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(54) **Method for car racing**

(57) According to the invented method and instrument, along the predetermined time period (Xs) where there are comprised the last seconds before the expiry of the imposed time for the transit through a race passage, in each second of said period a plurality of controlled sounds is generated (BEEP-BEEP, BEEP-BOP,

BEEP-BOP-BEEP, BEEP-BOP-BOP-BEEP, BEEP-BOP-BOP-BOP-BEEP) such as to fractionate acoustically each one second period and generate a rhythm of the sounds that the competitor appreciates for reaching the best possible accuracy in the regularity driving.

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Description

Field of the invention.

[0001] The present invention is in the field of regularity motor racing and , in particular, relates to a method and a tool to help the crew of a car in motor regularity race to improve the temporal precision of each transit at the steps programmed in the race.

[0002] In the remainder of this text the crew in a race (driver and possible codriver) will be simply referred to as - the competitor -.

State of the art.

[0003] In the regularity motor racing the goal of a competitor is to be as accurate as possible in driving his car along a predetermined path as to meet the imposed times. The precision required in the current regularity races is of the order of the hundredth of a second and the competitor uses instruments that basically are or comprise very precise stopwatches which acoustically indicate each of the last seconds comprised in a time period before the expiry of the imposed time (usually but not necessarily for said time period the competitor chooses the last fifteen seconds) so that the competitor, conveniently using the accelerator, the brake, his eyes and the suitable instrument, can achieve various speeds, such as to cause him to pass through each step on the expiration of the imposed time or as near to it as possible.

[0004] The predetermined time period where the last seconds are comprised before the expiry of the imposed period for the transit through the passage is here conventionally referred to as - approaching period -.

[0005] Currently, all equipment available, regardless of the degree of sophistication of the features, are chronometers of great precision, programmable in function of the time imposed in the individual performances of each race, which , when sent away, they begin a count-down dumb along almost all of the route, and, from the beginning of the approaching period, "beat " each of the remaining seconds by emitting a sound equal in each of the seconds.

[0006] This method , tested and universally diffused (regular motoring is widespread throughout Europe, Russia, Japan , South America) now proves insufficient , since the practice of competitors and the widespread use of this type of race brought the average error of passage in recent years from about nine hundredths of a second per passage to about three hundredths of a second per passage, flattening unfortunately the results of the demonstrations.

Purpose of the invention.

[0007] The purpose of the invented method is to help a competitor to transit to each passage with minimum time error and, therefore, totaling in the race a minimum

timing error average , while the purpose of the instrument is to provide the competitor the series of sounds or beeps in accordance with the method.

5 Basis of the invention.

[0008] According to the method, the instrument is adapted to generate, in each of the seconds of the approaching period, a plurality of controlled sounds so as to fractionate acoustically each period of a second and generate a "rhythm" of the sounds that the experience gained by the inventor showed to help the competitor's concentration and driving precision in the regularity race and, therefore, in passing through each of the steps of the race.

[0009] Alternatively, the sounds emitted by the instrument are issued in alternating seconds: a period of one second in which the controlled sounds are emitted followed by a one second period where no sounds are emitted , and so throughout the approaching period.

[0010] The sounds coming from the instrument have the same tone or are alternating in different tones and, preferably, the sounds are generated with the same time intervals throughout the approaching period. The sounds used in the method may have the same acoustic characteristics of the sounds used by the conventional stopwatches for sports competitions.

[0011] Alternatively again , the sounds emitted by the instrument are divided into equal groups for each partial period of time in which the approaching period is fractionated, each group comprising an assembly of close sounds in case that the competitor is delayed with respect to the imposed time and an assembly of spaced sounds in the case that the competitor is in advance with respect to the imposed time.

Examples of invention embodiment.

[0012] The invention will be described more in detail by way of examples. Conventionally , we call BEEP-BEEP two alternating sounds having equal tone; call BIP-BOP two alternating sounds of different tones, call BEEP-BOP-BEEP three alternating sounds, call BEEP-BOP-BOP-BEEP four alternating sounds and call BEEP-BOP-BOP-BOP-BEEP five alternating sounds, and so on up to a number of sounds for each second still helping a competitor, taking into account the fact that the approaching period chosen (Xs) may be greater than fifteen seconds.

[0013] One way of carrying out the invention is one in which, at the beginning of the approaching period (Xs), the instrument emits a sound and at the half of the first second emits another sound , of tone equal to or different from the previous sound, and so on all along the seconds remaining in the approaching period. With an approaching period of fifteen seconds, the instrument will emit fifteen groups of sounds or BEEP-BEEP or BEEP-BOP.

[0014] Another way of carrying out the invention is one

in which the approaching period X_s is of fifteen seconds fractioned into three equal periods of time, each of five seconds; in the first period the instrument emits two sounds, of same or different tones, in the second period the instrument emits three sounds, of the same or different tones, and in the third period the instrument emits four sounds, of the same or different tones. With an approaching period of fifteen seconds, the instrument will emit in the first five seconds a first group of two sounds BEEP-BIP or BEEP-BOP; in the next five seconds, the instrument will emit a second group of three sounds BEEP-BEEP-BEEP or BEEP-BOP-BEEP and in the last period of five seconds the instrument will emit a third group of four sounds BEEP-BEEP-BEEP-BEEP or BEEP-BOP-BEEP-BOP, always equally spaced in each group.

[0015] The invented instrument comprises a stopwatch suitable to be set prior to each departure in a regularity race so that it counts each second, from the moment of departure until the approaching period (X_s), where in that period, the stopwatch emits sounds in accordance with the method described.

Claims

1. A method for improving the accuracy of the transit time to the steps of a car regularity race **characterized in that** it is implemented during the predetermined period (X_s) in which are included the last seconds before the expiration of the time imposed for the transit through a race passage in each of the second of said period a plurality of controlled sounds being generated (BEEP-BEEP, BEEP-BOP, BEEP-BOP-BEEP, BEEP-BOP-BOP-BEEP, BEEP-BOP-BOP-BOP-BEEP) so as to fractionate acoustically each one second period and generate a rythm of souns that the competitor appreciates for reaching the best possible accuracy in his regularity driving.
2. Method according to claim 1 **characterized in that** the sounds are generated in alternating seconds: a period of one second in which the controlled sounds are emitted followed by a one second period where no sounds are emitted and so throughout the predetermined period.
3. Method according to claims 1, 2 **characterized in that** the sounds are the same or are alternated in different tones and, preferably, the sounds are generated with the same time intervals throughout said predetermined period.
4. Method according to claims 1, 2 **characterized in that** the sounds are divided into equal groups for each partial time period in which said predetermined period is divided, each group comprising an assembly of proximate sounds in the case in which the com-

petitor is delayed with respect to the time imposed and an assembly of spaced sounds in case the competitor is in advance with respect to the time imposed .

5. Method according to the preceding claims **characterized in that** said predetermined period (X_s) is divided into (n) equal time periods, each of X / n seconds , in the first period the instrument emits two sounds, of same or different tones, in the second period the instrument emits three sounds, of same or different tones, in the third period the instrument emits four sounds , of same or different tones, and so on, up to not exceeding the number of sounds that the competitor appreciates for reaching the best possible accuracy in his regularity driving.
6. Instrument including a stopwatch suitable to be set prior to each departure of a regularity race so that it counts each second from the start moment until the beginning of said predetermined period (X_s) **characterized in that** from the beginning of said predetermined period (X_s) the stopwatch emits sounds in accordance with the method described in the claims 1-5.



EUROPEAN SEARCH REPORT

Application Number
EP 15 00 1765

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	Anonymous: "Nuovo Cronometro multifunzione C-300. Il miglior Blizz di sempre", 14 September 2012 (2012-09-14), XP055174607, Retrieved from the Internet: URL:https://web.archive.org/web/20120914061458/http://www.blizz-timing.com/prod_c300.html [retrieved on 2015-03-06]	1-3,6	INV. G07C1/24 G04F3/08
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A	* Page 2, paragraph "Countdown timer" * -/--	4,5	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 16 July 2015	Examiner Pirozzi, Giuseppe
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			



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	& "Operation Guide 2926 1 M00503-EB Moon / Tide Data Mode Countdown Timer Mode Dual Time Mode Timekeeping Mode Alarm Mode", 26 June 2013 (2013-06-26), XP055174886, Retrieved from the Internet: URL: https://web.archive.org/web/20130626061424/http://ftp.casio.co.jp/pub/world_manual/wat/en/qw2926.pdf [retrieved on 2015-03-09] * Page 2, paragraph "Countdown Timer" * -----		
			TECHNICAL FIELDS SEARCHED (IPC)
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
The Hague	16 July 2015	Pirozzi, Giuseppe	
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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