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Datasheet for the decision of 24 October 2006

Case Number: T 0567/03 - 3.2.01

Application Number: 95102448.8

Publication Number: 0669249

IPC: B62M 25/04, B62K 23/04

Language of the proceedings: EN

Title of invention:
Shifting apparatus for a bicycle

Patentee:
SHIMANO INC.

Opponent:
SRAM Deutschland GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 56, 123(2), 123(3)
RPBA Art. 10b
EPC R. 88

Keyword:
"Amendments to requests after summons"
"Amendments - added subject-matter (yes)"
"Amendments - opposition proceedings"
"Amendments - correction of errors (yes)"
"Inventive step - (yes) after amendment"

Decisions cited:
G 0002/88

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0567/03 - 3.2.01

D E C I S I O N
of the Technical Board of Appeal 3.2.01
of 24 October 2006

Appellant: (Opponent)
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Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 17 March 2003 rejecting the opposition filed against European patent No. 0669249 pursuant to Article 102(2) EPC.

Composition of the Board:

Chairman: S. Crane
Members: J. Osborne
S. Hoffmann

Summary of Facts and Submissions

I. The appeal is directed against the decision posted 17 March 2003 to reject the opposition against European patent No. 0 669 249 containing independent claims 1 and 9. The notice of appeal was received on 15 May 2003.

II. During the opposition *inter alia* the following prior art was cited:

D1: EP-B-0 552 775

D13: US-A-3 633 437.

III. In its grounds for appeal the appellant requested that the patent be revoked on the grounds that the subject-matter of claims 1 and 9 as granted lacked novelty or did not involve an inventive step and mentioned additional state of the art (D16).

IV. The board summoned the parties to oral proceedings to be held on 4 March 2005. In a communication pursuant to Article 11(1) RPBA annexed to the summons it indicated its provisional opinion that the closest prior art for consideration of inventive step was that known from D13 and that only one feature of claim 1 was novel with respect to that document. It raised the question of an inconsistency between the wording of claim 9 and the description and indicated that one important matter to be considered would be inventive step of the subject-matter of claim 1 in the light of *inter alia* D16. The board set a deadline for filing further requests and written submissions of "at least one month before the date set for oral proceedings".

V. With a letter received 24 January 2005 the respondent requested that the appeal be rejected (main request) or in the alternative that the patent be maintained on the basis of claims filed therewith according to auxiliary requests.

VI. At the oral proceedings the appellant maintained its earlier request and additionally requested that the respondent's auxiliary requests not be admitted since they were late filed within the meaning of Article 10b RPBA. The respondent upheld its main request that the appeal be rejected and the patent be maintained as granted but requested in the alternative that the patent be maintained in amended form on the basis of a first auxiliary request (claims 1 to 6), a second auxiliary request (claims 1 to 4) or a third auxiliary request (a single claim being claim 4 according to the second auxiliary request), each submitted during the oral proceedings. The board took the view that the respondent's auxiliary requests should be admitted into the proceedings but neither the board nor the appellant raised any objection in respect of the amendments made according to these requests. The board found that the subject-matter of the respective claims 1 according to the main and first auxiliary requests did not involve an inventive step but that the subject-matter of the claims according to the second auxiliary request was both novel and involved an inventive step. At the conclusion of the oral proceedings the procedure was continued in writing in order to deal with adaptation of the description to the claims according to the second auxiliary request.

VII. The board summoned the parties to a second oral proceedings to be held on 24 October 2006 to consider *inter alia* objections in respect of Article 123(2) EPC which had surfaced during consideration of the proposals for adaptation of the description. At the second oral proceedings the appellant maintained its request that the decision under appeal be set aside and that the patent be revoked. The respondent's final requests were that the decision under appeal be set aside and the patent be maintained on the basis of claims 1 to 4 filed on 22 February 2006 and description filed during the second oral proceedings (main request) or in the alternative on the basis of claims 1 to 4 according to a first auxiliary request filed as a modified main request during the second oral proceedings or claims 1, 3 and 4 of the main request (second auxiliary request) or a single claim, description and drawings according to the third auxiliary request filed during the second oral proceedings.

VIII. Claim 1 according to the respondent's main request and second auxiliary request reads:

"A shifting apparatus for use on a bicycle for controlling a change gear device through a cable (6a) connected to the change gear device, comprising:
a frame (2) containing a take up element (3), including a wire receiving case (4) formed integral therewith and having an outer holder (5) for supporting a control cable (6) extending from the change gear device of the bicycle,
the frame (2) has a band (2a) fastenable tight to a bicycle handlebar,

the frame (2) has *a support portion to which a rotatable member (42) of an indicator (40) is rotatably mounted*,
a shift control member (8) having a tubular configuration coaxial with the handlebar supported to be rotatable about a first axis (X) corresponding to an axis of the handlebar (l),
the takeup element (3) is rotatable with said shift control member (8) to wind said cable (6a) thereon,
a positioning mechanism (23, 24) for retaining said takeup element (3) in each angular position, and
the indicator (40) indicating a speed stage of said change gear device in response to said angular position of said takeup element (3), and
said indicator (40) being formed separately from said shift control member (8),
characterized in that
said indicator (40) is formed separately from said takeup element (3) and rotating around a second axis (Y) different from said first axis (X),
and in that the axis of said indicator (40) does not cross the axis (X) of said control member (8) at one point" (italic script added by the board).

Claim 1 according to the respondent's first auxiliary request differs from that of the main request by the replacement of the wording in italic script by "a fixed member (43) for rotatably mounting a member (42) of an indicator (40)".

The single claim according to the respondent's final third auxiliary request reads:

"A shifting apparatus for use on a bicycle for controlling a change gear device through a cable (6a) connected to the change gear device, comprising:
a frame (2) containing a take up element (3) and an interlock mechanism (14, 15, 16) and rotatably holding an indicator (40),
a shift control member (8) having a tubular configuration coaxial with a handlebar supported to be rotatable about a first axis (X) corresponding to an axis of the handlebar (1), the takeup element (3) is rotatable together with said shift control member (8) to wind said cable (6a) thereon whereas the shift control member (8) is rotating about said first axis,
a positioning mechanism (23, 24) for retaining said takeup element (3) in each angular position, and
said indicator (40) is designed for indicating a speed stage of said change gear device in response to said angular position of said takeup element (3), and
the interlock mechanism (14, 15, 16) for transmitting rotation of said shift control member to said takeup element (3),
said indicator (40) is formed separately from said shift control member (8), said indicator (40) is formed separately from said takeup element (3) and rotating around a second axis (Y) different from said first axis (X),
characterized in that
the rotational axis (Y3) of the takeup element (3) is different from the rotational axis (X) of the control member (8) and
that the rotational axis (Y4) of a rotatable member (42), being a part of the indicator (40), which is the rotational axis of the indicator (40), is different

from the rotational axis (Y3) of the takeup element (3)."

IX. The appellant made essentially the following submissions, in as far as they are still relevant for the decision:

The auxiliary requests filed with the letter received 24 January 2005 should not be admitted in accordance with Article 10b RPBA as amended October 2002 (OJ EPO 2003, 89). The requests were filed some 18 months after the appellant, with its grounds of appeal, last cited a new document. Moreover, the board's provisional opinion regarding the relevance of D13 was issued in November 2004. However, the respondent waited until shortly before expiry of the time limit for filing amended requests before making substantial amendments by adding features from the description and drawings. A period of only four days remained for the appellant to prepare a response, which was insufficient time.

The description according to the final main request includes information which was not contained in the application as originally filed. In particular, it is stated on page 5 in the first paragraph of the detailed description of the embodiments that in the first embodiment according to figures 1 to 4 (original figures 6 to 9) the frame includes a wire receiving case. This feature was originally disclosed only in respect of the embodiment of original figures 1 to 5 which have been deleted since they do not fall within the scope of the claims. The term 'wire receiving case' is not generally known in the art and as originally disclosed in this application was a portion of the

frame which contained a series of rollers to permit a deviation in the route of the cable between the cable holder and the take-up element. By comparison, in the original disclosure of the embodiment which falls under claim 1 according to the main request the cable passed along a straight path between the cable holder and the take-up element. Neither the description nor the figures as originally filed indicated the presence in this embodiment of a feature which falls within the meaning of the term 'wire receiving case'. This objection applies equally to the proposed description according to the first and second auxiliary requests.

In the final third auxiliary request the single claim, which replaces claim 9 as granted, offends the provision of Article 123(3) EPC. Claim 9 as granted requires that both the take-up element and the control member rotate about the same axis but the single claim includes within its scope a take-up element which rotates about another axis.

The subject-matter of the claim according to the final third auxiliary request does not involve an inventive step in the light of a combination of the disclosures of D13 and D1. The closest prior art D13 discloses all features of the claim with the exception of the indicator being formed separately from the take-up element and the indicator and the take-up element having different rotational axes. The first of these features is an obvious constructional modification of the arrangement of D13. The feature of an inclined rotational axis for the indicator would then result from manufacturing tolerances. Alternatively, it is

rendered obvious by the suggestion in D1 that the display plane may be slightly inclined.

The final paragraph on page 6 of the description according to the final third auxiliary request contains an explanation of the operation of the gear change selector. In comparison with the original disclosure the terms 'forward' and 'backward' have been reversed. It was not apparent that the original disclosure was erroneous and the amendment therefore extends the content of the description beyond that as originally filed.

X. The respondent countered these submissions essentially as follows:

As regards admissibility of the auxiliary requests filed 24 January 2005, these were filed as soon as possible and anyway within the time limit set by the board. They were a timely response to the board's actions in its communication of 24 November 2004 which both admitted D16 into the procedure and drew the parties' attention to the relevance of D13.

The statement in the description according to the final main request that the embodiment of figures 1 to 3 includes a wire receiving case contains no new teaching to the skilled person in comparison with the disclosure of the original application. This term was contained in the original application and designates merely the part of the frame which accepts the cable, as may be derived from many documents known from the state of the art. In the original disclosure of both the first and second embodiments this portion of the frame supported the

cable holder and enclosed the inner cable in its passage to the take-up element. The inclusion of the guide rollers in the first embodiment is merely a preferred feature specific to that embodiment.

As regards inventive step of the single claim according to the final third auxiliary request, it is agreed that D13 forms the closest prior art. However, that assembly suffers from being large, having a poorly visible indicator, demanding a particular cable run and requiring that the cable be wound onto a small diameter portion of the take-up element in order to provide a high winding torque. The patent aims to reduce the size of the apparatus and improve visibility of the indicator. The novel features of the indicator being formed separately and having a different rotational axis from the take-up element permit these two items to be separated whereby the indicator may be directed towards the rider independently of the orientation of the take-up element. The prior art contains nothing which either would encourage or enable the skilled person to adopt this feature. In particular, it is not possible to tilt the indicator according to D13.

The interchange of 'forward' and 'backward' in the description is merely the correction of an obvious error in accordance with Rule 88 EPC.

Reasons for the Decision

Admittance of the auxiliary requests dated 24 January 2005

1. Although these requests have all been either withdrawn or superseded, the matter of their admittance into the proceedings remains important since subsequent requests derive from them. According to Article 10b(3) RPBA "amendments sought to be made after oral proceedings have been arranged shall not be admitted if they raise issues which the board or the other party or parties cannot reasonably be expected to deal with without adjournment of the oral proceedings." The amendments according to the respondent's letter filed on 24 January 2005 were sought to be made after oral proceedings had been arranged and the appellant argues that they are inadmissible within the meaning of Article 10b(3) RPBA.

1.1 In the present case when the respondent filed auxiliary requests on 24 January 2005 it had complied with the one month deadline which the board set for filing amended requests. The board's intention when setting the one month deadline was to ensure that adequate time would be available for reacting to amended requests in advance of the oral proceedings. Clearly, when one party amends its case close to the deadline the other party is not expected to respond before the same deadline. The appellant's claim that it had only four days in which to prepare a response is not the case; the board's deadline was in respect of requests and written submissions and the subsequent one month was available to the appellant for preparation of a response to be presented during the oral proceedings.

1.2 When the board summoned the parties to oral proceedings it also sent a communication pursuant to Article 11(1) RPBA in which it indicated its provisional opinion regarding the relevance of D13. Although the board drew no provisional conclusion regarding inventive step, this nevertheless was the first time in the appeal procedure that the respondent had been faced with arguments contained in that opinion. Moreover, although the appellant had first introduced D16 at the time of filing its grounds of appeal, the board had issued no communication prior to summoning the parties to oral proceedings. It follows that the respondent could not know prior to the appointment of oral proceedings whether the board would find D16 to be of sufficient potential relevance to admit it into the procedure. Also, when the board pointed out in its communication that there was a fundamental inconsistency between the wording of claim 9 and the description this was the first time that this aspect of the claim's interpretation had been drawn to the parties' attention. All of these matters are ones which the respondent would need to consider when formulating its requests. Furthermore, although the respondent filed its amended requests only shortly before the deadline set by the board, the two months which had elapsed after the date on which the summons was posted included the Christmas and New Year periods.

1.3 The amendments made by the respondent largely involved the introduction of additional features into the preambles of the claims and the formulation of the claims in the two-part form based on D13. Nevertheless, some features were added from the description and

drawings whose introduction could justify an additional search by the appellant. However, in the board's view when taking into account the restricted scope of the claims the one month period between filing of the amendments and the date of the oral proceedings was adequate for this purpose.

1.4 For the reasons set out above it would have been unfair to refuse the respondent the opportunity to amend its requests. Additionally, the amendments which it did make and the timing of their filing did not "raise issues which the board or the other party or parties cannot reasonably be expected to deal with without adjournment of the oral proceedings" as specified in Article 10b(3) RPBA.

Main request

2. The patent relates to a gear shift arrangement for a bicycle. It is of the type commonly known as a 'grip-shift' in which the control member is rotatable around the handlebar. Rotation of the control member causes corresponding rotation of the take-up element which acts to wind the inner wire of a Bowden cable onto itself. The other end of the Bowden cable is attached to the gear mechanism. Rotation of the control member also causes corresponding rotation of an indicator for showing a rider which gear has been selected. The claims according to this request relate to two of the embodiments which were originally disclosed in the application, those of original figures 6 to 8 and figure 9. The embodiment of original figures 1 to 5 no longer falls within the scope of the claims and the figures have been deleted accordingly. Similarly, the

description has been adapted to remove reference to the deleted embodiment.

3. The first paragraph of the "detailed description of the preferred embodiments", which originally referred to the deleted embodiment, has been retained in an amended form in respect of the embodiment of present figures 1 to 3 which correspond in essence to original figures 6 to 8. This paragraph now attributes the feature of a 'wire receiving case' to the embodiment of present figures 1 to 3. In order to determine whether this is in conformity with the original disclosure of the application it is appropriate to consider the original detailed disclosure of the embodiments of original figures 1 to 5 and 6 to 8.

3.1 The embodiment of original figures 1 to 5 relates to a grip-shift apparatus in which the wire take-up element 3 is concentric with the grip. Original figure 1 illustrated this in the following way:

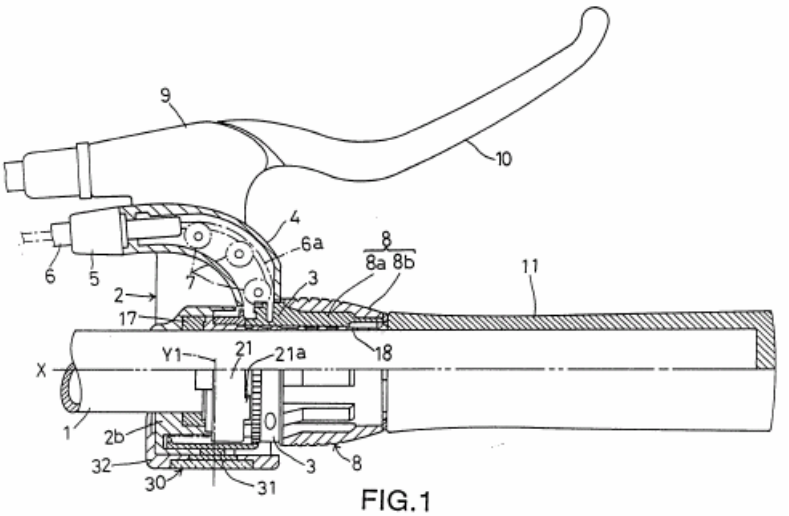


FIG.1

The relevant part of the corresponding description read:

"The frame 2 contains a wire takeup element 3. The frame 2 includes a wire receiving case 4 formed integral therewith and having an outer holder 5 for supporting a control cable 6 extending from a change gear device (not shown) of the bicycle. The control cable 6 has an inner wire 6a guided from the outer holder 5 into the frame 2 by way of a plurality of guide rollers 7 arranged inside the wire receiving case 4."

3.2 In the original second embodiment the wire take-up element 3 is arranged with its rotational axis perpendicular to that of the first embodiment and the corresponding figure illustrated this as:

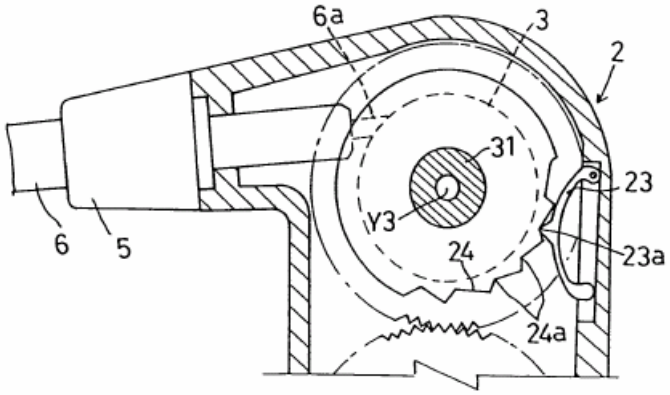


FIG.7

The relevant part of the corresponding description read:

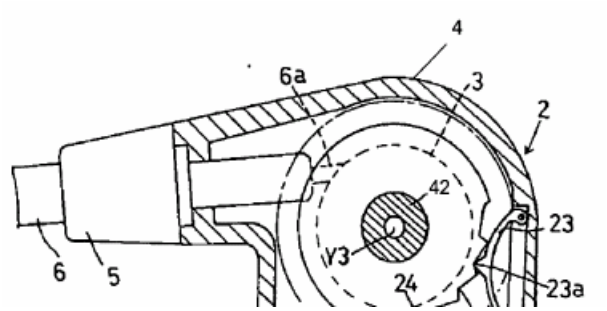
"An outer tube of a control cable 6 extending from a change gear device of the bicycle is supported by an outer holder 5 provided on the frame 2. An inner wire

6a of the control cable 6 extends into the frame to be connected to the takeup element 3."

3.3 To the knowledge of the board and contrary to the assertions of the respondent who provided no evidence otherwise, the term 'wire receiving case' has no accepted meaning in the art. Even if there were an accepted meaning in the art, in accordance with jurisprudence of the boards of appeal an application forms its own dictionary and the skilled person would form an understanding of the term from the first and only embodiment for which it is used. As derivable from the disclosure set out in 3.1 above the wire receiving case is provided with an outer holder, serves to guide the inner wire correctly onto the take-up element and is located between the outer holder and the remainder of the frame. As may be seen from 3.2 above in respect of the second embodiment, on the other hand, where neither the term 'wire receiving case' nor the associated reference numeral '4' was used, because of the different orientation of the take-up element the inner wire passes directly onto it without any guidance. Whereas in the first embodiment the outer holder 5 was provided on the wire receiving case, the description in respect of this second embodiment explicitly stated that the outer holder was provided on the frame. From all of this information the skilled person would clearly understand that the feature which in the first embodiment was designated as a 'wire receiving case' was not present in the second embodiment.

3.4 Present figure 2 differs from original figure 7 in as far as the reference numeral '4' has been added, as may

be seen in this partial reproduction of present figure 2:



As can be clearly seen the reference numeral '4' for the wire receiving case has simply been attached to that region of the frame within which the take-up element is located. This does not even correspond to the original teaching as set out in 3.1 above according to which the outer holder is provided on the wire receiving case.

3.5 Since the present description attributes a wire receiving case to the arrangement according to the original second embodiment this provides a teaching to the skilled person which was not contained within the original disclosure, in contravention of the provision of Article 123(2) EPC. Similarly, claim 1 combines the feature of a wire receiving case and an indicator, as disclosed in respect of the original second embodiment, which rotates around an axis different from the axis around which the control member rotates.

4. In view of the above deficiencies the main request must be refused.

First and second auxiliary requests

5. Claim 1 according to each of these requests also combines the feature of a wire receiving case and an indicator, as disclosed in respect of the original second embodiment, which rotates around an axis different from the axis around which the control member rotates. These claims therefore also provide a teaching to the skilled person which was not contained within the original disclosure, in contravention of the provision of Article 123(2) EPC. These requests also therefore must be refused.

Third auxiliary request

Amendment of the description

6. The description according to this request contains neither of the amendments treated above in respect of the main and first and second auxiliary requests. The description has been amended generally for consistency with the single claim. The board considers that these amendments are in accordance with the requirements of the EPC and the appellant has not objected otherwise. However, the appellant argues that one other amendment, in the final two sentences on page 6, unrelated to the grounds for opposition, does not satisfy the requirement of Article 123(2) EPC.

6.1 The final two sentences on page 6 have been amended from the corresponding sentences in the original description (page 10, fourth paragraph) by interchanging the terms "forward" and "backward". These two sentences explain with reference to a figure the

respective senses of rotation of the control member and take-up element through rotation of the intermediate gears.

6.2 It is clear that the term "forward" in respect of the control member when mounted on the handlebar of a bicycle was originally, and still is, intended to signify movement of the upper surface of the control member in the forward direction when mounted on the right-hand side of the handlebar or, in other words, anti-clockwise rotation when viewed from the left. Rotation of the take-up member is clearly defined in terms of winding or unwinding of the inner wire. When the description as originally filed is carefully studied in combination with the figures it is clear that "forward" movement of the control member would not result in winding wire onto the take-up element as originally stated but in unwinding it. It is therefore immediately evident that the corrected version is what was originally intended. It follows that the amendment does not extend the content of the description beyond that of the application as originally filed (Article 123(2) EPC) and satisfies the requirements of Rule 88 EPC.

Compliance of the claim with the requirement of Article 123(3) EPC

7. The claim derives from claim 9 as granted which specifies a shifting apparatus for controlling a change gear device. According to that claim the apparatus contains the feature of an interlock mechanism for transmitting rotation of a shift control member to a take-up element and the take-up element is "rotatable

with said shift control member about said first axis". The normal interpretation of this wording would be that the take-up element rotates about the first axis. However, in the description of the patent specification there is no embodiment having such an interlock mechanism in which the take-up element and control member rotate about a common axis. The wording of the present claim specifies a shifting apparatus "for use on a bicycle" for controlling a change gear device and that the take-up element is "rotatable together with said shift control member … whereas the shift control member is rotating about said first axis", thereby avoiding the interpretation mentioned above. Whilst this amendment is permissible in accordance with Rule 57a EPC the question remains whether it contravenes the provision of Article 123(3) EPC.

7.1 According to Article 123(3) EPC the claims of a European patent may not be amended in opposition proceedings in such a way as to extend the protection conferred. Decisive in this respect is not whether there is an extension in the protection conferred by the individual claim but in that conferred by the claims taken as a whole, cf. G 2/88 reasons 3.2, first paragraph (OJ 1990, 93). If the protection conferred by claim 1 as granted is broader than that conferred by the present claim then the requirement of Article 123(3) EPC is satisfied.

7.2 Claim 1 as granted is fully consistent with the corresponding description and drawings and specifies a shifting apparatus "for use on a bicycle" and "a take-up element rotatable with said shift control member". The wording of the claim specifies no other restriction

as regards the relative arrangement of the take-up element and control member. Any shifting apparatus which is suitable for use on a bicycle and having a take-up element rotatable with the shift control member and which in addition comprises all of the remaining features of claim 1 and any additional feature such as an interlock mechanism would fall within the protection conferred by that claim, irrespective of the relative arrangement of the take-up element and control member. Since the present claim, on the other hand, not only specifies all features of claim 1 as granted but also additional restricting features, the protection which it confers is more restricted that that conferred by claim 1 as granted. The requirement of Article 123(3) EPC therefore is satisfied.

Inventive step of the subject-matter of the claim

8. This claim concerns a shifting apparatus according to the embodiment shown in figure 9 of the drawings of the patent specification as granted in which no two of the control member, take-up member and indicator share an axis of rotation. The closest prior art is known from D13. In that arrangement the shift control member rotates about the longitudinal axis of the handlebar whilst the take-up element rotates about an essentially vertical axis and is driven by the control member through a bevel gear arrangement. The indicator takes the form of an arrow marked on the upper surface of the take-up element, registering with numerals marked along an aperture in a casing and through which the arrow is visible.

8.1 The subject-matter of the present claim differs from that of D13 by the following features:

– the indicator is formed separately from the take-up element; and

– the rotational axis of the indicator is different from the rotational axis of the take-up element.

These differentiating features act together to permit the orientations of both the indicator and the take-up element to be chosen according to their respective functions. For example, the indicator may be positioned for optimum visibility whilst the take-up element may be positioned in order to achieve the desired cable run.

D1 does disclose the idea of inclining the indicator display. However, in D1 the indicator is separate from the take-up element and the two rotate around axes which are mutually generally orthogonal. Inclination of the indicator would be relatively simple, involving its rotation either about the point of engagement of the respective gear teeth or about the axis of the take-up element. By comparison, the indicator and take-up element in D13 are coaxial by virtue of being a single component. Providing for inclination of the indicator relative to the take-up element in that apparatus would require not only separation of the two components but also the introduction of an angled drive means. Such a modification is not rendered obvious by the cited prior art.

9. In the light of the foregoing the board concludes that the subject-matter of the single claim according to the third auxiliary request involves an inventive step (Article 56 EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance with the order to maintain the patent on the basis of the following documents according to the third auxiliary request presented at the oral proceedings on 24 October 2006:

   – the single claim;

   – description pages 1 to 9; and

   – figures 1 to 4 of the drawings.

The Registrar: The Chairman:

A. Vottner S. Crane