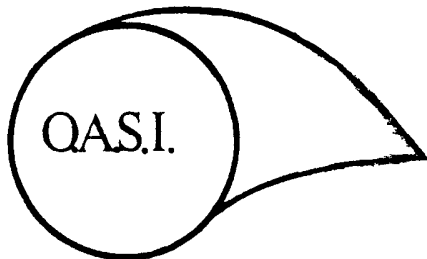


ORWELL ASTRONOMICAL SOCIETY, IPSWICH.



SOCIETY NEWS

1991 ANNUAL GENERAL MEETING

 *
 * The 1991 Annual General Meeting will be *
 * held on Saturday 12th January 1991 in a room *
 * in the new classroom block of Orwell Park *
 * School. The start will be at 8.00pm. *
 *

2 Committee Meeting

The next committee meeting will be held on Saturday 15th December, at 7.30pm at Nacton. This is an open meeting and all members are welcome to attend.

3 1991 Subscriptions

Membership subscriptions are due on 1st January of the new year. Please either send monies directly to David Barnard or pay at the AGM on 12th January.

Rates for 1991 are:-

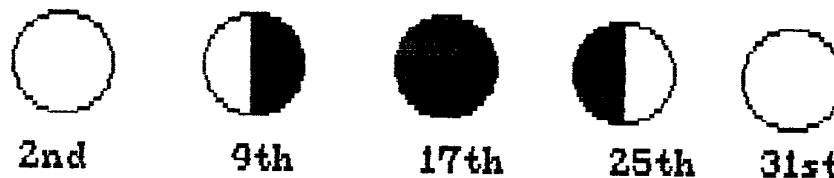
Child & OAP	£ 7.00
Adult	£10.00
Family	£11.50

NIGHT SKY

All times GMT

SUN Rises approximately at 08.10
 Sets approximately at 15.50

MOON



2nd

9th

17th

25th

31st

MERCURY Mercury is still an evening object this month, it will be at greatest eastern elongation on the 6th (21°). Mercury then rapidly closes with the sun to be at inferior conjunction on the 24th. Maximum magnitude is at the beginning of the month 1.0.

VENUS Venus is an evening object, but remains low down in the western twilight this month. Mag. -3.9

MARS Mars remains a prominent evening object, in the constellation of Taurus. Mag. -1.6.

JUPITER Jupiter will be rising at about 19.00 by the end of the month. Mag. -2.4.

SATURN Saturn will be setting about 30 minutes after sunset at the end of the month, and will be difficult to see.

URANUS Uranus will be in conjunction with the sun on the 31st.

NEPTUNE Neptune will be setting soon after sunset this month.

R. Gooding

NATIONAL ASTRONOMY WEEK

National Astronomy Week started on Saturday 17th and ended on Friday 23rd November. It was decided to open the observatory to the public for five evenings and to hold a public lecture meeting at the Friends Meeting House on the Friday. The Thursday evening was treated as a day off, with nothing arranged.

The open evenings were extensively advertised locally:-

The Whats On columns in all the local papers.
 Two interviews on BBC Radio Suffolk.
 An article in the Evening Star.
 An exhibition held at Ipswich Museum a few weeks earlier.
 Local libraries.

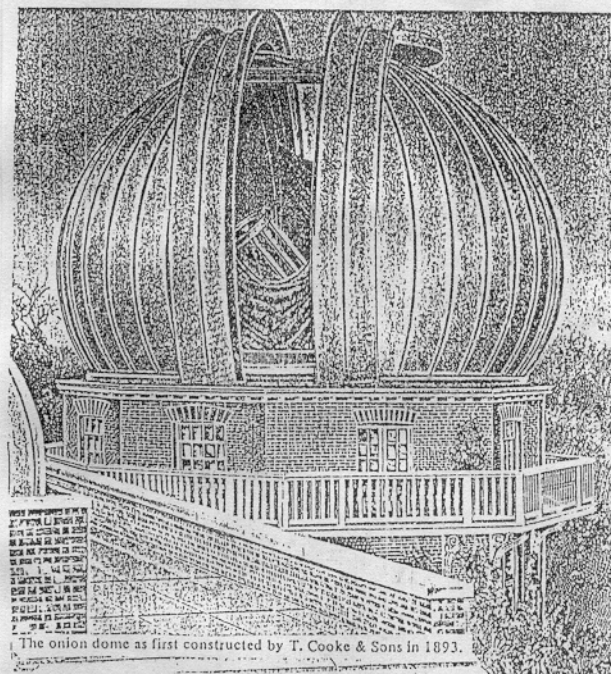
The weather was on our side for once. Even though it was very unsettled during the days, the skies cleared sufficiently on every evening for observing. On Saturday, Sunday and Monday Mars was observed between cloud, while on Tuesday and Wednesday the clouds cleared almost completely. The total number of visitors was over 400, with about £170 added to society funds.

Many visitors asked why it was not possible to observe the Moon. We had to explain to them that the Moon was setting before the observatory was open, and that we were not responsible in choosing this week as National Astronomy Week. Every year, when we organise public open evenings we always make sure that the Moon is in a suitable position for observing.

The week was concluded by a lecture given by Mr. Konrad Malin-Smith. His chosen subject was an account of his many trips to the Canary Islands, and his visits to the observatories on La Palma. The talk took the form of an astronomical travelogue.

R. Gooding

THE OLD ROYAL OBSERVATORY AT GREENWICH CONTINUED.



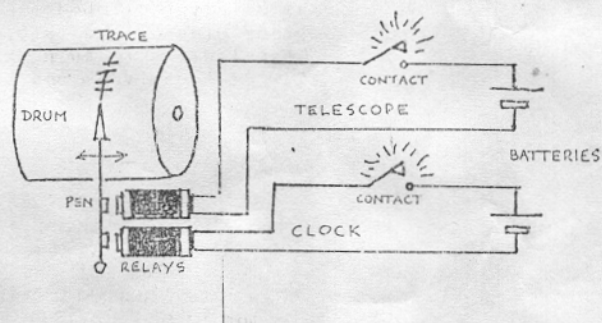
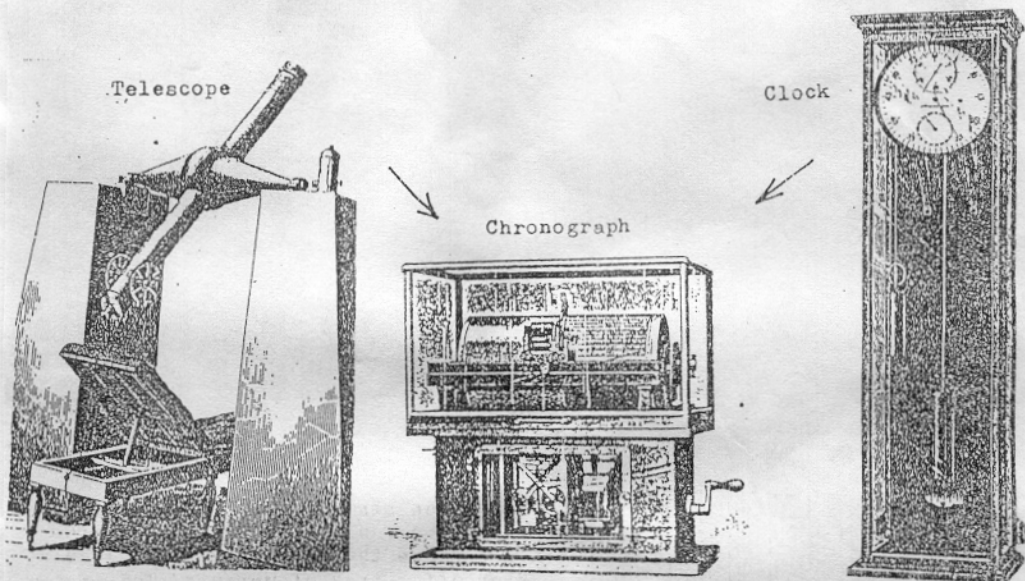
The original MERTZ telescope was housed in a "drum" which rotated on cannonballs. In order to accommodate the new ten foot longer GRUBB telescope the present 'Onion Dome' was built with the bulge over the circular base ring.

Examine the door at the exit to the dome. It is solid cast iron shaped to look like a wood panelled door. This door and its twin on the floor below were cast as part of the order given to RANSOME & SIMS

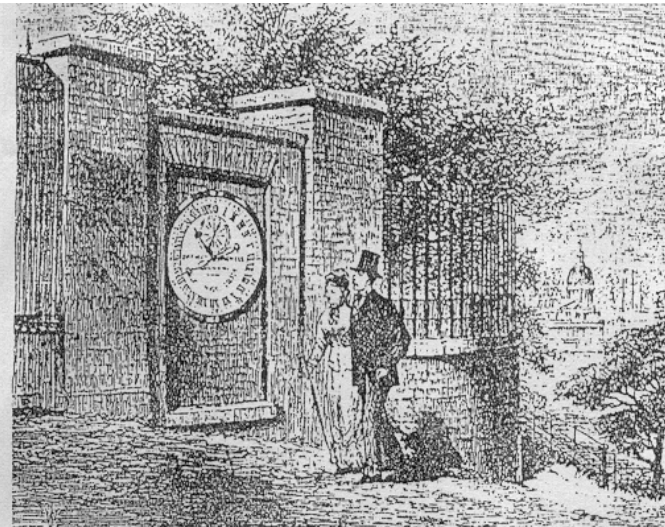
The 28 inch telescope is used during the winter season by accredited observing groups from astronomical societies and universities.

The operation of the Transit Telescope

The observer watched a star or planet of known position crossing a series of ten vertical wires in the eyepiece field of view. As the object crossed each wire the observer pressed a button which closed electric contacts. An electric relay moved an ink pen which marked a trace on the CHRONOGRAPH, which had a revolving drum of paper which was also being marked by a pulse from a standard clock. The telescope could be used as a check on clocks, and the same electric relays could regulate clocks all over the Victorian railway network by means of the electric telegraph, as well as the timeballs at Greenwich and elsewhere.



After Greenwich Time was chosen as the World Time Standard in 1884 the Greenwich Meridian became very famous indeed. Since the opening of the Observatory as a Museum the position of the Meridian has been marked by the brass strip across the courtyard.



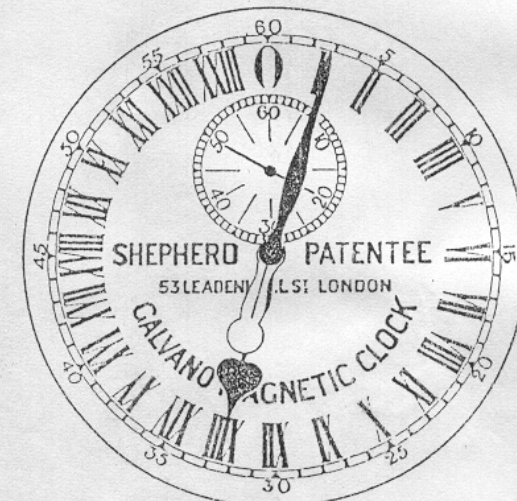
The 24-hour gate clock about 1890.
From Edward Walpole, *Old and New London*, VI, 222.

THE GATE CLOCK. First erected in 1852 this is one of the first public electric clocks. The electric impulses were provided by SHEPHERD'S MOTOR CLOCK now preserved in the Spencer Jones Gallery, so the clock outside is only a 'slave'. From 1852 to 1893 it was the basis of the time system in Britain, providing the MEAN SOLAR STANDARD.

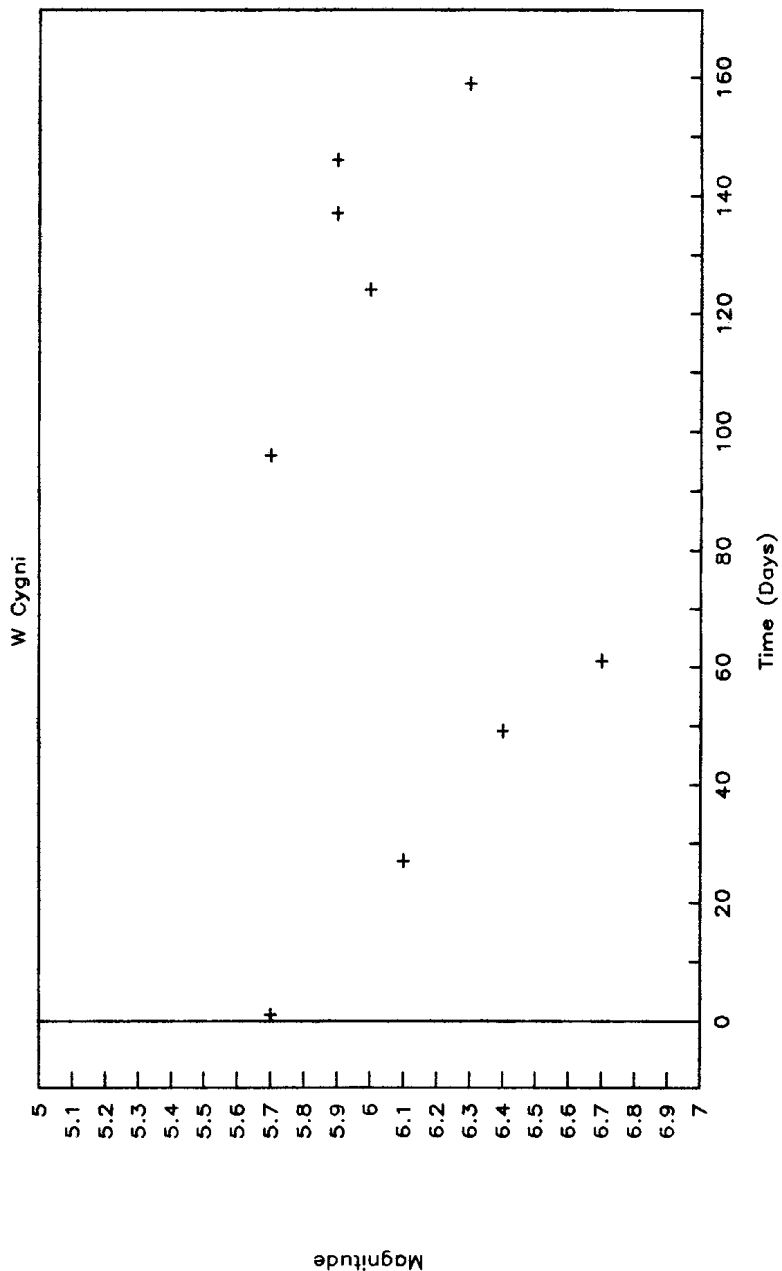
In the main mechanism the pendulum is impulsed by a gravity arm which is rococked electrically hence the term "galvanic". Electrical impulses operate relays in the slaves which in turn move the hands. This mechanism in the gate clock can be seen from the rear.

Such a mechanism can also trip the TIME BALL at the Old Royal Observatory and other places like Deal in Kent. The introduction in Victorian times of the electric telegraph meant that the electrical impulses could easily operate at all stations around the railway network, giving "railway time". This was the forerunner of the six "pips" on the radio, Greenwich Mean (average) Time. The service by telegraph became more generally available when in 1870 the Post Office took it over.

The dial outside the gate is a 24 hour one, much to the confusion of some visitors. On the side here it reads 1.03 p.m. or to be more exact it reads 13h.02mins.50secs.G.M.T. It shows only G.M.T. throughout the year, so it will be one hour behind your watch during the months of summer when the civil clocks are set to B.S.T.



Variable Star Observations



PROGRAMME FOR DECEMBER

DAY	DIRECTORS	SECTION	PHONE No.s
Mondays from 8.00pm			
3-10		GENERAL OBSERVATION SECTION	
17-24	Mr R Newman	[Redacted], Felixstowe, IP11 9DY.	Tel. Fel. [Redacted]
31	Mr J King	[Redacted], Felixstowe, IP11 9LQ.	Tel. Fel. [Redacted]
Tuesdays from 8.00pm			
GENERAL OBSERVATION SECTION			
4-11	Mr R Newman	[Address above.]	Tel. Fel. [Redacted]
18-	Mr J King	[Address above.]	Tel. Fel. [Redacted]
Wednesdays from 8.00pm			
NEBULA AND FAINT OBJECTS SECTION			
5-19			
26	Mr M Cook	[Redacted], Ipswich, IP4 5PZ.	Tel. Ips. [Redacted]
	Mr D Payne	[Redacted], Wickham Market, IP13 0SD.	Tel. W.M. [Redacted]
Fridays from 8.00pm			
PLANETARY AND LUNAR SECTION			
7-14	Mr P Richards	[Redacted], Ipswich, IP4 1QB.	Tel. Ips. [Redacted]
21-28	Mr R A Lobbett	[Redacted], Felixstowe, IP11 8UJ.	Tel. Fel. [Redacted]
	Mr G Marriott	[Redacted], Ipswich, IP4 4JB. [Assistant Director]	Tel. Ips. [Redacted]

All nights are open to all members, but, on nights other than Wednesdays, ring directors to confirm. Directors will also be able to tell you if a group visit is taking place. All sections observe anything of interest, but the title indicates the main specialism.

Lectures and other events: COMMITTEE MEETING
The next committee meeting will be on Saturday 15th December at the observatory starting at 19.30. As usual this will be an open meeting and any member may attend if they wish.

1990 COMMITTEE

CHAIRMAN	D Payne	[Address above.]	Home: [Redacted] Work: [Redacted]
VICE CHAIRMAN /VISITS CO-ORD	D Barnard	[Redacted], Ipswich, IP4 5PP.	Home: [Redacted] Work: [Redacted]
SECRETARY	R Gooding	[Redacted], Ipswich, IP1 6AE.	Home: [Redacted] Work: [Redacted]
TREASURER	M Nicholls	[Redacted], Capel St Mary, Ipswich, IP9 2EX.	Home: [Redacted] Work: [Redacted]
MAINTENANCE CO-ORD	M Cook	[Address above.]	Home: [Redacted] Work: [Redacted]
JOURNAL CO-ORD	E Sims	[Redacted], Ipswich, IP1 4HA.	Home: [Redacted]
LIBRARIAN	P Richards	[Address above.]	Home: [Redacted] Work: [Redacted]
EQUIPMENT CURATOR	J King	[Address above.]	Home: [Redacted] Work: [Redacted]
SPECIAL EVENTS CO-ORD	A Smith	[Redacted], Ipswich, IP4 5RZ.	Home: [Redacted] Work: [Redacted]