

[54] **DEVICE FOR THE TREATMENT OF FEMALE URINARY INCONTINENCE**

[75] Inventor: **Shafik Barsom**, Hanover, Fed. Rep. of Germany

[73] Assignee: **Richard Wolf GmbH**, Knittlingen, Fed. Rep. of Germany

[21] Appl. No.: **606,998**

[22] Filed: **May 3, 1984**

[30] **Foreign Application Priority Data**

May 6, 1983 [DE] Fed. Rep. of Germany ..... 3317118

[51] Int. Cl.<sup>4</sup> ..... **A61N 1/04**

[52] U.S. Cl. .... **128/784**

[58] Field of Search ..... 128/419 E, 784, 788, 128/793

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

768,721	8/1904	Bassell	128/793
793,004	6/1905	May	128/793
3,866,613	2/1975	Kenny et al.	128/788

*Primary Examiner*—William E. Kamm  
*Attorney, Agent, or Firm*—Hill, Van Santen, Steadman & Simpson

[57] **ABSTRACT**

The apparatus for treating female urinary incontinence

operates on the principle of stimulating the sphincter muscles controlling the bladder with current impulses. The device comprises a supporting body (1) to which are attached two electrodes (3 and 4) having leads connected to an impulse generator (5). The supporting body (1) is fitted between the labia (7) in the region of the external urethral orifice (2) so that the electrodes have contact with the epidermal surface and are placed diametrically opposite each other on either side of the external urethral orifice (2). The electrodes (3 and 4) transmit the current impulses from the impulse generator (5) to the body tissues, whereby the muscular tissue of the sphincter (6) surrounding the urethra in this region is stimulated symmetrically and with precision and thus caused to contract. Involuntary excretion of urine is thus safely avoided. Due to the accurately targeted stimulation of the sphincter muscle, the supporting body (1) may be kept very small and adapted to the anatomy of the vulva. It is therefore hardly noticeable to the wearer and the intensity of current required to produce the necessary stimulus to the muscular tissue can be considerably reduced so that the risk of irritating the mucous membranes and body tissues is to a large extent eliminated. Lastly, the supporting body can be easily and quickly removed and therefore also easily cleaned (FIG. 1).

**10 Claims, 6 Drawing Figures**

