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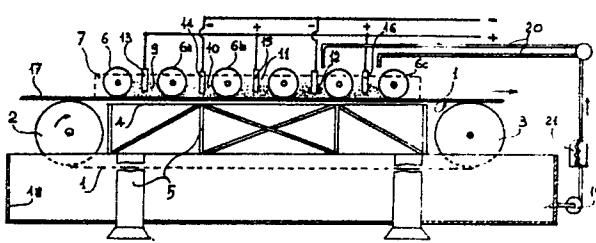
(54) **Process for the anodic oxidation of metals as sheets, tapes and the like, particularly suitable for aluminium and its alloys, and related equipment.**

(57) Process for the anodic oxidation of the metals, in particular of aluminium and its alloys, consisting in making a metal plate or strip (17) advance, by a conveyor means, through a plurality of electrolytic cells, containing the same anodizing bath, and positioned in a sequential approached arrangement; each cell is provided with an electrode (13, 14, 15, 16 etc.) having alternatively opposite polarity relatively to the polarity of the electrodes of the adjacent cells, so as to create oxidizing anodic cells alternated to reducing cathodic cells, able to cause the formation on the metal plate of an oxide layer having increasing thickness, as the plate is conveyed through the sequential oxidizing cells; and then in extracting, from the last cell, which is preferably an oxidizing cell, the plate thus anodized.

EP 0 208 861 A3

An equipment having the purpose of accomplishing such a process, in which an endless belt conveyor (1), taut between end rollers (2, 3), on which a plurality of rollers (6, 6a, 6b, 6c), positioned equally spaced from each other, and closed at their ends by staunch containment side walls, are mounted, each adjacent couple of said rollers (6a, 6a; 6a, 6b) constituting, together with its respective side walls (7, 8), a cell, under each of which cells a plate to be anodized being advanced; to each cell an

electrode (13, 14, 15, 16 etc.) is associated, alternatingly having opposite polarity relatively to the polarity of the electrodes of adjacent cells, all the cells being fed with the same anodizing bath, said plurality of adjacent cells defining oxidizing anodic chambers alternated to reducing cathodic chambers, able to form a layer of oxide by sequential steps of anodic oxidation. Furthermore, means for the recovery of the solution leakages, as well as means for the recycle to the individual cells of said leaked solution are provided.





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EUROPEAN SEARCH REPORT

Application number

EP 86 10 6391

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)		
X, P	DE-A-3 447 575 (FUNAKOSHI) * Page 5, lines 27-36; page 6, lines 1-26 *	1, 2, 7, 8	C 25 D 11/04		
A	FR-A-2 192 873 (KALLE) ---				
A	EP-A-0 032 530 (GEBR. SCHMID GmbH & CO.) ---				
A	GB-A-1 407 947 (FROMSON) ---				
A	US-A-3 799 848 (KOLIC) * Column 17, lines 6-20, 44-45 *	5, 6	<p>TECHNICAL FIELDS SEARCHED (Int. Cl. 4)</p> <p>C 25 D 11/02 C 25 D 11/04 C 25 D 7/06</p>		
<p>The present search report has been drawn up for all claims</p>					
Place of search THE HAGUE	Date of completion of the search 17-08-1987	Examiner VAN LEEUWEN R.H.			
CATEGORY OF CITED DOCUMENTS		<p>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</p>			
X : particularly relevant if taken alone					
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