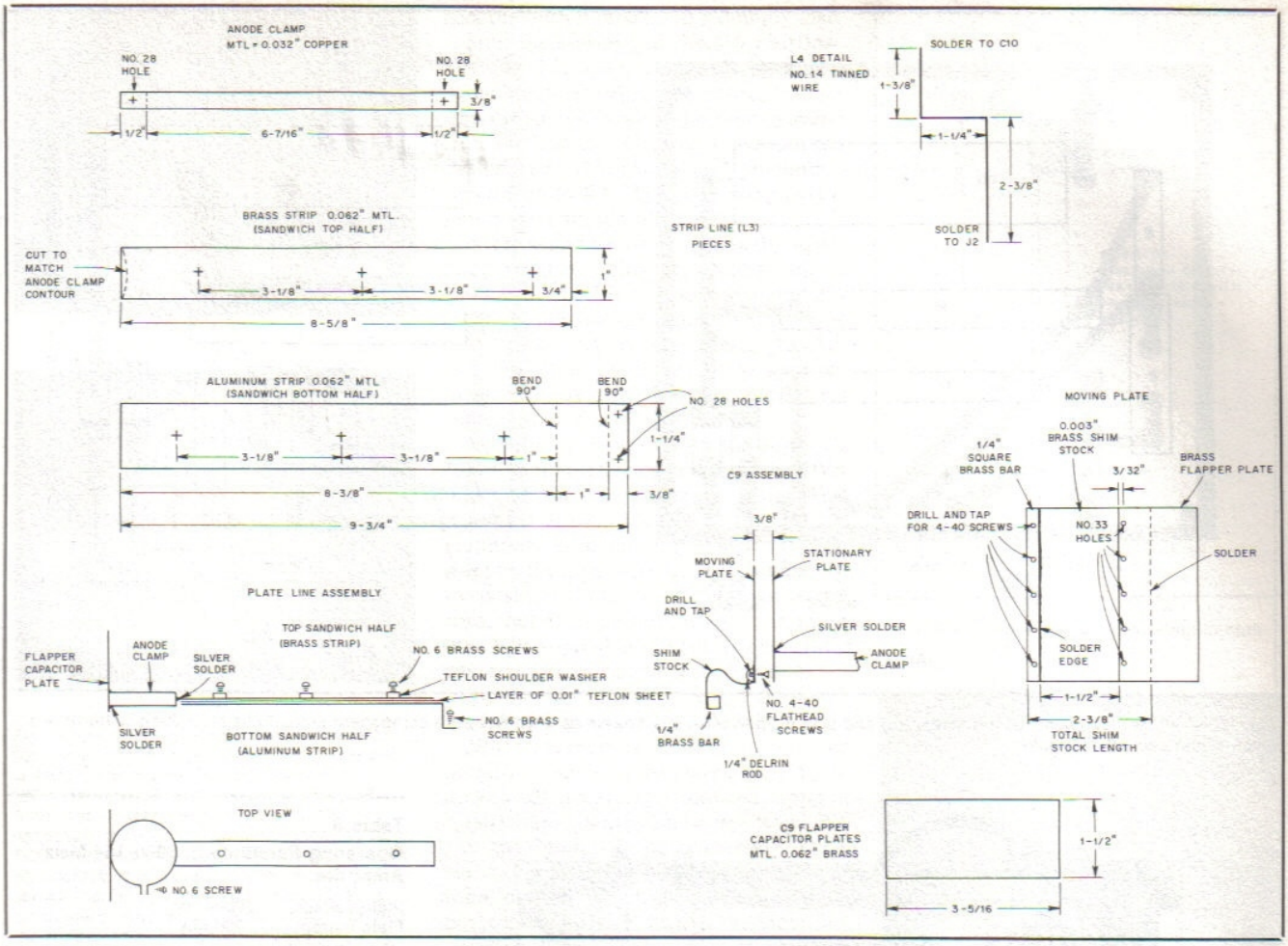

Fig. 104 — Construction and assembly of L3, L4, C8 and C9.

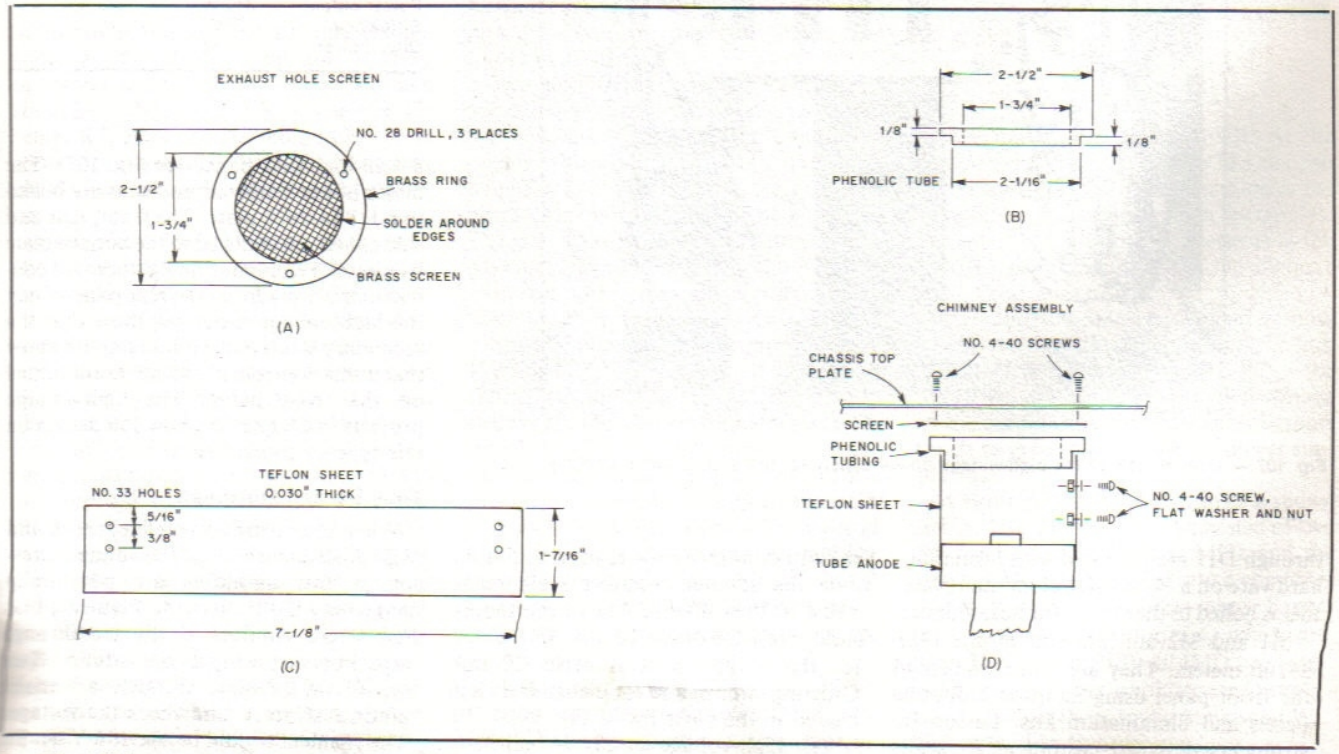

Fig. 105 — Chimney construction details.

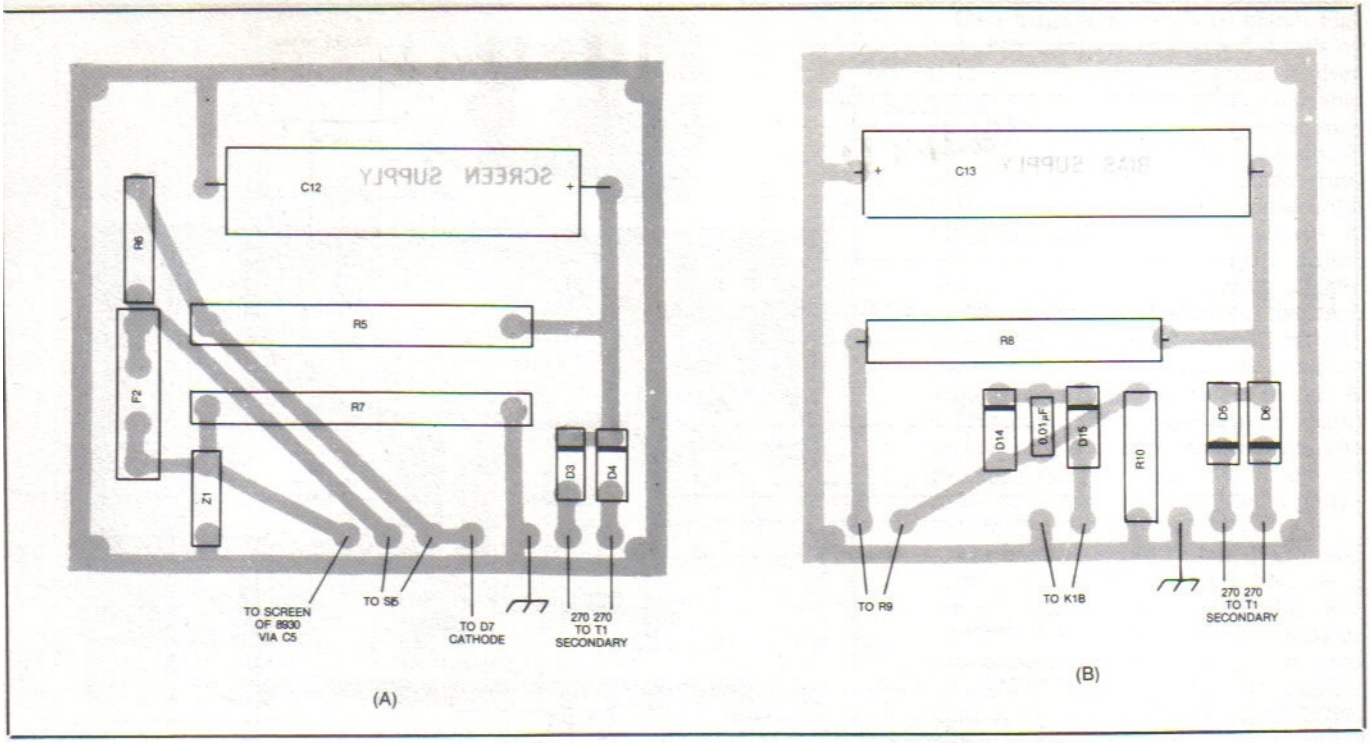

Fig. 106 — Parts placement for the screen (A) and bias (B) power supply boards as seen from the component side. Full-size etching patterns are given at the back of this book.

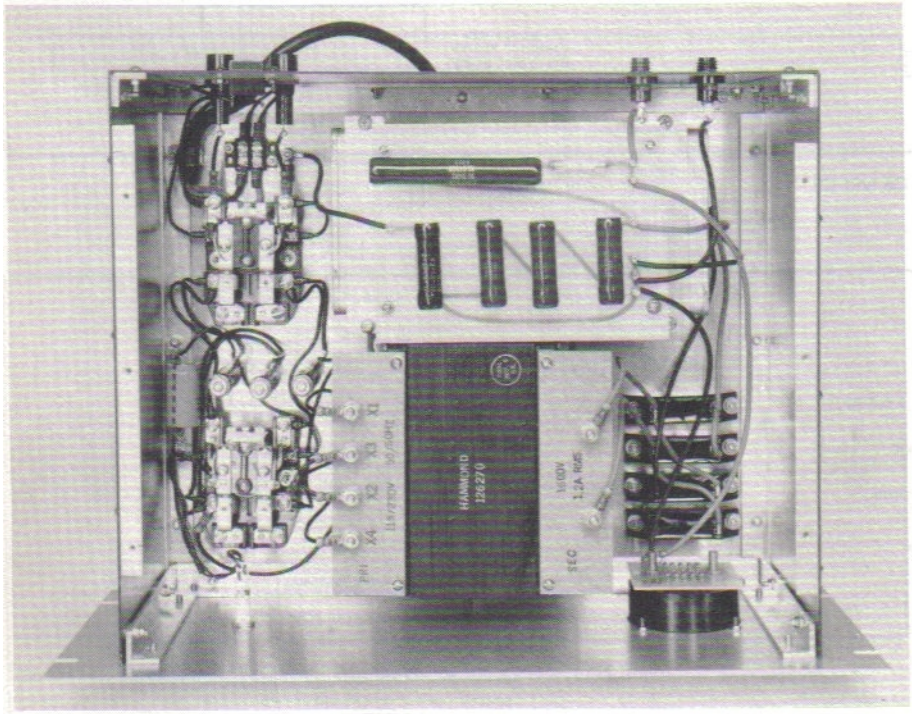

Fig. 107 — Interior view of the high-voltage power supply for the 8930 2-meter amplifier.

Table 6
Operating Parameters, 8930 144-MHz Amplifier

Plate voltage	2000-V dc
Plate current (single tone)	290 mA
Plate current (idling)	90 mA
Screen current	15 mA
Power input	580 W
Power output	340 W
Efficiency	59%
Drive power	6 W

through D11 are mounted with insulating hardware on a ¼-in-thick aluminum plate that is bolted to the chassis for heat sinking.

M1 and M2 are Simpson Model 1327 3½-in meters. They are mounted behind the front panel using Simpson mounting bezels and illumination kits. Larson Instruments designed custom meter scales drawn for this project. M2 has two scales; the GRID CURRENT scale reads 0 to 5 mA, while the SCREEN CURRENT scale reads −10 0 10 20 30 40 mA. The screen supply bleeder resistor draws 10 mA, so the zero for the SCREEN scale is offset 10 mA. Ordering information for these meters is included in the parts list in Fig. 99.

The high-voltage supply is built on a separate chassis, also mounted behind an 8½-in-high rack panel (see Fig. 107). The major power supply components are bolted to a 1/8-in-thick plate. The front, rear and side panels are attached to the bottom plate by pieces of aluminum angle stock. All connections are made via the rear panel. Only the high-voltage meter (to show that the secondary is on) and a pilot lamp (to show that primary energy is applied) are mounted on the front panel. The high-voltage projects in Chapter 27 show full details on this type of construction.

Tune Up and Operation

When the wiring is complete, check and recheck all connections. The voltages present in this amplifier are potentially dangerous. Disconnect the filament, bias and screen supplies at the feedthrough capacitors on the input compartment. Turn on T1, if possible through a variable autotransformer, and check the voltages. The filament should be about 6-V ac. The screen supply should be around 300 V, plus