



EDITORIAL

Stephen Leacock and Mark Twain and
Jonathon Swift and Sidney Gould

Referring to our recent pieces about the 1882 Transit, Dr. Hogg recalled that both Stephen Leacock and Mark Twain had written things about the Transit of Venus. Priscilla Wagner with the help of two librarian colleagues in Toronto was able to produce both of the references.

Leacock's was a short story entitled "The Transit of Venus", first published in the January 1926 Good Housekeeping, and later reprinted in "My Remarkable Uncle and other Sketches" (Dodd, Mead; 1942). It is a comic-romantic tale of a 38-year old professor of astronomy who falls in love with a pretty student and eventually gets to marry her. Leacock presented the professor as a scholarly boob (as he usually did - especially himself). However, he wasn't very careful about checking the professor's astronomy, e.g., Arcturus' distance is given as "three light years", and there is a comment about the "proper motion of the sun". There is a passing reference to a Transit of Venus, but it doesn't seem to justify that title for the story.

Clemens' Transit reference occurs in "Fables for Good Old Boys and Girls", included in "Mark Twain's Sketches, New and Old" (American Pub. Co. 1875). The Fables constitute remarkably clever satire at the expense of the scientists of his day. The little creatures of the wood send out a scientific expedition, see many remarkable things and write pompous interpretations which are either nonsensical or are based upon some patently fallacious reasoning. For example, they came upon two indefinitely long parallel bars made of "some kind of hard black substance",

which Professor Mud Turtle proclaims to be "in a palpable, compact and imperishable state, what the wisest of our fathers always regarded as a mere thing of the imagination--- parallels of latitude!" Then, "accompanied by a clattering and rumbling noise, ... a vast eye shot by, with a long tail attached, and disappeared in the gloom, still uttering triumphant shrieks". This, concluded Professor Mud Turtle, must have been the Vernal Equinox; and when another monster roared past in the opposite direction, Professor Woodlouse, with much unction pronounced this second one to be the Autumnal Equinox. This was too much for the others, so they asked Lord Daddy Longlegs to speak. The great marvel, said he confidently, was nothing less than the Transit of Venus. And when Chief Inspector Lizard complained that "Venus should traverse the Sun's surface, not the Earth's", Lord Longlegs brought the discussion to an end by explaining that well meaning people had always thought that the transit occurred across the Sun's surface but "to us has been granted the inestimable boon of proving that the transit occurs across the Earth's face, for we have SEEN it! ".

Clemens perhaps derived his technique, in part at least, from Swift. In the Voyage to Laputa in "Gulliver's Travels" the Laputan scientists arrived at amazing conclusions in much the same way. Among astronomers the best known "discovery" of these "scientists" is that of the "two satellites which revolve about Mars; whereof the innermost is distant from the centre of the primary planet exactly three of the diameters and the outermost five; the former revolves in the space of ten hours, and the latter in twenty-one and a half; so that the squares of their periodical times are very near in the same proportion with the cubes of their distances from the centre of Mars; which evidently shows them to be governed by the same law of gravitation that influenced the other heavenly bodies". This, written in 1726, was greeted by Swift's contemporaries either with mirth or derision depending upon their sense of humour or lack of it. But when Asaph Hall at Washington in 1877 discovered the real satellites of Mars with distances 1.4 and 3.5 Martian diameters and periods 7.6 and 30.3 hours, many (including Flammarion) credited Swift with some secret or supernatural knowledge of the facts.

Which brings me finally to Sidney H. Gould who wrote a very clever essay on "Gulliver and the Moons of Mars" for the Journal of the History of Ideas, vol. 6, no. 1, 1945.

I first met Gould when he was an undergraduate in the M and P course of 2T9. He turned out to be one of those increasingly rare scholars - one with competence in two unrelated disciplines, having taken postgraduate degrees in both classics and mathematics. During the war he was a Research officer at N.R.C. In 1945 he returned to U. of T., teaching classics; and in 1947 he moved to Purdue's Department of Mathematics. Now he lives at Providence, R.I. - retired perhaps.

Gould's paper on Gulliver tackled this question: Why, apart from the satirical value of such small values, did Swift choose 3, 5 and 10 for the distances and the first period (which, of course, would set the period of the second)? Gould made these points: Since the relative diameters of Earth, Jupiter, and Saturn were known at the time, and since their relative masses were known from the known satellites, their relative densities were as 400: 94½: 67, as Newton stated in the third book of the Principia. Newton surmised from this that Mars (of known relative diameter, but at that time of unknown relative mass) might be expected to have a density about three times that of Jupiter - just judging from an apparent nearly linear relation between distance from the sun and relative density for Earth, Jupiter and Saturn. But, with Swift's satellites, Mars would turn out to be 22 times as dense as Jupiter. Gould concluded that Swift would have delighted in reducing this discrepancy (had he recognized it) by moving his moons, a little closer to Mars. But, says Gould, Swift hadn't understood the Principia that thoroughly, and he had chosen the numbers 3, 5 and 10 for a_1 , a_2 and P_1 just for ease of computation. He did well enough as it was, but he could have done better!

J. F. H.

OBSERVING

At Las Campanas

Dr. Sanyal has recently returned from a very successful observing session. With about 65% observing weather he obtained 536 spectrograms on 42 stars, searching for short-time variations. For at least four of the stars the variations are remarkable. For others careful examination of the spectrograms will be necessary.

With Dr. Jeffers' image tube scanner York's Dr. Weller and Dr. Sanyal observed about ten of the same stars, concentrating on the regions of H α , H β and λ 4686. The data are stored on magnetic tape which will be arriving in a week or so when they will be examined in detail. However, it was clear that the Jeffers instrument was working well.

At Green Bank

P. C. Gregory and E. R. Seaquist spent 2½ weeks in November at the N.R.A.O. at Green Bank, West Va. on two observing programs. The first program was a search for redshifted recombination absorption lines in the quasistellar source 3C273 by ionized hydrogen possibly surrounding the compact components which are observed at high frequencies (10,500 MHz). These observations were carried out with the 140' telescope and a velocity range of about \pm 3,000 km/sec. on either side of the emission line redshift was searched. No feature greater than about

1% in optical depth was found, but the data are not yet completely reduced.

The second program was a search for continuum radio emission at 2695 MHz and 8085 MHz from a large number of infrared stars, known for the most part to be sources of OH line emission.

This program was carried out with the NRAO three element interferometer. Cyg X-3 was also monitored during this period. Its flux density was down to a few tenths of a flux unit, and it appeared to be undergoing fluctuations during the observing period. These data are also in the process of reduction.

At ARO and Haystack

Drs. Yen and Kronberg and Claude Faubert made successful long-range interferometer observations of compact OH sources in the galaxy on Oct. 26-29. They had the cooperation of Dr. Jim Moran of the Smithsonian and of Dr. Philip Schwartz of the U.S. Naval Observatory.

COMINGS AND GOINGS

Dr. MacRae was in Rochester on Nov. 13 at a meeting called to advise on the future of the Mees Observatory. He also attended the Memorial Service for the late Dr. Shapley held at Harvard on Nov. 21.

Dr. van den Bergh gave a talk on "Evolution of Galaxies" at York University on Nov. 8, at the University of California (Berkeley) on Nov. 9 and at the University of Guelph on Nov. 17. He also attended a Director's meeting of the A.S.P. in San Francisco on Nov. 10 and a Cal Tech party to celebrate the 400th anniversary of the discovery of Tycho's supernova on Nov. 11.

Dr. Kronberg and Dr. Broten of N.R.C. represented the CAS at a Scitek meeting in Ottawa Oct. 30-31 to prepare a White Paper for the Minister of State for Science & Technology on the reaction to the Lamontagne Report.

Dr. Kronberg was at Charlottesville Nov. 17-20 doing super-synthesis maps of quasars on the NRAO computer from observations taken by him last year.

Dr. Hogg attended the celebrations of the Centennial of the Alumnae of Mount Holyoke College on Nov. 11-13. On Nov. 11 she gave the dedication address on the opening of the 24-inch telescope for the Five-Colleges Astronomy Department. On the 13th she lectured to an undergraduate course and gave a colloquium to the Five-Colleges Department.

Dr. Walborn gave a colloquium at the University of Toledo on Nov. 2.

Dr. Hogg attended a meeting of the N.R.C. Copernicus Quinquacentennial Committee in Ottawa on Nov. 3.

SEMINARS

NOVEMBER As announced in October DDD, the title of today's talk by Dr. Schild being "The Nature of Infra-red Excess in Extreme Be Stars".

DECEMBER

Tues. 5th Major G. W. Gray, M.D. D.R.B. "Operations at High Altitude"
D.D.O.

Wed. 6th Dr. John Landstreet, University of Western Ontario
Campus "Recent Results on Magnetic Fields in White Dwarfs"
137, McLennan

Tues. 12th Dr. John Hutchings, Dominion Astrophysical Observatory
D.D.O. "Synthesis of Close Binary Light Curve"
2 p.m.

12th CHRISTMAS COUNTDOWN 4 P.M.

Thurs. 14th Dr. Inge J. Sackmann, Kellogg Laboratories, Cal Tech.
1422 McL. "Some Exciting Features of Carbon Stars"

PAPERS SUBMITTED IN NOVEMBER

- N. R. Walborn "The Spectrum of HDE 226868 (Cygnus X-1)"
" " "Spectral Classification of Of Stars in VI Cygni (Cygnus OB2)"
R. F. Garrison "The Spectra of Mira Variable Stars"
R.F. Garrison "CPD -31^o1701, An Extremely Helium-Rich, Subluminous
& Hiltner O-Type Star".

Letters

To the Editor, DDD

Nov. 6/72

I have read with great interest your account of the Canadian equipment and personnel for the 1882 transit of Venus, and would like to offer my compliments that you have made this material accessible to us.

It is my understanding that two noted humorists, Mark Twain and Stephen Leacock, made comments on this transit. Did your delvings uncover any specific references to either of these?

Helen S. Hogg.

Mine hadn't, but Priscilla's did (see Editorial). Thank you. Ed.

Letters cont'd

Dr. C. S. Beals has also written concerning the Transit of Venus piece, and offers several alternative explanations of Mr. Blake's distraction at the moment of first contact. Among them (perhaps reflecting some rueful personal recollections): "a question from a prominent politician or other buttinsky".

MISCELLANEOUS

A PLEA

May we (J.F.H. and J.T.) remind everyone that our self-assumed task of assembling news items will be easier and more successful if all will do as some already do very faithfully, namely, leave us scraps of papers about where they have been, what done, written or talked about since the last issue of DDD. We go to press normally on the last Tuesday of the month and need the material by the preceding Friday. In December we need it by the 15th.

Talks

Dr. MacRae gave a seminar at CRESS, York University on "Can Canada do Frontier Astronomy?" on Oct. 25.

Dr. Bolton talked at the meeting of the Niagara Astronomical Association recently and also appeared on Cable 8 T.V. Hamilton.

Dr. Roeder spoke to the Nov. 17 meeting of the Toronto Centre of the RASC on "Quasars and Cosmology at Kitt Peak". At the Dec. 15 meeting Dr. Gregory will speak on the recent discovery of the radio outburst of Cyg X-3.

Errata

In Oct. 31 DDD:

re Jaye Thackeray, for "cherry" read 'cheery' (or cherie if you prefer)
re paper on Mira Variables, for "Bolton" read 'Barnes'
re Walter Gorza's address, for "N.Y." read 'N.Z.' .

Passed

Dave Hanes was successful in his Ph.D. Generals on Nov. 3.

Staff Changes

Ruth Coombes is leaving her part-time departmental position in drafting on Nov. 30.

Mrs. Pamela Evans has started to work as Dr. van den Bergh's secretary replacing Elizabeth Sawicki.