

[54] VALVES AND VALVE NEEDLE SYRINGES

[76] Inventors: **Rano J. Harris, Sr.**, 1945 Carolyn Sue Dr.; **Rano J. Harris, Jr.**, 9880 S. Riveroaks, both of Baton Rouge, La.

[22] Filed: **Nov. 18, 1970**

[21] Appl. No.: **90,603**

**Related U.S. Application Data**

[63] Continuation-in-part of Ser. No. 879,232, Nov. 24, 1969, Pat. No. 3,603,471.

[52] U.S. Cl. .... **215/37 R**, 215/48, 215/74, 215/DIG. 3, 222/545

[51] Int. Cl. .... **B65d 51/00**

[58] Field of Search ..... 128/218 G, 218 NV, 128/215, 274, 272; 222/545; 251/324, 325; 215/38, 40, 37 R

[56] **References Cited**

**UNITED STATES PATENTS**

3,143,109	8/1964	Gewertz.....	128/215 X
2,413,303	12/1946	Folkman.....	128/215
2,400,231	5/1946	Gebauer et al. ....	222/545 X
2,855,929	10/1958	Hein .....	128/221

*Primary Examiner*—Robert B. Reeves  
*Assistant Examiner*—John P. Shannon  
*Attorney*—Llewellyn A. Proctor

[57] **ABSTRACT**

A valve, particularly in combination with a needle syringe, for containing fluids, i.e., liquids or gases, within a confined space. The valve per se includes a body comprising a tubular member (e.g., the barrel of a syringe), which contains an inner resilient tubular member within its axial opening. A lateral opening is provided within the walls of both the tubular members and a stem, containing a cut-away portion or lateral opening, is slidably mounted within the laterally oriented wall opening of the tubular members for opening and closing the valve. In another embodiment, the valve is employed in combination with a container. In this combination, the valve body contains, additionally, a cylindrically shaped septum mounted in series with the stem. The septum, contained within an intersecting passageway, lies across the opening or passageway through the valve body to provide an effective leak-proof seal. The valve can be opened to permit exposure of the septum to the valve exterior. Exposure of the septum in such manner permits withdrawal or injection of fluid from the enclosed container. The valve is also adaptable for use with conduits of various types, and can be employed, e.g., in sample inlet systems as conventionally used in modern analytical instruments.

**10 Claims, 8 Drawing Figures**

