

plate. A small bead of silicone sealer around the top of the helper completes the job. Fig. 2 illustrates the final arrangement. I inspected the bearing after six months of exposure to our inclement Michigan weather, but found no traces of rust. — *Dick Carter, N8DMO, Jenison, Michigan*

(NOT) STORING IC CHIPS IN STYROFOAM®

□ When I opened my copy of the new *Hints and Kinks* book I was shocked to see the suggestion about using foam-plastic meat trays to store ICs.³ The trays I have seen are completely nonconductive and are capable of holding large static charges. Static-sensitive ICs would be destroyed instantly! That's why commercial foam for storing IC chips is conductive, and will not hold a static charge. You can easily verify this with an ohmmeter. — *Kjeld Hvatum, N1BSP, Cambridge, Massachusetts*

□ A word of caution is in order about the use of foam-plastic trays to store IC chips. As integrated circuits become more compact, and operate on less and less power, they become even more sensitive to the ravages of static electricity. How sensitive? This was the subject of a videotape shown recently to the employees of NCR Corporation, a computer-systems manufacturer.

You don't have to walk across a carpet in a dry room to build up enough charge to damage or destroy an integrated circuit. With the right combination of synthetic fibers in your clothes, you can ruin an IC through mishandling it while sitting at a workbench. But the most dramatic demonstration on the videotape was a perfectly good commercial-grade IC destroyed by the static electricity in a foam-plastic cup waved once over the chip! No spark, no sound, just one defective IC.

Most amateurs don't deal with such high-performance, large-scale integrated circuits — yet. But we can all save ourselves some trouble and expense by keeping our IC chips away from nonconductors capable of holding even a small electrostatic charge. This would include cellophane tape, foam-plastic and ordinary plastic bags. Computer manufacturers use specially treated plastic bags with conducting surfaces. Only then can the components be safely shipped in a box of foam-plastic "peanuts." — *Ken Noller, KØEN, St. Paul, Minnesota*

TOWER THRUST BUSHING PROTECTION

□ For several years, I have been using a rubber boot to keep the thrust bushing on my tower clean and dry. The boot was fashioned from a rubber toilet-tank ball. [This is the part that fits in the drain hole at the bottom of the tank. — Ed.] Cut the top of the ball to fit snugly around the mast, and cut the bottom so it will stretch fit over the thrust bushing. Slide the boot down the mast until the bottom can be stretched over the bushing. A stainless-steel hose clamp placed over the boot just above the thrust bushing holds it in place (Fig. 3). Be sure to pack the bushing with grease before installing the protective cover. — *Thomas Kruszon, WB2PXL, Riverhead, New York*

³*Hints and Kinks for the Radio Amateur*, 11th ed. (Newington: ARRL, 1982), p. 1-2.

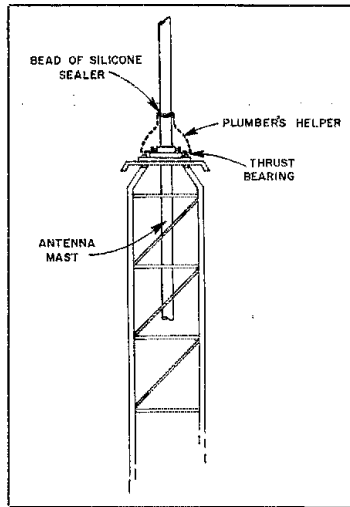


Fig. 2 — A "plumber's helper" can be used to protect a thrust bearing from the weather.

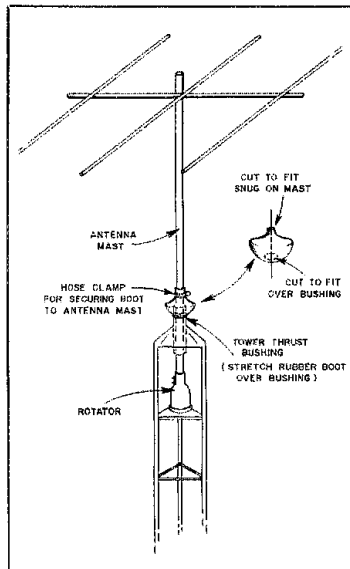


Fig. 3 — WB2PXL uses a rubber toilet-tank ball to form a protective boot for the thrust bushing on his tower.

□ I use a piece of rubber-impregnated material, such as the cuff from an old rubber glove, to make a weatherproof cover for the thrust bushing on my tower. Fig. 4 shows this technique. The cuff is secured with a stainless-steel hose clamp, just above the top of the bushing. Be sure to apply a good coat of bearing grease between the mast pipe and the bushing. — *Ed Lynch, WB2YKX, Latham, New York*

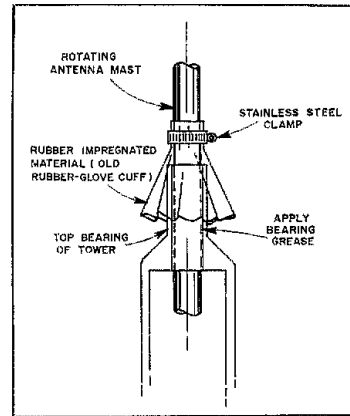


Fig. 4 — Illustration of the protective cover used by WB2YKX to weatherproof the thrust bushing on his tower.

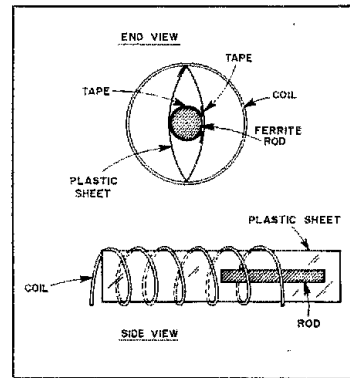


Fig. 5 — A piece of stiff plastic and a ferrite rod can be used to make a homemade variable inductor.

FERRITE-ROD SLIDER FOR VARIABLE INDUCTOR

□ Here is an idea that I have employed to make a homemade variable inductor for use in a Transmatch or other piece of equipment. I mount a ferrite rod inside the coil, and slide the rod through the coil to change the inductance. To mount the slider inside the coil, I use a piece of stiff plastic (the type used for covers on greeting-card boxes works fine) that is twice as long as the coil. Next, I cut the plastic to a width of 2.75 times the inside diameter of the coil. Tape the ferrite rod to the sheet as shown in Fig. 5 and fold the sheet in half. The assembly will fit into the coil with just a slight compression. This arrangement will minimize any dielectric loss and provide an easy way to slide the rod back and forth through the coil. You could fasten a wood or plastic handle to the end of the assembly and add a scale for setting the inductance. — *Glenn Morrison, KO9L, Evanston, Illinois*