

**JOURNAL OF THE  
Q R P  
RESEARCH SOCIETY**



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



45/2

!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! PLEASE NOTE !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

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 arisen 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, GMS! 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 ever.

.....: SOCIETY NEWS & ACTIVITY :.....

Den Auton, G3III (Swindon) is still in Ward B of the Swindon 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, G3IDG (Balham, SW 12) is wondering how many of our "Foundation Members" 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 (Nairobi, 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 erection of the station masts. He selected a likely looking clearing for one of them -- only to find that it was in the middle of the wog parade ground! (Here's wishing you lots of better luck than that, OMs! And don't worry about the sub -- we'll settle up when you get home. As long as "QRP" gives you pleasure we're happy!)

R.F. Hankley, G3CRP (London, NW 11) has collected himself a new 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 up from his Sudbury home.

Ker Grith (No2 Radio School, RAF, Yatesbury) comes in with a most interesting letter on the HQ-Rx this month 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 QRA: 82 Granville Rd, Walthamstow, London E 17)

Norman Dason (Peel, I.O.M.) replies to Peter Huntsman's query about KB3AA (April issue), pointing out that the Bull reports the call as that of an expedition situated on an ice flow known as Fletcher Island. His 1-V-1 is now doing it's stuff in fine style as proved by the log enclosed. Port Patrick Radio, Norman reports, has been having a really tough time shepherding fishing vessels into the new Top Band allocation.

George Partridge, G3CED (Broadstairs) has been practically QRT of late owing to the protracted illness of his wife and the opening of the Broadstairs season (Barnes!). He is, however, very pleased with results from his new "22EL" antenna, details of which we hope to include in next issue (August, OMs, as already mentioned).

45/4

Ian Glen (temporarily West Hartlepool) is still bashing round the country in pursuit 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, OM -- we seem to be all OK now. All keeping our fingers Xed anyway!)

Hugh Brown, G3CHE (Huddersfield) has got 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 duff 8Q7 and a faulty joint. Thereafter reports were excellent. (Good luck, Hugh, let's hear more of you now you have settled in).

Vic Cundall, G3FNU (Stratford, E 15) has been down with gastric 'flu (also his XYL while junior chose measles!) but is about again in time to prepare the gear for East Ham "B" stn (G4CM/P) for NFD. (Hope you are all finally OK again, OM, and good luck to 4CM/P).

Peter Huntsman (Hexham-on-Tyne) says the C-V-2 is in perfect health again, the line-up being EF50, 6Q7, 6X36. With 80 volts HT the lot takes only about one watt. 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, NW 2) is in circulation again with his 1224 (thanks, I believe, in part at any rate to co-operation from Vic Cundall -- anyway Ted says "good old Ham spirit!"). Ted is very anxious to get details of the Edgystone large type 6-pin coil covering 10 metres. Can anyone oblige? He wants to rewind to cover 10-15 metres.

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

David Mainhood G3IZW (Cheshamford) had a shock recently on getting a bit of leave to find his home CRA (Farnegate) wired for AC after years of DC. A borrowed rectifier got him on the air; but AC power packs are the new priority! In the last week end of May David had some



.....: THE H - Q Rx :.....

Well, we have started wiring up the basic circuit. It has not got very far yet as we allowed ourselves 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 Rx 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.

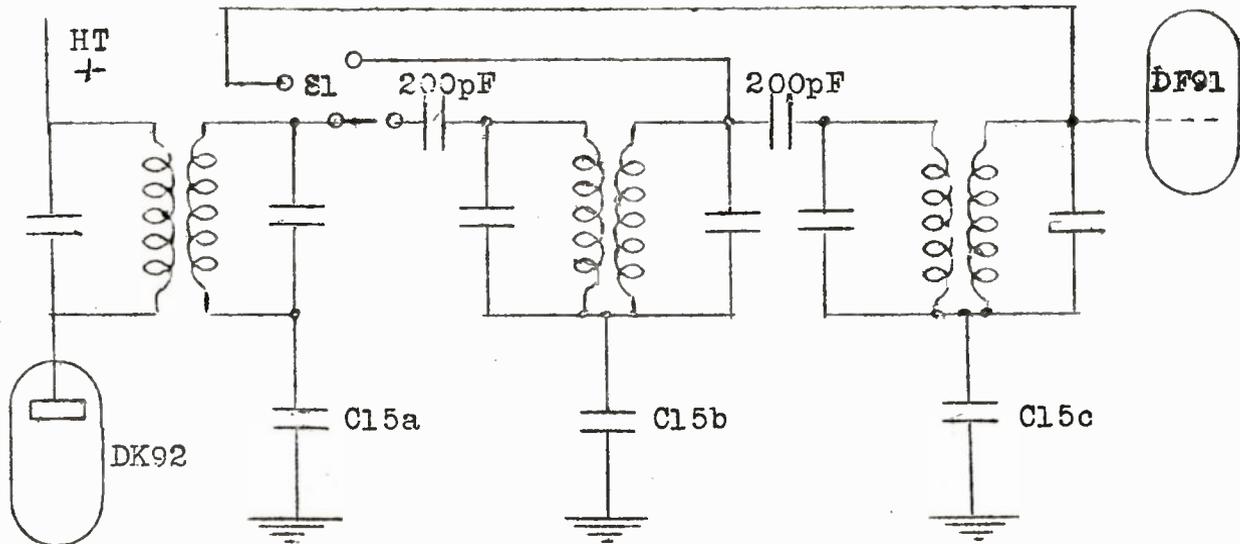
A good deal of interesting gen has come to hand this month. First we have DEN AUTON, who says:--

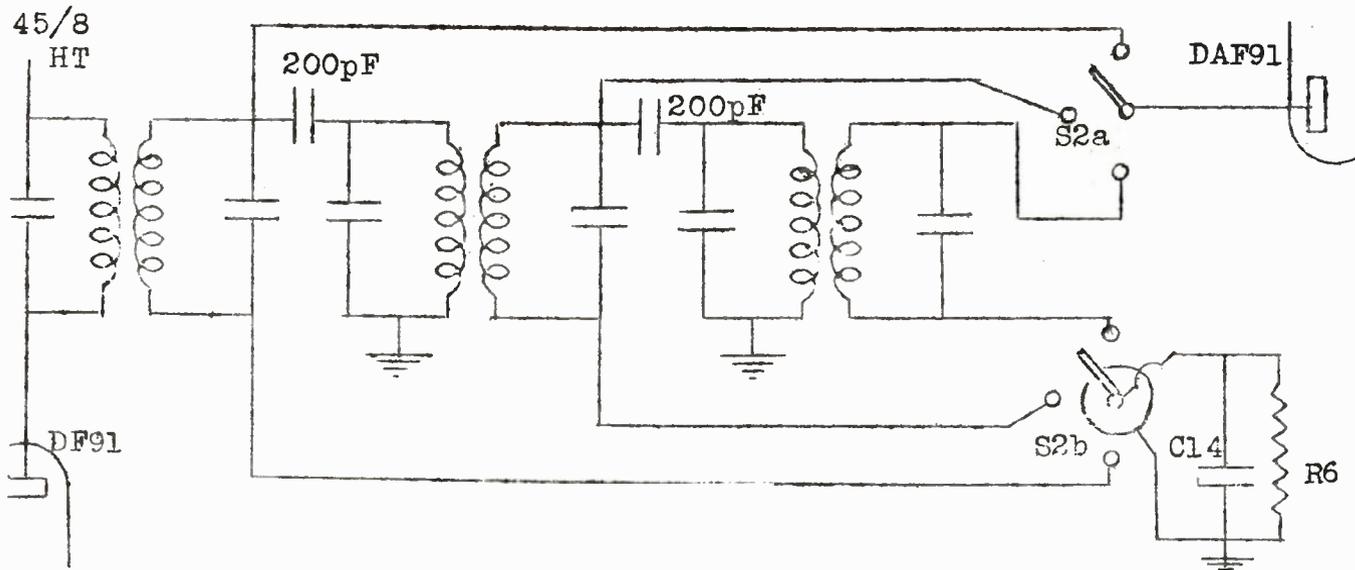
"First, as I said before, I don't think the 1.5 volt series valves are ever going to give us a QRP communications Rx. Secondly I don't see any reason for switching IFs in or out of circuit. Even with the lot in you are not going to get a really narrow pass band, so why have means of increasing it? The 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 don'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 lay-out which makes it unnecessary -- for example, ae coils above the chassis and psc coils underneath.

In ANSWER 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 basic 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  $\frac{3}{8}$ " 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 reproduce 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 Rx comes from Ken Smith of Walthamstow, who makes a valuable contribution (which we shall publish in our next issue) of a regenerative IF / Detector circuit. Regeneration will almost certainly 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.

.....: U H F WITH Q R P :.....

It is our privilege, this month, to present a new and very thoroughbred piece of amateur radio equipment which is not only doubly interesting, since it has appeal to the QRP enthusiast and the UHF exponent as well, but which is destined, undoubtedly, to become widely known in it's particular sphere before it has been on the air very long. It is a TRANS - RECEIVER FOR 435 Mc/s, and it comes from the iron of none other than Monty Banks, G6BNC, who needs no introduction as a leading exponent of the Low Power creed and who has already a well established reputation in the VHF field.

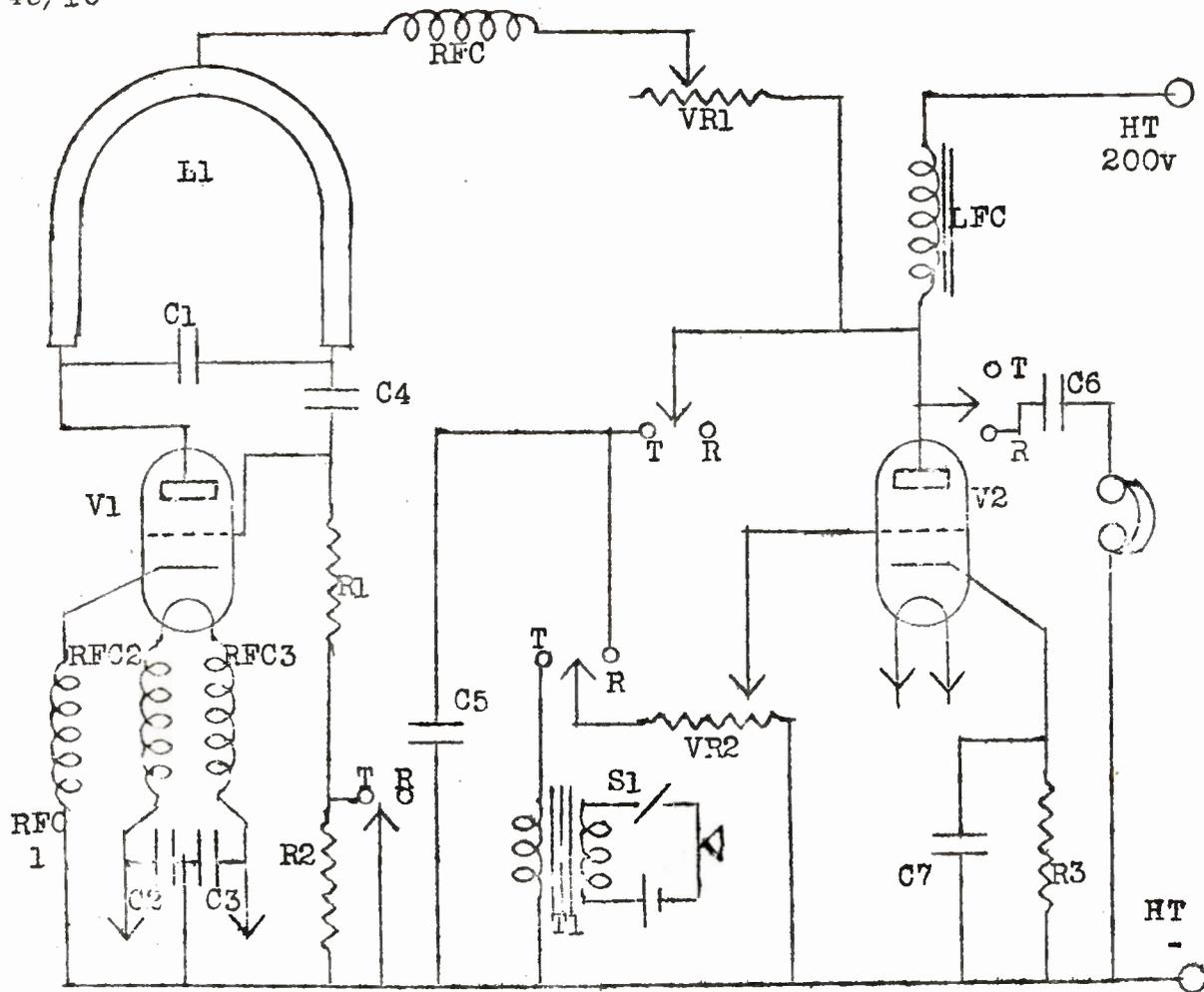
Before testing the trans-receiver great care should be taken to check the frequency against an oscillator and lecher unit (already described in previous issues of "Q R P").

If two units are made up at the same time (and there is not so much in them that this suggestion is impracticable) a great deal of interest and much valuable data can be obtained with short distance QSOs. Moreover, with modifications to L1 and C1, there does not appear to be any reason why the same circuit should not work on 145 Mc/s.

L1 is made from  $\frac{1}{4}$ " dia copper tube which should be sandpapered clean and cut to approximately  $6\frac{3}{4}$ " 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 C1.

C1 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)



CIRCUIT OF THE GC2CNC 435 Mc/s TRANS-RECEIVER.



.....: COUNCIL VACANCY :.....

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, G3HJL, 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 therefrom.

.....: SOCIETY SPARES SERVICE :.....

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.Partridge, G3CED, 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 of 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 NEXT rota member indicated on the Rota Index enclosed with the list.

(4): All rotas begin and end with G3CED 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 own items 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): Rota 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 NEXT BUT ONE 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 CHANCE.

.....: TOP BAND SWL PANEL :.....

	COUNTRIES	COUNTIES	TOTAL
W.B.Baker (Berwick-on-Tweed)	8 (7)	50 (39)	68 (46)
N. Bason (Isle of Man)	7 (7)	44 (44)	51 (51)
H.G.Wells (Waltham Cross)	7 (-)	39 (-)	46 (-)
P.Huntsman (Hexham-on-Tyne)	9 (9)	33 (33)	42 (42)
D.G.Gordon (Bournemouth)	5 (-)	35 (-)	40 (-)
E.Gardiner (Diss, Norfolk)	4 (-)	33 (-)	39 (-)





