

United States Patent [19]

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Bohorquez et al.

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- [54] **PROTECTIVE CAPPING APPARATUS FOR AN INK-JET PEN**
- [75] Inventors: **Jaime H. Bohorquez**, Escondido; **Charles E. Schimmer**, San Diego, both of Calif.; **John H. Dion**, Corvallis, Oreg.; **Arthur R. Hart**, Corvallis, Oreg.; **Niels J. Nielsen**, Corvallis, Oreg.
- [73] Assignee: **Hewlett-Packard Company**, Palo Alto, Calif.

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- [21] Appl. No.: **209,091**
- [22] Filed: **Mar. 10, 1994**
- [51] Int. Cl.⁶ **B41J 2/165**
- [52] U.S. Cl. **347/29; 347/33; 347/44; 347/50; 347/87**
- [58] Field of Search **347/29, 44, 31, 347/33, 49, 50, 87**

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Primary Examiner—John E. Barlow, Jr.

[57] **ABSTRACT**

An ink pen is provided with a protective capping apparatus to protect against damage caused by the ingress of dirt and debris, the accumulation or solidification of ink, the discharge of static electricity or the like. The protective capping apparatus has a protective cap movable between an open position and a closed position. In the closed position the protective cap shields a portion of an ink pen such as the ink-jets or the electrical contacts.

14 Claims, 5 Drawing Sheets

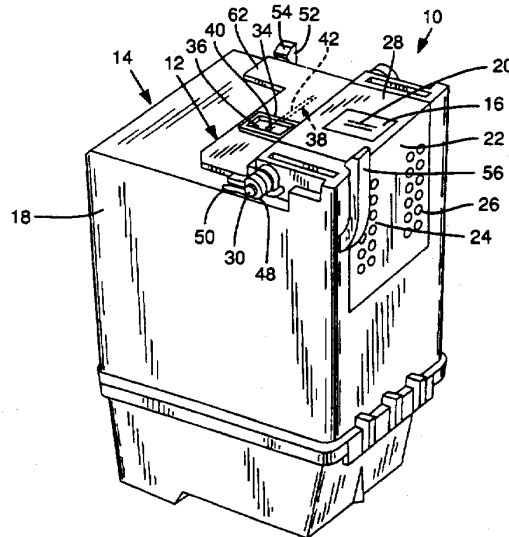


FIG. 1

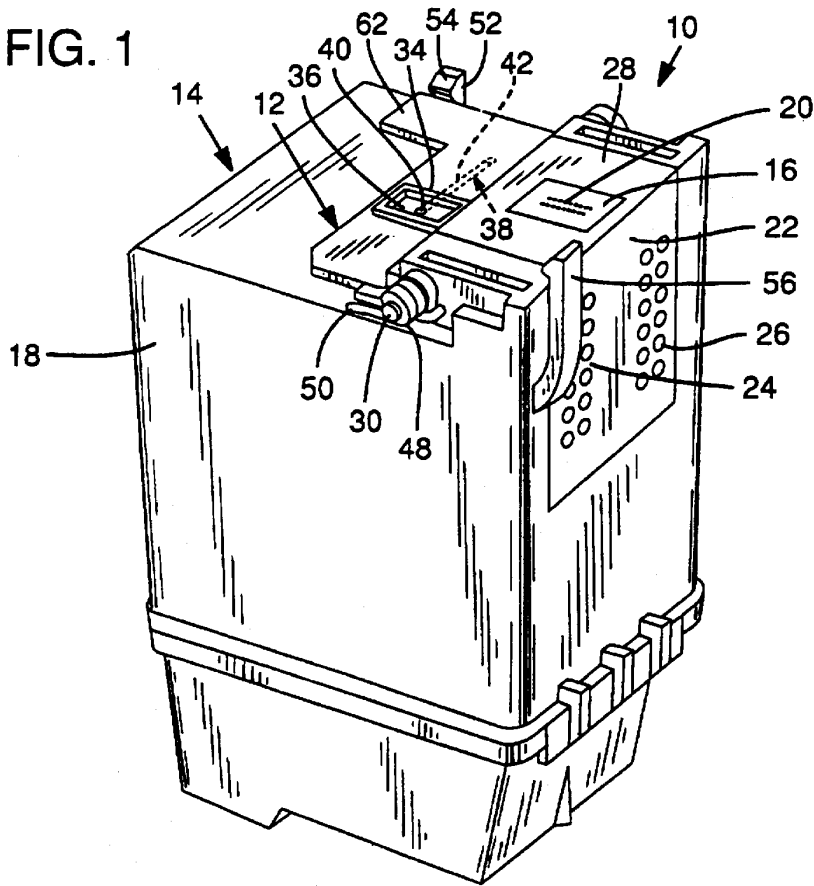


FIG. 2

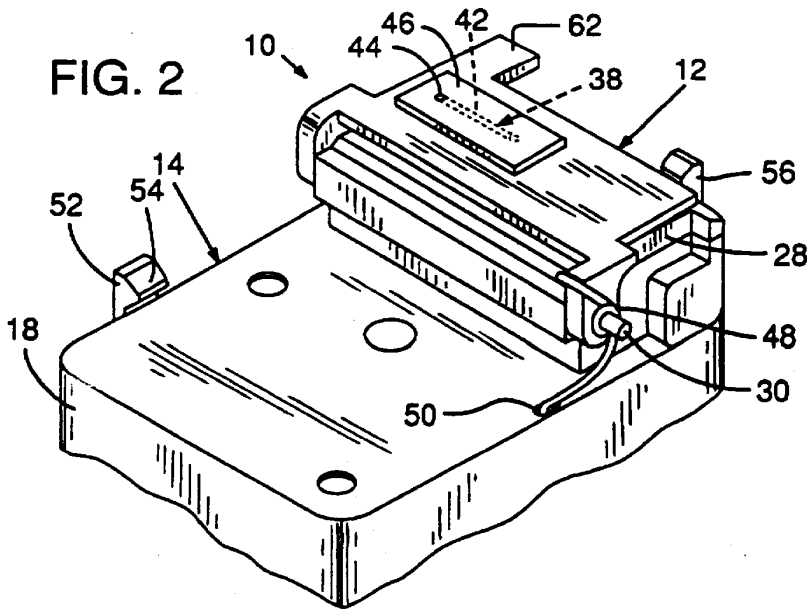


FIG. 3

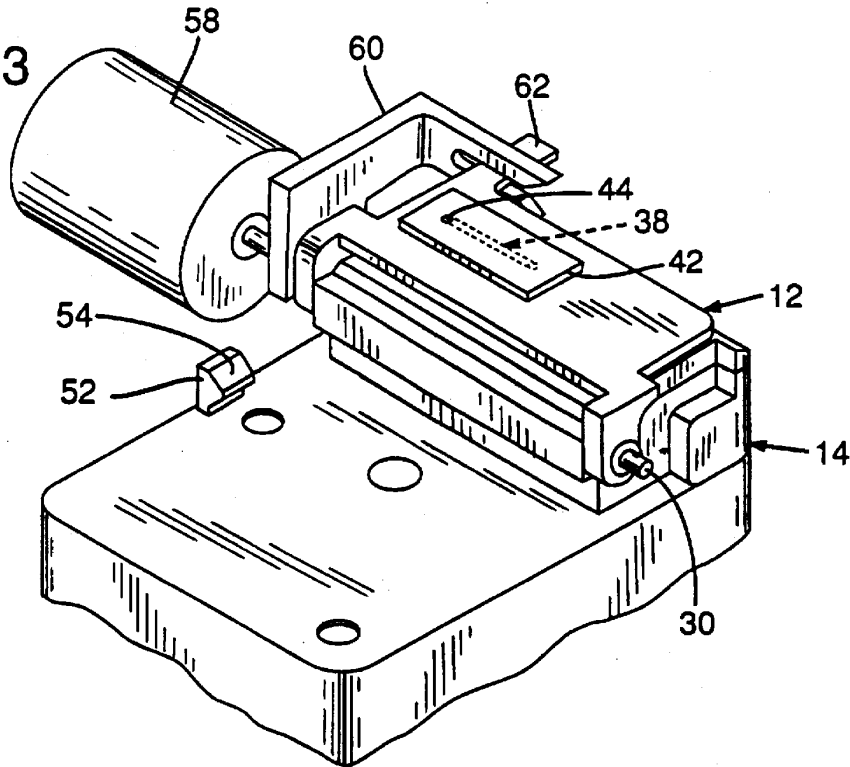


FIG. 4

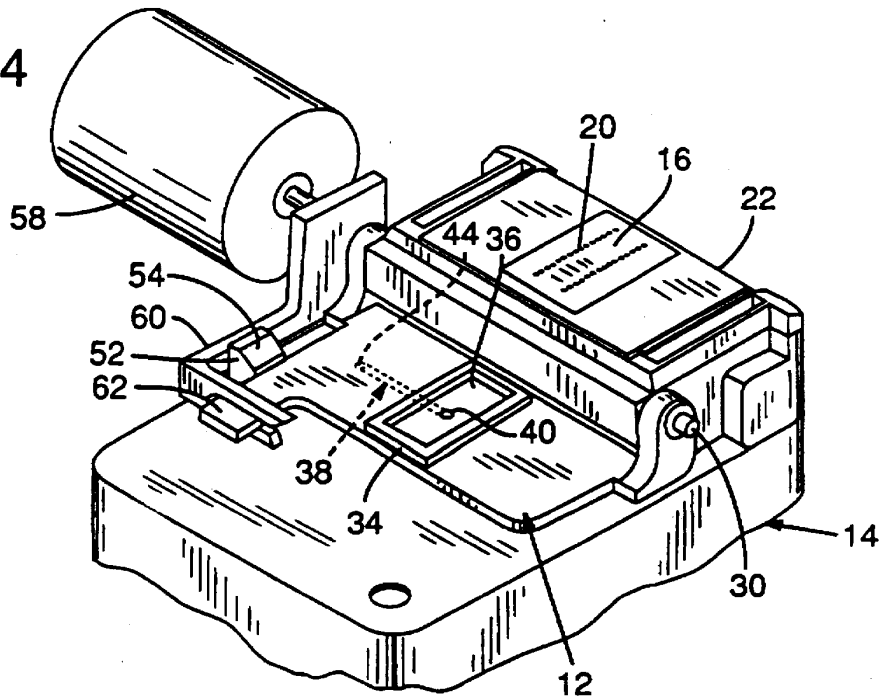


FIG. 6

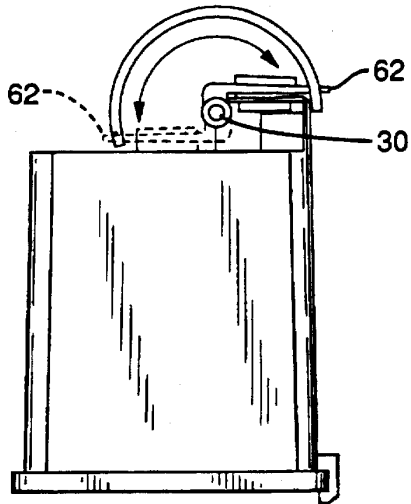


FIG. 5

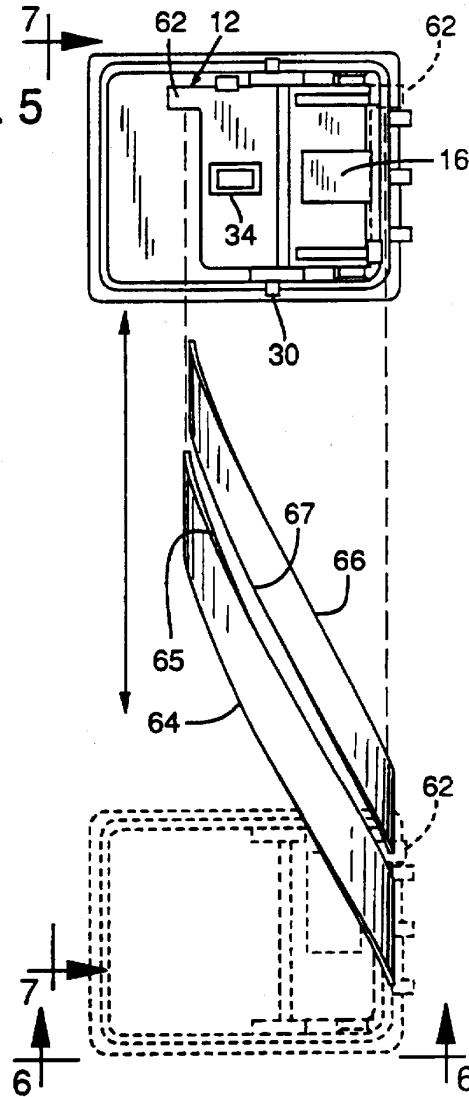
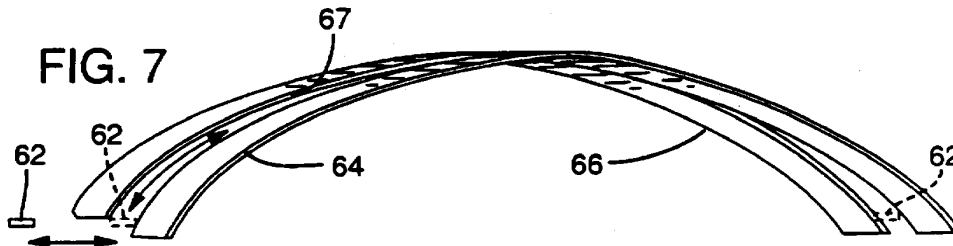
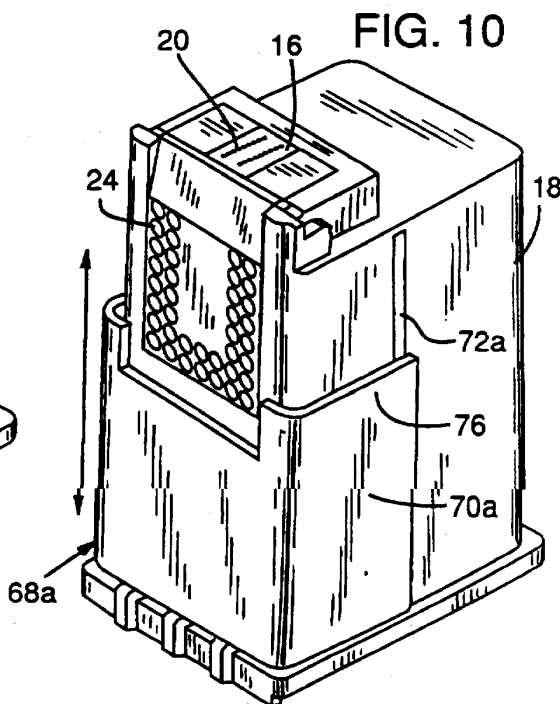
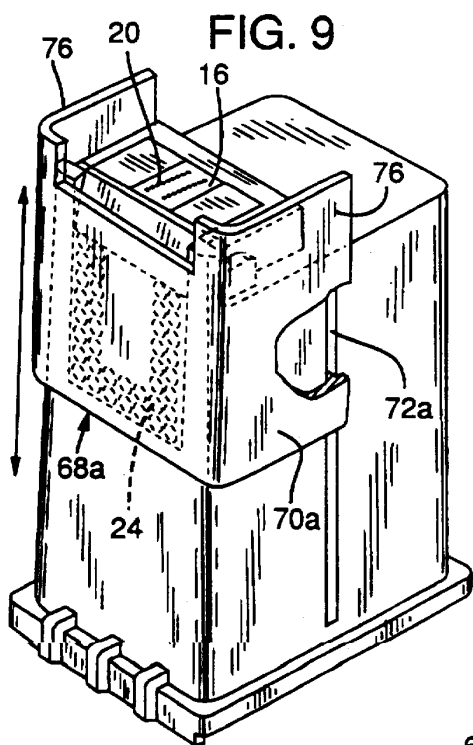
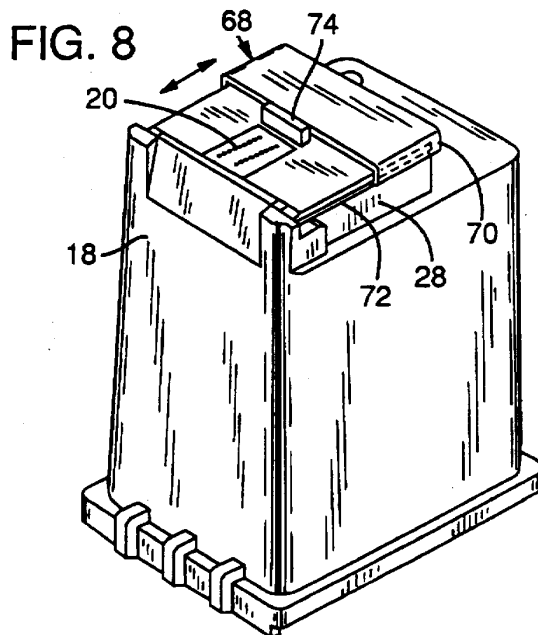


FIG. 7





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