

# An Indispensable Fixture in Physics for 26 Years

If the Department of Physics were to be linked with any individual, that person would have to be Karl-Franz Hafner, chief technical officer.

Mr. Hafner, who has spent 26 years at Carleton, is a dynamic and outspoken member of the department who has not only seen it undergo many changes, but has been an active participant in their implementation. Because he was around when Carleton moved from its First Avenue location in 1959, he got to try his hand at a variety of things — many of them not included in his job description.

Mr. Hafner is a craftsman who takes pride in his work. Some of his achievements include playing an important role in the design of the Herzberg Physics Building, constructing the Foucault Pendulum, and designing a passive solar heating system for his Austrian-styled chalet.

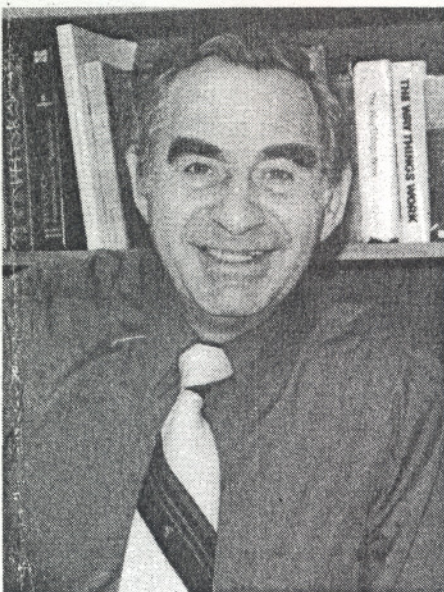
Dr. Les Copley, Chairman of the physics department, describes him as "a tower of strength" and praises his efforts in the development of the department. "He played a key role in the design of the Herzberg Physics Building," he says. "Many unique features are directly attributable to him."

Those features include things like a lay-in trough system for communication lines which, among other things, allows for computer hook-ups, and dimmer controls on classroom lights. The building itself is divided into three wings for offices, research, and undergraduates. The research wing is isolated insofar as vibration from the rest of the building is concerned. That was an important factor in the design of the building, because at their previous Tory Building location, the heavy geology equipment on the next floor used to shake their instruments.

Mr. Hafner took a personal interest in the growth of his department and its move to new quarters. He was active in its development from the planning stage on through. At one point, he even had the architect spend a few days at his house. "Many of the plans were done on my ping-pong table," he says.

Upon finalization of the building design, he set to work on a scale model made of plexiglass, which is accurate to within a millimetre. The model saved the day when the building permit was needed, for he took a photograph of the model and submitted it for approval.

It also caught the attention of some University of Ottawa students a few years ago and very nearly became the instrument of their ruin: during "Hate Week" preceding the Panda Game, they stole it. They were facing charges of theft over \$200, but



Karl-Franz Hafner

Mr. Hafner thought that criminal charges were too high a price to pay for a prank and went to bat for them. The charges were later dropped.

He also did public relations and graphic art work for the project. "When I'm enthusiastic about something, I get involved," he says, and the idea of helping to plan the physics department's permanent home obviously appealed to him.

He assists professors in classroom and laboratory teaching as well as in research activities by supplying them with equipment. He has frequently been called upon to improvise when needed equipment cannot be purchased. "A convincing lecture demonstration can make the difference between having to memorize the vague theory and fully understanding a physics phenomenon," he maintains.

One of his projects, the five-storey high Foucault Pendulum which stands in the Herzberg lobby, is evidence of his expertise. Built in 1970 for less than \$500, he is proud of the fact that it was designed and constructed on a voluntary basis in his spare time. And it has the unique distinction of being the only Foucault Pendulum with the map of the globe centered on Ottawa.

His interests are not limited to technical aspects of physics. For the past 26 years he has taught Physics Laboratory Techniques, which include basic technical operations (mechanical, electronics etc.) used in the design and construction of research apparatus.

Dr. Copley adds his confirmation of Mr. Hafner's teaching abilities. "He has played an important role in the education and training of countless numbers of students," he says. "He

is very helpful, and genuinely likes helping people with problems that he knows how to solve. Other University departments as well as area high schools can always count on his assistance."

Mr. Hafner has seen his department go through many changes. He characterizes the early 1970's as "exciting, challenging" years when the department was able to expand, improve, and initiate change. He laments the fact that the worsened economic situation has made it harder to meet the department's commitment to excellence.

His fondest wish is that the financial situation will ease, so that the final phase of the Physics Building can be completed, adding two more floors to the research wing and one more to the undergraduate wing.

His exasperation is fuelled by the knowledge of the department's potential. "At Carleton University, we have all the right talent — we just don't have the money," he says.

Mr. Hafner also participates in research projects and assists in special events on behalf of the department. He has manned a booth at the Ottawa Exhibition, and attended science fairs. During the Science Open House held at Carleton on March 2 and 3, he put in long hours. "I enjoy explaining things to people," he says. As Dr. Copley puts it, he was "absolutely tireless and worked unstintingly for 14 hours on Friday and again Saturday."

What about life after Carleton? Mr. Hafner plans to enjoy his recently-acquired 1974 Mercedes after he finishes doing some needed tinkering. He likes to swim two or three times a week at the Carleton pool, and confesses to a love for Italian opera.

He also likes to go boating while spending summer weekends at his chalet, which he designed during the winter of 1980 and built with the help of Karl Richter (engineering). He designed and built a passive solar heating system for the chalet, which became the subject of an article in *The Cottager Magazine*.

"In a few years, I am planning to work for about six months and take leave of absence for the rest. My wife and I want to travel and see other parts of Europe before we grow too old to enjoy it," he says. "I cannot imagine not working, but the thought of semi-retirement appeared very tempting after two gruelling 14-hour days of Open House."

Mr. Hafner emigrated from his native Austria in 1954, after attending Ingenieur Schule. He and his wife Traudie have two daughters. Tina, the younger one, is in third-year computer math at Carleton.