



JOHN PETER HAGEN, JR.

On September 3rd death claimed one of the Observatory's most promising graduate students. Peter Hagen, who had been suffering from a serious illness for more than a year, died quite suddenly at York Central Hospital in Richmond Hill just a very short time after chatting with his parents and several friends from the Observatory. His wife, Gretchen, was at his bedside at the time of his death.

Peter Hagen was born on August 15th, 1941 in Washington, the elder son of Dr. and Mrs. John Hagen, now living in State College, Pennsylvania. Peter's early schooling was in Washington, and he then attended Wesleyan University in Middletown, Connecticut where he graduated in honour physics with distinction in astronomy. Choosing an astronomical career as his father had, he then proceeded to graduate studies in astronomy, earning his master's degree in 1965 for a thesis on stellar photometry under the supervision of Prof. F. R. Zabriskie. On August 21, 1965, he was married to Gretchen Luft, an astronomy graduate of Mount Holyoke. A few weeks later they came here, Peter to enroll as a Ph. D. student and Gretchen to take a position as research assistant.

Peter was soon recognized as an excellent student and an eager and meticulous researcher. Embarking upon a project to develop a technique of spectral classification of late-type stars by narrow-band photoelectric photometry under the supervision of Dr. Fernie, he designed a set of filters and a program of observation and reduction with the most careful attention to detail and possible sources of error. At the same time he studied diligently and passed with great competence his required courses and his comprehensive oral. Meanwhile his qualities of leadership and good fellowship had been recognized by the graduate students, who elected him President of their newly formed Graduate Astronomy Students Association.

From August 1967 throughout surgical, chemical and radiation treatments Peter, with Gretchen's encouragement, was able to maintain a wonderfully courageous outlook, hopeful at first and stoical when, at his insistence to know the truth, the doctors told him that the treatments had failed to halt the progress of his illness. In February 1968 and again in May and June he went to Kitt Peak for

observing sessions, the latter one of which was particularly successful. During the past few months he suffered greatly, but when his friends visited him he always managed to minimize evidence of the pain, and was his same gracious, kind self, interested primarily in others.

A funeral service was held on September 5th in the Marshall Funeral Chapel in Richmond Hill, the Reverend Mr. James Dauphinee of St. Paul's Lutheran Church officiating. On the 9th a second service was held in State College, the clergyman being the Reverend Mr. W. Trevor Wagg of Scranton, Pa., a friend of many years who had married Peter and Gretchen. Peter was buried in the little cemetery of Graysville in the wooded rolling countryside of Pennsylvania where Peter used to love to roam.

Besides Gretchen and his parents, Peter leaves a brother, Chris, his wife Sally and their small daughter, Jennifer. To these we offer again our most sincere sympathy.

J. F. H.

### The Fastest Spectrograph in the East

Last month we reported on the almost complete re-aluminizing of the 74-inch telescope and spectrograph mirrors in an effort to get the speed of our 12 A/mm system more into line with the enviable speed of the D.A.O.'s new 15 A/mm system (see DDD vol. 1, no. 5). We are now able to assess our success.

On the night of Sept. 17-18 with excellent seeing and poor transparency we (Hd, Bu, Mse) got spectrograms of G8 and K4 stars of magnitude 8.93 and 8.96 in two hours each. I (Hd) have compared these with spectrograms taken by me at Victoria on May 22-23 of a 9.04 G8 star in one-and-a-half hours, the seeing being average and the transparency good. Our spectrograms are a little wider, quite a bit denser (except in the UV) and have the greater dispersion. Taking these differences and the differences in observing conditions into account, I think we can now say that the two spectrographs are comparable in speed. Certainly our grating spectrograph is now faster than our Hilger 33 A/mm prism arrangement ever was.

As to our 108 A/mm MK-classifying dispersion of the grating spectrograph, it shares the increase in speed, so that we should be able to reach 11th magnitude with ease. At the moment regular observing with this dispersion is awaiting modification of the slit-head so that we can get wider spectrograms.

### Radio Astronomy

Dr. Roberts and Jack Winzer early in September had a second trial of their TV-tube display of radio brightness. They mapped a

section of the Cygnus X region at 9.4 cm. There are still problems with the stability of the display. During the week prior to this Jack Winzer was at A.R.O. helping Dr. Yen.

A graduate students' visit to A.R.O., especially designed for those enrolled in course G1001, is tentatively scheduled for November 2-3.

### September Seminars

Seminars were held as scheduled in the last issue, except that there was an additional Special Colloquium at the Observatory on September 18 at which Dr. David Crawford of Kitt Peak Observatory spoke on "The Progress of the Kitt Peak Telescope Projects".

### October Seminars

- Oct. 2                      Dr. M. J. Clement: "More on Differential Rotation in Upper Main Sequence Stars."  
S. van den Bergh:
- Oct. 9                      Dr. Benjamin F. Peery - Indiana Univ. Bloomington, Indiana, "Isotopic Determinations in Stellar Spectra".
- Oct. 16                     Dr. C. R. O'Dell - Yerkes Observatory  
"Study of Emission Processes in Comets by Means of Photoelectric Spectrophotometry".
- Oct. 23                     Dr. H. van der Laan - Leiden Observatory, Leiden Netherlands.  
"Theory of Variable Radio Sources".
- Oct. 30                     Dr. P. P. Kronberg, "Measurements of Linear Polarization in Discrete Radio Sources".

### COMINGS AND GOINGS

Dr. Anand returned early in the month from his trip to India, Holland and the U.K. as outlined in the July "Doings".

Drs. Hogg and Fernie both attended the Conference on Variable Stars in Budapest, September 4-10. No problem arose from the Czecho-Slovakian invasion, as it was feared there might. Dr. Hogg gave a paper entitled "The Third Catalogue of Variables in Globular Clusters".

Dr. van den Bergh is expected to spend next week at the Observatory. He will lecture on telescopes to the students of Course G1001 on October 2.

Doug and Joan Hube left on Sept. 21 to motor to Tucson where Doug is to be a Postdoctorate Fellow. Joan will do some 16-inch observing for Dr. Fernie.

## 1968-69 Graduate Students

There are to be 28 for the forthcoming session; as follows:

Continuing: Tom Barnes, Ted Bednarek, Carl Bignell, Tom Clarke, Bill Dodd, David DuPuy, Nancy Evans, Greg Fahlman, David Goodenough, Chalmers Hardenbergh, Fred Hickok, Peter Jackson, Mark Naylor, Linda Poole, Hugh Ross, Raymonde Verreault.

### Newly enrolled:

Iain Baines, Dieter Bruckner, Check-Sen Chai, James Clarke, Jeffrey Crelinsten, Walter Gorza, Robert Hawkins, Alan Irwin, David Lindop, Peter Martin, Louis-Pierre Sauve, Jack Winzer.

## Planetarium Committee

In anticipation of the use of the planetarium for teaching purposes commencing in November, a committee of the teaching staff has been formed consisting of Drs. King, Heard, Seaquist, Roeder, Percy and Miss Northcott.

## I.A.U. National Committee Meeting

The National Committee will meet in Ottawa on October 4 and 5, holding sessions for papers on both days. On October 6 a day-long excursion to visit the Algonquin Radio Observatory is being arranged. Students are welcome at these events and, if desirous of going, should consult their supervisors.

## Ph. D. Senate Orals.

Doug Hube passed his examination on his thesis "The Distribution and the Kinematics of the Late B-type Stars". Dr. Crawford of Kitt Peak was the outside appraiser and examiner.

Inge Sackmann's defence of "The Structure and Evolution of Rotating Stars" is slated for tomorrow, Dr. G. A. Bakos of Waterloo being outside appraiser and examiner.

## Visiting Groups

The Observatory visit of the Toronto Centre of the R.A.S.C. on the evening of September 12 with 160 in attendance was an outstanding success. Tomorrow evening we will be hosts to the University Arts Women's Club.

## New Staff Appointment

Dr. Philipp Kronberg has joined the staff as Assistant Professor in the University of Toronto and Scarborough College. A native of Toronto, Dr. Kronberg did his bachelor's and master's degrees at Queen's and his doctor's at Manchester. His speciality is radio astronomy, his Ph.D. thesis having been on "Non-Thermal Radio Sources at 21 cm. Wavelength".



# PERSONAL AND MISCELLANEOUS

Born: to Martha and John Pluscauskas at St. Michael's Hospital on September 19th their second son, David William - eighth grandchild of Dr. and Mrs. Heard.

Talks: Dr. Heard spoke on "The Evolving Universe" to the Strowger Club of Automatic Electric in Brockville on September 12.

Dr. Hogg spoke on "Astronomy in the News" to the Toronto Rotary Club on September 20.

Recovery: Miss Northcott, discharged from hospital two weeks ago, is back on the job and teaching an enormous class in the Thursday evening extension (Teacher's Course).

Gretchen Hagen has returned to Richmond Hill (50 Benson Ave.,) and to her Observatory job to continue working with Dr. van den Bergh on the CM diagram catalogue. She hopes also to organize Peter's observations into publishable form. We all admired Gretchen at the recent Countdown when she so graciously thanked members of staff and students for their sympathy during her recent bereavement and for encouraging Peter during his long illness.