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## (54) A sheet transport system

(57) A sheet feed sensor (116) is designed to have a first given voltage response condition for sensing sheets within a first range of paper weight values and a second given voltage response condition for sensing sheets within a second range of paper weight values. A current value supplied to the emitter (118) of the sensor (116) can be controlled to provide the desired voltage response or a resistance in a phototransistor collector circuit can be varied to provide the desired voltage response condition. If the first range of paper weight values is lighter than the second range of paper weight values,

the sensor (116), when in the first given voltage response condition, will have a voltage response, when sensing a sheet of a given paper weight, which is higher than the voltage response when the same sensor senses a sheet of the same paper weight, when the sensor (116) is in the second given voltage response condition. This way the difference between a voltage response at the phototransistor for a single sheet and a voltage response for two sheets, each of the same paper weight as the single sheet, fed through the sensor is large enough throughout all paper weight ranges to obviate the possibility of voltage response overlap.

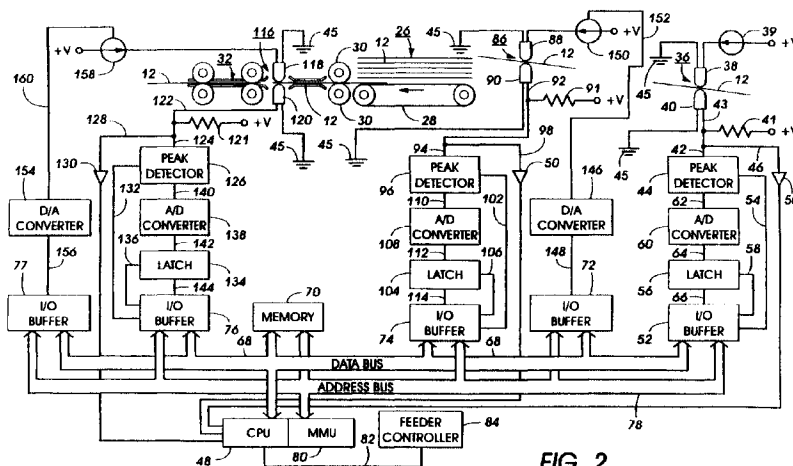


FIG. 2

EP 0 853 258 A3



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# EUROPEAN SEARCH REPORT

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
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A	US 5 586 755 A (HANSEN PAUL) 24 December 1996 * the whole document *	1-15	
A	US 5 503 382 A (HANSEN PAUL ET AL) 2 April 1996 * the whole document *	1-15	
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A	PATENT ABSTRACTS OF JAPAN vol. 010, no. 211 (M-501), 24 July 1986 & JP 61 051444 A (TOKYO KOKU KEIKI KK), 13 March 1986, * abstract *	1, 7, 10, 12	
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The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 9 September 1998	Examiner Hoppe, H
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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# EUROPEAN SEARCH REPORT

Application Number  
EP 98 30 0165

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Place of search		Date of completion of the search	Examiner
BERLIN		9 September 1998	Hoppe, H
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