

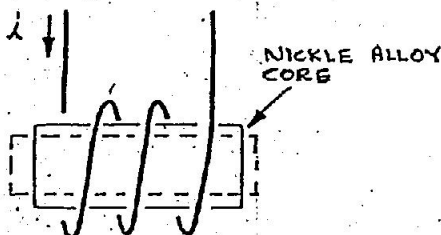
# April Hobby Scene

By Marcia Swampfelder

## ENCROACHING HI-FI

**Q.** I have a Colcord XW15 4-channel amplifier. The louder I play it, the longer it gets. It totaled a fourteenth century Ming vase by pushing it off the end of the bookshelf. Is this normal?

**A.** Colcord has a policy of using as many interchangeable parts as possible on their electronic and small appliance lines. The output transformer in the XW15 is made of a special high-nickel alloy core. They were able to get a magnetostriction effect (change of core size with winding current—see diagram) that's far more than usual. This way, the same com-



ponent that's used as an output transformer on the XW15 doubles as the drive motor on the orange juicer and as the impuler on their power nut cracker.

Your instruction manual should clearly warn you not to put anything within 6 cm (about 2 3/8") of the right side of the amplifier. Two other solutions to your problem are to buy the companion clip-on juicer and self-pour snout, or else simply put things on your bookshelf only while the unit is at maximum volume. This way, it will move away from other things on the shelf as volume is lowered.

## IDENTIFYING SCOPE PROBES

**Q.** What is the meaning of the term "10 to one" or "10:1" on a scope probe?

**A.** This is just engineering slang.

There is no real technical meaning. The term apparently started due to the extreme amount of scope-probe pilferage that goes on in large electronics labs. If you turn your back on your probes, they ten to one away. Hence, the term.

## GOLDEN OLDIES

**Q.** I found an apparently brand-new, unused 1934 Majestic "Mighty Monarch of the Air" radio in the hayloft of an old barn, still in its original factory carton. After I carefully reformed the wet electrolytics, it seems to work perfectly, except for one minor detail. All it gets is 1934 music. Why?

**A.** This is a beautiful example of the time lapse or Ohaco Retrograde, named after the historian, Dr. Chevelon Ohaco, who has long been using factory-fresh 1942 surplus command receivers to reconstruct World War II battles.

Many people using the effect, prefer to keep their receivers as they are — rather than resetting them for more recent program material. If you really want to update, you can add a Time Lapse Compensator, such as the Springer Labs. TLC-995. You usually put the time lapse compensator module between the second detector valve and the grid leak of the first audio triode. The compensators are tapped for various amounts of update, so if you are a "golden oldies" fan, you can simply select a tap or two closer to the input. Full instructions are provided with the compensator. One tip — be extremely careful never to select a tap that exceeds the time difference between the exact date of manufacture and the date the unit was originally unpacked and powered.

## NEW INTEGRATED CIRCUITS

**Q.** I've been wanting to get into T<sup>2</sup>L

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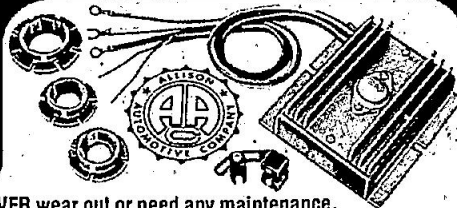
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or "Tee Squared Ell" integrated circuits for quite some time now. However, I've never had a drafting course, and I don't even own a tee square. What do you suggest?

A. Offhand, we'd recommend hanging, decoupage, or aquaculture.

## MOS PROBLEMS

Q. Are there really any special problems when you use MOS integrated circuits?

A. MOS IC's and transistors have extremely high input impedances. Early versions of these devices were extra easy to destroy by static electricity. Simply scuffing across a carpet or using a styrofoam storage block were enough to ruin the units. Just about all MOS IC's today include very good input and output protection methods, which almost entirely eliminate these problems.

However, one thing that's never mentioned in the MOS literature and hasn't yet been solved is the extreme geomagnetic sensitivity of MOS devices. They can only be used on the north side of your circuit. They are thus unsuitable for portable equipment of any sort unless a compass and clear alignment marks are provided.

## NEEDS A MOUNTING BRACKET

Q. Where and when can I get the left mounting bracket for a Gentry-Heber PLX-201 combination home laser fusion power source and psychedelic lighting center?

A. Between the energy crunch and the unique lighting fad, the demand for these 5-kilowatt home units has been incredible. This is particularly true after the writeup in the "Home Power Quarterly" (Deer Springs Press, Vol XII, No. 4, p 167-185). The main problem with the bracket is that Gentry-Heber is going through a metrification program so that export units will use the same parts as the standard model. They estimate another six months to work out the backlog on this part. Meanwhile, several readers have reported working out suitable substitutes using ordinary railroad ties. Be absolutely sure there is at least 10-cm (4") clearance between the bracket and the Deuterium return line.

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