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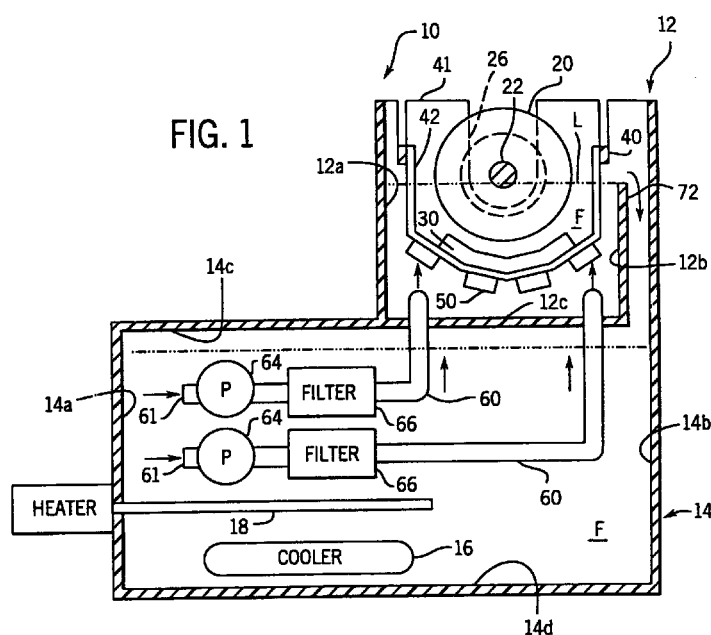
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(54) **Rotogravure cylinder electroplating apparatus using ultrasonic energy**

(57) An apparatus for electroplating and deplating a rotogravure cylinder out of a plating solution includes a plating tank adapted to rotatably maintain the cylinder and to contain a plating solution so that the cylinder is at least partially disposed into the plating solution. The apparatus also includes a mounting structure mountable within the tank partially on each side of and generally below the cylinder, along with a plurality of conductors comprising elongate metallic strips at least partially disposed within the plating solution. A current

source is electrically connected to the upper portions of the conductor strips and to the cylinder. An ultrasonic system to introduce wave energy into the plating solution includes at least one transducer element mountable within the tank and a power generator adapted to provide electrical energy to the transducer element. A holding tank having a circulating pump and heating and cooling elements for the plating solution may be provided.



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EUROPEAN SEARCH REPORT

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Y	EP 0 248 118 A (OLIN CORP) 9 December 1987 * page 4, line 5 - page 5, line 24; claims 1-9; figures 1-3 * ---	1-20	
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			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			C25D
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 3 September 1999	Examiner De Anna, P
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			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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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
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