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"Gernsback's "Short-Wave Craft" (a monthly), 2/-.
"Radio Telegraphy & Telephony," by Duncan and Drew, 57/6. (Just out—every phase of radio science dealt with.)

Blue Prints for 4 Valves A.C. Super-Wasp S.G. and broadcast receiver; Pilot S.W. 4 valves; power amplifier audio stages and P.-P. 4 valves; 6 valves S.G. receiver; Pilot Universal Super-Wasp 5 valves A.C.; Pilot S.G. pre-selector 5 valves.

"Radio Servicing Course," by Ghirardi & Freed, 11/6. (Just out. No serviceman should miss this.)

Modern Valves.
1/6, "Batteries & Accumulators."
1/6, "How to Understand Diagrams," 1/6.

By Ralph
Stranger.

"Service" (monthly digest of Radio maintenance, by Rider), 1/6.
"Radio-Craft" (Gernsback), 2/- (A monthly).

"Radio Engineering," 2/-.
"Radio Guide and Call Book, 1932," 2/10.
"Break-In" (N.Z.A.R.T.), 7d.

"Modern Radio" (Kruse), 1/9. (A fine monthly.)

"Atoms and Electrons," (Sullivan), 2/8.
"First Principles of Television" (Dinsdale), 16/6.

"Radio Engineering Principles," (Lauer and Brown), 19/6.
"Wireless Made Easy" (Stubbs), 1/-.

"How to Become a Radio Amateur" (A.R.R.I.), 2/-.

"Radio Operating Qstns. and Ans.," by Nilson and Hornung, 19/6.
"Radio Frequency Electrical Measurements," by Brown, 35/-.

"Radio Handbook," by Moyer and Wostrul, 37/6 (An unfailing coach for exams.).
"Armature Winding and Motor Repair," by Braymer, 24/-.

"Radio Receiving Tubes," by Moyer and Wostrul, 21/-.

"Radio Construction and Repairing," by Moyer and Wostrul, 21/-.

"World Time Indicator and Radio Station Log," (clock dial—over 600 stations), 1/2.

"Television News," Gernsback, April issue, 2/-.

Loomis's "Radio Theory and Operating" (U.S.A.), 32/6. A good book for any amateur or operator.

Henney's Principles of Radio, 26/6.
Morecroft's new book "Experimental Radio Engineering" (51 experiments), 25/-.

"Practical Testing Systems," by Rider, 8/-.

Leutz & Gable's "Short Waves," 19/- (A wonderful book on subject).

"Radio Amateur Handbook" (Handy's 9th edition), 6/6.

"Radio News," Oct., Nov., Feb., March April, May, 2/- each.

"Q.S.T.," Sept., Oct., Nov., Dec., Jan., Feb. March, April issues, 2/- each.

Scott's Broadcast Time Chart (including log and complete list of world's long and S.W. stations), 7d.

"Wireless: The Modern Magic Carpet," by Ralph Stranger, 5/- (New stocks just arrived—The "Radio Record" and Mr. Dawson, Phillips Lamps, say no set owner should miss this.)

"Radio Call Book and Technical Review," (formerly Citizens' Call Book Quarterly), 2/-.

Mack's List of World Short-wave Stations 7d. (Don't miss this.)

"Mathematics for Practical Man," by Howe, Simplicity itself, 10/9.

"Radio: A Study in First Principles," by Burns, 15/- (Simple and clear).

"Elements of Radio Communication," by Morecroft, 18/6.

(Please note there is a rise of approx. 63 per cent. on all American publications, and don't blame us.)

OUR LOCAL AGENTS: (Inspect local stocks).

Auckland: F. R. Jeffreys, 466 Queen St.

Blenheim: Tomlinson & Gifford.

Christchurch: A. T. Williams, Bookseller, 85 Cashel St. W.

Gisborne: C. W. Muir, Bookseller.

Hamilton: Paul's Book Arcade.

Hastings: Hall's Bookshop.

Napier: Starkey's Bookshop.

Nelson: Keith Walker, Baird's Buildings.

New Plymouth: Eyle's Bookshop.

Palmerston North: Radio Supplies & Service Co. (E. B. Borham), 245 Main St.

Stratford: Gardner's Book Shop.

Timaru: J. H. Healey, Bookseller.

Wanganui: Poynter's Bookshop.

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64 COURTENAY PLACE, WELLINGTON

Questions and Answers

L. H. (Fairburn): I have been unsuccessful in attempting to re-neutralise my old neutrodyne. I covered one of the filament terminals of the detector valve, but could hear nothing on 1080 k.c.

A.: It appears that you are attempting to re-neutralise the set with the detector out of action. You do not disconnect the filament supply of the detector, but start with the radio valve nearest the detector. If you cannot get a strong signal on about 1000 k.c., take one on a little lower frequency than this.

K. A.F. (Oamaru): The gramophone part of my set is far too heavy on the bass, while the radio side is well balanced. How can we cut out this bass?

A.: Use a condenser in series with one of the leads to the set. The value of the condenser should be about .01 mfd. However, the pick-up you are using has rather a preponderance of bass, but the condenser should prevent much of this going through your set. If this condenser does not stop sufficient bass, use a smaller value, say, .005.

C. F.C. (Waipahi): What is the correct method of neutralising my four-valve battery set?

A.: Wrap a piece of silk around one of the filament prongs of the r.f. valve nearest the detector, and tune in a station about the middle of the dial. Adjust the neutralising condenser until the signals almost or totally disappear. This stage is then neutralised; repeat the procedure for the first stage.

A. DAPTOR (Auckland): Would a s.w. adaptor such as I have sketched work with a 6-valve commercial set and bring in s.w. stations on the speaker?

A.: The circuit is an orthodox one. Whether it will bring in s.w. stations on the loudspeaker is difficult to say. It should.

2. What is a grid return?

A.: The grid return is the connection between the grid of the valve and the filament. In your case it goes to a 400 ohms potentiometer.

3. What is meant by "one stage must resonate with another stage"?

A.: They must both be tuned to the same wavelength.

PUZZLED (Hamner Springs): I have built a set from a 5-valve commercial set, and designed it to work from a d.c. eliminator. Before altering the set I had good reception and now I can get only half volume. When a potentiometer is a quarter on the signals are weak and then on the set will only howl and squeal. Above three-quarters it is silent.

A.: With such a circuit you should use a soft detector. Try taking the grid return to the other side of the filament. Take the grid return of the first valve to "A—" and try placing the potentiometer across the filament of the detector valve, and bringing in the grid return to the moving arm. See some of the circuits which were published in a special series of articles which ran in the "R.R." some time back. You may find it an improvement to employ a centre tap input push-pull transformer.

4600 (Hindon): Particulars of the coils appear to be about right for the Cossor set; we cannot say definitely as the condenser value is not given. They would be worth trying.

NEVA (Wellington): When I turn on the s.g. stage of my Radiogram Five I get no extra volume.

A.: It sounds as though you have the connections to the s.g. valve incorrect.

If you are using the American type the grid is on the top. Otherwise it is the plate and the plate terminal becomes the screening grid terminal. Are you certain there is no break in the connection between the screening grid and the battery?

G. C. (Awanui): I constructed the Daniells Cells battery, using commercial zinc and sulphuric acid, but the zincs burned black and the cell would not function.

A.: Your sulphuric acid solution is far too strong. Cut it down by half, and then try.

2. My four-valve set uses up any kind of battery in four months, irrespective of the valves used.

A.: You probably use your set a good deal. With a four-valve set you should get at least six months from a set of batteries if they are used on an average three or four hours a day.

48NW (Westport): How can I erect a cheap and efficient inside aerial?

A.: Sling a couple of wires spaced from 4-6 feet in the attic and bring down a single lead-in to your set.

DISSATISFIED (—): Why have three 224 valves blown out in six months in my commercial radio?

A.: In all probability the filament winding is of too high a voltage. Have it tested.

J. W.A. (Waikanae): How do you work out the coil construction chart on page 145 of the 1932 "Radio Guide"?

A.: The first operation is done with the vertical lines E, F, and G. The ruler is placed upon the value of the condenser to be used, indicated at "G", and upon the maximum wavelength to be tuned in on "F". It then touches a point on "E". From this point the straight edge is laid across "D," "C," and "A" so that it cuts "A" at the numeral indicating the diameter of the former. Mark where this straight edge (Continued on page 21.)

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Information Coupon

(To be used with all requests for information.)

Name of set

Number of valves

Name

Address

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Nom de plume

To be kept in subsequent inquiries

Date

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, but accept suggestions for feature articles.