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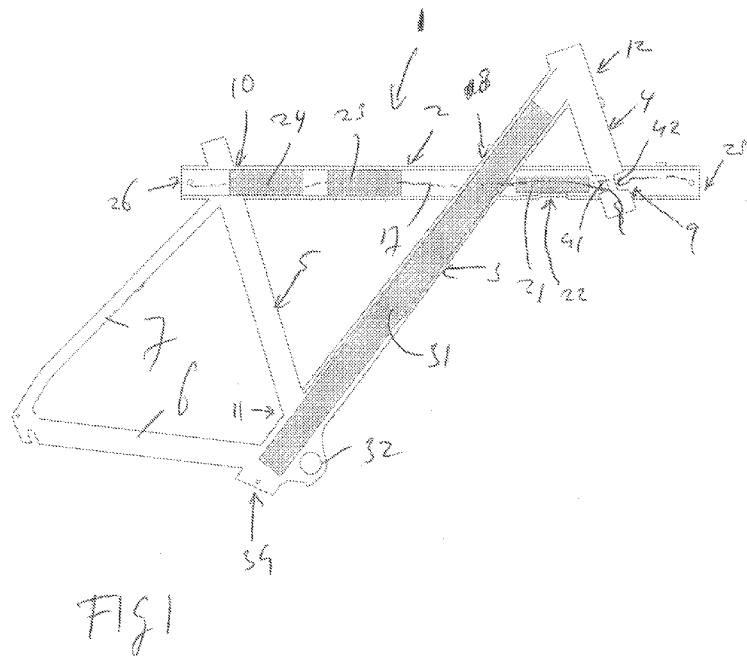
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(54) Title: FRAME FOR BICYCLE, CONNECTOR AND BICYCLE



(57) Abstract: The present invention relates to a frame for a bicycle comprising a tube construction for providing fastening options for further parts of the vehicle, such as a steering pen, saddle pen and fastening means for a rear wheel, the tube construction comprising: - a top tube, substantially extending in horizontal direction, - a saddle tube, downwardly extending from a tube intersection with the top tube, from a fastening to the top tube at a substantially rear side thereof, - a bottom tube, extending from a tube intersection with the saddle tube at substantially an underside of the saddle tube towards a connection at the top tube forwardly arranged relative to the fastening of the settled tube to the top tube, - a head tube arranged at an angle by means of a tube intersection connected to the top tube, - wherein the bottom tube extends to a predetermined distance above the upper side of the top tube, crossing the top tube at a tube intersection, and wherein the head tube is fastened to the bottom tube above the top tube.



WO 2018/199763 A3

SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN,
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Published:

- *with international search report (Art. 21(3))*
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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
 INV. B62M6/90 B62J9/00 B62K3/04 B62K19/20 B62K19/40
 ADD. B62J99/00

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)
 B62M B62J B62K

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)
 EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 10 2010 035793 A1 (GROESCHL THOMAS [DE]) 1 March 2012 (2012-03-01) figure 1	1-19
X	DE 10 2011 111504 A1 (GOBAX GMBH [DE]) 28 February 2013 (2013-02-28) figures 1-3	1-19
X	US 5 211 415 A (GASIOROWSKI ROMAN J [US]) 18 May 1993 (1993-05-18) figures 1-12	1-19
X	DE 38 30 961 A1 (BTG BIKE TECH SAAK & KELLNER E [DE]) 22 March 1990 (1990-03-22) figures 1-6	1-19
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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

"E" earlier application or patent but published on or after the international filing date

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"P" document published prior to the international filing date but later than the priority date claimed

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"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

Date of the actual completion of the international search 30 October 2018	Date of mailing of the international search report 28/01/2019
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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 Molina Encabo, Aitor
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INTERNATIONAL SEARCH REPORT

International application No
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	CN 206 107 466 U (ASTRO ENG CO LTD) 19 April 2017 (2017-04-19) figures 1-14 -----	1-6, 15-18
A	EP 2 423 096 A2 (CYCLING SPORTS GROUP INC [US]) 29 February 2012 (2012-02-29) figures 1-34G -----	1-6, 15-18
A	EP 3 025 947 A1 (SAMSUNG SDI CO LTD [KR]; ALTON SPORTS CO LTD [KR]) 1 June 2016 (2016-06-01) figures 1-12 -----	1-6, 15-18
A	EP 1 982 909 A1 (IDEAL BIKE CORP [TW]) 22 October 2008 (2008-10-22) figures 1-6 -----	1-6, 15-18
A	US 2 199 536 A (BOOTY KELVIN H) 7 May 1940 (1940-05-07) figures 1-5 -----	1-6, 15-18

INTERNATIONAL SEARCH REPORT

International application No.
PCT/NL2018/050279

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-19

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-19

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1.1. claims: 1-6, 15-18

Bicycle Frame Internal Storage

1.2. claims: 7-14, 19

Bicycle Frame Tube Interconnections

2. claims: 20-41

Bicycle Electrical Connector and Bicycle Component Cassette

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/NL2018/050279

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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