The functional relationship between Plate and Screen-Grid is further illustrated by *Radiotronics* Magazine #90 of September 1938, which provides data for a pair of type 6L6 tubes operating as a beam power tube in push-pull Class A1, for an operating condition having a common Plate and Screen Grid DC supply voltage. This shows:

Plate and Screen Volts	**100**	**150**	**200**	**250**	**290 (max)**
Zero Signal Plate Current mA	32.5	55	85	120	150
Max. Signal Plate Current mA	37.5	65	100	140	175
Zero Signal Screen Current mA	2.5	4.5	7	10	12.5
Max. Signal Screen Current mA	4.2	7.4	11.4	16	20
Grid #1 Bias V	-6.25	-9.5	-12.75	-16	-18.5
Load resistance P/P ohms	8000	6500	5600	5000	4600
Power Output Watts RMS	1.6	4.2	8.4	14.5	21.2

Notice how much power output changes when the Plate and Screen Grid voltages drop from 290 to 250 - a likely situation with a tube rectifer power supply - see rectifier forward voltage drop characteristics in manufacturer's tube handbook data.

A significant improvement to power supply regulation can be made by the simple change to full-wave silicon diode bridge rectifier, and preferably the inclusion of at least one filter choke, which leaves only the power transformer regulation to deal with.

Notice also how the ratio of Screen Grid current to Plate current changes between zero and maximum signal and between different operating voltages.

This translates into non-linearity.