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United States Patent [19]

Yoshiki et al.

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[45] Date of Patent: **Jun. 9, 1998**

[54] **TONER BOTTLE**

5,598,254 1/1997 Ikesue et al. 399/262

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[73] Assignee: **Ricoh Company, Ltd.**, Tokyo, Japan

[21] Appl. No.: **686,070**

[22] Filed: **Jul. 24, 1996**

[30] **Foreign Application Priority Data**

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May 1, 1996 [JP] Japan 8-110863

[51] Int. Cl.⁶ **G03G 15/08**

[52] U.S. Cl. **399/258; 222/167; 222/DIG. 1; 399/120; 399/262**

[58] **Field of Search** 399/120, 258, 399/260, 262; 141/90; 222/DIG. 1, 167

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,853,246 12/1974 Dubois 222/DIG. 1
5,416,568 5/1995 Yoshiki et al. .
5,455,662 10/1995 Ichikawa et al. .
5,531,253 7/1996 Nishiyama et al. 141/90
5,557,382 9/1996 Tatsumi et al. 399/262
5,576,816 11/1996 Staudt et al. 399/262

FOREIGN PATENT DOCUMENTS

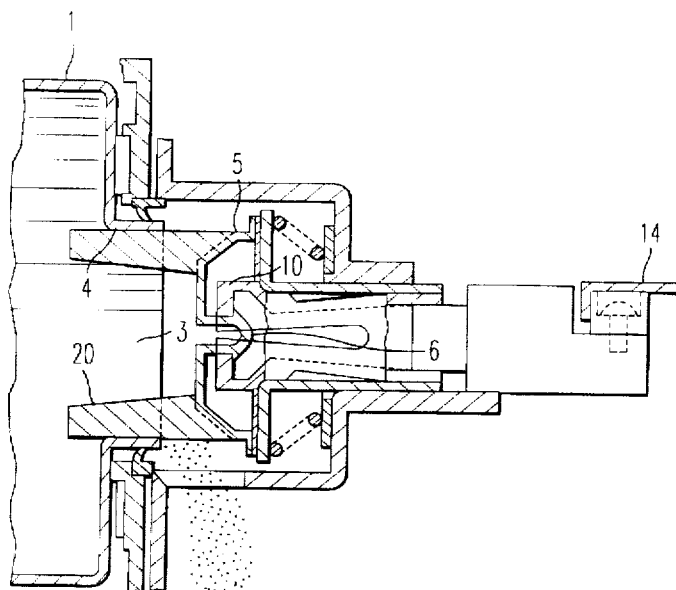
59 188678 10/1984 Japan .
60 146265 8/1985 Japan .
7 20705 1/1995 Japan .
7 43999 2/1995 Japan .
7 140774 6/1995 Japan .
8-179612 7/1996 Japan .

Primary Examiner—Matthew S. Smith
Attorney, Agent, or Firm—Oblon, Spivak, McClelland, Maier & Neustadt, P.C.

[57] **ABSTRACT**

A toner bottle has a bottle body (1) containing toner and a cap (5) closing an opening portion (3) formed in the bottle body (1), and toner is supplied through the opening portion (3). A plateshaped toner scraping member (20) extending into the opening portion (3) and having elasticity is provided on the back surface of the cap (5) in the diameter direction of the cap (5). Also, the outer end of the toner scraping member (20) is positioned inside of the bottle body (1) beyond the opening portion (3) even when the cap (5) is in its cap-opened position. If the toner bottle is constructed in this way, the toner on the opening portion (3) will be scraped by the toner scraping member (20) and toner condensation can be reliably prevented at the opening portion (3) when toner is supplied from the bottle body (1) by rotation of the toner bottle.

27 Claims, 6 Drawing Sheets



GPI EXHIBIT 1006
GENERAL PLASTIC v. CANON
IPR2016-01360

FIG. 1A
PRIOR ART

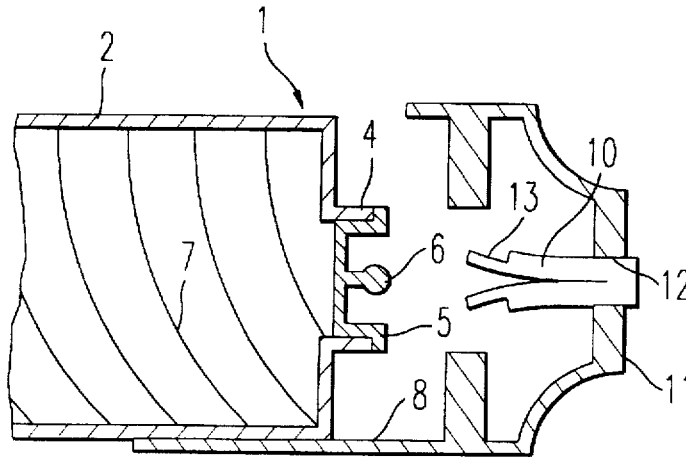


FIG. 1B
PRIOR ART

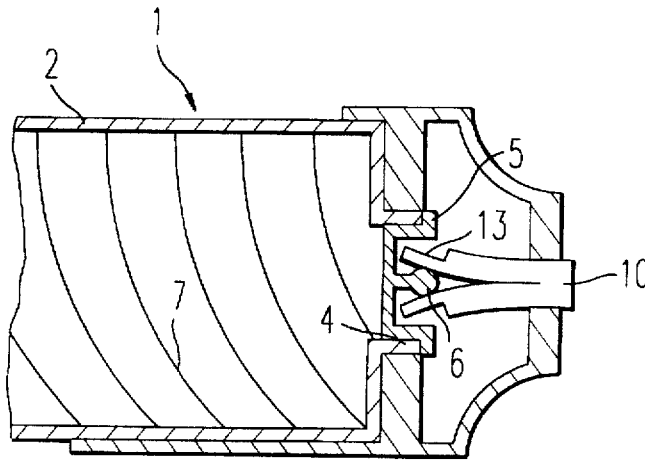
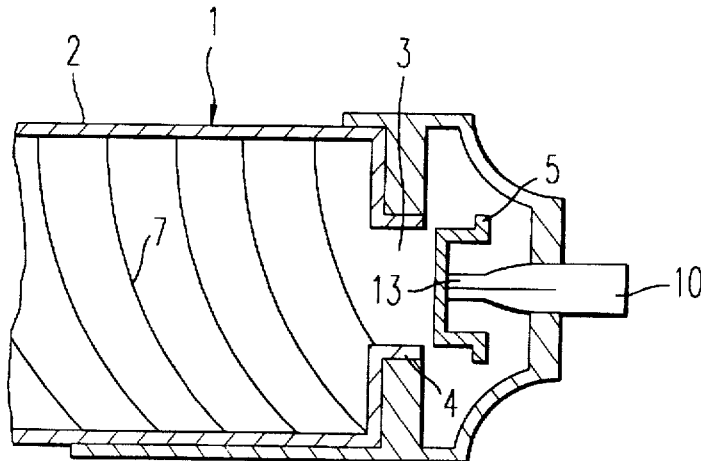


FIG. 1C
PRIOR ART



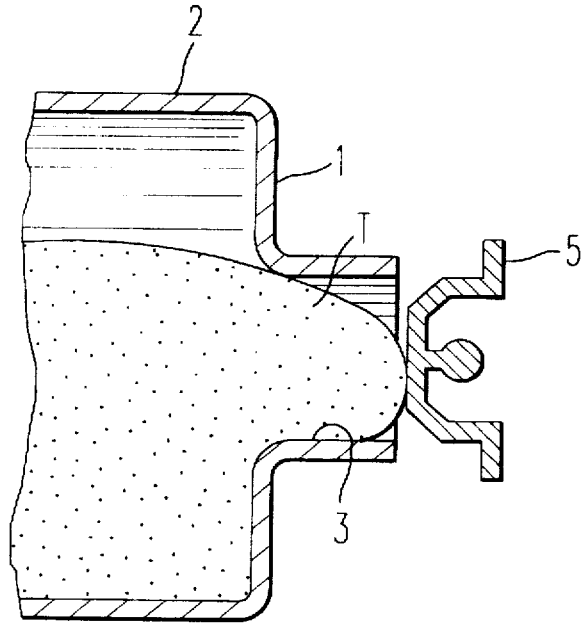


FIG. 2
PRIOR ART

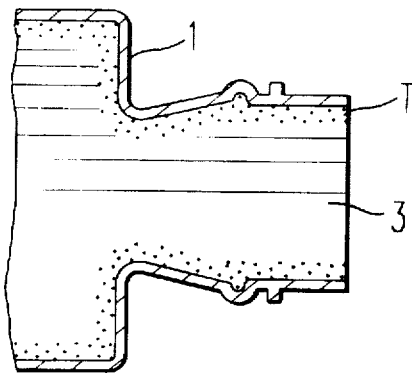


FIG. 3A
PRIOR ART

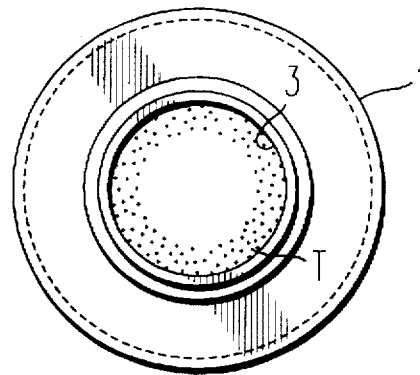


FIG. 3B
PRIOR ART

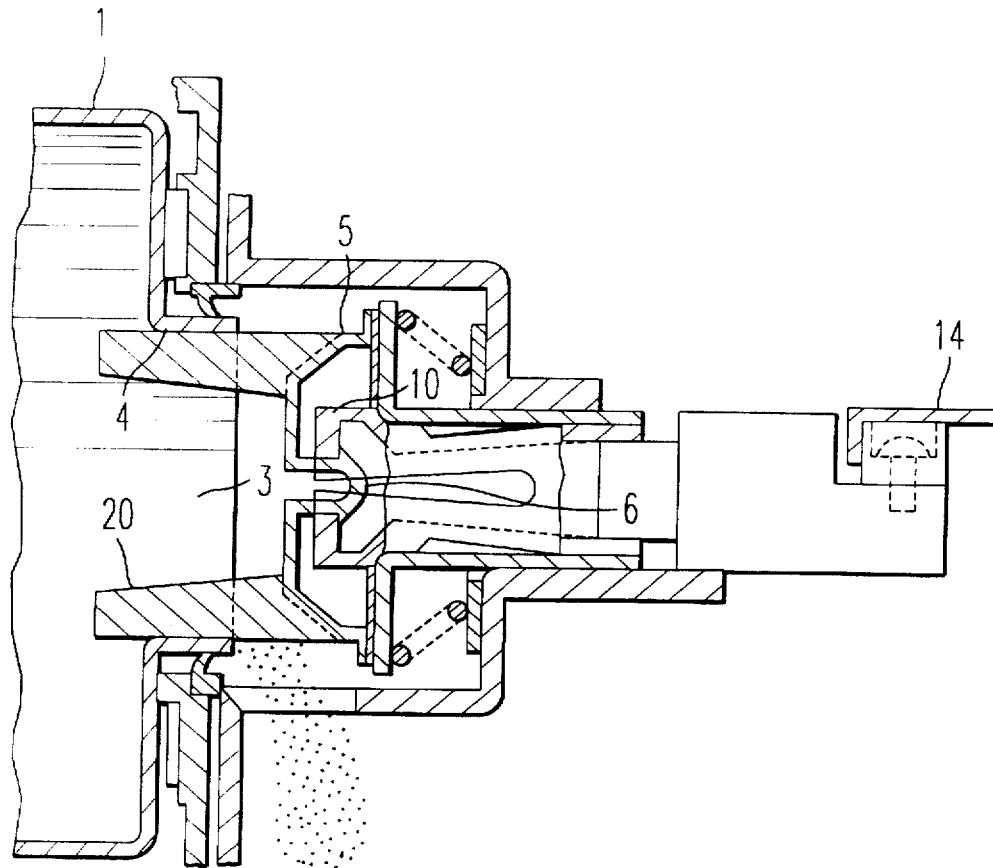


FIG. 4

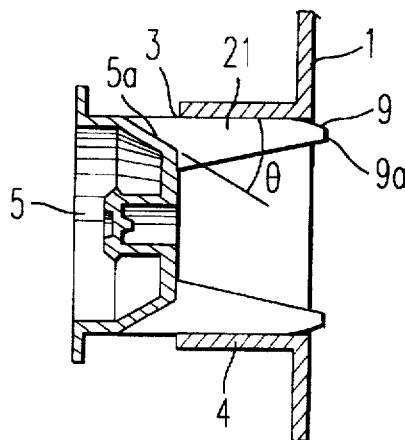


FIG. 5

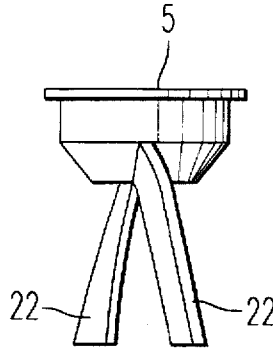


FIG. 6A

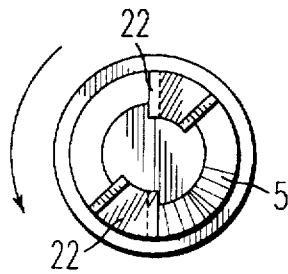


FIG. 6B

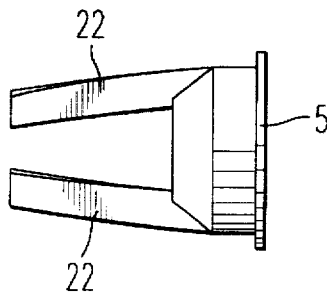


FIG. 6C

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