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### (12) United States Patent

### Root et al.

### (54) COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES

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See application file for complete search history.

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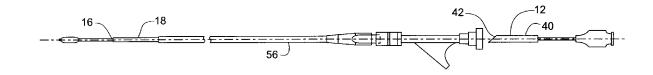
Primary Examiner — Jackie Ho

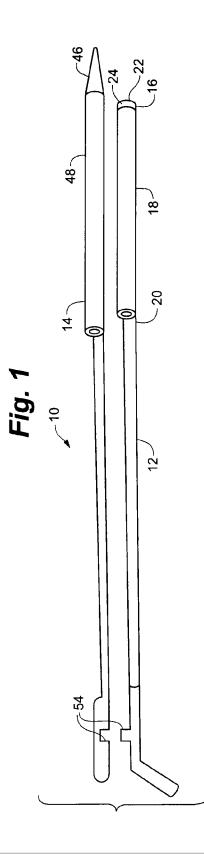
Assistant Examiner — Bradley Osinski (74) Attorney, Agent, or Firm — Patterson Thuente IP

### (57) **ABSTRACT**

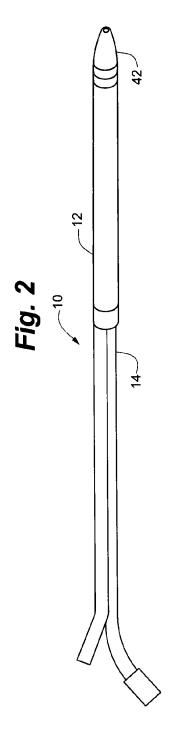
A coaxial guide catheter to be passed through guide catheter having a first lumen, for use with interventional cardiology devices that are insertable into a branch artery that branches off from a main artery. The coaxial guide catheter is extended through the lumen of the guide catheter and beyond the distal end of the guide catheter and inserted into the branch artery. The device assists in resisting axial and shear forces exerted by an interventional cardiology device passed through the second lumen and beyond the flexible distal tip portion that would otherwise tend to dislodge the guide catheter from the branch artery.

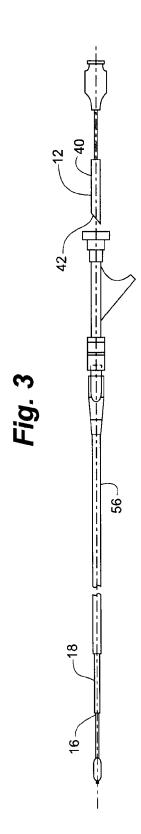
### 22 Claims, 13 Drawing Sheets





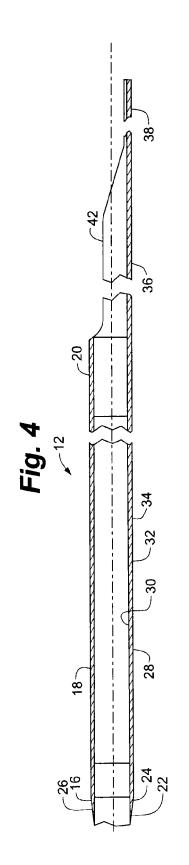
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