Internal distribution code:
(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 12 August 2014

Case Number: T 2386/12 - 3.2.08

Application Number: 07007207.9

Publication Number: 1881221

IPC: F16D41/30, B60B27/02

Language of the proceedings: EN

Title of invention:
Bicycle freewheel

Patent Proprietor:
SHIMANO INC.

Opponent:
SRAM Deutschland GmbH

Headword:

Relevant legal provisions:
EPC Art. 56, 111(1)

Keyword:
Inventive step - main request - no
Remittal to the opposition division - yes

Decisions cited:
T 0623/95

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 2386/12 - 3.2.08

D E C I S I O N
of Technical Board of Appeal 3.2.08
of 12 August 2014

Appellant: (Opponent)	SRAM Deutschland GmbH Romstr. 1 97424 Schweinfurt (DE)
Representative:	Jordan, Volker Otto Wilhelm Weickmann & Weickmann Patentanwälte Postfach 860 820 81635 München (DE)
Respondent: (Patent Proprietor)	SHIMANO INC. 3-77 Oimatsu-cho Sakai-ku, Sakai City Osaka 590-8577 (JP)
Representative:	Harrison, Robert John Sonnenberg Fortmann Patent- und Rechtsanwälte Postfach 33 08 65 80068 München (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 25 September 2012 rejecting the opposition filed against European patent No. 1881221 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	T. Kriner
Members:	P. Acton
	I. Beckedorf

Summary of Facts and Submissions

I. The duly filed and reasoned appeal is directed against the decision of the opposition division rejecting the opposition against European patent No. EP 1 881 221.

II. The opposition division came to the conclusion that the subject-matter of claim 1 as granted involved an inventive step over the combination of

E7: US-A-2 799 183

with the general knowledge of the person skilled in the art as evidenced inter alia in

E9: DE-C-44 42 404 and
E10: US-A-4 130 271.

III. Oral proceedings took place before the board of appeal on 12 August 2014.

The appellant (opponent) requested that the decision under appeal be set aside and that the European patent be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed or, alternatively, that in setting aside the decision under appeal the patent be maintained in amended form on the basis of one of the sets of claims filed as auxiliary requests 1, 2, 2a, 3, 4 and 5 with letter of 27 May 2013 and as auxiliary request 6 with letter of 8 July 2014.

IV. Independent claim 1 as granted (main request) reads:

"A bicycle freewheel (33) comprising: an inner tubular member (51) configured to be coupled to a bicycle hub (31); an outer tubular member (52) arranged around an outer side circumference of the inner tubular member (51), with an internal circumferential surface of the outer tubular member (52) having a plurality of ratchet teeth (52a); at least one bearing assembly (53a, 53b) disposed between the inner tubular member (51) and the outer tubular member (52) to rotatably couple the outer tubular member (52) to the inner tubular member (51) such that the outer tubular member (52) rotates freely with respect to the inner tubular member (51); a clutch pawl (54) disposed on the outer side circumference of the inner tubular member (51) and freely movable between an engagement position in which the clutch pawl (54) engages the ratchet teeth (52a) and a disengagement position in which the clutch pawl (54) is disengaged from the ratchet teeth (52a); at least one biasing member (55) applying an urging force to the clutch pawl (54) to urge the clutch pawl (54) toward the engagement position; and characterised in that a non-metallic pawl-retracting member (56) is disposed between the inner tubular member (51) and the outer tubular member (52) with the pawl-retracting member (56) frictionally engaged with the internal circumferential surface of the outer tubular member (52) to rotate with the outer tubular member (52) between a pawl-retracting position in which the pawl-retracting member (56) maintains the clutch pawl (54) in the disengagement position and a pawl-releasing position in which the pawl-retracting member (56) releases the clutch pawl (54) to move to the engagement position."

The wording of the auxiliary requests is not relevant for the present decision.

V. The appellant's arguments can be summarised as follows:

The only difference between the subject-matter of claim 1 and the freewheel according to E7 was that the pawl-retracting member was made of a non-metallic material. The problem to be solved by the alleged invention was the reduction of the manufacturing costs of the freewheel. Since it was a general trend to replace metallic parts with non-metallic ones in order to reduce manufacturing costs, it was obvious to replace the metallic pawl-retracting member of E7 with a non-metallic one.

Hence the subject-matter of claim 1 as granted did not involve an inventive step.

VI. The respondent's arguments can be summarised as follows:

The object to be solved by the present invention was the provision of a freewheel with a pawl-retracting member that is simple and inexpensive to manufacture and assemble (see [0012]).

In order to achieve this object the pawl-retracting member of the freewheel according to claim 1 was made of a non-metallic material.

While it has indeed been a trend since the 70s to use plastic materials instead of metal, a long time had elapsed between the publication date of E7 (1956) and the invention. This alone was proof that the subject-

matter of claim 1 involved an inventive step, as for example supported by T 623/95.

Moreover, the use of plastic for manufacturing a pawl-retracting member led to drawbacks caused by enhanced friction with the other members of the freewheel and the consequent increased wear of the device. Hence using plastic instead of metal went against a prejudice and implied an inventive activity for that reason as well.

Reasons for the Decision

1. Inventive step

1.1 The freewheel of E7 represents the closest prior art and undisputedly discloses all features of claim 1 as granted apart from the feature according to which the pawl-retracting member is made of a non-metallic material.

1.2 The object to be achieved by the present invention can thus be seen in providing a freewheel with a pawl-retracting member which is simple and inexpensive to manufacture and assemble.

1.3 It is undisputed that since the 70s it has been a general trend to replace metallic parts with plastic ones, in order to reduce manufacturing costs. Consequently, it was obvious for the skilled person – a mechanical engineer – to manufacture a pawl retracting member of a freewheel from a non-metallic material.

1.4 The respondent argued that the skilled person would not do that, because a technical prejudice existed with regard to the use of a plastic material for a pawl-

retracting member. This was based on the allegation that the use of such a material would result in problems related to friction with other parts of the freewheel and in a shorter life for the device. However, the respondent failed to provide any evidence for such a prejudice.

Moreover, the skilled person confronted with the problem of reducing manufacturing costs might accept the drawback of frictional problems and a reduced lifetime for the pawl-retracting member, in the same way as the inventor of the freewheel of the patent in suit had. In this respect it is noted that the contested patent is completely silent both about the disadvantages of the use of non-metallic materials for a pawl-retracting member and about a specific choice of a non-metallic material in order to overcome the problems mentioned above.

1.5 Furthermore, the respondent pointed out that a very long time had elapsed between the publication of E7 and the filing of the application underlying the patent in suit, and this alone proved that using a plastic material for manufacturing a pawl-retracting member was not obvious.

However, the fact that in a technical field a specific development was not implemented for a long time is not sufficient on its own to prove an inventive activity and can at best be considered as secondary indicia.

T 623/95, which has been cited by the respondent to support his line of argumentation, relates to a completely different technical area (fax machines) and specifically to whether the automation of functions previously performed by human operators can be

considered as involving an inventive step. Therefore, its reasoning cannot be applied directly to the case in point. Moreover, since it is a single decision not supported by the constant jurisprudence of the boards of appeal, it is not binding for the present decision, where the board is free to exercise its discretion.

Since no further arguments in this regard have been put forward by the respondent, the mere fact that a long time has elapsed between the publication of the closest prior art and the filing date of the patent in suit is not sufficient to render the subject-matter of claim 1 inventive.

1.6 Hence the subject-matter of claim 1 does not involve an inventive step.

2. Remittal to the opposition division

Since the decision of the opposition division dealt only with the question of inventive step of claim 1 of the patent as granted, and since the present auxiliary requests have not been considered yet by the opposition division, the board considers it equitable to remit the case to the opposition division for further prosecution (Article 111(1) EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division for further prosecution.

The Registrar: The Chairman:

V. Commare T. Kriner

Decision electronically authenticated