



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
12.10.2011 Bulletin 2011/41

(51) Int Cl.:
H01H 1/025 ^(2006.01) **H01H 1/0237** ^(2006.01)

(43) Date of publication A2:
31.08.2011 Bulletin 2011/35

(21) Application number: **11154050.6**

(22) Date of filing: **10.02.2011**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

(72) Inventors:
• **Kikuchi, Shigeru**
Tokyo 100-8220 (JP)
• **Morita, Ayumu**
Tokyo 100-8220 (JP)
• **Sato, Takashi**
Tokyo 100-8220 (JP)

(30) Priority: **17.02.2010 JP 2010031934**

(71) Applicant: **Hitachi Ltd.**
Tokyo 100-8280 (JP)

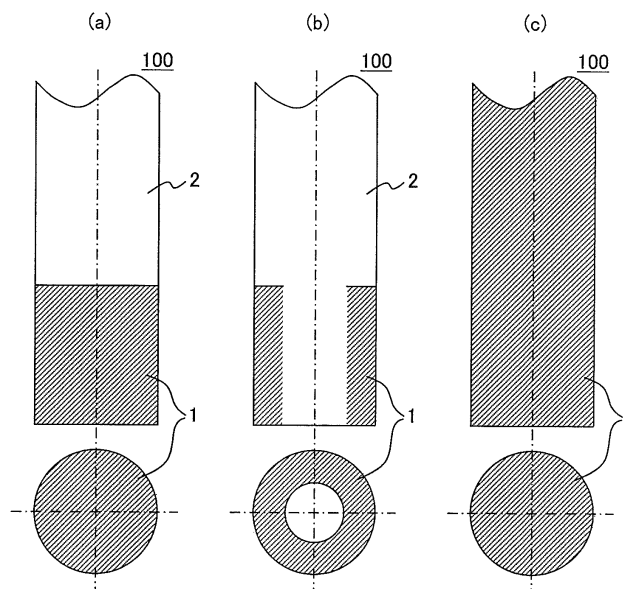
(74) Representative: **Beetz & Partner**
Patentanwälte
Steinsdorfstrasse 10
80538 München (DE)

(54) **Electrical contact and switch device using same**

(57) An electrical contact made of a sintered body comprising particles of a refractory metal selected from the group consisting of C, Mo and W, particles of copper with an electrical conductivity of 95 % or more of an oxygen free pure copper, and particles of an easily oxidiz-

able metal having a free energy for oxide formation lower than those of the refractory metal and the high conductive metal, and a melting point of the easily oxidizable metal being high than that of the high conductive metal, wherein the particles of copper bind the particles of the refractory metal and easily oxidizable metal.

FIG. 1





EUROPEAN SEARCH REPORT

Application Number
EP 11 15 4050

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	GB 1 084 351 A (-) 20 September 1967 (1967-09-20)	1-3,5-8	INV. H01H1/025
A	* page 2, lines 11-38 * -----	4	ADD. H01H1/0237
Y	US 3 184 835 A (COXE CHARLES D ET AL) 25 May 1965 (1965-05-25) * column 4, lines 55-60 * -----	1-3,5-8	
			TECHNICAL FIELDS SEARCHED (IPC)
			H01H
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 5 September 2011	Examiner Simonini, Stefano
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			

2

EPO FORM 1503 03 82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 11 15 4050

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

05-09-2011

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 1084351	A	NONE	
US 3184835	A	25-05-1965	NONE