



**Trinity College Dublin**  
Coláiste na Tríonóide, Baile Átha Cliath  
The University of Dublin



# 300

Tercentenary of Physics in Trinity | 1724 – 2024



# Physics Catalogue

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# Physics Catalogue: A - C

## Atmospheric Physics

### Anemometer

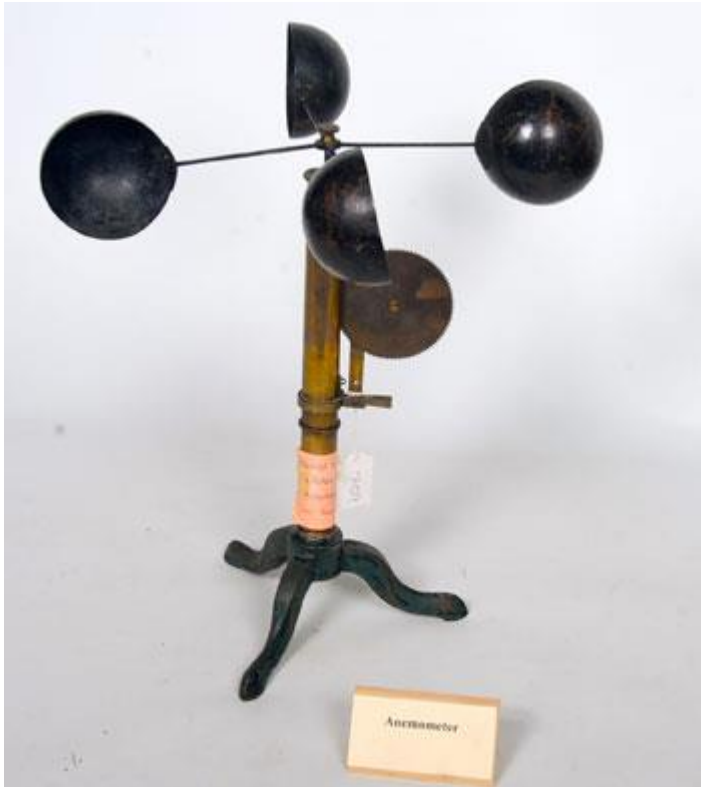


### Anemometer

- **Manufacturer:** Jules Richard, Constucteur
- **Country of Origin:** Paris, France
- **Serial Number:** SN18A
- **Related Link:** [Link](#)

Turbine type (in working order) in case with spanner & phial of oil. Calibration curve in pocket under lid.





## Anemometer

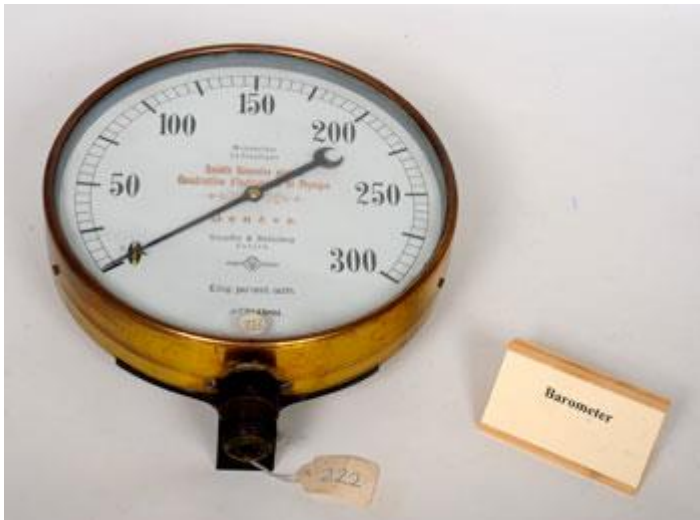
- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** SN18A

Brass stand, black cups. Label reading "Returned by the National Meteorology Laboratory, Glasnevin. Oliver Power."

---



## Barometer



## Pressure Gauge

- **Manufacturer:** Schaeffer & Budenberg
- **Country of Origin:** Zurich, Switzerland
- **Serial Number:** SN4C

Glass fronted brass needle instrument.



## Barometer

- **Manufacturer:** Lufft
- **Country of Origin:** Fellbach, Germany
- **Serial Number:** SN18B

Spherically curved glass surface. Scale reads from 970-1030mb.





### Barometer

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** SN18B

Domestic Aneroid Barometer with glass front cracked.

---

### Baumé Hydrometer



### Baume's Hydrometer for Heavy Liquids

- **Manufacturer:**
- **Country of Origin:** Germany
- **Serial Number:** SN7C

Mercury bulb, wider hollow cylindrical segment and long graded tube with scale from 24-0.



### Baume's Hydrometer



- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: SN7C**

Mercury bulb, pear shaped hollow segment, long graded tube with scale 45-0.

---

### Beckmann Thermometer



### Beckmann Thermometer

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: SN4B**

Beckmann Thermometer in padded grey cardboard case. Donated by Eric Finch.

---

### Daniell Hygrometer



### Daniell Hygrometer



- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** SN7A
- **Related Link:** [Link](#)

Instrument lies in cloth lined hardwood case & is complete except for a missing base plate. (The latter is circular with a female threaded hole in the centre).

---

### Gay Lussac's Alcoholometer



### Gay Lussac's Alcoholometer

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** SN7D

Glass alcoholometer in glass cylinder within black card cylinder. Two scales: one wide, 10°-110°F, one narrow 0°-100°F centesimal scale.

---



## Hydrometers



## Hydrometers

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** SN7B

Wooden box containing 4 hydrometers - 2 are broken.

---

## Hygrometer



## Hygrometer

- **Manufacturer:**
- **Country of Origin:** Germany
- **Serial Number:** SN18B

Circular hygrometer, glass face. Scale from 0-100% 'rel. humidity'.



---

## Portable Mercury Barometer



## Portable Mercury Barometer

- Image...?
- **Manufacturer:** J. Newman
- **Country of Origin:** London, England
- **Serial Number:** SN18C

In leather case with tripod; barometer is broken.



## Portable Mercury Barometer

- Image...?
- **Manufacturer:** J. Newman
- **Country of Origin:** London, England
- **Serial Number:** SN18C

Identical to 137; also broken.





## Radiometer



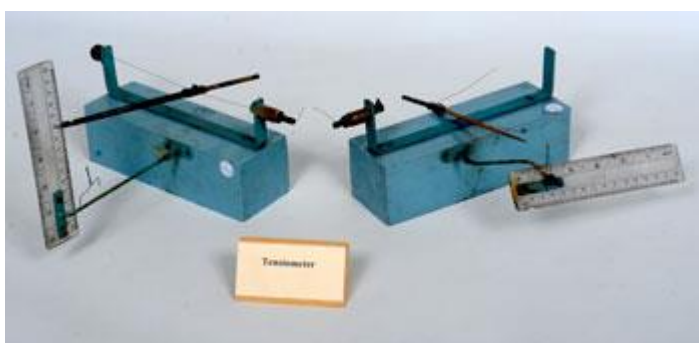
## Radiometer

- **Manufacturer:** Edmund Scientific Co.
- **Country of Origin:** New Jersey, USA
- **Serial Number:** FF1C
- **Related Link:** [Link](#)

Radiometer with cardboard & polystyrene box.

---

## Tensiometer



## Tensiometer

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** SN1A



Homemade tensiometers on painted blue wooden bases. A: Appears intact; B: Suspension support string for needle broken, scale support twisted out of shape.



### Tensiometer

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England
- **Serial Number:** SN1A

Metal stand, supports heavily rusted. Rule scale from 0-7cm.

---



## Thermometer/Barograph



## Thermometer/Barograph

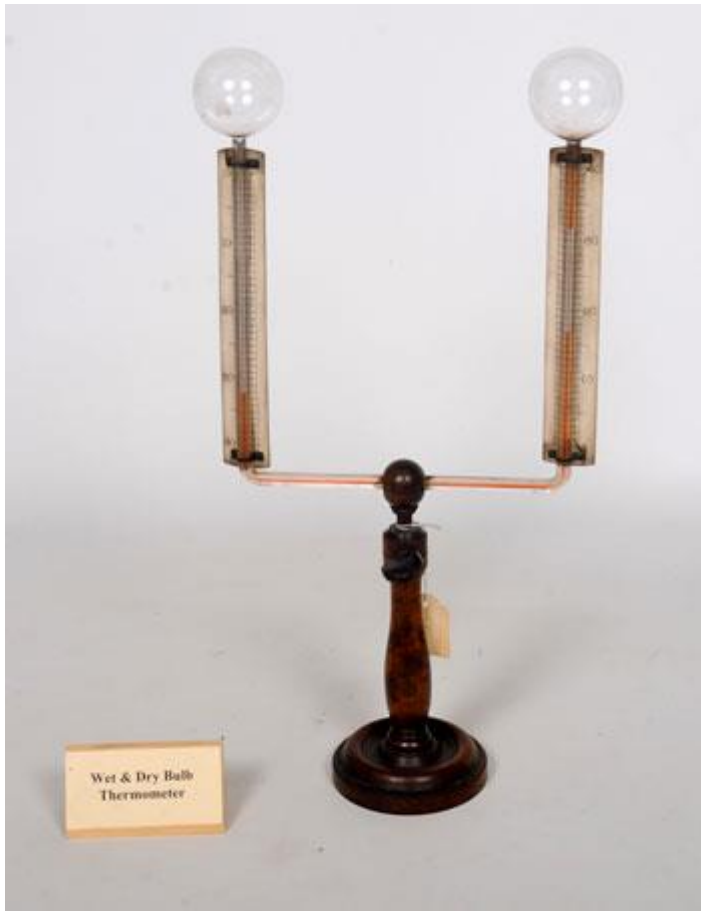
- **Manufacturer:** R. F.
- **Country of Origin:** Paris, France
- **Serial Number:** SN7A

Clockwork barograph & thermometer in glass fronted carrying case - glass missing.

---



## Thermometers



### Leslie's Differential Thermometer

- **Manufacturer:** H. Negretti & Co.
- **Country of Origin:** London, England
- **Serial Number:** SN7D

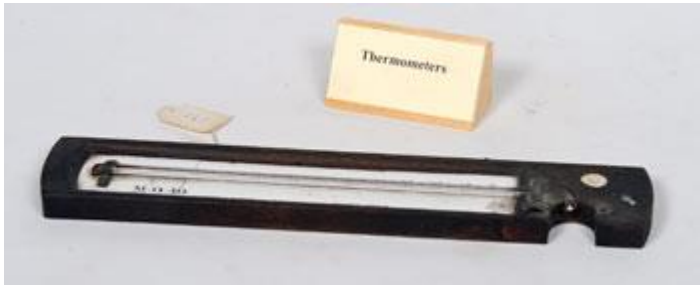
Instrument in perfect working order.



### Thermometer (Maximum)

- **Manufacturer:** Negretti & Zambra
- **Country of Origin:** London, England
- **Serial Number:** SN7D

Complete working order, Patent No. 5783.



### Thermometer

- **Manufacturer:** Negretti & Zambra
- **Country of Origin:** London, England
- **Serial Number:** SN7D

On backing plate but thermometer bulb is broken off.



### Black Bulb Thermometer

- **Manufacturer:** S. Casella
- **Country of Origin:** London, England
- **Serial Number:** SN7C

Perfect condition.



### Black Bulb Thermometer



- **Manufacturer:** S. Casella
- **Country of Origin:** London, England
- **Serial Number:** SN7C

As 143, identical but for slightly different scale.



### Resistance Thermometer (?)

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** SN7D

Two terminal device with ceramic tube.

---



## Wet & Dry Bulb Thermometer



## Wet & Dry Bulb Thermometer

- **Manufacturer:** F. Greiner
- **Country of Origin:** Berlin, Germany
- **Serial Number:** SN7D

Pair thermometers (one broken) on collapsible wooden stand. Wick & reservoir are missing.



## Wet & Dry Bulb Thermometer



- **Manufacturer:** Mason & Son
- **Country of Origin:** Dublin, Ireland
- **Serial Number:** SN7C

Both on metal backing plate, wet bulb perfect, dry bulb broken.



#### **Wet & Dry Bulb Thermometer**

- **Manufacturer:** Negretti & Zambra
- **Country of Origin:** London, England
- **Serial Number:** SN4A

Complete instrument packed in kapok in wooden case.







### Wet & Dry Thermometer

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: SN7D**

Wooden base, two scales on thermometer columns, from 20°-130°F"

---



# Cells

## Bell (Dry) Cell



## Bell (Dry) Cell

- **Manufacturer:** General Electric Co.
- **Country of Origin:** Coventry, England
- **Serial Number:** SN3B

Large dry cell, Catalogue No. L4942.

---



## Clark Standard Cell



## Clark Standard Cell

- **Manufacturer:** Muirhead & Co.
- **Country of Origin:** London, England
- **Serial Number:** SN3C

Complete with integral thermometer.

---

## Leclanché Cell





### Leclanché Cell

- Serial Number: SN3A

Complete but without electrolyte.



## Leclanché Cell

- **Manufacturer:** Litton
- **Country of Origin:** England
- **Serial Number:** SN3A

As 131 but with incorrect carbon electrode.



## Leclanché Cell

- **Serial Number:** SN3A

Complete & identical. (Note added: A has no glass jar).

---



## Miscellaneous Cells



### Glass Jars with Copper Electrodes

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: SN3C**

Square glass jars, A containing 4 plate electrodes, B empty.



### Carbon Cell Plate

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: SN3A**

Cell plate with brass screw terminal - see also 131 & 132.

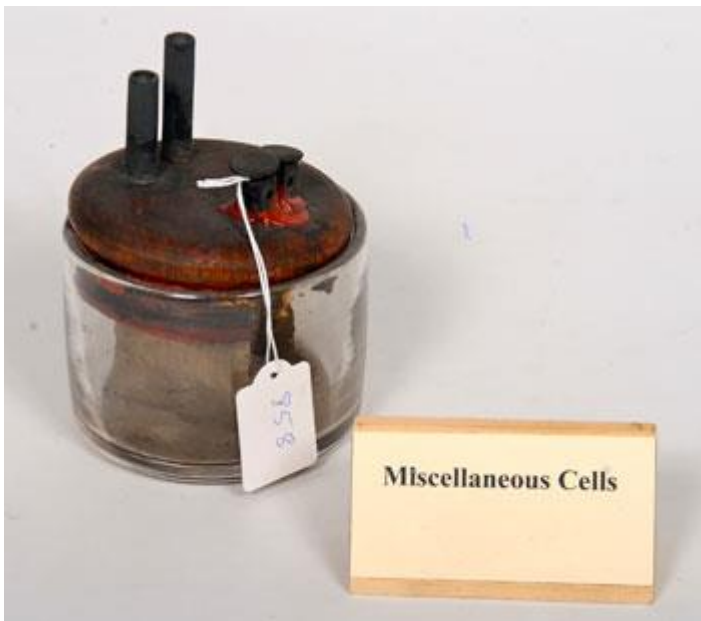




### Cell

- **Manufacturer:** Baird & Tatlock Ltd.
- **Country of Origin:** London, England
- **Serial Number:** SN3C

Small black cell.



### Cell

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** SN3C





### Exide Battery Cell

- **Manufacturer:** Exide
- **Country of Origin:** Georgia, USA
- **Serial Number:** SN3B

---

### Photocell







### Photocell

- **Manufacturer:** H. W. Sullivan
- **Country of Origin:** London, England
- **Serial Number:** SN3B

"Osram" type complete with socket & base.



### Photocell

- **Manufacturer:** Weston Electrical Instrument Corp.
- **Country of Origin:** New Jersey, USA
- **Serial Number:** SN3B

Weston brand, enclosed in original card box.





## Photovoltaic Cell

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: SN3B**

Wooden frame, two terminals.

---



## Weston Standard Cell



### Weston Standard Cell

- **Manufacturer:** H. Tinsley & Co.
- **Country of Origin:** London, England
- **Serial Number:** SN3C

Complete in brass case. Patent No: 35661





### Weston Cell

- **Manufacturer:** H. Tinsley & Co.
- **Country of Origin:** London, England
- **Serial Number:** SN3C

Consists of pair of cells in brass case, with provision for thermometer.

---



# Communications

## Telegraph Dial



### Automatic Telegraph Dial

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland
- **Serial Number:** SN9B

Wooden base, faded metal dial with alphabet in a ring.



### Automatic Telegraph Dial

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** SN9B

Wooden base, upright brass dial with alphabet in a ring. Handle missing.



## Telegraph Repeater



### Repeater (Relay) for Telegraphy

- **Manufacturer:** Elliot Bros.
- **Country of Origin:** London, England
- **Serial Number:** SN9C

Complete instrument.



### Telegraph Repeater (Relay)

- **Manufacturer:** Creed & Co. Ltd.
- **Country of Origin:** East Croydon, England
- **Serial Number:** SN9C
- **Related Link:** [Link](#)

Complete instrument.



## Telephone



### Dial Telephone

- **Manufacturer:** G & C
- **Country of Origin:**
- **Serial Number:** SN9A

Black dial telephone.



### Mobile Phone

- **Manufacturer:** Motorola
- **Country of Origin:** USA
- **Serial Number:** SN9A

Blue Motorola phone with protruding aerial.





### Telephone (Wall mounted)

- **Manufacturer:** Hunnings-Cone
- **Country of Origin:** Yorkshire, England
- **Serial Number:** SN9A
- **Related Link:** [Link](#)

Old wooden telephone, missing receiver.

---





# Current Electricity

## Ammeters



### Ammeter

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: FL2B**

Identical to 102, 0-50 A scale, marked "Stanley Patent" also.





### Ammeter

- **Manufacturer:** Newton & Co.
- **Country of Origin:** London, England
- **Serial Number:** ST2A



### Ammeter

- **Manufacturer:** Sangamo Weston Ltd.
- **Country of Origin:** Middlesex, England
- **Serial Number:** FL2B

Ammeter on angled wooden support. Scale 0-300 mA.





### Ammeter

- **Manufacturer:** Weston
- **Country of Origin:** New Jersey, USA
- **Serial Number:** FL2B

Ammeter on angled wooden support. Scale 0-1 Milliampere D.C.



### Ammeter

- **Manufacturer:** Elliott Bros.
- **Country of Origin:** London, England
- **Serial Number:** FL2B

Ammeter in wooden casing on wooden base.





### Ammeter

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL2B

Pointer ammeter in faded brass casing. Two terminals, scale from 0-3000 'Milli-amps'.



### Ammeter

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** FL2B

Unipivot ammeter in black bakelite casing. Scale 0-120 Microamps.





### Ammeter

- **Manufacturer:** Ferranti
- **Country of Origin:** Hollinwood, England
- **Serial Number:** FL2B

Milliammeter on angled hardwood base. Scale 0-50 milliamperes.



### Ammeter

- **Manufacturer:** Ferranti
- **Country of Origin:** Hollinwood, England
- **Serial Number:** FL2B

Small ammeter on angled hardwood base. Scale 50-200. Printed "Thermocouple, F, Gx2, 1940.





### Ammeter on Handle

- **Manufacturer:** Medical Supply Association
- **Country of Origin:** London, England
- **Serial Number:** FL2B

Handle with ammeter free to rotate about axis. Scale -5-+5 Milli-amps.



### Ammeter

- **Manufacturer:** Crompton Parkinson Limited
- **Country of Origin:** Leeds, England
- **Serial Number:** FL2B

Black box casing, two terminals, handle, large circular white display, scale 0-20 Amperes. Printed Calibrated in horizontal position.





### Ammeter

- **Manufacturer:** Crompton
- **Country of Origin:** London, England
- **Serial Number:** FL2B

Black box casing, six terminals, handle. Large rectangular white display, scale 0-5 Amperes. Printed Calibrated in horizontal position. Sticker: Property of Chem. Eng. Dept.



### Ammeter

- **Manufacturer:** Mason
- **Country of Origin:** Dublin, Ireland
- **Serial Number:** FL2C

Ammeter on angled wooden support. Missing casing over display.





### Ammeter

- **Manufacturer:** PGC0
- **Country of Origin:**
- **Serial Number:** FL2C

Circular/Cylindrical ammeter with two diametrically opposed terminals. Scale 0-80 A.



### Ammeter

- **Manufacturer:** Rustrak
- **Country of Origin:** Ohio, USA
- **Serial Number:** FL2C

Grey box-shaped D.C. Milliammeter. Scale 0-1 Milliampere D.C. Graph paper backdrop display.







### Ammeter

- **Manufacturer:** Weston
- **Country of Origin:** New Jersey, USA
- **Serial Number:** FL2C

Ammeter on angled wooden support. Bakelite display casing. Scale 0-5 Amperes.



### Ammeter

- **Manufacturer:** Sangamo Weston Ltd.
- **Country of Origin:** Middlesex, England
- **Serial Number:** ST2A

Ammeter in a case. Display glass cracked.





### Ammeter

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL2B

D.C. Milliammeter on angled wooden base. Scale 0-1 milliamperes. Moving coil.



### Ammeter

- **Manufacturer:** Anders
- **Country of Origin:** London, England
- **Serial Number:** FL2B

Milliammeter in black angled bakelite case.

---



## Astatic Galvanometer



### Astatic Galvanometer

- **Manufacturer:** Watkins & Hill
- **Country of Origin:** London, England
- **Serial Number:** FL8.5C

Complete instrument with small telescope to view scale through the glass cover.





### Nobilis Astatic Galvanometer

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: FL8.5C**

Complete instrument in glass case.





### Astatic Galvanometer

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: FL8.5C**

Complete instrument on wooden base.

---



## Automatic Battery Switch



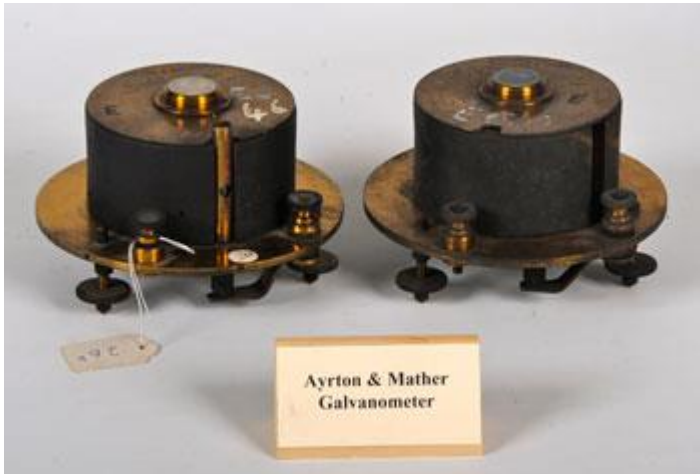
### Neville Patent Automatic Battery Switch

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL1Top

Angled bakelite base with coil and levers. Marked "100V".

---

## Ayrton & Mather Galvanometer



### Ayrton & Mather Galvanometer

- **Manufacturer:** R. W. Paul
- **Country of Origin:** London, England
- **Serial Number:** FL8.5B

A: Complete, but mirror has separated from mounting; B: Identical to A but without vertical mirror support.





### Ayrton & Mather Galvanometer

- **Manufacturer:** Baird & Tatlock Ltd.
- **Country of Origin:** London, England
- **Serial Number:** FL8.5B

Complete instrument.





### Ayrton & Mather Galvanometer

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England
- **Serial Number:** FL8.5A

Complete instrument.







### Ayrton & Mather Galvanometer

- **Manufacturer:** Leeds & Northrup Co.
- **Country of Origin:** Philadelphia, USA
- **Serial Number:** FL8.5B

Complete but torsion fibre is broken.





### Ayrton & Mather Galvanometer

- **Manufacturer:** H. Tinsley & Co.
- **Country of Origin:** London, England
- **Serial Number:** FL8.5A

Complete apart from broken torsion fibre. Has added parallel shunt resistance.





### Ayrton & Mather Galvanometer

- **Manufacturer:** H. Tinsley & Co.
- **Country of Origin:** London, England
- **Serial Number:** FL8.5A

Complete working order apart from torsion fibre.





### Ayrton & Mather Galvanometer

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** FL8.5A

Complete instrument. Fibre broken.

---



## Black Box with mystery circuit concealed in wax



### Black Box with mystery circuit concealed in wax.

- **Manufacturer:** Alan Greig
- **Country of Origin:** Dublin, Ireland
- **Serial Number:** SN17B

Designed and built by Prof Greig (retired 1978). Students were tasked with determining the hidden circuit by experiment.

---



## Box for High-Voltage Apparatus



### Box for High-Voltage Apparatus

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: SN16A**

Wooden box with glass base. High voltage terminals on lid for attaching to contents.

---



## Bridge Circuit



## Bridge Circuit

- **Manufacturer:** Weston
- **Country of Origin:** New Jersey, USA
- **Serial Number:** ST1F

Wooden casing with angled black face. Label reading 'For checking extractor network from outside accel. column. E. Meyer'. Readout scale -100-+100?a.

---



## Broca Galvanometer



## Broca Galvanometer

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** FL8.5D

Complete except for missing small control magnet (fits on end of moveable arm).

---

## Capacitors



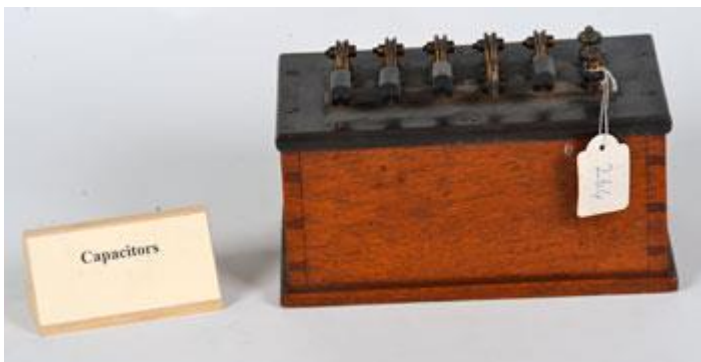




### Precision Capacitor

- **Manufacturer:** H. W. Sullivan
- **Country of Origin:** London, England
- **Serial Number:** FL2A

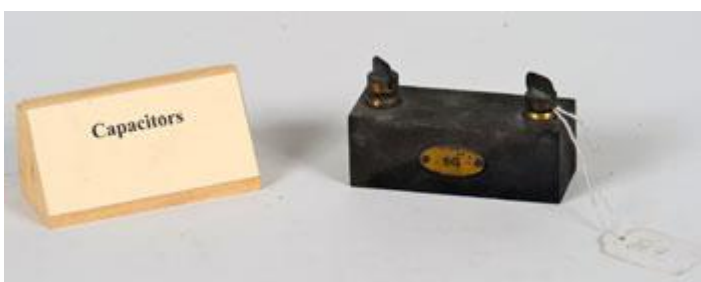
Brass encapsulated; missing shorting plug.



### Capacitance Box

- **Manufacturer:** H. W. Sullivan
- **Country of Origin:** London, England
- **Serial Number:** FL2A

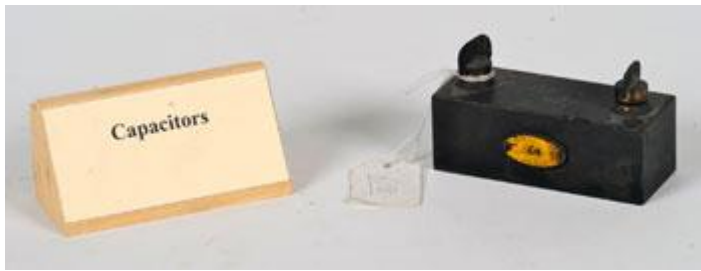
Complete but knob of one switch is broken.



### Capacitor



- **Serial Number:** FL2A



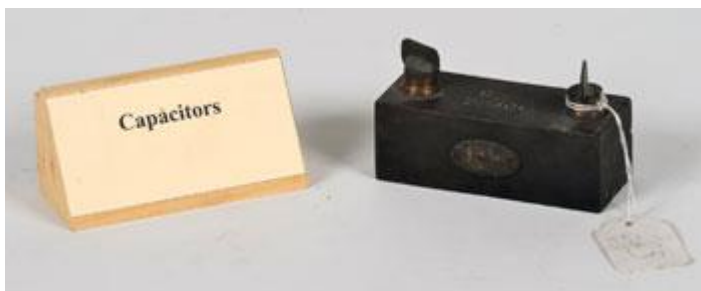
### Capacitor

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL2A



### Capacitor

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL2A



### Capacitor

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL2A





### Variable Capacitor

- **Manufacturer:** Fallon
- **Country of Origin:**
- **Serial Number:** FL2A

Black casing holding fifteen rows of metal semicircular plates. Knob rotating scale (0-180) and a further fourteen interlocking semicircular plates.



### Variable Capacitor

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL2A

13 rows of semicircular metal plates on hardwood base. 13 rotating interlocking plates. Handle missing. Wire attached.





### Capacitor

- **Manufacturer:** (illegible)
- **Country of Origin:**
- **Serial Number:** FL2A

Wooden cube with two terminals. Broken slightly revealing interior. Printed "Type W800, Capacity 0.1 $\mu$ F, Max Working Voltage 3000 D.C., Patented.

---

### D'Arsonval Galvanometer

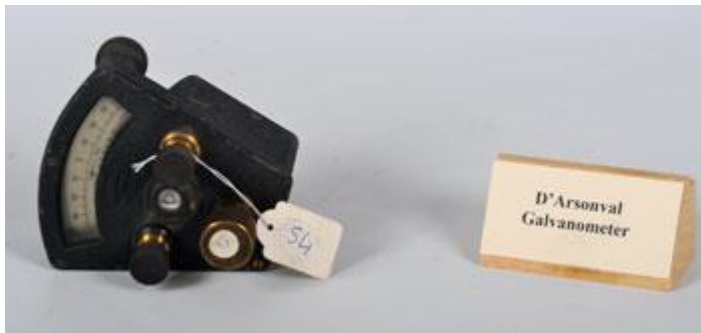


### D'Arsonval Galvanometer



- **Manufacturer:** Nalder Bros. & Co.
- **Country of Origin:** London, England
- **Serial Number:** FL8C

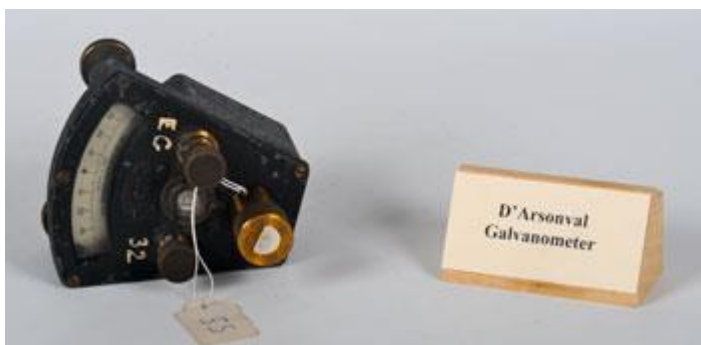
Complete.



### D'Arsonval Galvanometer

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England
- **Serial Number:** FL8C

Complete apart from broken torsion fibre.



### D'Arsonval Galvanometer

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England
- **Serial Number:** FL8C

Complete apart from broken torsion fibre.





### D'Arsonval Galvanometer

- **Manufacturer:** H. Tinsley & Co.
- **Country of Origin:** London, England
- **Serial Number:** FL8A

Mirror type device complete in wooden case. Type No: 4789.



### D'Arsonval Galvanometer



- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** FL8C

Brass, complete.



#### D'Arsonval Galvanometer

- **Manufacturer:** H. Tinsley & Co.
- **Country of Origin:** London, England
- **Serial Number:** FL8C

Integral lamp & see through scale all in hardwood case. Type S.S.I. 45 & labelled "Supplied by Mason, Dublin".

---



## D'Arsonval Pointer Galvanometer



### D'Arsonval Pointer Galvanometers

- **Manufacturer:** Gambrell Bros.
- **Country of Origin:** London, England
- **Serial Number:** FL8B

Glass fronted hardwood cased instrument designed for wall mounting. A: Complete but broken torsion fibre; C: Complete but broken torsion fibre & mechanism.



### D'Arsonval Pointer Galvanometers

- **Manufacturer:** Mason





- **Country of Origin:** Dublin, Ireland
- **Serial Number:** FL8B

Free standing in hardwood case with bubble level included. Complete but torsion fibre is broken.

---

## Differential Galvanometer



## Differential Galvanometer

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England
- **Serial Number:** FL8.5D

Missing mirror, magnet & torsion fibre.

---

## Electrical Switch





### Electrical Switch

- **Manufacturer:** Dixon & Hempenstall (Opticians)
  - **Country of Origin:** Dublin, Ireland
  - **Serial Number:** ST2A
- 

### Galvanometer Shunt Box



### Galvanometer Shunt Box

- **Manufacturer:** R. W. Paul
- **Country of Origin:** London, England
- **Serial Number:** FL8D

Set of resistances in two terminal brass case. Type "A-M No 42".





### Ayrton & Mather Universal Shunt Box

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL8D

Complete in hardwood case.

---



## Galvanometers



### Needle Telegraph (Galvanometer)

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL8A

Wooden box with glass front and metal handle. Deflection scale  $-60^{\circ}$   $-+60^{\circ}$  . Needle pointer attached to coil (inside).





### Galvanometer

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland
- **Serial Number:** FL8A

Wooden disc with semi-circular deflection scale (-90-+90). Needle pointer attached to coil.



### Ammeter

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England
- **Serial Number:** FL8C

Small black ammeter missing a leg.





### Galvanometer

- **Manufacturer:** Baird & Tatlock Ltd.
- **Country of Origin:** London, England
- **Serial Number:** FL8A

Single-pivot galvanometer.



### Galvanometer (Scalamp)

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England
- **Serial Number:** FL8A

Steel cased galvanometer with 3-pin plug. This instrument was bought in October 1961 and cost £28. Please treat it with care. Scale 0-14 and -7-+7.



## Large Thermionic Diode



## Large Thermionic Diode

- **Manufacturer:** Ediswan
- **Country of Origin:** London, England
- **Serial Number:** ST1B

Large (12x6) device mounted on hardwood base. Type ESU 400.

---

## Potentiometer



## Volt Ration Box

- **Manufacturer:** H. Tinsley & Co.
- **Country of Origin:** London, England
- **Serial Number:** FL11.5

Voltage reduction box for use with potentiometer.



## Potentiometer

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** FL11.5

Portable potentiometer used for 1981 Arctic Expedition.

---





## Powermeter



## Powermeter

- **Manufacturer:** Philips
- **Country of Origin:** Eindhoven, Netherlands
- **Serial Number:** ST1E

Broken handle. Scale reads 0-300 and 0-100 with '0dB=1mW 600? 0,775V' written.

---

## Ratemeter



## Rateometer

- **Manufacturer:** Philips
- **Country of Origin:** Eindhoven, Netherlands
- **Serial Number:** ST2F

Black façade, scale 0-100 and 0-30 (units unclear).

---

## Resistance Apparatus



## Precision Resistance

- **Manufacturer:** H. Tinsley & Co.
- **Country of Origin:** London, England
- **Serial Number:** FL2A



Value 1?, known as "Manganin Type".



### Precision Resistance

- **Manufacturer:** Elliott Bros.
- **Country of Origin:** London, England
- **Serial Number:** SN17A

Value 100?, type known as "British Association Pattern".



### Precision Resistance

- **Manufacturer:** Elliot Bros.
- **Country of Origin:** London, England
- **Serial Number:** FL2A

Value 1?, type known as British Association Pattern. Also has wooden case & brass connection clamps.





### Resistance Instrument

- **Manufacturer:** Baird & Tatlock Ltd.
- **Country of Origin:** London, England
- **Serial Number:** FL2A



### Resistor

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL2A

6,000? resistor.





### Extra Resistance for AC Test Instrument

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL6DR

Wooden base with resistance plugs covered by black metal grating.

---

### Resistance Box, 'Post-Office' Type



### Resistance Box (Post-Office Type)

- **Manufacturer:** A. Gallenkamp & Co. Ltd.
- **Country of Origin:** London, England



- **Serial Number:** FL2D

Wooden box, black-handled plugs.



**Resistance Box (Post-Office Type)**

- **Manufacturer:** Gambrell Bros & Co. Ltd.; Mason, Dublin
- **Country of Origin:** London, England; Dublin, Ireland
- **Serial Number:** FL2D

Wooden box, brass-handled plugs, contacts slightly off-level.



**Resistance Box (Post-Office Type)**

- **Manufacturer:** Leeds & Northrup Co.
- **Country of Origin:** Minworth England



- **Serial Number:** FL2D

Wooden box, black-handled plugs. Scars on inside of lid due to over-extended screw, brass handle on lid.



#### Resistance Box (Post-Office Type)

- **Manufacturer:** Gambrell
- **Country of Origin:** Croydon, England
- **Serial Number:** FL2C

23 resistance plugs. Label inside lid reads "This instrument was bought in Feb 1962 and cost £20. Please treat it with care."

---



## Resistance Unit



### Large Resistance Unit

- **Manufacturer:** Cambridge Scientific Instrument Co.
  - **Country of Origin:** London, England
  - **Serial Number:** FL7EB
- 

## Rheostats



### Rheostat

- **Manufacturer:** Zenith
- **Country of Origin:** Suffolk, England
- **Serial Number:** FL2A
- **Related Link:** [Link](#)

Rheostat used as teaching apparatus. Manual slider marked 'Amps 1-2' and 'Ohms 220'.







### Rheostat

- **Manufacturer:** Zenith
- **Country of Origin:** Suffolk, England
- **Serial Number:** FL2A
- **Related Link:** [Link](#)

Rheostat used as teaching apparatus. Manual slider marked 'Amps 2' and 'Ohms 28'.  
Broken at one end.



### Rheostat

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL2A

Rheostat used as teaching apparatus. Screw-operated slider. Hexagonal winding.





### Rheostat

- **Manufacturer:** Philip Harris Ltd.
- **Country of Origin:** Birmingham, England
- **Serial Number:** FL2A

Rheostat with slider handle and curved steel frame.

---

### Resistance Box



### Resistance Box

- **Manufacturer:** Baird & Tatlock Ltd.
- **Country of Origin:** London, England
- **Serial Number:** FL2D

Complete working order.





### Resistance Boxes

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England
- **Serial Number:** FL2C

Identical pair plug type boxes: A complete. Labelled Supplied by T. H. Mason, 5 & 6 Dame Street, Dublin.



### Resistance Box

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL2D

In hardwood case, missing all four plugs.





### Resistance Box

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL2D

Hardwood board with coils beneath. Fine resistance wire on ebonite rod is broken.



### Resistance Board

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** SN17A

Homemade resistance board.



## Resistance Box

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: SN17A**

High voltage, sealed resistance box.



## High Voltage Resistance Coil

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: SN17A**

Wooden base, vertical support for coil. Sheathed in glass.





### Resistance Box

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: SN17C**

Poor condition, glass top cracked. Label illegible.

---

### Reversing Switch Circuit

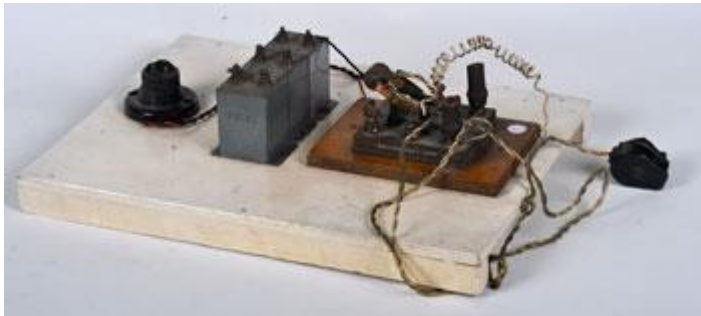


### Reversing Switch Circuit

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number: Attic**



D.C. Low voltage reversing switch circuit. Switch connected, via series of capacitors, to small light bulb. All on painted white wooden base.



### Reversing Switch Circuit

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** Attic

A.C. High voltage reversing switch circuit. Switch connected via series of capacitors to terminal which held large light bulb. All on painted white wooden base.

---

### Standard Wavemeter



## Standard Wavemeter

- **Manufacturer:** H. W. Sullivan
- **Country of Origin:** London, England
- **Serial Number:** ST2B

Wooden box containing dials & terminals. '150 to 20,000 metres'.

---

## Tangent Galvanometers



### Tangent Galvanometer

- **Manufacturer:** F. E. Becker & Co.
- **Country of Origin:** London, England
- **Serial Number:** SN16B/C

Wooden circular base with vertical brass coil holder with insulated coil. Each contain non-original compass by W. G. Pye & Co.





## Tangent Galvanometer

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England
- **Serial Number:** SN16C

Bakelite tripod base holding vertical coil holder with insulated coil. Also holds compass 664.



## Tangent Galvanometer

- **Manufacturer:** Nalder Bros. & Co.
- **Country of Origin:** London, England
- **Serial Number:** ST2B

Wooden base with vertical brass loop with coil inside and out. Holds compass by W. G. Pye & Co. Ltd.

---

## Thomson's Mirror Galvanometer





### Thomson's Mirror Galvanometer

- **Manufacturer:** Elliot Bros.
- **Country of Origin:** London, England
- **Serial Number:** FL8.5D

Complete except for curved magnet & supporting rod for same.

---

### Voltmeters



## Millivoltmeter

- **Manufacturer:** General Electric Co.
- **Country of Origin:** Coventry, England
- **Serial Number:** ST1B

Large demonstration instrument in hardwood case.



## Voltmeter

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL2B

Large (~8" diameter) copper cased instrument needle display. 0-80 V range. Market Stanley Patent.



## Voltmeter

- **Manufacturer:** Weston
- **Country of Origin:** New Jersey, USA
- **Serial Number:** FL2B

Voltmeter on angled wooden support. Scale 0-15V D.C.





### Voltmeter

- **Manufacturer:** Crompton Parkinson Limited
- **Country of Origin:** Leeds, England
- **Serial Number:** FL2B
- **Related Link:** [Link](#)

Voltmeter on angled wooden support. Scale 0-20 Volts.



### Voltmeter

- **Manufacturer:** Mason; White Elec. Inst. Co. Ltd.
- **Country of Origin:** Dublin, Ireland; London, England
- **Serial Number:** FL2B

Voltmeter on angled wooden support. Scale 0-15 Volts.





### Voltmeter

- **Manufacturer:**
- **Country of Origin:**
- **Serial Number:** FL2B

Voltmeter on angled wooden support. Two scales: 0-75, 0-7.5 V.



### Voltmeter

- **Manufacturer:** Everett Edgcumbe
- **Country of Origin:** London, England
- **Serial Number:** FL2B
- **Related Link:** [Link](#)

2 1/2" diameter, letter 'E' printed on reverse. Scale 0-3500 Volts.





### Voltmeter

- **Manufacturer:** Leeds & Northrup Co.
- **Country of Origin:** Minworth England
- **Serial Number:** FL2B
- **Related Link:** <http://www.leedsandnorthrup.co.uk/>

Bulky black plastic casing. Scale -10+10 (units unclear).



### Voltmeter

- **Manufacturer:** Sangamo Weston Ltd.
- **Country of Origin:** Middlesex, England
- **Serial Number:** FL2B
- **Related Link:** [Link](#)

Voltmeter on angled hardwood base. Model 551.





## Voltmeter

- **Manufacturer:** Weir Electronics
- **Country of Origin:** Bognor Regis, England
- **Serial Number:** FL2C

Plug-in voltmeter, with steel handle. DV Meter 500 Mk III.

---



## Wheatstone Bridge



### Wheatstone Bridge

- **Manufacturer:** Nalder Bros. & Co.
- **Country of Origin:** London, England
- **Serial Number:** SN9B

Complete in hardwood case. Formerly used for insulation testing.

---





# Physics Catalogue: E - H

## Electromagnetism

### Ayrton & Perry Self Inductometer



### Ayrton & Perry Self Inductometer

In working order apart from broken coil connection. Metal scale supports are missing.

### Bar Magnet Demonstration





### Bar Magnet Demonstration Apparatus

- **Manufacturer:** Elliot Bros.
- **Country of Origin:** London, England

Missing bar magnet. Wooden base and disc with deflection scale separated by two wooden pillars.

---

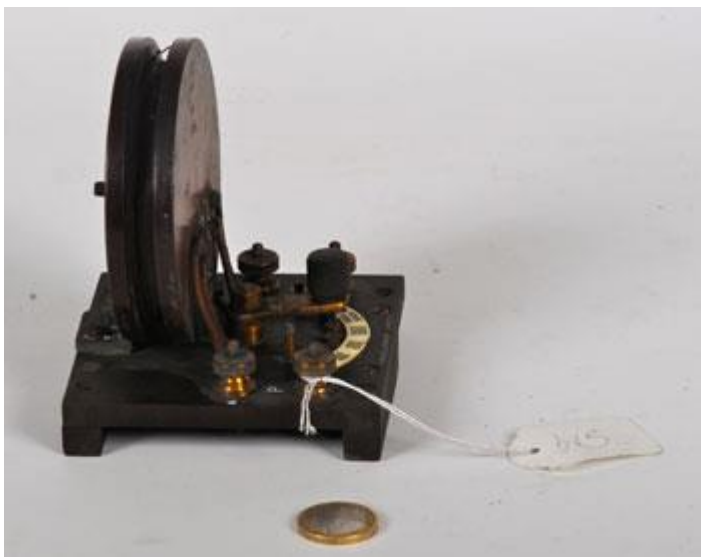


## Coil



## Coil on Connector

Coil (air cored) of many turns of insulated wire set on connector. 75mm is outer diameter of coil.



## Coil

- **Manufacturer:** H. W. Sullivan
- **Country of Origin:** London, England

Coil on wooden frame supported vertically on wooden base. 4 terminals and switch for scale.





**Glass Tube with Winding Coil**

Broken wooden base, winding coil covered in tape.





## Coil

Partially exposed circular coil in wooden casing. Two terminals.

---

## Coil to Demonstrate Electromagnetic Induction



## Coil to Demonstrate Electromagnetic Induction

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Connections to commutator are broken & coil now ends in two terminals - otherwise in perfect condition.

---



## Compass



## Compass

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England

Black bakelite casing, steel-grey scale. Mirrored backing, fully operational.



## Compass

Deflection compass in bakelite casing. Scale 0-90 in four quadrants.





### Compass

- **Manufacturer:** Philip Harris Ltd.
- **Country of Origin:** Birmingham, England

Deflection compass on wooden base. Scale 0-90 in four quadrants.

---

### Devices for showing effect of electric current on magnetic field



Device to investigate relationship between temperature and magnetism.

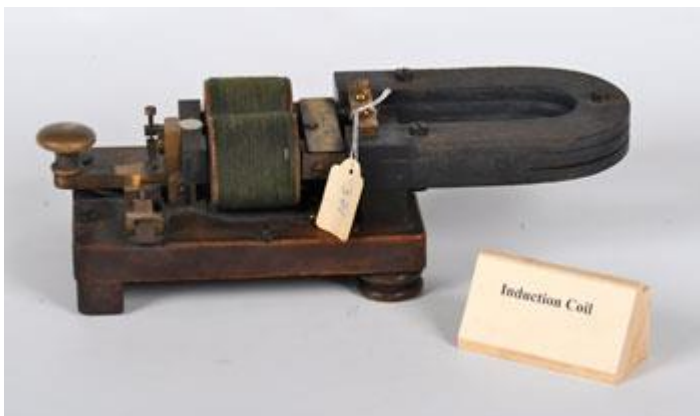
Horseshoe magnet on wooden base. Slider bar used to short magnet. Heater with terminals attached to wooden base.





### Circular Conductor on Hardwood Table

Single turn heavy gauge copper wire supported perpendicular to small table which has measuring scale affixed to it.



Device used to demonstrate Electromagnetic Induction.

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Coils wound around poles of horseshoe magnet are connected across contact points & produce spark when keeper is removed by lever. On wooden base.







### Coil wound through glass plate

- **Manufacturer:** Gambrell Bros.
- **Country of Origin:** London, England

Open wound coil wound through holes in glass plate cracked, the latter supported by a hardwood ring. Coil core is provided by bundles of iron wires.



### Pair of Coils wound through glass plate

- **Manufacturer:** Gambrell Bros.
- **Country of Origin:** London, England

Pair of closely wound coils (supported as in 387), coaxial & separated by 1". Iron wire bundles for core are present also.





### Device to show effect of Current on Magnet

- **Manufacturer:** Reynolds & Branson Ltd
- **Country of Origin:** Leeds, England

Glass cylinder on wooden base supports torsion head from which swings needle. Hole is bored below needle for conductor & provision made for placing a correcting magnet on the base.



### Device for teaching principles of EM Induction

- **Manufacturer:** Jas. Sinclair
- **Country of Origin:** Edinburgh, Scotland

Consists of primary coil on collapsible table. Former driven by DC via interrupting electromagnet. Air cored secondary slides along table & develops voltage across terminals.





**Device for teaching principles of EM Induction**

- **Manufacturer:** Kershaw
- **Country of Origin:** Leeds, England

As 407 but contact arm with points is broken & missing.



**Device used to demonstrate Electromagnetic Induction.**

(Similar to 371?) Coil within red horseshoe magnet poles. Two terminals. Incomplete. Wooden Base.





### Magnet revolving on own axis

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Green tripod base on flat wooden base. Long bar magnet suspended from the end and passes through a trough of conducting mercury and terminates in another trough of conducting mercury.

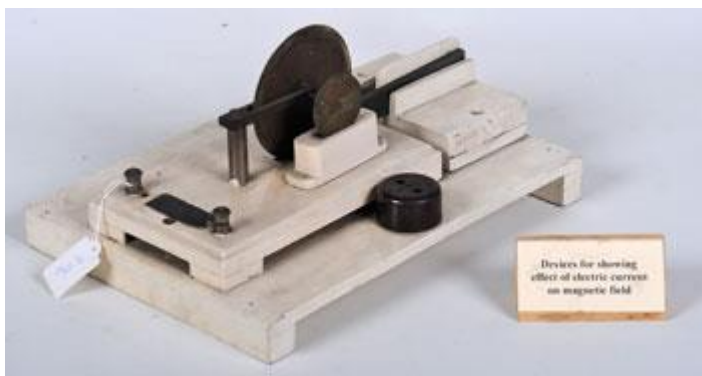




Device showing effect of electric current on magnetic field

- **Manufacturer:** Yeates & Son (?)
- **Country of Origin:** Dublin, Ireland

Green tripod base, vertical hook suspended over trough. Magnet would be suspended from hook into trough of mercury, which has a current passed through it.



Device to show effect of current on magnetic field

- **Manufacturer:** Griffin & Tatlock Ltd.
- **Country of Origin:** London, England



White-painted wooden base with sliding bar magnets and adjoined copper wheels rotating in troughs of mercury. (Mercury absent).

---

## Dip Circle



## Dip Circle

- **Manufacturer:** Gambey
- **Country of Origin:** Paris, France

Complete in working order in glass case with magnifiers to view scale.



## Spare Dip Circle Needle

Of steel in purpose built wooden case.





### Dip Circle

- **Manufacturer:** W. B. Nicholson
- **Country of Origin:** Glasgow, Scotland

Simple circle on brass base, missing magnetic needle.



### Boxes for Dip Circle Needles

Black metal cases. A: holds & contains one needle; B: larger than A, holds & contains one needle; C: larger than B, holds two & contains one needle.





### Kew Dip Circle

- **Manufacturer:** Robinson & Barrow
- **Country of Origin:** London, England

Complete working order.



### Kew Dip Circle

- **Manufacturer:** Henry Barrow & Co.
- **Country of Origin:** London, England





Complete apart from magnetised needle.

---

## Electromagnet Linkage



## Electromagnet Linkage

- Related Link: [Link](#)

Small electromagnet drives start of some mechanism - purpose unknown.

---



## Faraday Generation Demonstration



## Faraday Generation Demonstration

- **Manufacturer:** Griffin
- **Country of Origin:** London, England

Wooden base with conducting copper rod rotated by handle around magnetic rod.

---

## Generator

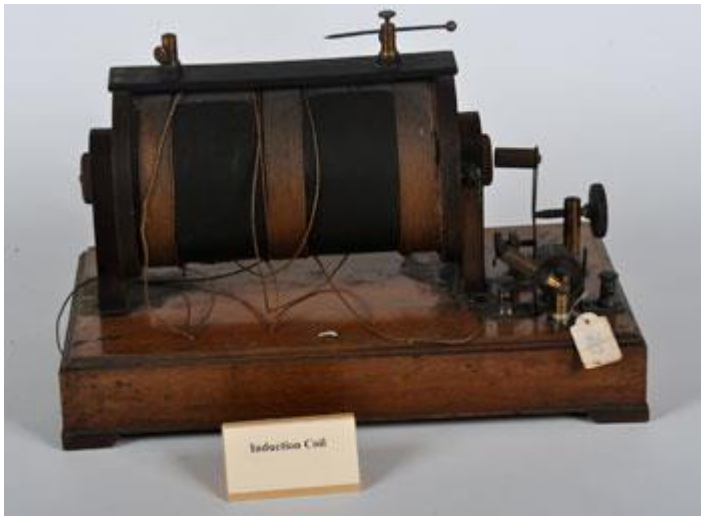


## Generator

---



## Induction Coil



## Induction Coil

Complete, appears in working order.



## Electrostatic Induction Coil

- **Manufacturer:** APPS
- **Country of Origin:** London, England
- **Serial Number:** 1172

Wooden base holding heavy coil. Two vertical pivot supports for electrostatic rods. All housed in wooden box.





### Induction Coil

- **Serial Number:** KA8960

Induction Coil in red wooden support.



### Induction Coil

Heavy coil bound by copper band. Used for wrapping around iron core.





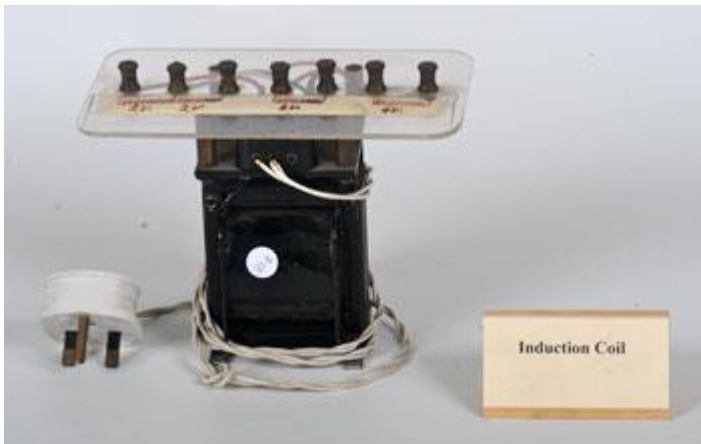
### Induction Coils on Horseshoe Magnet

A: Red coil; B,C: Brown coil.



### Induction Coil

Wooden base, old 3-pin plug attached.



### Induction Coil

Insulated coil in black mount. Perspex plate on top with seven terminals. Modern 3-pin plug attached.

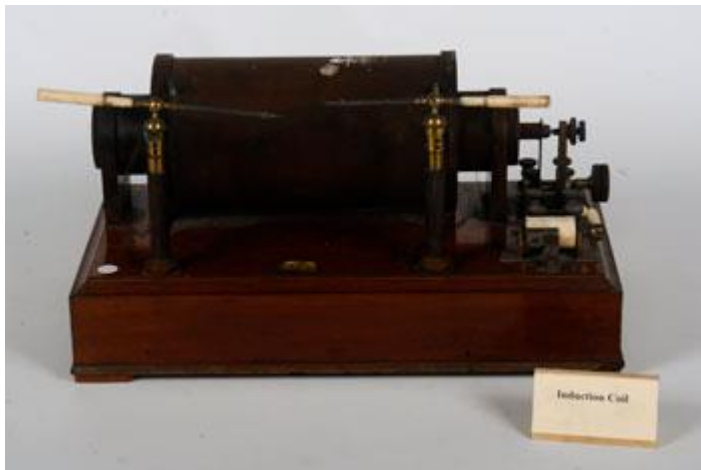




Image to follow

### Induction Coil

Heavily rusted metal base with induction coil.



### Electrostatic Induction Coil

- **Manufacturer:** APPS
- **Serial Number:** 1253

Like 811, without housing.

---

### Inductometer Bridge





### Campbell Inductometer Bridge

Complete in hardwood case.

---

### Loop Aerial



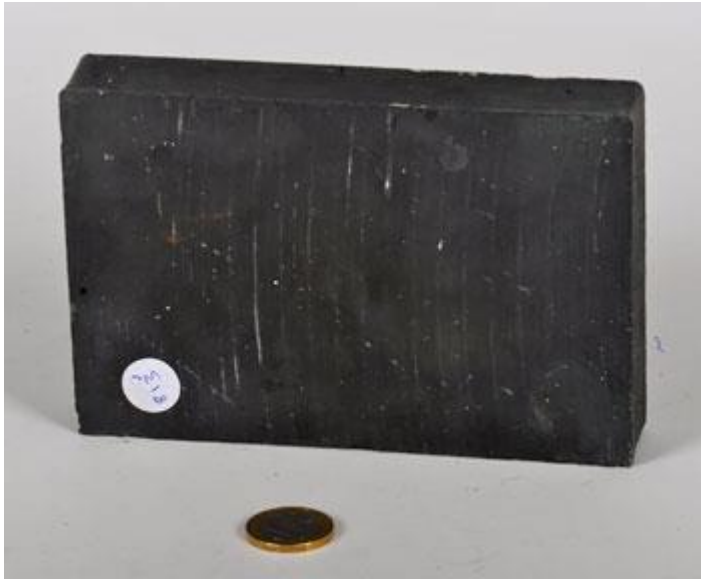
### Loop Aerial

Single loop brass wire held in vertical plane by hardwood stand.

---

### Magnet





**Block Magnet**



**Stacked Horseshoe Magnets**

Coil binding legs.

---

**Magnetic Declination Instrument (Kew Pattern)**







### Magnetic Declination Instrument (Kew Pattern)

- **Manufacturer:** Thomas Jones
- **Country of Origin:** London, England

Circular metal base with extension supporting telescope arm. On top of base is a black box with a window facing the telescope and removable wooden walls. A brass capped glass tube extends vertically from box and contains suspension thread. Mirror image scale from 2-38 on eyepiece.

---

### Mariner's Compass



### Mariner's Compass



- **Manufacturer:** J. Buckley
- **Country of Origin:** Dublin, Ireland

Case of brass. Gimballed in oak case, top of which is missing.

---

## Solenoid

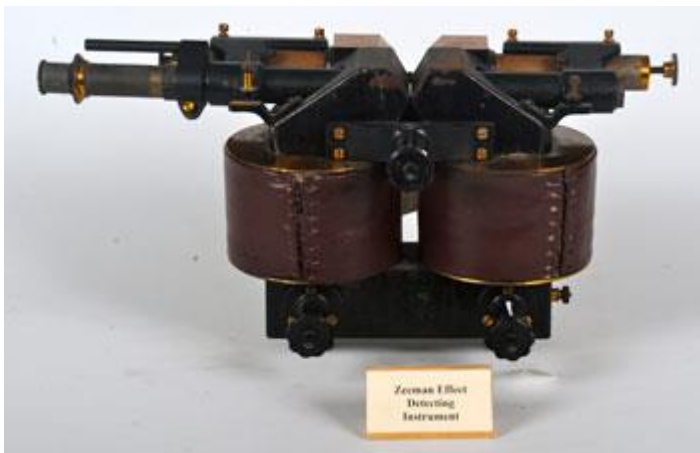


## Solenoid

Wooden frame with insulated solenoid. Exact measurement details written on base.

---

## Zeeman Effect Detecting Instrument



## Zeeman Effect Detecting Instrument

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** C67935



Two insulated coils on heavy iron base. Eyepiece, telescope and collimator for looking at sample placed between coils.

---

## Electron Physics

### Cathode Ray Oscillograph



### Cathode Ray Oscillograph

- **Manufacturer:** Allen B. Dumont Laboratories Inc.
- **Country of Origin:** New York, USA
- **Serial Number:** 129D

Labelled twice: once "Excess. Do not remove this tag" and "Item may be released to salvage"

---



## Cathode Ray Tube



## Cathode Ray Tube

- **Manufacturer:** Allen B. Dumont Laboratories Inc.
- **Country of Origin:** New York, USA
- **Related Link:** [Link](#)

Complete oscilloscope tube with focussing coils etc. Type marked as "54-XH".



## Cathode Ray Tube

Short CRT with paper wraparound reading '7.C.3141 A.C.R.10'.

---



## Coincidence Counter



## Coincidence Counter

Coincidence counter once used in JS Cosmic Ray Experiment. Possibly designed by Cyril Burke or Tom Delaney, both formerly of TCD Physics Department.

---

## Geiger Counter



## Geiger Counter

- **Manufacturer:** Philips
- **Country of Origin:** Eindhoven, Netherlands

Geiger counter contained in wooden upholstered box.





### Geiger Tube Holder

- **Country of Origin:** USA

Steel base and semi-cylindrical frame. Label reads 'Gift of the USA to TCD 1961'. Used as part of the Manhattan Project.

---

### Pulse Counter



### Pulse Counter

- **Manufacturer:** Philips
- **Country of Origin:** Eindhoven, Netherlands
- **Serial Number:** PW 4032
- **Related Link:** [Link](#)

Compteur Electronique' written below five cylindrical analogue dials. Black face.





### Pulse Counter

- **Manufacturer:** EKCO Electronics Ltd.
- **Country of Origin:** Southend, England
- **Serial Number:** 329
- **Related Link:** [Link](#)

Scaler counter. Five LED dials. Green casing.

---

### Shimizu Adaptation of Wilson Cloud Chamber



## Shimizu Adaptation of Wilson Cloud Chamber

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England

Complete - appears to be in working order apart from piston seal.

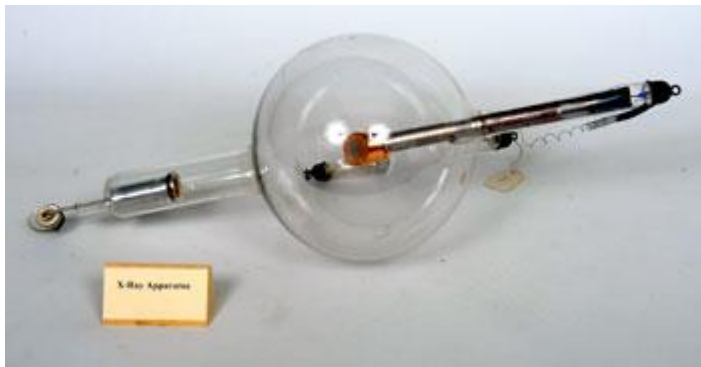


## Cloud Chamber Photos

Card box containing photographic plates.

---

## X-Ray Apparatus



## X-Ray Tube

- **Manufacturer:** Cossor
- **Country of Origin:** London, England
- **Serial Number:** 4684

Gas filled tube in perfect condition.

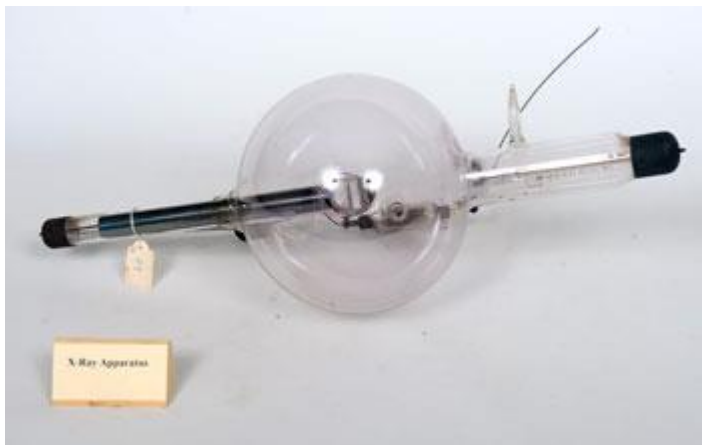






### X-Ray Tube

Similar to 76 but external anode-anticathode connection is broken.



### X-Ray Tube

- **Manufacturer:** (Originally printed on but now erased.)
- **Serial Number:** "75738, 2346386"

Entire & whole tube of "Moment" brand.





### Bragg X-Ray Spectrometer

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England
- **Serial Number:** "12,668"
- **Related Link:** [Link](#)

Three-part X-ray apparatus: Base, stand and stage. Stage has variable arrangement of slits.



### Stereoscope Pictures of Crystal Lattice Models



Card box containing black tin tray and envelope with crystal images. Also contains original letter, explaining purpose in German.

---

## Electrostatics

### Conductors



## Conductor

Brass conductor on glass stand from wooden base. Shaped as a sphere with one face flattened & a smaller sphere is fixed opposite to the flat face.



## Pair of Hemispherical Conductors

Pair of hemispherical brass conductors on insulating glass handles, designed to surround 111.





### Hemispherical Conductor

Similar to 113 but smaller & made of copper with shaped handle of glass.





### Conductor Head

Mirrored conductor head. Cylindrical tube runs into spherical body and tapers to a discharge tip.





### Conductor

Spherical conductor on rod. Plug attached.

---

### Cylindrical Conductor



### Cylindrical Conductor

Cylindrical brass conductor supported by glass rod from a circular wooden base (for electrostatics expts).

---



## Discharge Tube



## Discharge Tube

On wooden stand. Inside tube there is a fluorescent insert with a slit cut to show path of electrons in any applied magnetic field. With connection for vacuum pump.



## Discharge Tube

Similar to 82 but with double slits & cathodes (latter are externally connected).



## Discharge Tube

Plain, long cylindrical tube with connection for vacuum pump.





## Discharge Tube

Long, cylindrical sealed tube which reduces to a narrower diameter for a quarter of the length.



## Discharge Tube

Contains concave focussing cathode & foil placed at angle to electron stream in a sealed tube.



## Pair Discharge Tubes

Both small, ~10cm, & cylindrical with broken vacuum seals. A unmarked.

---



## Dolezalek Electrometer



### Dolezalek Electrometer

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** 4477

Complete apart from mirror & rotating conductor assembly.

---

### Dry Pile





### Dry Pile

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Pair of glass tubes filled with paper cells & topped with brass balls. Tube bases are connected & tubes move together & apart by screw drive.

---

### Electrostatics Apparatus



## Spherical Conductor

Spherical brass conductor on insulating rod from hardwood base.



## Electrophorus Base

Complete but resin is fragmented.



## Metal Electrophorus Upper Plates

- **Manufacturer:** Yeates & Son (B only)
- **Country of Origin:** B: Dublin, Ireland

All of brass on insulating handles. A: 10" diameter, possibly non-original handles; B: 6" diameter, possibly non-original handles; C: 7 3/4" diameter with a ball ended connection to upper surface & a glass handle.



## Electrostatic Devices

- **Manufacturer:** A. C. Cossor
- **Country of Origin:** London, England
- **Related Link:** [Link](#)

Shaped like syringes. Operate by whipping ebonite rod past fur lined washer. A: Complete working order; B: Complete but metal tip of central insulator has broken off. Both are inscribed with manufacturer's name & address and "CES Phillips 1907".



## Parts of Disassembled Electrostatic Machines

Insulators, brass conductors etc, stored in and beside tea chest in attic. Suspect parts from more than one instrument. (Note added: Box of miscellaneous electrostatic apparatus and box of Walton insulators all stored in attic. This piece on display as example. 2012.)



## Electrostatic Phial with Gold Leaf

Glass cylinder containing crumpled gold leaf. Brass tip on jar. Insulated with rabbit fur and contained in card tube.



## Gold Leaf Electroscopes



### Gold Leaf Electroscope

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England

Complete working order.





### Zeleny Electroscope & Accessories

- **Manufacturer:** Central Scientific Company
- **Country of Origin:** Chicago, USA

Complete with instructions in envelope.





### Gold Leaf Electroscope

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England

Complete apart from torn paper seal. Used for projection possibly?







### Gold Leaf Electroscope

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England

Missing some unknown part which is affixed by a 3/8" circular clamp.

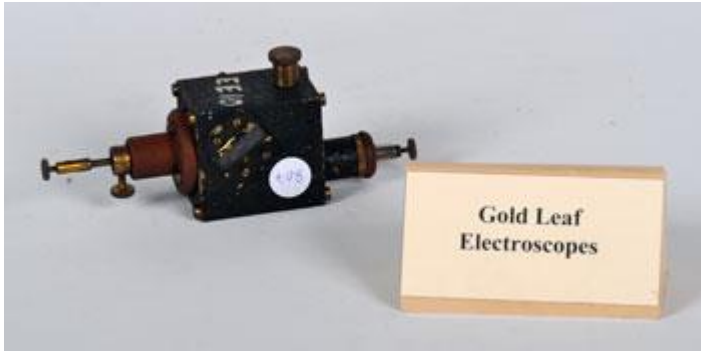


### Gold Leaf Electroscope (Pulse Type)

- **Manufacturer:** Max Kohl
- **Country of Origin:** Chemnitz, Germany

Device consists of leaf supported between two variable separation plates, all in glass walled cylinder.





## Electroscope

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England

Small black metal cell with angled slit. Three faces have brass screw mechanisms for adjustment or grounding.

---

## Hanley's Universal Discharger



## Hanley's Universal Discharger

Missing one wooden foot (of four). Suspect brass spherical conductors are not original.

---



## Leyden Jars



### Set of Leyden Jars & Terminals

Set of Leyden Jars in wooden case. Set of brass three-pronged terminals.



### Nested Leyden Jars



A: Zinc pail; B: Zinc pail which fits inside A & from the bottom of which arises a ball ended brass rod.

---

## Lindemann Electrometer



### Lindemann Electrometer

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** C149646

Complete but broken internally. Labelled "Royal Soc. Grant a/c" & signed.

---



## Quadrant Electrometer



## Quadrant Electrometer

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** C96364

Complete apart from broken torsion fibre.



## Quadrant Electrometer



- **Manufacturer:** Elliot Bros.
- **Country of Origin:** London, England

Brass quadrant electrometer. Appears fully intact.

---

## Van der Graaf Generator



## Van der Graaf Generator

Homemade Van der Graaf Generator. One side of dome detached but present.

---



## Wimshurst Electrostatic Generator



### Wimshurst Electrostatic Generator

- **Manufacturer:** Griffin & Tatlock Ltd.
- **Country of Origin:** London, England

Pulley mechanism connecting handle to parallel plates not working correctly. Otherwise fully intact.

---

## Heat & Temperature

### Ball and Ring



### Ball and Ring

Plate ring on stand attached by chain to one half of a ball.

---

## Callendar Apparatus





### Callendar Apparatus

- Related Link: [Link](#)





## Conductometer



## Conductometer

Black metal base with six vertical rods of different metals covered in melted wax. Empty scale holder.

---

## Copper Boilers



## Copper Boilers

Copper boilers with two adjustable valves and pressure release valve. Verdigris present.

---



## Device for measuring Thermal Conductivity of Copper



### Device for Measuring Thermal Conductivity of Copper

Copper pipe insulated inside wooden box on legs. Several feeds and pipes attached to the copper pipe.

---

## Joly's Meldometer



### Joly Meldometer

- **Manufacturer:** Cambridge Scientific Instrument Co.



- **Country of Origin:** London, England

Complete working order.



Meldometer

---

### Joly's Steam Calorimeter



Joly's Steam Calorimeter

Not original instrument but complete apart from the balance which sits on top.

---

### Leslie's Cube





### Leslie's Cube

- **Manufacturer:** Philip Harris Ltd.
- **Country of Origin:** Birmingham, England

Fully intact.

---

### Oxygen Combustion Fuel Calorimeter



## Combustion Calorimeter

- **Manufacturer:** A. Gallenkamp & Co. Ltd.
- **Country of Origin:** London, England

Complete in wooden case with instructions which give the full title "Darling's Patent Oxygen Combustion Fuel Calorimeter".

---

## Stirling Engine



Stirling Engine



- **Manufacturer:** Louis Heinrici
- **Country of Origin:** Zwickau, Germany

All metal, appears in working order.

---

## Thermocouple Meter



## Thermocouple Meter

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** C218275

Complete & entire instrument labelled "Auto compensated cold junction".

---



## Thermopiles



### Thermopile

On stand but missing core.



### Thermopiles

- **Serial Number:** A: 768; B: 783

Seven stacked metal plates. Two terminals with glass sheath on one side, one on the other. Glass broken.



### Thermopiles

- **Serial Number:** A: 513; B: 1138; C: 549



Cylindrical copper blocks with cooling wraparound pipe and glass-sheathed terminals.

---

## Tilt Switch



## Tilt Switch

Mercury tilt switch on wooden base.

---





# Physics Catalogue: M - S

## Mechanics

### Barton's Pendulums



### Barton's Pendulums

Homemade Barton's pendulums. String has become brittle.

---

### Compound Pendulum



### Tisley Compound Pendulum



- **Manufacturer:** Tisley & Spiller
- **Country of Origin:** London, England

Device coupled pair of pendulums to produce Lissajous figures on paper via linkages & pencil. Device is incomplete missing stand, bobs & string, and supporting screen for paper.

---

## Dynamics Track



## Fletcher's Trolley

Wooden Block Trolley with three wheels and six removable weights. Spring holder for paper tape.



## Dynamics Track

Long metal track with adjustable legs.

---

## Flowmeter



## Flowmeter

- **Manufacturer:** Alex Wright & Co. Ltd.
- **Country of Origin:** London, England
- **Serial Number:** AW1593

Large flowmeter in dark green casing. Tripod base. Circular scale, 0-100, units '1/12 cubic foot per revolution'.





## Flowmeter

- **Manufacturer:** Alex Wright & Co. Ltd.
- **Country of Origin:** London, England

Large flowmeter in dark green casing. Flat base. Scale 0-5, units: "Feet per hour". Printed "Hourly rate of consumption. Observations of one minute."

---



## Governor



## Governor

Brass cylinder containing brass structure with arms that spin outwards, thus determining the maximum speed of rotation within an engine.

---

## Gyroscope





### Gyroscope

Brass gyroscope.

---

### Kater's Pendulum



### Kater's Pendulum

~1m long steel bar, weighted at both ends, pointed at both ends.

---

### Low-friction track



### Gravity Track & Flywheels

Hardwood track & two steel axled brass flywheels.

---



## Micrometer



## Measuring Gauge

- **Manufacturer:** Grubb
- **Country of Origin:** Dublin, Ireland

External diameter/depth Vernier device of brass & steel in hardwood case. Non-standard units are marked upon it.



## Micrometer

- **Manufacturer:** Ernst Leitz
- **Country of Origin:** Wetzlar, Germany

Small metallic screw gauge.

---

## Patent Ribbon Atwood Machine





### Adaptation of Atwood's Machine

- **Manufacturer:** G. Cussons Ltd.
- **Country of Origin:** Manchester, England

Wooden case containing masses & paper ribbon only. Mechanics of device are missing but instructions & illustration are pasted inside the lid.

---

### Pneumatic Syringe



### Pneumatic Syringe

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland





Working but piston seal is poor.

---

## Scales and Curves



### Box of Scales & Curves

Hardwood box containing card measuring scales & veneer curves.



### Set of Drawing Scales

- **Manufacturer:** Holtzappfel & Co.
- **Country of Origin:** London, England

All in card box, signed individually "J. H. Poole".





### Device used to measure curvature

- **Manufacturer:** Rossin
- **Country of Origin:** Paris, France

Rotating brass disc on tripod. Scale 0-400 (units unclear). Vertical scale attached to one leg 0-100 (units unclear).

---

### Simple Pendulum



### Simple Pendulum

Wooden stick with ball at the end of string.

---



## Spirit Level



## Spirit Balance

Glass tube with viscous fluid in brass holder.

---

## Spirometer



## Spirometer

- **Manufacturer:** "Croll, Rait & Co.
- **Country of Origin:** London, England

"Dr Edward Smith's Spirometer", still in perfect working order.

---

## Standard Yard





### Standard Yard

- **Manufacturer:** Troughton & Simms
- **Country of Origin:** London, England

Brass in hardwood case.

---



## Ticker Tape Stand



### Ticker Tape Reel

Tape on reel; latter supported by brass stand from cast iron base.

---



## Timer



### Analogue Timer

- **Manufacturer:** Smiths English Clock Systems
- **Country of Origin:** London, England
- **Related Link:** [Link](#)

Large clock face with start/stop lever on side and reset button on top.

---

### Torsion Apparatus



### Torsion Fibre Support Arch

Arch only (of brass) with screw mechanism to raise & lower fibre. (Note added: One leg broken off).

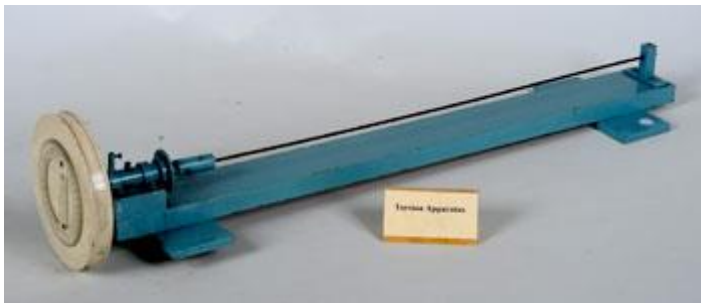




### Torsion Apparatus

- **Manufacturer:** Thomas Jones (B only)
- **Country of Origin:** London, England

From a glass & ebonite walled brass box ascends a glass cylinder ending in a graduated torsion head of brass. Purpose of device is unknown.



### Torsion Apparatus

- **Manufacturer:** KUM (Scale)
- **Serial Number:** Scale: 52

Homemade wooden stand painted blue. Thin metal rod ~0.5m ending in white turning wheel with calibrated scale.





### Torsion Apparatus

- **Manufacturer:** G. Cussons Ltd.
- **Country of Origin:** Manchester, England
- **Serial Number:** 5635





- **Related Link:** [Link](#)

Black metal stand holding torsion wire supporting wooden circular base with weights and scale.

---

## Viscosometer



### Rotation Viscosometer

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England

Seal at base is broken & pans for masses are absent.





### Viscosometer

Appears fully intact apart from strings to suspend plates from pulleys.

---

### Weights



### Box of Weights

- **Manufacturer:** August Sauter
- **Country of Origin:** Wuerttburg, Germany

Rectangular wooden box containing incomplete set of weights.





## Set of Weights

Miscellaneous collection of weights 1x1kg, 3x500g, 5x200g.

---



# Optics

## Arc Lamp Projector & Accessories



### Arc Lamp

Missing one side panel & carbon electrodes.





### Arc Lamp Projector

- **Manufacturer:** Newton & Co.
- **Country of Origin:** London, England

Perfect working order - non-original lenses.



### Telescopic Lens Etc. Holder for 233

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Rectangular iron plate with telescopic brass draw tube; former fits onto 233.



### Slit Aperture

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Variable with slit aperture used with 233 via 234. Of brass.



### Variable Diameter Circular Aperture

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Of brass, used with 233 via 234.





### Quartz Lens

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Plano-convex lens, chipped at edge in two places, mounted in brass ring used with 233 via 234.



### Lens & Plate Holder for 233

- **Manufacturer:** Newton & Co.
- **Country of Origin:** London, England

Hardwood & brass holder which affixes to 233 & has provision for the attachment of slide holders, additional lenses etc.





### Extension Piece for 233

Brass tube on plate of same, latter slides onto 238 & is locked in position by a screw (missing).



### Extension Fitting for 233

Complete working order. Takes same attachments as 240. Locates in square hole in 238.





### Screw Ring Reducer

Brass ring with both internal & external threads used with both 240 & 241.



### Extension Piece/Reducer

Achieves same as 244 but gives extra 1 1/2" length.



### Variable Diameter Circular Aperture

Same action as 236 but pivot screw is missing. Device screws into 244 & 245.





### Projection Lenses

For use with 233 via 244/245 etc. All feature rack & pinion focussing. A: Perfect, labelled '8" focal 32/6'; B: Perfect, larger than A; C: Perfect, larger than B, apart from fact that join between lens elements has failed.



### Projection Lens

- **Manufacturer:** Newton
- **Country of Origin:** London, England

Appears later than 247 type. Used with 240-241 via 249.





Image to follow

### Adaptor Ring

Brass, appears same as 244 but internal threads suit 248 only.

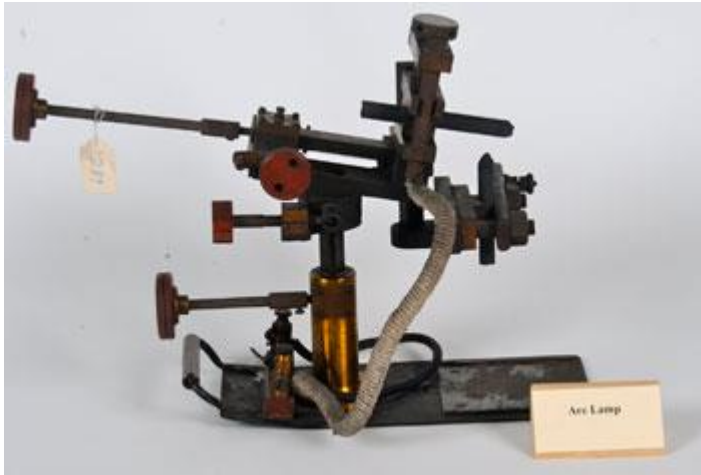


### Projecting Microscope

- **Manufacturer:** Ross
- **Country of Origin:** London, England

Complete working order. Used with 233. Marked "Newton's Patent" & Sold by "Ross, London".





### Arc Lamp

- **Manufacturer:** Trade Mark
- **Country of Origin:** London, England

Complete working order.



### Arc Lamp

Arc lamp with two adjusting knobs.





### Box of Carbon Rods

- **Manufacturer:** Pool

(for 746) Box of 'micro-cured' carbon rods.



### Arc Lamp

Small arc lamp with thin carbon rods. Three adjusting knobs.





### Box of Carbon Rods

Old chocolate box containing thick carbon rods for arc lamp.

---

### Binocular Microscope



### Binocular Microscope

- **Manufacturer:** R & G Beck
- **Country of Origin:** London, England
- **Serial Number:** 5250



Brass with glass fronted hardwood display carry case. Missing all accessories & objective lens.



### Box of Microscope Slides

- **Manufacturer:** J. B. Medland Optician
- **Country of Origin:** London, England

Hardwood box containing 12 ordered rows of six slides. Biological material.



### Box of Microscope Slides

Small box with canvas covering containing microscope slides.

---

## Bolometer





### Bolometer

Wooden base with vertical wooden shaft lined with metal. Solar cell attached to base. Thermometer probably for measuring heating effect of infrared.

---

### Camera Bellows



### Camera Bellows

- **Manufacturer:** Koresco W. Middeniss
- **Country of Origin:** Bradford, England

Mahogany with 2 sets of fiber bellows. No lens.







### Camera-folding

- **Manufacturer:** J. Lancaster & Son
- **Country of Origin:** Birmingham, England

Mahogany, 2 sets of fibre bellows, brass fittings, no lenses.

---

### Camera Box



### Camera Box

- **Manufacturer:** W. Watson & Sons
- **Country of Origin:** London, England

Mahogany housing with short bellows. No lenses or plates.

---



## Ciné Camera



## Ciné Camera

- **Manufacturer:** The Williamson Kinematograph Co. Ltd.
- **Country of Origin:** London, England

Hand cranked in hardwood case. Claw mechanism (Patent No. 21787/03) working; shutter broken & lenses missing.

---

## Convex Lens



### Lens with Metal Slide

Convex lens in wooden vertical frame with metal slide backdrop with small circular hole.

---

### Cylindrical/Conical Mirror with Cards



#### Cylindrical Mirror & Cards

Cylindrical Metal Mirror on (chipped) hardwood support intended for use with painted boards viewed by reflection in the mirror. 5 cards; A: Queen Elizabeth's head, B: Portrait of a man (Napoleon?), C: a peacock, D: a ram, and E: a large animal with a horn.



#### Conical Mirror & Card

Same principle as 421. Metal mirror & case with one card, showing a person in full length.



---

## Devices to show polarization of light

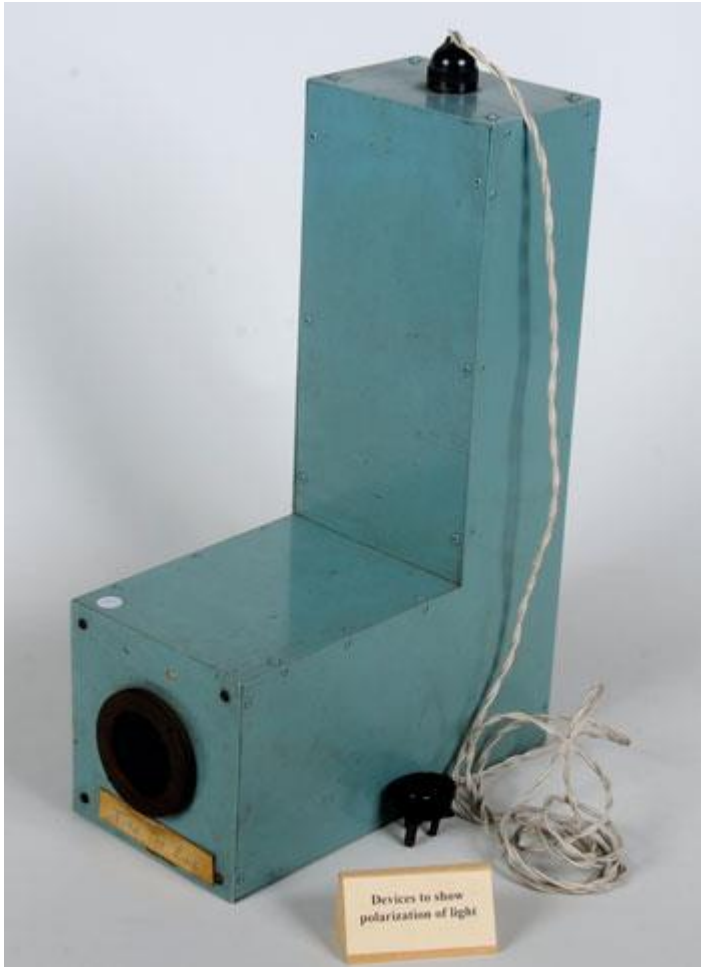


### Parallel Plate Polarizer

- **Manufacturer:** W. Watson & Sons
- **Country of Origin:** London, England

Of brass, on modern ply base, with provision for the attachment of lens at one end. Top plate of polarizer is cracked.





**Device for showing polarization of light**

L-shaped box with plug attached. By turning the ring on the front, (polariser), the polarisation of light can be determined.



## Device for showing polarization of light

Rectangular box used for demonstrating polarisation of light.

---

## Disappearing Filament Pyrometer



## Optical Pyrometer

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** L403158

Cambridge Disappearing Filament Pyrometer. Purchased Dec. 1965, cost £120. In leather case.





### Disappearing Filament Pyrometer

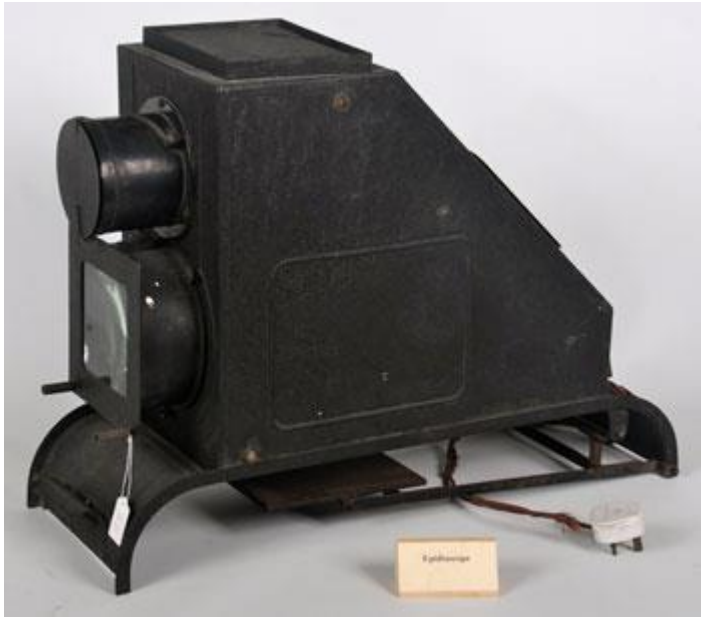
- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** 48917

As 473. Leather case lid torn off but present.

---

### Epidiascope





### Epidiascope

Black epidiascope containing bulb and mirror. Metal plate to hold slide. 3-pin plug.



### Epidiascope

- **Manufacturer:** Thomas Mason Optician
- **Country of Origin:** Dublin, Ireland

On permanent loan from School of Botany. Carbon arc lamp assembly present. Labelled 'The Wrench'.





## Falling Plate Camera



### Falling Plate Camera for String Galvanometer

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** C83580

Complete with two plate holders; one of these is broken internally.

---

## Film Loops





## Film Loops

- **Manufacturer:** Ealing Film Loops
- **Country of Origin:** Massachusetts, USA
- **Serial Number:** A: 80-295; B: 80-242; C: 84-011;  
D: 80-293; E: 84-0124; F: 80-2363;  
G: 80-241; H: 80-268; I: 80-3080; J: 80-2074

A: Diffusion; B: Single Slit Diffraction; C: Bubble Model of a Crystal: Structure and Boundaries; D: Equipartition of Energy; E: Bubble Model of a Crystal: Deformation and Dislocations; F: Bragg Reflection of Waves; G: Effect of Phase Differences between sources; H: Coupled Oscillators, Other Oscillators; I: Circular Motion; J: Diffraction Double Slit.

---



## Grease Spot Photometer



## Grease Spot Photometer

Complete working order.

---

## Jellett's Saccharometer



## Jellett's Saccharometer

- **Manufacturer:** Spencer & Sons
- **Country of Origin:** Dublin, Ireland



Complete but without sample holders.

---

## Lenses



### Lens on Support

~3" diameter plano-convex lens supported by brass ring which slides on rod. Written on support plate '129cm=r'.



### Large Bi-convex Lens

8 1/2" diameter in wooden ring on brass gimbal support.





### Lens on Adjustable Mount

Plano-convex lens driven along rod by rack & pinion motion.



### Box of Lenses

Box of primarily circular convex lenses. Marked 'Cylindrical Lenses'.

---

### Light Beam Chopper



### Light Beam Chopper

- **Manufacturer:** The Veeder Mfg. Co. (Rev counter)
- **Country of Origin:** Connecticut, USA



Motor driven disc with radial slit apertures for either horizontal or vertical mounting. Includes rev counter.



### Light Beam Chopper

Perspex disc, alternating black and transparent octants. Brass centre.

---

### Lowe's Jet Photometer



## Lowe's Jet Photometer

- **Manufacturer:** William Suggs & Co. Ltd.
- **Country of Origin:** London, England
- **Related Link:** [Link](#)

Instrument is probably complete but glass front is partly broken & chimney is staved in in one place.

---

## Miscellaneous Optics Apparatus



## Display board showing stages & manufacture of early Electric Lamps

- **Manufacturer:** Edison & Swan  
United Electric Light Company Ltd.
- **Country of Origin:** London, England

As title but missing one sample bulb.





**Accessory for 200**

Similar to 200 but features rack & pinion vertical motion & screw driven transverse motion.







### Collimator

- **Manufacturer:** Hornet & Thornikwaite
- **Country of Origin:** London, England

Collimator tube with lens but without aperture. On stand, both are of brass.



### Measuring Eyepiece

- **Manufacturer:** Ernst Leitz
- **Country of Origin:** Wetzlar, Germany



Eyepiece driven by screw across field of view.



### Measuring Eyepiece

- **Manufacturer:** W. Watson & Sons
- **Country of Origin:** London, England

As 217.



### Extension Rod

For use with 241 & 238.





**Optical Device**

Comprises angled mirror in box & lens moved by rack & pinion drive.



**Optical Device**

Device of unknown purpose but note feet & socket on bottom for circular motion.





### Array of Mirror Strips on Stand

Set of mirror strips, 3" x 1/2", set vertically on dowels from wooden block & are free to pivot. Of ten, eight are unbroken.



### Apparatus to rotate coloured disc.

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Incomplete - missing pulley and handle to operate it. Glass is chipped and colours are faded.





Rotating Disc with Lens



### Condenser Vertical Illuminator

- **Manufacturer:** W. Watson & Sons
- **Country of Origin:** London, England

Handheld illuminator.



### Parts of Optical Bench

Grey metal base with black stand. Used for sliding along optical bench. (for use with 752).



### Optical Bench

- **Manufacturer:** Griffin & Tatlock Ltd.
- **Country of Origin:** London, England

Metallic base with three sliding bars to support 702.





### Miscellaneous Optics Apparatus

Park All-Sorts' Wooden box containing miscellaneous brassware and optics accessories, including 217, 218 and 251.

---

### Model of Ray Surface



### Unusual Model of Ray Surface

Hemispherical wire model. Invoked in Theory of Birefringence and Conical Refraction. Gift from Geology Museum.

---



## Optical Cell



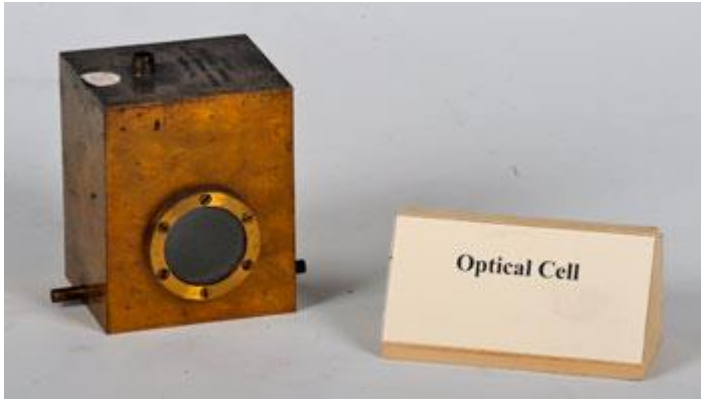
## Optical Cell

- **Manufacturer:** L. Golaz
- **Country of Origin:** Paris, France
- **Serial Number:** 147

On stand, cell with double walls & connections to both regions. Of brass. (Note added: Viewed by visiting experts & judged to be a significant piece).







### Optical Cell

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** 4514

Brass, complete.

---

### Optical Stage



### Optical Stage

Rotatable brass stage equipped with Vernier scales & magnifiers but no other optical equipment.





### Optical Stage

Rotatable brass stage with Vernier scales.

---

### Optically Pumped Amplifiers



### Optically Pumped Amplifier

Steel housed cylindrical laser with six terminals on top face. Brought from Queen's University Belfast by Prof James Lunney.



### Optically Pumped Amplifier



As 602, slightly smaller.

---

## Optics Stands



### Stand

Telescopic, of brass, with two V-shaped supports for Geissler tube, telescope etc.





### Optical Element Stand

Brass stand only. Inscribed "Presented by Rev. N. Lloyd A.D. 1832" and "Guinands Flintglass".





### Lens or Mirror Stand

- **Manufacturer:** Mason & Son
- **Country of Origin:** Dublin, Ireland

Telescopic brass stand with semicircular ring at top for lens etc.





### Optical Element Stand

- **Manufacturer:** W. Ladd
- **Country of Origin:** London, England

Brass, telescopic with semicircular support ending in screw points.





### Optical Element Stand

Similar to 228 but with smaller gape.



### Prism Stand



---

## Optics Workbench



## Optics Workbench

- **Manufacturer:** W. Watson & Sons
- **Country of Origin:** London, England

Black painted wooden box containing an assortment of optics-related items. Likely once used for a specific instrument.



## Optics Workbench

- **Manufacturer:** F. E. Becker & Co.
- **Country of Origin:** London, England

Wooden box containing assortment of optical and electrical apparatus. Label reads "Optical Set. Glass Trough for above".

---

## Oscillograph







Image to follow

### Oscillograph

- **Manufacturer:** A. C. Cossor
- **Country of Origin:** London, England



### Oscillograph

- **Manufacturer:** Philips
- **Country of Origin:** Eindhoven, Netherlands





## Oscilloscope

- **Manufacturer:** Philips
- **Country of Origin:** Eindhoven, Netherlands
- **Serial Number:** D742

Oscilloscope with missing handle.

---



## Oscilloscope Camera



## Oscilloscope Camera

- **Manufacturer:** Tektronix Inc.
- **Country of Origin:** Oregon, USA
- **Serial Number:** 3592

Model C-27.

---

## Photographic Enlarger





### Photographic Enlarger

- **Manufacturer:** Sinclair; Mason
- **Country of Origin:** London, England; Dublin, Ireland

Horizontal type, bellows torn & all lenses are missing. Appears to have been later adapted for photography.

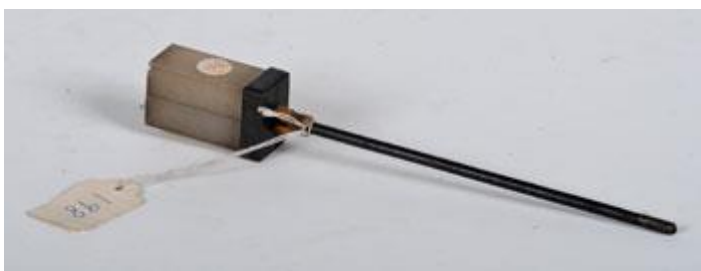
---

### Photometer



### Joly Nylon(?) Block Photometer

Cloudy photometer block, like 198 without steel rod.



## Block Photometer

Alabaster or cloudy glass photometer, mounted on end of steel rod.



## A.R.P. Photometer

- **Manufacturer:** Everett Edgcumbe
- **Country of Origin:** London, England
- **Serial Number:** 520668

Consists of two connecting wooden boxes with dials.

---

## Preston's Family Photographs



## Thomas Preston Family Photographs



Wooden box with insulation containing negative prints of Thomas Preston's personal life.  
Gift to Denis Weaire.

---

## Prisms



### Achromatic Prism

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Pair prisms of different glasses mounted together on stand so that they may be combined to give no dispersion.





### Prism on Stand

Prism on telescopic brass stand; missing mechanism to rotate prism about vertical axis.





Lens (or Prism) Stand



Gimballed Prisms





Devices screw into 240 & 241. Prisms move along track also & B has additional convex-concave lens marked '8'''.



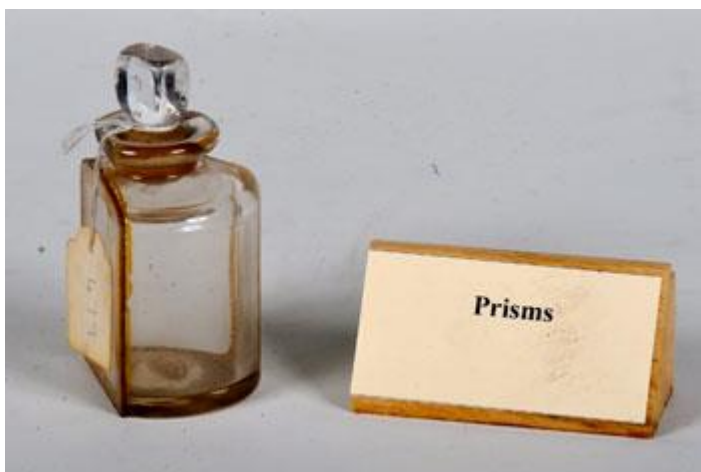
### Biprism

Brass bound, 5 1/2" diameter in perfect condition.



### Projector Prism

Similar to 243 but attached by screws through three metal lugs. Inscribed "Newton's Patent".



### Hollow Prism



Glass bottle with neck and stopper. 2 flat, 1 curved side. In black wooden box. (Note: Box missing).



## Transmission Prism Holder



## Prism on Stand

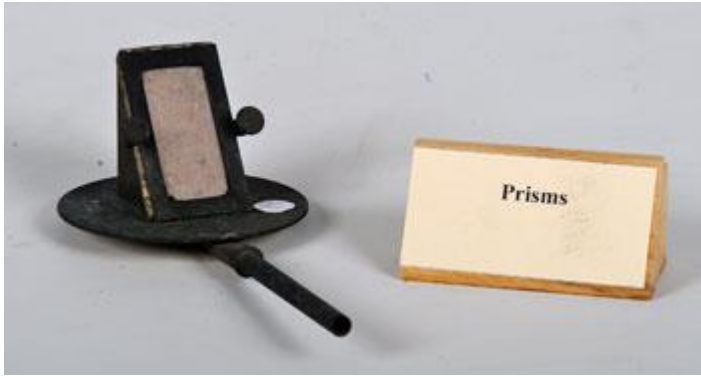
- **Manufacturer:** J. Duboscq
- **Country of Origin:** Paris, France

Brass stand with prism on top. Rotatable about axis perpendicular to stand.



## Assortment of Prisms and Glass Blocks





### Prism on Stand

Brass disc and prism holder in advanced state of corrosion attached to stand.

---

### Projector



### Double Projector Lantern

- **Manufacturer:** Newton & Co.
- **Country of Origin:** London, England

Described in 'Antiques & their values: Instruments' (compiled by Tony Curtis) as 'Double Oxy-Hydrogen Binnial Lantern'. Outer case only (of hardwood), both lamps are absent,



one inspection door's hinges have broken off & curtain at back is torn. Present is a brass lens adaptor for the lower lantern only.



### Condenser Lens

- **Manufacturer:** Newton & Co.
- **Country of Origin:** London, England

Complete, fits by bayonet fitting into back of lens adaptor.



### Lens Adaptor for Upper Lantern of 277

- **Manufacturer:** Newton & Co.
- **Country of Origin:** London, England

Complete - for upper lantern only





### Projection Lens for 277

- **Manufacturer:** Newton & Co.
- **Country of Origin:** London, England

Used with upper lantern only. Employs rack & pinion focussing & is intact apart from broken filter/slide slot at lens front.

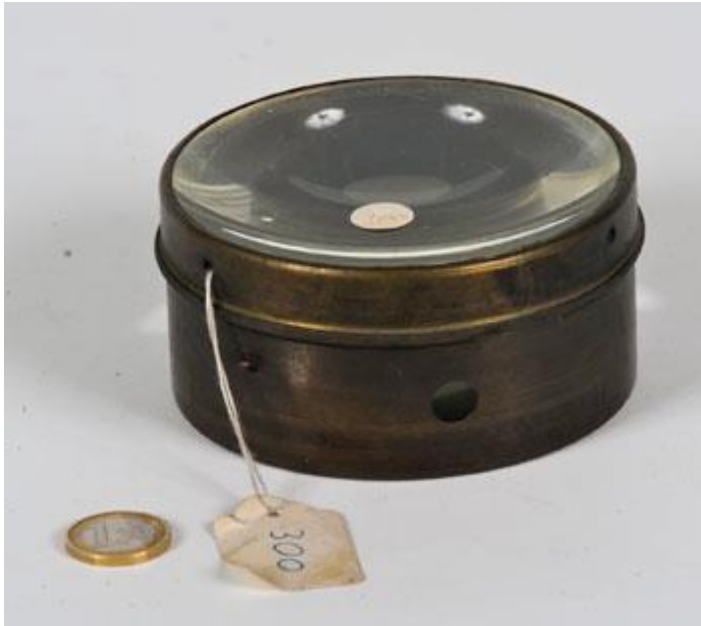


### Projection Lens for 277

- **Manufacturer:** Newton & Co.
- **Country of Origin:** London, England

As 281 but not identical as lens is intact & has no draw tube.





### Projector Condenser Lens

Complete & intact.



### Projection Lens

- **Manufacturer:** Jamin Ingr Opticien
- **Country of Origin:** Paris, France

Similar to 281 but featuring slide mounting. Complete with brass lens cap. Marked 12".





### Large Projector Lens

Large diameter, ~25-30cm glass projector lens. Slightly scuffed at one point near edge.





## Projector Lens

Small cylindrical projector lens.



## Projector Lamp

- **Manufacturer:** Philips
- **Country of Origin:** Eindhoven, Netherlands

Cylindrical projector lamp bulb. Grey metal cap.



## Projector Lamp

- **Manufacturer:** General Electric Co.
- **Country of Origin:** Coventry, England

Screw-in glass bulb.





### Atlas Projector Lamp

- **Manufacturer:** Thorn Lighting
- **Country of Origin:** Spennymoor, England
- **Serial Number:** AI/207

Cylindrical bulb with properties on terminal base. Black cap. Broken inside. With original instruction pamphlet.



### Gas-filled Bulb

- **Manufacturer:** ALITE
- **Country of Origin:** Guangdong, China
- **Serial Number:** A18

Small round bulb with cardboard box.

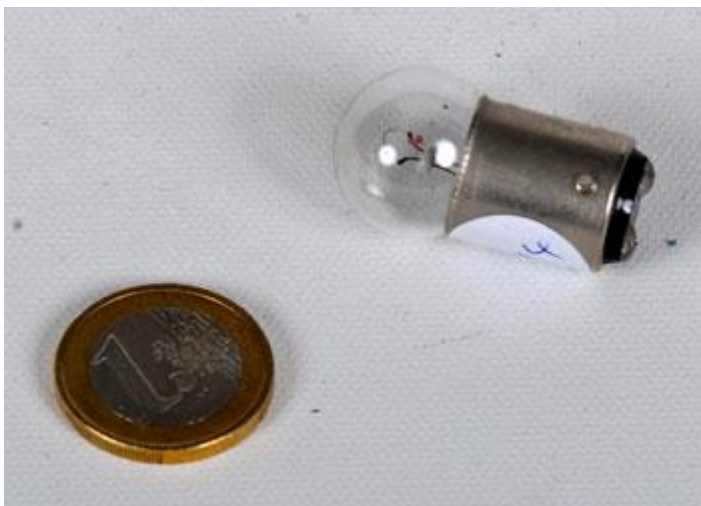




### Solus Car Lamp

- **Manufacturer:** Solus
- **Country of Origin:** Dublin, Ireland
- **Serial Number:** 8BC

Small round bulb with blue & white card box written in Irish.



## Bulb

- **Country of Origin:** England
- **Serial Number:** 209

Very small bulb.



## Projector Lamp

Standard bulb shape with seven-pronged filament.



## Technicolor Projector

- **Manufacturer:** Technicolor
- **Country of Origin:** Issy-les-Moulineaux, France
- **Serial Number:** D197383

Fully intact, with carry case.



## Screen



## Screen

- **Manufacturer:** F. E. Becker & Co.
- **Country of Origin:** London, England

Wooden screen, one black face, one white face, on metal stand.

---

## Slide Holder



## Slide Holder

Device slots into tube of projector after condenser lens & another lens is attached to rack & pinion drive at output end.





## Projector Slide Holder

Velvet channel in hardwood block (broken) provided with socket for use with stand.



## Microscope Slide Holder

Cylindrical brass device for use with projecting instrument.

---

## Slide Projector



### Slide Projector "Prado 500"

- **Manufacturer:** Ernst Leitz
- **Country of Origin:** Wetzlar, Germany
- **Serial Number:** 444156

Projector with vertical angle adjustment mechanism.

---

## Spitfire G.45 Gun Camera





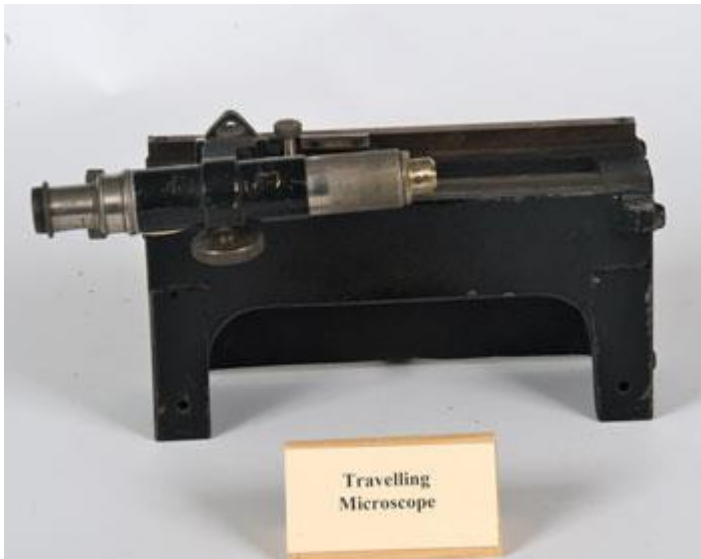
### Spitfire G.45 Gun Camera

- **Manufacturer:** Williamson Manufacturing Co. Ltd.
- **Country of Origin:** London, England
- **Serial Number:** 32342

Metal cased camera with magazine Type G.45.

---

### Travelling Microscope





## Travelling Microscope

- **Manufacturer:** Mason
- **Country of Origin:** Dublin, Ireland

Complete working order.



## Travelling Microscope

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England

Complete working order.

---

## US Air Force Camera





### US Air Force Camera

- **Manufacturer:** Eastman Kodak Company
- **Country of Origin:** New York, USA
- **Serial Number:** A.F.44-(faded)

2 pieces cased in lightweight green metal. One piece with lens attachment, other piece holds photographic plate.

---

### Variable Slit Apertures



### Slit Aperture

Variable width aperture on rod support.



## Slit Aperture

Brass, adjustable for both width & parallelism



## Fixed and Rotating Slits

Appears in complete working order.



## Variable Aperture

- Serial Number: 2564

Wooden and brass instrument. Has a Newman's Patent.

---

## Wright & Newton's Patent Projecting Microscope



## Wright & Newton's Patent Projecting Microscope

- **Manufacturer:** Newton & Co.
- **Country of Origin:** London, England

Used with lower lantern of 277. Device is in wooden case with assorted lenses, stops, IR filter cell & eyepieces. (Latter are interchangeable with 250).

---

## Sound

### Drum Recorder



### Clockwork Vibroscope or Drum Recorder

Key to wind mechanism is missing. Originally covered with smoked paper which was scratched by a vibrating stylus.

---

## Helmholtz Resonators





### Set of Helmholtz Resonators

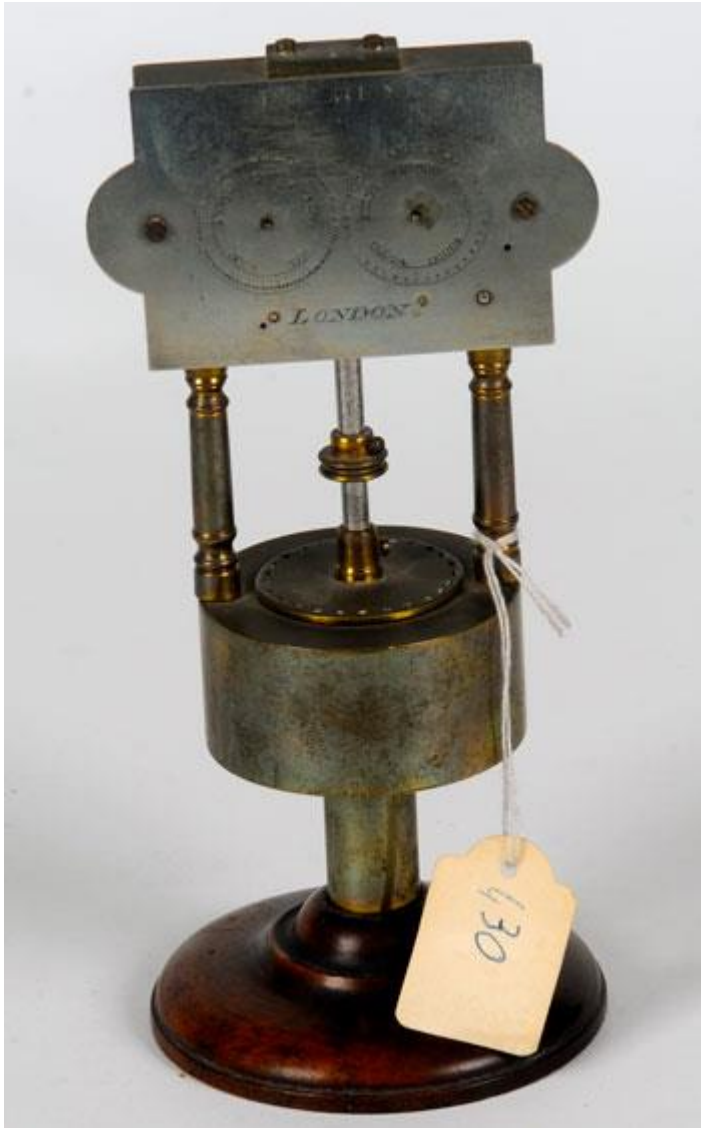
- **Country of Origin:** France/Germany

Thirteen Helmholtz Resonators of various sizes, sounded by passing current of air across bottom.

---

### Kirby Siren





### Kirby Siren

- **Manufacturer:** F. Kirby
- **Country of Origin:** London, England

Brass on hardwood base with revolution counter - latter missing needles - in working order. Accompanied by printout of Kirby family history.

---



## Organ



## Organ

Wooden organ with two broken legs. Bellows no longer operational. Pipes absent.

---

## Organ Pipe



## Set of Organ Pipes

All of block type & made of wood. Originally for Experimental Organ which is no longer in the catalogue. A: 22 1/2" long, with stopper; B: 22 1/4" long, with stopper; C: 20 1/4" long, with stopper; D: 19 1/4" long, with stopper; E: 7" long, without stopper; F: 6" long, with stopper.



### Glass Sided Manometric Flame Organ Pipe

Complete apart from one non-original burner jet & fact that all have been sealed with putty. Block type of pipe.



### Glass Sided Organ Pipe

Wooden block type with one glass side. Two 3/4" holes bored in side opposite glass.



### Organ Pipe

Wooden block type in working order.



### Organ Pipe

As 347 but pipe has moveable plunger. Suspect missing scale from this.



### Manometric Flame Organ Pipe





- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Wooden block type working with single gas burner. 24" long stamped 'C3' & has opening in side which can be covered by a slide.



### Buzzer

Mouthpiece with leather tube in working order.



### Organ Pipe

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Identical to 350.



### Pair of Organ Pipes

- **Manufacturer:** Spencer & Sons
- **Country of Origin:** Dublin, Ireland

Wooden, block type, fitted with moveable plungers. Largest of all organ pipes present.





## Recording Styli for Vibroscope



## Recording Styli for Vibroscope

Pair of electromagnetically driven styli on vertical stand, one complete except for tension spring, the second is broken.

---

## Rotary Mirror





### Rotary Mirror

- Related Link: [Link](#)

Cube with wooden handle attached. Mirrors on four faces. Two faces broken.

---

### Sonometer



### Sonometer (or Monocord)

- Manufacturer: J. Robinson & Sons



- **Country of Origin:** Dublin, Ireland

Missing one peg & original pan for tensioning masses.

---

## Sounding Box



## Sounding Box

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Hardwood box only.



## Sounding Box

Box only without fork support.





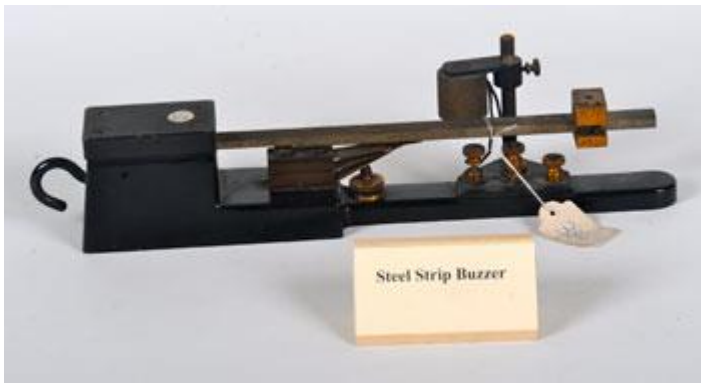
### Wooden Tub on Sounding Box

- **Manufacturer:** Rudolph Koenig
- **Country of Origin:** Paris, France

Box stamped: "UT3". See 329.

---

### Steel Strip Buzzer



### Steel Strip Buzzer

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** C87929

Electromagnetically driven strip buzzer. Includes capacitor & counterweight to move along arm & so change frequency.

---



## Tuning Fork with Pickup Coil



## Tuning Fork with Pickup/Drive Coil

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England
- **Serial Number:** Base: C50618; Fork: C79796

Fork horizontal from iron base. Coil slides between prongs.





### Tuning Fork on Stand with Pickup/Drive Coil

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England

As 291 but stand is built for both horizontal & vertical mounting of fork. Stamped upon fork "500~".







### Large Tuning Fork with Pickup Coil

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Horizontal, on wooden base.

---



## Tuning Forks



Tuning Fork



On base of brass & Iron. Complete working order.



## Spare Fork for 292

As 500~ fork but is stamped "200~" & has no attachments to prong ends.



Tuning Fork on Stand



Tuning fork with mirror & counterweight on prongs, all on tripod stand. (Note added: mirror missing).



**Tuning Fork on Stand**

As 325 but larger & base has been fixed to ply base.





### Tuning Fork on Sounding Box

- **Manufacturer:** Griffin
- **Country of Origin:** London, England

Working order. Marked "C256".



### Tuning Fork on Sounding Box

- **Manufacturer:** Rudolph Koenig
- **Country of Origin:** Paris, France

Timber of box is split. Stamped "UT3 512 VS". (Note added: Only tuning fork located).  
(Note added: Sounding box found 2012).





### Tuning Fork on Sounding Box

Complete but fork is loose. (Note added: Only sounding box located).



### Tuning Fork

- **Manufacturer:** Griffin
- **Country of Origin:** London, England

Fork with threaded shank. Stamped "C512".





### Tuning Fork

Fork with threaded shank. Stamped "C512".



### Tuning Fork with Handle

Fork with pointer on one prong. Wooden handle is stamped "1/120".





## Tuning Fork on Stand

Fork with axis horizontal supported on stand. Provision for mirror & counterweight but only latter present.



## Pair of Forks on Stand

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Pair hang from frame & have pointers attached to their prongs.





### Set of Tuning Forks

- Related Link: [Link](#)

Marked G, G#, E. Marked 'Old Philharmonic' pitch.



### Mallet

Small wooden mallet for tuning forks etc.





### Stand with Tuning Forks

- **Manufacturer:** Griffin & Tatlock Ltd.
- **Country of Origin:** London, England

Wooden block stand with holes bored for forks which are stamped as follows: A: 'D 288'; B: 'B 480'; C: 'F341.3'; D: 'F 341.3'.



### Tuning Forks

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England

Tuning forks stamped as follows: A: 'D 288'; B: 'E320'; C: 'F 341.3'.





### Tuning Fork

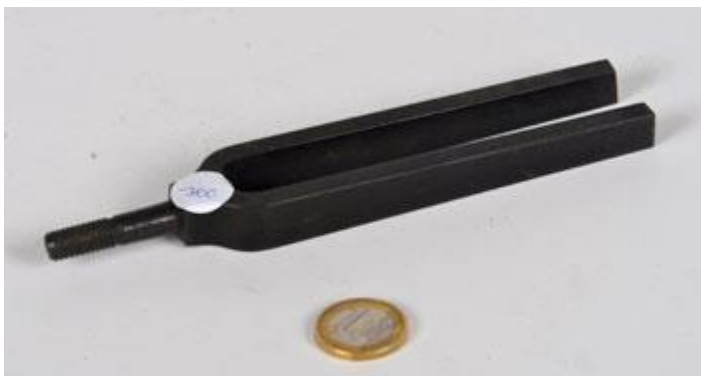
- **Manufacturer:** Griffin & Tatlock Ltd.
- **Country of Origin:** London, England

Stamped 'E' on one side and '320' on the other.



### Tuning Fork

Plain unstamped black tuning fork.



### Tuning Fork

Plain unstamped tuning fork.





### **Mallet**

Mallet with brass cylindrical head and wooden handle.



### **Tuning Fork**

Tuning fork ~30cm long with brass attachment at end, possibly to hold pickup coil.

---



## Variable Pitch Siren



## Variable Pitch Siren

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Appears in complete working order apart from perished rubber tube. With rev counter also.

---



# Spectroscopy

## Becquerel Phosphoroscope



## Becquerel Phosphoroscope

Complete & working but lid of sample holder has been broken off.



## Tray of Phosphorescent Chemicals



Small hardwood box with six phials of chemicals. Case stamped "CA"



### Collection of Elements

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Sample of various elements in sealed glass phials stored in a fibreboard box.



### Fluorescent Excello Squares

- **Manufacturer:** The American Crayon Company
- **Country of Origin:** Ohio, USA
- **Serial Number:** 2140
- **Related Link:** [Link](#)

Wooden box with sliding lid. Contains six chawks in fluorescent colours.

---





## Diffraction Grating Spectrometer



### Diffraction Grating Spectrometer

- **Manufacturer:** Troughton & Simms (scale only)
- **Country of Origin:** London, England

Complete with grating device, is believed to have originated from Birr Castle. Note that degree scale on device is made of silver.

---

## Direct Vision Spectroscope



### Direct Vision Spectroscope

- **Manufacturer:** F. G. Hofmann
- **Country of Origin:** Paris, France

Leather bound brass instrument by inventor of device. Complete working order, with case.





### Direct Vision Spectroscope

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

On stand, scale provided by side tube, but main tube is missing slit aperture.

---

### Hilger Spectrograph



### Spectrograph

- **Manufacturer:** Adam Hilger Ltd.
- **Country of Origin:** London, England
- **Serial Number:** E31.302; 30348



Complete, with two plate holders.



### Hilger Constant Deviation Spectrometer

- **Manufacturer:** Adam Hilger Ltd.
- **Country of Origin:** London, England

Constant deviation spectrometer on tripod. Fully intact. Prism present. Formerly used in JS Laboratory for experiment devised by Dr Eric Finch.



### Hilger Spectrograph

- **Manufacturer:** Adam Hilger Ltd.
- **Country of Origin:** London, England
- **Serial Number:** E488301

Large constant deviation spectrograph encased in black metal sheath. Appears intact.



## Mercury Vapour Lamp



## Mercury Vapour Lamp

Sealed glass container with two electrodes inset & containing mercury. Labelled "Tested for vacuum 19/6/35".

---



## Miscellaneous Spectroscopic Apparatus



### Brass Circular Spectrometer Base

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England

5 1/2" radius with degree scale & machined groove.



### Accessories for 187

- **Manufacturer:** W. G. Pye & Co.
- **Country of Origin:** Cambridge, England

A: Mounting for cylindrical telescope tube etc; B: Slit collimator attachment; C: Device of unknown purpose.



### Slide/Grating Holder

- **Serial Number:** 99405

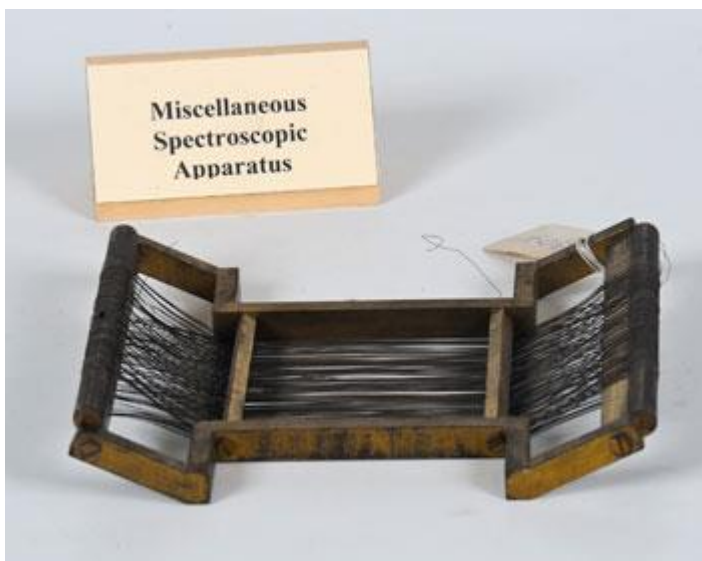
Black enamelled brass holder for spectroscope etc.





### Measuring Eyepiece

Eyepiece driven by screw on slide with clamp to attach device to rod; all of brass.



### Wire Diffraction Grating

Wires running between screw threads on brass frame. Some wires are loose, others are broken.



### Spectroscopy Stand



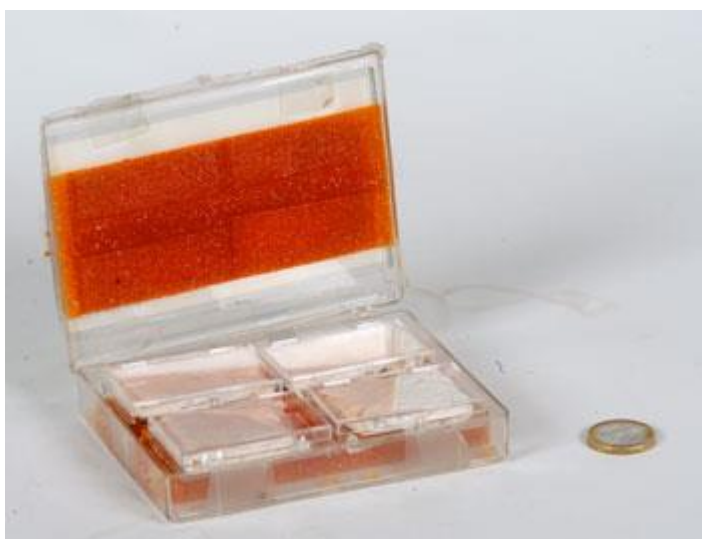
- **Manufacturer:** Duboscq Soleil
- **Country of Origin:** Paris, France
- **Related Link:** [Link](#)

Brass stand with circular scale, rotatable mounts for telescope/collimator.



### Infrared Source

Bakelite handle with glass tubing containing four bound cables terminating in a light-emitting wire coil.



### YBaCuO sample

Perspex box containing YBaCuO sample. Labelled "Thomson, TCD".



### Variable Slit



- **Manufacturer:** Newton & Co.
- **Country of Origin:** London, England

Two brass plates with knobs for varying slit size. Attaches to projector lens via screw threads.



### Slides/Grating Holder

Wooden box with grooves for holding slides, gratings or slits.



### Slides/Grating Holder

Wooden box with grooves for holding slides, gratings or slits.

## Photographic Plate Holders



### Photographic Plate Holder

- **Serial Number:** 23





Hardwood for two plates. One side is broken.



### Photographic Plate Holder

Small holder of hardwood with printed checklist.



### Photographic Plate Holders

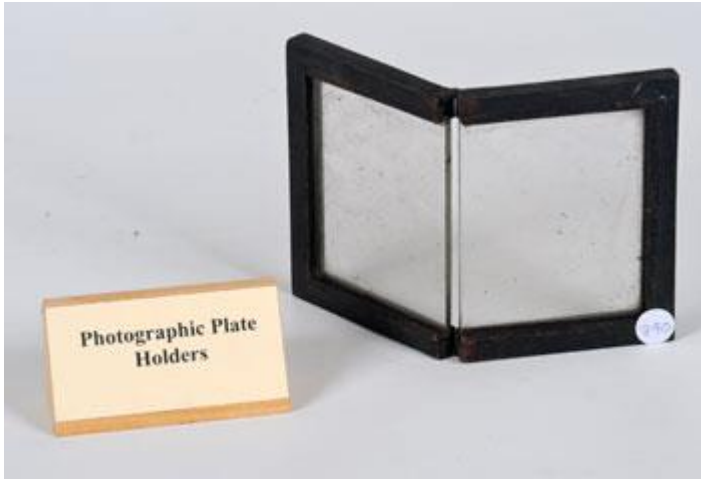
Wooden framed photographic plate holders. A,B,D,E: Intact with hinges on back support; C: Back support missing.



### Photographic Plate Holder

Large plate holder with slide and clasps to hold photographic plate in position. Reinforced edges.





### Glass Photographic Plate Holder

Folding wooden frame with glass plate holder.



### Photographic Plate Holder/Slider

Wooden frame for two plates. Sliding mechanism.



### Photographic Plate Holder

Large photographic plate holders with sliding opening.





### Photographic Plate Holder/Slider

- Serial Number: 0405 8701

Black bakelite framework. Sliding plate holder with scale 0-10 cm(?) controlled by 'Rack' knob. Other knob reads 'Lift' with arrow.

---

### Polarimeter



### Polarimeter

Complete except for dispersive element. Slit aperture probably not original.



### Polarimeter



- **Manufacturer:** Franz Schmidt & Haensch
- **Country of Origin:** Berlin, Germany
- **Related Link:** [Link](#)

Holder for polarimeter. Black casing, faded brass eyepiece.

---

## Prism Spectrometer



## Spectroscope

Prism type, complete on stand.



## Prism Spectrometer



- **Manufacturer:** W. B. Nicholson
- **Country of Origin:** Glasgow, Scotland

Complete apart from missing prism.

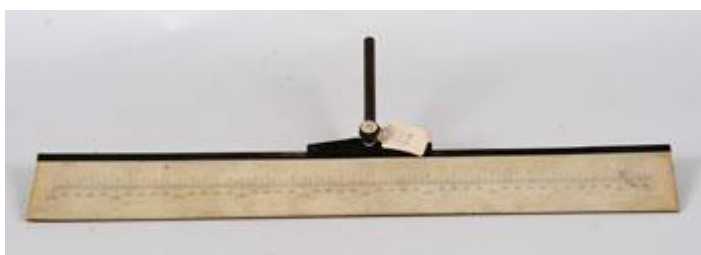


### Prism Spectrometer

- **Manufacturer:** John Browning
- **Country of Origin:** London, England

Telescope & stand only - missing prism & collimator.

### Scales



Scale - for use with moving mirror instruments & galvanometer lamp.

Complete with transverse rack & pinion drive.



### Deviation Scale



- **Manufacturer:** Reynolds & Branson Ltd
- **Country of Origin:** Leeds, England

Wooden scale very like metre stick. Scale from -50-+50cm. Donated by Prof Iggy McGovern.

---

## Spectrometer Adaptation



## Spectrometer Adaptation

- **Manufacturer:** J. Robinson & Sons (Base); Troughton & Simms (Scale)
- **Country of Origin:** Dublin, Ireland; London, England
- **Serial Number:** Scale: 277

Consists of collimator, angled mirror pair & copper cell (latter originally part of ball valve). Includes angle scale & indicator (see 176). Copper ball from toilet cistern used as integration sphere.

---

## Spectroscopy Prints



### Box of Plates of Spectra & Correspondence

Card box with plates wrapped in correspondence between Prof. Ditchburn & opticians etc. (Note added: Correspondence removed 2012.)



### Box containing plate & print of copper spectrum

Card box with glass plate negative & paper positive print of Cu arc spectrum.



### Printer's Spectroscopy Block

Printing plate with spectral samples on hardwood base. "List of Scripture portions for 1942" on reverse.





### Iford Process Plates

- **Manufacturer:** Ilford
- **Country of Origin:** London, England
- **Related Link:** [Link](#)

Card box containing plates and slides. Sticker on lid reads "Magnetic & Electric Fields & Rays".



### Lantern Slides

- **Manufacturer:** Cambridge Scientific Instrument Co.
- **Country of Origin:** London, England

Card box of photographic plates. Lid reads: "Lantern slides reproduced from the negatives taken by Mr. C. T. R. Wilson, F.R.S., with his expansion apparatus showing the tracks of alpha and beta rays."







### Ilford Process Plates

- **Manufacturer:** Ilford
- **Country of Origin:** London, England

Card box with negatives & prints from a geological survey



### Ilford Process Plates

- **Manufacturer:** Ilford
- **Country of Origin:** London, England

Card box with negatives, marked "Radio negatives Jan 1947".





### Box of Negatives

Wooden box with negatives.

---



## Other

### Dividing Engine Base



### Dividing Engine Base

Missing part that sits on the slides.

---

### Fitzgerald Clock



### Fitzgerald Clock

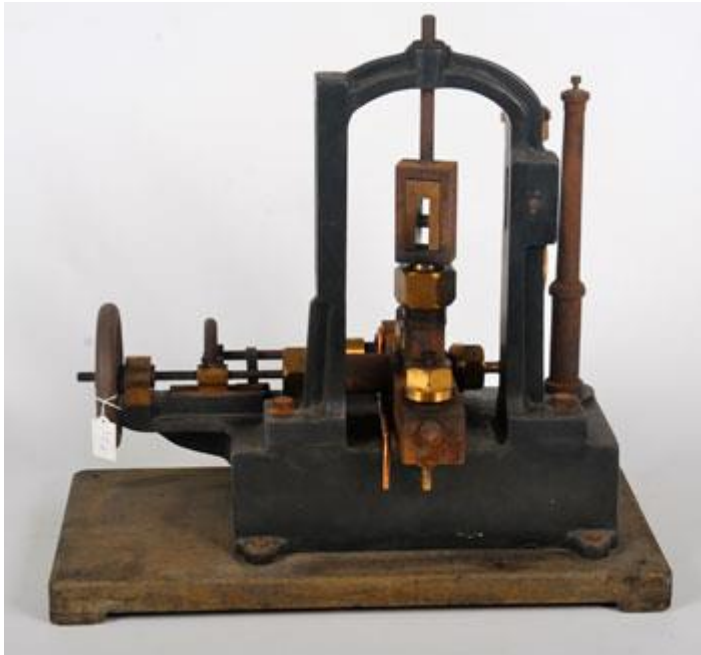
- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Wound clock presented to G. F. Fitzgerald on the occasion of his marriage in 1885. Includes barometer, thermometer, spirit level and other apparatus.

---



## High Pressure Device



### High Pressure Apparatus

Heavy iron apparatus on wooden base. Turning wheels. One bolt missing. Use unknown.

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### Homemade Electronics Circuit in Cigar box.



### Homemade Electronics Circuit in Cigar box.

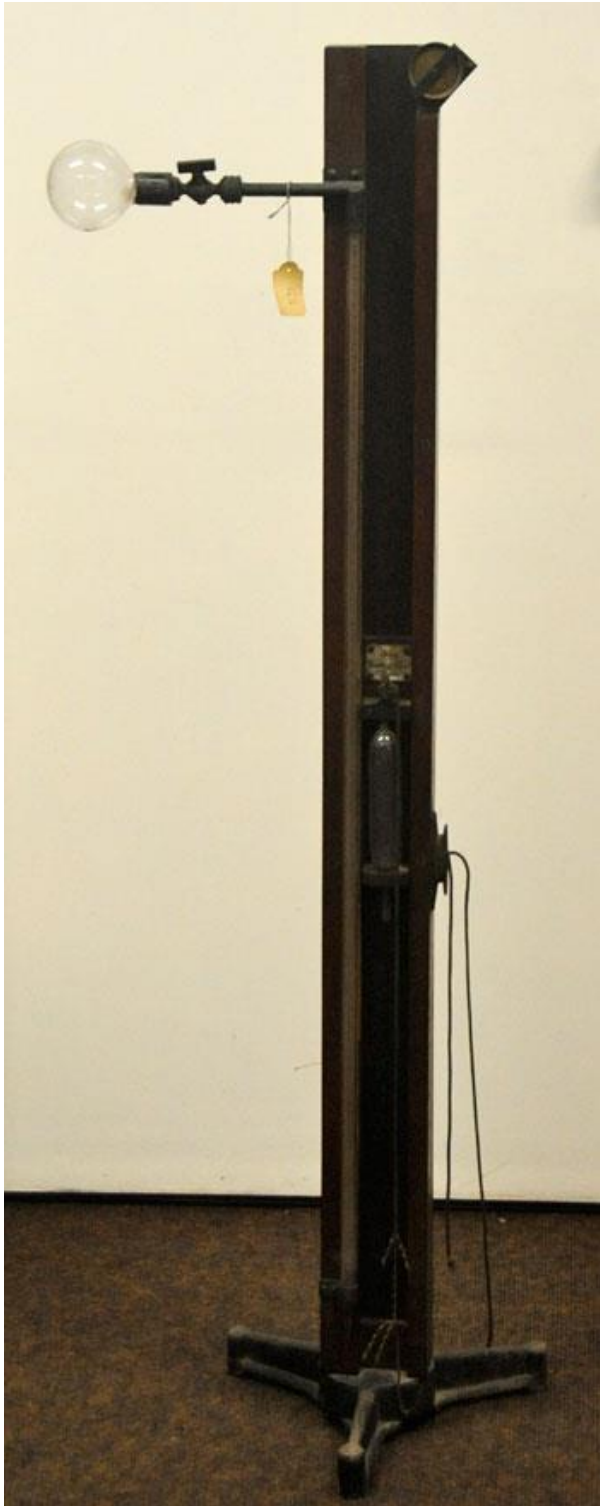
- **Manufacturer:** TCD
- **Country of Origin:** Dublin, Ireland

Device made in TCD. Purpose unclear.





Instrument used to prove gas laws



### Instrument used to prove gas laws

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Wooden stand on metal base. Glass bulb and tube attached.

---

### Mercury Interrupter



### The Sanax Interruptor

- **Manufacturer:** The Sanitas Electrical Co. Ltd.
- **Country of Origin:** London, England

Tall black casing with inverted copper frustum.





### Mercury Interruptor Switch

- **Manufacturer:** Schall & Son
- **Country of Origin:** London, England

Round black base with metal rods supporting black spherical cell.

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## Mercury Purifier



## Mercury Purifier

- **Manufacturer:** Pleager
- **Country of Origin:** Antwerp, Brussels, Belgium

Grey metal casing with switch and plug attached via cable.

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## Tar Drop Experiment



## Tar Drop Experiment

- **Manufacturer:** TCD
- **Country of Origin:** Dublin, Ireland

Volume of tar passing through funnel held by retort stand, and collecting in perspex tube below. Experiment running since Oct 1944.



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## Gas Molecular Beam Forming System



### Gas Molecular Beam Forming System

Glass vacuum system for producing beams of molecules. Tubes to mercury glass vacuum pumps. Magnetic valves. Large measurement chamber for mounting of single crystal. Beam interruptor for control of beam. Glass capillary for beam formation. Second largest chamber contained insert with titanium, forming a primitive titanium pumping device. Skimmer missing. Pressure gradient created using temperature variation along beam. Used to analyse diffusion across surface of sample or adsorption on the surface and study how crystal affected the properties of the gas beam.

---



# Physics Catalogue: V - W

## Vacuum Physics

### Bell Jar



### Bell Jar Bases

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Pair 3 1/2" radius supported by pipe & valve work of brass. Bases are of glass.



### Bell Jar Base

On cast stand cracked glass base 6" in radius.





**Small Bell Jar on Stand**

Small Bell Jar on stand, with fitting on base for evacuation. Contains a heat sink (cube).





### Bell Jar

Glass, diameter increases from base to maximum at height 270mm. Damaged handle.





### Vacuum Jar

Bell Jar with rod for vacuum pump.





**Bell Jar with Vacuum Pump**

On glass base with broken red clay seal.



## Bell Jar with Vacuum Pump

On glass base with yellow clay seal.



## Bell Jar Stand

Bell Jar base with vacuum pump valve. Supported on two legs and two valve supports.

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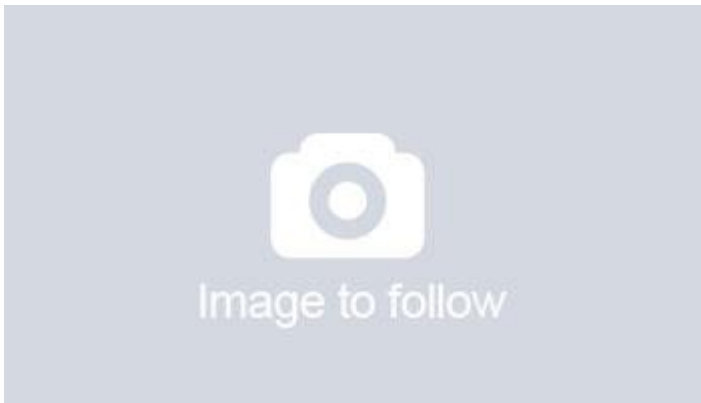
## Hand Pump



## Hand Pump

- **Manufacturer:** Elliot Bros.
- **Country of Origin:** London, England

Push-pull pump on hardwood base.



## Twin Cylinder Hand Pump

Hand driven flywheel pump in working order.



## Single Cylinder Hand Pump

- **Manufacturer:** Pulsometer Eng. Co. Ltd.
- **Country of Origin:** Reading, England

Hand operated flywheel vacuum pump in working order.

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## Leak Detector



## Leak Detector

- **Manufacturer:** General Electric
- **Country of Origin:** Connecticut, USA
- **Serial Number:** 4041123

Box with two readouts: one in 'DC Milliamperes', one in 'AC Amperes'. Cable attaches a drill shaped 'sniffer'/detection unit.

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## Magdeburg Hemispheres





## 2 Pairs Magdeburg Hemispheres

Of brass, in complete working order.

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## Vacustat



## Vacustat

- **Manufacturer:** Edwards High-Vacuum Ltd.
- **Country of Origin:** Sussex, England

Glass tubing on black metal support. Non-linear scale from 0-1 mmHg.

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## Vacuum Pump





### Hand Operated Vacuum Pump

- **Manufacturer:** Newman & Son
- **Country of Origin:** London, England

Poor condition, twin cylinder pump with one connecting rod bent, the other broken & pump stays are missing.



### Vacuum Air Pump

Push-pull type, of brass, on tin-plate base; both in good condition.





### Vacuum Pump

- **Manufacturer:** Elms Iron Works
- **Country of Origin:** London, England

Heavy iron framework with two brass cylinders. Wooden handle for pumping. 'Pulsometer' engraved, like for 225 and 226.

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# Valves

## Osram Valve



## Osram Valve

- **Manufacturer:** General Electric Co.
- **Country of Origin:** Coventry, England

With original correspondence from G.E.C. 1933.

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## Valve Tester



## Valve Tester

- **Manufacturer:** AVO Ltd.
- **Country of Origin:** London, England
- **Serial Number:** 1068-F-62



Curved steel handles, variety of input socket shapes on top. Angled face with readout for current and resistance.

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## Valves



### Needle Valve

- **Manufacturer:** Hoke
- **Country of Origin:** South Carolina, USA
- **Serial Number:** 4112G47

Helium leak tested.





**Glass to Metal Seal**

With conflat vacuum flange.







Glass to Metal Seal



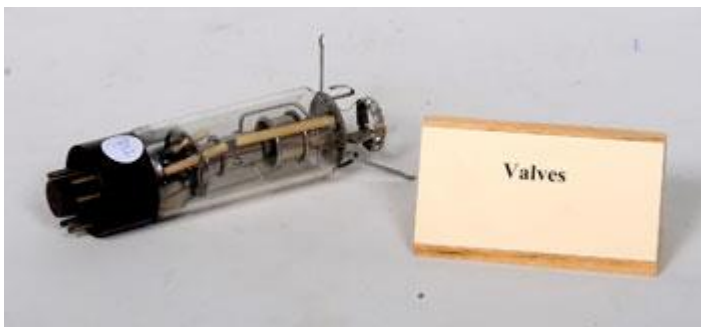
### Valve with Vacuum Conflat Flange

- **Manufacturer:** Varian
- **Country of Origin:** Massachusetts, USA



### Valve

- **Manufacturer:** General Electric Co.
- **Country of Origin:** Coventry, England
- **Serial Number:** DA41



### Valve





### Valve on Stand

- **Manufacturer:** Philips
- **Country of Origin:** Eindhoven, Netherlands
- **Serial Number:** 93122E

Metal tripod stand holding Philips valve.

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# Waves

## Devices for showing wave motion



## Devices for the Demonstration of Wave Motion

- **Manufacturer:** Yeates & Son
- **Country of Origin:** Dublin, Ireland

Devices consist of hand rotated glass plate viewed through aperture in hardwood surround. A: Complete, plate broken; B: Complete, plate broken; C: Missing back, plate broken.



## Plate used to demonstrate wave motion

Broken black plate with sine wave etched around circumference. For use with 398A/B/C.





### **Apparatus used to demonstrate wave motion**

Wooden box containing brass and wooden wave-demonstration apparatus.

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### **Slinky Spring**



### **Slinky**

Slinky with metal support bar.

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**Tercentenary of Physics in Trinity**

**1724 – 2024**

