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(54) CANNULA INSERTION DEVICE AND **RELATED METHODS**

(76) Inventors: Peter Gravesen, Nordborg (DK); Heiko Arndts, Flensborg (DE)

> Correspondence Address: **GOODWIN PROCTER LLP** PATENT ADMINISTRATOR **53 STATE STREET, EXCHANGE PLACE** BOSTON, MA 02109-2881 (US)

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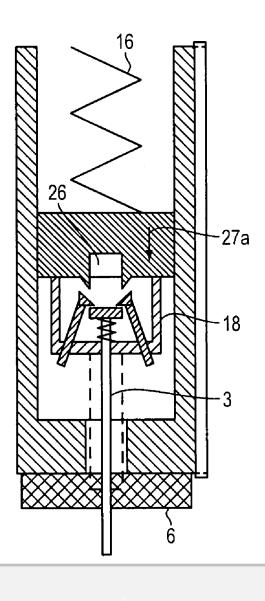
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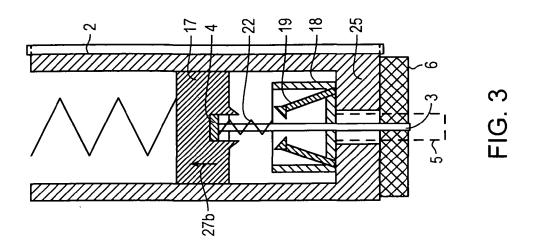
(57)ABSTRACT

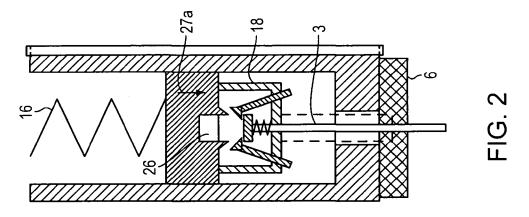
A cannula insertion device includes a housing defining an opening for receiving therethrough a cannula and further defining a channel, and a cannula forming a lumen, the can-nula adapted for sliding movement within the housing from a retracted position to an extended position. When the cannula is in the retracted position, the lumen is located remotely from the channel and the channel is in fluidic communication with the opening. When the cannula is in the extended position, the lumen is in fluidic communication with the channel.

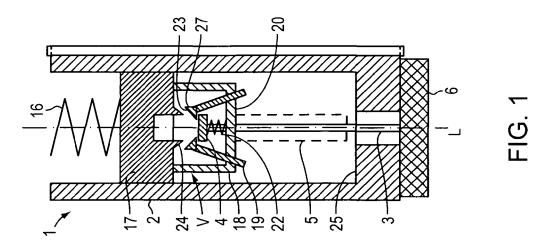




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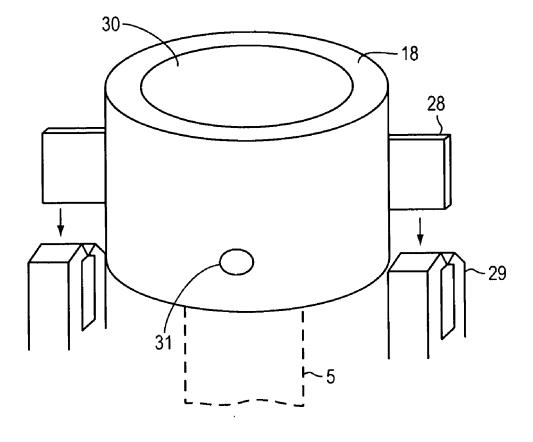


FIG. 4

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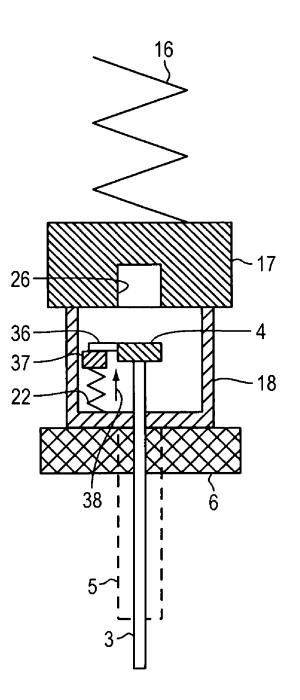
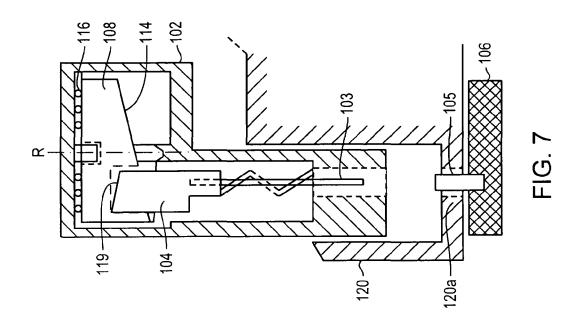
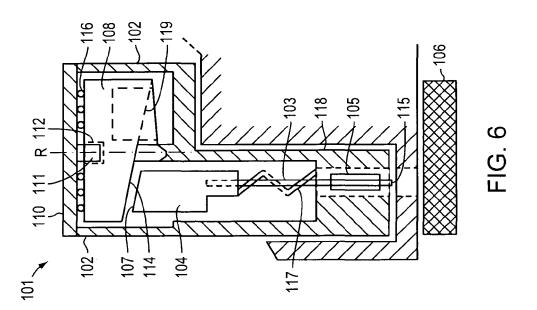


FIG. 5

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