



TOP VIEW HRO

loop of wire around the end of the oscillator coil. Bending this loop from right to left across the end of the coil form will increase inductance. After any change in the oscillator coil inductance has been made, it will be necessary to tune back to the high-frequency end of the range in order to readjust the No. 8 trimmer condenser. The procedure as outlined above is then repeated until the ganging is correct.

It will be found that the setting of the various trimmers, particularly the No. 8, is quite critical, but that the setting of the inductive trimmer is not at all sharp and, when making the inductance adjustment, the nut may be rotated a full turn for each trial.

In the case of the 14 to 30 megacycle coils, special care must be exercised to see that the oscillator is operating on the high-frequency side of the signal. Two points will be found when adjusting the No. 8 trimmer and of these, the correct one is on the counter-clockwise side. Furthermore, in adjusting the No. 6 trimmer of this coil assembly, there will be some interaction or interlocking between the first detector and oscillator circuits. In adjusting the No. 2 trimmer, it will be necessary to have the antenna connected with some signal or noise input.

The band-spread range may now be adjusted. It should be pointed out here that adjustments for the general coverage range will affect the band-spread range, but the separate band-spread ad-

justments may be made without changing the general coverage alignment.

The four screws must be shifted to the right-hand terminal blocks, as outlined under "Coil Ranges" in the preceding section. The tuning dial is set at 450 and a test oscillator adjusted to the exact high-frequency edge of the proper amateur band. Trimmer No. 7 of (the top view) is adjusted until the signal is picked up. Trimmers Nos. 1, 3 and 5 are then adjusted for maximum sensitivity. The dial is then rotated to the low-frequency end of the band; that is, to 50; and the right-hand calibration curve should be checked. If found incorrect, it will be necessary to adjust the band-spread series padding condenser, mounted inside the oscillator coil and adjustable from the rear by means of a screw driver. If the low-frequency end of the band is tuned in at any dial reading above 50, the capacity of this series padding condenser must be decreased. If the low-frequency edge of the band is found between 0 and 50, the capacity must be increased. The setting is critical. After making a trial adjustment, the dial is returned to 450 and trimmer No. 7 readjusted. The above procedure is repeated until the dial checks the calibration curve.

Tracking of the two R.F. and first detector circuits may then be checked by tuning to the low-frequency end of the band and checking the adjustment of the Nos. 1, 3 and 5 trimmers. If more capacity is needed for best sensitivity (as