

US009436161B2

(12) United States Patent

Kadmiri et al.

(54) MUSICAL WATCH CASE WITH IMPROVED ACOUSTIC PERFORMANCE

(71) Applicant: Montres Breguet SA, L'Abbaye (CH)

(72) Inventors: Younes Kadmiri, Morre (FR); Davide Sarchi, Renens (CH); Polychronis

Nakis Karapatis, Premier (CH)

(73) Assignee: Montres Breguet S.A., L'Abbaye (CH)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 14/863,617

(22) Filed: Sep. 24, 2015

(65) Prior Publication Data

US 2016/0098013 A1 Apr. 7, 2016

(30) Foreign Application Priority Data

Oct. 1, 2014 (EP) 14187235

(51) Int. Cl.

G04B 21/00 (2006.01)

G04B 21/08 (2006.01)

G04B 23/00 (2006.01)

G04B 23/02 (2006.01)

G04B 37/00 (2006.01)

G04B 19/28 (2006.01)

G04B 39/00 (2006.01)

(52) U.S. Cl.

(58) Field of Classification Search

CPC G04B 19/283; G04B 21/00; G04B 21/08; G04B 23/028; G04B 23/005; G04B 39/00 See application file for complete search history.

(10) Patent No.: US 9,436,161 B2

(45) **Date of Patent:** Sep. 6, 2016

(56) References Cited

U.S. PATENT DOCUMENTS

4,258,432	A *	3/1981	Zafferri	
				368/250
4,271,498	A *	6/1981	Zafferri	G04B 39/00
				368/250
7,545,706 1	B2 *	6/2009	Candaux	G04B 21/08
.,,.				368/243
2010/0232262	A1	9/2010	Morata et al.	
2011/0228647	A1*	9/2011	Karapatis	G04B 21/08
				368/244
2012/0002513	A1*	1/2012	Behrend	G04B 37/052
				368/286

FOREIGN PATENT DOCUMENTS

CH	700 102 A2	6/2010
CH	706 079 B1	8/2013
EP	2 228 693 A1	9/2010
WO	WO 00/36473 A1	6/2000

OTHER PUBLICATIONS

European Search Report issued Apr. 13, 2015 in European application 14187235, filed on Oct. 1, 2014 (with English translation).

* cited by examiner

Primary Examiner — Vit W Miska (74) Attorney, Agent, or Firm — Oblon, McClelland, Maier & Neustadt, L.L.P.

(57) ABSTRACT

Watch bezel for a musical watch, directly carrying a gong or forming a gong, this watch bezel including a toroid receiving a watch crystal, and a thin lug perpendicular to the plane of the toroid including an internal thread for securing to a structure, a case of the musical watch includes a case middle and carries this watch bezel indirectly bearing on a main surface of the case middle with a first O-ring sealing gasket, the case middle and the watch bezel are held securely to each other in a position where, in the free state of the watch bezel and with no excess pressure, the watch bezel is at a distance from the main surface having a value corresponding to a predetermined and non-zero play.

19 Claims, 2 Drawing Sheets

