

Endoscopic Bipolar Cautery Device with Parallel Tip Motion

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ABSTRACT

Researchers at the University of California, Davis have designed a new device to perform micro-bipolar cautery in endoscopic surgical procedures.

FULL DESCRIPTION

Endoscopic devices currently available to perform bipolar cauterization all tend to open like forceps, scissors, or a pair of tweezers. When a tweezers-style endoscopic device opens, it allows its tips to move axially, which then changes the distance between the tips and the tissue. This makes endoscopic forceps or tweezers-like devices imprecise, as they make cause problems in surgeries where even the slightest movement can cause complications (e.g. neurosurgery).

Researchers at the University of California, Davis have designed a device which overcomes the disadvantages associated with tip motion of standard endoscopic devices. The device is specially designed to prohibit axial motion of tips during opening and closing, restricting the device to only precise, parallel tip movement. It can perform highly specific micro-dissection techniques and exceptionally precise cauterization. Though originally designed for endonasal use during neurosurgical procedures, the device could potentially be useful in a variety of endoscopic contexts.

APPLICATIONS

- ▶ Spreading tissue during micro-dissection
- ▶ Performing bi-polar cauterization during surgical procedures
- ▶ Endonasal use during neurosurgery requiring precise tissue spreading or cauterization
- ▶ Laparoscopic, thoroscopic, or arthroscopic surgeries
- ▶ Any other endoscopic use in which precise tissue spreading or cauterization is required

FEATURES/BENEFITS

- ▶ Wider range of motion during tissue spreading
- ▶ Distance between the device tips and the tissue remains constant
- ▶ More precise motion when opening and closing tips

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	10,111,701	10/30/2018	2012-844

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OTHER INFORMATION

KEYWORDS

endoscopic devices,
medical devices,
cauterization devices

CATEGORIZED AS

- ▶ **Medical**
- ▶ **Devices**

RELATED CASES

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