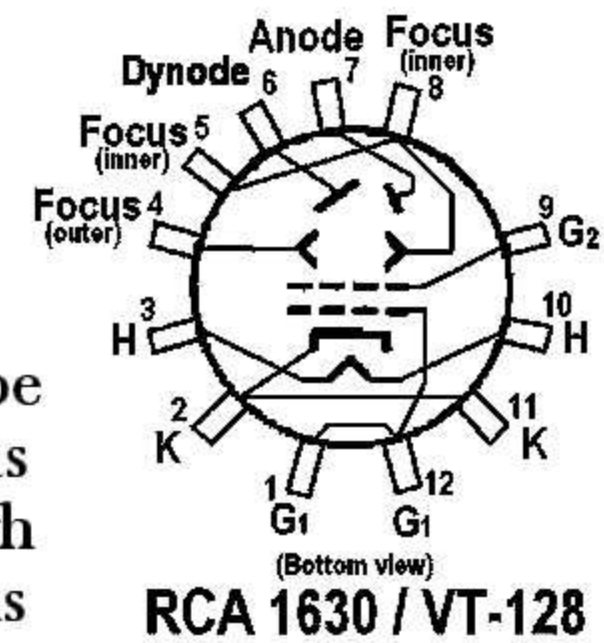


# RCA-1630



## U-H-F ORBITAL-BEAM HEXODE

The RCA-1630(A-5588) is a Acorn type orbital-beam hexode well suited for use as a detector or r-f amplifier in ultra high frequencies receivers. The RCA-1630 is 6.3-volt heater-cathode types, designed for use by engineers and experimenters particularly at the u-h-f RADAR.



### CHARACTERISTICS

(NOTE: Typical operating conditions for Developmental Multiplier Tube)

Heater voltage . . . . .	6.3	volts
Heater current . . . . .	0.3	ampere
Plate (output anode) voltage . . . . .	370	volts
Secondary-emitter voltage . . . . .	240	volts
Outer focusing-electrode voltage . . . . .	0	volts
Inner focusing electrode voltage . . . . .	300	volts
Grd No. 2 voltage . . . . .	45	volts
Gnd No. 1 voltage . . . . .	-1	volt
Plate current . . . . .	12	milliamperes
Secondary-emitter current . . . . .	9.5	milliamperes
Cathode current . . . . .	3.5	milliamperes
Grid N o. 1-plate transconductance . . . . .	15,000	micromhos
Input capacitance . . . . .	6.5	$\mu$ f
Output capacitance . . . . .	3.5	$\mu$ f
Figure of merit . . . . .	3100	micromhos per $\mu$ f

### INSTALLATION AND APPLICATION

For INSTALLATION, reference to type 955; for APPLICATION, refer to VT-128.

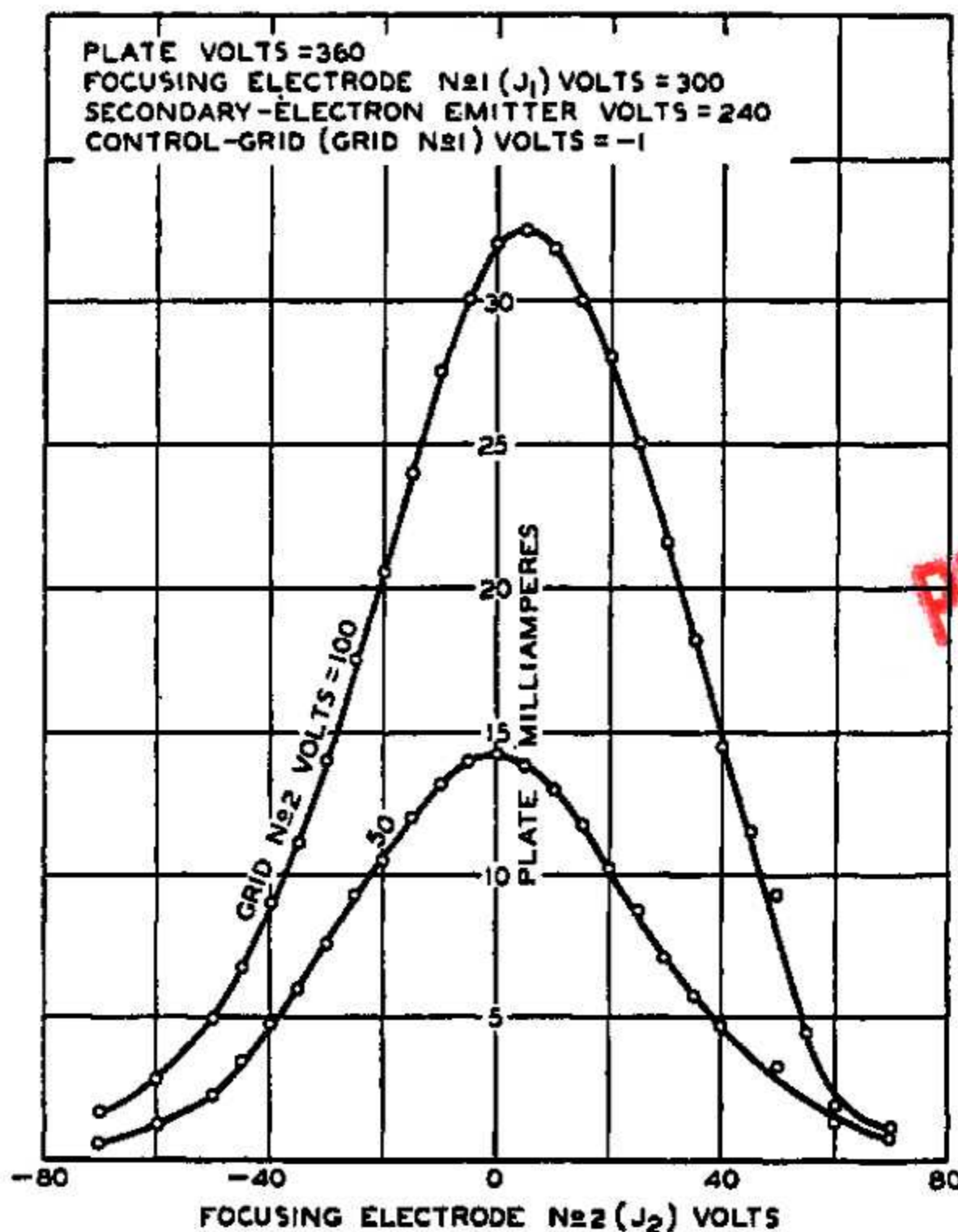


Fig. 3—Volume-control characteristic provided by deflection of the electron beam.

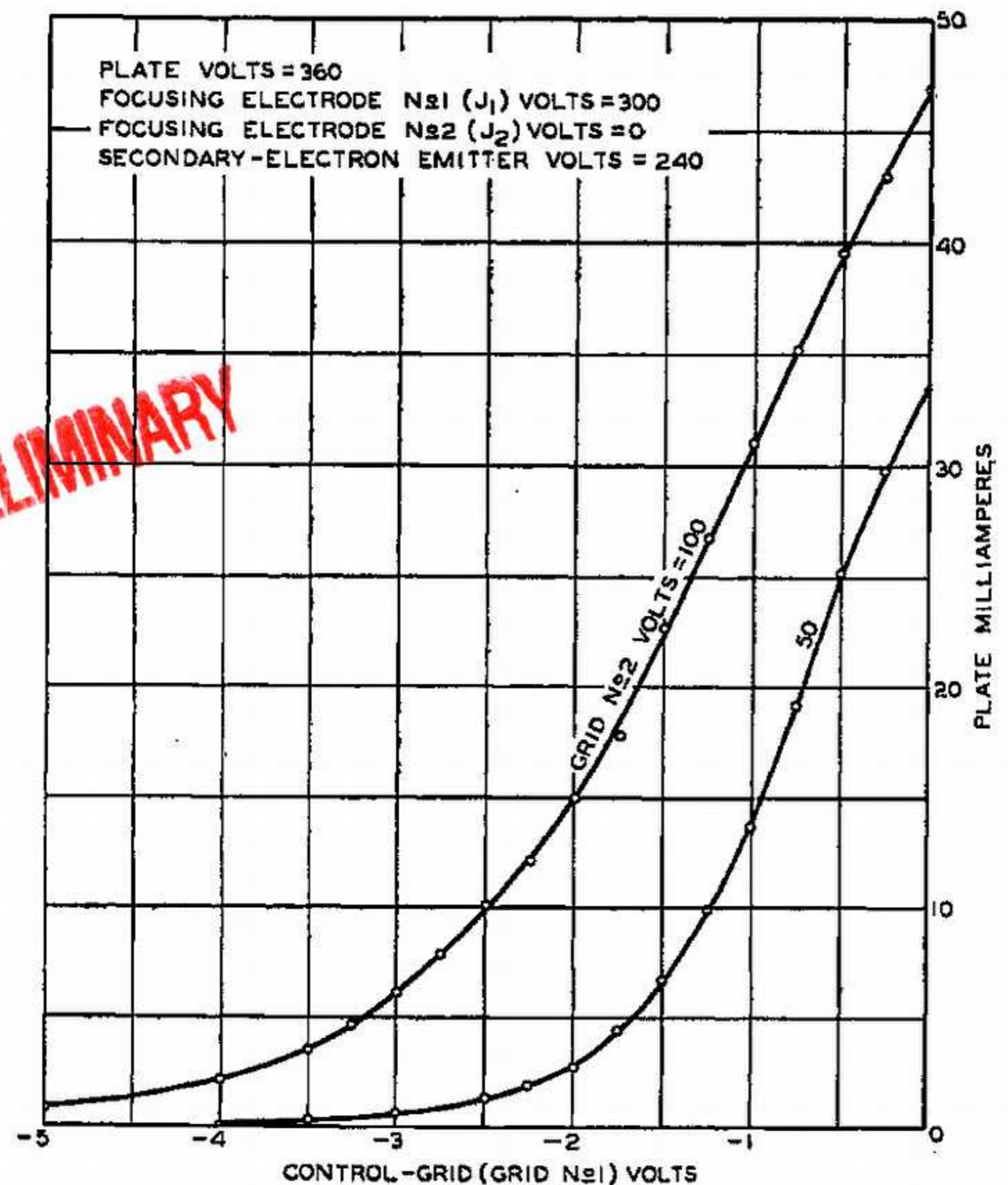


Fig. 4—Transfer characteristics of orbital-beam multiplier.

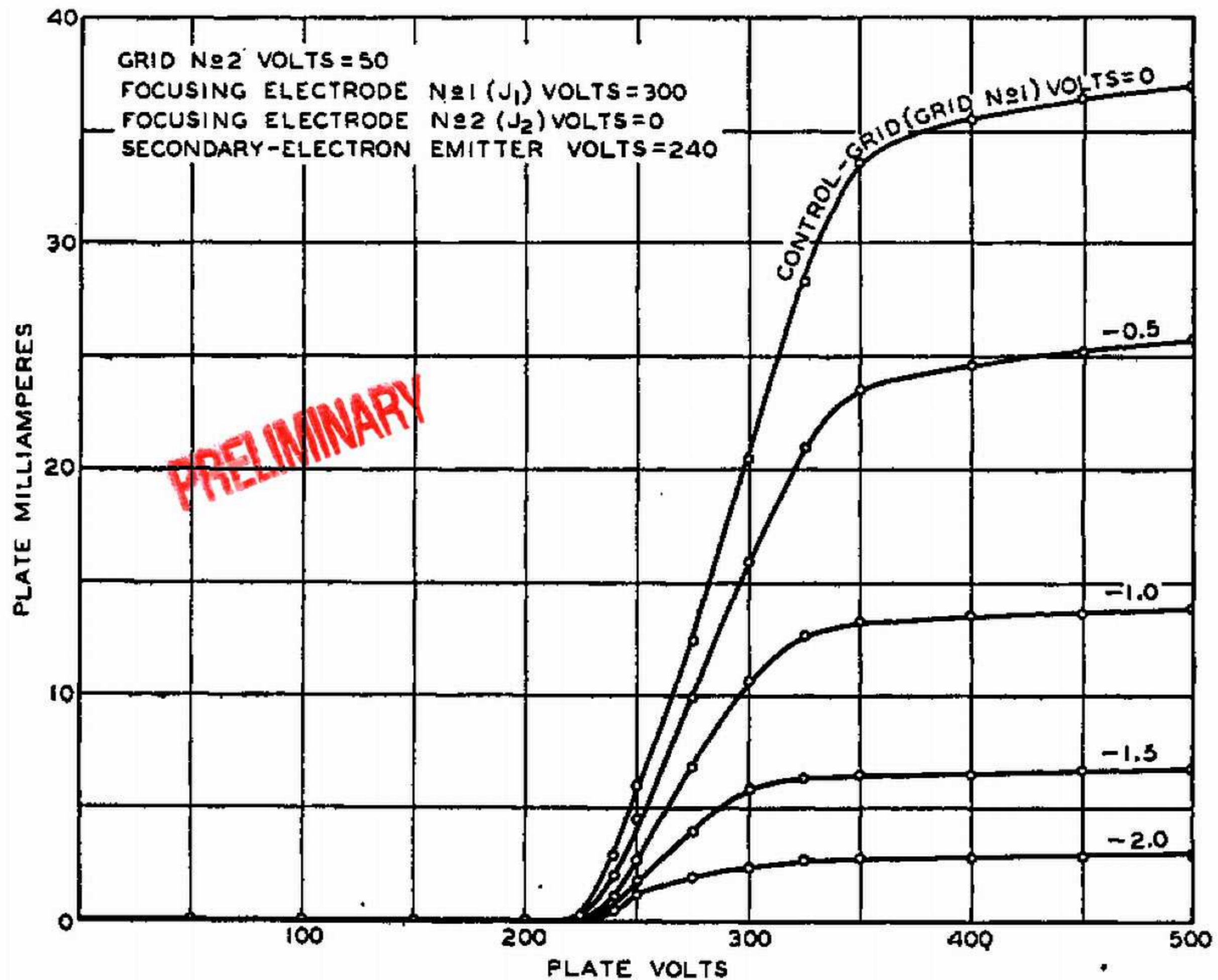


Fig. 5—Plate characteristics of orbital-beam multiplier.

- Source: 1) 『The Orbital-Beam Secondary-Electron Multiplier for Ultra-High-Frequency Amplification』 Wagner, H.M.; Ferris, W.R.; ([http://ieeexplore.ieee.org/xpl/freeabs\\_all.jsp?arnumber=1694186](http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=1694186))  
 Proceeding of Institute of Radio Engineers, Volume: 29, Issue: 11 (1941), Page(s): 598-602
- 2) 『1630 /VT128 orbital-beam hexode』 Virtual Valve Museum, (<http://www.tubecollector.org/1630.htm>)
- 3) 『VT-128』 Radio Museum, ([http://www.radiomuseum.org/tubes/tube\\_vt128.html](http://www.radiomuseum.org/tubes/tube_vt128.html))
- 4) 『真空管[エーコン管]物語』 JAZOP, JA1KGW/青山憲太郎さんのhp 真空管頼末記  
 (<http://homepage2.nifty.com/kawoyama/tubestoryacorn.html>)