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(54) Title: DIRECTIONAL BALLOON TRANSSEPTAL INSERTION DEVICE FOR MEDICAL PROCEDURES

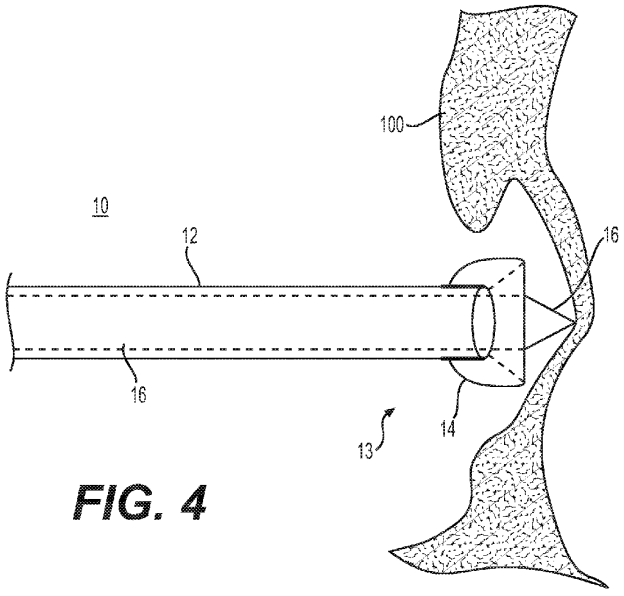



FIG. 4

(57) Abstract: A transseptal insertion device suitable for facilitating precise and safe transseptal puncture of a cardiac interatrial septum includes a sheath (12) that defines a lumen and has a distal end that is closest to the cardiac interatrial septum of a patient and a proximal end that is external to the patent, a balloon (14) that is connected to the distal end of the sheath (12), in which the balloon (14), when inflated, overhangs and extends past the distal end of the sheath (12), preventing accidental puncturing of the cardiac interatrial septum and stabilizing the transseptal insertion device against fossa ovalis of the cardiac interatrial septum, and a dilator (16) that is positioned within the at least one lumen. The dilator (16) has a distal end and is designed to and is capable of precisely puncturing the cardiac interatrial septum without the use of a needle or other sharp instrument.

WO 2019/023653 A8

*[Continued on next page]*

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