

the oscillator passes over the line to the recorder. A tap at the amplifier rectifier, however, supplies a portion of the received current to operate the R relay, and thus to start the circuit at the receiving end. The two selectors—one at each end of the line—will then operate nearly in synchronism. Any deviations that do exist are too slight to interfere with the correct interpretation of the records. Since each of the sixteen transmission levels is maintained for five seconds by the synchronous motor, deviations of a fraction of a second due to lack of

perfect synchronism or to differences in the operate time of the various relays are of little importance and need not be considered.

Figure 3 shows a measurement of an amplifier using a 310A vacuum tube in the output. Each succeeding step of the measuring set increases the amplifier loading by 0.5 db. This recording shows that at the maximum loading of 16 db above 1 milliwatt, the gain has been reduced by almost 1.0 db. The last step on the chart, corresponding to step sixteen on the selector, is a check on step 0.



NEW COIN COLLECTOR WITH HANDSET

To afford greater convenience to public telephone patrons, a new coin box with a handset has been made available. The operator is informed of the coin deposit by hearing a gong struck by the coin, as in the present set; but the transmitter which picks up the tone is not that used for talking but a carbon button mounted for that purpose on a plate which supports the gongs. Resilient support of the plate prevents the noise of the coins passing through the coin gauge, chute and hopper from disturbing the coin signals.

This coin collector, known as the 180-type, contains the induction coil and talking condenser; only the ringer and its associated condenser are mounted in a separate box.