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(54) **Title**: TRANSAPICAL DELIVERY SYSTEM FOR HEART VALVES

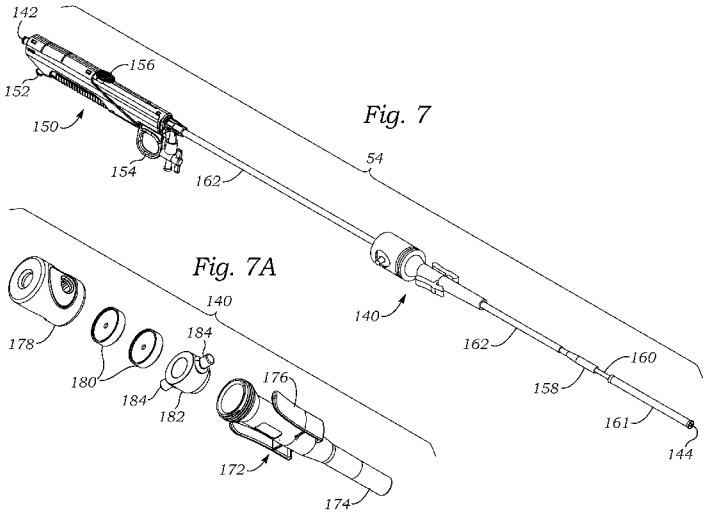


Fig. 7

Fig. 7A

(57) **Abstract**: A delivery system and method for delivering a prosthetic heart valve to the aortic valve annulus. The system includes a delivery catheter having a steering mechanism thereon for delivering a balloon-expandable prosthetic heart valve to the aortic annulus in an antegrade fashion through an introducer passing into the left ventricle through its apex. The introducer may have a more floppy distal section than a proximal section to reduce trauma to the heart wall while preserving good operating field stability. The delivery catheter includes a deflecting segment just proximal to a distal balloon to facilitate positioning of the prosthetic heart valve in the proper orientation within the aortic annulus. A trigger in a catheter handle may be coupled to a deflection wire that actuates the deflecting segment, while a slider in the handle controls retraction of a valve pusher. The prosthetic heart valve may be installed over the existing calcified leaflets, and a pre-dilation valvuloplasty procedure may also be utilized.

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