

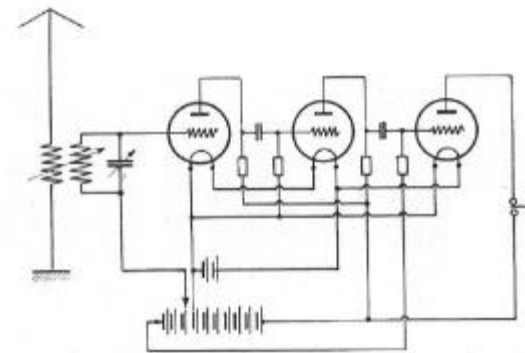
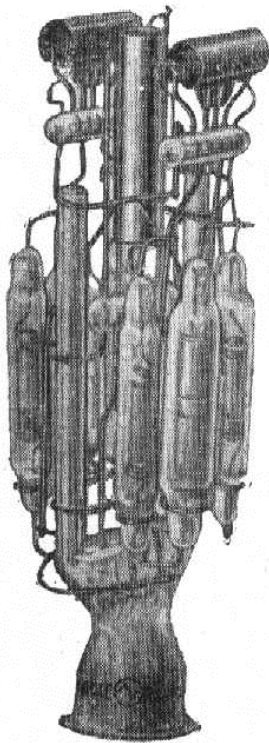
Loewe NF3Bat and NF3Netz

The NF3Bat was designed for battery supply while the NF3Netz was designed for DC mains supply.
 The first two triodes are equal and function as voltage amplifier.
 The third triode functions as power amplifier for a loudspeaker.

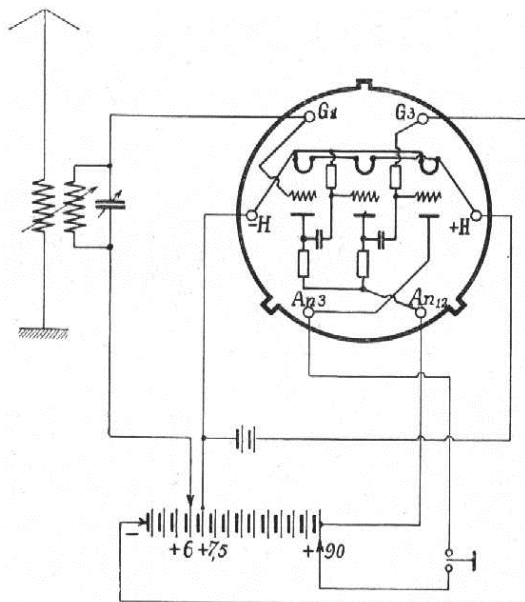
Source: Die Mehrfachröhre
 Dr. Eugen Nesper und
 Dipl. Ing. Walter Kunze
 Fisher Druck Gmbh
 Berlin 1928

Filament voltage 4 Volts at 125 mA
 Properties by section:

	Va (V)	Ia (mA)	S (mA/V)	Ri (k?)	μ
section 1	90 - 200	-	0.2	290	57
section 2	90 - 200	-	0.2	290	57
section 3	90 - 200	6 - 10	1.2	3.8	4.5

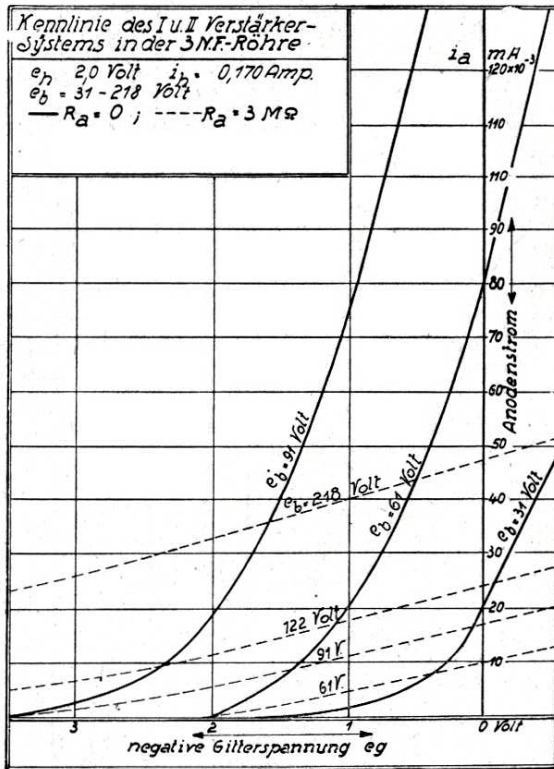


Circuit for three stage If amplifier.



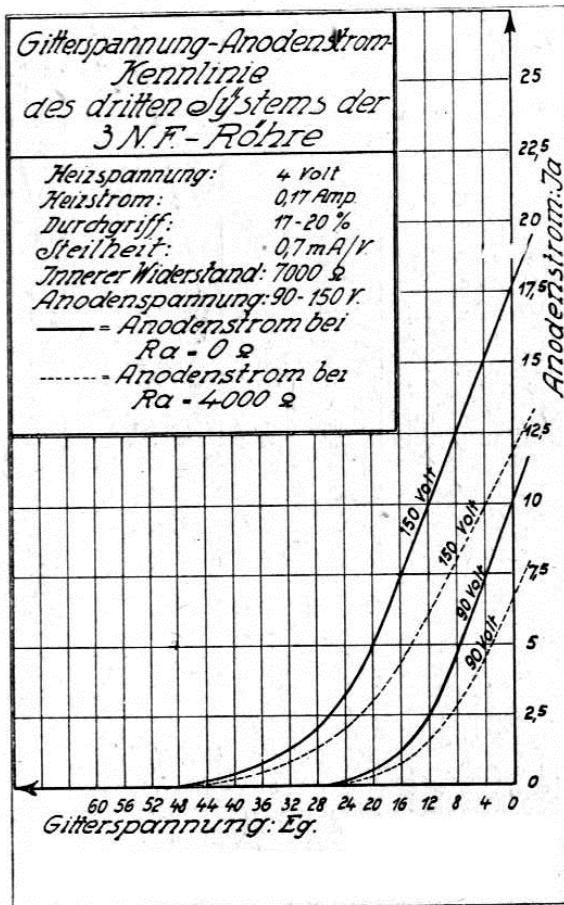
Circuit for the NF3 tube.

Component values:
 Ra at anodes : 3 M?
 R at Grids : 5 M?
 Capacitors : 1200cm



Characteristics for both voltage amplifiers.

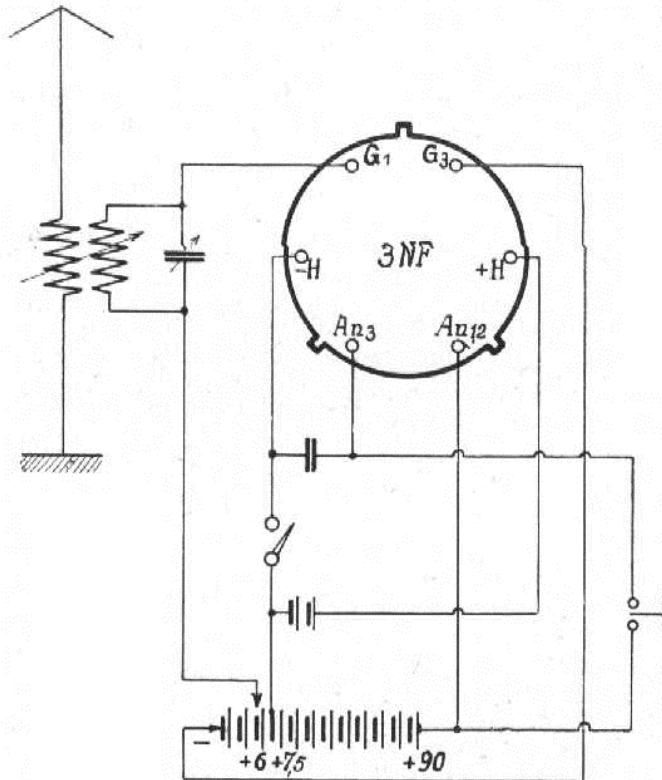
$V_h = 2 \text{ Volts}$
 $I_h = 0.170 \text{ A}$
 $V_b = 31 - 218 \text{ Volts}$
 continuous line : $R_a = 0$
 dotted line : $R_a = 3 \text{ M}\Omega$



Characteristics for the output triode.

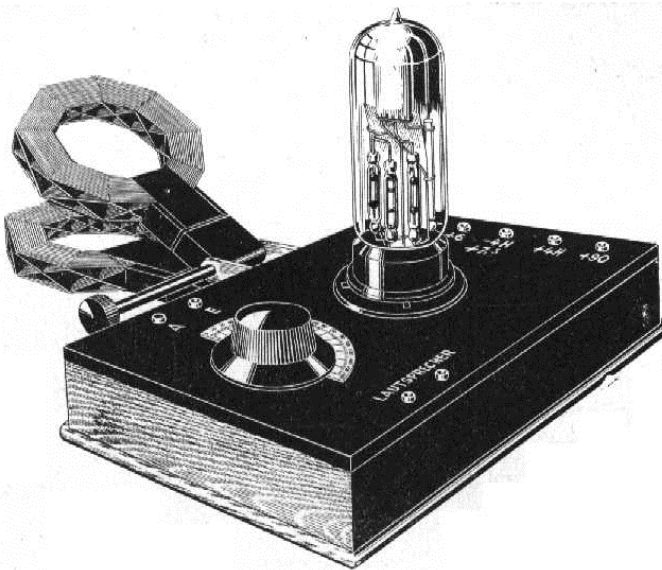
$V_h = 4 \text{ V}$
 $I_h = 0.170 \text{ A}$
 $S = 0.7 \text{ mA/V}$
 $R_i = 7 \text{ k}\Omega$
 $V_a = 90 - 150 \text{ V}$
 continuous line : $R_a = 0$
 dotted line : $R_a = 4 \text{ k}\Omega$

Constructing an 'Ortsempfänger'



Required:

- 1 3-section If-tube
- 1 multistage tube socket
- 1 Variable capacitor of 500 cm max.
- 1 coil holder for variable coupling coils
- 1 set of coils with 35, 50, 75, 100, 150 and 200 windings.
- 1 capacitor of about 5000 cm to be placed across the output terminals.
- 1 Housing with receptacles as shown in the next picture.



The completed 'Ortsempfänger'.

Notes:

1 pF = 0.9 cm

Ortsempfänger = receiver for nearby radio stations