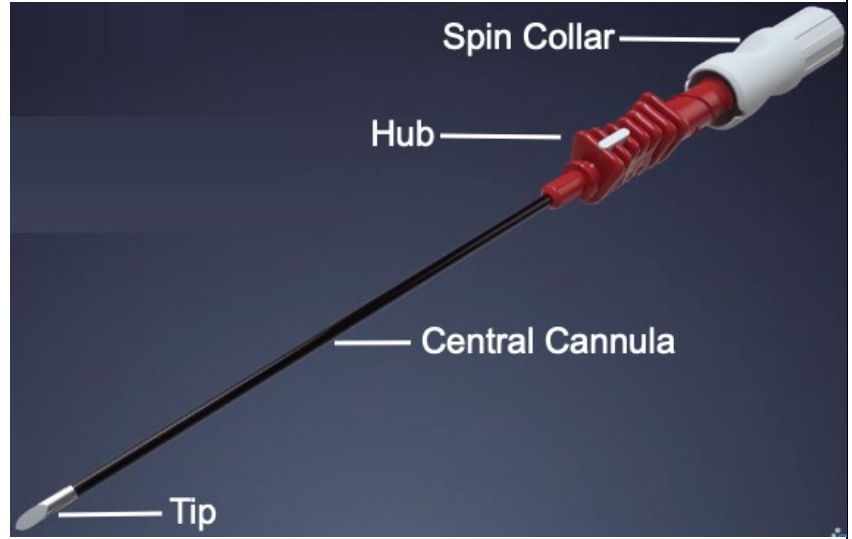
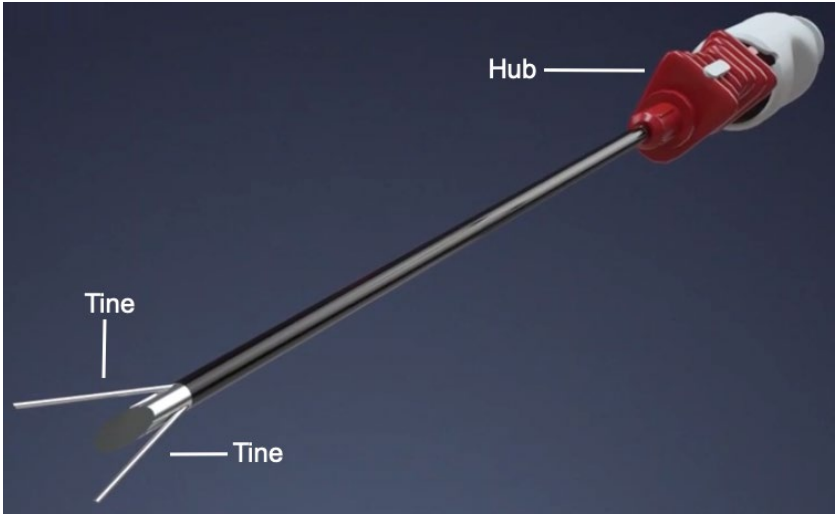


Claim 1 of U.S. Patent No. 10,966,782

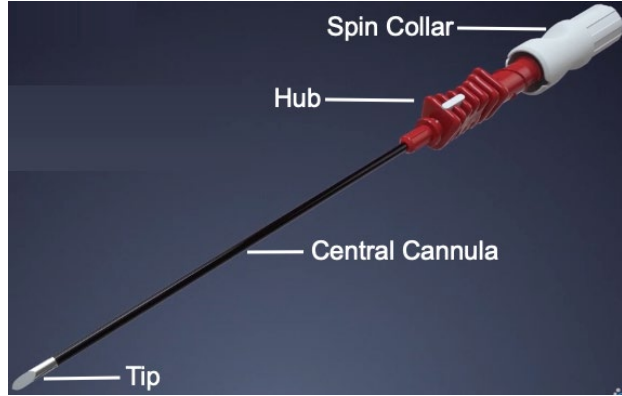
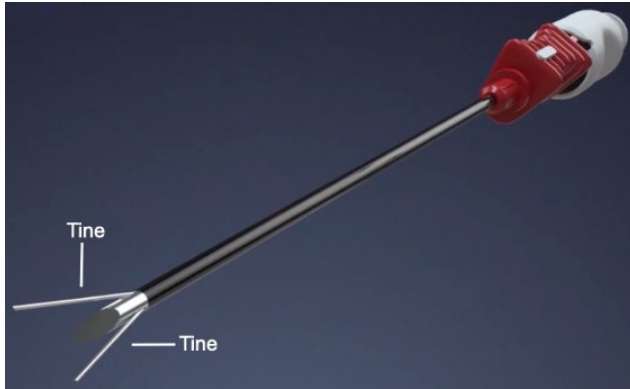
	Claim Language	Illustrative Evidence and Notes
[1Pre]	A system comprising:	Stratus's Nimbus® RF Multitined Expandable Electrode (Nimbus RF Neurotomy Needle) and Stratus's RF Probe together form a system that meets the limitations of the claimed system as provided below.
[1a]	a radiofrequency probe; and	Stratus offers two types of RF probes—reusable and disposable—for use with its needle. Stratus's Reusable RF Probe  Stratus's Disposable RF Probe 
[1b]	a radiofrequency neurotomy needle operable with the radiofrequency probe, the radiofrequency neurotomy needle comprising:	Stratus's Nimbus RF Neurotomy Needle, depicted below, is operable with either RF probe of [1a]. 
[1c]	a conductive portion at a distal end of the radiofrequency neurotomy needle;	A conductive portion within Stratus's Nimbus RF Neurotomy Needle is at a distal end of the needle.
[1d]	a tip configured to pierce tissue of a patient;	Stratus's Nimbus RF Neurotomy Needle has a tip that is configured to pierce tissue of a patient. 

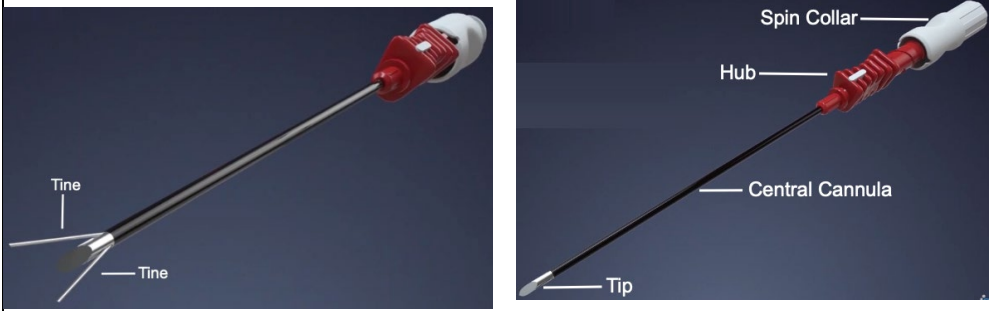
	Claim Language	Illustrative Evidence and Notes
[1e]	an elongate member comprising a lumen configured to accept the radiofrequency probe therein such that the radiofrequency probe physically contacts and is electrically connected to the conductive portion,	Stratus's Nimbus RF Neurotomy Needle includes a cannula, and the RF probe is insertable into a lumen of a cannula such that the radiofrequency probe physically contacts and is electrically connected to the conductive portion of [1c].
	the tip being at a distal end of the elongate member;	The tip of Stratus's Nimbus RF Neurotomy Needle is at the distal end of the cannula.  The diagram shows a long, thin, black needle-like device. At the top right, there is a white plastic component labeled 'Spin Collar' and a red plastic component labeled 'Hub'. A long, thin black line, labeled 'Central Cannula', extends from the hub towards the bottom left. At the very end of this line is a small, silver-colored metal tip labeled 'Tip'.
[1f]	a filament electrically connected to the conductive portion and the tip due to physical contact of conductive materials at the distal end of the radiofrequency neurotomy needle	Stratus's Nimbus RF Neurotomy Needle meets this limitation: two tines (see below), or filaments, are electrically connected to the conductive portion of the needle [1c] and to the tip due to physical contact of conductive materials at the distal end of the radiofrequency neurotomy

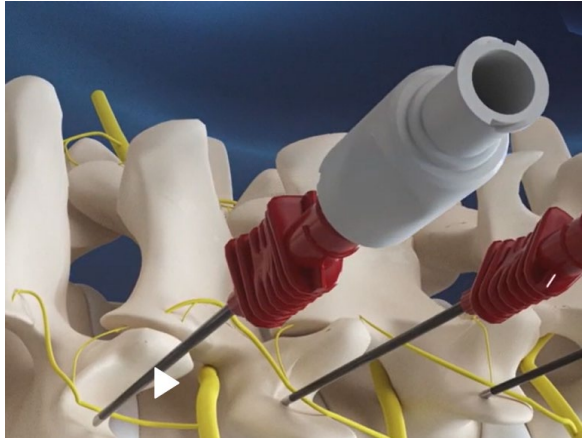
	Claim Language	Illustrative Evidence and Notes
		needle. 
	such that the filament and the tip operate together as a single electrode,	The tines and the tip of Stratus's Nimbus RF Neurotomy Needle operate together as a single electrode. See also [1i] below.
[1g]	the filament being movable between a retracted position, in which the filament is at least partially in the elongate member, and a deployed position, in which at least a portion of the filament is out of the elongate member; and	As shown in the image of [1e], when the tines are in a retracted position, each tine is at least partially in the cannula. As shown in the image of [1f], when the tines are in a deployed position, at least a portion of each tine is out of the cannula.
[1h]	an actuator interconnected to the filament to move the filament between the retracted position and the deployed position,	As shown in the image of [1e], Stratus's Nimbus RF Neurotomy Needle includes an actuator, identified as a spin collar, that is interconnected to the tines to move the tines between the retracted position and the deployed position.
[1i]	wherein the filament and the tip are configured to transmit radiofrequency energy from the radiofrequency probe and operate together as the single electrode in a monopolar mode when the filament is in the deployed position and the radiofrequency probe is accepted in the lumen and is in physical contact with the conductive portion at the distal end of the radiofrequency neurotomy needle.	Stratus's Nimbus RF Neurotomy Needle operates in a monopolar mode in which the combination of tip and the filaments transmit radiofrequency energy from the radiofrequency probe and operate together as a single electrode, and it operates in this manner when the tines are in a deployed position and the RF probe is inserted into the lumen and is in physical contact with the conductive portion of [1c].

Claim 1 of U.S. Patent No. 10,736,688

	Claim Language	Illustrative Evidence and Notes
[1Pre]	A system comprising:	Stratus's Nimbus® RF Multitined Expandable Electrode (Nimbus RF Neurotomy Needle) and Stratus's RF Probe together form a system that meets the limitations of the claimed system as provided below.
[1a]	a RF probe; and	Stratus offers two types of RF probes, reusable and disposable, for use with its needle. Stratus's Reusable RF Probe  Stratus's Disposable RF Probe 
[1b]	a needle for insertion into a patient during an RF ablation procedure, the needle comprising:	Stratus's Nimbus RF Neurotomy Needle, depicted below, is inserted into a patient during RF ablation procedures. 

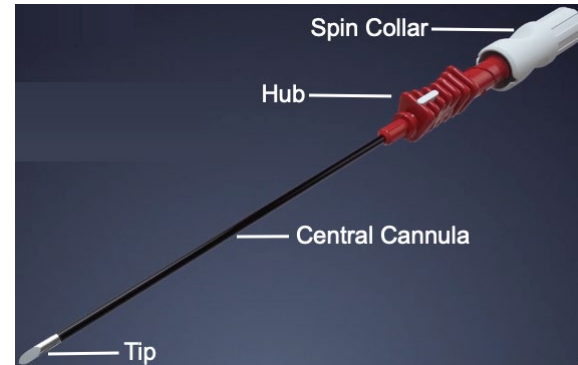
	Claim Language	Illustrative Evidence and Notes
[1c]	a hub;	The needle includes a hub, as shown below.  The diagram shows a needle assembly against a dark blue background. At the top right is a white 'Spin Collar' with a red band. Below it is a red 'Hub'. A long, thin 'Central Cannula' extends from the hub to a 'Tip' at the bottom left. Leader lines connect the labels to their respective parts.
[1d]	an elongate member fixed to the hub, the elongate member comprising a lumen at an interior thereof;	See image of [1c]. The needle includes an elongate member, identified as a central cannula, that is fixed to the hub.
[1e]	a tip fixed to the elongate member at a distal end of the needle, wherein the tip is shaped to pierce tissue of the patient;	See image of [1c]. The needle includes a tip fixed to the elongate member at a distal end of the needle. The tip is shaped to pierce tissue of the patient.
[1f]	a plurality of filaments;	As depicted below, the needle includes tines, or filaments.  The diagram shows a needle assembly against a dark blue background. At the top right is a red and white connector. A long, thin needle extends from the connector to a distal end where two 'Tine' labels point to thin, needle-like filaments. Leader lines connect the labels to the filaments.

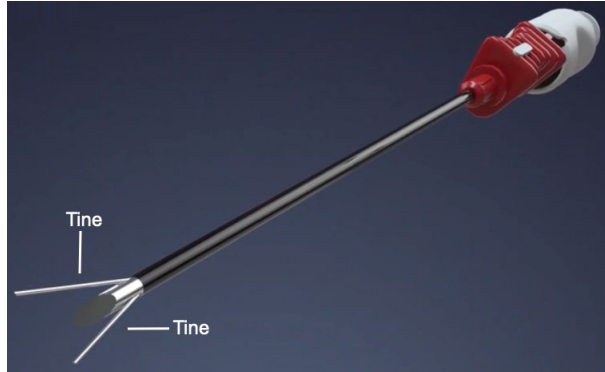
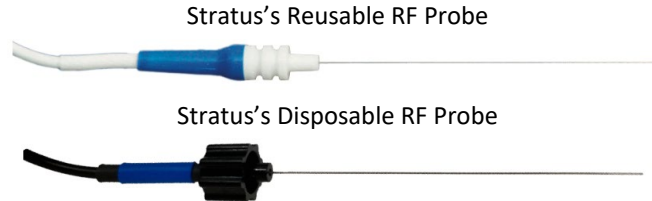
	Claim Language	Illustrative Evidence and Notes
[1g]	an actuator interconnected to the plurality of filaments, wherein movement of the actuator in a first direction relative to the hub moves the plurality of filaments relative to the tip to a deployed position distally beyond the tip, and wherein movement of the actuator in a second direction relative to the hub retracts the plurality of filaments to a retracted position in which the plurality of filaments are disposed within at least a portion of the elongate member; and	As depicted in the images below, the needle includes an actuator, referred to as a spin collar, which is interconnected the tines. Rotation of the spin collar in one direction deploys the tines, while rotation of the spin collar in the opposite direction retracts the tines. As depicted in the image at the left, the tines are moved to a deployed position distally beyond the tip, and as depicted in the image at the right, the tines are disposed within at least a portion of the elongate member. 

	Claim Language	Illustrative Evidence and Notes
[1h]	a fitting in fluid communication with the lumen, the fitting being configured to provide a connection for injection of fluid through the fitting and through the lumen,	The needle includes a fitting, shown prominently at the upper right side of the image below, which is in fluid communication with the lumen and is configured to provide a connection for injection of fluid through the fitting and through the lumen. 
	the fitting further being configured to allow for insertion of the RF probe into the lumen through the fitting,	The fitting also allows an RF probe to be inserted into the lumen through the fitting.
[1i]	wherein the lumen at the interior of the elongate member is configured to accept the RF probe therein to physically contact a conductive portion of the needle and thereby electrically connect the RF probe to the tip and the plurality of filaments, such that energy emitted by the RF probe passes through the tip and the plurality of filaments, and such that the RF probe, the tip, and the plurality of filaments operate together as a single monopolar RF electrode,	Stratus's Nimbus RF Neurotomy Needle operates in a monopolar mode that meets this limitation. The RF probe, when accepted within the lumen interior, physically contacts a conductive portion of the needle and thereby electrically connects the RF probe to the tip and the plurality of tines. RF energy emitted by the RF probe passes through the tip and the plurality of tines, which function together as a single monopolar RF electrode.
[1j]	wherein the conductive portion of the needle is at a distal end of the needle, and	The conductive portion of the needle in [1i] is at the distal end of the needle.

	Claim Language	Illustrative Evidence and Notes
[1k]	wherein, when the RF probe is fully separated from the needle in a non-inserted state, such that none of the RF probe is within the needle, the plurality of filaments are movable via the actuator from the retracted position, in which the plurality of filaments are disposed within said at least a portion of the elongate member, to the deployed position.	Stratus's Nimbus RF Neurotomy Needle meets this limitation. See the images in [1g] above. The tines are deployable and retractable when the RF probe is not present within the needle.

Claim 1 of U.S. Patent No. 10,925,664

	Claim Language	Illustrative Evidence and Notes
[1Pre]	A method comprising:	Stratus's Nimbus® RF Multitined Expandable Electrode (Nimbus RF Neurotomy Needle) and Stratus's RF Probe are used in accordance with the claimed method, as provided below.
[1a]	inserting a needle into a patient, the needle comprising:	Stratus's Nimbus RF Neurotomy Needle is a needle for insertion into a patient: 
[1b]	an elongate member;	See image of [1a]. The central cannula is an elongate member.

	Claim Language	Illustrative Evidence and Notes
[1c]	a piercing tip at a distal end of the elongate member;	See image of [1a]. The tip is a piercing tip and is at a distal end of the elongate member.
[1d]	a lumen within the elongate member; and	See image of [1a]. A lumen is present within the central cannula.
[1e]	a filament in a retracted position in which the filament is at least partially disposed within the elongate member;	Compare images of [1a] and [1f]. The two tines depicted in the image of [1f] are in a retracted position in the image of [1a], and are at least partially disposed within the central cannula.
[1f]	moving the filament to a deployed position within the patient in which at least a distal end of the filament is out of the elongate member and disposed away from the tip;	The image below depicts a tip with two filaments (tines) in a deployed position, and the distal ends of filaments (tines) extend away from the tip.  A physician deploys the tines when using the Stratus's Nimbus RF Neurotomy Needle to perform an RF neurotomy procedure on a patient.
[1g]	inserting a radiofrequency probe into the lumen of the needle such that the radiofrequency probe contacts a conductive portion of the needle at a distal end of the needle to thereby establish an electrically conductive path from the radiofrequency probe to the filament; and	Stratus offers two types of RF probes—reusable and disposable—for use with its needle. 

	Claim Language	Illustrative Evidence and Notes
		The RF probe is insertable into the lumen of Stratus's Nimbus RF Neurotomy Needle. When performing an RF neurotomy procedure on a patient, a physician inserts the RF probe into the needle, causing the probe to physically contact a conductive portion of the needle at a distal end of the needle to thereby establish an electrically conductive path from the radiofrequency probe to the tines.
[1h]	operating the radiofrequency probe, the tip, and the filament as a monopolar electrode, with radiofrequency energy from the radiofrequency probe being conducted to the filament through the electrically conductive path and transmitted by the filament.	When performing an RF neurotomy procedure on a patient in a monopolar mode, a physician connects the RF probe to an RF signal generator to energize the RF probe. RF energy from the RF probe is conducted to the tines through an electrically conductive path and transmitted by the tines. The RF probe, the tip, and the tines are operated as a monopolar electrode.