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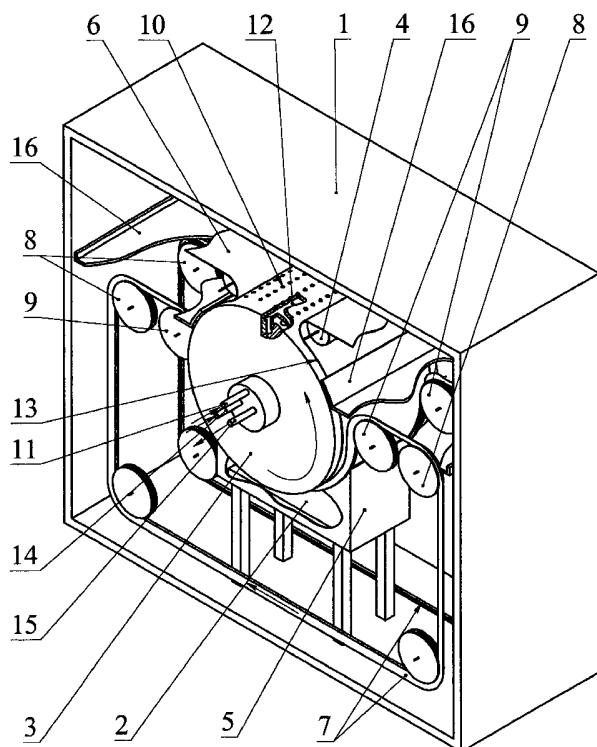
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[Continued on next page]

(54) Title: DEVICE AND METHOD FOR COATING ROLL SUBSTRATES IN VACUUM



(57) Abstract: The invention relates to coating roll substrates in vacuum, particularly to the deposition processes, which are associated with depositing significant amounts of metals or other materials, causing significant thermal loads on the substrate. Nonmetallic roll materials, polymeric films or thin metal foils can be used as substrate. According to the invention the roll vacuum coating device is equipped with a means (7, 8, 9) of hold-down the substrate lateral edges to the supporting surface of the drum (3) and its transverse spreading during the deposition process. The said means of hold-down the substrate lateral edges to the supporting surface of the drum and its transverse spreading can be made as laces of elastic material (7) of special asymmetrical profile, rewound together with the substrate. In other embodiments the means of hold-down the substrate lateral edges to the supporting surface of the drum and its transverse spreading can be made as elastic laces rewound together with the substrate at angle to the drum rotation plane, as an assemblage of pressure rollers mounted at angle to the drum plane, or as disks of equal diameter with the drum, mounted on the drum end faces on trunnion balls, coaxial with the drum. Operating efficiency of the offered method and devices is proved by the experiments, when comparatively thick metal coatings were successfully deposited onto thin polymeric films.

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Minimum documentation searched (classification system followed by classification symbols)
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Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	PATENT ABSTRACTS OF JAPAN vol. 011, no. 124 (C-416), 17 April 1987 (1987-04-17) & JP 61 261479 A (ANELVA CORP), 19 November 1986 (1986-11-19) abstract	1,2,9-12
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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