

More About Recording

••• By Robert Base*

WHILE the installation of recording equipment in a radio den may sound like an expensive luxury to most DXers, it opens many new and interesting fields.

As F. Wiseman pointed out in his article in the September issue of RADEX, recorded programs provide an excellent means of submitting reports on reception of different stations. However, I have not gone into this angle very extensively. Besides having to consider the expense of the blank records and the cost of mailing, I have found that I spend most of my time getting an accurate, written report on what I hear.

Also, I suppose that I am rather selfish in that I like to keep good records on file and play them back for my own enjoyment as well as that of visitors. There is no getting around the fact that it is a decided thrill to run off a recording of a good DX catch and I guess this is the biggest argument in favor of making records yourself. If you have caught a station's call letters in an announcement, you have a prize well worth keeping.

Of course, I have sent a few records to stations on special occasions. One record in particular was sent to WHDL on their Cuckoo Club program last winter. I recorded several parts of this broadcast and, a week later when they acknowledged receipt of the records, I made a record of this.

Most of my recordings are made for my own use and include worthwhile DX stations; different programs such as Amos 'n' Andy and Lowell Thomas; baseball games and other features which I may want to hear again; and last, but by no means least, the voices of friends who visit me.

The latter angle is of great interest to me. I have quite a file of these records and it is a penalty every friend must pay when he visits my radio room.

I have also talked on a few records myself and sent them to other DXers with whom I correspond, instead of writing. And, incidentally, if there are any other DXers who also have recording equipment, we might start up a "correspondence" by exchanging messages on records instead of letters.

However, from a DXer's angle, I suppose the recording of actual DX catches would be of paramount importance. I have any number on file and the best include TGW, KOB, COH, Poste Parisien at 6 p. m., CT1AA, CJLS, RW59, CP5, LR5, 10BP, KFPM, HHK at 8:30 p. m., VE9HX, CKNX, VK3ME, VK3LR, HIZ, as well as a number of foreign amateur phone stations such as HI7G, G5ML and ON4AC.

Of course, there are a great many stations which are received with sufficient volume to make excellent recordings, but the expense of recording every station heard would be too great and so I stick to those which I particularly care to keep.

Most of the DX stations are recorded on 6-inch blanks, while the 10-inchers are used for complete programs.

As can be seen in the accompanying picture, I use two microphones. The one on the table is a home-made velocity type which I bought from a local amateur. The one on the stand is also a velocity type and was made from a Bruno kit with a special, sensitive ribbon. The output of the ribbon feeds into a three-stage, battery-operated pre-amplifier which uses 864 tubes with the filaments hooked in series to permit the use of a 6-volt storage battery. This amplifier can be seen on the microphone stand.

The output of the pre-amplifier feeds into the control panel on the rack, where T-pads allow the mixing of radio, phonograph or microphone, or any one of these three. There is a transformer on the central panel and this feeds into the amplifier input. Additional volume and tone control are on the recording amplifier.

The latter amplifier consists of a

57 first stage, 56 second stage, two 2A5 output tubes, with a 5Z3 rectifier. There are two windings on the output transformer. One feeds into the recording head or to the voice coil of a dynamic speaker which can be used to play back records. The other winding feeds into a magnetic speaker for optional use.

The recording head uses a diamond needle for cutting and recording on blank aluminum disks. The turntable is rim-driven by a 1/20 h. p. motor at 78 r. p. m. When records are being cut, it is possible to monitor the program by means of the earphones hung on the rack.

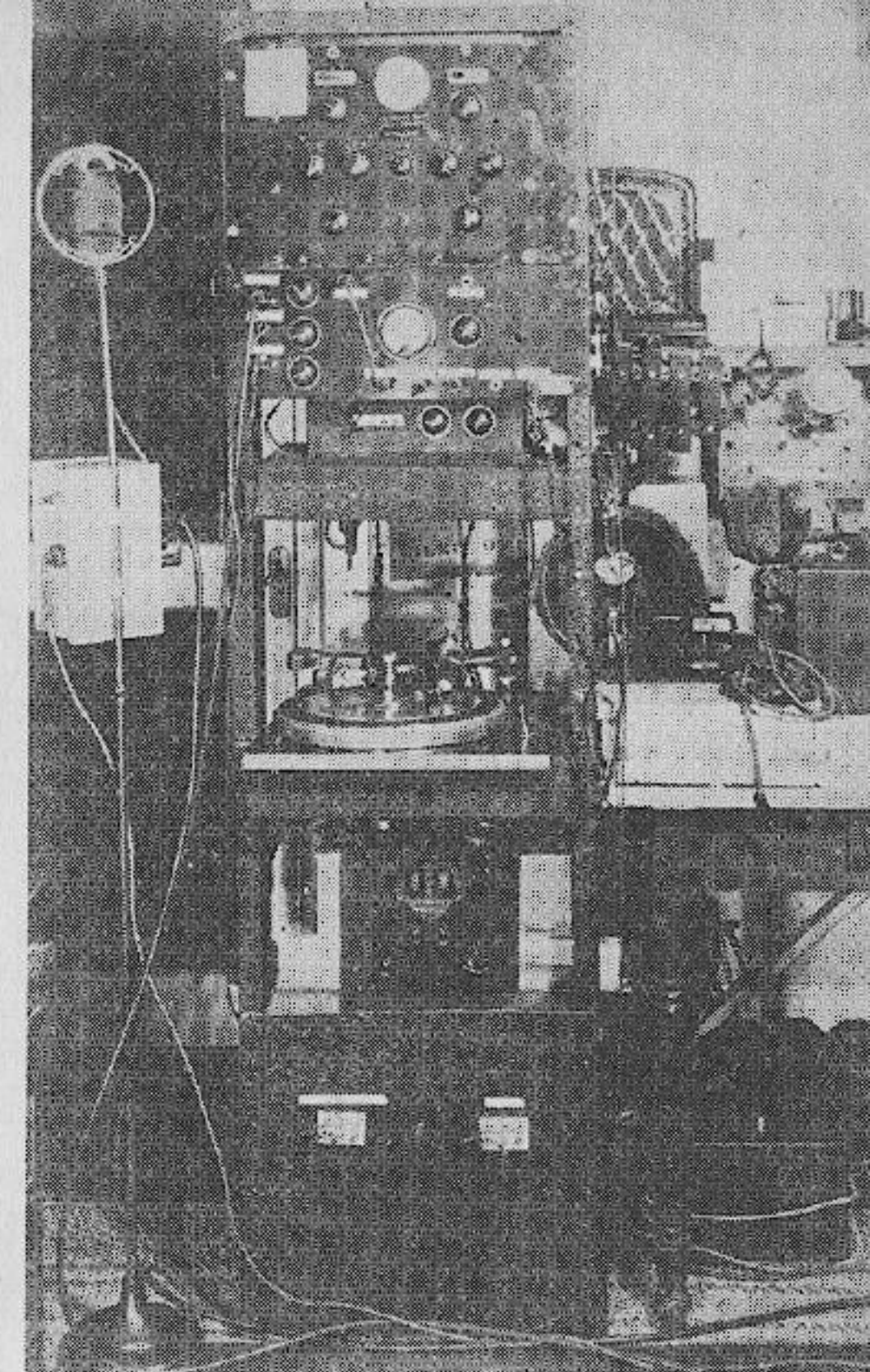
On top of the rack can be seen a cathode ray oscilloscope. While this can be used to check the quality and other characteristics of the recording amplifier, it does not necessarily have anything to do with the making of records and is only kept there because it is handy for other radio work.

The recorder shown may be used only on blank, ungrooved aluminum records and very good results have been obtained. While I do not know how long these records will last, I have never had any which showed any appreciable wear.

The biggest difficulty in this connection seems to be the necessity of sharpening frequently the fibre needle used for playing back the records, and it is possible that I will add another turntable and recording head to enable me to use some of the Universal record blanks called *Silveroid*. This, however, would be only for records where extra quality and durability are desired, since these blanks cost about twice as much as those made of aluminum.

The complete installation of amplifier, recorder and rack was obtained from the Wholesale Radio Service Co. of New York and has proved most satisfactory from every standpoint.

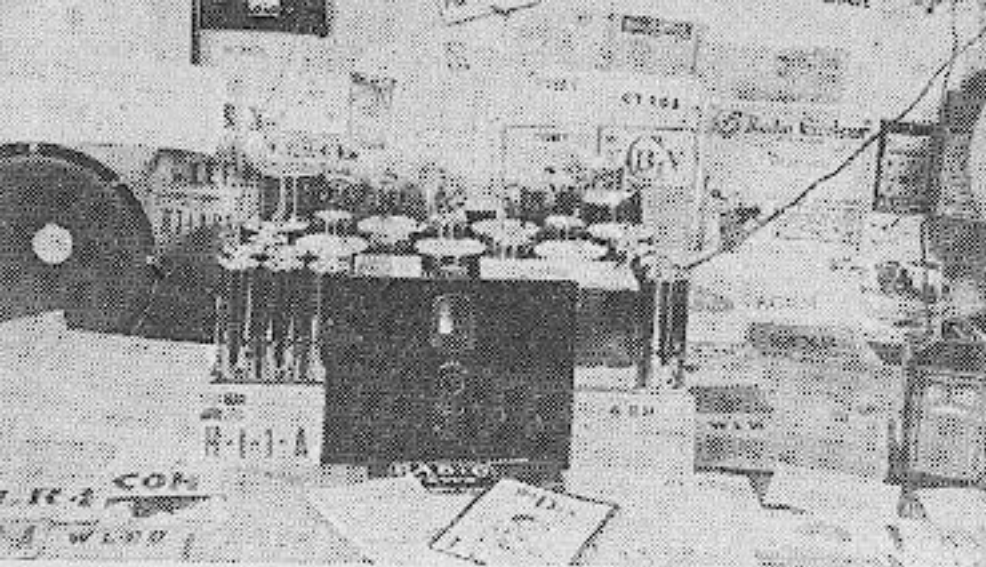
While the Scott receiver shown in the lower part of the rack may be fed



The recording equipment used by Mr. Base in making records of his reception.

into the control panel, most of the radio recording is done with the new 23-tube Scott Imperial which is shown in the other picture. Besides providing the greatest possible sensitivity for records of distant stations, the variable selectivity control of the new Scott provides exceptionally fine reproduction of local programs.

The picture of the new Scott and the display of verifications does not exactly tell the truth, since these confirmations were received on two previous Scott models. However, during the short time in which I have operated the new Imperial, I am convinced that it is a much finer instrument than the others and I am sure that these and many more stations will be heard and recorded during the current DX season.



The 23-tube Scott "Imperial" belonging to Mr. Base and some of his verifications.

At present, I am using two inverted "L" type aerials: one East-West and the other West-East. I expect to try out the doublet idea in the near future and see if it offers any advantage over my present system.

The ground system consists of an old water-heating boiler which is buried upright in the ground over a four foot copper sheet. Connections run from boiler and copper sheet to the receiver. The boiler is filled with water frequently and this, leaking out through small holes punched in the bottom, wets the ground thoroughly around the copper.

Of course, putting rock salt around the boiler might help reception somewhat, but I considered the possibility of the salt killing nearby grass and trees and decided against it.

As to my DXing, I have received a total of 845 stations on the broadcast band, of which 728 are verified. Ninety-eight of these are of the 2000-mile variety. The best veries, with the exception of those which would not show up well, are shown in the picture.

On short waves, nothing out of the ordinary has been received, although I got quite a kick out of hearing SUV, Rabat, HVJ, JVM and a number of foreign 20-meter amateur phone stations.

Still and all, whatever pleasure may be had by DXing is increased many fold by access to good recording equipment. While it is possible to go to extremes and invest heavily in such apparatus, the results obtained from

an inexpensive and relatively simple installation are most satisfactory and the dividends of personal enjoyment are usually well worth the investment.

*4105 Alto Road, Baltimore, Md.

LEARNING the Code

A WRITER in World-Radio gives the following simple but extremely practical method of learning to read and write Morse. It is only necessary to memorize the following words given in connection with each letter of the alphabet. Thus A is "Ahoy," B "Boisterously," etc. The emphasized syllables as shown by capital letters indicate dashes while the unaccented syllables indicate dots. Thus Q "QUEEN! QUEEN the QUEEN!" becomes dash-dash-dot-dash.

| | |
|-----------|-------------------------|
| A . — | a-HOY |
| B — . . . | BOIS-ter-ous-ly |
| C — . — . | CAL-e-DO-nia |
| D — . . | DROWS-i-ly |
| E . . | egg! |
| F . . — . | fum-i-GA-tion |
| G — — . | GREAT-GRAND-ma |
| H | he! he! he! he! |
| I . . | it is |
| J . — — — | Ja PAN PAN PAN |
| K — . — | KING-ly CROWN |
| L . — . . | lu-CID-it-y |
| M — — | MORE MICE |
| N — . | NINE-ty |
| O — — — | OLD OLD OWL |
| P . — — — | pro-LONG LONG-er |
| Q — — . — | QUEEN! QUEEN the QUEEN! |
| R . — . | re-TURN-ing |
| S . . . | so she says |
| T — | TAKE |
| U . . — | un-der-STAND |
| V . . . — | ver-y im-MENSE |
| W . — — | wi-WILD WOLVES |
| X — . . — | X-cell-ent WINE |
| Y — . — — | YOUNG -ish YOUNG YOUTH |
| Z — — . . | ZINC-SINK it is |