

[54] KLYSTRON HAVING FIXED AND VARIABLE TUNING MECHANISMS

[75] Inventors: Arthur W. Kelley, Sudbury; Charles J. Larsen, South Sudbury, both of Mass.

[73] Assignee: Raytheon Company, Lexington, Mass.

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[58] Field of Search ..... 331/79, 83, 84; 315/5.46, 5.48, 5.53, 5.54; 330/45

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Primary Examiner—Edward P. Westin  
Attorney, Agent, or Firm—Martin M. Santa; Richard M. Sharkansky

[57] ABSTRACT

A tuning structure for a klystron oscillator is provided by a set of holes extending part way through cavity walls of the klystron. The holes provide weakened portions in the cavity walls which permit an inward depression of the walls at the sites of the weakened portions for adjustment of the central frequency of an oscillation band. Thereby, deformable tuning diaphragms, which are employed for altering the oscillation frequency within the oscillation band, need not be deformed for an oscillation at the center of the desired band. Variations in frequency can thereby be accomplished without metal fatigue, such fatigue having occurred when the diaphragm has been utilized for setting the central frequency of the oscillation band.

5 Claims, 5 Drawing Figures

