

## Title (en)

Ball of clearly geometrical form, solid material composition, thrown for the percussion of bells of churches and relevant applications

## Title (de)

Kugel mit einer klaren geometrischen Form und einer festen Materialzusammensetzung, die zum Anstoßen von Kirchenglocken und für geeignete Verwendungen geworfen wird

## Title (fr)

Balle de forme géométrique nette, composition en matériau solide, jetée pour la percussion de cloches d'église et applications correspondantes

## Publication

**EP 1883065 A2 20080130 (EN)**

## Application

**EP 07386018 A 20070723**

## Priority

GR 20060100431 A 20060724

## Abstract (en)

Ball of clearly geometrical form, solid material composition, thrown for the percussion of bells of Churches and relevant applications. The invention according to which the percussion element effecting a direct point percussion on (3a) of bell (3) is a ball (1) is innovative in: 1) in relation to known manners of direct or indirect percussion of bells in which the percussion element is, at the instant of time of percussion thereof onto (3a) of (3) (Fig. 1 and 2), mechanically linked with the overall piston operated percussion mechanism usually employed, thereby absorbing pulse sound energy and consequently altering the natural sound of the bell, contrary to the direct point percussion element that is ball (1), which at the instant of percussion is completely free from any mechanical linkage with any material body whatsoever. 2) The movement into channel and guiding route (4) of the catapult (2), that in the same time is the collector of (1) after its percussion onto (3) is carried out with slight frictions, whereby the use of friction reducing suitable ways and materials is not needed. 3) For the reintroduction of (1) at the place of departure (1a) for a new percussion, (1) does not need an energy consuming return spring. 4) The compliant response of (1) in guiding commands thereof is very good and as a result it is easy to exercise a continuous control in the intensity of percussions, as well as in their frequency per 1" of an hour. 5) In each electromagnetic mechanism that is supplied with successively and temporally fast electric power pulses, transient phenomena of inductive fields and electromagnetic radiation are created, wherein the invention (claim 4) offers a method of reduction thereof with the creation in junction (10) of sonar vibrations of (3), an aperture (9), via which is activated the electromagnetic catapult-collector (2) of (1) following percussion of the latter onto (3a) of (3), such aperture being covered by a relatively large extent of metallic electrically inductive mass and functions as a Feed Through capacitor that excludes at a substantial extent the undesirable parasitic currents passing through the same. The electrically grounded bell (3) has the behaviour of a Faraday cage, and contributes decisively in withholding diffusion, outside its body, of inductive electric, magnetic fields and electromagnetic radiation. The two cooperatively employed reported means of withholding parasitic diffusion in the environment, i.e. aperture (9) and the Faraday cage, contribute substantially in the decision of European Union (E.M.C.) relating to the reduction of electromagnetic inductive fields and electromagnetic radiation (Electr. Magn. Conversion) the application of which will become obligatory in Greece as from 1-1-2007.

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