

RCA Gloria

This is a typical American designed Radio in very bad condition. (Fig. 1) The surface of the chassis was scratched, part of the decoration broken off, the loudspeaker decentralized and the fabric dirty. The metal parts were very rusty. (Fig. 2)

The rubber insulated wires of the tuning condenser were brittle, the loudspeaker cable and the mains cable stiff and not anymore flexible, they also had also to be replaced. The electronic tube tester showed up that the tube 24 and 80 were out of order and had to be changed.

The wires on the bottom of the chassis were in a chaotic muddle. (Fig. 3) Most of the condensers were defect and the resistors had a tolerance of up to 50%. One of the electrolyte condenser 8 μ F was short circuit and both potentiometers were defected.

The drive part for the tuning condenser is missing, otherwise it was in order. The gap of the plates is set properly. (Fig. 4)

Everything had to be dismantled, the rust removed and the chassis newly sprayed. (Fig. 5)

The RCA Gloria has a straight circuit receiver with the following electronic tubes 2 x 35 as HF amplifier with the tension of the cathode the volume can be regulated, 24 as demodulator, 47 as end tube and 80 as rectifier.

The anode winding on the mains transformer varies a lot, for the 100 volts new winding are required. The special thin insulated paper to be able to do it in layers is missing. Therefore a new transformer body had to be produced (Fig. 6) which was very time consuming. It was necessary to calculate a new specification which gave the following dates :

Mains 230 V	1070 windings	0.32 mm
2 x Anode 330 V	2 x 1700 windings	0.14 mm
Heating 80, 5 V	26 windings	0.7 mm
Heating 2.5 V	13 windings	1.4 mm

With this information the new transformer was built. (Fig. 7) The modern perfectly insulated wires made it possible to wind it in layers without special precaution. Long wire ends for the connection were left.

Afterwards the transformer was sprayed in black colour.

The chassis was newly wired up. (Fig. 8) On all the bases of the electric tubes, the connection was tightened up to get an excellent contact. The chassis is now tidy, everything is clear visible and the system remained as before.

All the condensers were replaced, also the resistors with the same type (colour code). Below the HF spool, the body of the spools was glued together with the HF core. Like that the equipment could be set at 600 kc. Additionally the point of resonance was moved to 525 kc to be able to get the radio station Beromünster at 531 kc. This was not possible before. With the trimmers on the tuning condenser the maximum of 1200 kc was equalized.

On the tuning condenser a new drive was fitted. A cord on the plastic disc gets its movement from the driving axle. Next to it a power light indicator was put on. (Fig. 9)

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With the transmission ratio (4 to 60 mm) and the identification finger it is possible to get the transmission stations precise.

(Fig. 10) shows how nice the chassis has turned out. Left from the transformer a flat metal piece is visible ; this prevents the equipment tipping over when repair work has to be done. The membrane from the loudspeaker had to be taken off to remove the metal fillings with sticky tape. Afterwards the membrane was placed back and exactly centralised.

Looking at the final product (Fig. 11) it was worth it to have spent the time for the restoration. At the front where part of the decoration was broken off it has taken a lot of time to restore it. The rest of the decoration was also removed and replaced with fancy strips.

Now it is a beautiful and efficient Radio. The sensitivity is $16 \mu\text{V}$.

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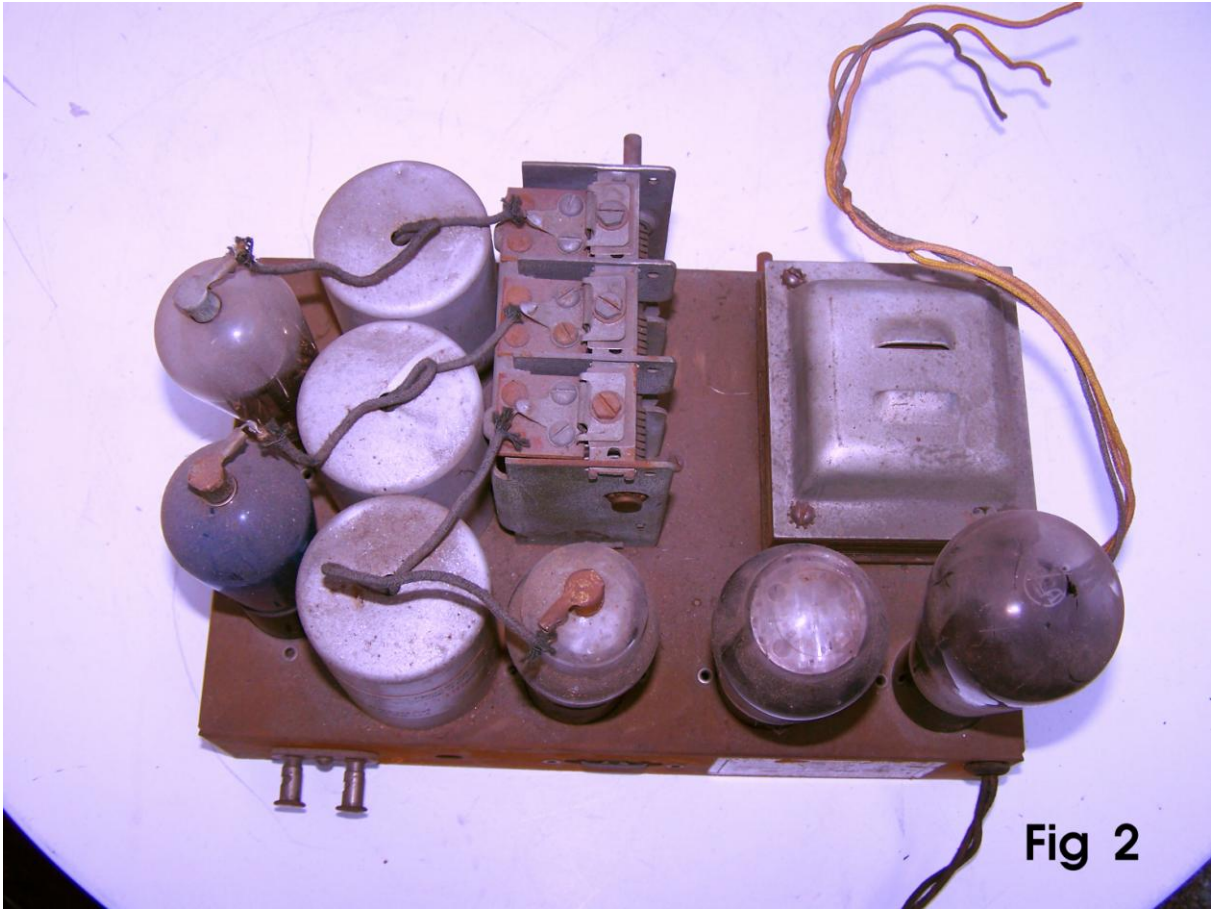


Fig 2

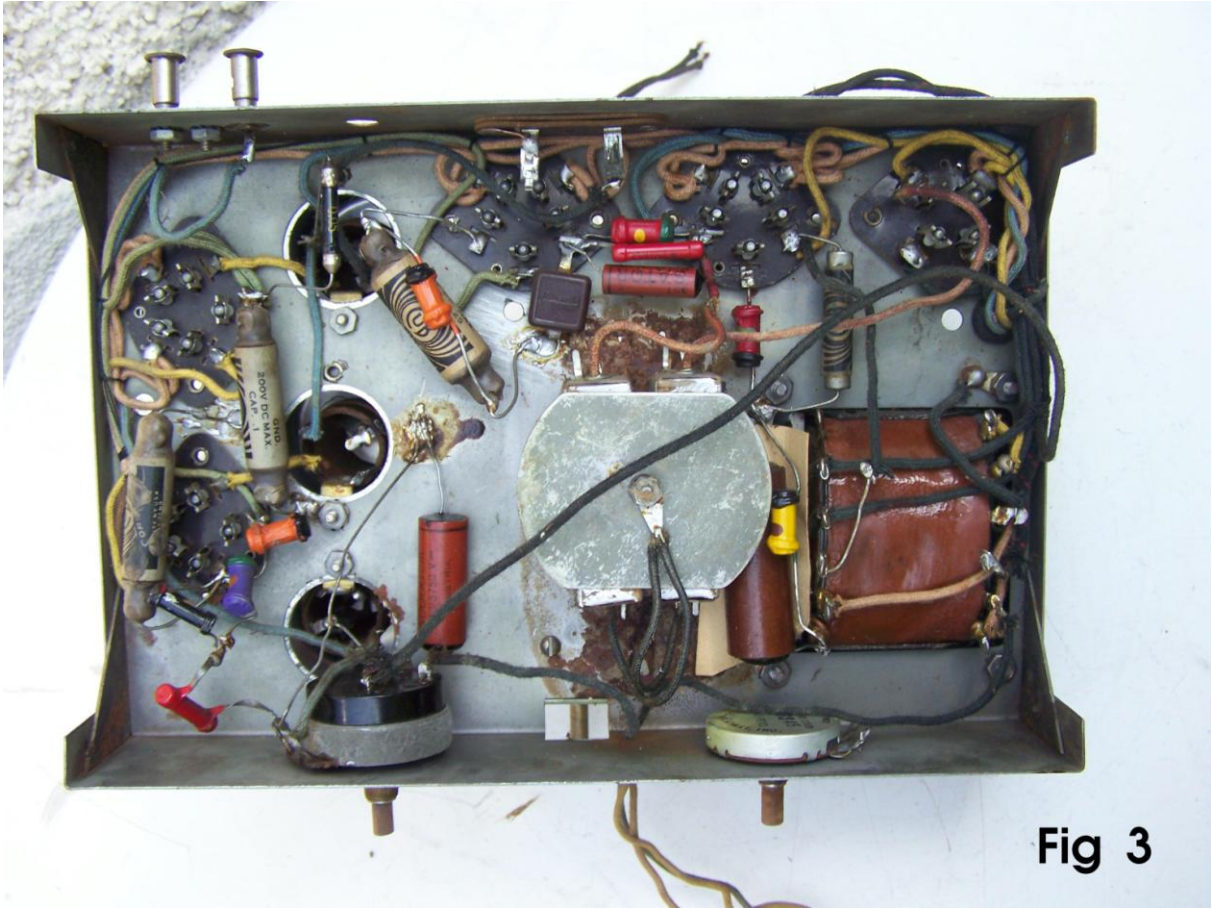


Fig 3

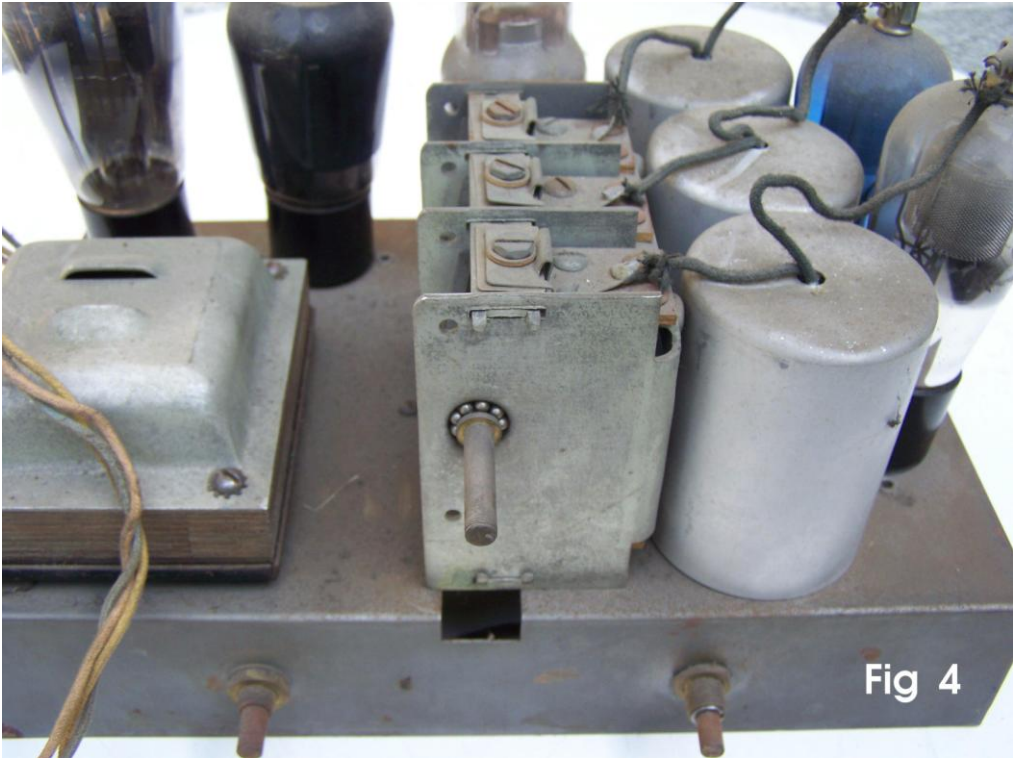


Fig 4

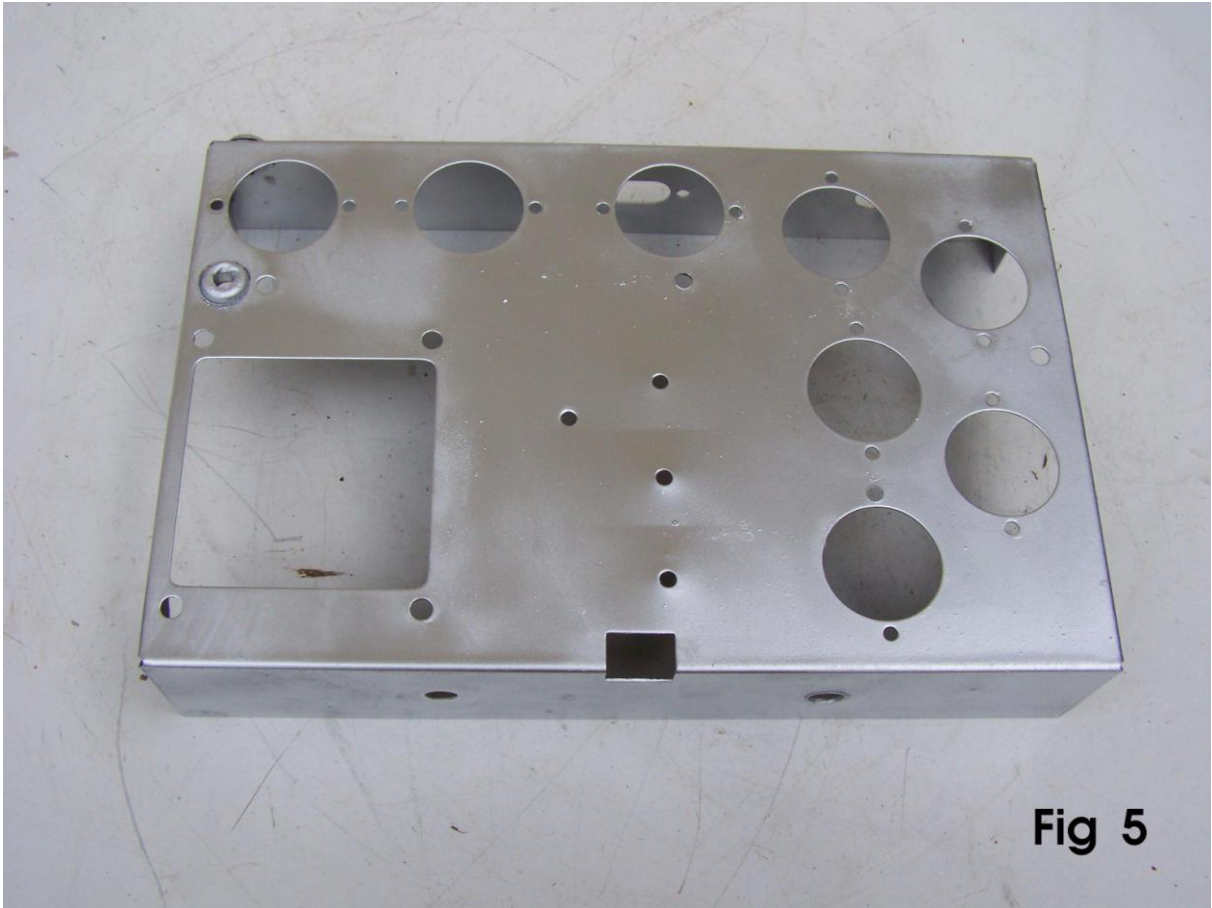


Fig 5

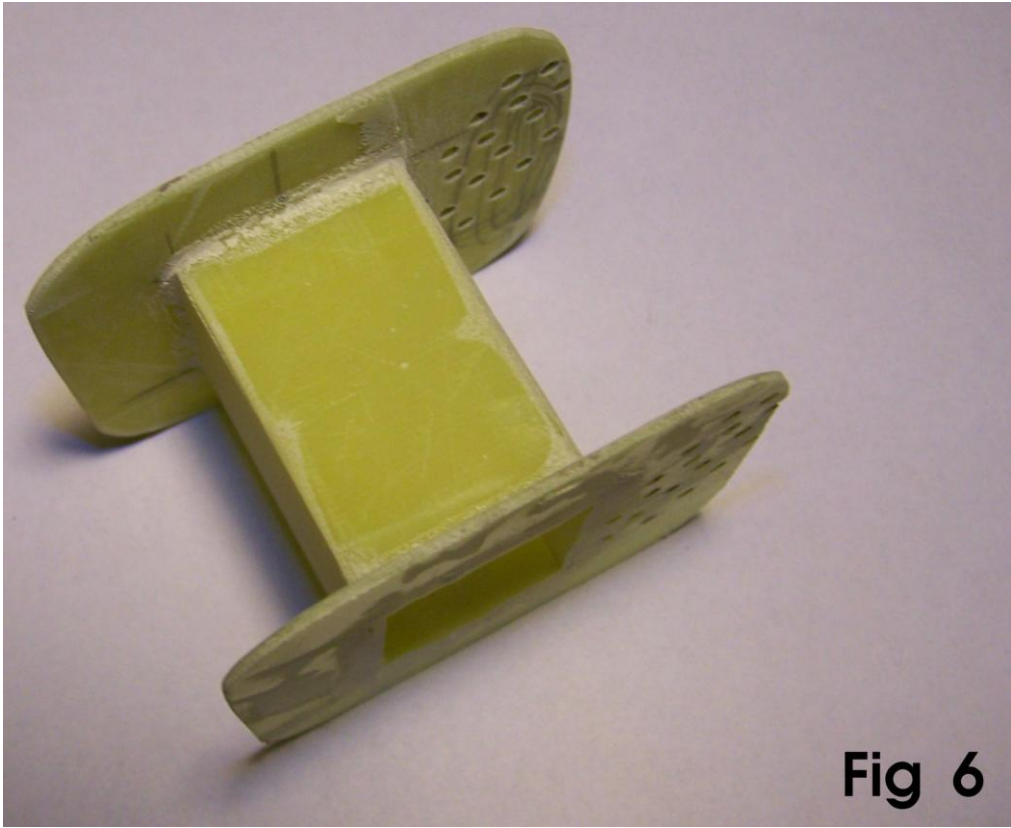


Fig 6

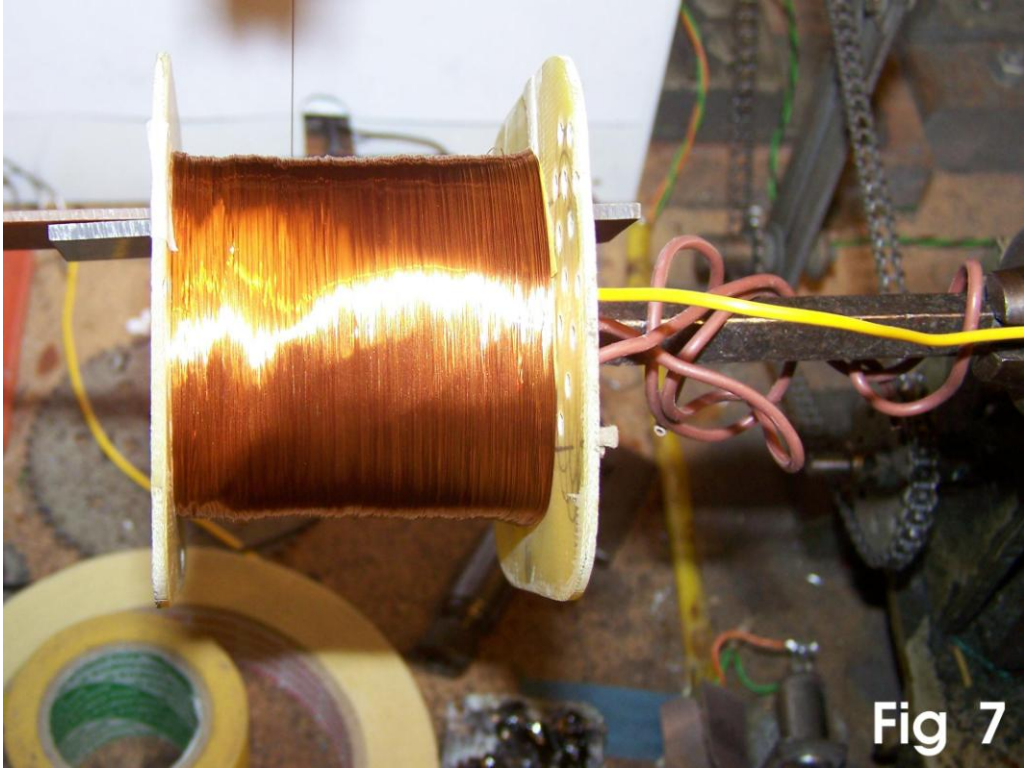


Fig 7

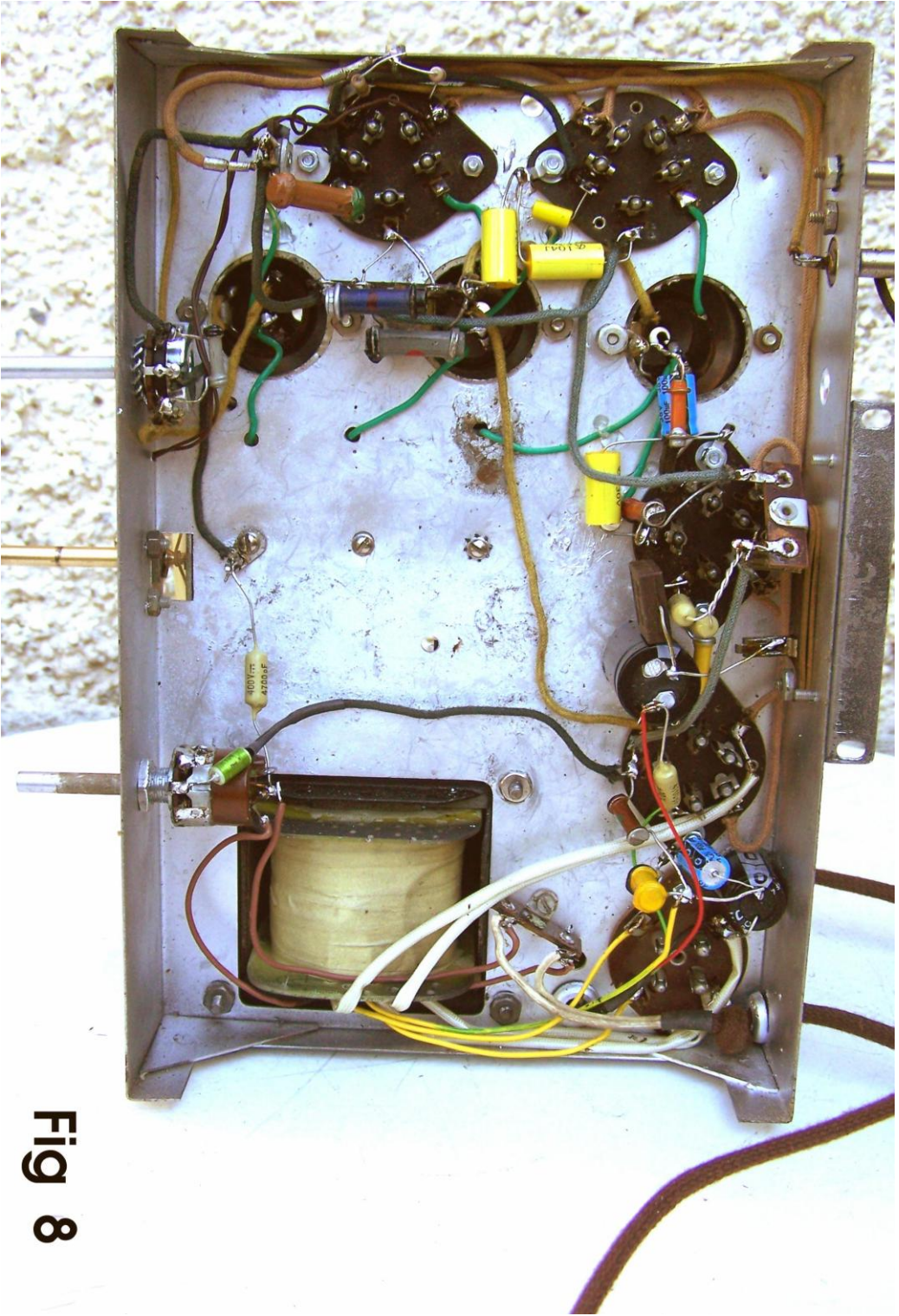


Fig 8

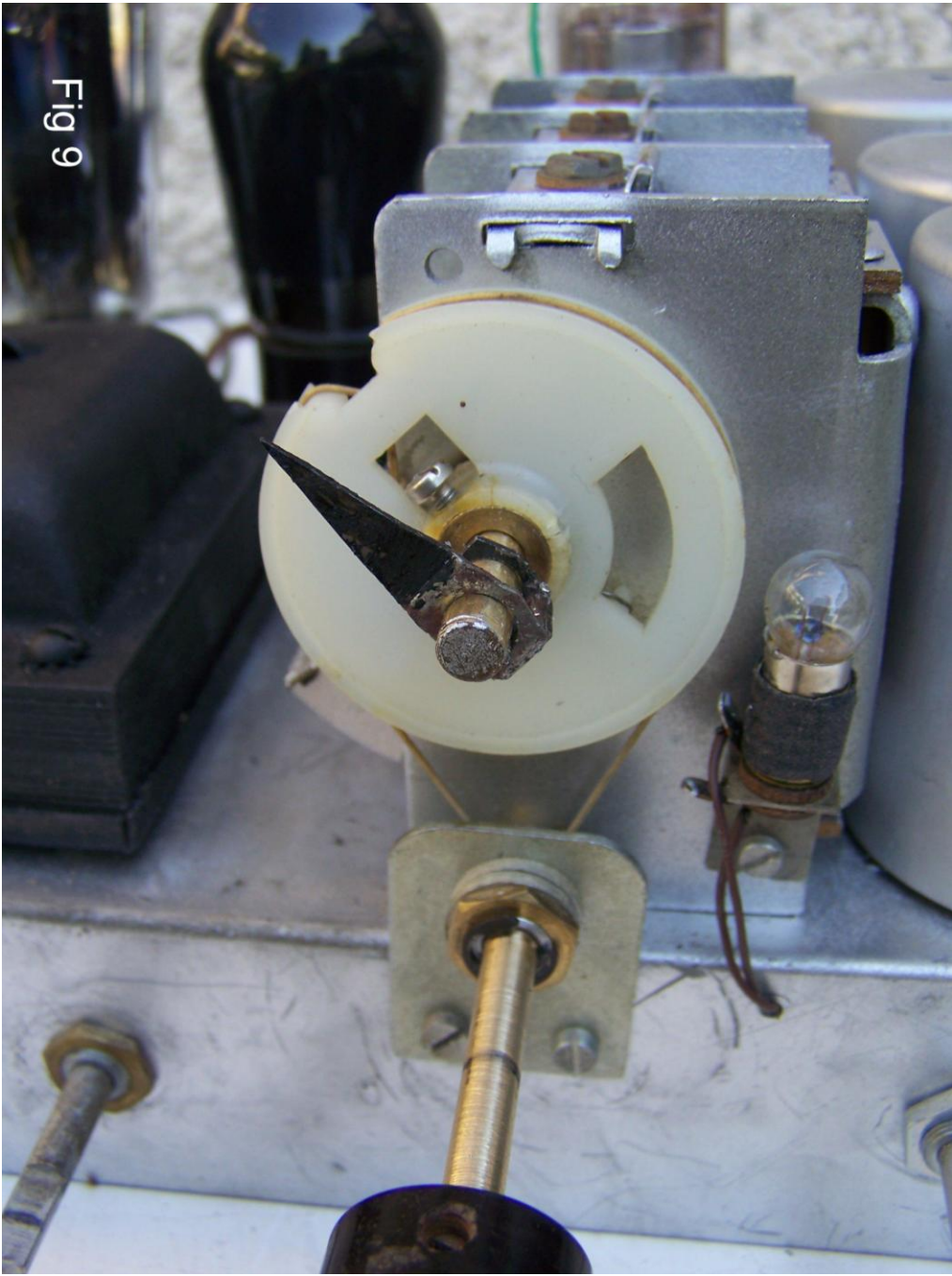


Fig 9

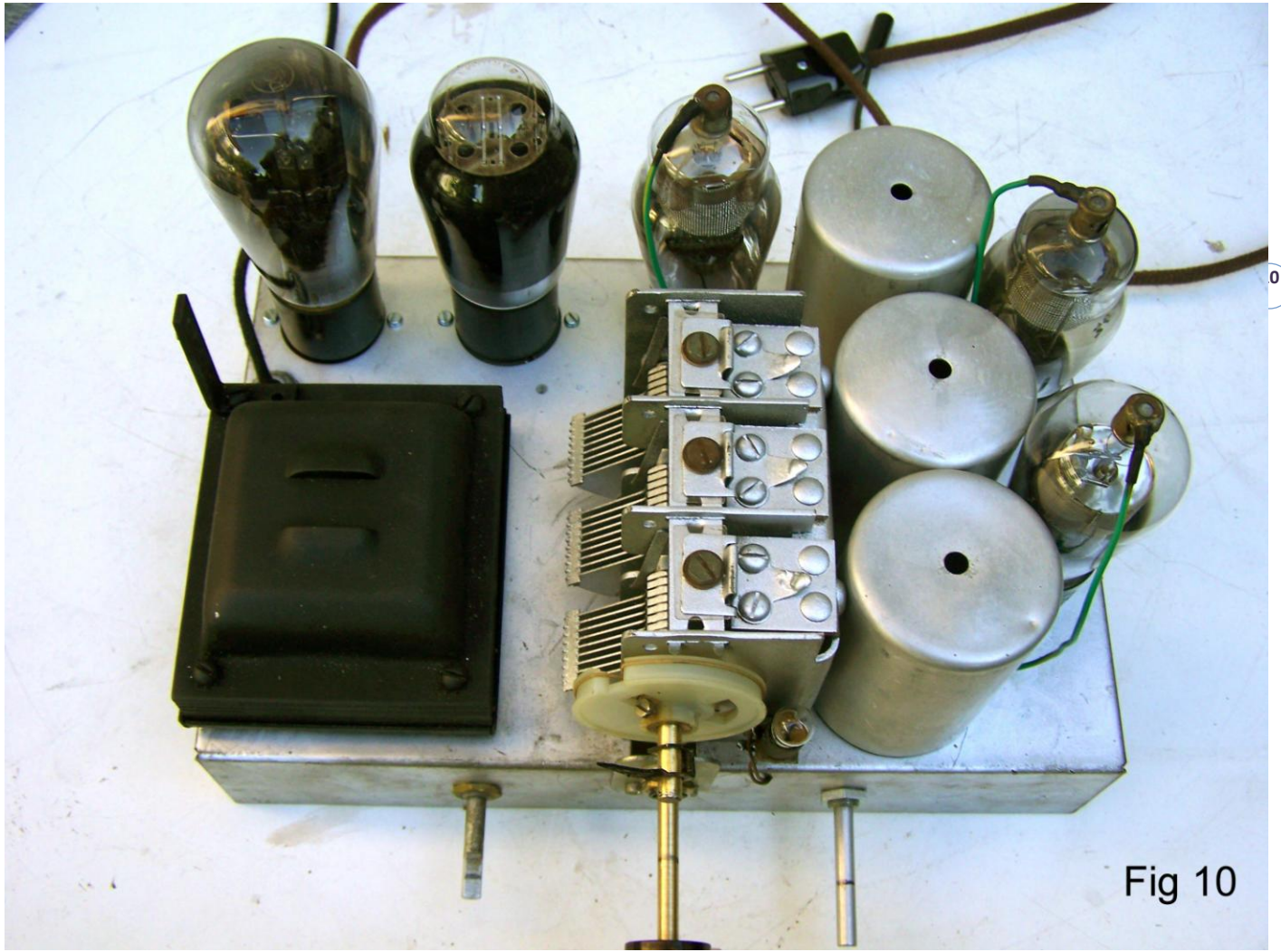


Fig 10



Fig 11

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