(11) **EP 1 018 855 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 10.04.2002 Bulletin 2002/15

(51) Int Cl.7: **H05B 3/78**, H05B 3/82

(43) Date of publication A2: 12.07.2000 Bulletin 2000/28

(21) Application number: 99310506.3

(22) Date of filing: 23.12.1999

(84) Designated Contracting States:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Designated Extension States:

AL LT LV MK RO SI

(30) Priority: 30.12.1998 US 114135 P

(71) Applicant: AOS Holding Company Wilmington, DE 19890 (US)

(72) Inventors:

Hughes, Dennis R.
 Hartford, Wisconsin 53027 (US)

 Knoeppel, Ray O. Hartland, Wisonsin 53029 (US)

 (74) Representative: Neill, Alastair William et al APPLEYARD LEES
 15 Clare Road Halifax, West Yorkshire HX1 2HY (GB)

(54) Gold-plated water heater element and method of making same

(57) A self-cleaning water heater element is provided. The water heater element is plated with a layer of gold such that the gold surface has a low surface roughness. The smooth gold surface inhibits scale formation on the water heater element. The gold-plated smooth-surfaced water heater element may be manufactured by

coating a standard water heater element with an adhesion layer, electroplating a layer of bright nickel on the adhesion layer, and electroplating a gold layer on top of the bright nickel layer.



EUROPEAN SEARCH REPORT

Application Number EP 99 31 0506

		ERED TO BE RELEVANT		OI ACCIPIOATION OF THE	
Category	Citation of document with in of relevant pass	dication, where appropriate, ages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)	
X	GB 2 319 950 A (STR 10 June 1998 (1998- * abstract * * page 3, line 17-2 * claims 6,7 *	06-10)	1,3-5,7, 9-11	H05B3/78 H05B3/82	
A	EP 0 656 740 A (SEB 7 June 1995 (1995-0) * column 1, line 3-1 * column 1, line 17 * claims 6,7 *	6-07)	1,9,12	TECHNICAL FIELDS SEARCHED (Int.CI.7) H05B A45D	
	The present search report has b	een drawn up for all claims			
	Place of search	Date of completion of the search		Examiner	
	THE HAGUE	16 January 200	2 D/L	TASSA LAFOR, J	
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 prin E : earlier patent after the filing D : document cit L : document cit	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		

EPO FORM 1503 03.82 (P04C01)

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

EP 99 31 0506

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.

16-01-2002

09-06-1995
07-05-1997 06-03-1997 03-07-1997 29-02-1996 07-06-1995

FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82