



(11) EP 1 887 531 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
02.04.2008 Bulletin 2008/14

(51) Int Cl.:
G07D 1/00 (2006.01) G07D 9/00 (2006.01)

(43) Date of publication A2:
13.02.2008 Bulletin 2008/07

(21) Application number: 07112374.9

(22) Date of filing: 12.07.2007

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE
SI SK TR
Designated Extension States:
AL BA HR MK YU

(30) Priority: 31.07.2006 JP 2006207764

(71) Applicant: ASAHI SEIKO CO., LTD.
Minato-ku
Tokyo 107-0062 (JP)

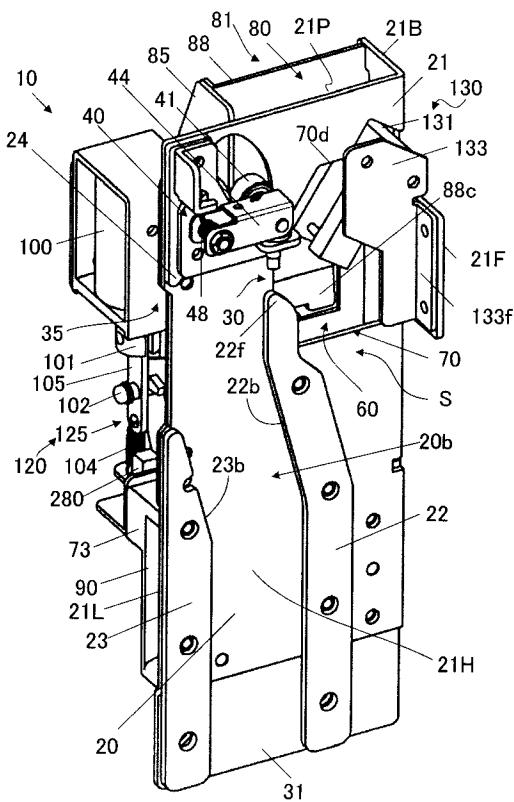
(72) Inventors:
• Abe, Hiroshi
Tokyo 107-0062 (JP)
• Enomoto, Minoru
Tokyo 107-0062 (JP)

(74) Representative: Skone James, Robert Edmund
Gill Jennings & Every LLP
Broadgate House
7 Eldon Street
London EC2M 7LH (GB)

(54) Disc guiding apparatus

(57) A disc guiding apparatus comprises: a guide path (20) that guides disc d in its circumferential direction in line, a disc discharging means (40) that discharges disc d through an outlet (30) of the guide path (20), a discharge path (60) through which discharged disc d is guided, a sensing means (130) that senses disc d discharged into the discharge path (60), a sorting path (80) through which disc d from the discharge path (60) is sorted and discharged, and a sorting means (120) of disc d provided in the sorting path (80).

Fig.3





| DOCUMENTS CONSIDERED TO BE RELEVANT | | | CLASSIFICATION OF THE APPLICATION (IPC) |
|--|--|---|---|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | |
| X | US 5 931 732 A (ABE HIROSHI [JP] ET AL) 3 August 1999 (1999-08-03) * column 5, line 9 - line 15 * * column 5, line 43 - line 51 * * column 6, line 21 - line 31 * * figures 4-8 * ----- X US 2002/193062 A1 (ABE HIROSHI [JP] ET AL) 19 December 2002 (2002-12-19) * paragraph [0026] - paragraph [0038] * * paragraph [0052] - paragraph [0056]; figures 2-6,9-11 * ----- X US 2003/148728 A1 (ABE HIROSHI [JP] ET AL) 7 August 2003 (2003-08-07) * paragraph [0032] * * paragraph [0060] - paragraph [0069] * * figures 2-7 * ----- X EP 1 603 084 A (ASAHI SEIKO CO LTD [JP]) 7 December 2005 (2005-12-07) * paragraph [0047] - paragraph [0056] * * figures 2-6 * ----- | 1 | INV. G07D1/00 G07D9/00 |
| | | | TECHNICAL FIELDS SEARCHED (IPC) |
| | | | G07D |
| 2 | The present search report has been drawn up for all claims | | |
| | Place of search | Date of completion of the search | Examiner |
| | Munich | 22 February 2008 | Paraf, Edouard |
| CATEGORY OF CITED DOCUMENTS | | 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 | |
| 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 | | | |

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 07 11 2374

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

22-02-2008

| Patent document cited in search report | | Publication date | | Patent family member(s) | | Publication date |
|--|----|------------------|----------------------|---|--|--|
| US 5931732 | A | 03-08-1999 | CN GB | 1166010 A 2313222 A | | 26-11-1997 19-11-1997 |
| US 2002193062 | A1 | 19-12-2002 | ES KR NL NL | 2226527 A1 20020096906 A 1020759 C2 1020759 A1 | | 16-03-2005 31-12-2002 30-06-2003 17-12-2002 |
| US 2003148728 | A1 | 07-08-2003 | CN ES GB | 1432522 A 2237985 A1 2385456 A | | 30-07-2003 01-08-2005 20-08-2003 |
| EP 1603084 | A | 07-12-2005 | JP US | 2005346386 A 2005279758 A1 | | 15-12-2005 22-12-2005 |