

Royal "Ediswan" Pointolite Lamps



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ROYAL "EDISWAN" POINTOLITE LAMPS

For Direct Current only

(For details of A.C. Pointolite Lamps, see page 6)

Fig. No. 1

30 c.p. Galvanometer Type Lamp, 45 amp.
for use with reflecting Galvanometers
Ionising current 4.5 amps.



Fig. No. 1

Fig. No. 2

100 c.p. Fixed Focus Lamp, 2½ in. Bulb,
1.35 amp., 2 Electrodes, consumption 0.65
watt c.p. (Lamp only). This lamp is
specially designed for use in deep para-
boloidal reflectors

Ionising current 7 amps.



Fig. No. 2

Fig. No. 3

100 c.p. Standard Pointo-
lite Lamp, 3 in. Bulb, 1.35
amp., 2 Electrodes, con-
sumption 0.65 watt c.p.
(Lamp only). Specially
suitable for small projec-
tion, microscopic, oscillo-
graphic work, etc.

Ionising current 7 amps.



Fig. No. 3

Fig. No. 5

500 c.p. Pointolite
Lamp Ordinary, 4 in. Bulb.
5 amp. 3 Electrodes. Con-
sumption 0.5 watt c.p.
(Lamp only)

Ionising current 7 amps.

This Lamp may be used for
the study of Microstructure
of Metals, Photographic
work, Gaugetesting, Colour
matching and Stage
illumination

It is particularly suitable
for Projection work when
only moderate candle
power is required

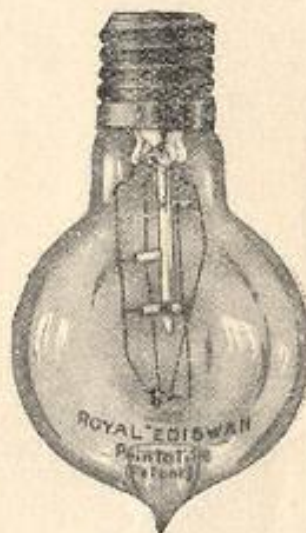


Fig. No. 5



ROYAL "EDISWAN" POINTOLITE LAMPS

For Direct Current Only

*(For details of A.C. Pointolite
Lamps see page 6)*

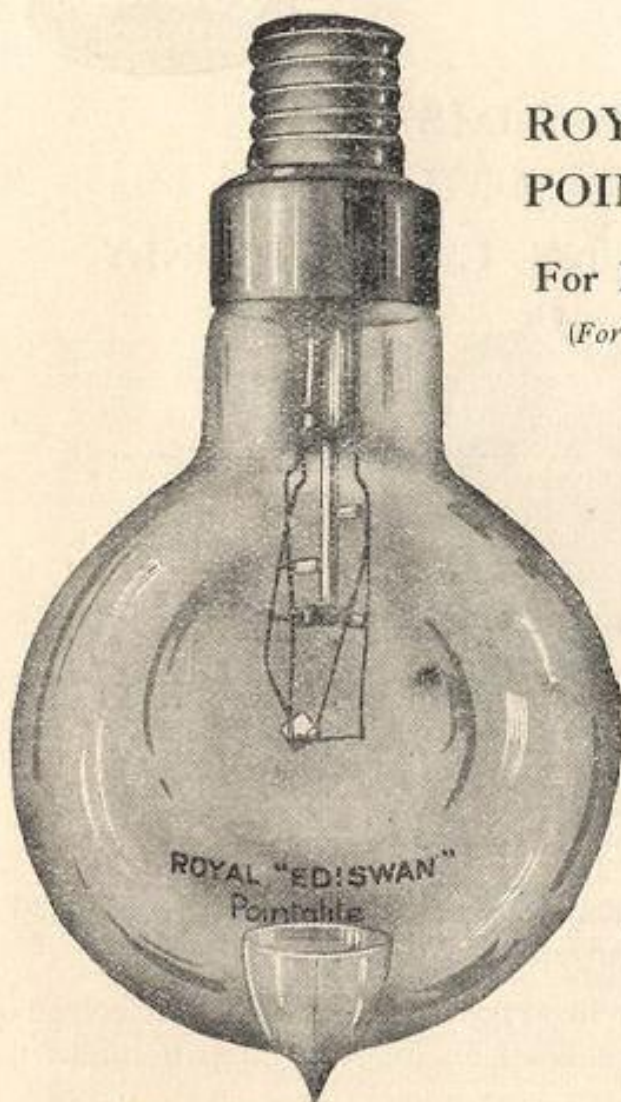


Fig. No. 7

1,000 c.p. Pointolite Lamp
ordinary. 6 in. Bulb. 8 amp.
3 Electrodes. Consumption
0.42 watt c.p. (Lamp only).
Ionising current, 7 amps.

The 1,000 c.p. Pointolite
Lamp is specially suitable for
Projection work, owing to its
high candle power, cool beam
and high efficiency.

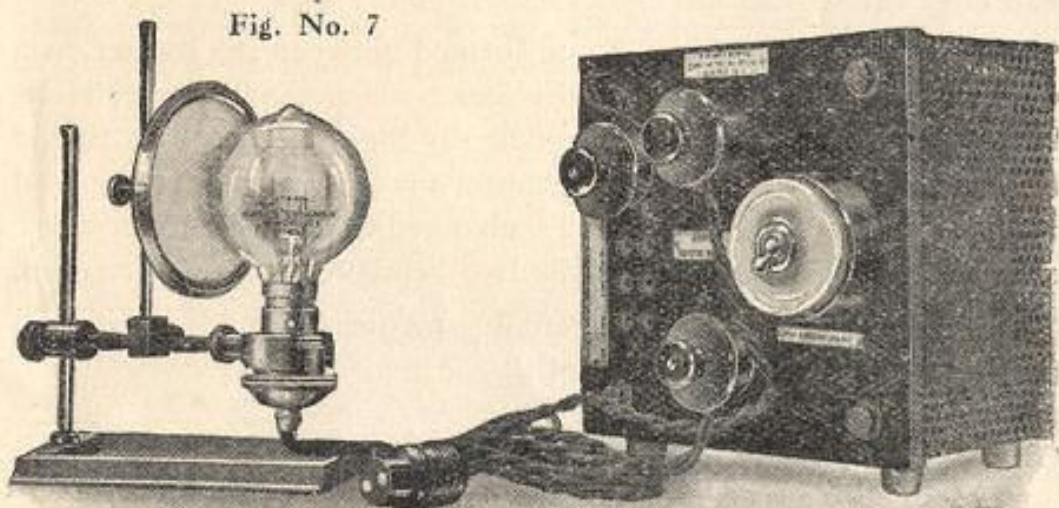


Fig. No. 7

Fig. No. 4

Fig. No. 4. 100 c.p. Pointolite Lamp, with Reflector for Projection
Lantern, and Resistance Box

See that every bulb bears the Registered Name ROYAL "EDISWAN."



ROYAL "EDISWAN" POINTOLITE LAMPS

For Direct Current Only

(For Prices of A.C. Pointolite Lamps see page 6)

INSTRUCTIONS FOR USE (Two-Electrode Lamps)

PPOINTOLITE Lamps, listed below, are for use on direct current only, and can be run from an ordinary lampholder by inserting the Adaptor connected to the Resistance Box. Three wires and a three-pin Plug connect the Lamps to the Resistance. These three wires connect a Heater Circuit to start the Arc, and the Arc Circuit proper which maintains the light from the Tungsten Ball.

The standard pattern of Resistance is capable of being used on all voltages, that is 100 volts to 250 volts direct current. Care must be taken to use the proper Resistance, which is clearly marked, by placing the two-pin Plug into the correct holes corresponding with the Voltage of the supply.

The available supply of current having been connected to the Resistance Box, and the Lamp also connected by means of the Plug and Adaptor, all that is necessary to light the Lamp is to close the Switch which is fixed on the Resistance Box.

The Switch should be released as soon as the Lamp is seen to light up, and if the Arc does not strike very quickly the Adaptor should be taken from the Holder and turned round so as to change the polarity.

When the polarity is correct the Arc will strike immediately the Switch is released.

Reference	Description	Price
Fig. No. 1	30 c.p., 45 amp. Lamp	£1 10 0
Fig. No. 2	100 c.p., 1.35 amp. Lamp, Fixed Focus ...	1 10 0
Fig. No. 3	100 c.p., 1.35 amp. Lamp	1 10 0
Fig. No. 4	Standard Universal Resistance, adaptable to all circuits, with Plug, Switch, Holder, Adaptor, and Flexible for 100 c.p. Lamps	5 0 0
Fig. No. 5	500 c.p., 5 amp. Lamp	2 10 0
Fig. No. 6	High candle-power Resistance, complete with Plug, Switch, Holder, Adaptor, and Flexible for 500 c.p.	Low Voltage £9 10 0 High Voltage £12 10 0
Fig. No. 7	1000 c.p., 8 amp. Lamp	3 10 0
Fig. No. 8	4000 c.p. Lamp	Prices on application
Fig. No. 9	100-120 v. (L.V.) Resistance for 1000 c.p. Lamps	13 10 0
Fig. No. 10	200-220, 230-250 v. (H.V.) Resistance for 1000 c.p. Lamps	14 15 0

Resistance complete for 30 c.p. lamp £3 12 0

NOTE—Resistances for 30 c.p., 500 c.p. and 1000 c.p. Lamps are not universal, and the correct voltage should be stated when ordering.

EXTRAS

	£	s.	d.		£	s.	d.
Reflector for 100 c.p. Lamp	1	17	6	Clip for 1000 c.p. Lamp ...	6	6	
Tray " " "	4	0		Holder for 1000 c.p. Lamp ...	15	0	
Clip " " "	9	6		Cocus Adaptor A 836 ...	2	0	
Holder " " "	9	0		Flexible Cord, per yard :—			
Tray " 500 c.p. "	4	0		Twin	1	0	
Clip " " "	6	6		Triple	1	6	
Holder " " "	15	0		Double Twin	2	0	
Tray " 1000 c.p. "	4	3					



ROYAL "EDISWAN" POINTOLITE LAMPS

For Direct or Alternating Currents

THE Royal "Ediswan" Pointolite Lamp is a definite departure in the realm of electric lamps.

The Direct-Current Arc Incandescent Lamp consists of a special starting device known as the "ioniser," which in the case of the two-electrode lamps acts also as a -ve electrode, and one or two fused tungsten electrodes, the whole being enclosed in a glass bulb filled with an inert gas at a low pressure.

Two distinct types are manufactured, A, a two-electrode lamp in which the arc is formed between the ioniser as -ve electrode and a tungsten bead as +ve electrode, and B, a three-electrode type of lamp in which an arc is first formed between the ioniser and a bead of tungsten and is then changed "over," the bead becoming a new -ve and a tungsten plate the new +ve electrode.

Those belonging to A type include lamps of 30 and 100 c.p., those belonging to B type include lamps of 500, 1,000 and 4,000 c.p. The source of light in lamps of A type is the tungsten bead and in lamps of B type mainly the tungsten plate and partly the tungsten bead.

The lamp has an unique combination of advantages. The light source is of a point nature, far superior in intense concentration and uniformity to anything previously obtainable in incandescent lamps.

The light is perfectly steady, ideal for focussing and requires no attention when in use, a fact that makes it far superior to various types of arc lamps used for projection purposes.

The intrinsic brilliancy in the case of the two-electrode lamp is about 12,000 c.p. per square inch and in the three-electrode lamp it is about 8,000 c.p. per square inch at normal working current.

But the intrinsic brilliancy can be greatly reduced or increased if required, it being possible, for example, to vary the temperature of the 100 c.p. tungsten bead from a dull red when it is giving about $\frac{1}{4}$ c.p. to brilliant white when candle power is about 500, the intrinsic brilliancy about 60,000 c.p. per square inch and the bead is molten.

The alternating current Pointolite Lamp is similar to the three-electrode direct current type. It possesses an "ioniser" starting electrode and two tungsten beads. In this lamp an arc is first formed between the ioniser and one of the tungsten beads, and is then "changed over" so that the two beads act as the new arc electrodes. Both beads are equally brightly incandescent.

At present the alternating current Pointolite Lamp is made only in 150 c.p., but higher candle-power lamps are being developed.

The applications of the Pointolite Lamps are numerous.

It is an ideal lamp for projection work.

It is excellent for use in conjunction with microscopes, galvanometers and oscillographs, for colour matching, stage illumination, photographic work, gauge testing and the study of microstructure of metals, for surgical fittings, and many other similar purposes.

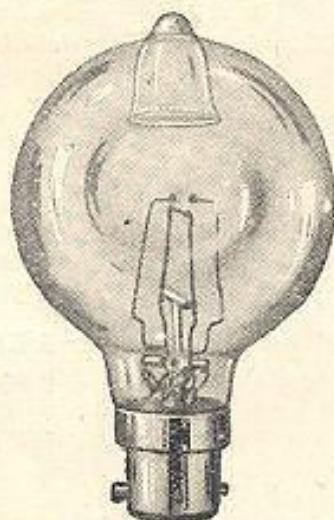
An important feature of the lamp is its suitability for use with a deep paraboloidal or ellipsoidal reflector utilising an enormous flux of light.

In projection work the coolness of the beam is another great advantage.

A special lamp for pyrometric work is also manufactured.



ROYAL "EDISWAN"
POINTOLITE LAMPS
FOR ALTERNATING CURRENT ONLY



A.C. Pointolite Lamp, 150 c.p.

THIS Lamp, which has just been developed, is specially designed for use on alternating current circuits.

It is somewhat similar in appearance to the three-electrode direct current lamp, and possesses an ioniser and two tungsten bead electrodes.

In operation the arc is first formed between the ioniser, as a negative electrode, and one of the beads as a positive electrode. When the bead is raised to a sufficiently high temperature to act as a negative electrode, an alternating current passes between it and the ioniser. The arc is then "changed over," the ioniser being excluded from the circuit, and the two beads act as arc electrodes.

This Lamp is especially suitable for use in small projection, microscopic and oscillograph work.

Pointolite Lamp for alternating current, 150
c.p., 3 in. bulb, three electrodes, current
consumption 2 amperes [0.66 watts per
candle (lamp only)], ionising current 7
amperes

Resistance Box for use with above, complete

Spare Fireproof Moulded Holder, per each...

Price	£1	10	0
	"	5	10
	"	0	15