

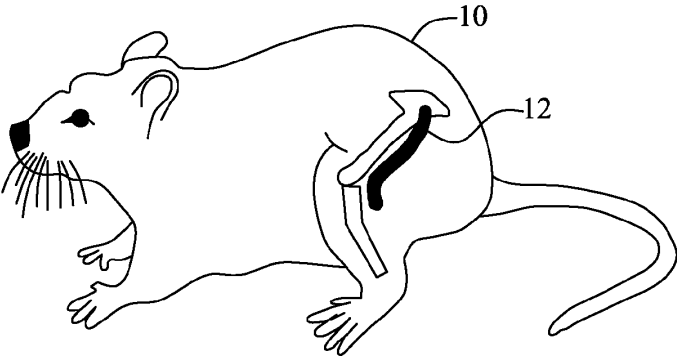


FIG. 1

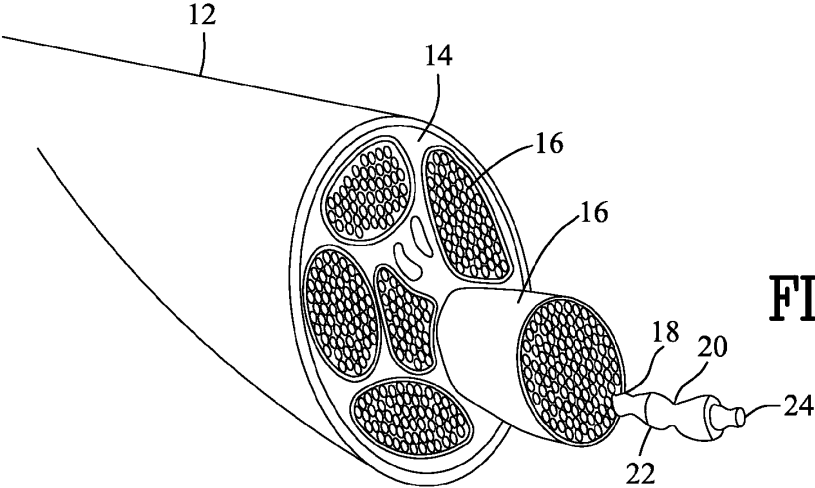


FIG. 2

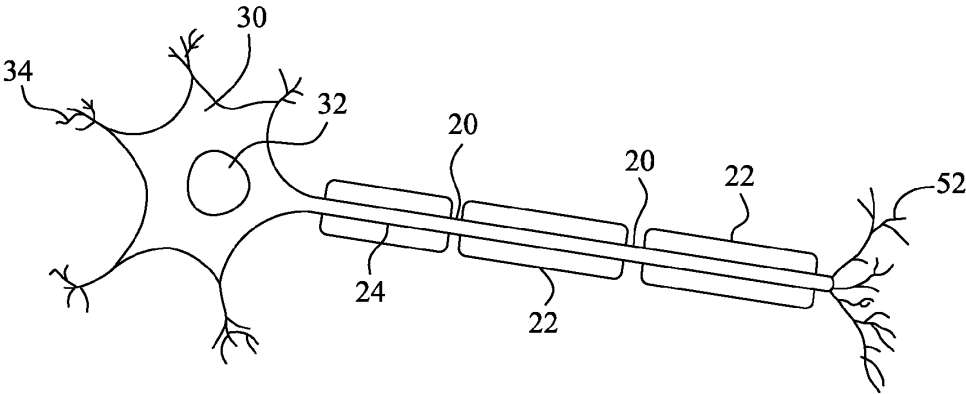
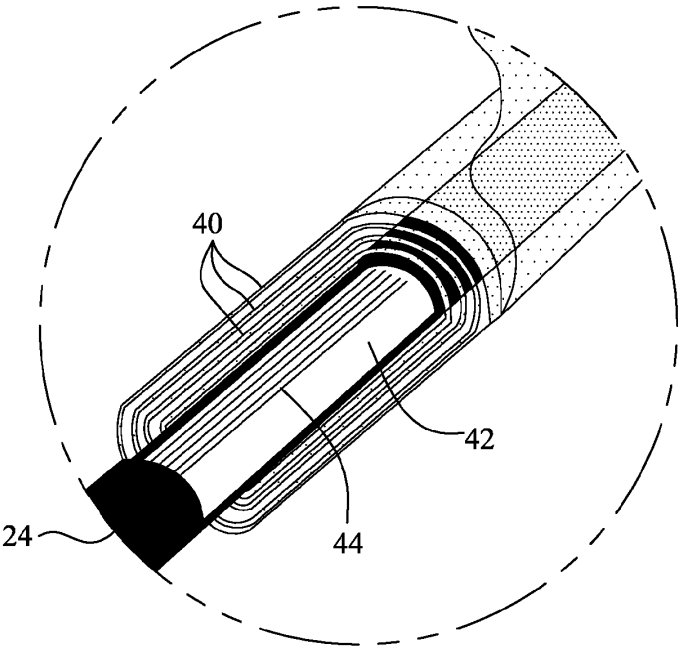
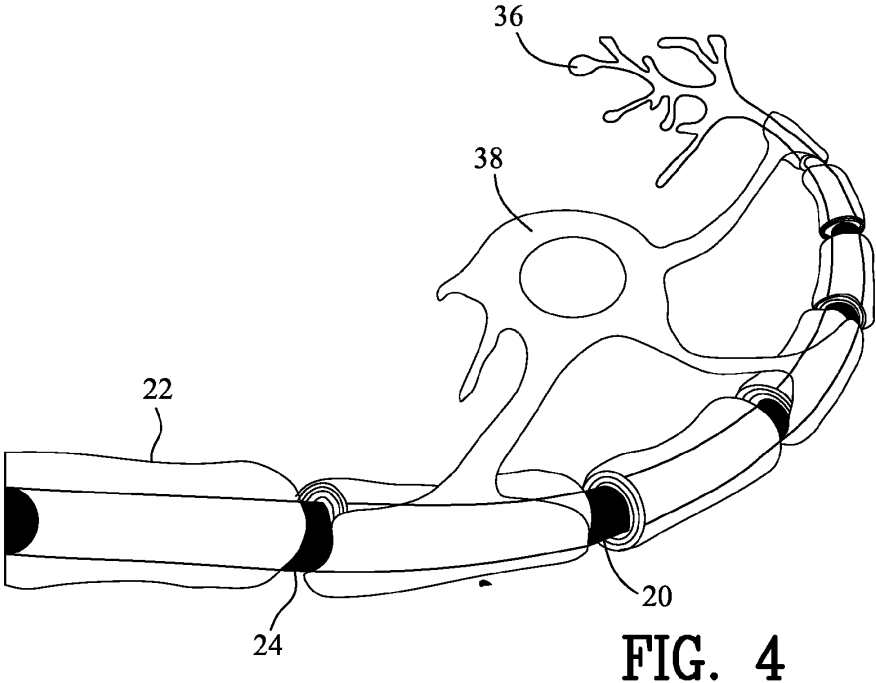


FIG. 3



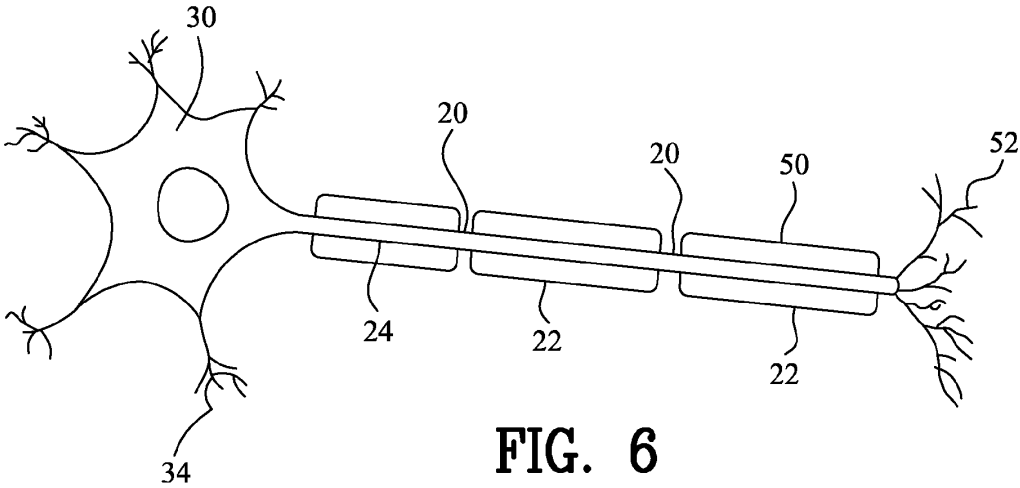


FIG. 6

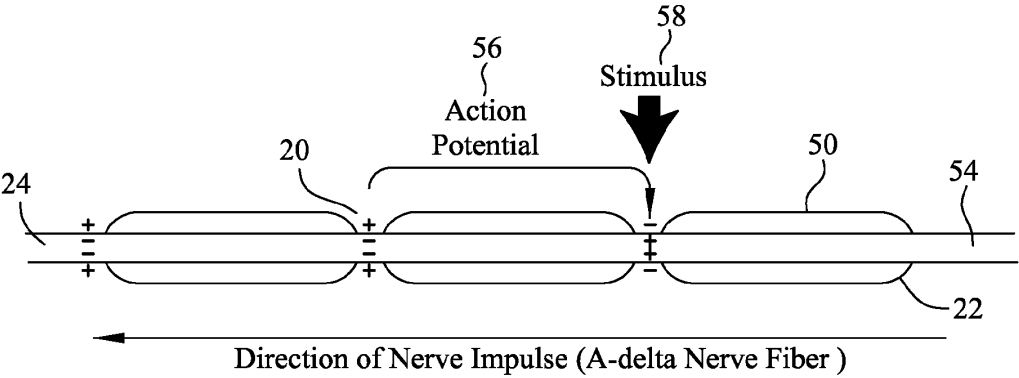


FIG. 7

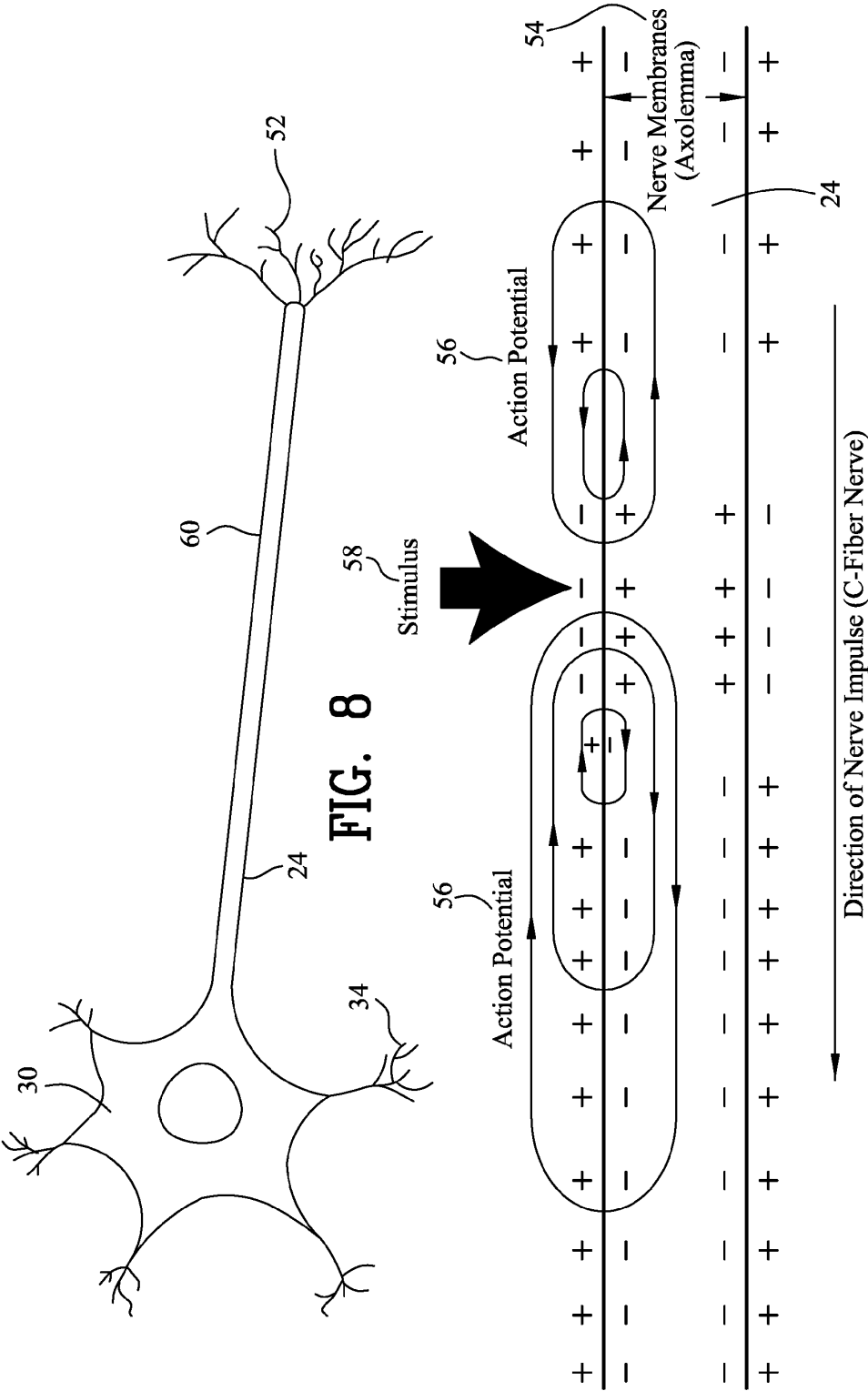


FIG. 9

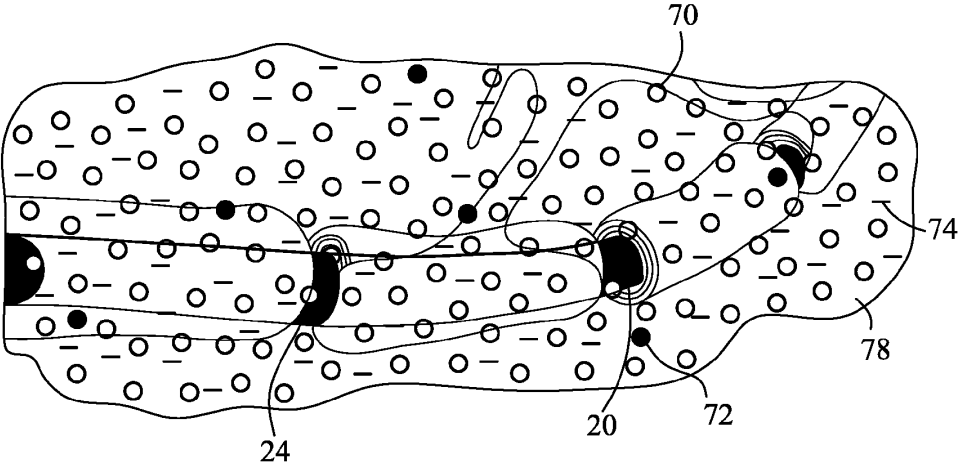


FIG. 10

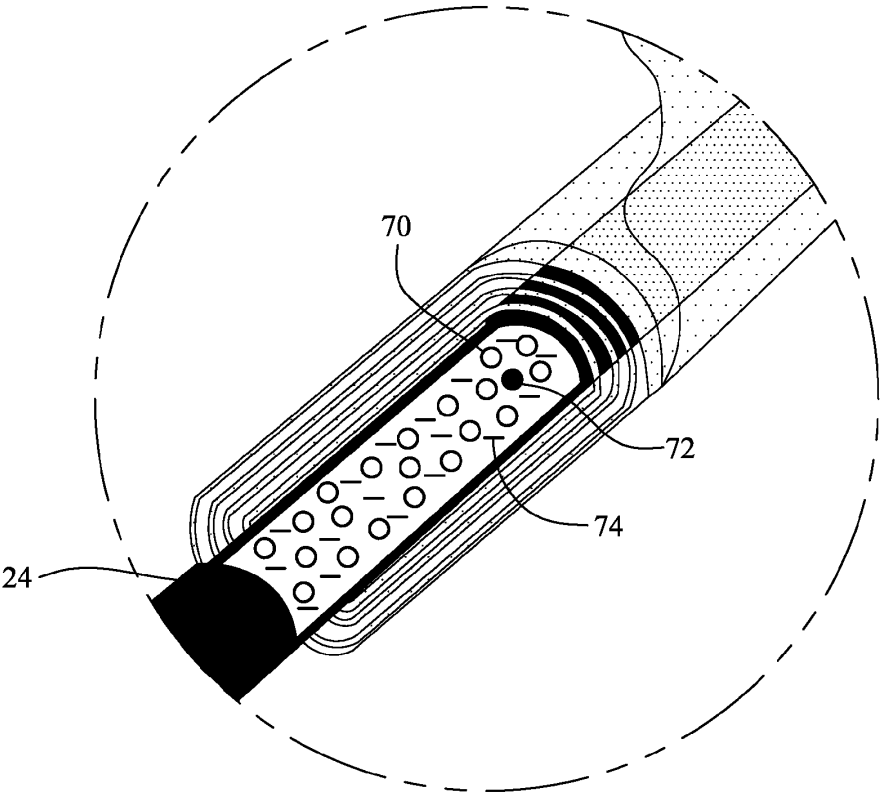


FIG. 11

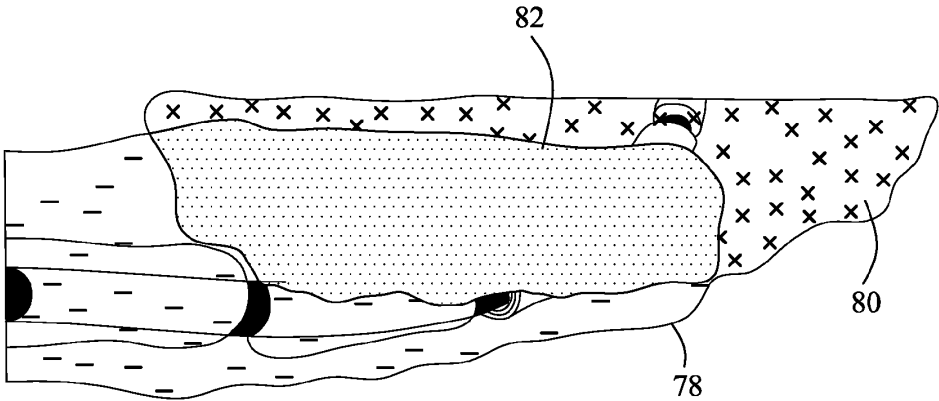


FIG. 12

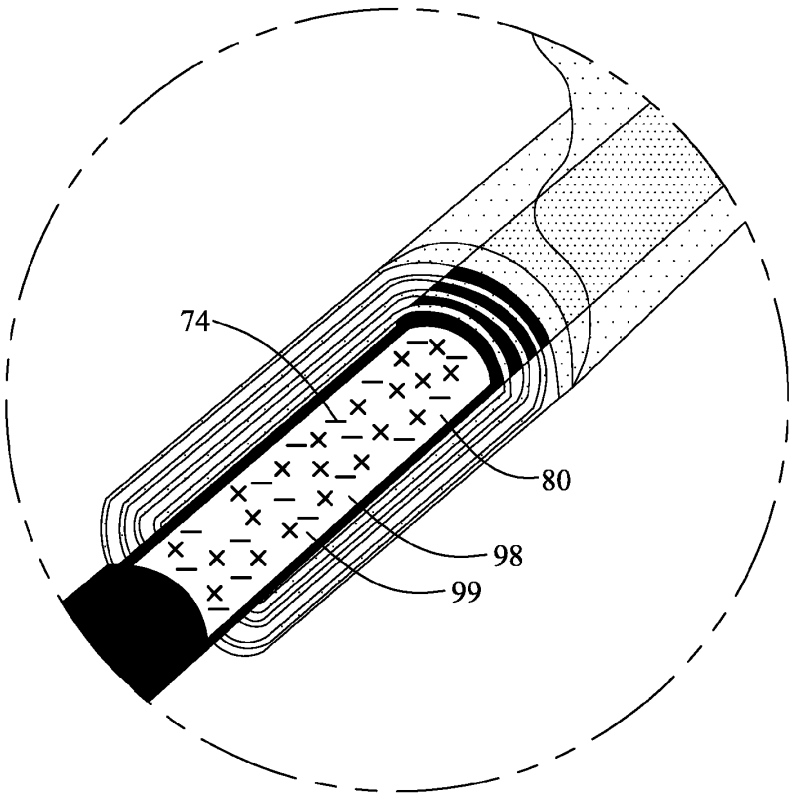


FIG. 13

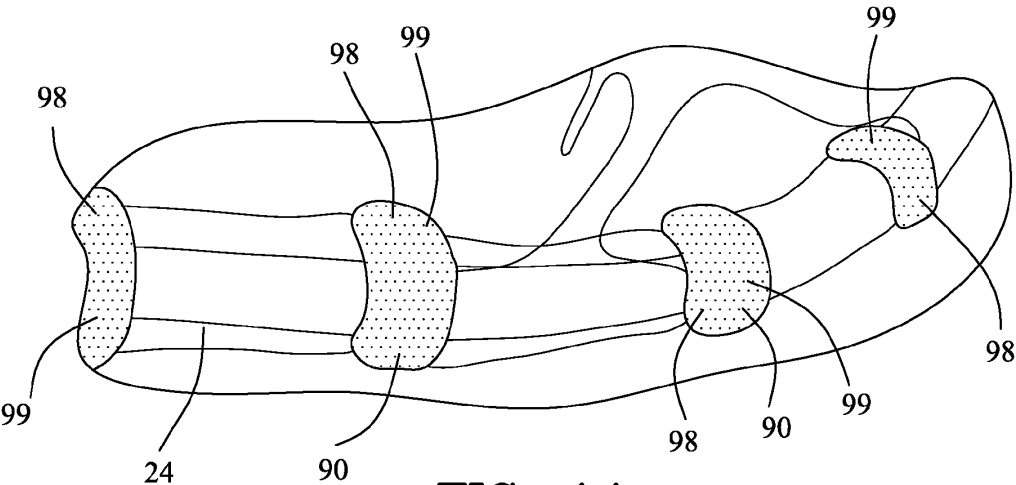


FIG. 14

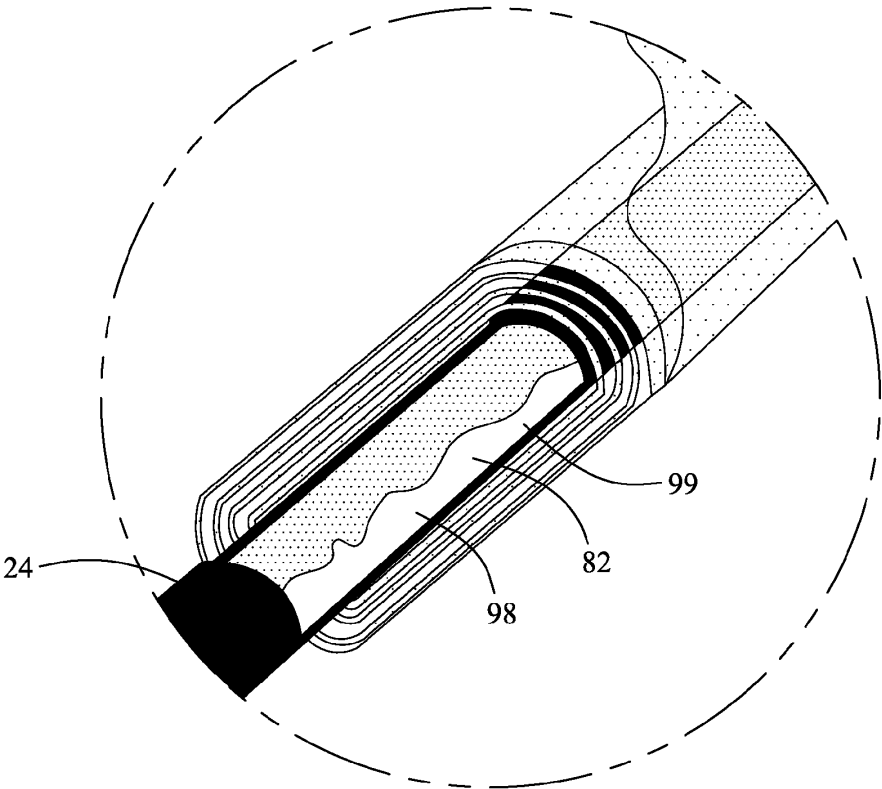


FIG. 15

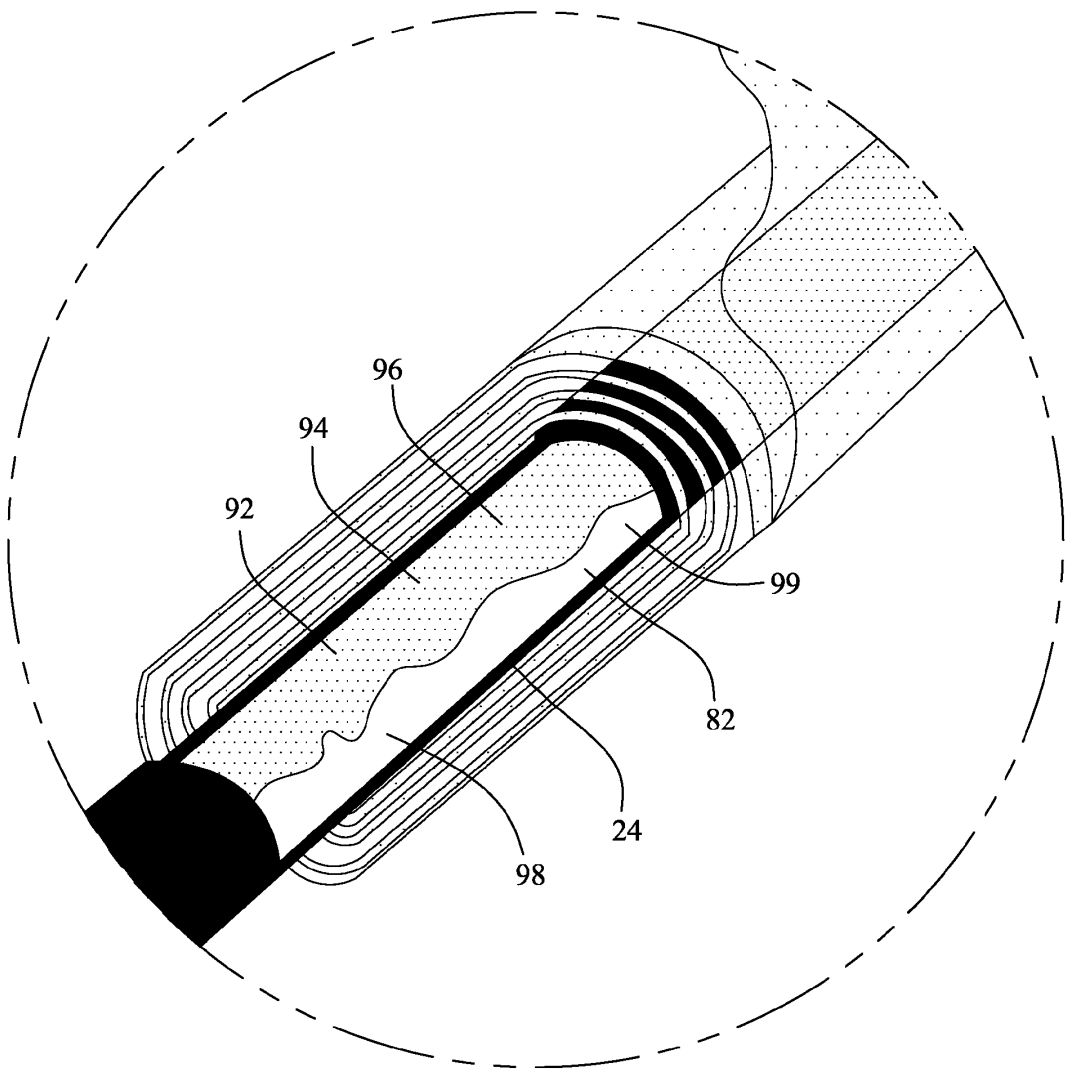


FIG. 16

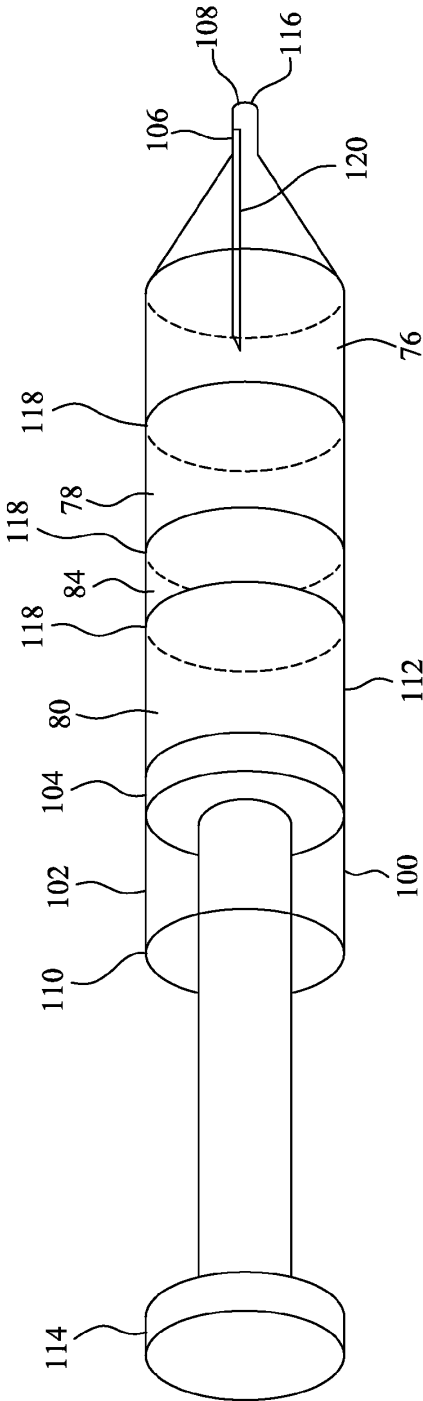
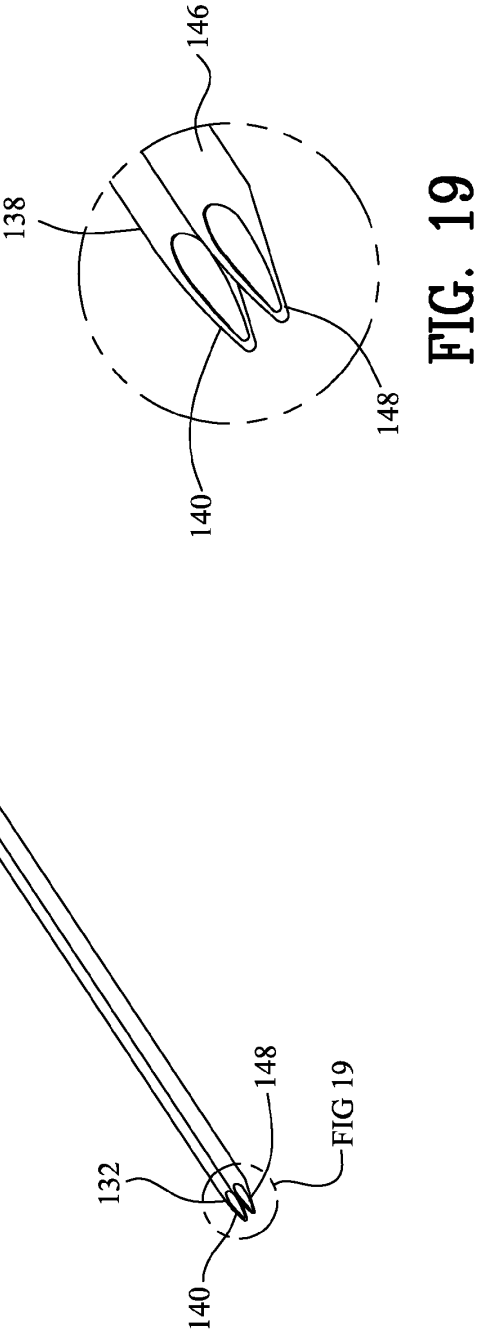
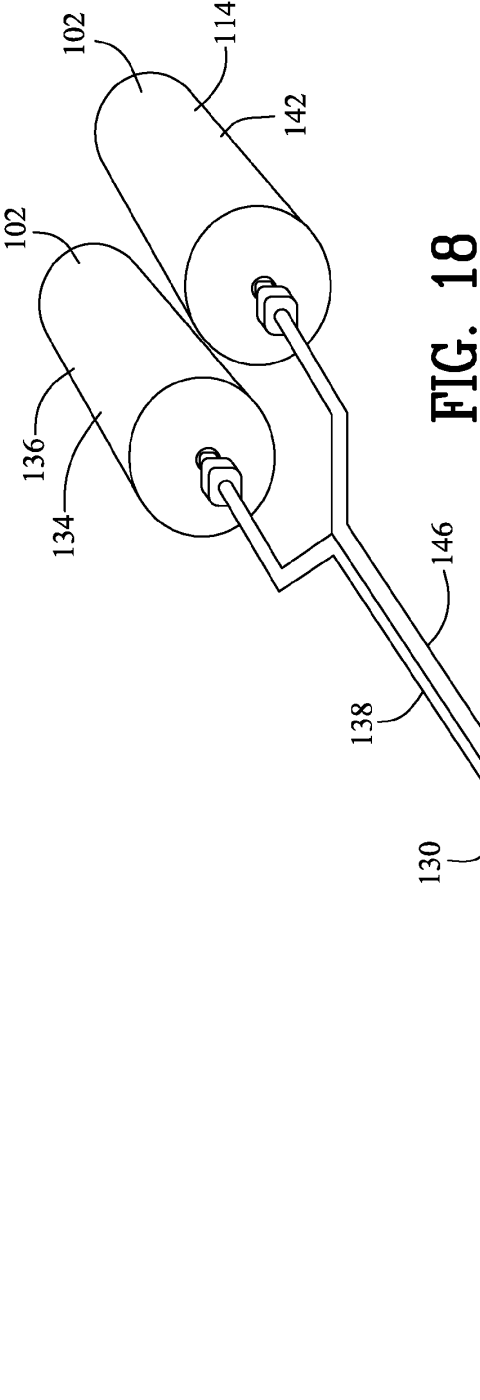


FIG. 17



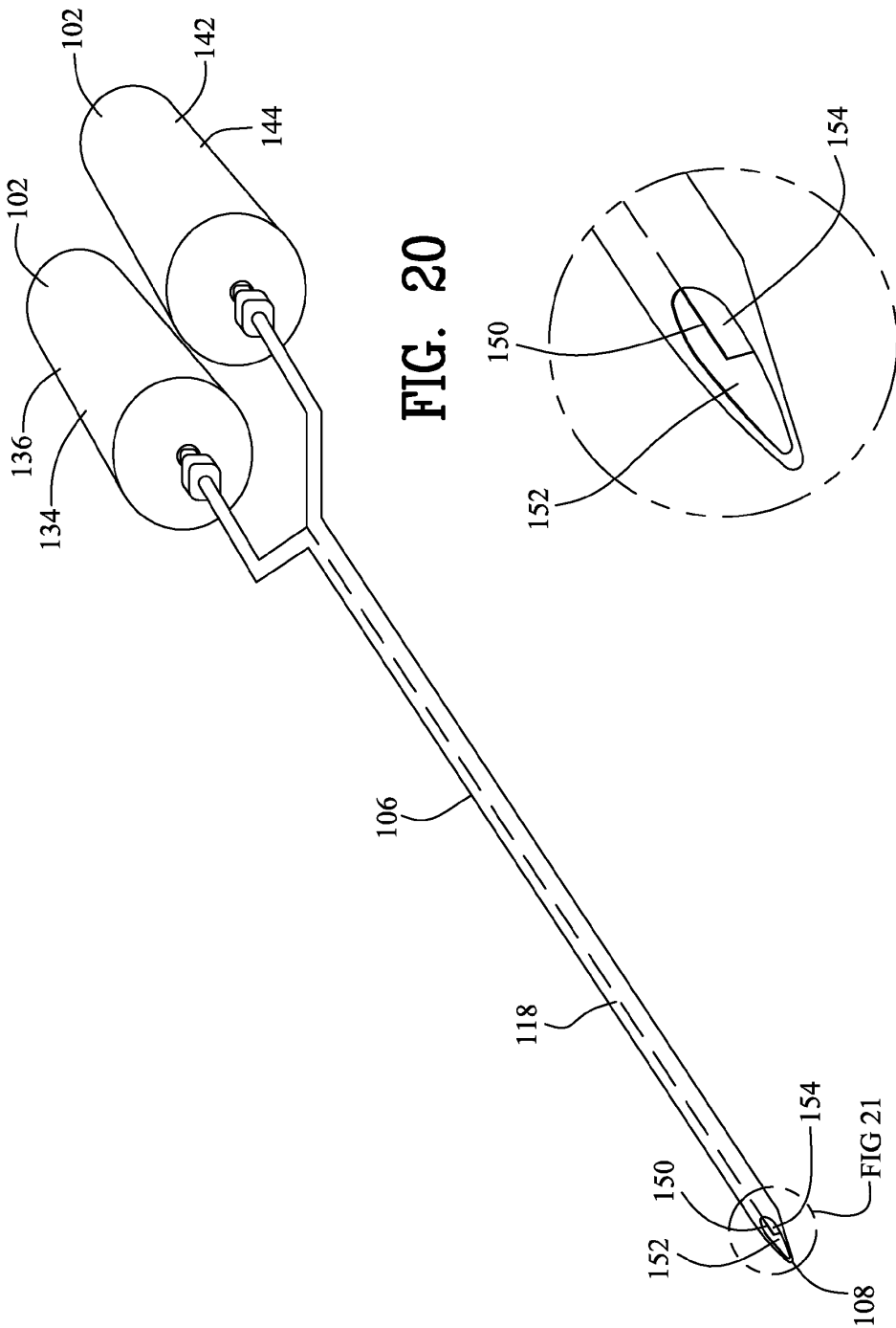


FIG. 20

FIG. 21

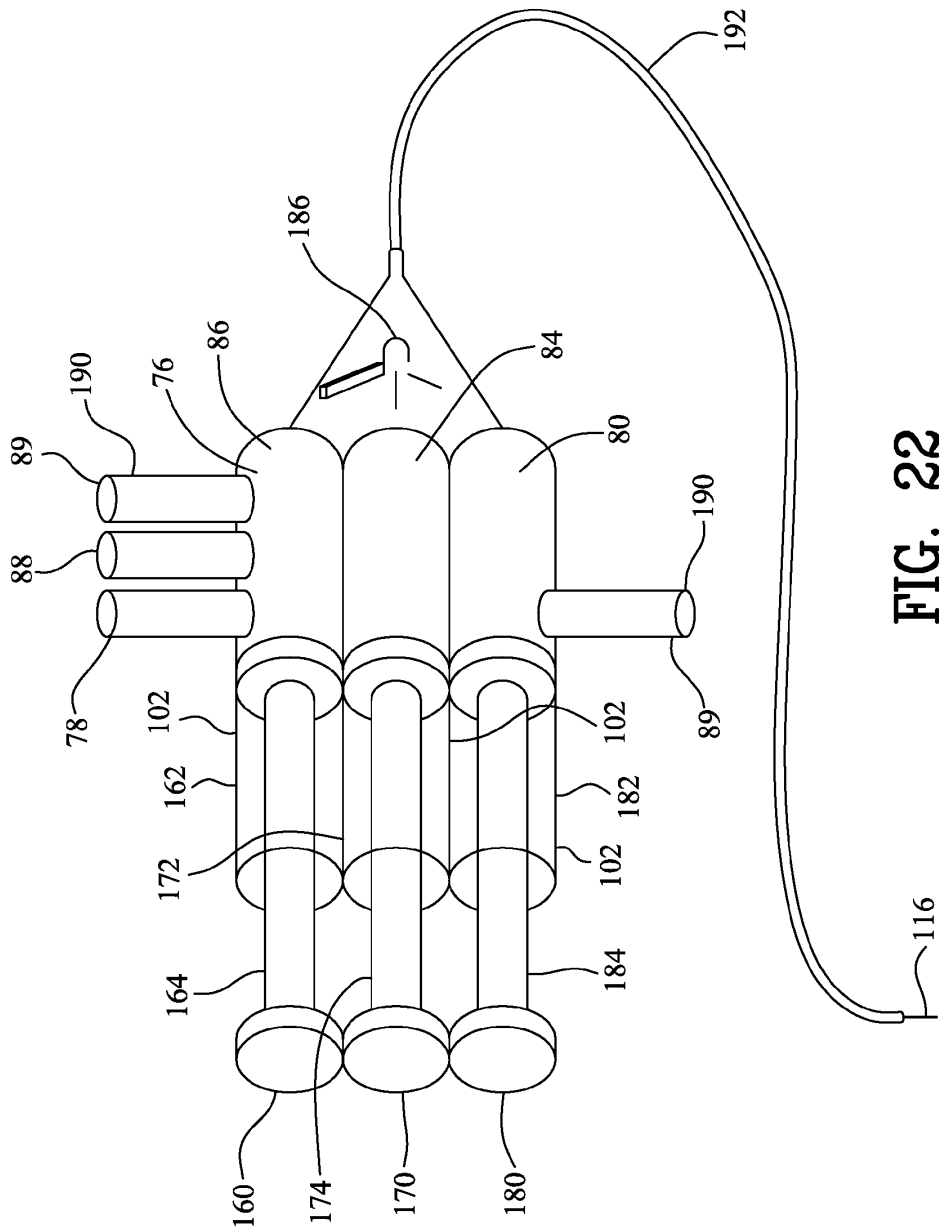


FIG. 22

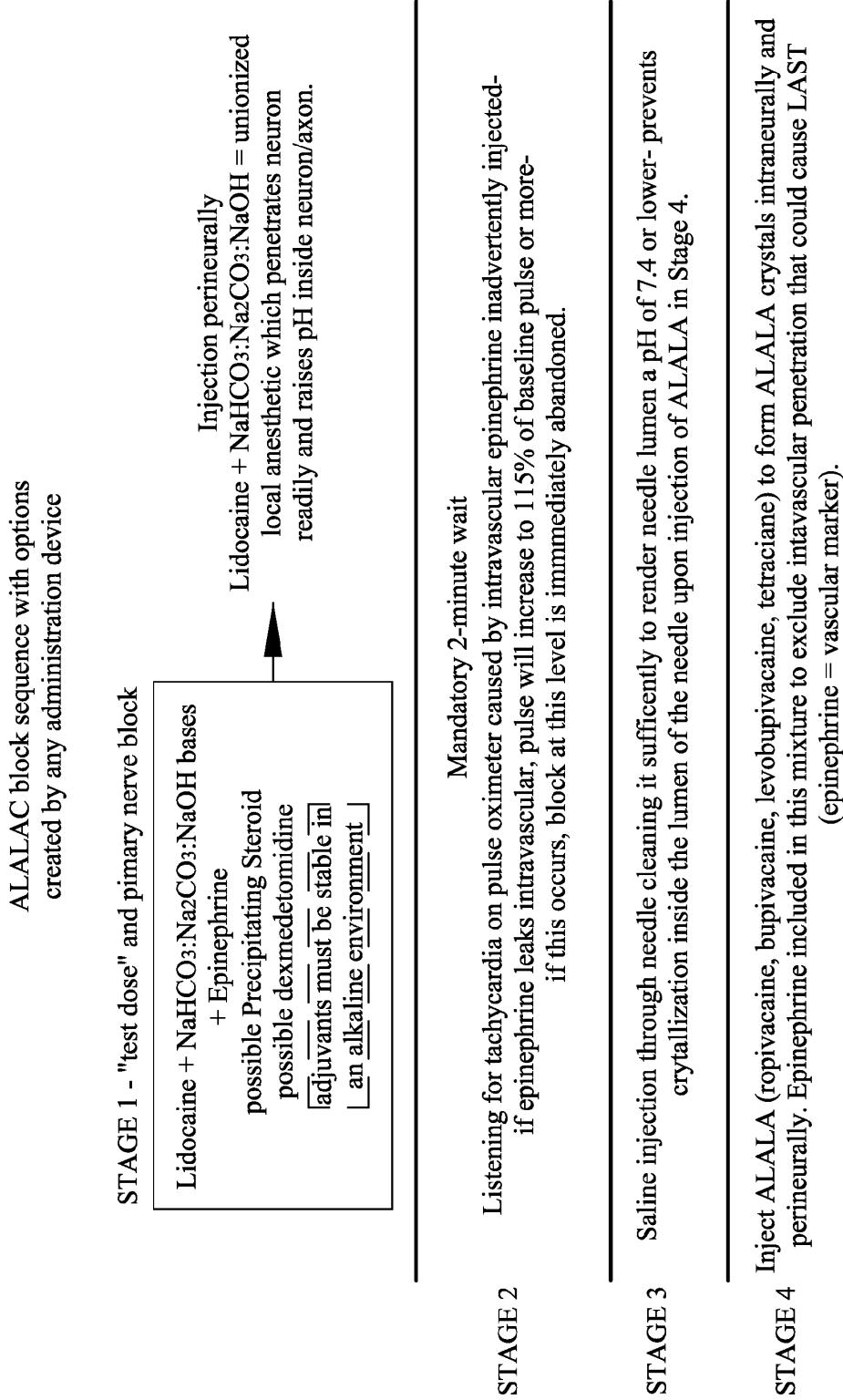
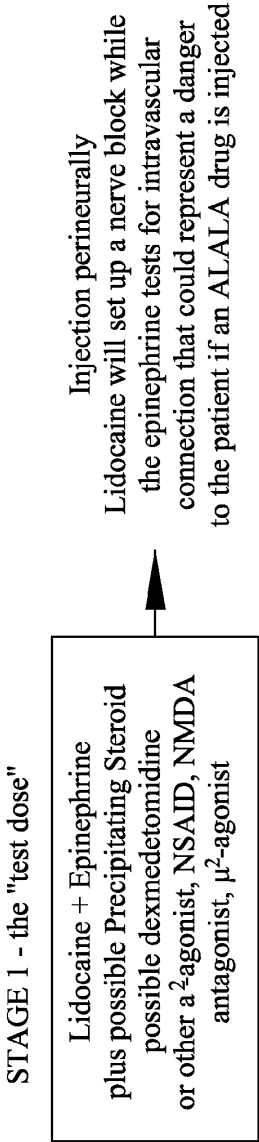


FIG. 23

Alternate Protocol for the Creation of the ALALA-Precipitate Nerve Block
Alternate ALALA block sequence with
options created by any administration device



STAGE 2	Mandatory 2-minute wait for reaction to the test dose Listening for tachycardia on pulse oximeter caused by intravascular epinephrine inadvertently injected- if epinephrine leaks intravascular, pulse will increase to 115% of baseline pulse or more- if this occurs, block at this level is immediately abandoned.
STAGE 3	Inject ALALA (ropivacaine, bupivacaine, levobupivacaine) drug(s). Adjuvants not stable in Stage 1 may be included here, including in the mixture dexmedetomidine or other a²-agonist, NSAID, NMDA antagonist, μ²-agonist, can be injected here <i>except</i> precipitating steroids as these can precipitate the mixture before injection, and so interfere with injection.
STAGE 4	Saline injection through needle cleaning it sufficiently to render needle lumen a pH of 7.4 or lower- prevents precipitation/crystallization inside the lumen of the needle upon injection of base(s) in Stage 5.
STAGE 5	Inject precipitating physiologic base(s) and precipitating steroid(s) through the unmoved injection needle to thoroughly mix with the ALALA drug(s) and adjuvant(s) above. This dose of precipitating physiologic base(s) and steroid(s) is pre-calculated to raise the pH of this combined mixture to an optimal pH to produce the neural block of the desired duration. Final mixture should be in the physiologic range (ph 7.4-8.4) so as not to cause tissue damage perineurally due to excessive pH.

FIG. 24