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(54) Title: ASSISTED CHIN/DIP EXERCISE APPARATUS WITH ADJUSTABLE CHIN-UP/PULL-UP HANDLES

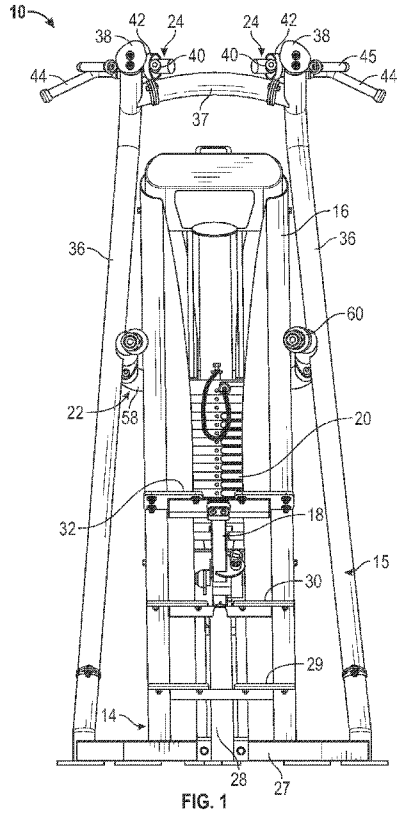

FIG. 1

(57) Abstract: An assisted chin/dip exercise apparatus has a main frame and an assist or foot bar pivotally mounted on the frame and linked to a weight stack or resistance for assisting a user standing on the foot bar during performance of chin and dip exercises. The main frame has a first, overhead handle assembly and a second, dip handle assembly below the first handle assembly. The first handle assembly includes a pair of adjustably mounted handles freely pivotable between a first, chin-up position in which the handles extend towards one another at a rearward angle with a small spacing between the handles and a second, pull-up position in which the handles extend in a forward direction and are spaced apart by a larger spacing sufficient to provide head clearance for a user stepping onto the foot bar or while performing a dip exercise.

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A. CLASSIFICATION OF SUBJECT MATTER

A63B 21/06(2006.01)i, A63B 22/04(2006.01)i, A63B 23/035(2006.01)i

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)
A63B 21/06; A63B 21/062; A63B 21/08; A63B 21/068; A63B 21/00; A63B 23/12

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean utility models and applications for utility models
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS(KIPO internal) & Keywords: chin-up, pull-up, adjustable, handle, pivot, assist bar

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	US 5011139 A (TOWLEY, C.) 30 April 1991 See claims 1-18 and figure 1.	1-8 9-26
Y A	US 7335140 B2 (WEBBER, R. et al.) 26 February 2008 See claims 1, 14-16, and figures 44A, 44B.	1-8 9-26
A	US 7361125 B2 (WEBBER, R. et al.) 22 April 2008 See claims 1-35, column 20, lines 18-34, 51-60 and figures 3, 34.	1-26
A	US 5322489 A (WEBBER, R. et al.) 21 June 1994 See claims 1-28 and figure 1.	1-26
A	US 20080039297 A1 (ZEEV STEINMETZ) 14 February 2008 See claims 1-24, paragraph [0037] and figure A.	1-26
A	US 20070232464 A1 (YONG CHU) 04 October 2007 See claims 1-18 and figure 1.	1-26

☐ Further documents are listed in the continuation of Box C. ☒ 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
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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5011139 A	30.04.1991	None	
US 7335140 B2	26.02.2008	US 2005-0096198 A1 US 2008-0113850 A1 US 7468024 B2	05.05.2005 15.05.2008 23.12.2008
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US 5322489 A	21.06.1994	None	
US 20080039297 A1	14.02.2008	None	
US 20070232464 A1	04.10.2007	None	