

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the **PATENT APPLICATION** of:

Giuseppe Dal Pra'

**Application No.:** 11/366,984

**Confirmation No.:** 2615

**Filed:** March 2, 2006

**For:** ELECTRIC CONTROL DEVICE FOR A  
MOTOR-DRIVEN DERAILLEUR FOR  
BICYCLES

**Group:** 3655

**Examiner:** Rodney Bonck

**Our File:** CAM3-PT002RE

**Date:** January 5, 2010

**SUPPLEMENTAL COMMUNICATION**

Mail Stop Reissue  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is a reissue of U.S. Patent 6,698,567. In response to the December 18, 2009 Office Communication, Applicant submitted an Amendment and Comments Following Communication on December 29, 2009. However, the Reexamination Certificate for U.S. Patent No. 6,698,567 that issued on December 2, 2008 was inadvertently omitted. Therefore, the Reexamination Certificate is submitted concurrently with this Supplemental Communication.

**Applicant:** Giuseppe Dal Pra'  
**Application No.:** 11/366,984

An early action on the merits is respectfully requested.

Respectfully submitted,

Giuseppe Dal Pra'

By /Linda X. Shi/  
Linda X. Shi  
Registration No. 64,800  
(215) 255-9148

Volpe and Koenig, P.C.  
United Plaza, Suite 1600  
30 South 17th Street  
Philadelphia, PA 19103  
Telephone: (215) 568-6400  
Facsimile: (215) 568-6499

LXS/ASV/pp  
Enclosure (1)



US006698567C1

(12) **INTER PARTES REEXAMINATION CERTIFICATE (0042nd)**

**United States Patent**  
**Pra'**

(10) **Number:** **US 6,698,567 C1**  
(45) **Certificate Issued:** **Dec. 2, 2008**

(54) **ELECTRIC CONTROL DEVICE FOR A MOTOR-DRIVEN DERAILLEUR FOR BICYCLES**

(75) **Inventor:** **Giuseppe Dal Pra', Zane (IT)**

(73) **Assignee:** **Campagnolo SRL, Vicenza (IT)**

5,480,356 A	*	1/1996	Campagnolo	474/70
5,494,307 A	*	2/1996	Anderson	280/236
5,514,041 A	*	5/1996	Hsu	474/78
5,653,649 A	*	8/1997	Watarai	474/78
5,728,017 A	*	3/1998	Bellio et al.	474/70
5,819,916 A	*	10/1998	Lee	200/557
5,865,454 A	*	2/1999	Campagnolo	280/238
6,015,036 A	*	1/2000	Fukuda	192/217
6,073,730 A		6/2000	Abe	
6,216,078 B1		4/2001	Jinbo et al.	

**Reexamination Request:**

No. 95/000,044, Jun. 3, 2004

**Reexamination Certificate for:**

Patent No.: **6,698,567**  
Issued: **Mar. 2, 2004**  
Appl. No.: **10/165,117**  
Filed: **Jun. 7, 2002**

**FOREIGN PATENT DOCUMENTS**

CN	2268001 Y	11/1997
JP	5097088	4/1993
JP	7047987	2/1995
JP	10230888	9/1998
JP	200011812	1/2000
JP	200057898	2/2000
JP	2530705	12/2006

(30) **Foreign Application Priority Data**

Jun. 8, 2001 (IT) ..... TO2001A0555

\* cited by examiner

*Primary Examiner*—Rodney H Bonck

(51) **Int. Cl.**  
**B62M 25/08** (2006.01)  
**B62M 25/04** (2006.01)  
**B62M 25/00** (2006.01)

(57) **ABSTRACT**

(52) **U.S. Cl.** ..... **192/217; 192/226; 74/502.2; 74/489**

An electric control device for a motor-driven derailleur for bicycles includes a supporting body fixed to a handlebar of a bicycle, a supporting body, a pair of electric switches to control the gear change carried by the supporting body, and a gear change lever that can be manually operated to control a first of said switches. The gear change lever comprises a first part connected to the supporting body so as to consent shift of the gear change lever between a position at rest and an operating position, and a second part hinged to the first part.

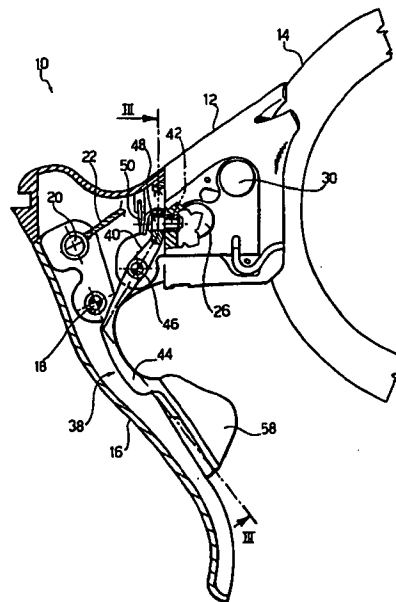
(58) **Field of Classification Search** ..... 200/512  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,071,892 A	*	1/1978	Genzling	701/200
4,143,557 A	*	3/1979	Wakebe et al.	474/80
4,946,425 A	*	8/1990	Buhlmann	474/80
5,358,451 A	*	10/1994	Lacombe et al.	474/78
5,470,277 A		11/1995	Romano	
5,479,776 A	*	1/1996	Romano	74/502.2

At the time of issuance and publication of this certificate, the patent remains subject to pending reissue application No. 11/366,984 filed Mar. 2, 2006. The claim content of the patent may be subsequently revised in the reissue proceeding.



**1**

**INTER PARTES  
REEXAMINATION CERTIFICATE  
ISSUED UNDER 35 U.S.C. 316**

THE PATENT IS HEREBY AMENDED AS  
INDICATED BELOW.

Matter enclosed in heavy brackets [ ] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

Claims 1–8, 15, 18–29 and 43 are cancelled.

Claims 9, 11–14, 16, 17, 30, 31, 33–35, 37, 39–41, 45, 46 and 48 are determined to be patentable as amended.

Claims 10, 32, 36, 38, 42, 44, 47, 49 and 50, dependent on an amended claim, are determined to be patentable.

New claims 51, 52 and 53 are added and determined to be patentable.

9. [A control lever according to claim 8,] *A control lever attached to a support body, mounted on a bicycle handlebar adjacent to a brake lever, for operating at least one switch of a bicycle electric device, said control lever is movable in at least two directions, and positioned so that movement in a first direction brings said lever into operating contact with said at least one switch and movement in a second direction has no operating influence on said at least one switch;*

*wherein said lever is movable in a third direction and positioned so that movement of the lever in a third direction brings said lever into operating contact with a second switch;*

*wherein said movement in a third direction for bringing said lever into operating contact with said second switch is performed by a first lever part;*

*wherein a second lever part is movable with respect to said first lever part;*

*wherein said second lever part is articulated on said first lever part around a first axis; and*

*wherein said first lever part acts on said first switch by pivoting around a second axis in the first direction, wherein the first axis and the second axis are offset from each other.*

11. [A control lever according to claim 10,] *A control lever attached to a support body, mounted on a bicycle handlebar adjacent to a brake lever, for operating at least one switch of a bicycle electric device, said control lever is movable in at least two directions, and positioned so that movement in a first direction brings said lever into operating contact with said at least one switch and movement in a second direction has no operating influence on said at least one switch,*

*wherein said lever is movable in a third direction and positioned so that movement of the lever in a third direction brings said lever into operating contact with a second switch,*

*wherein a second lever part is movable with respect to a first lever part,*

*wherein said second lever part is articulated on said first lever part around a first axis,*

**2**

*wherein said first lever part acts on said second switch by pivoting around said second axis in a second direction, and*

*wherein said [first pivoting] second axis is substantially perpendicular with respect to said first axis.*

12. A control lever according to claim 9 further comprising an articulation pin *about which the control lever articulates, and [having] a head on said pin* for operating said first switch.

13. [A control lever according to claim 12.] *A control lever attached to a support body, mounted on a bicycle handlebar adjacent to a brake lever, for operating at least one switch of a bicycle electric device, said control lever is movable in at least two directions, and positioned so that movement in a first direction brings said lever into operating contact with said at least one switch and movement in a second direction has no operating influence on said at least one switch, comprising an articulation pin having a head for operating said first switch,*

*wherein said lever is movable in a third direction and positioned so that movement of the lever in a third direction brings said lever into operating contact with a second switch,*

*wherein said movement in a third direction for bringing said lever into operating contact with said second switch is performed by a first lever part,*

*wherein a second lever part is movable with respect to said first lever part,*

*wherein said second lever part is articulated on said first lever part around a first axis,*

*wherein said first lever part acts on said first switch by pivoting around a second axis in the first direction, and*

*wherein said articulation pin has two opposite heads for operating, respectively, said first and said second [switch] switches, respectively.*

14. A control lever according to claim [8] 9 further comprising [elastic means] *a torsional spring* operatively associated between the first lever part and the second lever part.

16. [A control lever according to claim 8,] *A control lever attached to a support body, mounted on a bicycle handlebar adjacent to a brake lever, for operating at least one switch of a bicycle electric device, said control lever is movable in at least two directions, and positioned so that movement in a first direction brings said lever into operating contact with said at least one switch and movement in a second direction has no operating influence on said at least one switch;*

*wherein said lever is movable in a third direction and positioned so that movement of the lever in a third direction brings said lever into operating contact with a second switch;*

*wherein said movement in a third direction for bringing said lever into operating contact with said second switch is performed by a first lever part;*

*wherein a second lever part is movable with respect to said first lever part;*

*wherein said second lever part is articulated on said first lever part around a first axis;*

*wherein the first axis and the second axis are offset from each other; and*

*wherein the first lever part acts on said first switch by [means of sliding means] a means for sliding the first lever part.*

17. [A control lever according to claim 8,] *A control lever attached to a support body, mounted on a bicycle handlebar adjacent to a brake lever, for operating at least one switch of*

3

a bicycle electric device, said control lever is movable in at least two directions, and positioned so that movement in a first direction brings said lever into operating contact with said at least one switch and movement in a second direction has no operating influence on said at least one switch;

wherein said lever is movable in a third direction and positioned so that movement of the lever in a third direction brings said lever into operating contact with a second switch;

wherein said movement in a third direction for bringing said lever into operating contact with said second switch is performed by a first lever part;

wherein a second lever part is movable with respect to said first lever part;

wherein said second lever part is articulated on said first lever part around a first axis;

wherein the first axis and the second axis are offset from each other; and

wherein the first lever part acts on said first switch by means of elastic means for biasing the first lever part away from the first switch.

30. An electric control device for a motor-driven derailleur for bicycles, comprising:

a supporting body provided with means for fixing it to a bicycle handlebar,

a pair of electric switches to control the gear change, carried by the supporting body, and

a gear change lever that can be operated manually to control at least one of said switches,

wherein the gear change lever comprises:

a first part connected to the supporting body in order to allow shift of the gear change lever between a position at rest and an operating position of said first switch, and

a second part hinged to the first part about a pin, with the first part and second parts contacting a torsion spring that is mounted on the pin.

31. Device according to claim 30, wherein said first part is hinged to the supporting body around an axis orthogonal or substantially orthogonal in relation to a pivotal axis [between the first part and the second part] of the pin.

33. [Device according to claim 32.] An electric control device for a motor-driven derailleur for bicycles, comprising:

a supporting body provided with means for fixing it to a bicycle handlebar,

a pair of electric switches to control the gear change, carried by the supporting body, and

a gear change lever that can be operated manually to control at least one of said switches,

wherein the gear change lever comprises:

a first part connected to the supporting body in order to allow shift of the gear change lever between a position at rest and an operating position of said first switch, and

a second part hinged to the first part, wherein said first part comprises an elastically deformable element comprising [wherein said elastically deformable element comprises] a metal lamina with a base fixed to the supporting body and an elastically deformable branch hinged to which is the second part.

34. [Device according to claim 30.] An electric control device for a motor-driven derailleur for bicycles, comprising:

4

a supporting body provided with means for fixing it to a bicycle handlebar,

a pair of electric switches to control the gear change, carried by the supporting body, and

a gear change lever that can be operated manually to control at least one of said switches,

wherein the gear change lever comprises:

a first part connected to the supporting body in order to allow shift of the gear change lever between a position at rest and an operating position of said first switch, and

a second part hinged to the first part,

wherein said first part comprises a block mounted slidably in relation to the supporting body along a rectilinear direction.

35. Device according to claim [30] 34, wherein said block is mounted slidably on guide means carried by the supporting body.

37. [Device according to claim 31.] An elastic control device for a motor-driven derailleur for bicycles, comprising:

a supporting body provided with means for fixing it to a bicycle handlebar,

a pair of electric switches to control the gear change, carried by the supporting body, and

a gear change lever that can be operated manually to control at least one of said switches,

wherein the gear change lever comprises:

a first part connected to the supporting body in order to allow shift of the gear change lever between a position at rest and an operating position of said first switch, and

a second part hinged to the first part about a pin, with the first part and second parts contacting a torsion spring that is mounted on the pin,

wherein said first part is hinged to the supporting body around an axis orthogonal or substantially orthogonal in relation to a pivotal axis of the pin, and

wherein one of said axes is parallel or substantially parallel to and offset from the pivotal axis of a brake control lever.

39. Device according to claim 30, wherein the [first and the second part of the gear change lever are hinged to each other by means of a] pin [with] has at least one head facing and capable of contacting at least one of said switches.

40. Device according to claim 30, wherein the second part of the gear change lever has an operating portion facing and capable of contacting at least one of said switches.

41. Device according to claim 30, wherein the first part of the gear change lever has an operating portion facing and capable of contacting at least one of said switches.

45. Device according to claim 30, wherein said electric switches are mounted on a supporting plate [in turn mounted on] in contact with the supporting body.

46. [Device according to claim 45.] An electric control device for a motor-driven derailleur for bicycles, comprising:

a supporting body provided with means for fixing it to a bicycle handlebar,

a pair of electric switches to control the gear change, carried by the supporting body, and

a gear change lever that can be operated manually to control at least one of said switches,

wherein the gear change lever comprises:

a first part connected to the supporting body in order to allow shift of the gear change lever between a position at rest and an operating position of said first switch, and

5

a second part hinged to the first part, wherein said electric switches are positioned and mounted on opposite faces of a supporting plate in turn mounted on the supporting body [wherein the aforesaid electric switches are positioned on opposite faces of said supporting plate].

48. [Device according to claim 30.] An electric control device for a motor-driven derailleur for bicycles, comprising:

a supporting body provided with means for fixing it to a bicycle handlebar,

a pair of electric switches to control the gear change, carried by the supporting body, and

a gear change lever that can be operated manually to control at least one of said switches,

wherein the gear change lever comprises:

a first part connected to the supporting body in order to allow shift of the gear change lever between a position at rest and an operating position of said first switch, and

a second part hinged to the first part about a pin, with the first part and second parts contacting a torsion spring that is mounted on the pin;

wherein said switches are mounted on opposite sides with respect to the gear change lever.

51. A control lever attached to a support body, mounted on a bicycle handlebar adjacent to a brake lever, for operating at least one switch of a bicycle electric device, said control lever is movable in at least two directions, and positioned so that movement in a first direction brings said lever into operating contact with said at least one switch, while movement in a second direction has no operating influence on said at least one switch, and movement in said second direction does not move said at least one switch.

52. An electric control device for a motor-driven derailleur for bicycles, comprising:

a supporting body provided with means for fixing it to a bicycle handlebar,

a gear change lever that can be operated manually to control at least one of said switches,

6

wherein the gear change lever comprises:

a first part connected to the supporting body in order to allow shift of the gear change lever between a position at rest and an operating position of said first switch, and

a second part hinged to the first part about a pin, wherein movement of the second part about an axis of the pin has no effect on either of the pair of switches.

53. A control lever attached to a support body, mounted on a bicycle handlebar adjacent to a brake lever, for operating at least one switch of a bicycle electric device, said control lever is movable in at least two directions, and positioned so that movement in a first direction brings said lever into operating contact with said at least one switch and movement in a second direction has no operating influence on said at least one switch, comprising an articulation pin having a head for operating said first switch,

wherein said lever is movable in a third direction and positioned so that movement of the lever in a third direction brings said lever into operating contact with a second switch,

wherein said movement in said third direction for bringing said lever into operating contact with said second switch is performed by a first lever part,

wherein a second lever part is movable with respect to said first lever part

wherein said second lever part is articulated on said first lever part around a first axis,

wherein said first lever part acts on said first switch by pivoting around a second axis in the first direction, and

wherein said articulation pin has two opposite heads for operating at least one of said first and said second switches.

\* \* \* \* \*