

Title (en)

RACKET FOR GAMES WITH BALLS OF LIMITED ELASTICITY

Publication

EP 0176021 A3 19861008 (DE)

Application

EP 85111713 A 19850917

Priority

DE 3434956 A 19840922

Abstract (en)

[origin: US4664380A] A racket for playing a game using a ball of limited resiliency such as a tennis racket comprises a racket head frame portion provided with stringing, a handle, and a shaft arrangement connecting the racket head frame portion and the handle. The resonance frequency of the racket head frame portion at least approximately corresponds to the period of time for which a ball is in contact with the strings of the racket when struck thereby, and the natural frequency of the racket substantially corresponds to the excitation frequency of the ball. The thickness of the racket frame as measured in a direction normal to the plane of the stringing is greater than the thickness of the handle as measured in a corresponding direction.

IPC 1-7

A63B 49/00

IPC 8 full level

A63B 49/00 (2015.01); **A63B 49/02** (2015.01); **A63B 60/00** (2015.01)

CPC (source: EP US)

A63B 49/00 (2013.01 - EP US); **A63B 49/03** (2015.10 - EP); **A63B 60/002** (2020.08 - EP); **A63B 60/002** (2020.08 - US);
A63B 2049/0211 (2013.01 - EP US)

Citation (search report)

- [A] DE 2932996 A1 19810226 - DURBIN ENOCH JOB PROF
- [A] US 4165071 A 19790821 - FROLOW JACK L
- [A] US 4291574 A 19810929 - FROLOW JACK L
- [A] EP 0013595 A1 19800723 - STARWIN IND INC [US]
- [A] FR 2195163 A5 19740301 - MARTEL RENE [FR]
- [A] US 1539019 A 19250526 - NIKONOW JOHN P

Cited by

US5277422A; EP0317711A3; FR2626186A1; AU604881B2; EP0168041A3; US4928965A; US5080361A; AT393967B; EP0477533A1;
US5540434A; GB2203953A; FR2614541A1; GB2203953B; US5249798A; EP3539623A1; CN110251906A; JP2019155060A; US10328316B1;
US10646753B2; US10653924B2; US10751581B2; US10946253B2; US11541282B2; US11986705B2; US11986706B2

Designated contracting state (EPC)

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DE 3434898 C2 19930624; DE 3434956 A1 19860403; DE 3582805 D1 19910613; DE 3582987 D1 19910704; DE 8427999 U1 19870326;
US 4664380 A 19870512

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DE 3582987 T 19850917; DE 8427999 U 19840922; US 69818985 A 19850204