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(54) **MEDICAL TUBE SECURING DEVICE**

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(58) **Field of Classification Search** 128/859, 128/861, 200.26, 202.27, 204.18, 207.14, 128/207.17; 600/195; 433/18, 19, 195
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,450,419 A * 4/1923 Heidbrink 600/237
2,669,988 A 2/1954 Carpenter
2,694,397 A * 11/1954 Herms 128/861
2,708,931 A * 5/1955 Freedland 128/861
4,167,814 A * 9/1979 Schubert 433/93
4,233,775 A * 11/1980 Neufeld 446/370
4,270,531 A 6/1981 Blachly et al.
4,425,911 A 1/1984 Luomanen et al.
4,832,019 A 5/1989 Weinstein et al.
4,867,154 A * 9/1989 Potter et al. 128/207.17
5,345,931 A 9/1994 Battaglia, Jr.
5,386,821 A 2/1995 Poterack
5,419,319 A 5/1995 Werner
5,490,504 A * 2/1996 Vrona et al. 128/207.17
5,626,128 A 5/1997 Bradley et al.
5,655,519 A * 8/1997 Alfery 128/200.26
5,730,599 A * 3/1998 Pak 433/215
5,806,516 A 9/1998 Beattie
5,868,132 A * 2/1999 Winthrop et al. 128/207.14
5,927,276 A * 7/1999 Rodriguez 128/207.17
5,941,246 A 8/1999 Roopchand
6,067,985 A 5/2000 Islava
6,098,627 A * 8/2000 Kellner et al. 128/859

(Continued)

OTHER PUBLICATIONS

Smooth-On, Shore Hardness Scales, Copyright 2008, whole document.*

(Continued)

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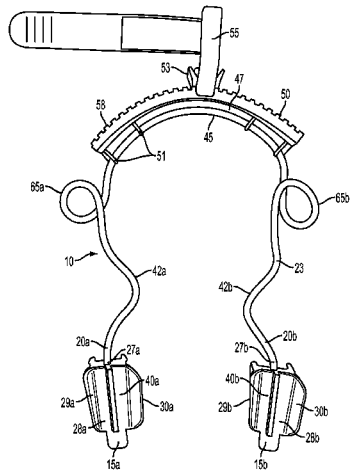
(57) **ABSTRACT**

A medical tube securing device for a patient is disclosed, comprising at least one bite block and a support frame integral with said bite block, said support frame comprising a protruding extension with at least one inwardly recessed portion so as to avoid contact with the patient's mouth, said protruding extension operable to receive an adjustable medical tube retaining device without contacting the face of the patient.

6 Claims, 5 Drawing Sheets