

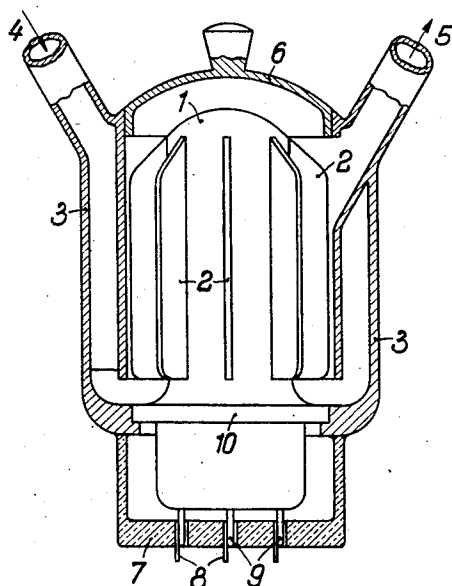
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COOLED ELECTRON TUBE

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COOLED ELECTRON TUBE

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1 Claim. (Cl. 250—27.5)

This invention relates to electron tubes contained in a cooling vessel. Prior arrangements of this kind are such that the electron tube is inserted into the cooling vessel with the top or anode end ahead, the insertion and removal of the tube thus being effected on the side on which the supply leads to the electrode system are arranged. The tube hence cannot be mounted in a socket and the supply leads therefore must be movable. Also, it is not possible to locate operating means in front of or between the supply leads since the space that would be necessary in this regard is needed for the insertion or removal of the tube. As a result, the wiring, especially in the case of short and ultra-short wave tubes, is unsuitable or inconvenient. In particular, the supply leads are unduly long.

In arrangements as provided by the invention the electron tube is inserted into the cooling vessel through an aperture thereof remote from the supply leads, and it is inserted with the base ahead, as will be understood from the following description and the accompanying drawing, which shows a sectional view of one embodiment of the invention.

1 denotes an electron tube provided with cooling vanes 2. The cooling vessel 3 has an inlet 4 and an outlet 5 for the cooling air and is fitted with an aperture closed by a cover 6. Through this aperture the electron tube is inserted with the base ahead, this base carrying lead-in conductors 9 arranged to engage with contact springs 8 of a ceramic socket 7 carried by the vessel 3 and arranged in line with the said aperture thereof. When the conductors 9 are in

proper engagement with the springs 8, as shown, a collar 10 of the tube 1 rests against a shoulder of vessel 3 so as to close the vessel.

It will be seen that the described construction enables the conductors to be short and that the supply leads may likewise be short and arranged rigidly. This is important especially in the case of the grid and neutralizing leads.

What is claimed is:

10 A cooling arrangement for a short wave electron tube provided with a base having lead in contacts and an envelope having a series of radially disposed cooling fins, comprising a vessel, an opening at the top of said vessel to receive said tube base foremost, a cover for said opening, a socket built into the bottom of said vessel provided with contacts to cooperate with those in the base of said tube, a shoulder formed at the base of said vessel coaxially with said socket, a rim on said tube adapted to cooperate with said shoulder and thereby form a closure for said socket, a wall depending from the top part of said vessel partway to said shoulder formed to enclose the lateral openings between the fins on said tube and to provide an air space between said wall and that forming the outer part of said vessel, an air inlet disposed at the top of said vessel communicating with said air space whereby air flowing therethrough passes through said air space to the bottom of the vessel and then flows upward through the spaces between the fins on said tube, and an air outlet opening disposed to permit air to flow out from the upper part of said vessel.

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