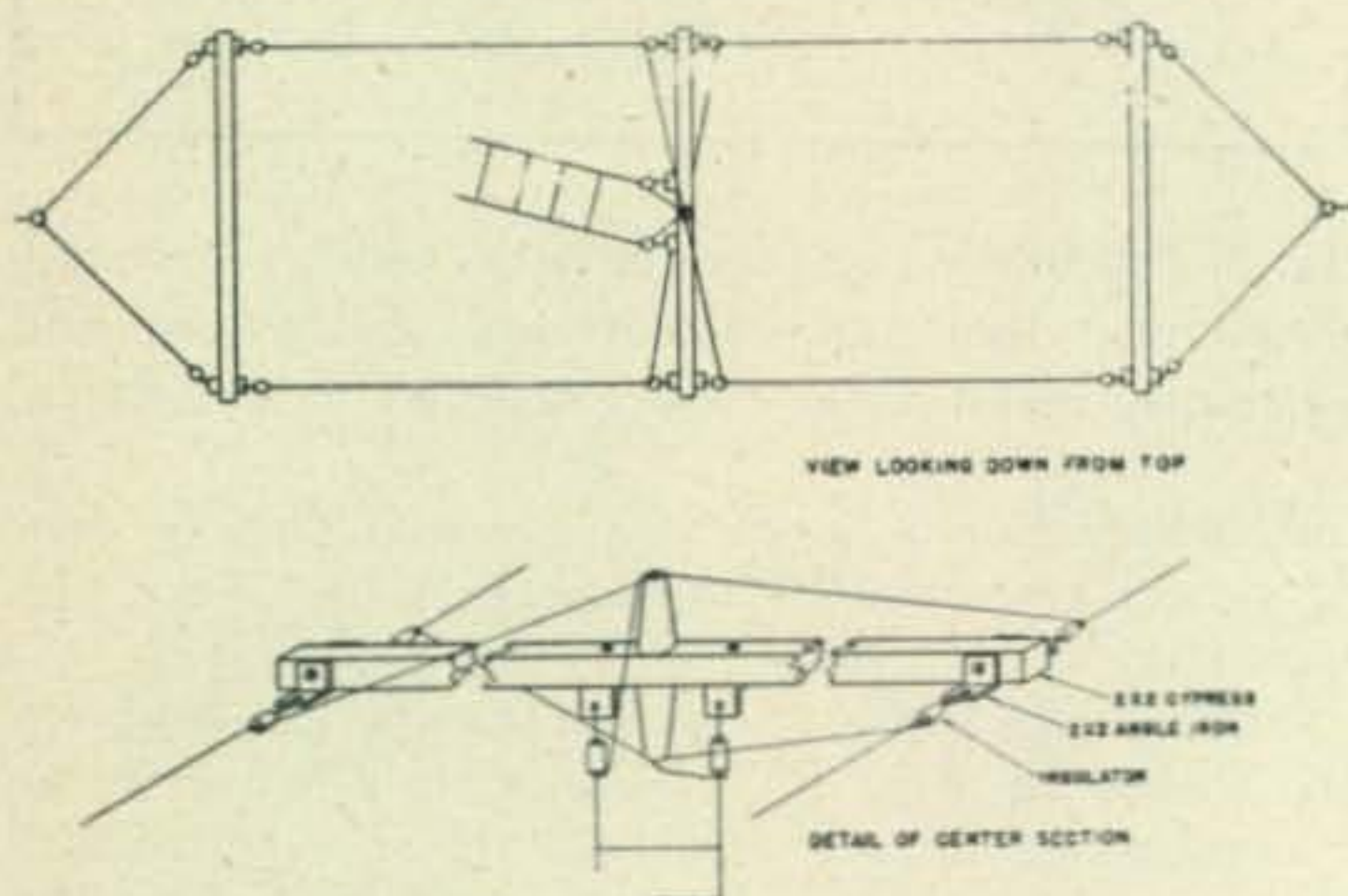


# SHACK AND WORKSHOP

Conducted by A. DAVID MIDDLETON, W1CA\*

## The 8JK Beam

The average 8JK Beam as erected by the amateur is generally mechanically weak and will not withstand ice, snow, sleet or high windstorms. The design as submitted is one that has been time tested and will give service for years and years with no attention. Cypress spreaders 2x2 inches are used throughout. Angle irons 2x2 are bolted directly through the cypress spreaders with a 2 1/2 x 1/4 stove bolt and fastened securely with locknut and washer. No. 12 Copperweld wire is used together with 3-inch Pyrex insulators. The standoff insulators are approximately 3-inches high and are fastened onto the spreader with four wood screws and a plate to hold insulator in place. There is absolutely *no strain on the spreaders using this type of construction*, as all strain is carried by the wire, angle irons and bolts holding these angle irons in place. The strain of the feedline is also on the angle irons and by doubling the feedline back a few inches, the lines will be electrically the same and provide for a bit of slack so the feedline can move back and forth easily.



Solder *all* connections including the feedline to the antenna, rather than have any lug type connections to come loose or corrode. Extra sections may be added to this 8JK by merely eliminating the two center brackets on the spreader, but still using the two 3-inch standoffs for wires to be transposed over on the antenna itself. Extra guy wires may be added on each end of the antenna brackets so that the beam will always remain in a horizontal position and not twist or sway in the heaviest wind storm. The author has a four-section and also another two-section 8JK on 10 meters which has been giving excellent service for many years without any attention whatsoever.

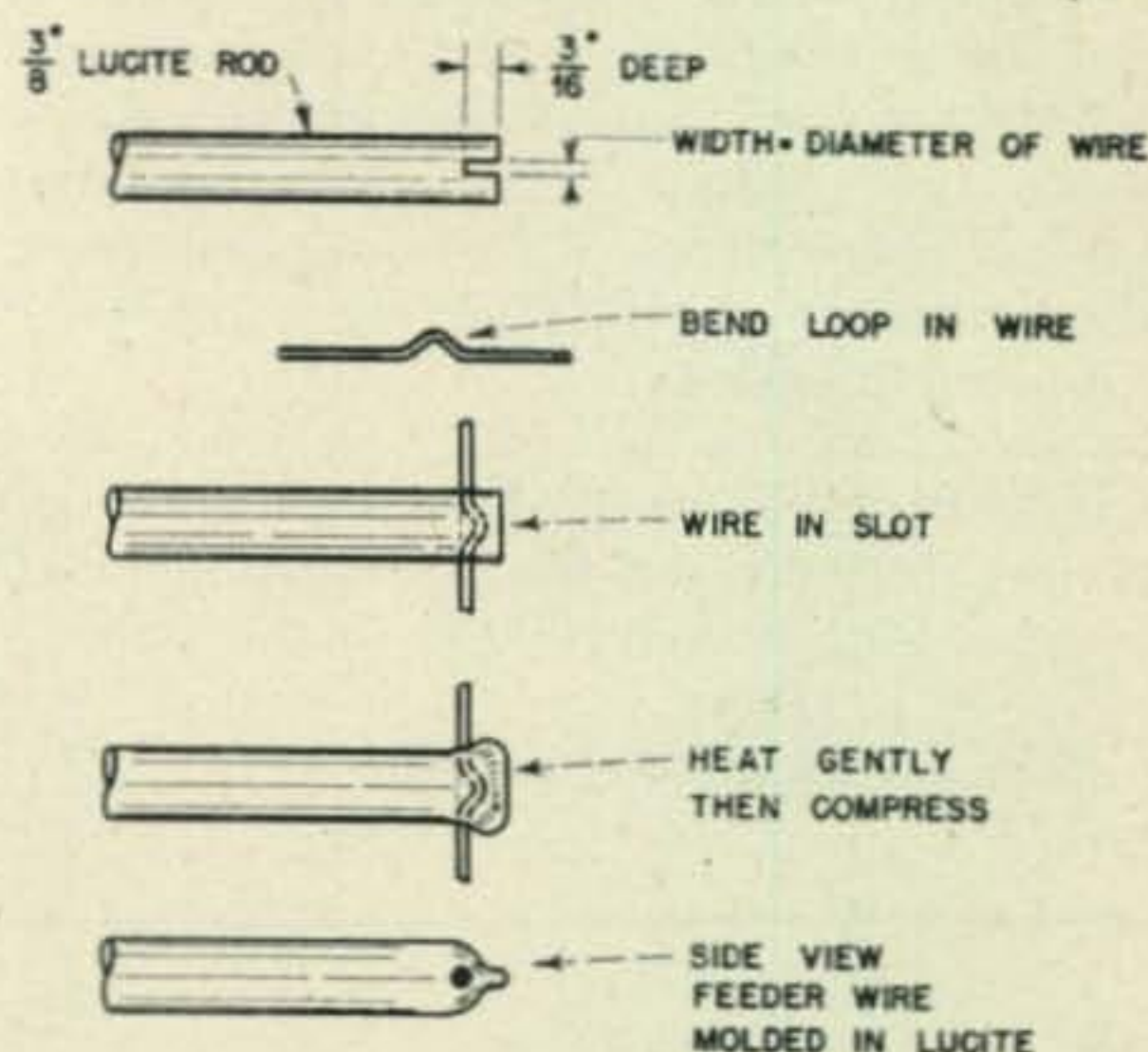
Charles W. Boegel, Jr., WØCVU

## Handmade Polystyrene Feeder Spreaders

After trying several of the common ways of fastening feeder spreaders to wire I evolved the method illustrated. Material for the spreaders is

\*Address all contributions to S & W Department c/o CQ, 342 Madison Ave., N. Y. 17, New York.

Lucite or Plexiglass rod, obtainable from hobby shops. Spreaders made from Lucite are strong and light, and have good electrical properties. Either 3/8" or 1/2" rod is suitable.



Cut the rod into lengths 3/8" longer than the desired wire spacing. Into each end cut parallel slots the width of the wire diameter and about 3/16" deep. With the wires stretched out tightly and about the right distance apart, bend a shallow loop in the wire at the point where the spreader is to be placed. Insert the wire in the slot as shown, and heat the end of the spreader gently with an alcohol torch. Take care that the Lucite does not bubble or burn. Be sure to heat the wire near the spreader. When the Lucite is soft and pliable it may be formed around the loop with a pair of pliers or the gloved fingers. Pinch the end of the rod tightly so that the soft Lucite is pressed into the open spaces around the wire.

The wire is thus molded tightly into the end of the spreader and the wire is prevented from turning by the loop in the wire. This method causes no more discontinuity in the transmission line than the usual method of wrapping wire around, and makes a light and strong job. The wire will not pull out, and the feeders will not twist or rattle in the wind. The cost is about three cents per spreader for 3" spacing.

For those who desire a neater job, an old pair of pliers may be fitted with anvils on the jaws. These anvils may be shaped to form the Lucite neatly over the wire. Heat the Lucite, clamp with the pliers and let cool.

R. G. Talpey, W2PUD

## For Phone Men Only

The 75-meter "quality hounds" who are using a low-level broadcast type mike and like to talk well back from the mike often have appreciable "carrier hiss" which is generated in the plate resistor of the first speech amplifier tube. Noise from this source can be eliminated by substituting a precision *wire wound* resistor.

W. W. Smith, W6BCX