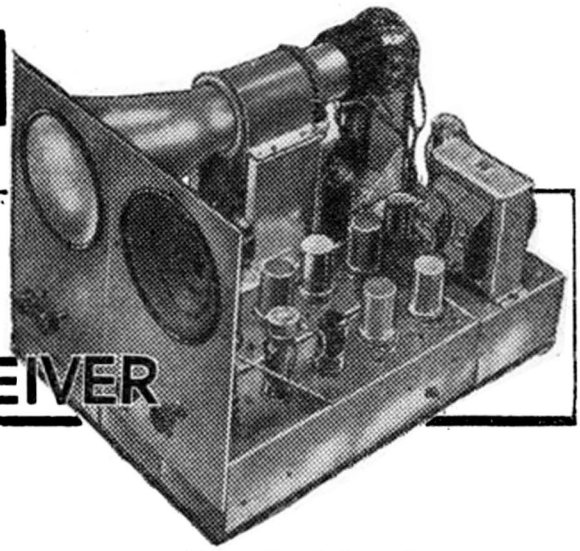
The "ARGUS"

BUILDING OUR Free Blueprint TELEVISION RECEIVER



4.—FINAL DETAILS AND A LIST OF SUPPLIERS AND PRICES

NOTE:—Reprints of the Blueprint and instructions are now available for 2/6 each.

AMONG the various queries received on this receiver the most common was undoubtedly, "Can you tell me where I can get the parts for the 'Argus' at the price quoted?" Some readers even went so far as to challenge the cost given in the opening article, and in one case a trader is reported to have said it was impossible to obtain the parts for anything like the price given and suggested that it would cost at least double.

In order to satisfy those readers who are in doubt on this question we give below a full shopping list of the parts which were obtained for the prototype, and it will be seen that the firms are all advertisers in these pages or those of our companion paper *Practical Wireless* and, in fact, most of the items were obtained as a result of their advertisements.

VISION RECEIVER

	£ s. d.	
7 Coil former.	4 1	Alpha Radio
18 500 pF condensers at 5½d. ea.	8 3	Alpha Radio
8 others at 9d. ea.	6 0	Radiolectron, 22, Frances Street, Scunthorpe.
18 Res. at 6d. ea.	9 0	Alpha Radio
VR1 (2 KΩ in lieu of 2.5 KΩ)	1 0	Alpha Radio
5 V/holders	2 6	Alpha Radio
1 V/holders (EA50)	4	Alpha Radio
	£1 11 2	

TIME BASE

		£ s. d.	
C40	.01 μF	4½	Alpha Radio
41	.1 μF	4½	Melluish, Tolworth, Surrey
42	.1 μF	4½	Melluish
43	.5 μF	4½	Alpha Radio
44	.05 μF	4½	Alpha Radio
45	.1 μF	4½	Benson, 308, Rathbone Rd., Liverp'l
46	8 μF	1 9	Sussex Electrical, Brighton
47	.1 μF	4½	Melluish
48	.1 μF	4½	Melluish
49	.001 μF	4½	Radio Mail
50	.001 μF	4½	Radio Mail
51	.1 μF	4½	Melluish
52	50 pF	9	Radio Electric
53	50 pF	9	Radio Electric
54	.1 μF	4½	Melluish
55	.1 μF	4½	Melluish
56	100 pF	5½	Alpha Radio
57	100 pF	5½	Alpha Radio
58	0-30 pF	10	Alpha Radio
59	.005 μF	5½	Alpha Radio
60	.01 μF	4½	Alpha Radio
VR4	2 M.	2 0	Willetts, W. Bromwich, Staffs
VR5	2 M.	2 0	Willetts
VR6	25 K., 2 w.	1 0	Alpha Radio
R43	2 w.	1 0	T.R.S., Croydon, Surrey
R47	2 w.	1 0	T.R.S.
6 V/holders at 4d. ea.		2 0	T.R.S.
14 Res. ½ w. at 6d. ea.		7 0	T.R.S.
9 Res. 1 w. at 8d. ea.		6 0	T.R.S.
		£1 12 8½	

SOUND RECEIVER

		£ s. d.	
C27	500 pF	5½	Alpha Radio
C28	500 pF	5½	Alpha Radio
C29	500 pF	5½	Alpha Radio
C30	500 pF	5½	Alpha Radio
C31	35 pF	9	Radio Mail
C32	.01 μF	4½	Alpha Radio
C33	.001 μF	4	Radio Mail
C34	25 μF 12 v.	1 3	Alpha Radio
C35	.5 μF	4½	Alpha Radio
C36	.5 μF	4½	Alpha Radio
C37	.05 μF	4½	Alpha Radio
C38	50 μF 25 v.	1 3	Electrolab Radio, Belfast
C39	.001 μF	4½	Radio Mail
12 at ½ w. at 6d. ea.		6 0	T.R.S.
2 at 1 w. at 8d. ea.		1 4	T.R.S.
VR2, 2.5 K (or 2 K.)		1 0	Alpha Radio
VR3	500 K.	1 9	Alpha Radio
Loudspeaker		12 11	Radio Supply
L/S transformer		3 11	Radio Supply
6 V/holders at 6d. ea.		3 0	Alpha Radio
1 EA50 V/holder		4	Alpha Radio
3 Coil forms. ⅜ with cover		1 9	Alpha Radio
3 Trimmer, 0.30 pF		2 6	Alpha Radio
		£2 1 9½	

C.R.T. NETWORK AND E.H.T.

		£ s. d.	
C61	.03, 2.5 Kv. (nearest equivalent .02, 5 Kv.)	1 6	Benson
C62	0.1, 2.5 Kv.	2 6	Benson

	£ s. d.	
C63 0.1, 2.5 Kv.	2 6	Benson
C64 0.1, 450 v.	4½	Melluish
E.H.T. transformers	1 17 6	U.E.I. Corpn.
100 KΩ Potr., 3 at 1/- ea.	3 0	Alpha Radio
500 KΩ Potr.	1 9	Alpha Radio
8 Res. ½ w. at 6d. ea.	4 0	T.R.S.
6 Res. 1 w. at 8d. ea.	4 0	T.R.S.
1 Res. 2 w. at 1/-	1 0	T.R.S.
V/holder EA50	4	Alpha Radio
V/holder, ceramic	1 0	Premier Radio
C.R.T.	1 15 0	Electrical Radio, Belfast
	£4 14 5½	

POWER PACK

	£ s. d.	
Mains transformer	2 9 9	Radio Supply
Choke. 3H Parmeko : cheaper equivalent is :		
5 H. 200 m/a	6 0	U.E.I. Corpn.
16+16 μF 450 v.	4 6	Strange, Pendleton Rd., E.17.
8+8 μF 450 v.	4 0	Strange
2.5 K. 10 w.	2 6	U.E.I. Corpn.
2.5 K. 15 w.	2 6	U.E.I. Corpn.
	£3 9 3	

TOTALS

	£ s. d.
Vision receiver	1 11 2
Sound receiver	2 1 9½
Time base	1 12 8½
C.R.T. and E.H.T.	4 14 5½
Power Pack	3 9 3
Valves	5 1 0
	£18 10 4½

It will be noted that the total quoted above is £18 10s. 4½d., which, from the originally quoted £19 5s., allows 14s. 7½d. for sundries. It must be pointed out that the figures given are those ruling at the time of going to press with this issue, and, as most readers are aware, prices of ex-service and manufacturers' surplus vary from week to week. When the receiver was first constructed (at the end of last year) prices in some cases were lower and in other cases higher, but these more or less balance out. An instance of price variation is found in the EF50 valves which at the time of writing are available for 5s. each, whereas when the prototype was constructed they were 6s. 6d. each. Against this, however, the price of VCR97 tubes appears to have risen—either because of increased demand or because of growing shortage.

Another instance of price variation is seen in the mains transformer, which was originally priced at £2 9s. 9d. This has since risen to £2 11s. but a similar model is offered by U.E.I. Corpn. at £2 10s., so this makes very little difference to the total quoted.

For those who are anxious to keep down the cost to the lowest possible figure it may be mentioned that certain alternative near-equivalents may be used in certain cases. As an instance of this Sussex Electronics, for instance, are offering .1 μF condensers of 500-volt working at 4s. 6d. a dozen, and these may be used on lower voltage ratings. A 2.5 KΩ 10-watt resistor is specified for the power pack, but U.E.I. Corpn. are offering a 15-watt component of this value which may be used. In the E.H.T. pack a VU120A (cost 3s.) may be used in lieu of the 2X2 (cost 6s. 6d.) or even a VU111 (4-volt heater cost 3s.). The EF39 (cost 8s. 6d.) may be replaced by a SP61 (cost 2s. 6d.) by reducing the screen and anode resistors.

The Blueprint

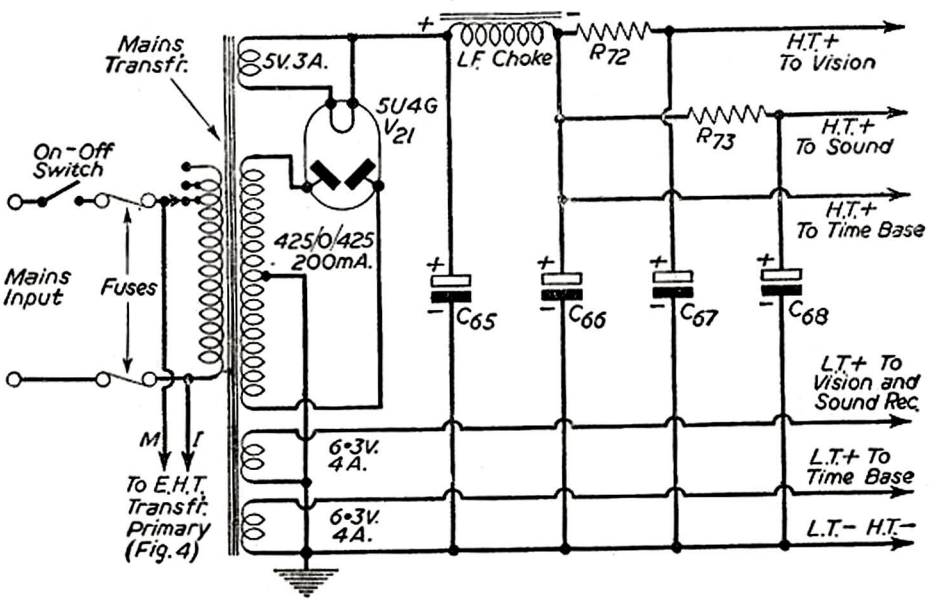
An examination of the blueprint which was presented with the first issue describing this receiver will show two minor omissions—pin 5 of V14 and pin 2 of V16 have not been earthed. A few readers have apparently been confused with the wiring around L5 in the underside of the vision chassis. The reference "C24" has been drawn by the artist across the base of the valveholder for V5, and some readers have apparently thought that this rectangular shape was C24 and have queried the circular shape between L5 and "C24." This is, of course, a circular ceramic type condenser and is C24, and no confusion should exist if the wiring is carefully followed. The point to which C24 and L8 are joined is an insulated anchoring tag.

E.H.T. Transformer

Regarding the E.H.T. transformer, most manufacturers specify a 2-0-2 heater for the E.H.T. rectifier, and the 2X2 valve can be used by employing one-half of the 2-0-2 v. winding.

Coil Data

It would appear from one or two queries that the author has not made sufficiently clear the types of coil former used in certain cases. It was stated that ¼in. formers are used for the rejector coils, and those to whom circuits are not easily read are not certain which are rejector coils. They are, of course, those marked L6 and L7 and these are wound on the ¼in. formers. No difficulty appears to have been experienced with any other parts of the receiver design



Theoretical circuit of the main power pack.