



## RK-20



## THE NEW RF PENTODE POWER AMPLIFIER

Designed for Suppressor Grid Modulation  
R.F. Output 50 Watts

REQUIRES APPROXIMATELY  
ONE WATT EXCITATION AS RF  
AMPLIFIER AND LESS THAN  
ONE WATT AUDIO POWER FOR  
100% MODULATION

*For complete information  
see your amateur supply  
dealer or write to the  
Raytheon office near you*

**AMATEUR NET PRICE**

# \$15

**RAYTHEON PRODUCTION  
CORPORATION**

30 E. 42nd Street

New York, N. Y.

or

San Francisco — Chicago — Newton, Mass.

leads as short and direct as possible. The various pin straps within the coils should also be short, particularly in the high-frequency coils. The meter should be mounted and wired in last to eliminate chance of damage to the meter during construction. The circuit should be carefully checked before inserting the tube and turning on the battery, as one mistake will convert the meter into a corpse for lamentation.

We have in the completed instrument a compact device, completely self-contained for most measurements. External connections to the milliammeter alone are provided by means of the two insulated binding posts. All of the uses mentioned concern radio or audio frequencies. But every amateur is also interested in the various d.c. currents and voltages around the shack, not forgetting resistances which have a habit of losing their labels. Hence the one-mil meter used is a stock Triplett type which has, in addition to the usual linear scale, a number of voltage scales, together with an ohmmeter scale. A companion unit, also utilizing this meter, provides voltage, current, and resistance measurements covering practically every amateur requirement.

## Strays

If bakelite rod is not available, celluloid knitting needles, purchasable at any dry-goods store, will make a good substitute. They can be obtained in thicknesses from one-eighth to one-quarter inch.

Dry-goods store also can furnish darning needles, which are a great help in chasing fine wires through the pins in coil forms.

— T. Bruce Kingsford

Weird wireless wisdom is not confined to this country. ON4MO reports that the head man of his local b.c. station explained the wobble in the carrier frequency by the fact that two powerful stations on either side of him were trying to elbow him out of the b.c. band. His weak carrier couldn't stand the pressure and was wiggled back and forth!

## Low-Cost Crystal Control

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tained. However, it is not recommended that the system be adjusted with no load and then the load applied for, although it may not shift the frequency of the TNT tank out of the allowable band, it may place such a strain on the system that any additional strain may throw the system out of synchronism. Once the system is adjusted it does not need the "retouching" at the beginning of every working period that some fellows give their crystal transmitters. At W5VU the transmitter stays in synchronism from day to day with as much, if not more, fidelity than the ordinary crystal system. As a safeguard the frequency is checked at the beginning of each transmission, of course. The rougher the TNT's own note the easier it synchronizes.