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Suzhou Wuzhong Economic Development Zone, Suzhou,
Jiangsu 215124 (CN).

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(72) Inventors: **SUN, Jianhua**; Room 210 and Room 310,
Plant 3#, Shicheng Science Park, No.1566, Yinzong South
Road, Suzhou Wuzhong Economic Development Zone,
Suzhou, Jiangsu 215124 (CN). **LI, Tianzhu**; Room 210
and Room 310, Plant 3#, Shicheng Science Park, No.1566,
Yinzong South Road, Suzhou Wuzhong Economic Develop-
ment Zone, Suzhou, Jiangsu 215124 (CN). **MA, Jianxi-
ang**; Room 210 and Room 310, Plant 3#, Shicheng Science
Park, No.1566, Yinzong South Road, Suzhou Wuzhong
Economic Development Zone, Suzhou, Jiangsu 215124
(CN). **ZHAO, Jinhong**; Room 210 and Room 310, Plant 3#,
Shicheng Science Park, No.1566, Yinzong South Road,
Suzhou Wuzhong Economic Development Zone, Suzhou,
Jiangsu 215124 (CN). **MENG, Lei**; Room 210 and Room
310, Plant 3#, Shicheng Science Park, No.1566, Yinzong

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(71) Applicant: **SINOMED CARDIOVITA TECHNOLO-
GY INC.**, [CN/CN]; Room 210 and Room 310, Plant 3#,
Shicheng Science Park, No.1566, Yinzong South Road,

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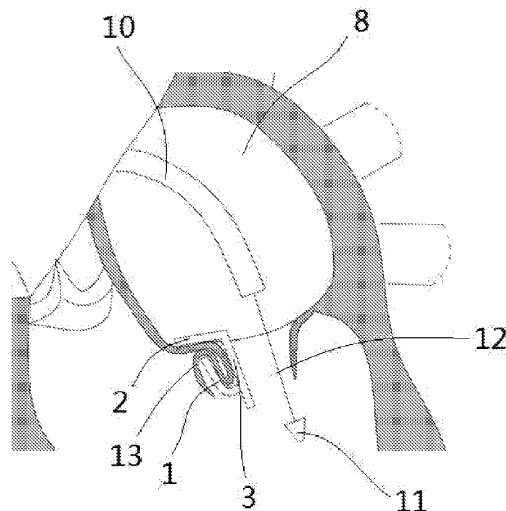


Fig. 5

(57) Abstract: A native leaflet treatment system and method for treating native heart valve leaflets before heart valve repair or replacement procedure. The treatment system includes a delivery apparatus (10) configured to enter the heart, and a native leaflet treatment device (14) stored in the delivery apparatus (10) in a compressed state. The treatment device (14) includes a clamping structure (1), which is configured to retain at least a portion of the native leaflets in the deployed state. The treatment device (14) is delivered into the heart using the delivery apparatus (10), and released near the native heart valve, where the treatment device (14) expands and the clamping structure (1) captures and hold the native leaflets, such that the native leaflets will no longer block blood flow.

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South Road, Suzhou Wuzhong Economic Development Zone, Suzhou, Jiangsu 215124 (CN).

(74) **Agent: SUNSHINE INTELLECTUAL PROPERTY INTERNATIONAL CO., LTD.**; No. 503, Floor 5, Tower A, Zhongguancun Intellectual Property Building, No.21, A, Haidian South Road, Haidian District, Beijing 100080 (CN).

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