Claims of Auxiliary Request 1

1. A foldable, stented valve replacement comprising:

a valve (5) replacement capable of being folded so as to temporarily reduce its diameter by up to 50%; and

a foldable stent positioned about the exterior of the valve, the foldable stent having a circular inflow rim (20) and a circular outflow rim (23) connected by a plurality of longitudinal support posts (22), the foldable stent being

constructed of a memory shaped alloy capable of changing from a malleable martensite phase to a memorized austentite phase at an Af temperature between 15°C and 25°C such that the stent is capable of being folded in the martensite phase so as to temporarily reduce its diameter by up to 50%,

wherein the foldable stent is obtainable by a method of manufacturing a Nitinol stent for a heart valve comprising:

cutting Nitinol tubing with a laser to the desired pattern;

expanding the Nitinol pattern to the desired diameter on a mandrel without increasing the strain in the Nitinol material by more than 15%; and

heat treating the Nitinol stent after the expanding step in order to reduce the strain in the Nitinol material.

2. The foldable, stented valve of Claim 1, wherein the stent has three parallel support posts attached to the circular inflow and outflow rims at intervals of about 135°, 105°, and 120° or at intervals of about 122°, 118°, and 120°.

3. The foldable, stented valve of Claim 1 wherein the stent is made of Nitinol.

4. The foldable, stented valve of Claim 1 whose Nickel content is between about 50% and 60%.

~~5. The foldable, stented valve of Claim 1, wherein the foldable stent is obtainable by a method of manufacturing a Nitinol stent for a heart valve comprising:~~

~~expanding Nitinol stock to the desired diameter on a mandrel without increasing the strain in the Nitinol material by more than 15%;~~

~~cutting the Nitinol stent with a laser to the desired shape, either before or after~~