

Title (en)

Toner storage unit, residual toner collect unit, toner container with these units and image forming apparatus with such toner container.

Title (de)

Tonerspeichereinheit, Resttonersammeleinheit, Tonercontainer mit diesen Einheiten und Bilderzeugungsgerät mit einem solchen Tonercontainer.

Title (fr)

Unité de stockage de toner, unité de collection de toner résiduel, récipient de toner comprenant ces unités et appareil de formation d'image utilisant un tel récipient.

Publication

**EP 0670530 A3 19961002 (EN)**

Application

**EP 95103060 A 19950303**

Priority

JP 5822294 A 19940303

Abstract (en)

[origin: EP0670530A2] A toner container comprises a toner storage section for providing a developer unit with a supply of toner, and a residual toner collect section integrally formed with the toner storage section and adapted to collect residual toner after an image has been developed. The present invention is intended to facilitate positioning, loading and unloading of the toner container, and also enable the toner to be smoothly supplied without being scattered from the toner container. The toner storage section includes a longitudinally extending rotary shaft and a resiliently deformable blade mounted to the rotary shaft. The toner storage section has a bottom, a first side wall, and the other or second side wall. A portion of the blade at a location corresponding to the first side wall is curved larger than a portion of the blade at a location corresponding to the second side wall. Alternatively, a portion of the blade at a location corresponding to the second side wall is curved gradually larger toward a portion of the blade at a location corresponding to the bottom. The toner storage section has an inclined side wall, and the residual toner collect section has an inclined side wall. The side walls of the toner storage section and the residual toner collect section are substantially parallel to the direction in which the toner container is loaded and unloaded. <IMAGE>

IPC 1-7

**G03G 15/08**; **G03G 21/12**

IPC 8 full level

**G03G 15/08** (2006.01); **G03G 21/10** (2006.01); **G03G 21/12** (2006.01)

CPC (source: EP)

**G03G 15/0868** (2013.01); **G03G 15/0875** (2013.01); **G03G 15/0886** (2013.01); **G03G 21/105** (2013.01); **G03G 21/12** (2013.01); **G03G 2215/068** (2013.01); **G03G 2215/0685** (2013.01); **G03G 2215/085** (2013.01)

Citation (search report)

- [XAY] EP 0431615 A2 19910612 - MITA INDUSTRIAL CO LTD [JP]
- [PX] EP 0604991 A2 19940706 - MITA INDUSTRIAL CO LTD [JP]
- [A] US 5124752 A 19920623 - KANNO MAKOTO [JP], et al
- [A] US 5134441 A 19920728 - NAGATA TSUNETOSHI [JP], et al
- [A] EP 0366052 A2 19900502 - KONISHIROKU PHOTO IND [JP]
- [A] US 4122981 A 19781031 - TAKEUCHI KOJI, et al
- [A] EP 0525471 A2 19930203 - MITA INDUSTRIAL CO LTD [JP]
- [A] US 4360944 A 19821130 - IWAI FUMIO, et al
- [A] EP 0382471 A2 19900816 - CANON KK [JP]
- [YA] PATENT ABSTRACTS OF JAPAN vol. 014, no. 021 (P - 990) 17 January 1990 (1990-01-17)
- [YA] PATENT ABSTRACTS OF JAPAN vol. 009, no. 253 (P - 395) 11 October 1985 (1985-10-11)
- [A] PATENT ABSTRACTS OF JAPAN vol. 005, no. 202 (P - 095) 22 December 1981 (1981-12-22)
- [A] PATENT ABSTRACTS OF JAPAN vol. 012, no. 255 (P - 732) 19 July 1988 (1988-07-19)
- [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 478 (P - 951) 30 October 1989 (1989-10-30)
- [A] PATENT ABSTRACTS OF JAPAN vol. 015, no. 095 (P - 1176) 7 March 1991 (1991-03-07)

Cited by

EP1865388A1; WO2006093361A1; EP0915391A3; EP1696282A3; EP1696280A3; AU2009215210B2; EP0897138A1; US8320801B2; US8369753B2; US8463164B2; US8472848B2; US8509658B2; US8693926B2; EP1213622A3; US8095048B2; US6259874B1; US7561817B2; US6792228B2; US7974566B2; US7979006B2; US8224215B2; EP2428849A3; EP2428850A3; EP2428851A3; RU2472200C2; EP2645177A1; EP2796936A1; EP3422113A3; US8000634B2; US8190068B2; US6968139B2; US6978101B2; US7386250B2; WO2006093362A1; US7848685B2; US11188010B2

Designated contracting state (EPC)

CH DE FR GB LI

DOCDB simple family (publication)

**EP 0670530 A2 19950906**; **EP 0670530 A3 19961002**; **EP 0670530 B1 20000524**; DE 670530 T1 19990225; DE 69517073 D1 20000629; DE 69517073 T2 20010308

DOCDB simple family (application)

**EP 95103060 A 19950303**; DE 69517073 T 19950303; DE 95103060 T 19950303