

[54] **SURGICAL INSTRUMENT FOR STERILIZING WOMEN BY LIGATURE OF TUBES**

[75] Inventor: **Hildebrand Zimmer**, Ahrensburg, Germany

[73] Assignee: **Dragerwerk Aktiengesellschaft**, Germany

[22] Filed: **May 24, 1974**

[21] Appl. No.: **473,220**

[30] **Foreign Application Priority Data**

May 26, 1973 Germany..... 2326988

[52] U.S. Cl..... 128/303.1; 128/321

[51] Int. Cl.²..... A61B 17/36; A61B 17/28

[58] Field of Search..... 128/303.1, 321, 326

[56] **References Cited**

UNITED STATES PATENTS

463,785	11/1891	Connable et al.....	128/321 X
702,472	6/1902	Pignolet.....	128/303.1
2,831,174	4/1958	Hilmo.....	128/321 UX
3,421,508	1/1969	Nestrock.....	128/303.1
3,674,031	7/1972	Weiche.....	128/303.1

Primary Examiner—Channing L. Pace
Attorney, Agent, or Firm—McGlew and Tuttle

[57] **ABSTRACT**

A surgical instrument for sterilizing women by the ligation of the fallopian tubes comprises a probe having tongs with gripper means for engaging the tubes and means for directing a coolant to the vicinity of the gripper means for freezing of the tubes including a heater for subsequently heating the tubes. The probe advantageously includes a hollow central tube with a flared outer end at the probe tip and has an interior portion defining an evaporation chamber in which a coolant is evaporated to reduce the temperature at this end. A so-called Semm tongs extends through the tube and includes gripper elements at the flared end of the tube which may be moved outwardly to grip the fallopian tube of a woman to withdraw it into the flared end of the hollow tube where it may be frozen. The tip also includes a heater for reheating the frozen tubes. The opposite end of the probe includes a handle portion having a mechanical and electrical connection for the transmission of a coolant therethrough and the electrical current for actuating the heater.

6 Claims, 2 Drawing Figures

