

The "J" - Beam Antenna

About eight weeks ago a gentleman from England walked into the office and suggested that we might be interested in a new type of two meter beam which is currently popular in Great Britain. The name of the company he represented was "J"-Beam Ltd. About two weeks after our conversation, two of these beams were delivered to CQ labs for test and evaluation purposes. One was installed at K2IEG and one at K2RBM. Alternate polarizations were selected. Note the two photos. The antenna may be mounted either horizontally or vertically.

The thing that surprised me most about the "J"-Beam was the extra rugged mechanical design features it embodied. The aluminum tubing, for instance, is seamless and has a much heavier wall than the average two meter array of comparable value. The clamps that hold the elements to the boom are heavy molded types which are merely moved into position and tightened by means of a wing nut assembly. (The beam is shipped with the matching bars off and the elements folded back onto the booms). Our neighbors from across the pond have even gone as far as to provide tight fitting plastic plugs which are inserted into the ends of the booms to provide a watertight fit.

Electrically, this antenna functions extremely well. It has a F/B ratio of 21.5 db and a forward gain of approximately 13.8 db over a reference dipole. While the nominal feed point impedance is in the neighborhood of 210 ohms, a coaxial balun assembly can be supplied with the antenna. By fastening this where the 300 ohm line would normally be attached, and connecting a coaxial line to the SO-239/83-1R connector on the other end of the balun, you may select a 52 ohm coaxial feedline. It's nice to have a choice in matters such as these. This balun is sealed in a waterproof tube and perfectly fits the mounting on the "J" Match assembly.

Results

Both Stu, K2RBM and Barry, K2IEG put the two antennas through the paces for several weeks, using opposing polarizations. Stu found that contacts in the local area were much improved over the 4 element vertical he had been using, and Barry reported great success with skip contacts. The antenna is extremely light weight and can be turned with the smallest TV rotator.

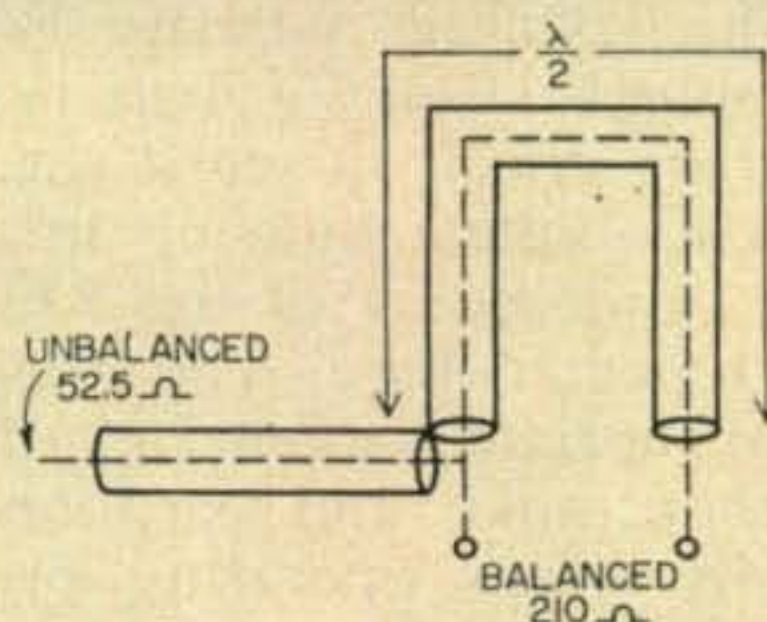
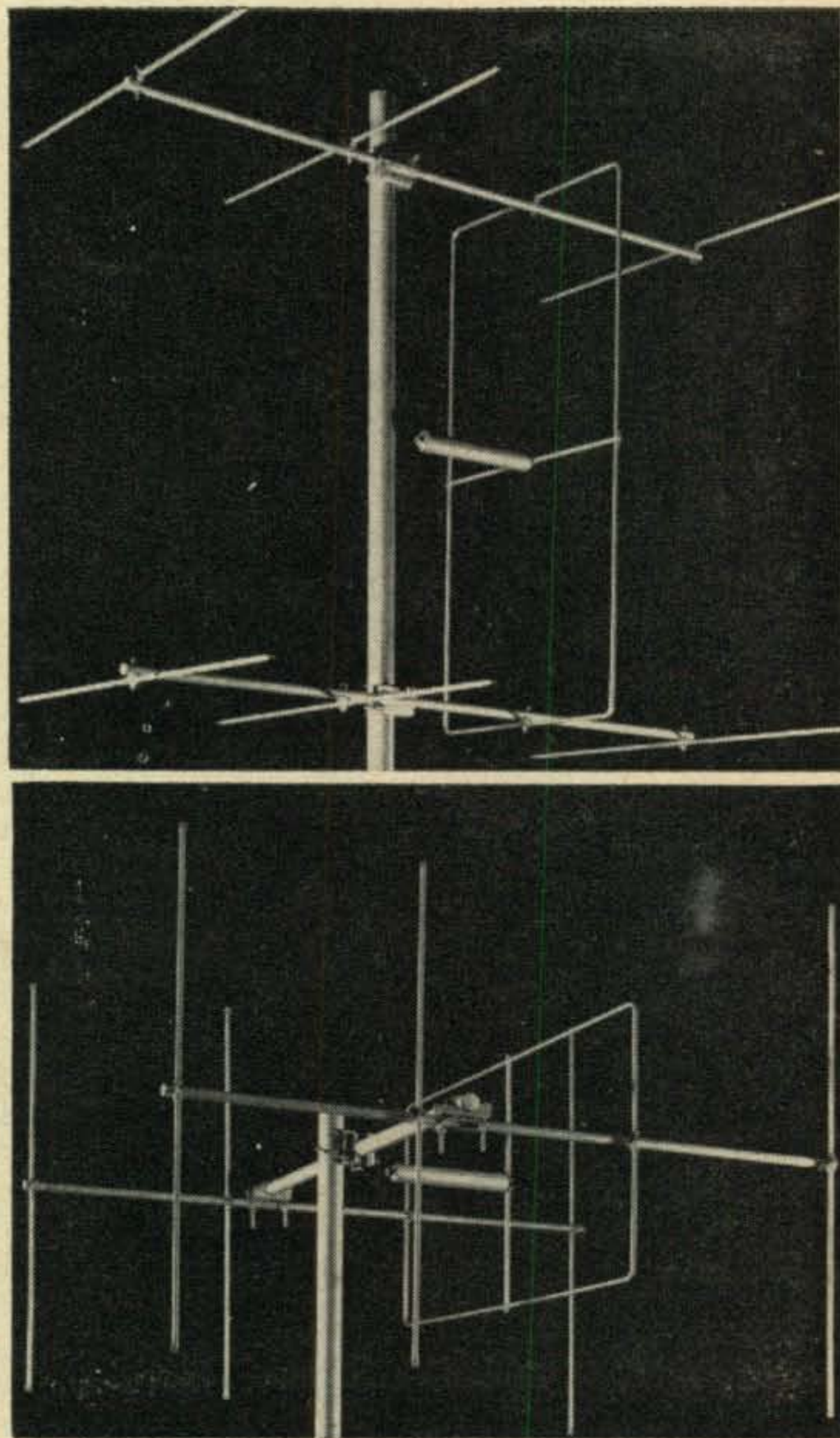


Fig. 1—In this type of Balun the phase inverting properties of a half wave-length of line are used to effect a line balance converter, but with an impedance transformation of 4 to 1.

This unit will be on the market in the very near future and will be available through distributors. Further information can be obtained by writing: Interlab, Inc. 437 Fifth Avenue, New York 16, New York. ■