

[54] **BONE MARROW TRANSPLANT METHOD AND APPARATUS**

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[56] **References Cited**

U.S. PATENT DOCUMENTS

2,496,559	2/1950	Piechaczek	128/214 B
3,489,145	1/1970	Judson et al.	128/214 R
3,808,432	4/1974	Djerassi	128/214 R

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[57] **ABSTRACT**

A bone marrow method and apparatus as been devised for the efficient recovery of bone marrow from a donor or patient by inserting a pair of aspiration needles at the intended site of removal and, through connection with a pair of syringes, the pressure is regulated to bring about selective removal of bone marrow and sinusoidal blood through one of the aspiration needles while positively forcing an intravenous solution through the other of the aspiration needles to replace the bone marrow removed from the site. The bone marrow and sinusoidal blood are drawn into a chamber for mixture with another intravenous solution and thereafter forced into a collection bag. A disposable assembly is provided for ready interchangeable use in association with a fluid flow and valve control unit in carrying out the method and principles of the present invention.

13 Claims, 9 Drawing Figures

