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(54) **Title:** PROSTHETIC HEART VALVE

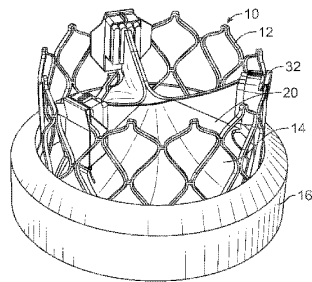


FIG. 1A

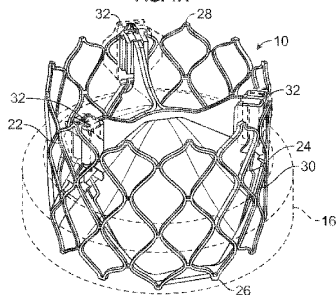


FIG. 1B

(57) **Abstract:** A prosthetic valve has a radially expandable and compressible frame including a plurality of interconnected struts and a valvular structure including a plurality of leaflets configured to regulate the flow of blood through the prosthetic valve. The leaflets can have undulating cusp edge portions. The prosthetic valve further includes at least one connecting skirt having a shape that corresponds to the cusp edge portion of at least one leaflet. The connecting skirt can connect the cusp edge portion of the leaflet to at least one of the struts of the frame. The connecting skirt can include a first set of yarns intersecting with a second set of yarns. The first and second sets of yarns can extend at oblique angles relative to a longitudinal axis of the at least one strut.

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