



A good 'BRENT' at bedtime - by Victor Brand G3JNB

After a busy day, a CW QSO or two before bed is a sovereign remedy for insomnia, blocking out all those quirky items that can trouble your mental software when you need to zizz. Nothing too taxing, just a chat with a station or two before you pull the big switch.

For a sensible conversation, 80m late at night is good but, at 100 watts, there is little sense of accomplishment. However, 1.5 watts to your bit of best bent wire, adds a lovely glow to your sense of well being as you QRT after working round EU.

The little BRENT rig is a real joy! It has a sensitive receiver, sidetone and optional full or semi break-in. Don't you just love the extraordinary clear sound of a DX rx? This one is great and I found no problem with the direct drive of the little Poly Varicon tuning capacitor and Tim's 750 Hz audio filter really peaks up the incoming CW above the QRM.

The Walford kit arrived as my Christmas present from the XYL and I resolved to enjoy a leisurely build tempo. Having been quite spoiled years ago by David Howes and his PCBs with a printed component layout, I was a little worried to see the plain board with a veritable sea of holes. Once I got started though, the accompanying sketch layout proved excellent. To combat ageing eyes it was only necessary to poke a bit of wire through the board to check that the location was the right one and did connect to the appropriate point in the circuit.

Construction is divided into a dozen stages each with its appropriate testing of volts or sounds. Things went well and, somewhat to my surprise, there was no sign of Murphy. The little board was croc clipped to volts, key, phones and aerial tuner and a measured output of just under 2 watts loaded the wire.

Now the real thing I liked about this rig is the VXO. I got a swing across much of the CW section of 80m and, for a couple of weeks, enjoyed bedtime Qs all round EU with many a two way QRP session as well as attracting the big boys. Only one station has reported my drifting and he has a very narrow filter but I think it was because I had just switched on as he reported that I moved back again ..HI! The keying characteristics are great for low power DXing with FB comments on the sound of the signal.

Now to pretty it up and put it into a box. You are all familiar with the golden rule the 'it won't work when you box it up'? Well, in my case it did actually work once I had drilled, reamed out and mounted the full size pots and terminals and bolted in the board. Except, that is, for the fact that I had sound in only one earphone.

It was at this point that I lost my presence of mind! It was late and I just connected the braid of the screened audio lead to the phones jack to the spare terminal. Up came the full sound...that's great. I did wonder why the ear-pads seemed to be getting rather warm so I switched off. Turning on again, I could hear now!

"I told you I would get you...so I did" chortled a familiar voice behind me. Yes, there lounging against the shack wall was our old friend and adversary Mr Murphy. With glass in hand and a fag dangling from lower lip, he gleefully pointed out that I had ignored Tim's specific instructions not to ground the headset and, "and to be sure, you have killed the audio output transistor!" How stupid can you get?

As it happened, Tim had popped in some reserve BS170s when supplying the extra components for the boxed model. So I gingerly lifted the PCB with its connecting leads and swapped the transistor. No heavy breathing from 'you know who', so I switched on. Bingo!

Now things were back on track. I have had a beautiful, pristine Jackson 150pf air spaced variable in the junk box for donkey's years. This now gives me a swing from 3502 to 3615. Instead of a slow motion drive, I am tuning it directly with the supplied big knob and have added a similar one to the IRT pot, which doubles as bandspread. Works great.

The full break in was a bit too much so I simply paralleled a 2.2uF capacitor beneath the board cross the existing C. This gives me near semi break-in with just sufficient listen through to notice if that kilowatt station is continuing with his endless CQing ...HI! The sidetone was blowing my head off but I was reluctant to take the board out again. So, I carefully cut the lead to the appropriate resistor and 'stood it up beside an extra series 390 ohms, covering the botch with a piece of sleeve.

The Brent is giving me a lot of fun and the sheer delight when you reveal to the big guns that you are working them with torch power.

NB: *This article appeared in the Spring 2007 edition of 'Hot Iron' which is the Journal of the Constructors Club, published by the well known QRP kit designers and suppliers Walford Electronics. See www.users.globalnet.co.uk/~walfor*
