



RCA MANUFACTURING COMPANY, INC.

A RADIO CORPORATION OF AMERICA SUBSIDIARY

Harrison, New Jersey

**RCA RADIOTRON
D I V I S I O N**

APPLICATION NOTE No. 49
July 23, 1935.

APPLICATION NOTE
ON
THE CONSTRUCTION OF A TOP-CAP SHIELD FOR METAL TUBES

One of the many significant features of the new metal tubes is that the tube elements are shielded by the metal envelope from external disturbances; the effectiveness of the metal envelope as a shield has been found to be more than sufficient for most receiver designs. However, attention is called to the fact that possibly a small, but sometimes necessary, increase in receiver stability may be obtained by shielding the top cap of one or, perhaps, two of these tubes in a receiver. In all probability, this top-cap shield will not be needed except in very sensitive receivers requiring careful alignment of the tuning circuits.

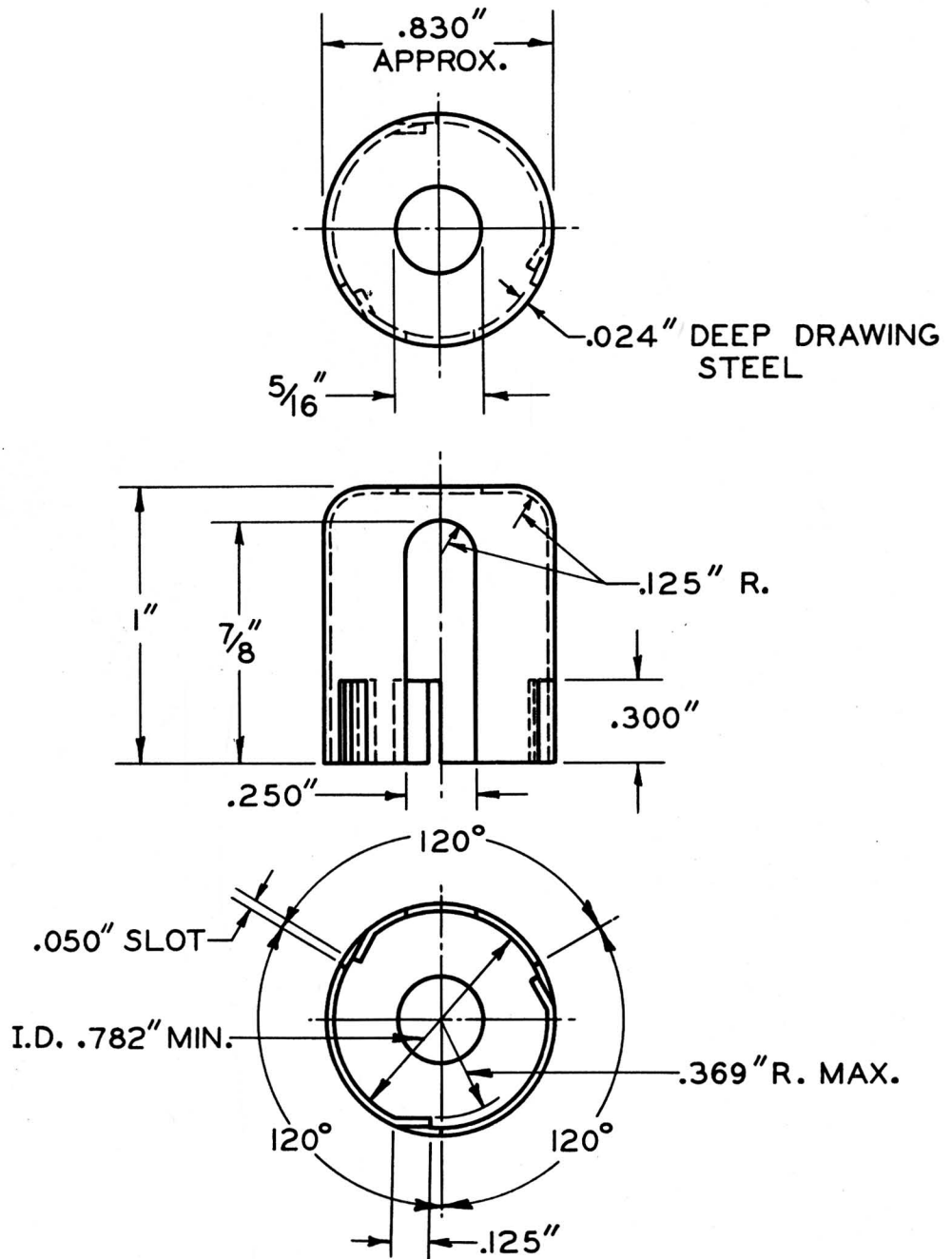
It is not necessary to enclose the entire tube in order to provide shielding for the small top cap. A thimble-shaped metal shield with the proper diameter to grip the dome of the tube and with sufficient length to house the top cap and its terminal meets requirements. A further requisite is that the shield be arranged to cut through the paint on the dome in order to insure good electrical contact with the metal envelope of the tube. The accompanying drawing shows the essential constructional details of a suggested type of shield; other constructions will occur to those interested in this problem.

A slot, approximately $7/8$ " long and $1/4$ " wide, along the length of the shield permits the use of a shielded connection to the top cap; the hole through the top of the shield may be utilized for the same purpose. Three equidistant slits are provided; one face of each of these slits is bent inwardly, as shown, in order that the flanges may cut through the paint and grip the dome of the tube.

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TOP-CAP SHIELD FOR
METAL-TUBE TYPES



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RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

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