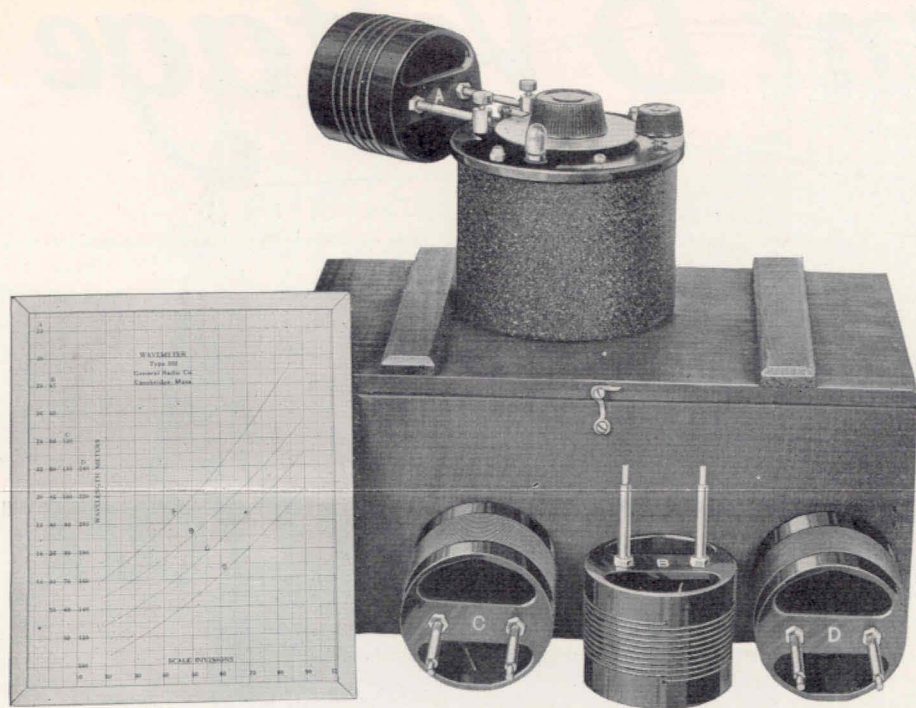




A New Amateur Wavemeter



In the type 358 wavemeter, illustrated above, the General Radio Company presents a wavemeter particularly designed for amateurs.

For the lack of a more accurate standard of checking his wavelength the amateur has had to rely largely upon some one else receiving his signals to determine his wavelength.

Though this method is generally satisfactory the advantages of using a carefully constructed and accurately calibrated wavemeter are apparent without further comment; especially in view of the increasing interest in two way short-wavelength communication.

On the short wavelengths particularly, only a slight swing in wavelength is required to carry the note of a station beyond audibility—thus interfering with the quality and intensity of signals.

By using a reliable wavemeter the operator of a transmitting station may conveniently check his wavelength and consequently assure himself that his full power output is radiated on the wavelength he is intending to use.

The type 358 wavemeter is designed particularly for experimental use. As it covers a wavelength range of 15 to 225 meters it covers all the amateur bands in common use. In general appearance the 358 wavemeter is somewhat similar to the well known type 247 wavemeter and filter. The coupling coil of the latter has been dropped, however,

and an indicating lamp has been substituted.

The wavemeter consists of a mechanically rugged coil of low loss construction, mounting directly on the binding posts of a shielded condenser. The condenser capacity is 125 MMF. Mounted on the condenser panel and connected in series between the condenser and coil is a resonance indicator in the form of a small lamp. The lamp socket is so arranged that it is short circuited when the lamp is removed.

The range 15 to 225 meters is covered by means of four coils, plugged into a condenser which is enclosed in a metal can. Unlike the type 247W meter which uses a direct reading dial with a multiplication factor for the various coils, the new instrument is supplied with a calibration curve for each coil, with an accuracy of 1%.

The coil ranges, providing adequate overlaps, are as follows.

Coil A	14 to 28
Coil B	26 to 56
Coil C	54 to 114
Coil D	105 to 220

Coil A, B and C are space wound on threaded bakelite forms. This assures accurate and permanent calibration.

The condenser, coils and chart are contained in a wooden carrying case which provides proper protection for the instrument when not in use.

The wavemeter complete, sells for \$22.00.

A New Tube and a New Transformer

A new tube of great interest to all owners of storage battery sets has been announced by the Radio Corporation. It is the 200A detector tube. This tube is said to have all the good qualities of the old type 200 without its high current demand and sensitivity to plate voltage variation.

The new tube requires only one quarter ampere filament current at 5 volts, the same as the 201A type. The plate potential is not critical but 45 volts is recommended.

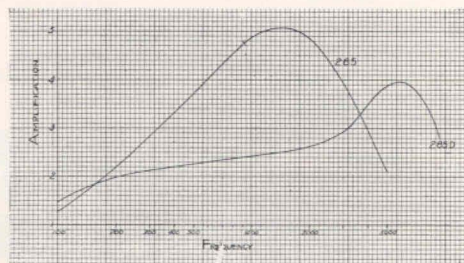
"The UX-200A has a greater sensitivity than any existing special detector tube," it is claimed. "It may be used in any receiver of the storage battery type without change or special adjustment." "Its internal resistance is such that it may be used with either resistance or transformer coupling. The new detector tube is absolutely stable and provides reliable operation at all times with no more critical adjustment than required with standard 'hard' tubes."

The tube data is as follows:
 Design—same as standard UX 201A
 Base—same as standard UX 201A
 Filament voltage—5
 Filament current—.25 amp.
 Plate voltage—45 maximum
 Plate current—2 milliamperes
 Plate impedance—28,800 ohms
 Grid leak—2 megohm
 Grid condenser—.00025 microfarads

Attention is called to the very high plate impedance of the 200A tube which makes necessary the use of a transformer particularly designed for it if good quality is to be obtained.

To meet this need, the General Radio type 285D transformer has been designed. This transformer has a sufficiently high input impedance to work efficiently with the new tube. Its characteristics are as follows:

Pri. Imped. 375,000 ohms—Resist. 2200 ohms.
 Sec. Imped. 3,000,000 ohms—Resist. 8300 ohms.
 Turns Ratio 1:2.7



The curve above gives a comparison between the type 285D and the type 285 transformers, when both are used in the output of a 200A tube.