

Rogers Electronic Tubes & Components

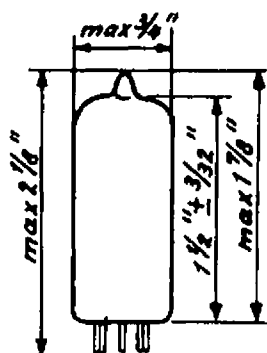
6 ET 6

Description: Pentode for use as I.F. amplifier, oscillator or A.F. amplifier in carradio sets, to be operated directly from a storage battery

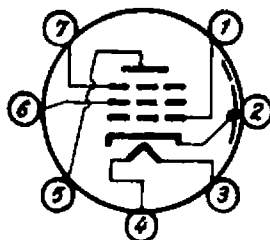
Mechanical data

| | |
|--------------------|---------------------------------|
| Cathode | coated, unipotential |
| Base | E 7-1 |
| Bulb | T 5 ¹ / ₂ |
| Outline | 5 - 2 |
| Basing designation | 7 EN |
| Mounting position | any |

TUBE OUTLINE



BOTTOM VIEW OF BASE



BASE PIN No.

| | |
|---|--------------------------|
| 1 | Grid No. 1 |
| 2 | Cathode, internal shield |
| 3 | Heater |
| 4 | Heater |
| 5 | Plate |
| 6 | Grid No. 2 |
| 7 | Grid No. 3 |

ELEMENT

Heater data

| | |
|----------------|-----------|
| Heater voltage | 6.3 volts |
| Heater current | 300 mamps |

Direct interelectrode capacitances

| | |
|---|----------|
| Grid No. 1 to all other elements except plate | 6.7 μF |
| Plate to all other elements except grid No. 1 | 4.0 μF |
| Plate to grid No. 1 | 0.015 μF |
| Grid No. 1 to grid No. 2 | 3.0 μF |

Maximum ratings (design center values)

| | |
|------------------------------------|----------------|
| Plate voltage | 50 volts max. |
| Plate dissipation | 0.5 watt max. |
| Grid No. 2 voltage | 50 volts max. |
| Grid No.2 dissipation | 0.5 watt max. |
| Grid No. 3 voltage | 50 volts max. |
| Cathode current | 15 mamps max. |
| Grid No. 1 circuit resistance | 22 megohm max |
| Grid No. 3 circuit resistance | 0.1 megohm max |
| Voltage between cathode and heater | 50 volts max. |

Operating characteristics as I.F. amplifier

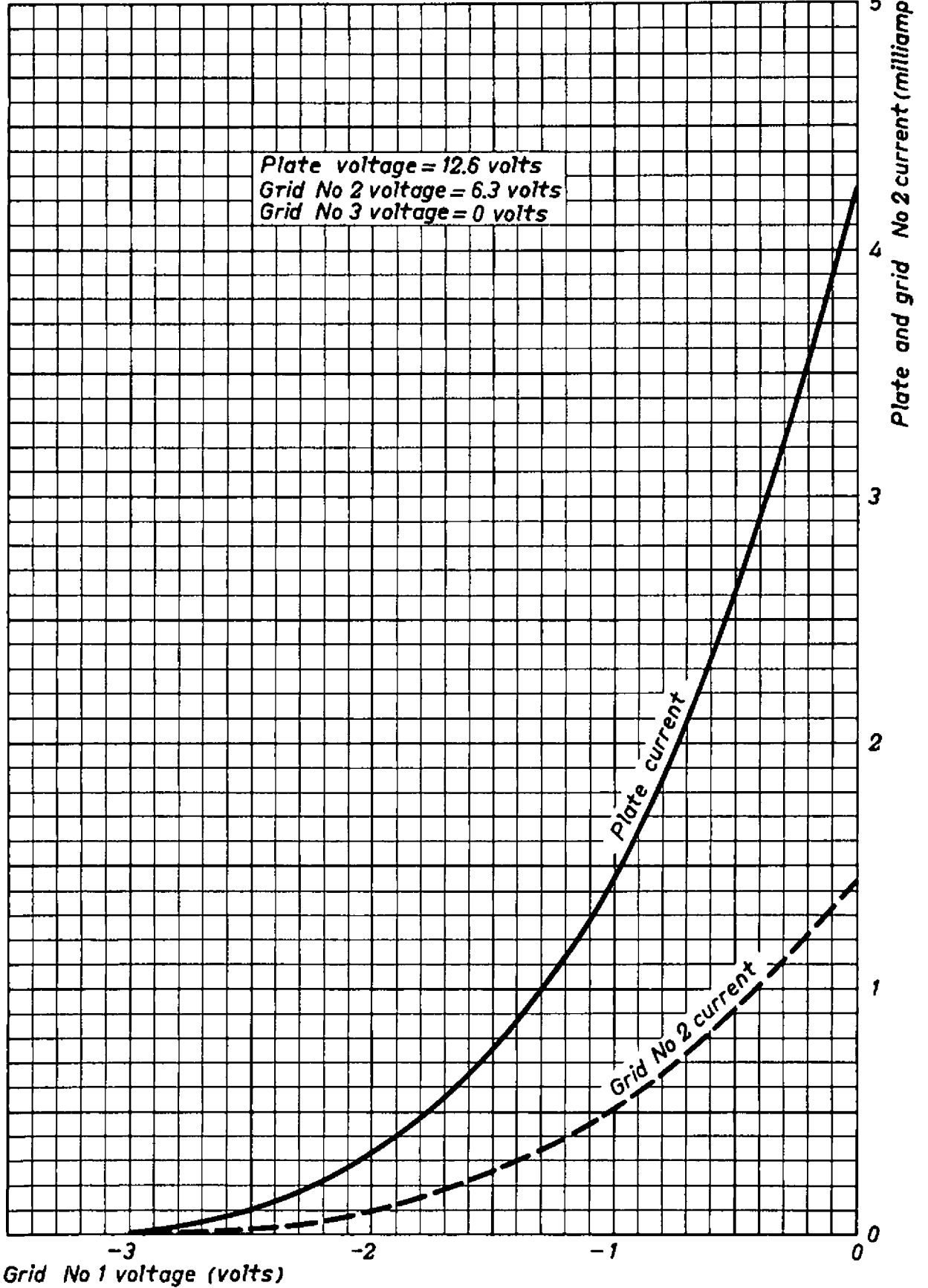
| | | | |
|---|-------|-------|----------------|
| Plate voltage | 25 | 12.6 | 6.3 volts |
| Grid No.2 voltage | 6.3 | 6.3 | 3.2 volts |
| Grid No.3 voltage | 0 | 0 | 0 volts |
| Grid No.1 bias ¹⁾ | -0.75 | -0.75 | -0.8 volt |
| Plate current | 2.2 | 2 | 0.6 mamps |
| Grid No.2 current | 0.6 | 0.7 | 0.2 mamp |
| Transconductance | 2100 | 2000 | 1000 micromhos |
| Plate resistance | 0.09 | 0.2 | 0.1 megohm |
| Amplification factor of grid No. 2 with respect to grid No. 1 | 4.1 | 4.1 | 3.2 |

Operating characteristics as A.F. driver ³⁾

| | | | | | |
|---------------------------------|------|------|------|------|----------------|
| Plate voltage | 25 | 12.6 | 14 | 6.3 | 7 volts |
| Grid No.2 voltage | 12.6 | 12.6 | 14 | 6.3 | 7 volts |
| Grid No.3 voltage ²⁾ | 25 | 12.6 | 14 | 6.3 | 7 volts |
| Grid No.1 voltage ¹⁾ | -2 | -2.3 | -2.4 | -1.2 | -1.3 volts |
| Plate + grid No. 3 current | 3 | 2.1 | 2.5 | 1.1 | 1.2 mamps |
| A.C. load resistance | 8000 | 6000 | 6000 | 5800 | 5800 ohms |
| Input A.F. voltage | 1.2 | 1 | 1 | 0.4 | 0.4 volts(rms) |
| Power output | 30 | 11 | 14 | 1.2 | 1.6 mwatts |
| Total harmonic distortion | 10 | 10 | 10 | 10 | 10 % |

-
- ¹) Nearly the same results can be obtained, when the grid No. 1 bias is obtained by grid current biasing with grid No. 1 resistor of 10 megohms
 - ²) Connection of grid No. 3 to anode is preferred
 - ³) Data at supply voltages of 7 volts and 14 volts have been added, because these values are normal praxis when the car is running

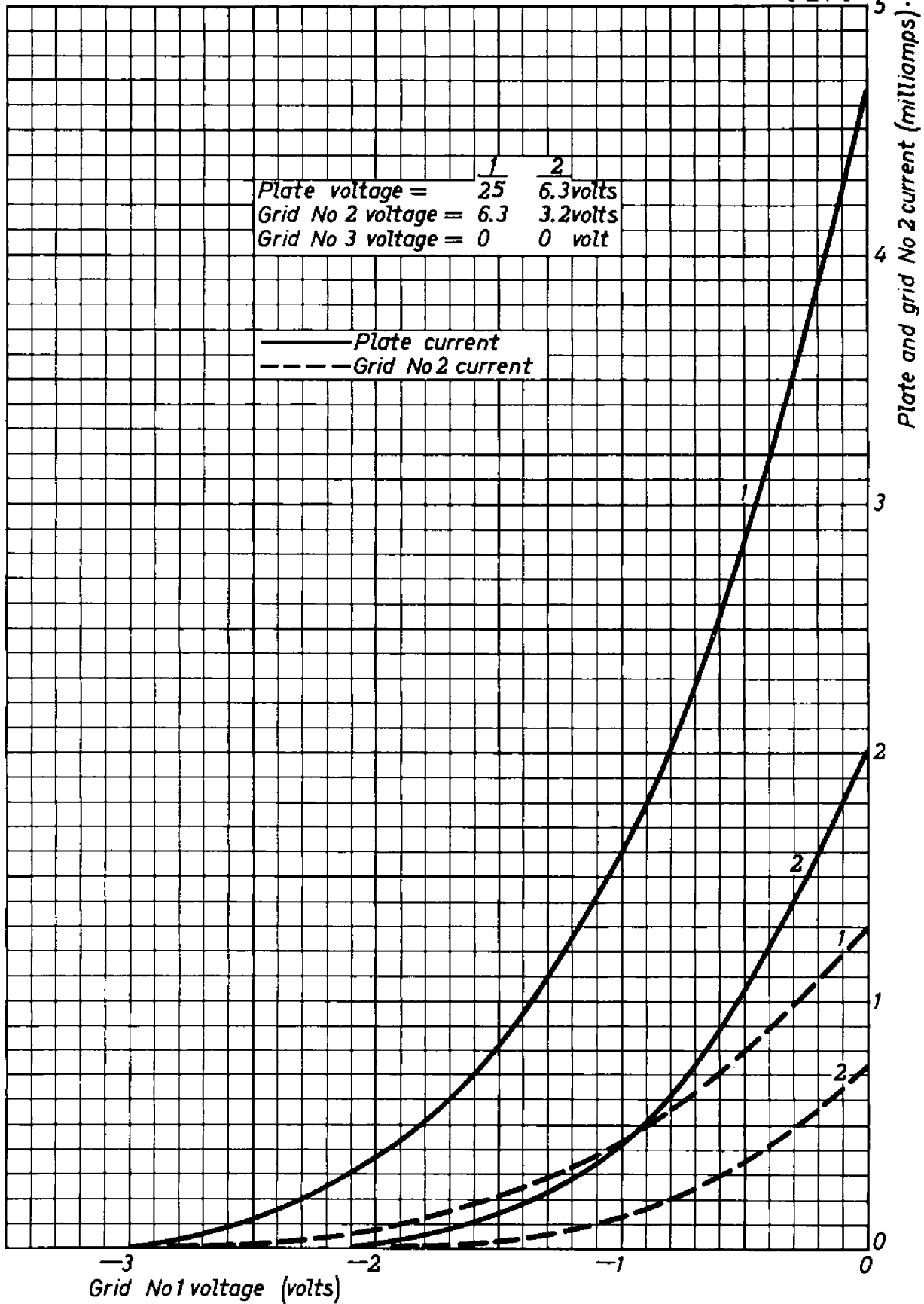
6ET6



10.10.1958

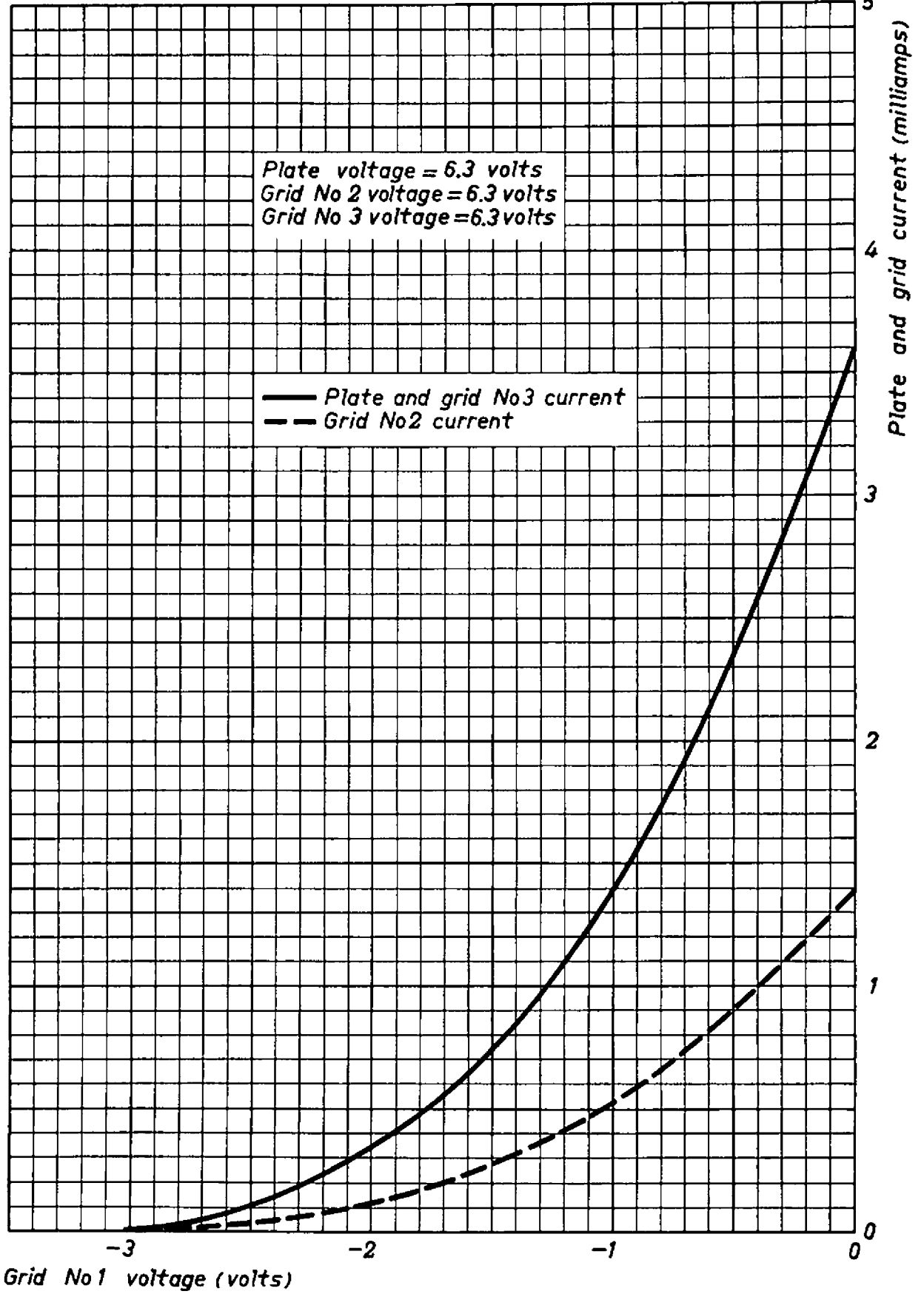
A

6 ET 6



B

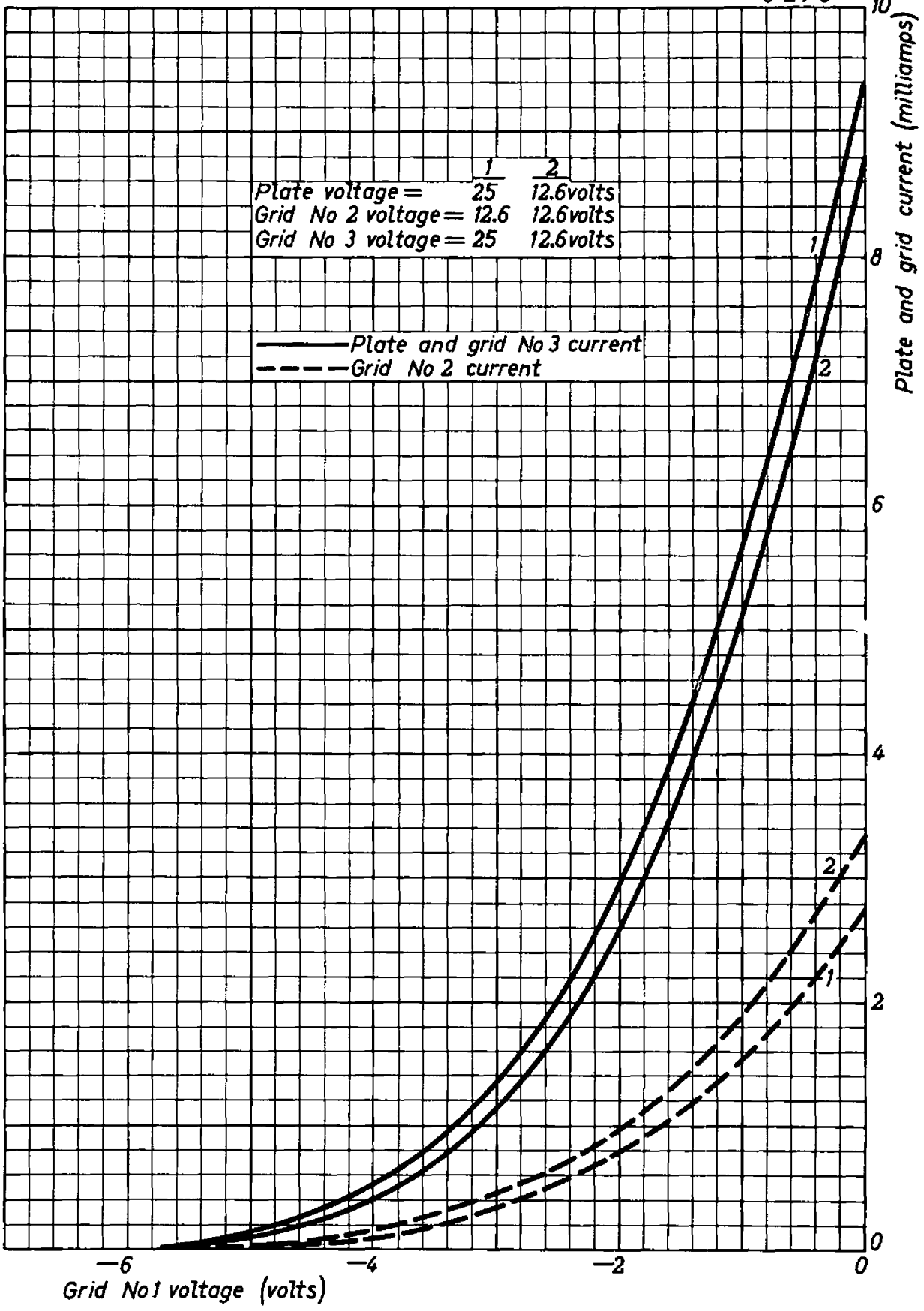
6ET6



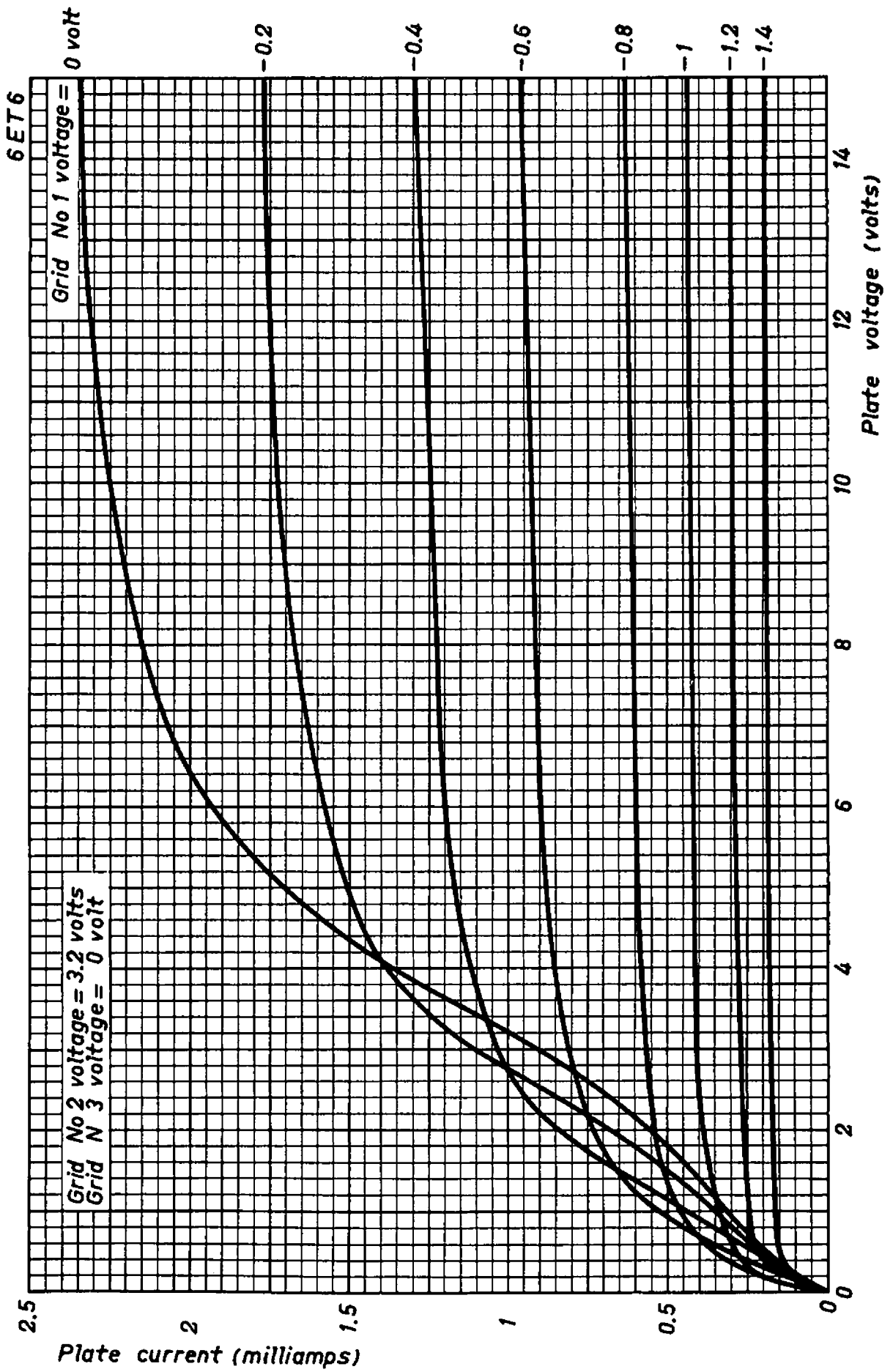
10.10.1958

C

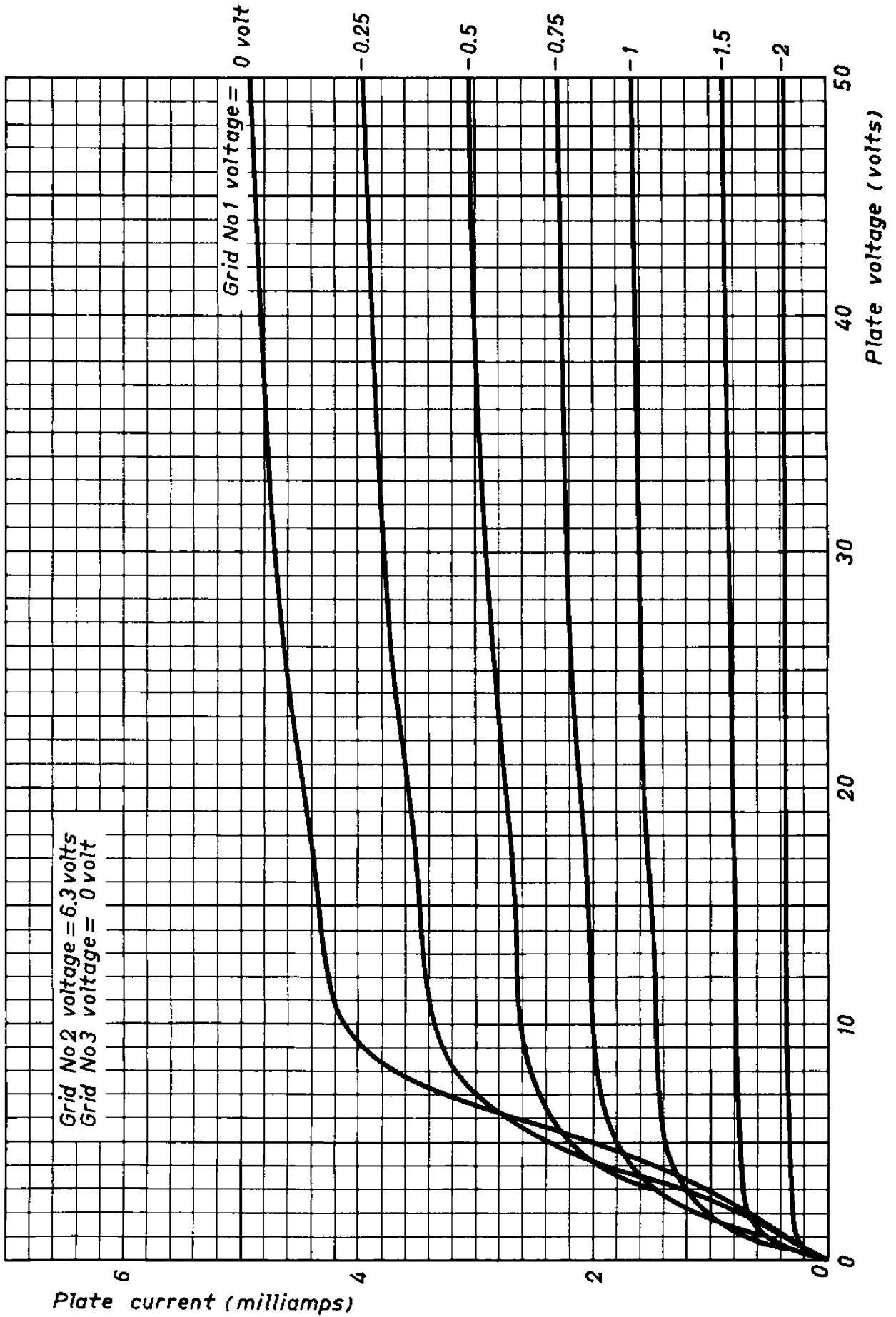
6 ET 6



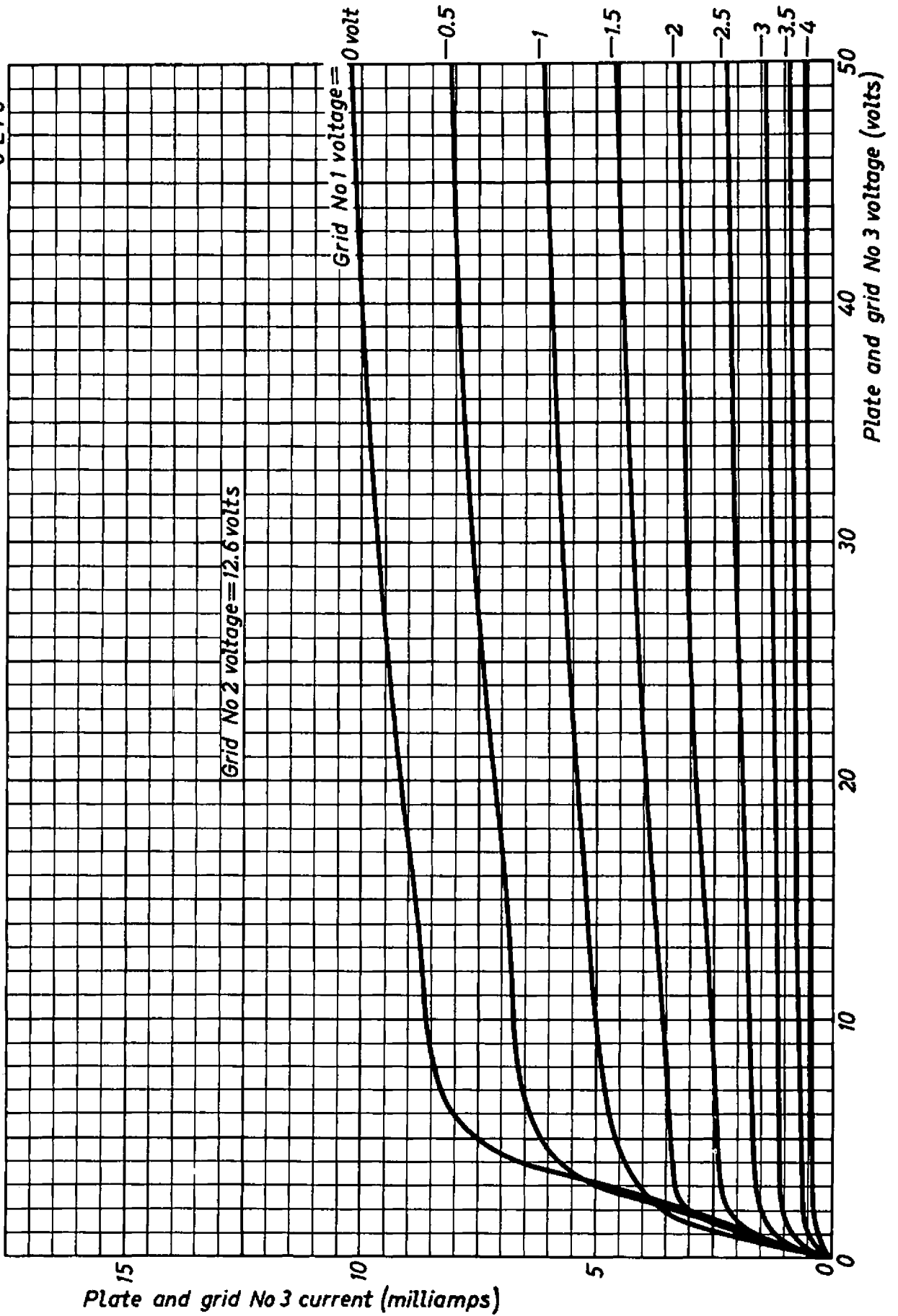
D



6 ET 6



6 ET6



10.10.1958

G

6E76

