

United States Patent [19]

Haindl

[11] Patent Number: 4,889,529

[45] Date of Patent: Dec. 26, 1989

[54] NEEDLE

[75] Inventor: Hans Haindl, Melsungen, Fed. Rep. of Germany

[73] Assignee: B. Braun Melsungen AG, Melsungen, Fed. Rep. of Germany

[21] Appl. No.: 214,182

[22] Filed: Jul. 1, 1988

[30] Foreign Application Priority Data

Jul. 10, 1987 [DE] Fed. Rep. of Germany 3722800

[51] Int. Cl.⁴ A61M 5/32

[52] U.S. Cl. 604/274

[58] Field of Search 604/272-274, 604/411

[56] References Cited

U.S. PATENT DOCUMENTS

2,697,438 12/1954 Hickey 604/274
2,711,733 6/1955 Jacoby 604/274
2,717,599 9/1955 Huber 604/274
3,788,119 1/1974 Arrigo 604/274 X

4,808,170 2/1989 Thornton et al. 604/274

FOREIGN PATENT DOCUMENTS

1225009 6/1960 France 604/272

Primary Examiner—Dalton L. Truluck
Attorney, Agent, or Firm—Spensley Horn Jubas & Lubitz

[57] ABSTRACT

One side wall of a rigid needle tube is provided at its front end with a curved bending directed towards the opposite, axial side wall and has a lumen opening formed therein. The lumen opening is provided with a rear inner cutting edge and a front punctuating portion which comprises a lancet-shaped tip having a facet grinding. The tip is arranged in a zone defined by two imaginary lines extending respectively from the inner surface and the outer surface of the axial side wall beyond the rear cutting edge of the lumen opening. When using the needle, no material is punched out of the material to be perforated.

10 Claims, 3 Drawing Sheets

