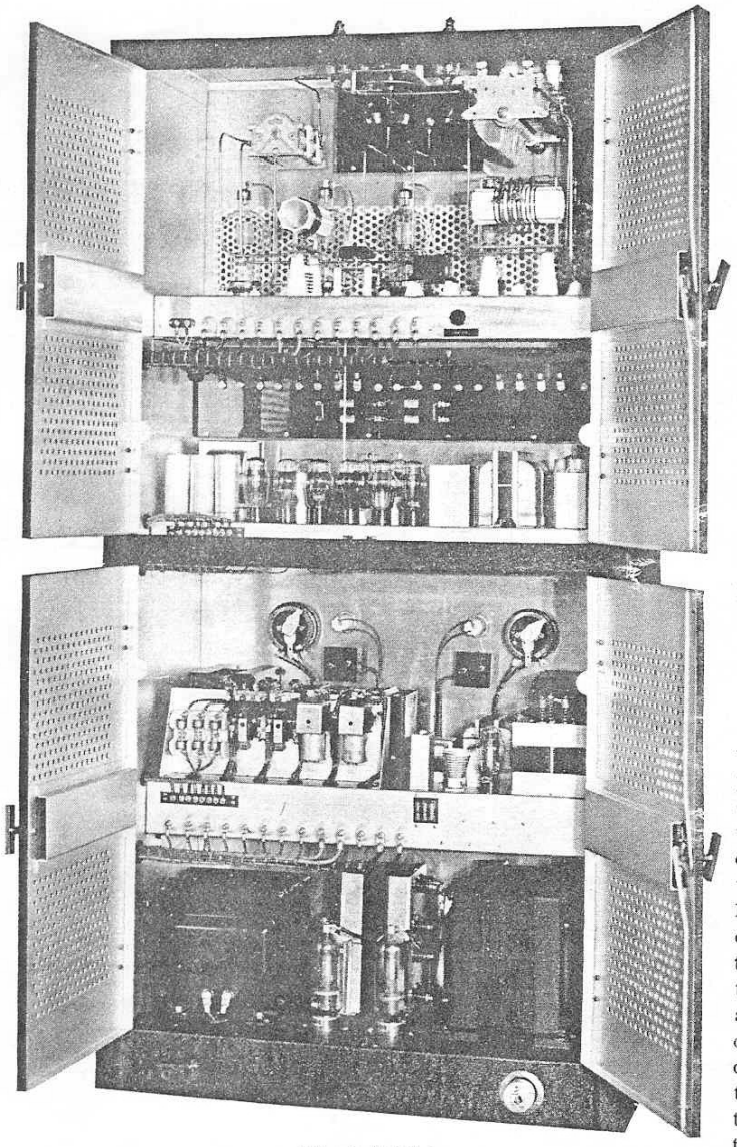
• 202-A Transmitter



REAR VIEW

automatically remove dangerous voltages when the doors are opened. The panel is entirely dead-front. Since the final amplifier tubes operate at high efficiencies and are supplied with power from a small regulation filter system, they would burn up quickly if the efficiency were reduced to zero by detuning the output circuits or by failure of bias voltage. This difficulty is overcome by the use of sensitive overcurrent relays in the plate circuit, which trip if the normal plate current is exceeded, and by undervoltage relays in the bias circuits. Further protection during tuning is afforded by a low power switch on the panel which cuts in a current-limiting resistor in the plate circuit while the operator adjusts the tank circuits to resonance. In addition to these devices a fuse block is inserted in the primary supply circuit, and additional fuses protect each of the smaller power transformers.

Power to the 202A is controlled by push - buttons on the panel which energize contactors in the high and low voltage circuits. After the transmitter has been adjusted to the desired frequency, control may be transferred to the operator's position where a push-to-talk key may be used to place the carrier on the air. Several arrangements for shifting from telephone to telegraph, either manually or by relays, can be supplied on special order.

The first four 202A transmitters manufactured have been supplied to amateurs. Mr. George C. Cannon, owner of station W2BSD, completed the first installation, and during the first week of operation established radiophone contacts with England, France, Norway, Costa Rica, Cuba, Dominica Republic, Brazil, Ireland, Scotland, and Mexico. In all cases a very strong, clear signal was reported, even under adverse conditions, indicating that a transmitter of this size is suitable for long distance amateur communication. The 202A will appeal to many other amateurs, but possibly its most extensive applications will be for government communication work and for short wave broadcasting. At present two 202A's are being installed by the State of Iowa Police Network for state-wide coverage, a type of service for which the 202A is well adapted.

202A SPECIFICATIONS

POWER OUTPUT:
650 to 800 watts telegraph and telephone. Rating for commercial service, 500 w.

FREQUENCY RANGE:
1.5 mc. to 15 mc., at reduced power to 30 mc.

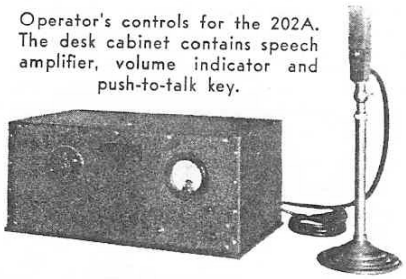
AUDIO RESPONSE:
Uniform from 60 to 8000 c.p.s within plus or minus 2 db. Distortion less than 8 per cent at 95 per cent modulation.

CARRIER NOISE:
50 decibels below average modulation level.

DIMENSIONS:
72 in. high, 34 in. wide, 14 in. deep.

NET WEIGHT:
913 pounds.

POWER REQUIREMENT:
3.8 kva. maximum at 110/220 v. 60 cycle, single phase.



Operator's controls for the 202A. The desk cabinet contains speech amplifier, volume indicator and push-to-talk key.