

Tests of the New Season's Best Sets

BROWN THREE- VALVE KIT SET

Name of Set: Type A Brown Three-valve Screened-grid Receiver.

Maker: S. G. Brown, Ltd.

Price: £12. (Other types and prices on application.)

Valve Combination: Screened-grid high-frequency amplifier, detector, and low-frequency amplifier.

WITH the introduction of the Brown models, the ever-increasing range of kit sets has been notably augmented. This new kit set is made in four models; the A and AM models include a Brown loud-speaker, built into the cabinet of the receiver; the B and BM models do not.

Battery or Mains Operation

Both distinct models are available for either battery or mains operation. The Brown kit set, therefore, has a wide application of uses, which should appeal to all classes of listener.



The Brown three-valve set with self-contained loud-speaker

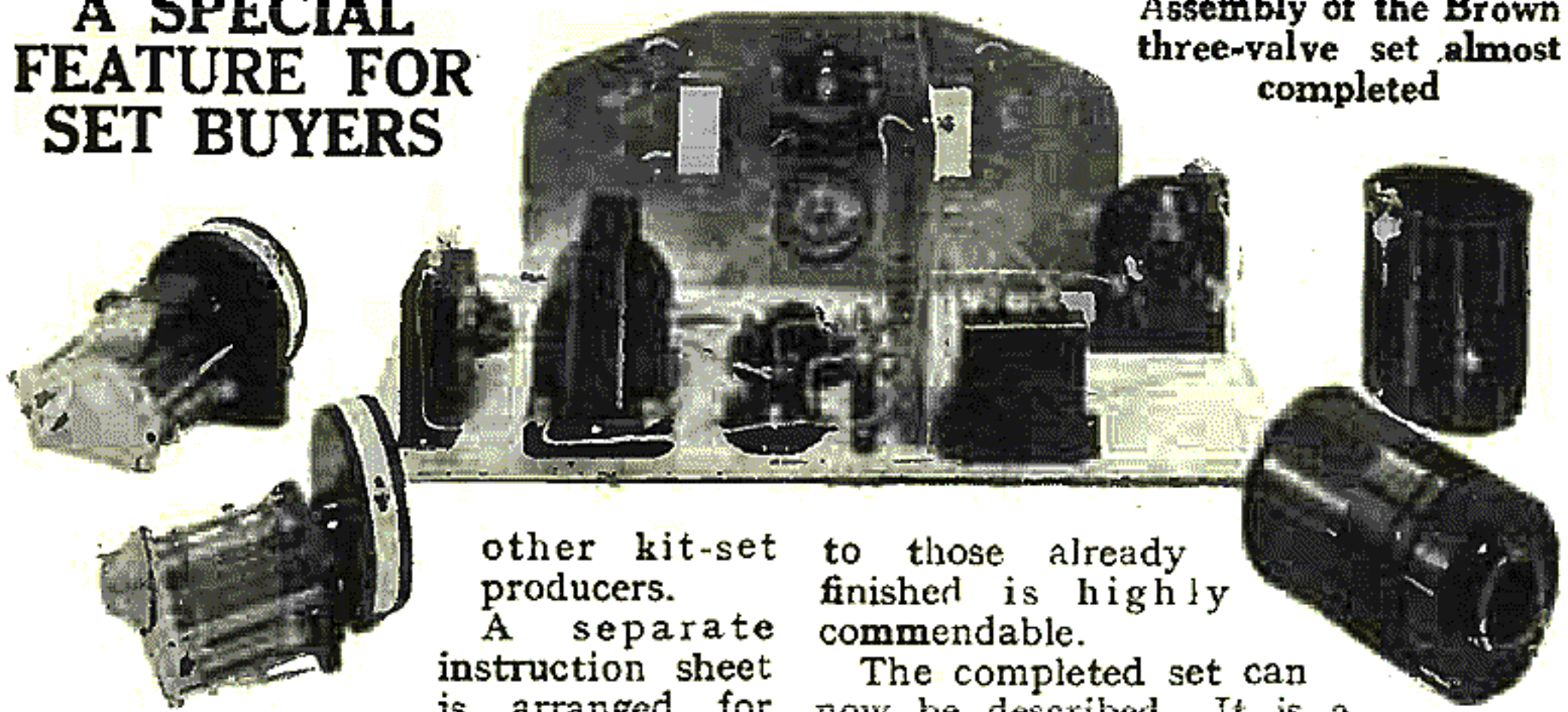
We have recently completed the assembly of a Brown type A kit set, which has also been put through our routine laboratory tests as a complete broadcast receiver. We are able to say that the kit completely fulfils the first requirement of its species, in being extremely simple to assemble.

Favourable Comparison

In its completed form the Brown kit set compares favourably with factory-built sets employing a similar combination of valves.

The instruction sheets are well produced. They are almost an inducement to build the set, so carefully are they arranged. The makers seem to have profited by the combined experience of

A SPECIAL FEATURE FOR SET BUYERS



Assembly of the Brown three-valve set almost completed

in the assembly. In Stage 1, for example, all the necessary instructions are given for the mounting of the components on the baseboard. We found this part of the assembly perfectly simple and absolutely above criticism.

Confusion is avoided at this stage by the thoughtful provision of a baseboard accurately stencilled with the shapes of the baseboard components. This good idea appealed to us very much, for it shows that the makers are not relying on the constructor's theoretical knowledge to augment their instructions.

Even the screws for the components are carefully packeted and marked, so as to avoid the confusion that might possibly arise from one box of assorted nuts, bolts, and screws.

In Stage 2, the constructor is shown how to connect together the components he has mounted on the baseboard. The picture of these first seventeen wires is so clear that this part of the assembly could be carried out without reference to the wiring key. The length of each wire is given in this key and each wire has a simple reference number.

Referring to our notes, we see that some of the wire lengths were on the long side, but this is preferable to being too short.

Stage 3, the assembly of the front panel, and the connection of three further wires, brings the constructor to a most interesting stage. All the previous seventeen wires now "take a back seat" by being printed in red instead of black as before. Now only the next three wires are shown in black, and, as a result of this clever idea, the constructor at wire 18 is no more confused than he was at wire number one.

The fixing of the variable condensers to the panel and their connection with the rest of the receiver constitutes Stage 4, and, more or less, completes the assembly.

In Stage 5, the whole of the actual set wiring is printed in red, but around each terminal to which a battery lead has to be connected are placed lettered black rings. This idea of making the connections to be done stand out in contrast

other kit-set producers.

A separate instruction sheet is arranged for each definite stage

to those already finished is highly commendable.

The completed set can now be described. It is a three-valver employing one screened-grid valve for high-frequency amplification, a detector valve, and a transformer-coupled power valve for low-frequency amplification. The main controls are the tuning condensers, for aerial tuning and screened-grid valve tuning.

Distortionless Volume Control

Subsidiary controls are the reaction condenser, the volume control and the on-off switch. Volume is varied by adjusting the filament voltage of the screened-grid valve. It is therefore a pre-detector control and introduces no distortion in its variation.

Although they were not embodied in the original models, all-wave tuning coils are now fitted as standard in the Brown kit sets. Our first tests were made with

Tests of the New Season's Best Sets—Continued

Every set of which a report appears in this regular feature has reached a certain standard of efficiency in our new testing laboratory. No reports will be given on receivers that do not reach this standard; it will be understood, though, that only a limited number of the good sets actually tested can be discussed in each issue.

dial readings for the principal European stations are included in the instruction sheet.

When completed, the Brown A type kit set is a self-contained radio installation, requiring only the addition of an aerial and earth. Ample space is available behind the loudspeaker for both high-tension and

low-tension batteries.

The convenience of this type of set, which does away with untidy battery leads, is becoming more and more generally appreciated by discriminating listeners.

**THOSE OF YOUR FRIENDS
WHO ARE THINKING OF
BUYING NEW SETS BEFORE
CHRISTMAS WILL BE GLAD
TO KNOW OF THESE SPECIAL
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the medium-wave coils originally produced and we were able to make an interesting comparison.

These coils are somewhat bulky; the alteration of wavelength range is brought about by means of a small rotary switch conveniently mounted on each coil. The lid of the set has to be lifted to change wavelength bands.

Pleasant Surprise

These all-wave coils do not appreciably reduce efficiency when compared with the old coils. This was rather a pleasant surprise for us. The makers were wise, we think, in altering their coils, for the convenience of all-wave coils is now demanded by almost every listener.

The tuning dials are pleasantly smooth in operation, the slow-motion device being good. We found the volume control effective in reducing the strength of stations received at great intensity. Reaction is rather fierce and is inclined to paralyse the action of the set unless carefully applied. As a fact, we did not often have to use much reaction, because the set is really sensitive.

As might be expected from the Brown low-frequency transformer and the Brown loud-speaker chassis, quality of reproduction is of a high order. There is plenty of base, but no "boominess." A pentode output valve, which was not stipulated by the makers, imparts a pleasing crispness to the tone.

Great Selectivity

Brookman's Park was in the designers' eyes before the Brown sets were produced; as a result of their foresight, the Brown sets have a degree of selectivity that, although not at present universal, will soon have to be when regional transmissions make unselective sets useless.

Selectivity in the set tested was of the kind that makes it quite difficult to find even the local stations until the correct dial readings are obtained. We are, therefore, glad to see that approximate