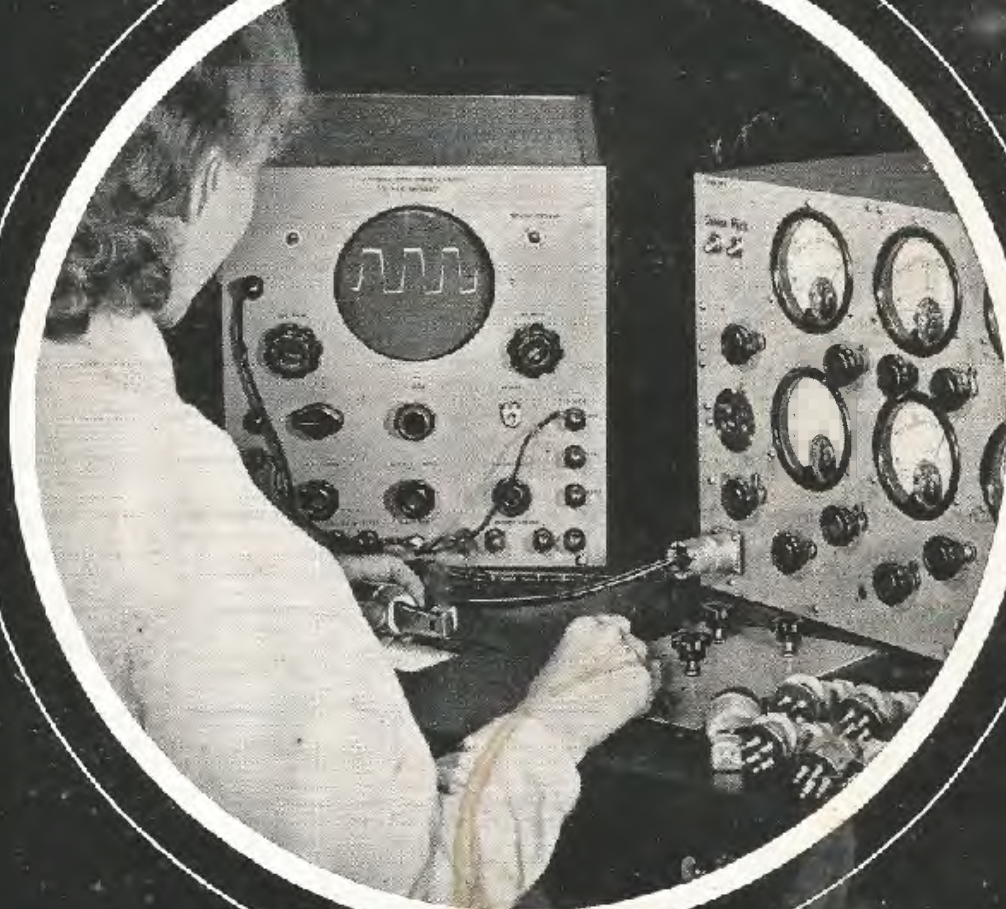


# Wireless World

RADIO AND ELECTRONICS



JULY 1949

2/-

Vol. LV. No. 7

IN THIS  
ISSUE :

TUNABLE TELEVISION RECEIVERS



The **NAME** helps you sell

The **B I C C**

*All Wave*

**ANTI-INTERFERENCE**

**AERIAL**



BICC are world famous for their electrical and radio products. The Anti-Interference Aerial maintains this reputation.

**What it does**

It has been specially designed to alleviate interference caused by radiation from electrically-operated transport, vehicle ignition systems, electrical appliances using commutator motors, lighting systems, etc. A high signal level is obtained and this ensures better listening on all broadcast wave-lengths, giving maximum choice of programmes against a quiet background.

**What it is**

A 60-ft. polythene-protected dipole complete with insulators and matching transformer, 80-ft. coaxial screened downlead with polythene plug moulded to each end, and a receiver transformer. All the necessary components for the Aerial are included in the complete kit.



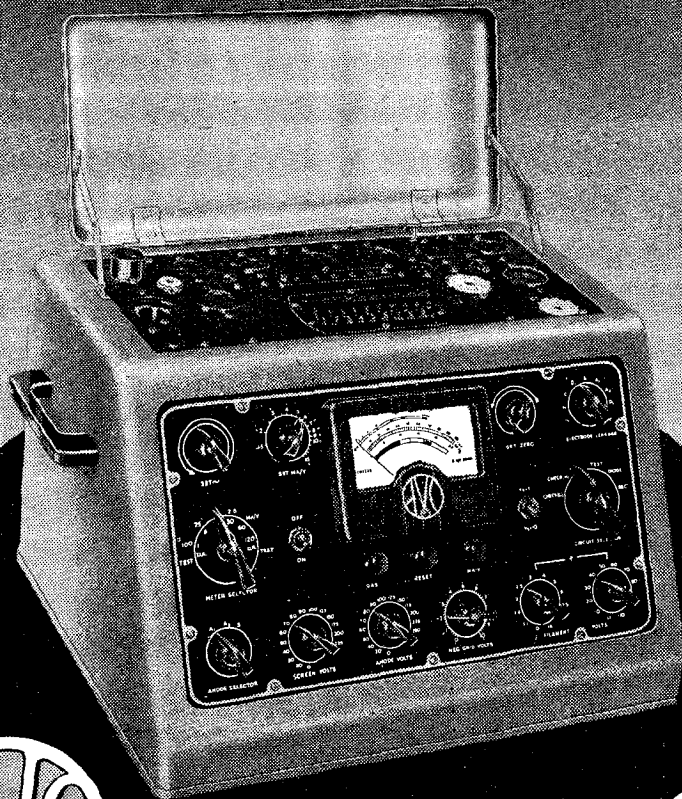
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Obtainable only from recognised dealers.

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*Fine Limits of Accuracy*



## VALVE CHARACTERISTIC METER

A comprehensive instrument built into one compact and convenient case, which will test any standard receiving or small power transmitting valve on any of its normal characteristics under conditions corresponding to any desired set of D.C. electrode voltages. A patented method enables A.C. voltages of suitable magnitude to be used throughout the Tester, thus eliminating the costly regulation problems associated with D.C. testing methods.

A specially developed polarised relay protects the instrument against misuse or incorrect adjustment. This relay also affords a high measure of protection to the valve under test. Successive settings of the Main Selector Switch enable the following to be determined:—

Complete Valve Characteristics including  $I_a/V_g$ ,  $I_a/V_a$ ,  $I_s/V_g$ ,  $I_s/V_a$ , Amplification Factor, Anode A.C. Resistance, 4 ranges of Mutual Conductance covering mA/V figures up to 25 mA/V at bias values up to -100V., together with "Good/Bad" comparison test on coloured scale against rated figures.

"Gas" test for indicating presence and magnitude of grid current, inter-electrode insulation hot and cold directly indicated in megohms, separate cathode-to-heater insulation with valve hot. Tests Rectifying and Signal Diode Valves under reservoir load conditions, and covers all the heater voltages up to 126 volts.

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WINDER HOUSE, DOUGLAS STREET, LONDON, S.W.1. Phone: VICTORIA 3404-9

*Avo Precision Electrical Testing Instruments*

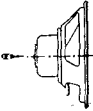
**"It is on detail and care in design  
of small points that the  
modern set stands or falls"**

**"Radio Times," Sept. 24, 1948**

Attention to details of manufacture and assembly; revolutionary design and the provision of highly accurate specially designed jigs, ensure that in each R. & A. Reproducer the cone, voice coil centre and outer pole are inevitably and automatically aligned upon the axis of the speaker. This is why R. & A. Reproducers are free from mechanical defects. Continuous inspection at all stages is a further insurance that no defect can be present in the complete speaker.

"The Story of Co-Axial Construction" explains how our speakers are built. We will gladly send a copy to any manufacturer or overseas buyer who writes for one.

*Voice coil and centering member sub-assembly.*



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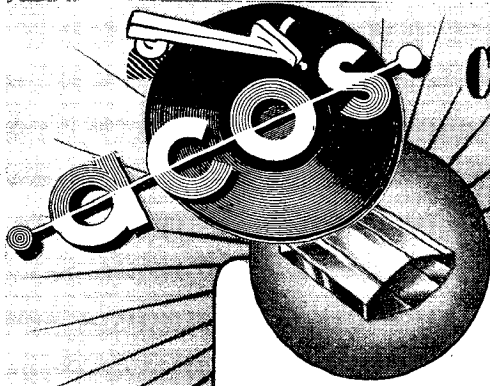
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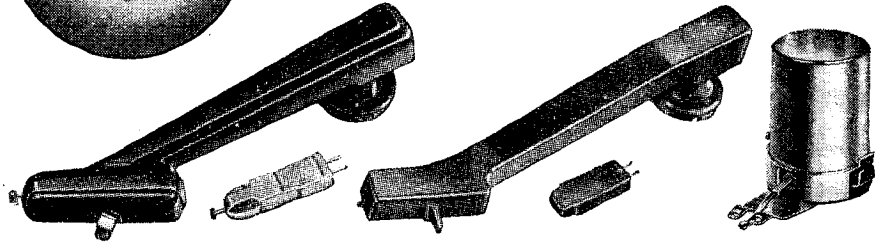
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# CRYSTAL DEVICES by *Cosmocord*

## CRYSTAL PICK-UPS AND CARTRIDGES

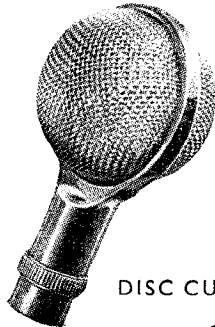


**G.P. 10** with "unbreakable" crystal. Output 1.7 volts at 1,000 c/s; range 70—8,000 c/s.

**G.P. 12** high fidelity model with permanent sapphire stylus. Output 1 volt at 1,000 c/s; range 30—14,000 c/s.

**G.P. 15** Microcell cartridge for microgroove or standard 78 rpm recordings.

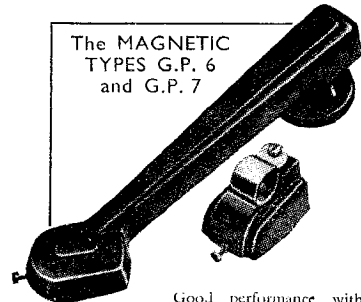
## GENERAL-PURPOSE MICROPHONES



For acoustic measurements, industrial noise measurement, disc recording technique, and P.A. systems.

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High fidelity model with flat response from 30 to 10,000 c/s.

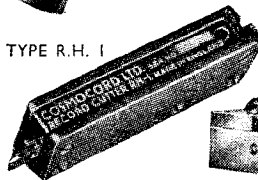
**Type MIC 22**  
General purpose model with substantially flat response from 40 to 8,000 c/s.



The MAGNETIC TYPES G.P. 6 and G.P. 7

Good performance with exceptionally robust construction. Range 100—4,500 c/s.

## DISC CUTTER HEADS



TYPE R.H. 1

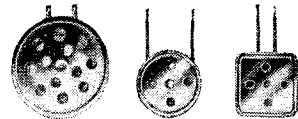
Good performance and modest price make it ideal for amateur recordist.



TYPE R.H. 2

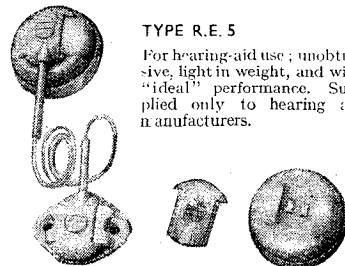
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ACOS technique ensures maximum performance within minimum practical dimensions. Seven types and sizes available. Supplied only to hearing aid manufacturers.

## MINIATURE EAR-PIECES



TYPE R.E. 5

For hearing-aid use; unobtrusive, light in weight, and with "ideal" performance. Supplied only to hearing aid manufacturers.

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For hospital or personal use, giving quality equivalent to normal loudspeaker without disturbing others.

*Sole distributors of the 'Pilotone' in the British Isles, Messrs. Philips Electrical Limited.*



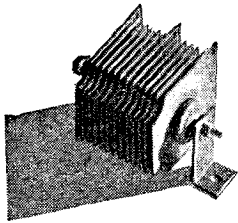
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**STAND No. 7 & DEMONSTRATION ROOM No. D10, where you can hear sound reproduction at its best—the ACOS way!**

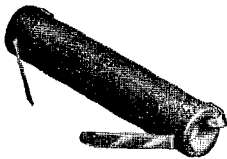
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Typical rectifier for use in A.C. or A.C./D.C. receivers.



Type 36EHT rectifier. Two such units only  $2\frac{1}{2}$ " long by  $\frac{7}{16}$ " dia. will give an output of 5.3kV.



"Westeht" E.H.T. supply unit. 5kV output from a 350-0-350 A.C. input.

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Marconi's first wireless messages did more than enable nation to speak to nation. They drew closer the world's boundaries, quickened the tempo of existence and turned distant acquaintances into next-door neighbours. Broadcasting has helped still further to increase our knowledge of our neighbours; wireless navigational aids and radar have brought greater safety and faster travel between Continents. And so Marconi's will continue to pioneer. Their engineers are busy today on developments which will make the world a closer community tomorrow.

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**DAILY DEMONSTRATIONS**

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Full details forwarded on request.

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**AN ATTEMPT TO REALISE AN IDEAL**

In the High Quality World, let us commend Patience, Perseverance, and Good Temper above all; but also Skill and Intelligence.

The ultimate performance of a speaker unit—especially if it is a very good one—depends as much on the intelligence of the user as on the skill of the designer.

If you are a true quality enthusiast, perseveringly pursuing an Ideal, then we know we can help you.

To readers in the North West, we demonstrate the 148A and discuss its best possible use.

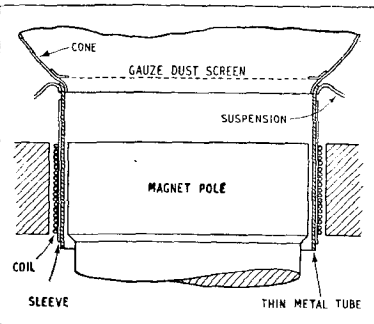
**J. H. BRIERLEY** (Gramophones and Recordings) **LTD.,**  
46 Tithebarn Street, Liverpool, 2

**M<sup>R</sup>.A.C. BARKER'S 148<sup>A</sup>**

In December 1947 we were complimented by the Wireless World on some features of the Barker 148. These were: the excellent balance at comparatively low levels; the homogeneity of high frequency response; low frequency response sensibly uniform down to 40 c/s with no major bass resonance.

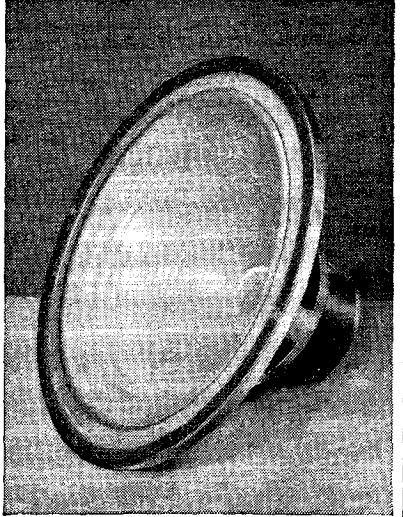
Of the new 148a, with its better magnet and new cone treatment, owners and critics have remarked: the attack and transient response give the impression of contrast expansion; so wide a range of frequencies with apparent evenness of output produces an aural naturalness which has to be heard to be appreciated; it is the best baffle loaded speaker we have ever heard.

We ourselves believe it to be the most NATURAL, satisfyingly truthful and pleasant to live with sound reproducer made anywhere.



The unique constructional features, patented in many countries and exclusive to BARKER, contribute to this performance. First is the DUAL DRIVE shown on the left, and second the cone LOGARITHMIC CORRUGATIONS.

These produce a very smooth highly damped acoustic generator of exceptionally wide frequency range and remarkable clarity. They are described fully in a new leaflet obtainable at the specialists who join us in this announcement, or



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The 148a is being sent to many countries overseas.

EXPORT ENQUIRIES INVITED

**MOST NATURAL SOUND REPRODUCER**

See our Advt. on page 10

*ALWAYS THINK OF*  
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*FOR STANDARD AND SPECIAL HIGH FIDELITY AMPLIFIERS*

**WEBB'S RADIO** invite you to hear the "Barker 148A" in our demonstration room, from radio or the Brierley pick-up. You will doubtless endorse our opinion that this is an outstanding loud-speaker.

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# SMALL OSCILLOSCOPE AND WOBBULATOR

Specially designed for Service Engineers

## Oscilloscope Type 1/B

Time-base: 10—350,000 c/s.

X.Plates: Direct or Amplified.

Y.Plates: Direct or Amplified.

Miniature Valves and  $1\frac{1}{2}$ " diameter  
C.R.T.

Dimensions: Height  $7\frac{3}{4}$ " Width  $5\frac{1}{2}$ "  
Depth 11"

## Wobbulator Type 1/B

Separate Power Supply: 200-250V.  
50 c/s.

Output Voltage: 4V. R.M.S.

Nominal Frequency: 1.2 Mc/s.

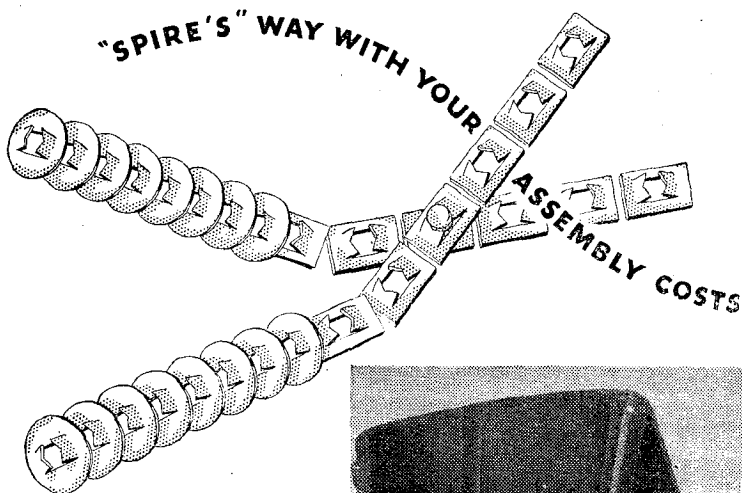
Frequency Deviation: 0 to  $\pm 40$  Kc/s.

Dimensions: Height  $2\frac{3}{4}$ " Width  $5\frac{1}{2}$ "  
Depth 11"

The two units clip together and are priced at

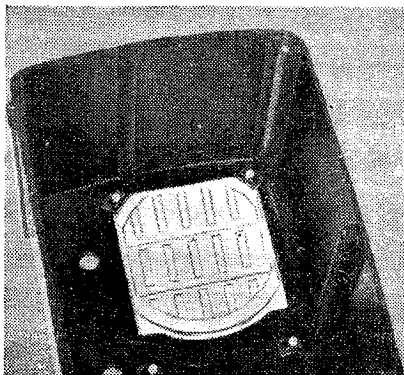
ONLY **£20**

ERSKINE LABORATORIES LTD—SCALBY, SCARBOROUGH, YORKS.



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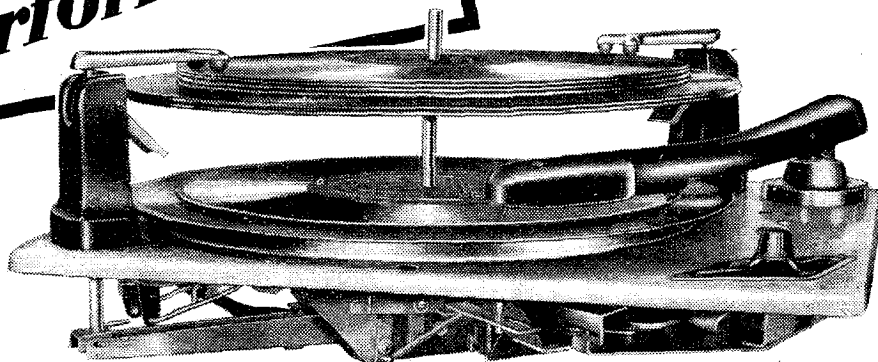


Keeping assembly cost DOWN (and at the same time keeping assemblies safely together) can be a major production headache. Spire Speed Nuts answer that requirement. And many others as well. Acting on its own double-spring locking device, each Spire nut is speedier to put on, holds tighter when it's home. Awkward fixings and blind assemblies are tackled with equal ease by Spire. Sometimes threaded members can be eliminated altogether. Will you write for more information on Spire Speed Nuts—the fastest thing in fastenings?

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For  
**NON STOP**  
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Collaro's new Model RC49 *more* than fills a long felt need . . . it brings you a reasonable priced record changer incorporating all the refinements hitherto associated only with expensive instruments . . . *plus* many new features not to be found in any other record changer.

The RC49 loads, unloads, selects, plays repeats or rejects 10" or 12" records mixed in any order, by the operation of one single control knob.

The powerful induction-type MOTOR is suitable for 100/130 and 200/250 volts A.C., and incorporates the new "Rim Drive." Beautifully simple and completely reliable, the RC49 will give years of trouble-free service.

The

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RC49

## Automatic Record Changer

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