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first audio stage and the output pentode cut out for headphone listening. Both models of the "Sky-Hawk Short-wave Four" use ganged tuning condensers.

The "Viking Short-waver" is a threevalve shortwave receiver which can be operated either from a separate power pack or, alternatively, can derive its

power from an a.c. broadcast set. Constructional details of a five-metre transceiver have been included in this Guide" because one of the newest and most fascinating fields for experimenting in radio lies in ultra-shortwave transmission and reception. With the simplest of equipment, it is possible to obtain first-class voice transmission and reception over distances varying from 10 to 30 miles, depending on the topography of the intervening country.

Experimenters will find Section 6 one of the most interesting in the book. In it are given full details for making a Reiss microphone. "B" class amplider, a one-valve shortwave converter. a power-pack for shortwave sets, an aerial tuner for DX work, a "B" eliminator for auto-sets, simple power line filter, a selective crystal set, and a single and double wave-trap. In addition there are two comprehensive practical articles dealing with charging accumulators at home and learning the Morse code.

In Section 7 are given a wide variety of radio bints, alphabetically arranged, while Section 8 contains valuable reference chart tables. A station list is also published, giving the most powerful broadcast stations in the world which are best heard in New Zealand. The stations are arranged in frequency order to permit of easy identification. Next follows a similar list of the most powerful shortwave stations in the world, together with full operating schedules.

The final section contains a radio alphabet, in which are given brief definitions of terms most commonly found in

This year the "Guide" has been printed on higher-grade paper than in previous years, and has been enlarged by 32 pages. Because of these improvements it has been found necessary to restore the price to the half-a-crown once charged for it, but a glance through the contents will soon prove to readers that this year's "Guide" represents the best value ever given, in this country at least, in any technical radio publication.

AT Villeurbanne, a new city near Lyons, where the flats are twenty storeys high, set around wide open spaces, the materialised dream of the future architect, there are no visible aerials. A relay exchange, outside the town, is connected by wire to all the flats, and supplies a choice of six different programmes.

Questions and Answers

(Continued from page 46).

the earthed end of the divider, and thus does not give sufficient control. Try moving this tap up towards the positive end until it is about 40 voits positive to chassis. This should give you adequate control on the locals, even with an outdoor aerial.

J.C.A. (Napier): The "Sky Hawk Shortwave Four," described in the 1935 "Radio Guide," is an up-to-theminute four-valve shortwave battery set which you will find gives excellent results.

...MOULD-BE CONSTRUCTOR" (Waimate): I have built up the Tim" described in the 1934 "Ra-"Tiny Tim" described in the 1934 "Ra-dio Guide," and think it is a wonderful little receiver on the broadcast band. I am a little disappointed with its performance on shortwave, however, as so far I have only been able to pick up Morse signals. Would it be advisable Morse signals. Would it be advisable to add an audio stage, using another type 30 valve?

A.: First of all, to get good results with such a small set you must have an efficient aerial and earthing system. The fact that you can pick up Morse signals shows that the set is oscillating. Secondly, do you know when and where to listen for overseas stations? could obtain some valuable help in this direction by watching the shortwave page of the "Radio Record" each week. If you wish to add another audio stage you could do so as shown in the "Midget Two. described in the "Radio Times" dated January, 1934,

Those Elusive Canadians

(Continued from page 45.)

CHWC (1010 k.c.) has been heard lately on Sunday evenings up till about 9.30 p.m. on special DX programmes, and has been R6 on some occasions.

CKCK, also on 1010 k.c., is often on late, and can easily be mistaken for CHWC. CKWX, another 100 watter on 1010 k.c., is heard at good volume, and has been heard closing down at 8 p.m. on Fridays.

CJOR, on 600 k.c., was coming in at good volume some months ago, but is only fair at present, being heterodyned by KFSD.

Other stations that can often be logged are CFRB, OROV, CKY and CKOV. Here are a few Canadians

that are now working late:— CKCD, 1010 k.c., 7.30 p.m. CJOR, 600 k.c., 7.15 p.m. CROV, 1100 k.c., 7 p.m. CJAT, 910 k.c., 6.30 p.m. CHWK, 780 k.c., 6.30 p.m. CKOV, 630 k.c., 6.30 p.m. CKY, 960 k.c., 6 p.m. CKY, 960 K.c., o p.m. CHWC, 1010 k.c., 6 p.m. CKCK, 1010 k.c., 6 p.m. CFQC, 840 k.c., 6 p.m. CJCA, 730 k.c., 6 p.m. CJRM, 540 k.c., 6 p.m.

These are the stations most likely to be heard, and any other station heard is indeed a good catch, From my personal experience I find that if you give these stations a correct report they rarely fail to verify.

With the increase in power and later broadcasting hours of many Canadian stations dxers will be able to make numerous new loggings this winter. and so increase their verifications of our sister Dominions.

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