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(54) SKATES WITH WHEELS IN A HIGH-PRECISION TRIANGULAR ARRANGEMENT

(57) Summary:

[1] Set of skates that consist of a three wheels model set for each skate, with the three wheels in a high-precision triangular alignment, for sports or leisure.
[2] Innovation in the number and in the alignment type of the three wheels set on each skate creating a high-precision isosceles or scalene triangular alignment between

the two front wheels and the rear wheel on each skate.
[3] Main objective for the high-precision triangular alignment of the three wheels is to improve the stability and safety of traditional sports and recreational skates, while optimizing the performance of the roller skates in a comprehensive and general way as well as ease of use.



Figure 2.

Description**Technical Description of the Invention:**

[0001] Set of skates that consist of a three wheels model set for each skate, with the three wheels in a high-precision triangular alignment, for sports or leisure.

[0002] Innovation in the number and in the alignment type of the wheels set on each skate creating a high-precision isosceles or scalene triangular alignment between the two front wheels and the rear wheel on each skate.

[0003] Placement of the wheels in a high-precision triangular isosceles or scalene triangulation angle between the two front wheels and the rear wheel.

Technical Problem:

[0004] Main objective of improving the stability and safety of traditional sports and recreational skates and at the same time optimize performance.

[0005] Improve the performance of the skates in a very specific approach.

Technical Resolution:

[0006] Creation of a solution that consists of a three wheels set for each skate in a high-precision isosceles or scalene triangular alignment between the two front wheels and the rear wheel of the skates for the practice of sports or leisure.

Effects and Benefits:

[0007] Greater stability in the use of the triangular three wheels skates in sports and leisure.

[0008] Best overall performance in sport and leisure.

[0009] Decrease the weight of the skates.

[0010] Increased ease of maneuvering the skates.

[0011] Combination of increased stability and performance in sports and recreational times.

[0012] Increased security in the practice of sports and leisure.

[0013] Faster response from the skates.

Industrial Application:

[0014] Set of wheeled skates that consist of a three wheels set for each skate in a high-precision triangular alignment angle between the two front wheels and the rear wheel developed for the practice of sports or leisure.

Abstract:

[0015] Set of wheeled skates that consist of a triangular high-precision alignment of the three wheels for the practice of sports and leisure. Innovation in the number and in the alignment type of the wheels set on each skate

creating therefore a high-precision isosceles or scalene triangular alignment angle between the two front wheels and the rear wheel on each skate.

5 Description of Figures:**[0016]**

Figure 1: Orthogonal right side view of the skates with three wheels in a high-precision triangular positional alignment.

Figure 2: Perspective 3/4 front right side of the skate with three wheels in a high-precision triangular positional alignment.

Figure 3: Orthogonal left side view of the skates with three wheels in a high-precision triangular positional alignment.

Figure 4: Perspective 3/4 lower left side of the skates with three wheels in a high-precision triangular positional alignment.

Figure 5: Orthogonal bottom view of the skates with three wheels in a high-precision triangular positional alignment.

Figure 6: Perspective 3/4 upper right side of the skates with three wheels in a high-precision triangular positional alignment.

Figure 7: Perspective 3/4 upper left side top set of the skates with three wheels in a high-precision triangular positional alignment.

Claims

1. Innovation: Skates built with three wheels in a high-precision triangular alignment angle between the two front wheels and the rear wheel for the practice of sports or leisure.

2. Innovation: The layout, placement and alignment of the wheels creating a high-precision triangular angle between the two front wheels and the rear wheel on each skate.

3. Innovation: Positioning and alignment in a high-precision triangular isosceles or scalene triangulation angle between the two front wheels and the rear wheel.

4. Improves the stability and safety of the skates during traditional sports and recreation while optimizing the performance.

5. Improves the performance of the skates in a very specific way.

6. Greater stability in the use of skates in sports and leisure.

7. Best performance in sports and leisure.
8. Decreased weight of the skates.
9. Increased ease of maneuvering and stability in the skates. 5
10. Combination of stability and increased performance in sports and recreational times. 10
11. Increased security in use for sports and leisure.
12. Faster response time from the skates.

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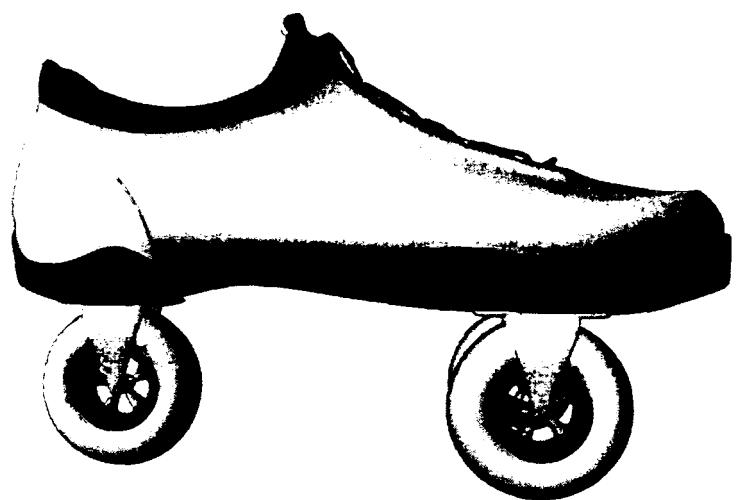


Figure 1.



Figure 2.

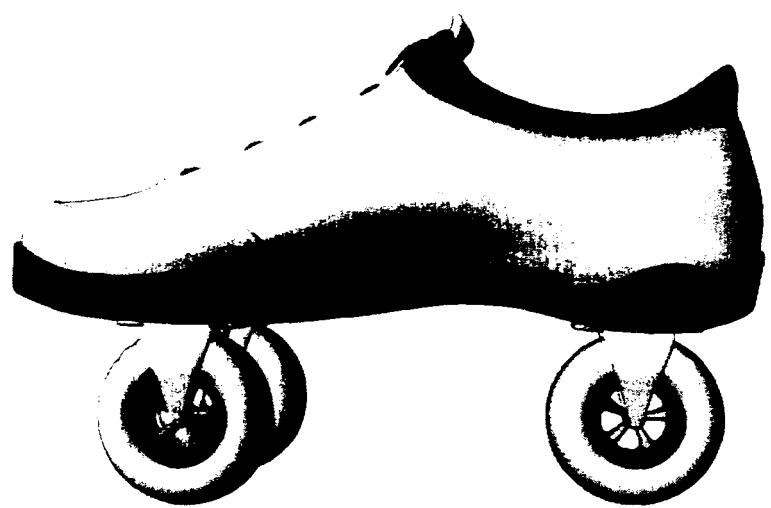


Figure 3.

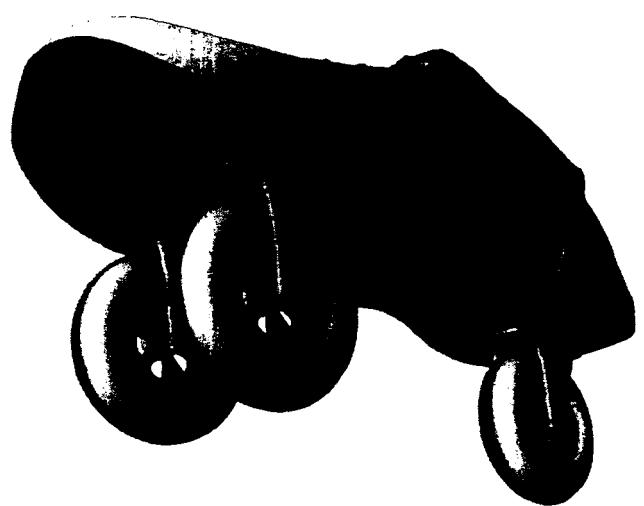


Figure 4.

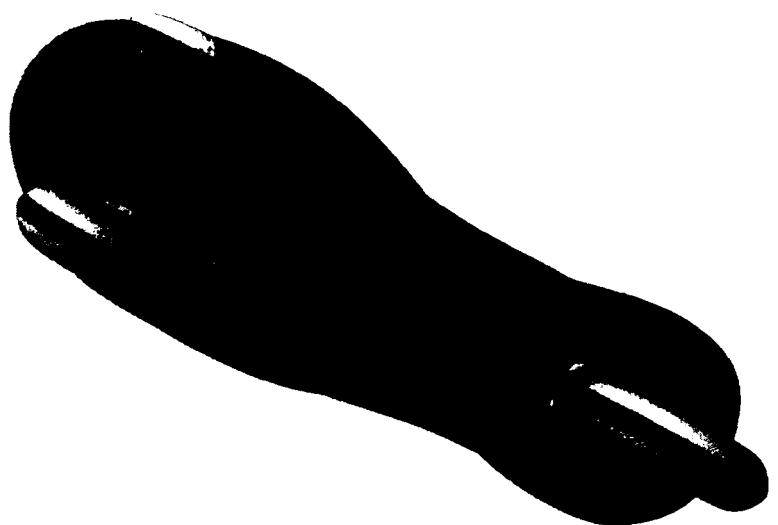


Figure 5.

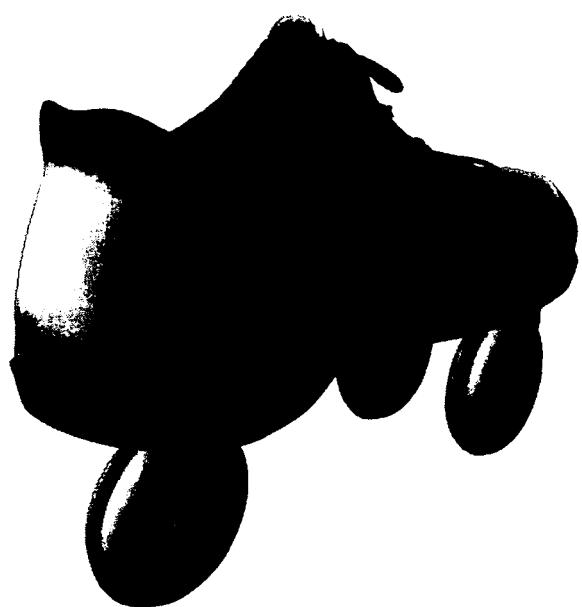


Figure 6.

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Figure 7.

INTERNATIONAL SEARCH REPORT

International application No
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5	A. CLASSIFICATION OF SUBJECT MATTER INV. A63C17/04 ADD.	
	According to International Patent Classification (IPC) or to both national classification and IPC	
10	B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) A63C	
	Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched	
15	Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data	
20	C. DOCUMENTS CONSIDERED TO BE RELEVANT	
25	Category*	Citation of document, with indication, where appropriate, of the relevant passages
	X	DE 841 870 C (MARIA THERESIA SCHOERKE) 19 June 1952 (1952-06-19) the whole document -----
	X	FR 1 049 029 A (PATINS MIDONN) 28 December 1953 (1953-12-28) the whole document -----
30	X	US 6 406 039 B1 (CHEN JUNG-HONG [TW]) 18 June 2002 (2002-06-18) the whole document -----
35	X	WO 2009/025798 A1 (HEELING SPORTS LTD [US]; ADAMS ROGER R [US]) 26 February 2009 (2009-02-26) the whole document ----- -/-
40	<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.	
45	* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	
	"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 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family	
50	Date of the actual completion of the international search 26 April 2012	Date of mailing of the international search report 07/05/2012
55	Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Haller, E

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International application No
PCT/PT2011/000029

5	C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT	
10	Category*	Citation of document, with indication, where appropriate, of the relevant passages
15	X	WO 2009/111761 A2 (LEVERAGE DESIGN LTD [CA]; KORTSCHOT MARK TIMOTHY [CA]) 11 September 2009 (2009-09-11) the whole document -----
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/PT2011/000029

5	Patent document cited in search report	Publication date	Patent family member(s)		Publication date
	DE 841870	C 19-06-1952	NONE		
10	FR 1049029	A 28-12-1953	NONE		
	US 6406039	B1 18-06-2002	CA 2359311 A1 US 6406039 B1	18-04-2003 18-06-2002	
15	WO 2009025798	A1 26-02-2009	US 2009200763 A1 WO 2009025798 A1	13-08-2009 26-02-2009	
20	WO 2009111761	A2 11-09-2009	AU 2009221691 A1 CA 2719096 A1 CN 201482128 U DE 212009000030 U1 EP 2265347 A2 JP 2011513007 A KR 20110039211 A US 2009273150 A1 WO 2009111761 A2	11-09-2009 11-09-2009 26-05-2010 10-02-2011 29-12-2010 28-04-2011 15-04-2011 05-11-2009 11-09-2009	
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