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Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law:

Therefore, this

United States Patent

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If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extensions.

John Doll

Acting Director of the United States Patent and Trademark Office



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(12) **United States Patent**
Wagner et al.

(10) **Patent No.:** **US 7,546,959 B2**
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(54) **CLEANING NOZZLE**

(75) Inventors: **Hans Dieter Wagner**, Bretzfeld (DE);
Simon Simpfendoerfer, Heilbronn
(DE); **Ulrich Simpfendoerfer**,
Robert-Bosch-Strasse 4, Bretzfeld (DE);
74626, **Martin Hurlebaus**, Bretzfeld
(DE)

(73) Assignee: **Ulrich Simpfendoerfer** (DE)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **11/733,321**

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(30) **Foreign Application Priority Data**

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B05B 3/06 (2006.01)

(52) **U.S. Cl.** **239/252**; 239/251; 239/256;
239/259

(58) **Field of Classification Search** 239/251,
239/252, 256, 259, 261, 264

See application file for complete search history.

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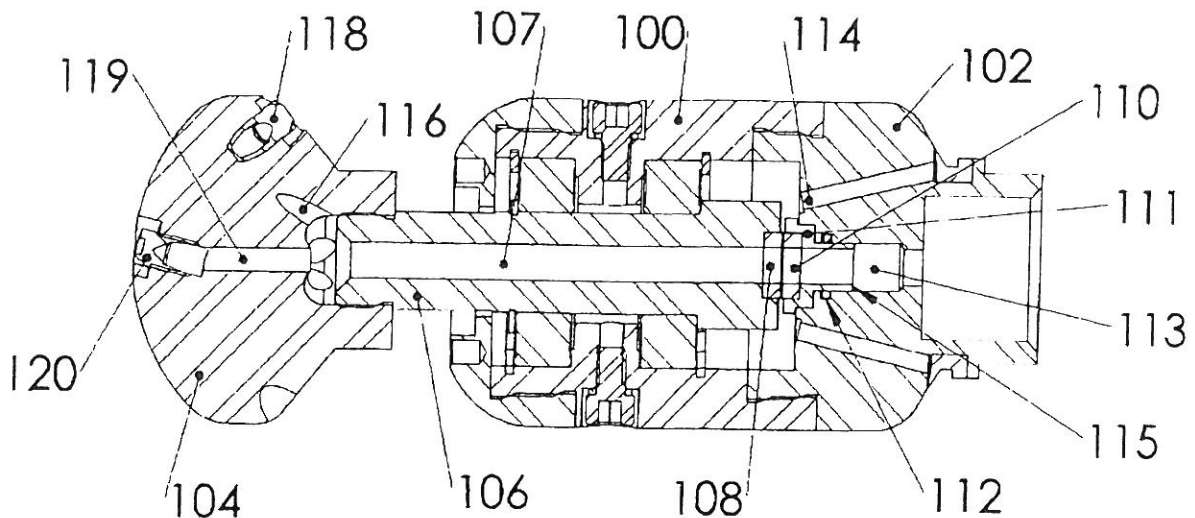
Primary Examiner—Steven J Ganey

(74) *Attorney, Agent, or Firm*—Darby & Darby P.C.

(57) **ABSTRACT**

The cleaning nozzle according to the invention having a nozzle body (100) and a nozzle head (104) arranged on a shaft (106) rotatably seated on said nozzle body, and having a cavity (107), which extends in axial direction in said nozzle body (100) and which is connected with a pressurized water supply (102), by means of which cavity pressurized water supplied via the pressurized water supply (102) is guided to the nozzle head (104) and is discharged to the outside in said nozzle head (104) by at least one nozzle orifice (118), is formed especially by a friction brake comprising at least two disc elements (108, 110) that are in mechanical contact one with the other in the axial direction for restricting the rotational motion of the shaft (106).

15 Claims, 3 Drawing Sheets



Int. Cl.: 7

Prior U.S. Cls.: 13, 19, 21, 23, 31, 34 and 35

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**TRADEMARK
PRINCIPAL REGISTER**

PRIMUS

USB-SEWER EQUIPMENT CORPORATION
(GEORGIA CORPORATION)
SUITE 116
1700 ENTERPRISE WAY
MARIETTA, GA 30067

FIRST USE 10-31-2006; IN COMMERCE 10-31-2006.

THE MARK CONSISTS OF STANDARD CHARACTERS WITHOUT CLAIM TO ANY PARTICULAR FONT, STYLE, SIZE, OR COLOR.

FOR: MACHINE PARTS, NAMELY HYDRODYNAMIC NOZZLES WHICH ARE PARTS OF POWER-OPERATED PUMPS FOR CLEANING PIPES AND CHANNELS. IN CLASS 7 (U.S. CLS. 13, 19, 21, 23, 31, 34 AND 35).

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KENNETH E. SHARPERSON, EXAMINING ATTORNEY