

United States Patent [19]

Seekins

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[54] DUAL VALVE LIQUID TRANSFER TUBE

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[51] Int. Cl.⁵ **A62B 7/00**

[52] U.S. Cl. **128/202.15; 128/200.24; 239/33**

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[56] References Cited

U.S. PATENT DOCUMENTS

4,505,310 3/1985 Schneider 141/114

FOREIGN PATENT DOCUMENTS

526303 10/1921 France 128/202.15

513769 10/1939 United Kingdom 128/202.15

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[57]

ABSTRACT

A liquid transfer device, which may be used as a drinking tube assembly to establish fluid communication between the interior of a canteen and the interior of a protective mask, defines a pair of parallel fluid flow paths which respectively include opposite directly check valves. The parallel flow paths merge at the opposite ends of the assembly to form common flow paths which may be caused to respectively communicate with a suction tube and liquid storage container.

13 Claims, 1 Drawing Sheet

