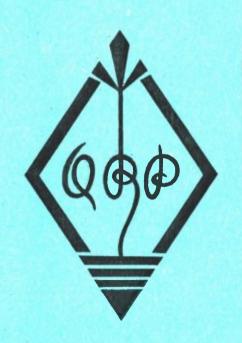
JOURNAL OF THE Q R P RESEARCH SOCIETY

EDITED BY: - J. WHITEHEAD THE RETREAT, RYDENS AVENUE WALTON-ON-THAMES, SURREY Telephone: - WALTON 1619



JOURNAL OF THE Q R P ISSUE No 45 Q R P JUNE 1953

PRESIDENT: Mr A.O.Milne, G2MI CHAIRMAN: Capt A.M.H.Fergus, G2ZC HON-SECRETARY, TREASURER, EDITOR:

John Whitehead, 92 Rydon's Avenue, Walton-on-Thames, Surrey.

A letter from Den, G3IHI, this month gives me the text of my sermon for this issue, CMs. He says: "Regarding antennas generally, I don't think that "Q R P" stresses the importance of antenna experiments half enough. With QRO a good antenna makes a great difference, but with QRP it is VITAL".

I know that no one will deny the truth of that statement, and I entirely agree that there has been far too little interest shown in the whole subject of antennas in this mag. When any gen on antenna experiments have come our way we have given them immediate publication, but we have not had a great deal to report on the subject. A couple of years ago we did try to rouse greater interest and discussion by a series of articles from our cwn meagre experience, but most of that was pure text-book stuff and we do want someone with a rather deeper knowledge of the subject to come forward and take the matter in hand.

We feel quite certain that, among our members there must be several who could give us a knowledgable lead in this way. Don't just hang back and wait for the other fellow. If the subject interests YOU, please do realize that your comments on it will interest US.

Let's make the next issue a special ANTENNA NUMBER!

With much regret we have to admit defeat on the publication of a July issue of our mag. We had very much hoped that, by publishing extra early next month, we might be able to get the issue out, but unforeseen circumstances have arrisen that, coupled with the annual holidays of the entire production staff of "Q R P", make it impossible. In previous years it has been the August issue that has had to be missed out, but this year THERE WILL BE NO "Q R P" FOR JULY. Sorry, CMs! We'll be with you again in the last week of August as usual. And please don't stop writing -- your letters will be forwarded and will be read with just as much interest as seer,

Den Auton, G3IHI (Swinden) is still in Ward B of the Swinden Isolation Hospital. Poor old Den has certainly had a very rough time of it these last few years. He seems still as full of life as ever, though, & has come over with a grand letter again this month. (Thanks, Den, We all admire your continued good spirits in the face of adversity, CM)

Allan Herridge, GSIDG (Balham, SW 12) is wondering how many of our "Foundation Hambers" are still with us, (The answer is six out of eight, CM, Alf West, Ted Stonestreet, Arthur Looney, C.E.Atherall, Tom Carter and Bob Murray were all mentioned in our first issue, dated Sept 1949, and they are all still fully active. And, as a point of interest, we have just enrolled our 280th member!)

J.McDonnell. G3DOP (Coventry) is welcomed as one of this month's new members (the 279th actually). At present he is running 8 watts on Top Band and 25 on 40 and 20 with an HRO at the inwards end, but he is anticipating a lower power job very shortly.

Bryan Read (Liverpool) has some rather interesting queries result-

ing from a very fine log of fone and CW sigs heard. Can anyone tell him if KB3AQ is in the Canton of Phoenix Islands; if UA9KCC is in Zone 18 or 19; or supply any gen on DJ1KR, heard on 4C on 8/5/53.

Peter Amy, ex-GC3IDP (Mairobi, E.Africa) is on a spell of duty "up country" and has collected the WOP's job as well as his normal RAF work. He nearly precipitated an international crisis when directing the errection of the station masts. He scleeted a likely looking clearing for one of them -- only to find that it was in the middle of the weg parade ground! (Here's wishing you lots of better luck than that, OH. And don't worry about the sub -- wa'll settle up when you get home. As long as 'Q R F" gives you pleasure we're happy!)

QTH complete with garden and old air raid shelter upon which he has very active designs! He is now in the middle of transporting all his

gear un from his Sudbury home.

Ken Grith (Not Radio School, RAF, Yatesbury) comes in with a most interesting letter on the HQ-Rx this menth which we are including as a whole, but he mentions that he would be glad to have a line from any of our members interested in this or any other radio matter. (Home QFA: 82 Granville Rd, Welthamstry, London E 17)

Norman Basum (Feel, I.O.M.) replies to Peter Huntsman's query about K+3AA (April issue), pointing out that the Bull reports the call as that of an empedition situated on an ice flow known as Fletcher Island. His 1-V-1 is now doing it's stuff in fine stile as proved oy the log enclosed. Port Tatwick Radio, Norman reports, has been having a really tough time shepherding fishing vessels into the new Top Band allocation.

George Farthidge, G3CED (Broadstairs) has been practically QRT of late owing to the protracted illness of his wife and the opening of the Broadstairs season (Brring). Fo is, however, very pleased with results from his new P12FD antenna, details of which we hope to include in next issue (August, OMs, as already montioned).

Ian Glen (temporarily West Hartlepool) is still bashing round the country in persuit of the RAF. He has recently managed 11 days at home, however, and spent most of the time sorting out his shack-to-be. One nice bit of Dx did come his way in the shape of KR6IG on Okinawa Is. (Thanks for your enquiries about the general state of HQ health, CM -- we seem to be all OK row, All kapping our fingers Xed anyway!)

Hugh Brown, G3CHE (Huddersfield) has get his new QTH almost to the state where he can squeeze in a bit of radio. He has, in fact, put out a call or two. Initial results were disastrous owing to a durf 807 and a faulty joint, Thorsafter reports were excellent. (Good luck, Hugh, let's hear more of you now you have settled in).

Vic Juniall, Garatic (Stratford, E 15) has been down with gastric 'flu (also his Ath while junior chose measles!) but is about again in time to prepare the gear for East Ham "B" stn (G4CM/P) for NJD. (Hope you are all finally OK again, OM, and good luck to 4CM/P).

Peter Huntsman (Hexham-on-Tyne) says the O-V-2 is in perfect health again, the line-up being EF50, 607, EMB6. With 80 volts HT the lot takes only about one wait. Peter is just completing a 4 element rotary beam for two, and a 2 metre Rx is next on the list (Well, TELL us about it, OM -- don't keep it all to yourself!!)

Ted Stonestreet (Willesden, MV 2) is in cliculation again with his 1224 (thanks, I believe, in part at any rate to co-operation from Vic Cundall -- anyway fed says "good old Ham spirit!"). Ted is very anxious to get details of the Eddystone large type 6-pin coil covering 10 metres. Can anyone oblige? He wants to rewind to cover 10-15 metres.

Robert Whitrield (Nexnam-on-Tyne) is looking for any gen which members may be able to give him on 2 matra recalvers as, like so many more of our members, he is considering migrating down there.

David Mainhood G3IZW (Chelmsford) had a shock recently on getting a bit of leave to find his home CRA (Remagate) wired for AC after years of DC. A begrowed rectified got him on the six; but AC power packs are the new pulprity! In the last week and of May David had some

nice reports on his QRP sigs (CW and fone). On CW he finds little to chose between one watt and 20 providing condx are right.

Pater harsen. OZ5U (Mybong, Denmark) says that he is very sorry that, for a long time, he has heard no QMP Society member on the air with the exception of GECED, with when he had a nice QSO on 7 Mc/s. Peter is active most mornings about 0645 to 0700 BST on 3520 and 7040 Kc/s with 5 to 10 wetts input.

Caracage (Home OTH, Romford) is in the School of Signels at Catterick Camp. He says they must have known he was a QIP enthusiast as they put him on the highest power radio gear they could find! He consoles himself, however, with the thought that what he has learnt will be holpful for the FAE and he is now concentrating on Morse with a QFP ticket in view when he comes out.

W.H. Wreight (Maidstone) wonders when Transistors will be available at a "possible" price (I would say a couple of years, OM) and is concerned over a rumour he has heard that the are easily destroyed by overload or reversal of polarity (I had understood that the opposite was the fact. OM, but I will dig up some more gen).

Cliff Lool. G3ISX (Welling, Heat) has been fully occupied lately with the LED rig for the North Kent Society. He asks for any gen on CV93 valves and also on an unknown type which looks very similar in size and shape, has wire leads and appears to be two triodes connected in parallel -- both 1.5v heaters.

Monty Banks GC2CNC (Jersey) will be operating one of the two GC stations in NFD, and will also be participating in the SWM MD tests on June 20/21st with QRP.

Some of our new members may not be aware that Society begges are available in green and gilt, bearing the Society emblem as shown on the mag cover. They measure $\frac{1}{2}$ x $\frac{1}{8}$ across the corners. They have been specially made for us by a leading manufacturer & cost only 2/6.

Well, we have started wiring up the basic circuit. It has not got very far yet as we allowed ourselvess to be side-tracked almost immediately after the completion of the last issue of the mag into the addition of an antenna matching unit within the Ex itself. This entailed the making of a special condenser on the "butterfly" principle from a couple of old Denco variables and the winding of a suitable coil.

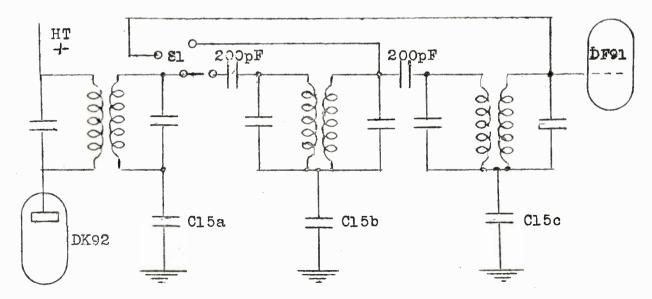
A good deal of interesting gen has come to hand this month. First we have DEN AUTON, who says: --

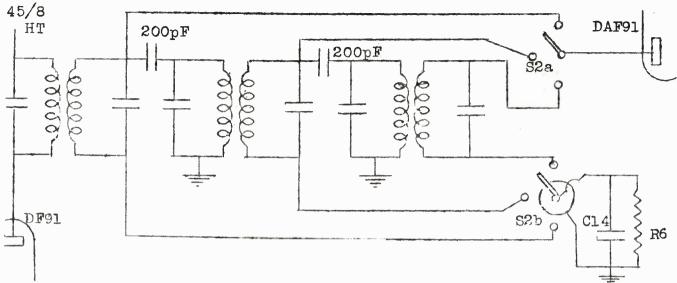
"First, as I said before, I don't think the 1.5 volt series valves are evergoing to give us a QRP communications Rx. Secondly I don't see any reason for switching IFs in or out of circuit. Even with the lot in you are not soing to get a really narrow pass band, so why have means of increasing it? The only reason for the various band widths in a communications Rx is so as to collect more customers. It isn't any more necessary than the push-pull 8-watt-or more output which so many so called communications Rx have. In my opinion the max bandwidth required for ham use is 3 Kc/s and as you aren't going to get any less than that with all the IFs I can't see the slightest reason for switching them. Also I den't agree with pushing the coils in little cans. The Q of any coil is appreciably lowered by a can which isn't at least 3 times the diameter of the coil. I have found the best type of screening is a layout which makes it unnecessary -- for example, ae coils above the chassis and can obtain a procial sundermeath.

In ANCWER to the above we must point out that the initial set, now being designed, is entirely experimental. It is purely a test-bed on which every possible combination of ideas for the achievement of our very advanced aims may be tried out. Having eventually found this combination of circuit and layout we shall produce an entirely re-built prototype from which duplicates may be made by any interested member. But that may take years. At present we can certainly NOT say we are

going to do this or that. We can only promise to try all possibilities. Regarding valves, we have chosen 1.5s for the essential reason that they are the least effective and, if we can achieve results with them, a rig built round a more potent series will be that much more successful. With reference to switching IFs, we feel that, during experimental stages we must have some basis for comparison. If we take the standard basis circuit with it's one pair of IFs as unity we shall be able to gain quick comparisons by being able to switch subsidiary circuitry. On the subject of coil cans and Q -- yes, indeed we agree, but with \$" or even \$\frac{1}{2}\$" diameter coils the \$1\frac{1}{2}\$" diam cans are three times the coil diameter. Besides we have in mind the use of iron dust sleeves besides adjustable dust cores.

Den also gives us a suggested method of switching the IF circuit components which we repudues here.





The sketch on page 7 shows the FC / IF circuit, while that on this page gives the IF / Det idea. Switch S2b is of the shorting type which has all contacts earthed except the one in use. Den points out that it is necessary to switch both sides of the IF or else any connected by the one lead are going to be simple absorption circuits which may do something to improve the shape of the IF response but will produce a great loss of gain. "The circuits I've drawn," he says, "are the simplest way I can see of getting round it. The leads are going to be long even with finicky layout."

Our next letter on the H-Q Ax comes from Ken Smith of Walthamstow, who makes a valuable contribution (which we shall publish in our next issue) of a regenerative IF / Petestor circuit. Regeneration will almost containly be an essential feature of this layout and we are looking forward to a rather special proposition from David Wight on the point. But we may make use of Ken's layout as well -- we will certainly try it out in any case.

It is our privilege, this month, to present a new and very thoroughbred piece of anateur radio equipment which is not only doubly interesting; since it has appeal to the QIP enthusiast and the UHF exponent as well, but which is destined, undoubtedly, to become widely known in it'd particular sphere before it has been on the air very long. It is a TRAIS - RECVIVER FOR 435 Mc/s, and it domes from the iron of none other than Monty Banks, GCOCHO, who needs no introduction as a leading exponent of the Low Fower creed and who has already a well established reputation in the VHF field.

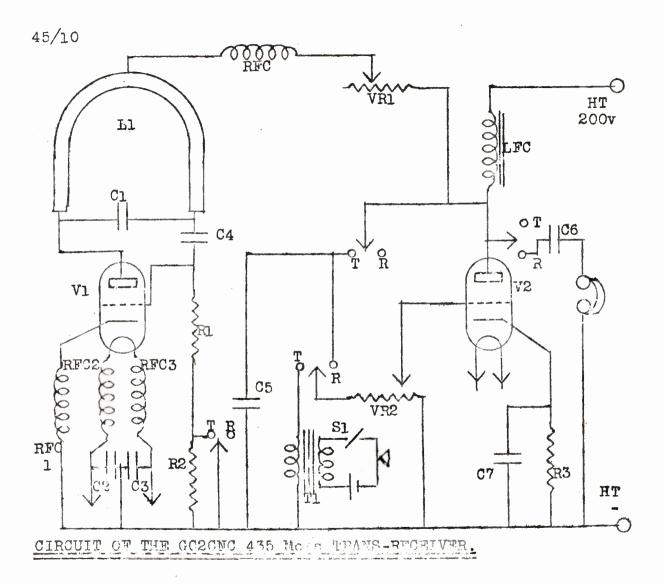
Before testing the trans-receiver great care should be taken to check the frequency against an oscillator and lecher unit (already described in previous issues of "Q R P").

If two units are made up at the same time (and there is not so much in them that this suggestion is inpracticable) a great deal of interest and much valuable data can be obtained with short distance QSOs. Moreover, with medifications toll and Cl, there does not appear to be any reason why the same circuit should not work on 145 Mc/s.

Ll is made from $\frac{1}{4}$ " dia copper tube which should be sandpapered clean and cut to approximately $\hat{c}_{\frac{1}{4}}$ " to 7" long. It is then bent into the form of a letter "U", the spacing between the legs of the U (ie, the distance between the outside of the tube) being anything between $\frac{1}{2}$ " and 1", though the latter is recommended in order to facilitate the mounting of Cl.

Cl is a 10 pF variable mounted, as shown in the detail sketch, directly across the ends of the loop. A nut is soldered to each leg of the loop at it's extremity and a screw passed through with a locking nut (not shown in the sketch for the sake of clarity) already mounted on it. Onto the tip of each screw is now soldered a $\frac{1}{2}$ diameter, flat disc of copper.

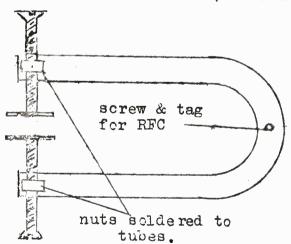
(Continued on page 11)



COMPONENT LIST for the 435 Mc/s TRANS-RECEIVER: --

L1, C1, see text and seperate sketch. V1, CV6. V2, 6J5
C2, C3, 1C0 pF Silver Mica. C4, 10 pF Silver Mica. C5, 1000 pF.
C6, 2 uF tubular. C7, 12 uF electrolytic. R1, 2 meg.
R2, 1½ meg. R3, 200 ohms. VR1, 50000 ohms. VR2, 50000 ohms.
REC1, 30 turns, 28 ewg DCC on ¼" diam former.
REC2, REC3, 30 turns, 18 swg enamelled on ½" diam former.
REC4, 35 turns, 28 swg DCC on ½" diam former.
T1, microphonr transformer. Mike -- carbon.
LEC, 40 H choke. S1, microphone switch
T / R, 4 pole, two way Yaxley switch.
(6.3 volt filaments.)

(Continued from page 9)



The loop is anchored to the CV6 by soldering leads via valve caps to the anode and grid condenser.

The CV6 is mounted horizontally to facilitate coil mounting and Ll is supported on an insulated bar.

An antenna loop is mounted above Ll, with it's closed end nearest to the CV6, and it is fed by coaxial feeder, or matched line, to the six element Yagi antenna which was described in "Q R P" some months ago.

The election to fill the vacancy on the Society Council and on the Contests Committee has resulted in an extremely close finish between F.R.BAILEY, GSHJE, who received 5 votes, and George Partridge, G3CED, who was second with 4 votes.

We therefore have great pleasure in welcoming 3HJL to our council, and we have every confidence in the enthusiasm and ability with which he will handle all matters arising thereform.

In view of the large number of members who are interested in this most valuable service, and for the benefit of those who have joined since the last time we printed the "rules" of the scheme, we feel that it is time they were brought to your notice again. At the same time we must point out some minor alterations to method which have been incorporated to assist the smooth running of the scheme. The rules, which are very simple, are none the less extremely important as non-compliance by one member can destroy the scheme for all his fellow members.

- (1): The Service is run by Mr G. Partriage, G3CTD, 17 Ethel Rd., Broadstairs, Kent, and all communications on this subject should be sent to him direct.
- (2): Rotas of 12 members each are compiled. To the first member on each rota a list is despatched periodically showing current "want, sales and exchange" items of radio gear or all descriptions.
- (3): The member in receipt of the list is most particularly requested not to keep it more than 24 hours, but to forward it to the NEAT hota member indicated on the Rota index enclosed with the list.
- (4): All rotas begin and end with G3CMD so that the lists should return to him in just under a month provided that rule (3) has been observed by all members of each rota.

(5): All items for inclusion in the next issue of lists on ALL Rotas should be sent to G3CED direct, but the member may add his ownitems to the individual list as it passes through his hands.

(6): All items submitted for disposal must have sufficient to

cover postage added to the price required.

(7): When ordering an item on the sales list communicate direct with the vendor who's name and address appears against the item. CROSS THE ITEM CONCERNED OFF THE LIST and append the date.

(8): Where you have available an item which appears on the list as "Wanted", do not send it before contacting the member requiring it

and quoting your price.

(9): Reta members should inform G3CED of dates when they are likely to be away from home, or arrange for the list to be forwarded to the next member on the Rota.

(10): When forwarding lists please write on the back of the envelope "If undelivered please return to...." (the name and address of the NAXT BUT CAE on the Rota

(11): If you add any item to the lists please remember to include your name and address.

AND, ABOVE ALL, PASS THE LISTS ON AS SOON AS YOU CAN SO AS TO GIVE OTHERS ON THE ROTA AN EQUAL OVANCE.

	CAUNTARIES COUNTYRS			3	TOTAL		
W.B.Baker (Berwick-on-Tweed)	B S	7	50	(3)	9)	68	(46)
N. Bason (Isle of Man)	7	(7)	44	(4)	4)	51	(51)
H.G. Wells (Waltham Cross)	7	(-)	79	(-)	46	(-).
P.Huntsman (Hexham-on-Tyne)	9	(9)	33	(5)	3)	42	(42)
D.G.Gordon (Bournemouth)	5	(-)	35	()	40	(-)
E Gardiner (Disa, Morfolk)	4	-	35)	39	(-)

45/14

THE 1953 QRP C-Z PANEL:

		COTOTO SE			tan e i u men manimum humanismum Venumbroma mengajihan	0	Zones	GRAID TOTAL	
		3.5	-	4.2	-	in the	Fo tal	Zones	101111
2: 3: 4:	P.Huntsman E.W.Gardiner B.J.Read A.E.Stonestreet	14 25 6 13	36 8 24 25	108 94 83 81	27 45 -	4 3 - 8	13.4 196 95 95	32 23 51 86	146 134 126 119
	R.Whitfield N.Bascn	22 13	7 22	75 8 3	26 1	6	84 85	24 29	103 114

I am sorry, Norman, I see I have put you in 6th place whereas you should, of course, be one up, having beaten Bob Whitfield by a nice margin this month. Once again we have a full batch of reports for this contest and everyone seems to have had a fairly successful month, averaging about 8 points increase on the grand total. New zones, however, are becoming increasinally difficult for the leagues.

We have temporarily suspended these contests for reconsideration by our Contests Committee on the point of the times and dates stipulated. So many members have expressed interest but have had to forego participation owing to having other calls on their time.

We hope to reintroduce thom in the near future with a more lenient time schedule.

THE	QRP	#200#	CONTEST
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ALL TIME RECORD:	COUNTIES 1.8	WORKED (Mc/s): 3.5	7	TOTAL
1: G2AOL	61	48	8	117
2: G2BOF	53	39	20	112
3: G3HJL	1	45		46
1: G236F	53	39	20	112
2: G2AOL	58	37		101
3: G3HJL	1	19		20

For the sake of clarity we have devided this report into two sections, the first section showing the "All time" records while the lower section shows the current year's achievements. As we have not had any request from 3FAU or 3HCW (see this column last month) for their scores to be retained in the list, we have now removed them.

BACK NUMBERS

WANTED, by G3IDG, F.A.Herridge, 95 Ramsden Rd, Balham, Kondon, SW 12, the issue of "Q R P" for November 1949. Can anyone oblige?

AVAILABLE: -- The following issues are still available at 8d each post free -- No 30, March 1952. No 31, April 1952. No 36, Aug 1952.

No 37, Oct 1952. No 38, Nov 1952. No 40, Jan 1953. No 41, Feb 1953.

No 42, March 1953. No 44, May 1953.

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45/16
                            FULLY ACTIVE MEMBERS (continued): --
 KALEVELD, E. (PAØXE) Claes de Vrieslaan 153a, Rotterdam, Netherlands
 KEEBLE, G.E., 19 Sunnyside, Diss, Norfolk.
 KENYON, R.L., 4 Princes Gate West. Liverpool 8.
 LARSSON, E., Postbox 233, Hagge, Sweden.
 LEAL, C.J. (G3ISX) 1 Deepdene Rd. Welling, Kent.
 LOCNEY, A.D.H., 81 Alstonfield Rd, Knotty Ash, Liverpool 14.
 MAINHUOD, D.C. (G3HZW) 13 Tudor Avenue, Chelmsford, Essex,
 MANNING, K., The Garden Cottage. Freshfield Long. Dane Hill, Sussex
 MEARDON, J.I., 12 Brookfield Terrace, Lustleigh, Newton Abbot, Devon McDONNELL, J. (G3DOP) "Roma", Woodland Rd, Binley, Coventry
 MILLARD, H.R., 38 York Rd. Brentford, Middx.
 MILNE, A.O. (G2MI) 29 Kechill Gds, Hayes, Bromley, Kent.
 MORGAN, H., Dodmore Crossing, Westerleigh, Bristol.
 MURRAY, R.S. "Corran", 45 Hepburn Gds, St Andrews, Fife.
 NICOL, A., 29 Car Rd, Old Cumnock, Ayreshire.
 O'BRIEN, C.M. (W2EQS) 48 Prospect Ave, Westwood, New Jersey, U.S.A.
 O'BRIEN, J.P. (GW2BCH) Fron Herlhog, Bryn Drew Rd, Llandudno Junet.
 PARTRIDGE, G.A. (G3CED) 17 Ethel Rd. Broadstairs, Kent. (N. Wales.
 POTHECARY, W.F., Church Green, Woodford, Kettering, Northants.
 RAFFIELD, K.G. (G3CQU) 119 Tollers Lane, Old Coulsdon, Surrey.
 READ, B., 105 Springwell Rd. Bootle, Liverpool 20.
 REES, A., 22 Harcourt Ed, Brockley, London, SE 4.
 ROBERTSON, L., 23 Kingsbridge Rd, Reading, Berks.
 RODGER, Rev J., St Mathew's Rectory, Old Meldrim, Aberdeenshire.
 SMITH, E.S., 3 Southold Rise, Eltham, London, SE 9.
 SMITH, G., 112 Hazel Ed, Huyton, Liverpool.
 SMITH, K., 82 Granville Rd, Walthamstow, London, E 17.
 STENT, Miss V. (G3HUH) Orchard Cottage. 34 Laleham Rd, Staines.
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