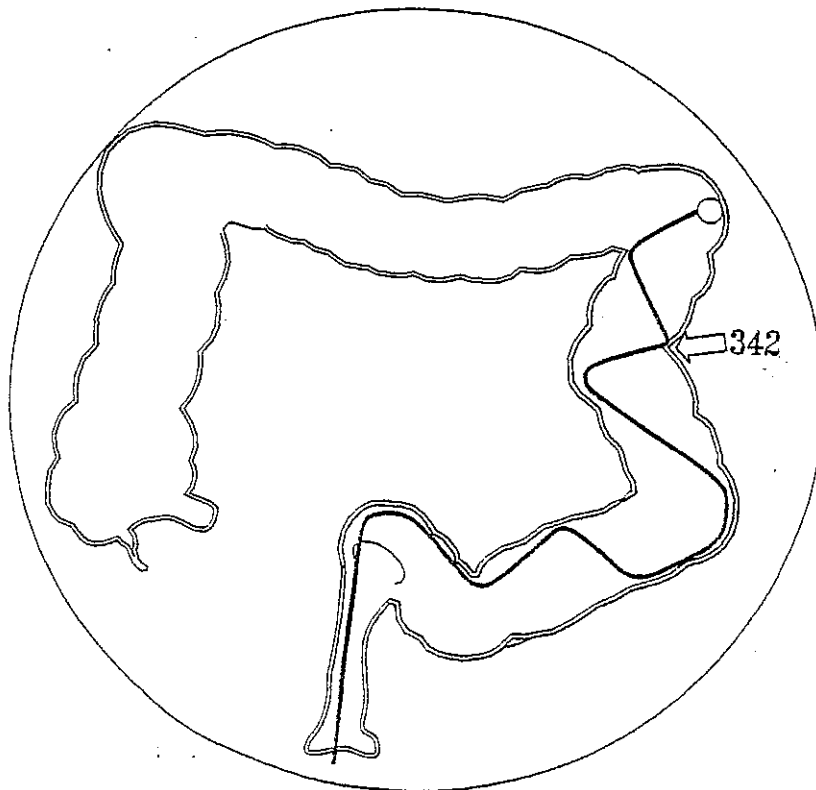


FIG. 61



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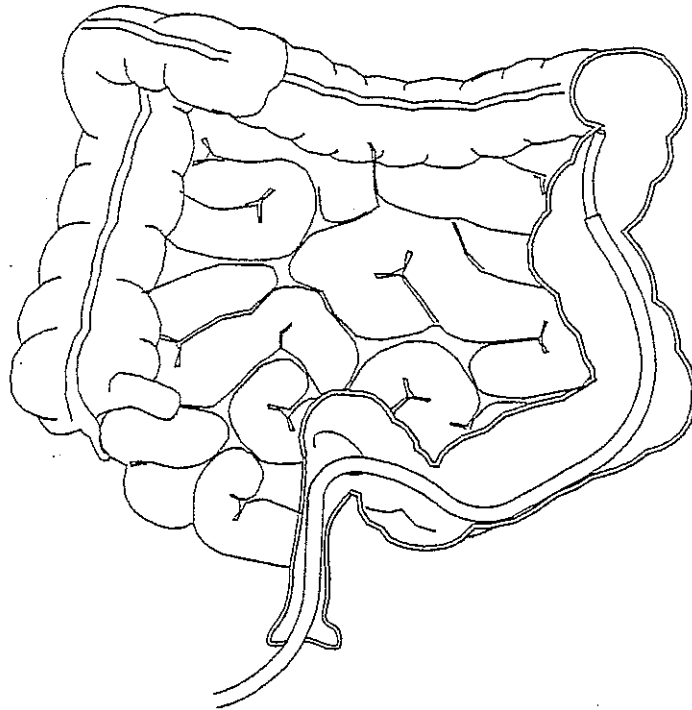
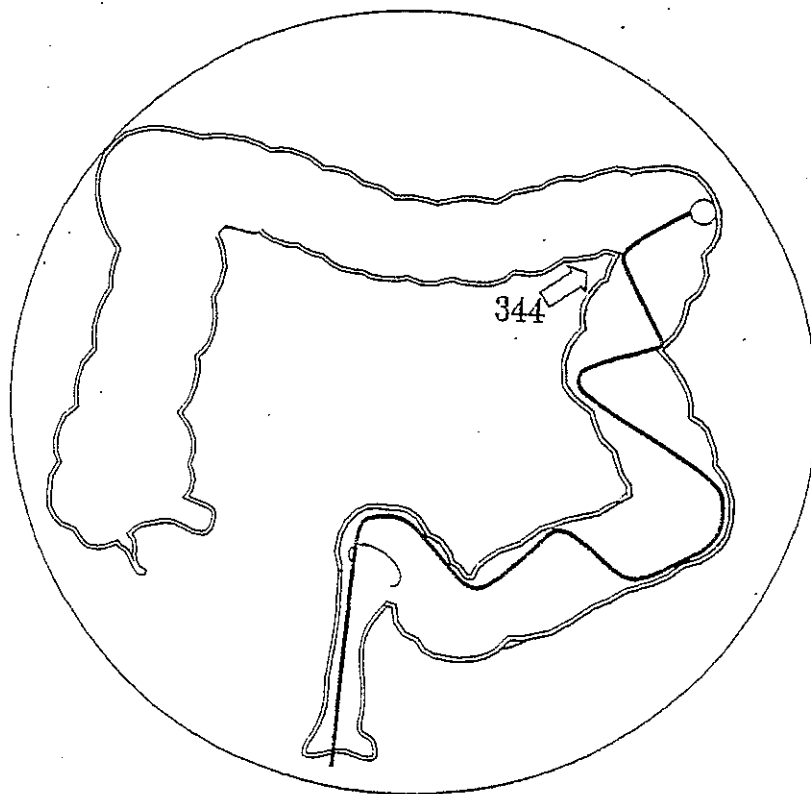


FIG. 6J.



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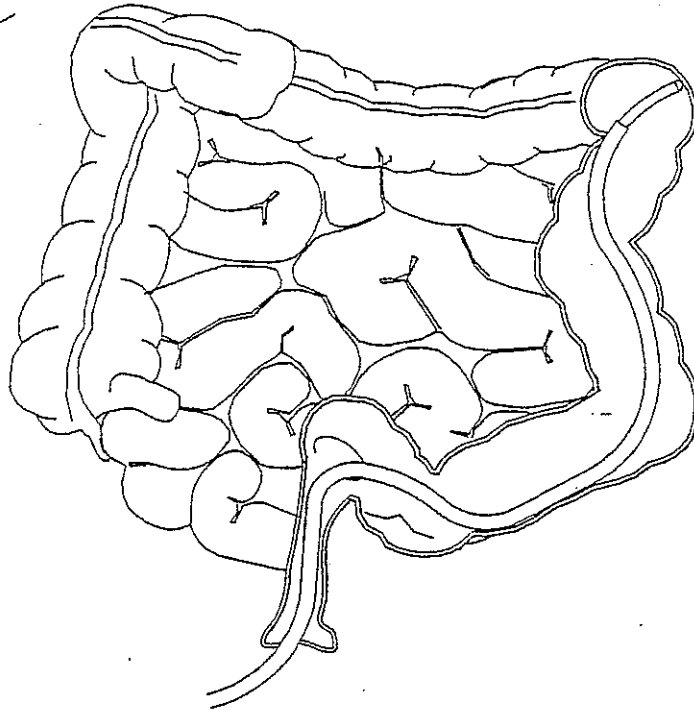
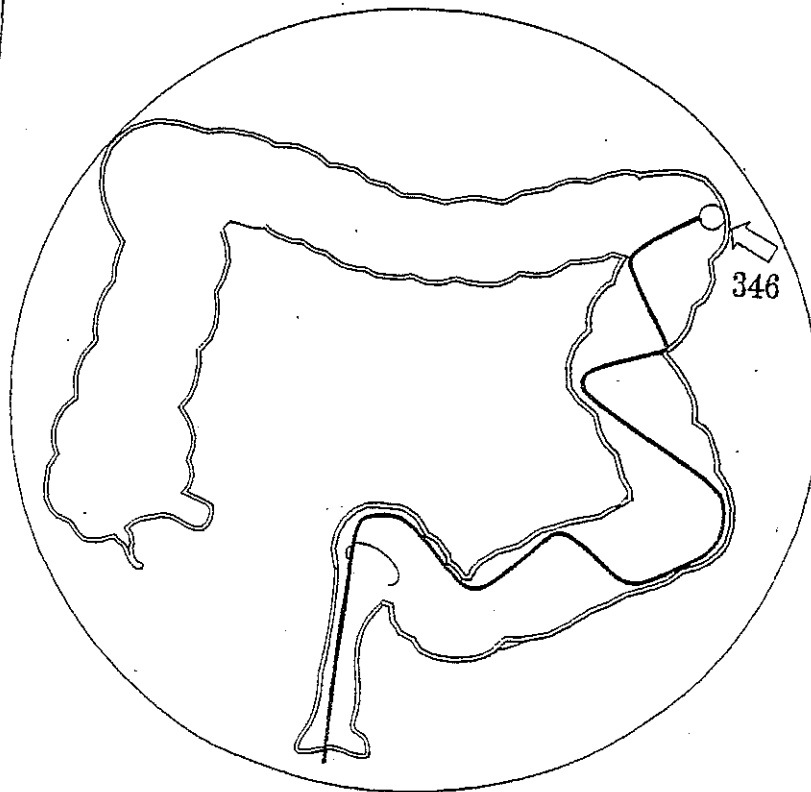


FIG. 6K



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FIG 7

ROW NO.	INITIAL BEND		INITIAL INSERTION	INITIAL SENSOR MEASUREMENTS				INSERT DISTANCE	FINAL SENSOR MEASUREMENTS			
	FRONT	RIGHT		FRONT	BACK	RIGHT	LEFT		FRONT	BACK	RIGHT	LEFT
1	0	-45	0.5	0	0	0	3	5	9	9	9	9
2	0	45	0.1	0	0	0	4	2.5	0	0	0	0
3	0	-110	0.1	0	0	0	2	1	0	0	0	3
4	0	45	1.0	0	0	4	0	6	0	0	7	0
5	0	20	0.5	0	0	4	0	4	3	3	7	7
6	0	-60	1.0	0	0	0	0	3	9	9	9	9
7	0	45	2.5	0	0	0	0	1	0	0	2	0
8	0	0	2.5	0	0	0	0	1	0	0	0	3
9	0	45	2.5	0	0	0	0	1	9	9	9	9

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FIG. 8

