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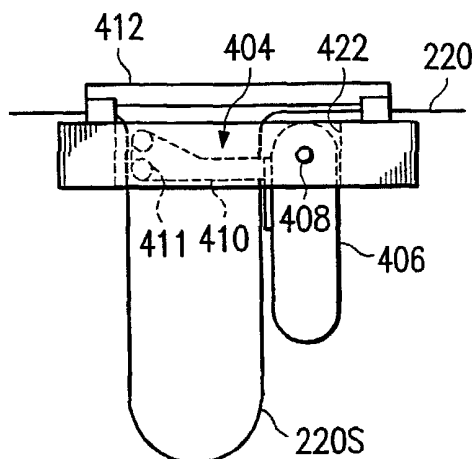
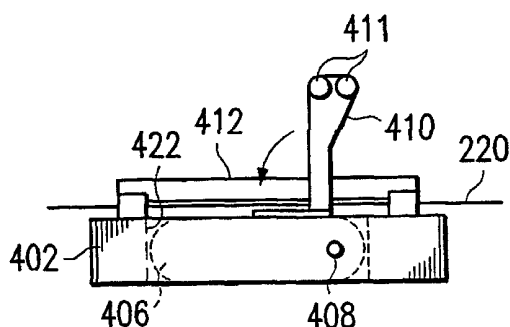
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- (72) Inventors; and
- (75) Inventors/Applicants (for US only): THERING,

(54) Title: METHODS AND APPARATUS FOR TRANSPORTING AND POSITIONING FILM IN A DIGITAL FILM PROCESSING SYSTEM



(57) Abstract: A digital film processing system is provided. Each scanning module in the system has a removable mounting panel to which the scanning and transportation components are secured. An opening or door can be provided between the modules to compensate for film buckling. The film can be tensioned during scanning for control over its position. Tape can be attached to side edges of the film, and the tape can be moved through the system, avoiding contact with the film. Also, a belt transport system can be utilized to contact the film (or attached tape) only on the lateral edges. The film may be threaded through the system by using a leader attached to the lead edge of the film. To transport the film and leader, a transport mechanism having a roller connecting a pair of sprockets may be used, and a single drive unit may be provided to pull the film.



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patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/JS 00/35584

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04N1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N G03D G03B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	EP 0 580 293 A (IBM) 26 January 1994 (1994-01-26) the whole document	43 1,21,29, 36,40,48
Y A	--- EP 0 768 571 A (NORITSU KOKI CO LTD) 16 April 1997 (1997-04-16) abstract column 7, line 34 - line 37	43 40
A	--- EP 0 806 861 A (NORITSU KOKI CO LTD) 12 November 1997 (1997-11-12) column 5, line 14 - line 31	1,5,21
A	--- US 3 833 161 A (KRUMBEIN F) 3 September 1974 (1974-09-03) abstract	40
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

16 July 2001

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26. 11. 2001

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INTERNATIONAL SEARCH REPORT

International Application No

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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.
A	WO 99 43149 A (APPLIED SCIENCE FICTION INC) 26 August 1999 (1999-08-26) -----	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 00/35584

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This international Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-9, 21, 29-52

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-9,21,29-52

Method and system for handling a film strip in a film development system

2. Claims: 10-17

Method and mechanism for tensioning film

3. Claims: 18-20

Modular digital film development system with separable mounting members

4. Claims: 22,23

System for transporting a strip of photographic film using belts contacting lateral portions of the film

5. Claims: 24-28

Apparatus and method for transporting or presenting a film strip using a control surface

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PC7 / US 00/35584

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