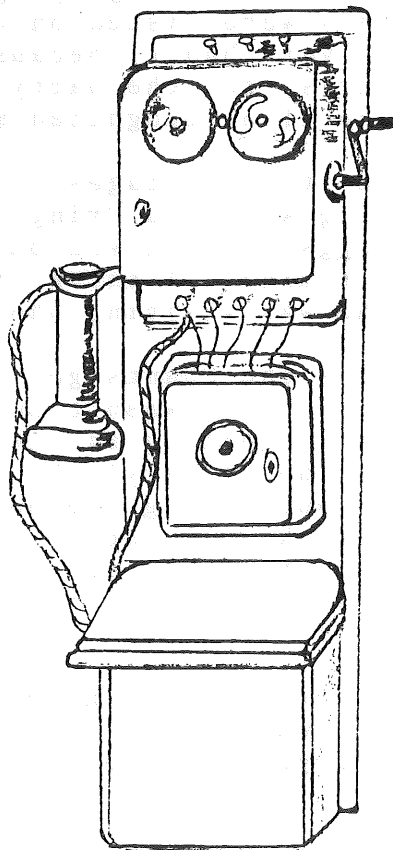


# DAVID DUNLAP DOINGS

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*...in the 1950's the Director succeeded in getting  
an extension phone in his office...*

*See JFH's EDITORIAL*

EDITORIAL

Telephones - Then and Now

Nothing reminds me more forcibly of the expansion of Observatory activity over the past 38 years than the contrast between our telephone usage now and in 1935. Now we have three lines and 13 instruments; and it frequently happens that we have to wait for a free line.

In 1935 the Observatory was served by one instrument and half a line. That is to say, our single telephone (in the secretary's office) had an extension phone in Observatory House serving Dr. and Mrs. Chant. The instrument itself was an old-style upright desk phone with a wall-mounted box with crank connected to a magneto for signalling to "central".

We hardly needed more service, to tell the truth, because to call the city cost 15¢ and in the depression era that was enough to discourage any call short of an emergency. As for local calls, there were few enough people to call. All the Richmond Hill subscribers were listed on one 8" x 11" card. Not that we needed the card very badly, because most users just asked the operator, Ella Burns, for the party by name. She knew all the numbers and she also recognized most of our voices.

This informality had its advantages. When my wife and I were going out for an evening we would "ring" Ella and say "We're going over to the Hogs". Will you put our calls through on their line?" Ella didn't mind; I think it added a little interest for her to know who was visiting whom.

Sometime in the 1940's the Chants got their own line (shared with the caretaker), but it wasn't until the 1950's that the Director succeeded in getting an extension phone in his office. About at that time the old-style hand-crank instruments were replaced by something approaching the modern version. (We were "wired for sound" as Frank Hogg put it.) Then in the 1960's we acquired gradually two additional lines and phones in most offices, and Gerry and Frank spent days fishing wires through the partitions to install the calling system.

During all this time perhaps our happiest interval was the few years during which there was a toll charge to call Richmond Hill from Toronto but no charge the other way. We then had a built-in "Don't call us, we'll call you".

J.F.H.

COMINGS AND GOINGS

The Australia-bound contingent of IAU travellers detailed in last month's Doings have now all returned, while our team at the Polish IAU meetings (Drs. Heard, Hogg, Kronberg, and Roeder) should return at about the time this issue, as they say, hits the news-stands.

John Percy and his family are back from a year's sabbatical leave in Cambridge, England.

Among our post-doctoral fellows, Nolan Walborn has left to take up his post at Cerro Tololo in Chile (good luck, Nolan!!), Brent Tully has left for a year at the Observatory of Marseille, while John Sorvari and his wife Ann have arrived from Rochester. John will be starting his fellowship by building a photometer to extend his thesis work on narrow-band photometry of supergiants.

Recently arrived new graduate students are Martine (Simard) Normandine from Montreal, Jose Maza-Sancho from the University of Chile, Jurg Pfund from Montreal and Zurich, and Simon White from Cambridge.

Dieter Brückner is back from Switzerland, and will be working as an assistant in the Department.

Nancy Evans has returned from two years in England, and will be starting the final stages of her Ph.D. thesis.

René Racine will be in Paris, September 14 - 22 for meetings of the Scientific Advisory Council of the CFH telescope.

It is expected that Dr. Rudy Schild will be at the Observatory for the first ten days of October, working with Dr. Garrison on their joint galactic structure program.

SEMINARS

|           |                     |   |
|-----------|---------------------|---|
| SEPTEMBER | Tuesday 25th, DDO:  | Reports on the IAU meetings and symposia.   |
| OCTOBER   | Tuesday 2nd, DDO:   | Jacques Vallée, "A Study of the Linear Polarization of Radio Galaxies and Quasars". |
|           | Tuesday 9th & 16th: | TO BE ANNOUNCED   |

SEMINARS OCTOBER cont'd..

Tuesday 23rd: Invitation to hold the Countdown at Erindale College. Giant double-bill program with John Percy, "Models of Dwarf Cepheids", and René Racine, "TV Techniques in Astronomy at DDO".

Tuesday 30th: Dr. Richard Stothers, "Neutrino Astronomy".  
DDO

PAPERS SUBMITTED IN SEPTEMBER

- J. Vallée & P. Kronberg *The Magnetic Field in the Galactic Spiral Arm.*
- E. Seaquist & P. Gregory *On the Nature of the Peculiar Emission Object V1016 Cygni*
- C. Dyer & R. Roeder *Observations in Locally Inhomogeneous Cosmological Models*
- P.G. Martin & J.R.P. Angel *A Study of Interstellar Polarization at the  $\lambda 4430$  and  $\lambda 5780$  Features in HD 183143*
- S. van den Bergh *Zur Metallhäufigkeit in  $\omega$  Centauri*

PERSONAL COLUMN

Jack:

All is forgiven. Please come home and get on with the editing.

Don

? ?

P O T P O U R R I

Sidney van den Bergh reports election as vice-president of IAU Commission 37 (Star clusters). He has also been appointed to a new IAU committee which will deal with the protection of observing sites, and remains on the organizing committee of Commission 28 (Galaxies).

Frank Ahern writes from Flagstaff, Arizona, that he and Chris Pritchett have had a 'spectacularly successful' run on the 72-inch there with the Fourier spectrometer, both of them getting everything they wanted.

The Department's first entry into the field of interdisciplinary teaching has got off to an excellent start with a huge enrolment in the course INX 250 'Life on Other Worlds'. The astronomical part of the course is being given by Bob Garrison.

An ebullient participant at the Sydney IAU meetings was Colin Keay (M.Sc. 1965). Colin is now associate professor of Physics at the University of Newcastle, N.S.W., where he is continuing his work on radar meteor astronomy. He sends greetings to all his old friends from Toronto days.

Don Fernie has been elected to the organizing committee of the IAU's Commission 27 (Variable stars).

As a brief follow up on last January's editorial, the Radcliffe Observatory will indeed cease to exist after April of next year. The 74-inch telescope itself will become part of the South African Astronomical Observatory's equipment at its burgeoning Sutherland site, while Michael Feast will join the staff of that Observatory. The present Radcliffe Observer, David Thackeray, will become a visiting professor at the University of Cape Town. Other astronomers on the Radcliffe staff will return to the RGO.

## FINAL ITEM

### *Nikola Tesla and the Beginnings of Radio Astronomy*

Most of us who ever did time as physics undergraduates will recall Nikola Tesla as the inventor of that delightful coil with which one can have so much fun. Beyond that we're rather hazy. Tesla was in fact born in Yugoslavia in 1856, and after studying mathematics, physics, and philosophy, turned to electrical engineering for a livelihood. In 1884 he immigrated to the United States, where he became a naturalized citizen and later an associate of Thomas Edison. Tesla was a brilliant and prolific inventor who made many important contributions to electrical engineering, and was so highly thought of that by the time he was in his early forties he had already received honorary degrees from Yale, Columbia, and Vienna.

My own interest in Tesla stems from a few years ago when I accidentally came on a short note in the Journal of the RASC (13, 213, 1919), in which Dr. Chant was heaping considerable scorn on Marconi for his suggestion that extra-terrestrial life be looked

for by radio means. To point up the absurdity of this idea, Chant remarked that not only had the same suggestion been made by Tesla around the turn of the century, but that Tesla had actually claimed to have received radio signals from Mars, a claim that had been treated with the contempt it so richly deserved. Those are not Chant's actual words, although clearly his sentiments, and indeed this was pretty much the reaction of Tesla's contemporaries. Here, for instance, is an editorial note from *The Observatory* (24, 102, 1901):

"MESSAGES FROM MARS. - We feel that some apology is needed for the appearance, in these pages, of a note with this sensational heading; but there have been so many paragraphs lately in the daily press under the title, that on the sole ground that this is a chronicle of astronomical and quasi-astronomical events, we think the subject should be mentioned. First, a telegram came from America saying that Mr. Douglass, at Lowell, had seen a projection on the northern edge of Icarium Mare which remained visible for more than an hour. Some one interpreted this by the well-worn surmise that the Martian inhabitants were signalling to us.... Next, Mr. Nikola Tesla, having a wireless telegraphy apparatus on a mountain in America, said that he had noticed effects on his receiver for which he could not account, and therefore he concluded that they must have been caused by the inhabitants of Mars.... These utterances... have furnished texts for many jocose paragraphs and small poems; the interviewers have been busy, and Mr. Tesla has got the notoriety he no doubt wanted."

Fair enough, one might say, considering that at about that time Percival Lowell and his cohorts at the Lowell Observatory were making real pests of themselves with their claims for life on Mars. For the professional astronomers to now have some idiot come along and claim radio signals from Mars must have been nearly the last straw. One could concur, were it not for the following thoughts: the 45 year-old Tesla at this stage was a brilliant and practical man, apparently not given to wild flights of fancy; his observations had been made in the summer of 1900 on Pike's Peak, Colorado, where and when there would have been negligible chance of man-made interference; he was convinced that the signals came from Mars (writing six years later in *English Mechanic*, 86, 397, 1907, he says "I refer to the strange electrical disturbances, the discovery of which I announced six years ago. At that time I was only certain that they were of planetary origin. Now after mature thought and study, I have come to the positive conclusion that they must have emanated from Mars.") Note also that it was only on this one occasion that he claimed to have received signals from Mars. Now comes the punch-line: in the summer of 1900 Mars was only a degree or two away in the sky from the Crab Nebula, one of the most powerful radio sources in the sky. If Tesla had indeed detected the Crab, what more natural in the light of current communiques from Lowell than to interpret the signal as coming from Mars?

The crux of the matter, of course, lies in the equipment that Tesla

used. Was his antenna directional? Could his receiver have worked at the frequencies needed to detect the Crab? Here, maddeningly, one draws a blank. Either Tesla was too cowed by all the fuss to write up the details, or the respectable journals refused his paper, but nowhere have I been able to unearth any details of his apparatus. The popular press, of course, were too concerned with being sensational to bother with technical details. Falling back on guess work, one would have to say that the probabilities are against Tesla having detected the Crab, but, intriguingly, the possibility remains that he just might have been the true father of radio astronomy.

Nikola Tesla died in 1943, so he lived to hear of Jansky's work in 1931 and even Reber's in the early forties. But (ironically) this caused little stir at the time, and if the elderly Tesla offered any comment it does not seem to have been recorded. I wonder, though, what he thought.

J. D. F.