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(54) Title: STENT DESIGNS FOR USE IN PERIPHERAL VESSELS

(57) Abstract: Stent designs for use in peripheral vessels, such as the carotid arteries, are disclosed. The stents consist of a plurality of radially expandable cylindrical elements generally aligned on a common longitudinal stent axis and interconnected by one or more interconnecting members placed so that the stent is flexible in a longitudinal direction. The cylindrical elements are generally serpentine wave pattern transverse to the longitudinal axis between alternating valley portion and peak portions, the valley portion including alternating double-curved portions and U-shaped portions. The interconnecting members are attached to the double-curved portions to connect a cylindrical element to an adjacent cylindrical element and interconnecting members are attached to the U-shaped portions to connect the cylindrical element to the other adjacent cylindrical element. The designs include an eight crown and six crown stent which exhibit flexibility and sufficient radial strength to support the vessel.



WO 2008/024928 A3

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/76671

## A. CLASSIFICATION OF SUBJECT MATTER

IPC: **A61F 2/06**( 2006.01)

USPC: 623/1.15

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 623/1.15, 1.16, 1.17

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,591,197 (ORTH et al.) 7 Jan. 1997 (07.01.1997), figures 1C and 2G.	1-12, 14-19
X	US 6,569,194 B1 (PELTON) 27 May 2003 (27.05.2003) figure 4	1-9, 12-20

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Further documents are listed in the continuation of Box C.

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See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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