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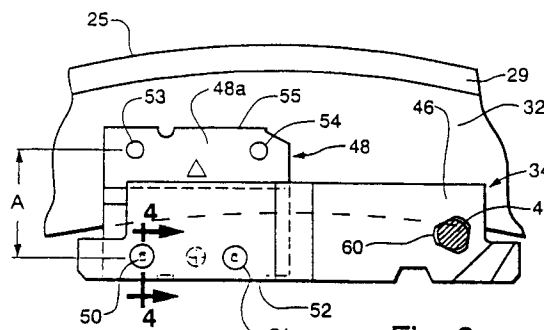
0 644 571 A3

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D-30433 Hannover (DE)(54) **Color picture tube having shadow mask-frame assembly support means.**

(57) An improved color picture tube (8) includes an evacuated glass envelope (10) having a faceplate panel (12) with a cathodoluminescent screen (22) comprising different color-emitting phosphor elements disposed thereon. The panel includes a shadow mask-frame assembly (30) mounted therein by support means (34) located at peripherally spaced positions within the panel. The shadow mask (24) includes an apertured portion (25), the apertures of which are in register with the phosphor elements of the screen. The support means at each spaced position includes a stud (44) attached to the glass envelope, a spring (46) having an aperture (60) therein for engaging the stud, and a plate (48) welded between the spring and the mask-frame assembly. The improvement comprises mechanically joining the spring and the plate by extrusions interlocking the parts together at two-spaced apart locations (50, 51) along one edge (52) of the parts, whereby the spring and the plate are in contact along at least a portion of the facing surfaces thereof. The interlocking extrusions render the spring and plate resis-

tant to shock induced movement, thereby minimizing misregister between apertures in the mask and the phosphor elements of the screen.

**Fig. 3****EP 0 644 571 A3**



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EUROPEAN SEARCH REPORT

Application Number
EP 94 11 4353

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.6)
X	US-A-4 663 561 (BRUNN OTTO) 5 May 1987 * column 1, line 29 - line 52 * * column 2, line 24 - line 29 * * figures *	1,3	H01J29/07
Y	---	2,6-8	
D,Y	US-A-3 803 436 (MORRELL A) 9 April 1974 * abstract; figures * * column 3, line 66 - column 4, line 5 * * column 4, line 30 - line 40 *	2,6-8	
A	---	1	
	PATENT ABSTRACTS OF JAPAN vol. 007 no. 218 (E-200) ,28 September 1983 & JP-A-58 111242 (HITACHI SEISAKUSHO KK) 2 July 1983, * abstract *		
D,A	---	1	
	EP-A-0 446 792 (THOMSON CONSUMER ELECTRONICS) 18 September 1991 * figures * * column 3, line 45 - column 4, line 25 *		TECHNICAL FIELDS SEARCHED (Int.Cl.6)
A	---	1	H01J
	US-A-4 950 941 (RAGLAND JR FRANK R) 21 August 1990 * figures * * column 1, line 64 - column 2, line 9 * * column 3, line 8 - line 17 *		

The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 27 June 1995	Examiner Colvin, G
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 I : document cited for other reasons ----- & : member of the same patent family, corresponding document			