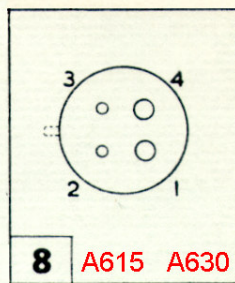


Title		
<b>1920s Condenser Microphone</b>		
Size	Number	Revision
A4		<b>1.1</b>
Date:	14-Sep-2006	Sheet 1 of 1
File:	D:\CLIENTS\VAUGHAN~1\1920SMIC.SCH Drawn By: I. DuRIEU	

# *Miniwatt* TECHNICAL DATA

TYPE No.	DESCRIPTION	DATA WHEN USED AS	CATHODE DATA			Plate voltage Volts	Plate current Milli-amps	Grid bias (approx.) Volts	Mutual conductance $\mu\text{mhos}$	Amplification factor	Plate resistance Meg-ohms	Load resistance Ohms	Power output Watts	Grid-plate capacitance $\mu\mu\text{F}$	Base Fig.	PIN CONNECTIONS					TYPE No.
			T Y P E	Volt- age Volts	Cur- rent Amps											1	2	3	4	5	
<b>A615</b>	<b>AMPLIFIER TRIODE</b>	Amplifier	F	6.0	0.08	150	4.0	-4.5	2400	15	6250 Ohms	—	—	—	10	A	F	G <sub>1</sub>	F	—	<b>A615</b>
			8	F+	A	G <sub>1</sub>	F-	—													
<b>A630</b>	<b>AMPLIFIER TRIODE</b>	Amplifier	F	6.0	0.06	150	0.7	-1.5	1500	30	0.02	—	—	—	10	A	F	G <sub>1</sub>	F	—	<b>A630</b>
			8	F+	A	G <sub>1</sub>	F-	—													

## BASE FIGURES



# 1920s Condensor Microphone

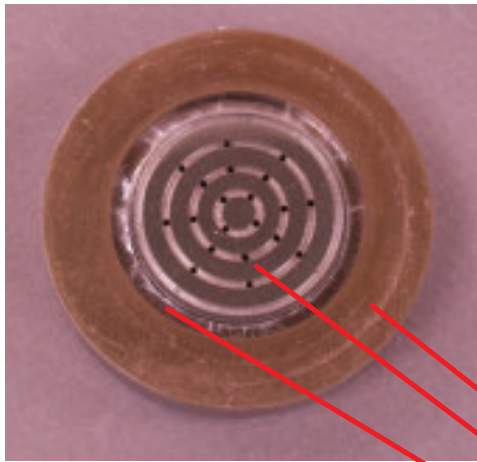


The capsule's diaphragm is grounded.  
A 32mm diameter back plate is supported on a mica insulator.

The capsule was shorted out and had to be disassembled.



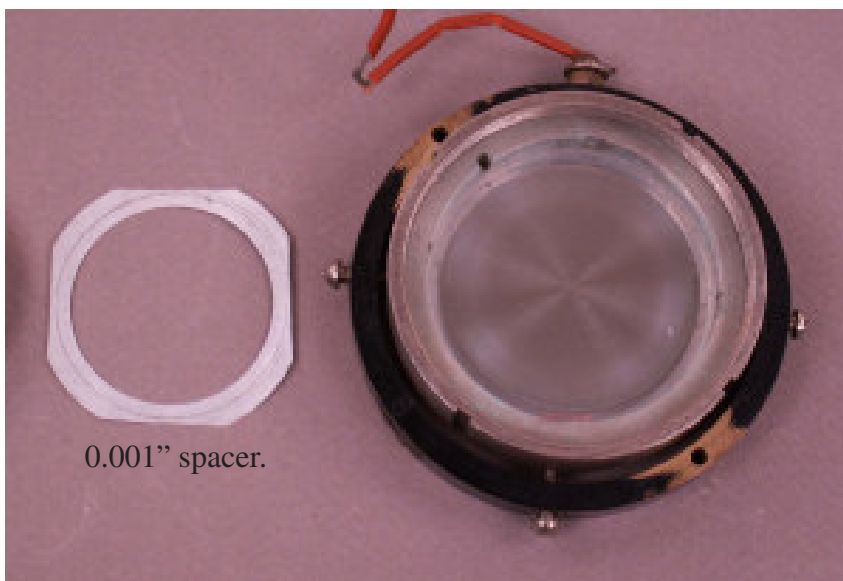
Looking at the rear of the diaphragm after the back plate assembly had been removed.



Back plate assembly.  
Outer brass ring is grounded.  
32mm back plate...  
is insulated from the outer ring with mica.



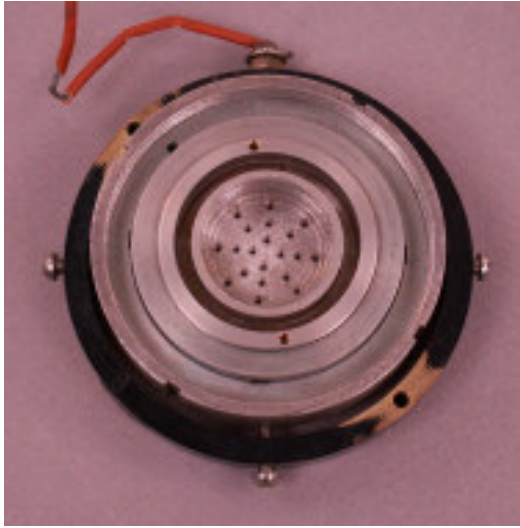
Rear view of above assembly.



0.001" spacer.

Back plate assembly is spaced away from the diaphragm by a 0.001" thick spacer.

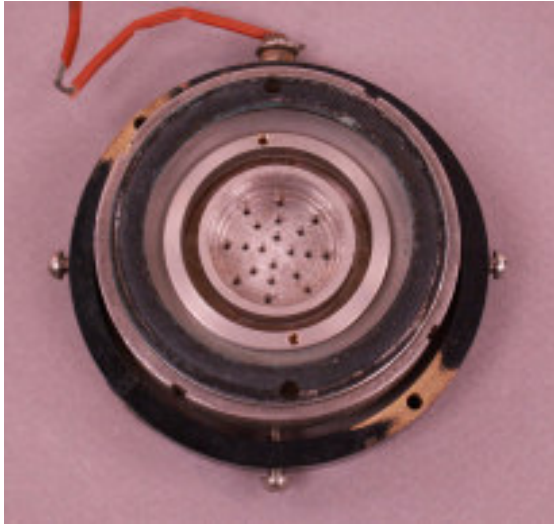
Once clamped together, the diaphragm would short out to the back plate. The mica supporting the back plate was slightly distorted. Rather than risk damaging the mica insulation, it was decided to leave it as is. An additional spacer was fitted. This reduced the capacitance from 120pF to 84pF. An unfortunate byproduct of getting it to work at all.



Back plate assembly drops into main body.



Back plate assembly clamping ring is threaded on its outer edge.

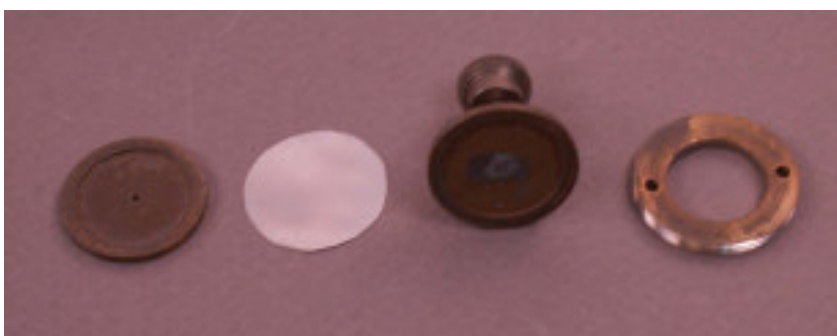


Back plate assembly clamped into place.

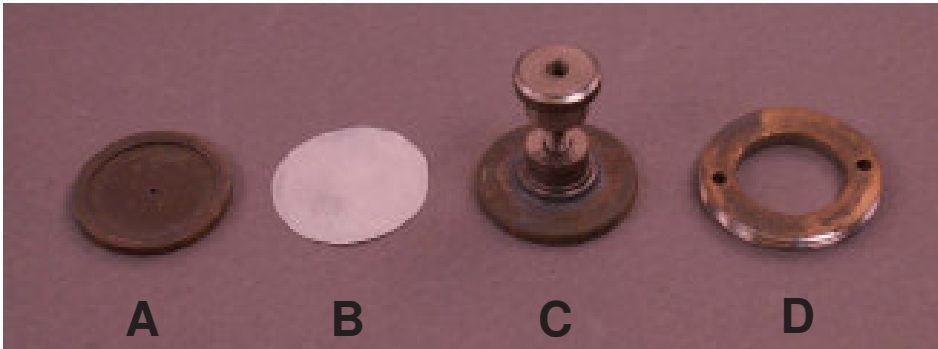
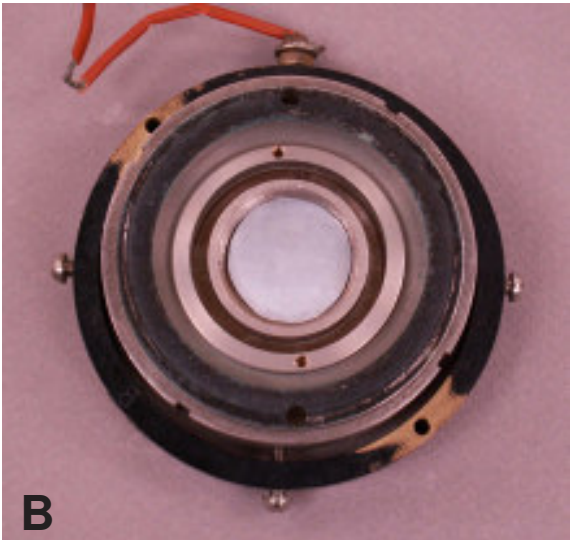
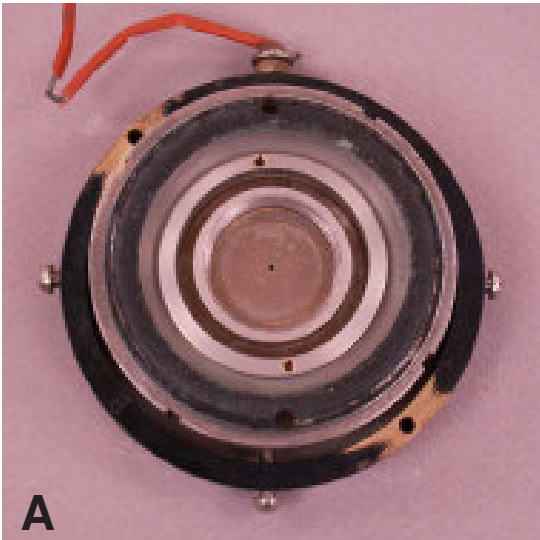


Nearest Diaphragm

Components on rear of the back plate.  
A 0.001" thick disk is sandwiched into a small cavity between two brass disks, one of which has the terminal attached.



Assembly of components into cavity on rear of the back plate



Item D is threaded on its outer edge.

