

Tri-Tet Transmitter

New Zealander's Successful Design

FEATURED in the November issue of the "T. and R. Bulletin," the official organ of the Radio Society of Great Britain and the British Empire Radio Union, is a six-page article on "A Tri-Tet Link-coupled Push-pull Transmitter," from the pen of the designer, Mr. G. McLean Wilford. The editor of the Bulletin states: "The tri-tet circuit forms the basis of this very modern transmitter, and by a novel arrangement either crystal or master oscillator control may be used. It is thereby possible to operate on a fixed crystal frequency in four amateur bands, or on any predetermined frequency in five bands. Link coupling between stages and a push-pull final amplifier contribute towards making this one of the most efficient transmitters yet described in this journal. This equipment was an outstanding exhibit on the society's stand at Olympia last August."

Mr. Wilford is a son of Sir Thomas Wilford, ex-High Commissioner for New Zealand. He is an old boy of Wellington College, and is an engineer attached to the staff of the Central Electric Board, Birmingham (England).

VK3LR, 31.5 m., R8, QSA5, 9.50 p.m., news session. Station coming in very well, clear and steady.

YDA, 49.02 m., R4, QSA4, 10.34 p.m., musical programme. This station works up to good volume round 11.30 p.m.

JVT, 44.4 m., R7, QSA5, 10.46 p.m., talk being given in Japanese.

RV15, 70.2 m., R5, QSA4, 10.52 p.m., orchestral programme. Owing to summer time station reduced in volume with plenty of static.

WEDNESDAY, JANUARY 30.

RNE, 25 m., R7, QSA5, midnight, just closing down and asking for reports. Closed with the "International." Announcer stated it was 2.57 p.m. in Moscow.

Information Coupon

(To be used with all requests for information.)

Name of set
Model
Name
Address

Nom de plume
To be kept in subsequent inquiries.

Please Note:—

- (1) Be specific and brief, tabulating if possible.
- (2) Write legibly and on one side of the paper.
- (3) We do not design circuits.
- (4) Limit three questions unless 1/- is enclosed.
- (5) Postal queries limit 3 questions. Enclose stamped and addressed envelope and 1/- fee.

Changing Over to the Short Waves

Types of Set to Use

THE short waves are steadily increasing in popularity, if one is to judge by the number of receivers, converters, and adaptors that are now available for the shortwave listener (writes A. W. Beatt in "World Radio.") The majority of nearly 100 powerful shortwave stations throughout the world are receivable on simple apparatus, providing one searches for them at the right time.

Conditions on the short waves are not like those on the medium and long waves, since the short waves are not limited as to distance. If the wavelength to suit the time of day and year is used, very little power suffices for transmission to practically any point of the globe.

Types of Apparatus.

One cannot, however, be as certain of what is to be received on the short waves at any given moment, as of what is to be heard on the medium or long waves. It is, therefore, an advantage to be able to switch over from one band to the other with as little trouble as possible to ascertain whether conditions are favourable or not. The "all-wave" receiver reduces the amount of trouble involved in the change-over to the flick of a switch, and if a run over the dials reveals nothing of particular interest, the change back to the broadcast band is just as easily accomplished. The all-wave receiver would thus appear to be the most suitable for the non-technical listener, whose interest in the short waves extends only to the programmes, news items, etc., receivable.

The short-wave "fan," however, often constructs or purchases a receiver designed for use on the short waves only, or, alternatively, uses a short-wave converter in conjunction with a broadcast receiver. Converters and adaptors of various types are available for attachment to existing receivers, and bring most of the advantages of the all-wave receiver. There is a little

more trouble involved in changing over from one waveband to another, although simple switching arrangements can be provided to avoid the necessity of changing over connecting wires.

A simple method of converting the broadcast receiver to the short waves is by means of a detector-adaptor, which may be plugged into the detector socket and requires only the additional connexion of an aerial and earth. Another arrangement is the single-valve superheterodyne converter, which makes use of both the H.F. and L.F. stages of the broadcast receiver.

The growth of short-wave listening has brought with it the problem of re-radiation from oscillating receivers, and both the detector adaptor and the single-valve superheterodyne converter can be offenders in this respect. Methods of suppressing possible re-radiation consist, briefly, in placing a stage of tuned or untuned H.F. amplification before the detector stage. This addition also has the advantage of stabilising the working of the detector, and eliminating "dead spots" caused by aerial resonances.

For those who require something more sensitive than the detector-adaptor, there is the two-valve superheterodyne converter, which changes the frequency of the incoming short-wave signal, so that it may be amplified by the H.F. stages of the broadcast receiver, as in the case of the one-valve converter.

When Your Set Fails !

Get a Qualified Serviceman.

The following is a list of servicemen and firms employing servicemen who are fully qualified under Government Regulations, and we strongly advise our readers to employ Only Qualified Men and get the job done properly.

BLenheim

Rabone Bros., Phone 1524.*

HUTT AND PETONE.

Len Jenness, 238 Jackson St Ph 63-433

OAMARU.

K. A. King, Thames St.

PALMERSTON NORTH.

Nimmo's Radio Service. Phone 5242.

NEW PLYMOUTH.

Nimmo's Radio Service. Phone 439.

WELLINGTON.

F. J. W. Fear & Co., Phone 41-446.

Nimmo's Radio Service. Phone 45-080.

DJN, 31.45 m., R6, QSA4, 12.5 a.m., musical programme.

DJB, 19.73 m., R4, QSA4, 12.10 a.m., giving out news in English. Signals spoilt by high noise level.

FYA, 19 m., R6, QSA5, 12.15 a.m., talk being given in French.

GSF, 19 m., very weak, with musical programme.

YDA, 49.02 m., R3, QSA3, 12.20 a.m., QRN very bad on 49 m. band, blotting out all signals.

THURSDAY, JANUARY 31.

FYA, 25.60 m., R4, QSA5, 1.35 p.m., talk being given in French. Signals inclined to surge a little, but very clear. At 4.45 p.m. station was at very good volume, R8, QSA5, with talk in French. Later, music was put on. Station closes at 6 p.m. approx.

KEE, Bolinas, California, 38.89 m., R7, QSA5, 4.54 p.m., musical programme with very clear signals.

W2XAF, 31.48 m., R3, QSA3, 5.10 p.m., musical programme; station very weak; in fact, has been so for some time past.

PIA, Radio Suva, Fiji, 22.96 m., R6, QSA5, putting on usual good musical programme.