

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

0 530 390 A1

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **91114746.0**(51) Int. Cl.⁵: **A63B 49/02**(22) Date of filing: **02.09.91**

A request for addition of the missing drawing figs 2 and 3 has been filed pursuant to Rule 88 EPC. A decision on the request will be taken during the proceedings before the Examining Division (Guidelines for Examination in the EPO, A-V, 2.2).

(43) Date of publication of application:
10.03.93 Bulletin 93/10

(84) Designated Contracting States:
AT BE CH DE ES FR GB GR IT LI NL SE

(71) Applicant: **Chang, Jen-Sheng**
No. 43-4, Lane 50, Pei Tun Rd.
Tai chung City, Taiwan(TW)

(72) Inventor: **Chang, Jen-Sheng**
No. 43-4, Lane 50, Pei Tun Rd.
Tai chung City, Taiwan(TW)

(74) Representative: **Füchsle, Klaus, Dipl.-Ing. et al**
Hoffmann . Eitle & Partner Patentanwälte
Arabellastrasse 4
W-8000 München 81 (DE)

(54) **Metallic tennis racket.**

(57) The invention relates to a metallic tennis racket (1) having nearly the same structure as a traditional tennis racket with the exception that there is no throat on the front of a handle (2) of the tennis racket (1), and several middle main strings (11) are stretched down on a string shoulder (10) provided just on the front of the handle (2), making the string net longer than a traditional racket for hitting a ball.

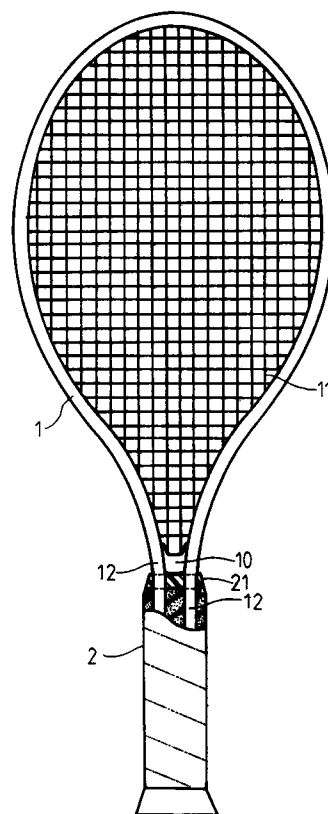


Fig.1

EP 0 530 390 A1

Background Of The Invention

Traditional metallic tennis rackets generally have a throat between a string net for hitting a ball and a handle, and the string net is shaped nearly oval. The space or dimension of hitting a ball directly has an effect on bouncing back a ball. But the structure of traditional tennis rackets is not suitable for a beginner, who needs to learn how to control a ball at the moment when a racket hits a ball. Traditional tennis rackets do not have advantageous structure to assist a beginner in learning to play tennis.

Summary Of The Invention

This invention has been devised, to supply a new metallic tennis racket which takes a longer time for bouncing back a ball in hitting it than a traditional one so that a beginner can have comparatively enough time in learning technique how to control a ball when a racket hits a ball.

A new metallic tennis racket in the present invention has almost the same structure as a traditional one, but does not have a throat on a front of a handle, having several middle main strings extending down to be stretched through a string shoulder provided just on the front of the handle. Therefore, the several middle main strings are longer than those in a traditional racket, slowing down the time and speed in bouncing back a ball when the racket hits it so that a beginner can have comparatively enough time in learning the relations of the surface of the string net and a hitting angle of a ball and thus can gradually acquire technique of ball control.

Brief Description Of The Drawings

Figure 1 is an elevational view of the first embodiment of an metallic tennis racket in the present invention.

Figure 2 is an elevational view of the second embodiment of an metallic tennis racket in the present invention.

Figure 3 is an elevational view of the third embodiment of an metallic tennis racket in the present invention.

Detailed Description Of The Invention

The first embodiment of an metallic tennis racket 1 in the Present invention, as shown in Fig. 1, has almost the same structure as a traditional tennis racket, except that it has no throat, having several middle main strings 11 stretched down on a string shoulder 10 provided just on a front 21 of a handle 2. The string shoulder 10 has the same

width as the distance between two frame bodies at a shaft 12 for several middle main strings to be extended through thereon.

The second embodiment of an metallic tennis racket in the present invention, as shown in Fig. 2, has almost the same structure as the first embodiment with the exception that the string shoulder 210 and the front 21 of the handle 2 are formed together as a unit so as to facilitate combination of a tennis racket and production of components.

The third embodiment of an metallic tennis racket in the present invention, as shown in Fig. 3 also has almost the same structure as the first and the second embodiment but with the exception that there is no string shoulder 10 or 210, having the middle main strings are directly fixed on the front 21 of the handle 2.

From the description above mentioned and reference to Figs. 1-3, it can be understood that the main feature of the metallic tennis racket in the present invention is that the space or dimension of a string net for hitting a ball extends down to the front 21 of the handle 2, and thus the longer middle main strings 11 than those in a traditional one can slow down the speed and the time for the string net to bounce back a ball when it hits the ball. Then it may be useful for a beginner to learn to play tennis in having comparatively enough time to comprehend relations between the string net surface and the hitting angle of a ball and technique for controlling a ball.

Wider extension of the hitting space of the string net and omission of the throat of a traditional racket in the present invention can also economize its cost by speedy process and assemblage, as its process work only needs stretching the strings, fixing the front, the rear and the handle between the front and the rear and wrapping the outer surface of the handle with foam rubber.

Claims

1. A tennis racket having almost the same structure as a traditional one, but not having a throat on a front of a handle, and several middle main strings extending down to the upper face of the front of the handle so that the space of the string net extends down to abut on the front of the handle.
2. Tennis racket as claimed in Claim 1, wherein a string shoulder is provided on the front of handle for several middle main strings to be stretched down on the string shoulder.
3. Tennis racket as claimed in Claim 1, wherein a string shoulder can be formed together with the front of the handle as one unit for stretch-

ing several middle main strings thereon.

4. Tennis racket as claimed in Claims 1 to 3,
wherein the tennis racket is metallic.

5

10

15

20

25

30

35

40

45

50

55

3

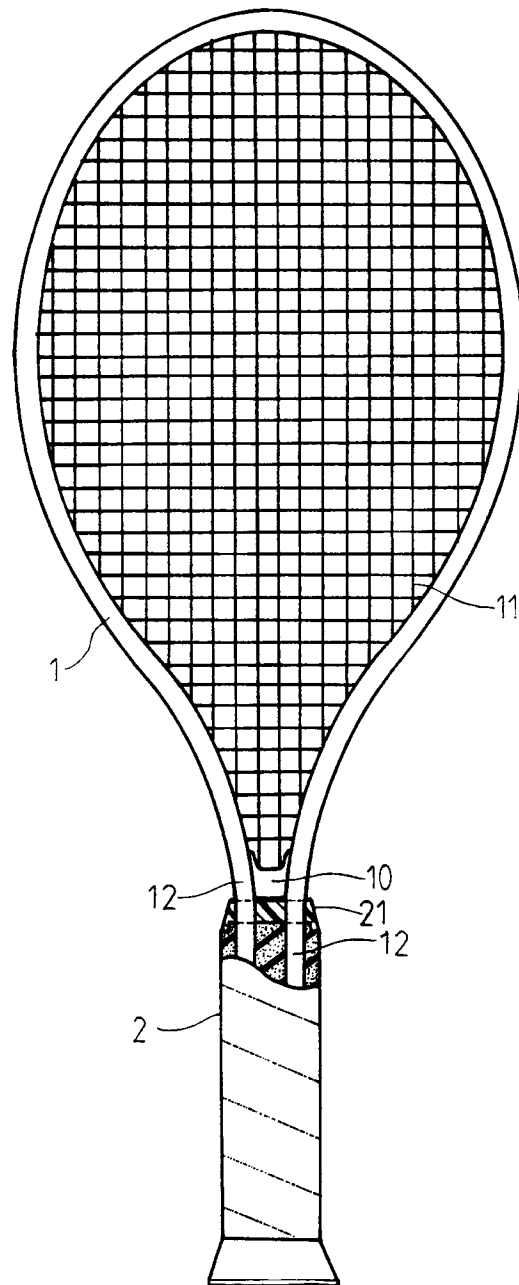


Fig.1



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 91 11 4746

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	DE-A-2 752 624 (KUEBLER & CO.) * page 8, line 30 - page 9, line 7 * ---	1-4	A63B49/02
A	GB-A-2 056 288 (TSAI CHEN SOONG) * abstract ; figure 1 * ---	1	
A	DE-U-9 100 343 (KUNI TSENG) * Page 3 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			A63B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 26 MAY 1992	Examiner GERARD B.
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			