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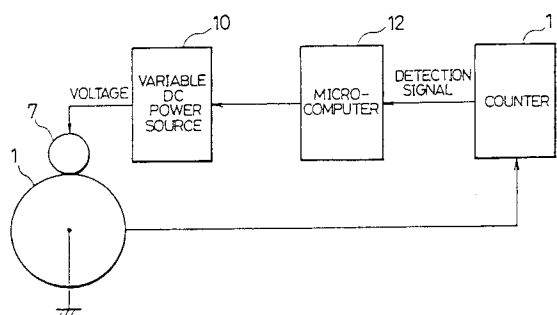
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(54) **Charging device.**

(57) A charging device having a counter (11) for outputting an information signal indicating the number of copies produced as a detection signal indicating a change in the thickness (T_3) of a photosensitive layer (1c), and a microcomputer (12) for correcting the voltage to be applied to a charging roller (7) by a variable DC power source (10). When a detection signal from the counter (11) is input into the microcomputer (12), it corrects the voltage so as to approximate the surface potential of a photoreceptor drum (1) to a set value. With this arrangement, the surface potential (V_c) of the photoreceptor drum (1) is kept uniform, and therefore it is possible to produce copies of good quality constantly. The detection signal can also be used to control the erase lamp for erasing remaining charges on the surface of the photoreceptor drum (1).

FIG. 8





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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.5)
Y	PATENT ABSTRACTS OF JAPAN vol. 14, no. 482 (P-1119)19 October 1990 & JP-A-02 195 366 (SHARP CORP) 1 August 1990 * abstract * ---	1-4,6-7	G03G15/02 G03G15/00 G03G21/00
Y	EP-A-0 338 546 (CANON KABUSHIKI KAISHA) * page 7, line 19 - line 41; figures 2,7 * ---	1-4,6,7	
A	PATENT ABSTRACTS OF JAPAN vol. 7, no. 192 (P-218)(1337) 23 August 1983 & JP-A-58 090 652 (MINOLTA CAMERA K.K.) 30 May 1983 * abstract * ---	1,3,5	
A	PATENT ABSTRACTS OF JAPAN vol. 7, no. 253 (P-235)(1398) 10 November 1983 & JP-A-58 136 057 (CANON K.K.) 12 August 1983 * abstract * ---	1,3,5	
A	PATENT ABSTRACTS OF JAPAN vol. 8, no. 175 (P-294)(1612) 11 August 1984 & JP-A-59 069 774 (FUJI DENKI SEIZO K.K.) 20 April 1984 * abstract * ---	1,5	TECHNICAL FIELDS SEARCHED (Int.Cl.5) G03G
X	PATENT ABSTRACTS OF JAPAN vol. 12, no. 368 (P-766)(3215) 4 October 1988 & JP-A-63 118 783 (RICOH CO LTD) 23 May 1988 * abstract * --- -/--	8-10	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 7 February 1994	Examiner Cigoj, 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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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid,
namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions,
namely:

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- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid,
namely claims:
- ☐ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims,
namely claims:



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Application Number
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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.5)
A	PATENT ABSTRACTS OF JAPAN vol. 13, no. 43 (P-821)(3391) 31 January 1989 & JP-A-63 239 482 (NEC CORP) 5 October 1988 * abstract *	8	
A	PATENT ABSTRACTS OF JAPAN vol. 8, no. 6 (P-247)(1443) 12 January 1984 & JP-A-58 169 170 (RICOH K.K.) 5 October 1983 * abstract *	8	
			TECHNICAL FIELDS SEARCHED (Int.Cl.5)
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 7 February 1994	Examiner Cigoj, 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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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1-7 : Control of voltage of contact charging means
2. Claims 8-10: Control of erase light