

[54] **DEVICE FOR CONNECTING AND DRAINING A POUCH**

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[58] **Field of Search** **604/411-414, 604/274; 222/81, 83; 141/329, 350**

[56] **References Cited**

U.S. PATENT DOCUMENTS

1,248,251	11/1917	Breaux	.....	222/81
2,817,372	12/1957	Barr, Sr. et al.	.....	604/411
4,201,208	5/1980	Cambio, Jr.	.....	604/411
4,257,535	3/1981	Mellet	.....	222/83
4,432,765	2/1984	Oscarsson	.....	604/411
4,469,249	9/1984	Malpas et al.	.....	222/83
4,473,369	9/1984	Lueders et al.	.....	604/411
4,493,438	1/1985	Rutter	.....	222/83
4,567,999	2/1986	Hjertman et al.	604/411
4,606,734	8/1986	Larkin et al.	604/414
4,624,392	11/1986	Malpas et al.	222/83

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ABSTRACT

A device for continuously draining a pouch is adjustable for puncturing and draining the pouch. In certain embodiments, the device has an end portion capable of being affixed to a joint affixed to a pouch. An end-piece is connected with the affixing end portion by means for reciprocating the end-piece towards and away from the joint and pouch. A needle affixed to the end-piece extends towards the pipe and joint and has a length sufficient to penetrate through the joint to pierce the pouch when the end-piece is reciprocated towards the adjustable portion. A pipe is positioned relative to the end-piece for dispensing liquid flowing from a pierced pouch via the void from the joint to the end-piece. Alternatively, the reciprocation means is integral with and terminates in an end portion within which a pipe is affixed which is integral with a needle which has at least one opening communicating with a channel which communicates with the pipe for dispensing liquid flowing from the pouch into the void to the pipe via the needle opening and channel. Alternatively, a portion of an adjustable portion containing a needle and pipe circumscribes an extension pipe of a joint and defines a void therebetween. Means for reciprocating the adjustable portion and needle are positioned in the void. Additionally, alternatively, an adjustable portion is integral with a needle passing through it and into an extension pipe of the joint. Means to reciprocate the adjustable portion and needle are positioned in an annular void between the extension pipe and the portion of the adjustable portion which circumscribes the extension pipe.

7 Claims, 2 Drawing Sheets

