



MARC HOMEBREW NIGHT

SOME “OLD SCHOOL” ANTENNA TUNERS
THAT CAN HANDLE ALMOST ANY
ANTENNA MATCHING SITUATION

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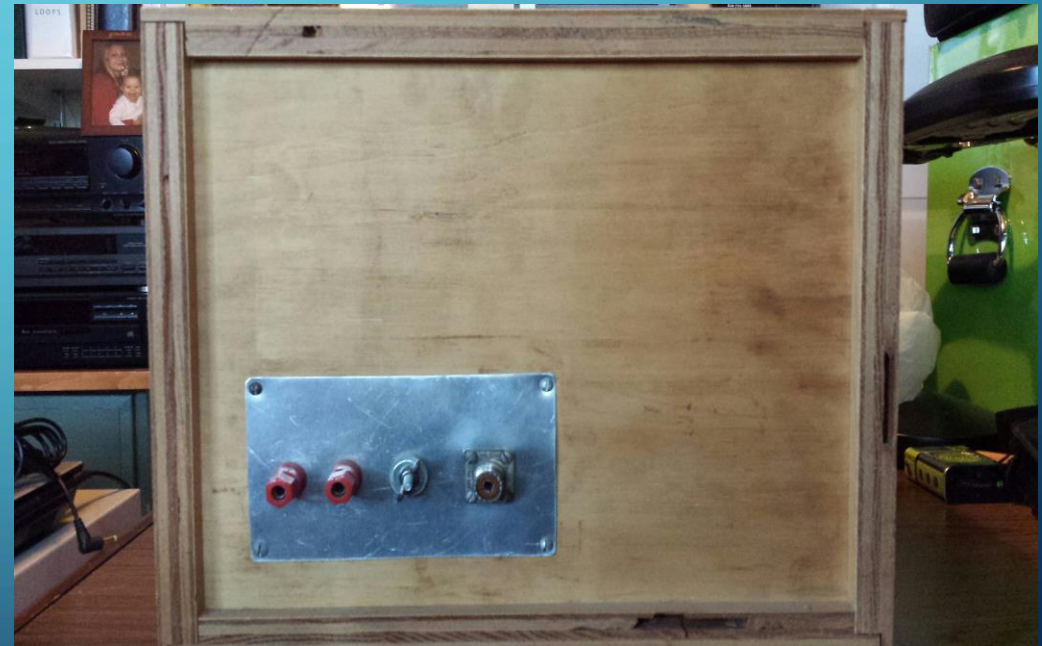
WHEN I GOT STARTED IN AMATEUR RADIO WAY BACK IN 1962 THERE WAS NO MFJ OR LDG!

Even Heathkit offered very little in the way of antenna matching equipment. The commercially made stuff like the E.F. Johnson “Matchbox” was too prohibitively expensive for me and a lot of other young Amateurs. So I had to roll my own from surplus parts and discreet components such as high voltage variable capacitors and roller inductors or coil stock. All these parts could be very pricey but not as expensive as a commercially made antenna tuner or matchbox. Back in the day “war surplus” parts providers were a real help to the homebrewer!

A WAR SURPLUS ROLLER INDUCTOR AND VARIABLE CAPACITOR...BOTH FROM THE WWII ERA



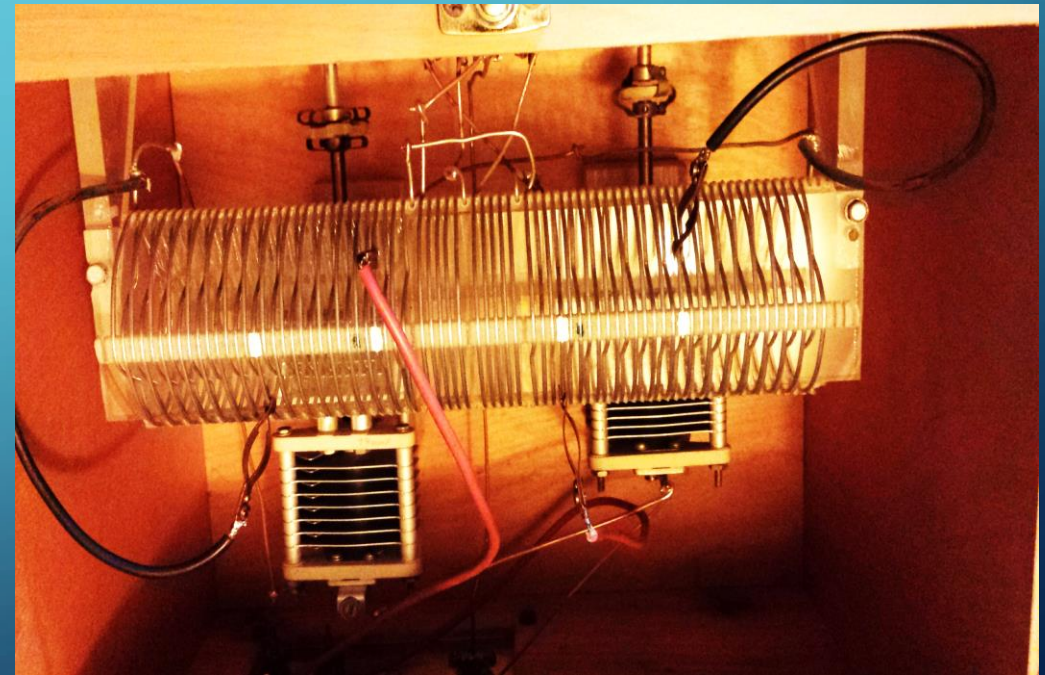
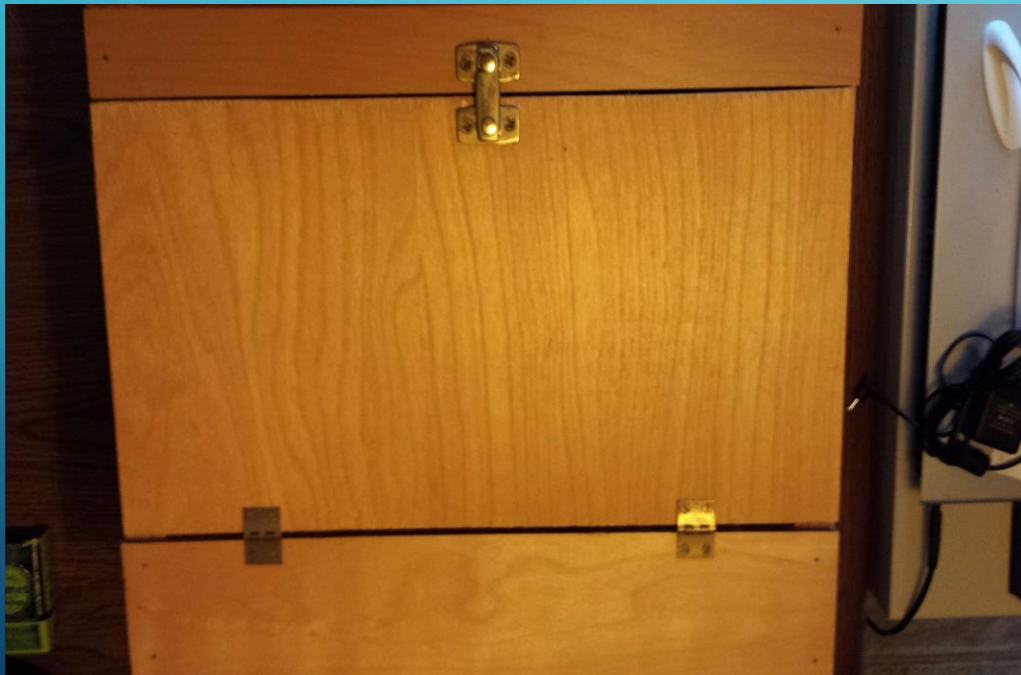
AN ANTENNA COUPLER FOR BALANCED OPEN WIRE LINES – 300 TO 600 OHMS. THIS DESIGN CAME FROM JUNE 1964 QST



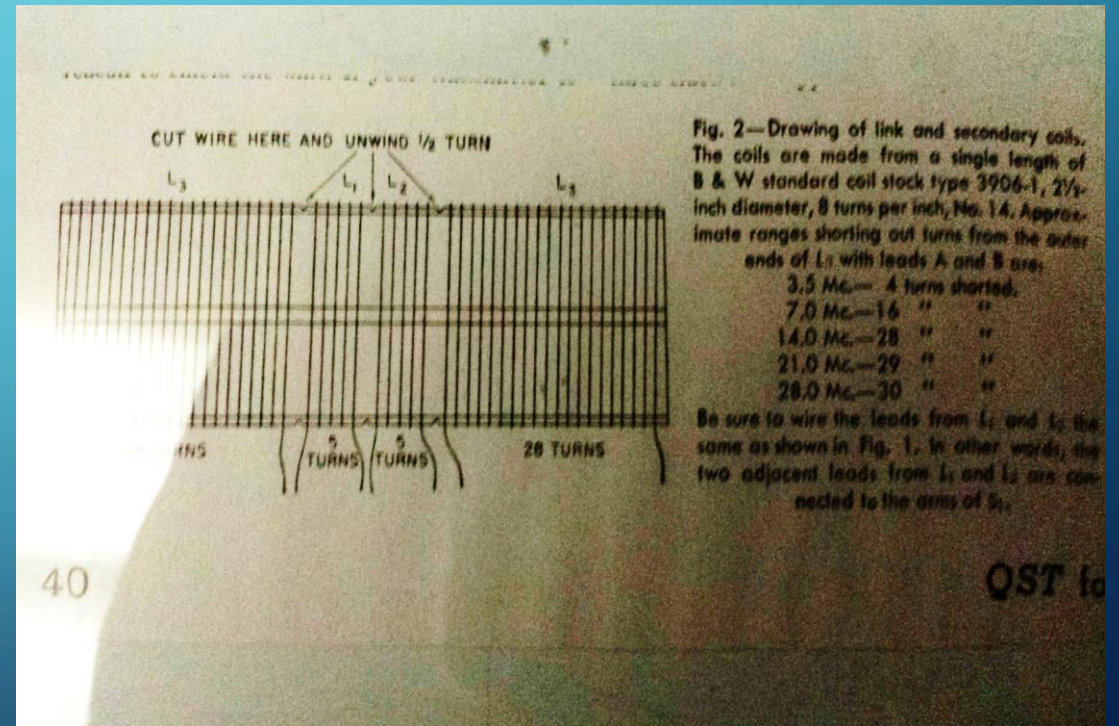
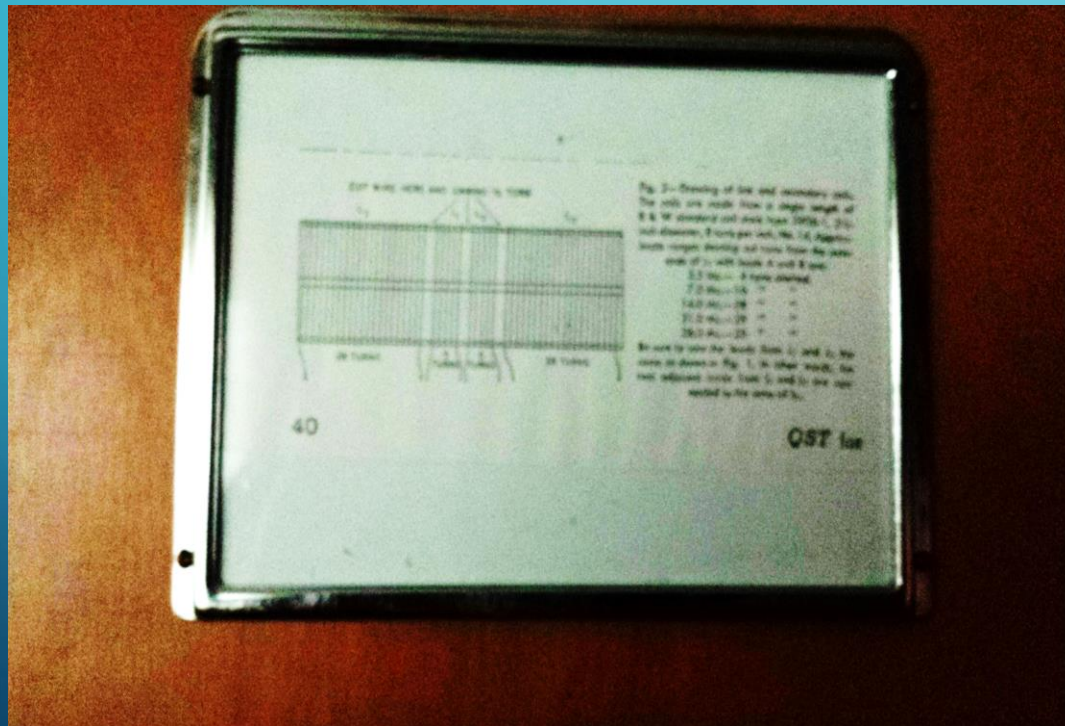
HAND MADE WOODEN CASES WERE POPULAR IN DAYS GONE BY

Back in the day handmade wooden cases were a lot cheaper and easier to make than a sheet metal case. Since the coupler is part of the antenna system it is not necessary to make the case out of metal. The hand made dials are mounted on war surplus Vernier drives for fine tuning.

THE COIL WAS MADE FROM B&W COIL STOCK
WITH TAPS THAT ARE MOVED ALONG THE
OUTSIDE ENDS OF THE COIL TOWARD OR AWAY
FROM THE TWO CENTER LINKS TO ACCOMPLISH A
MATCH WITHIN EACH BAND



INSIDE THE TOP COVER ARE THE COIL TAP SETTINGS INSTRUCTIONS WHICH ARE USED TO CHANGE BANDS



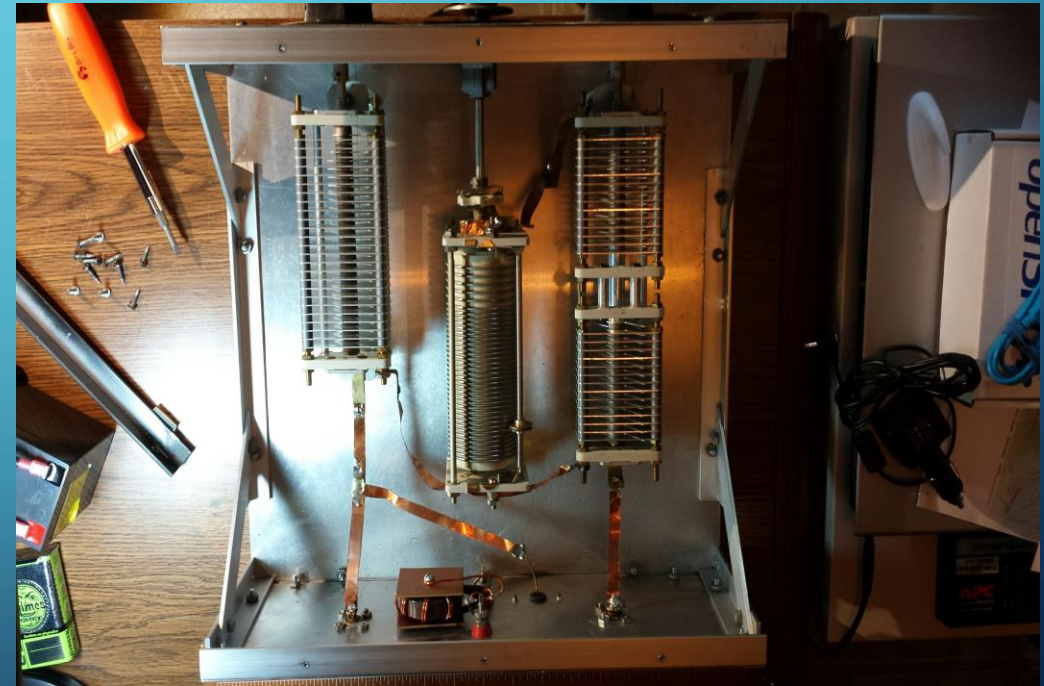
THIS DESIGN IS BIG AND CLUNKY LOOKING NEXT TO MODERN DAY SOLID STATE TRANSCEIVERS AND “WONDER” MEMORY TUNERS.

Despite its size and lack of “whistles and bells” like modern day solid state wonders from LDG, SGC and MFJ it will do things that those wonders cannot do. It can handle well in excess of 500 Watts and tune balanced feed lines effortlessly without losses incurred through a balun. I have never found any antenna with balanced feed lines that I could not get at least a 1:5 to 1 match. For many years I used it to tune a 100 foot doublet with 450 Ohm open wire line on all bands 80 meters through 10 meters. With a slight modification it can tune unbalanced lines as well.

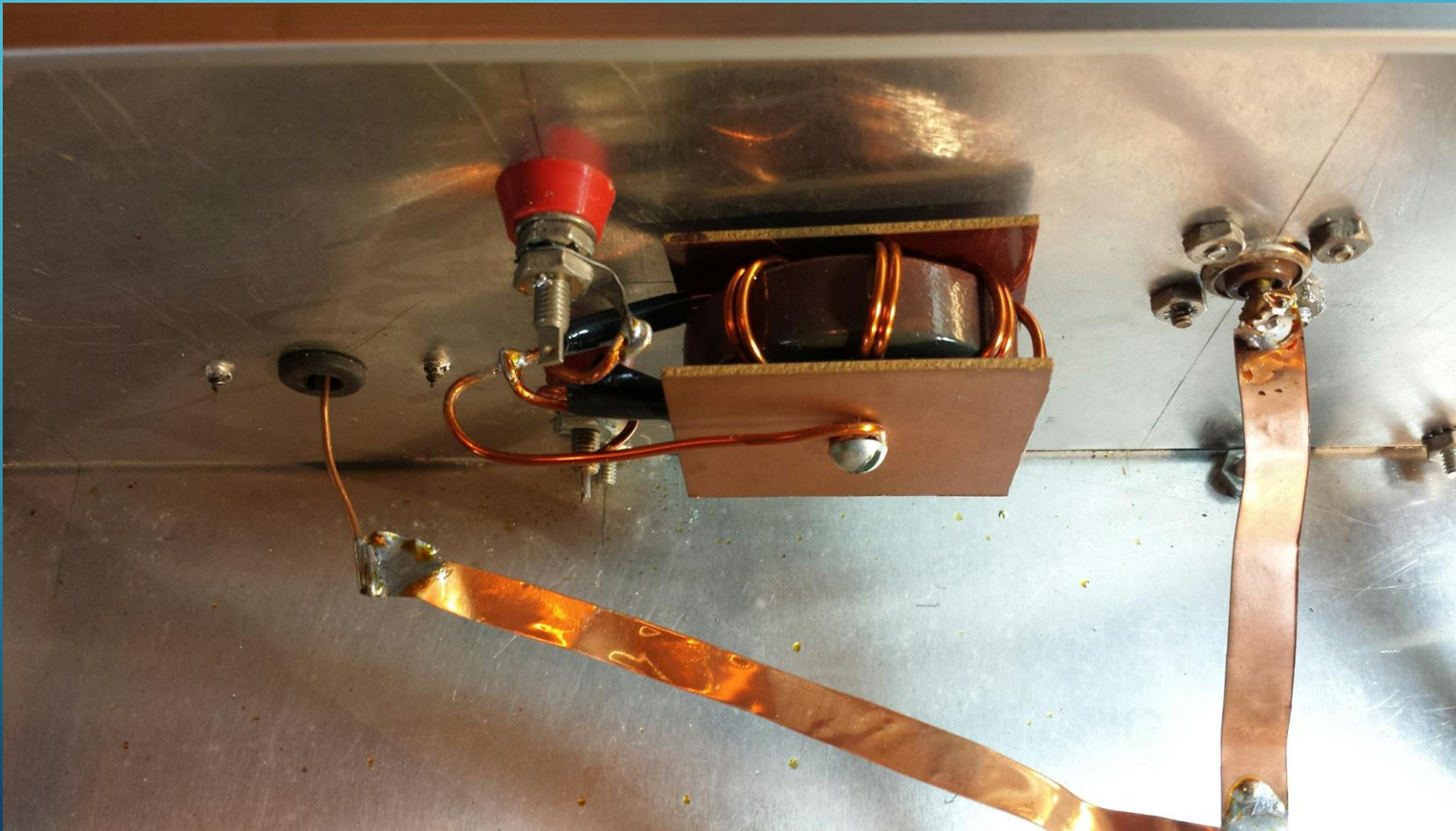
THE “UNIVERSAL TRANSMATCH” FROM THE ARRL HANDBOOKS OF THE 1980’S. IT WILL TUNE BALANCED AND UNBALANCED LINES AS WELL AN END FED WIRE, EFFORTLESSLY.



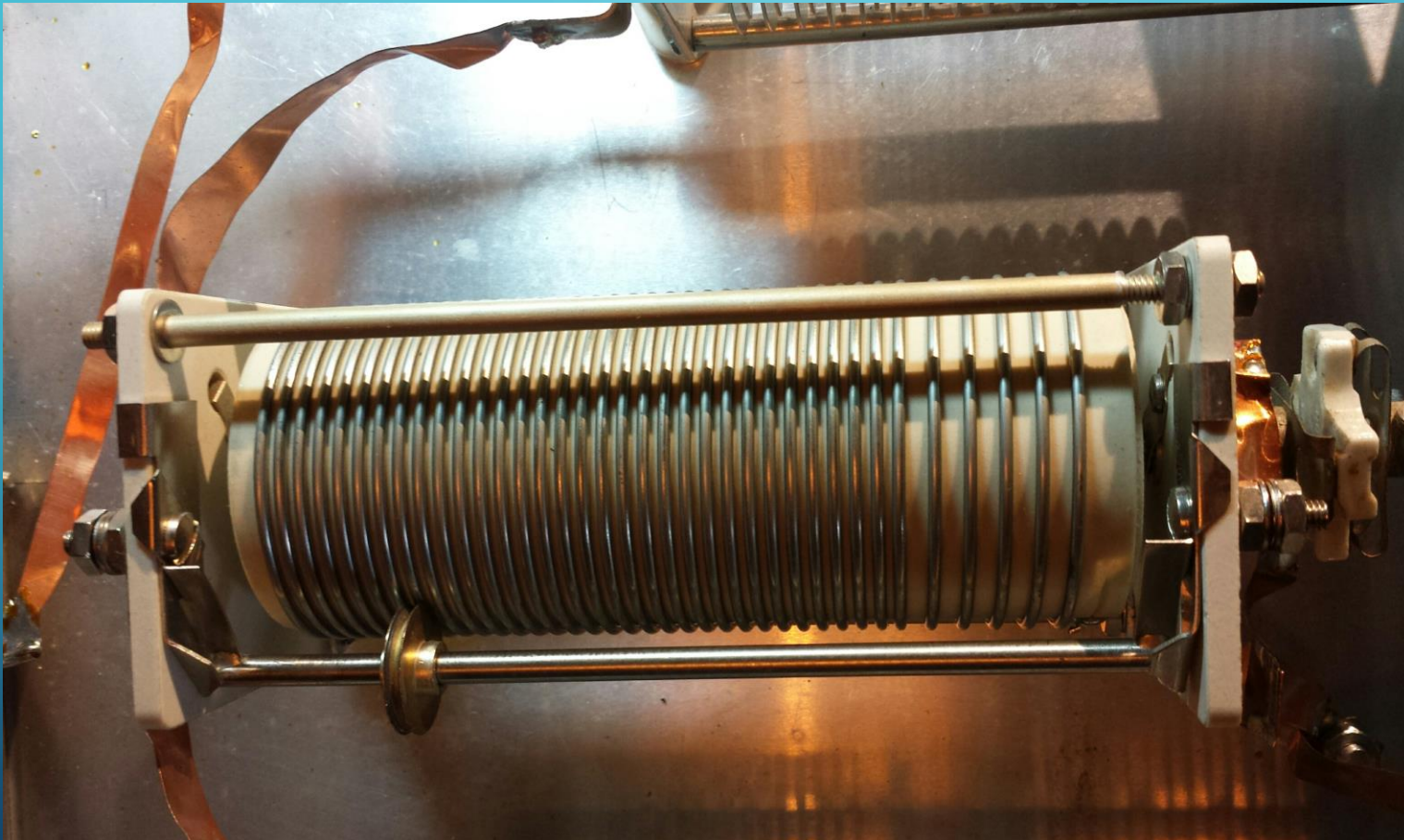
WIDE CAPACITOR PLATE SPACING GIVES THIS DESIGN THE ABILITY TO HANDLE WELL OVER THE LEGAL POWER LIMIT. VERNIER DRIVES AND A TURNS COUNTER MAKES TUNING PRECISE AND EASILY RESET WHEN CHANGING BANDS.



A T-200 TOROID WOUND IN A 4:1 BIFILAR CONFIGURATION GIVES THE ABILITY TO EASILY HANDLE BALANCED FEED LINES.



A LARGE ROTARY INDUCTOR AND TURNS COUNTER PRECLUDES THE NEED FOR TAPS





That's all Folks!