

1935 Radio Constructor's Guide Now On Sale

18 RECEIVERS OF ALL KINDS
FEATURED IN ENLARGED 192-
PAGE MANUAL FOR HOME
BUILDERS: TWO PRESENTA-
TION BLUEPRINTS.

THIS year's "Radio Guide"—the eighth edition—is now off the press, and is easily the finest yet published. In last year's hand-book twelve sets were described; this year's contains full constructional details of no fewer than eighteen complete receivers and power amplifiers, besides numerous useful radio devices ranging from a Reiss microphone to a single-valve superhet shortwave converter.

There are nine sections in all, the first being an introductory one. In it is given a host of practical tips which all experimenters, particularly beginners, will find very useful. The next section deals with broadcast band receivers, both battery and a.c. operated, and of superhet and t.r.f. types. All are picked receivers, up-to-the-minute in design, and are described and illustrated in such detail that anyone with a vestige of radio knowledge should not have the slightest difficulty in building them successfully.

Perhaps the most popular of these sets will be the "Tom Thumb Two," not only because it is the simplest and cheapest to build, but also because, though only a two-valver, it gives remarkable results. It is an all-waver, and will bring in stations all over the world with excellent clarity and surprising "punch." Among the other battery models are the "Golden Superhet Six" and the Radiokes "12/34B" Dual-wave Superhet, two receivers which have the range, selectivity and sensitivity of many commercial a.c. receivers using the same number of valves.

The "Commander Eight" is one of the a.c. receivers which is sure to be popular. It uses eight valves and is thoroughly up-to-date in design. Push-pull 45's are used in the output, ensuring high tonal fidelity combined with low cost. Another fine set is the "Comet Superhet Five," which is one of the most remarkable receivers ever designed in this country. As a special gift to readers, blue-prints of both these receivers are included with each copy of the "Guide."

In the next section, two up-to-date power amplifiers are described. The smaller—the "Baby Grand"—uses a 57 first audio stage, direct-coupled to a 56 driving a pair of 45's in resistance push-pull. The quality of reproduction is above reproach, while the volume is sufficient for a small dance hall. It is both cheap and simple to build, and uses only standard parts.

The 20-watt "Public Address" amplifier was primarily designed for servicemen. It uses a 57 first audio ampli-

fier, resistance capacity coupled to a pair of 56's in push-pull, which are in turn resistance capacity coupled to a pair of 50's in the output.

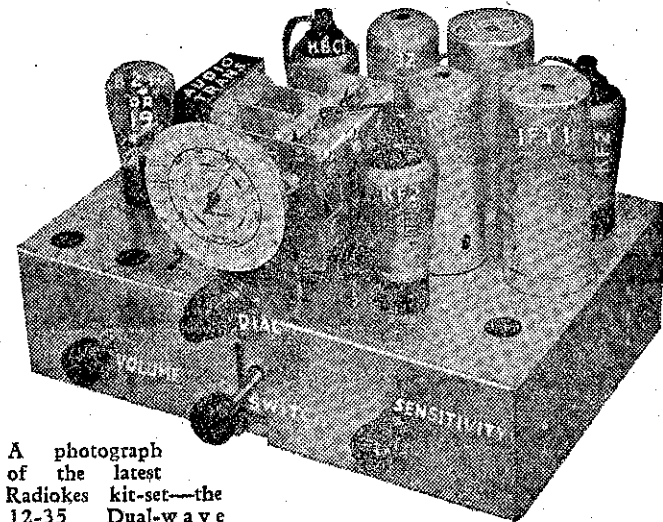
Next follows a comprehensive section dealing with the design of all types of aerials—broadcast, short-wave and all-wave. Special attention is paid to the latest noise-reducing doublets for all-wave operation.

The next section deals with meters, and in it are given worked examples showing how to find solutions to such problems as calculating shunts and series resistors, multiplying voltage and current ranges, determining the internal resistance of d.c. voltmeters and ammeters, the way to use a d.c. milliammeter as a d.c. voltmeter, and the method of constructing an ohmmeter for d.c. resistance measurements.

Five up-to-date shortwave receivers and a five-metre transceiver are described in the shortwave section, which follows next. The "Eaglet Two" is a compact little two-valver using a 57 as leaky-grid detector, with electron regeneration, and a 56 output stage. Though only small, it can be depended on to bring in the main shortwave stations of the world at excellent 'phone strength. A powerful but simple-to-build shortwave superhet—the "Night Flight Short-waver"—follows next. This set uses plug-in coils, and, unlike the usual run of shortwave superhets designed for home construction, it is neither tricky to build nor uncertain in operation. Regeneration applied to the I.F. stage gives high gain and excellent selectivity.

One of the latest type 15 indirectly-heated screen-grid battery valves is used as detector in the battery model of the "Sky-Hawk Short-wave Four" to enable electron-coupled reaction to be obtained as simply and effectively as in a.c. receivers. The valves used are 32 r.f. stage, 15 detector, 30 first audio amplifier, and PM22A output pentode. Provision is made for plugging in the 'phones following the 30, and for switching off the output pentode, thus conserving battery current when speaker reproduction is not required. This is easily the most powerful battery four-valve shortwaver that has yet been described in this country.

The a.c. version of the "Sky-Hawk" uses a 58 r.f. amplifier, 57 leaky-grid



A photograph of the latest Radiokes kit-set—the 12-35 Dual-wave Superhet. It is described in this year's "Guide."

detector, with electron-coupled reaction; 56 audio stage and 2A5 as output pentode. As with the battery model, the 'phones can be plugged in after the
(Continued in Col. 2 next page.)



THIS IS THE BATTERY YOU WANT!

A battery that fulfils every "B" Battery requirement—and still has a lot in reserve—the EVER-READY SUPERDYNE 45 Volt. You get absolute factory freshness in the EVER-READY SUPERDYNE; its power is world famous and you'll find it LASTS MUCH LONGER. We GUARANTEE the SUPERDYNE.

Let us tell you all about it and the many other EVER-READY Batteries next time you are passing.

EVER READY

TORCHES, REFILLS & RADIO BATTERIES

**THE WORLD'S
BEST BATTERIES**