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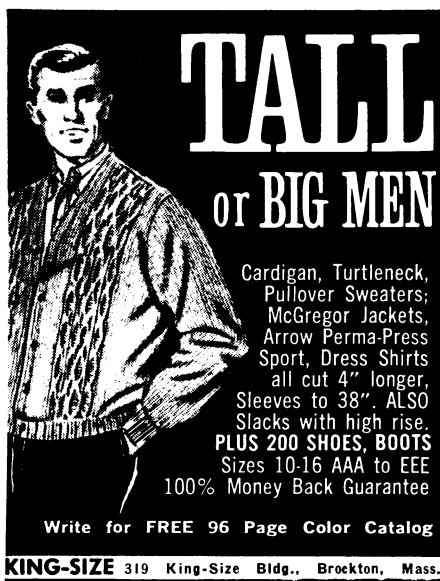
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LETTERS

to the editor

No flight

I enjoyed reading your good article "No flight from the classroom" (SN: 11/23, p. 526).

It is both interesting and encouraging. I am well aware that there is much apprehension that research and administrative activities are pulling qualified teachers away from the classroom.

You are perhaps aware of it, but I thought I would make certain that it comes to your attention, that there is at MIT an endowed professorship, one of the requirements of which is that the professor who is to be designated by the president to become this "Class of 1922" professor is to spend at least 50 percent of his time in teaching or in preparation therefore.

This professorship has been held by Prof. John Wulff until he retired last spring. Now it is held by Prof. Paul E. Gray.

I was personally very closely associated with this program, and at the time it was instituted we were informed that this was the only one of its kind in the country. Furthermore it was about the largest endowment and was the only one set up on a basis which would "hedge" reasonable inflation.

Donald F. Carpenter
Mendenhall, Pa.

Your "No flight from the classroom" article (SN: 11/23, p. 526) is a service.

In reducing to generalities, there is often the risk of obscuring interesting details. One detail which I have observed, for example, is that there seems to be a coincidence at times between the decline in number of students, and the increase in researchers and administrators designated from the former teacher group.

Another detail is the lack of interest

in other than the science on the part of those designated as teachers. There are those designated as researchers who perform mostly in research and whose interest is mostly in their research. But there are also those designated as teachers—maybe only as part of their salary-time budgeting—whose interest (to the extent of their mental capacities) is mostly in their research, and who resent teaching.

Further, the nation is burdened with the little minds that can find occupation with things, and support thereat, in contrast with those who do concern themselves with people—and find but small lip service support for their effort. That is, I should propose that the errors in the classroom-lab balance lie with administration, not to entirely absolve the teacher but to mention another almost-always neglected detail.

R. J. Becker
Prof. Agric. Economics
Arizona State University
Tempe, Ariz.

Thanks

The article "Plasma Confinement Improved," (SN: 11/2/68, p. 438) was, in my opinion, one of the most well researched, well written and germane articles on controlled fusion that has ever appeared in the popular scientific press.

Bernard J. Eastlund
Controlled Thermonuclear
Research Program
Division of Research
U.S. Atomic Energy Commission
Washington, D.C.

Statistics and science

One might contend seriously that modern statistics is the accepted language or framework within which to dis-

(See p. 30)

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films OF THE WEEK

Listing is for readers' information of new 16mm and 8mm films on science, engineering, medicine and agriculture for professional, student and general audiences. For further information on purchase, rental or free loan, write to distributor.

OIL FILMS IN ACTION. 16mm, color, sound, 16 min. Transparent plastic is used as a bearing block so that viewers can see how oil film pressures vary at different points around the circumference of a journal. A series of manometer-like holes drilled vertically in the bearing serve as pressure gauges. Oils of different grades are used to show how film pressure is independent of viscosity. Journal speeds are increased to show they have no effects on oil film pressures. Audience: practicing engineers, designers, students. Free loan from General Motors Corp., Public Relations Staff-Film Library, General Motors Bldg., Detroit, Mich. 48202.

POWER FROM FUSION. 16mm, color, sound, 30 min. Summarizes present knowledge concerning thermonuclear fusion and presents basic concepts in field. Demonstrates production of plasma, which leads to a discussion of atomic and mass numbers. Mainly concentrating on deuterium-deuterium reactions, film discusses light atom nuclei and the means by which they can be brought into close contact for fusion. Consideration is also given to the release of energy by fusion. Ends its demonstration of existing experimental devices designed to heat and contain plasma. Audience: senior high school, introductory college physics courses. Purchase \$375 or rental \$16 from McGraw-Hill Films, Dept. DF, 330 West 42nd St., New York, N.Y. 10036.

ROBIN, PETER AND DARRYL: THREE TO THE HOSPITAL. 16mm, b&w, sound, 53 min. Illustrates the fears, tears and frustrations of three youngsters as they express them during their stay in the hospital. Divided into two parts—activities before the operation including the first parental separation, and activities following the operation. Specifically demonstrated are: concepts of early childhood growth and development; response to parental separation; extrafamilial relationships; children's perception of "illness;" medical and nursing procedures;

and methods of nursing intervention. Audience: medical students, psychologists, psychiatric social workers and family life education groups. For purchase or rental information, write Center for Mass Communication, 400 W. 110th St., New York, N.Y. 10025.

TAKE A GIANT STEP. 16mm, color or b&w, sound, 25 min. Follows the step-by-step progress of a former Negro rioter from the time he decides to apply for a job through his development as a productive and valued employee. It not only unfolds the dramatic story of a frustrated, angry young man, but how one company, Aerojet-General, courageously tackled the problems of "unemployables" and turned their efforts into a profitable enterprise. Audience: industry, Federal and state government agencies. Purchase color \$300 or b&w \$185, and rental color \$45 or b&w \$27.50 from Roundtable Films, 321 S. Beverly Dr., Beverly Hills, Calif. 90212. Note: Discussion Leader's Guide also available. (Produced by NBC-TV.)

TREE PORTRAITS. 16mm, color, sound, 21 min. Some common trees of the United States are introduced in scenes of the forests of New York state during all seasons of the year. Shows how to identify a tree by its leaves, flowers, fruits, seeds, twigs and bark. Time-lapse photography enables the student to study the seasonal development of oak, elm, maple, pine and other trees. Purchase \$250 from International Film Bureau, 332 S. Michigan Ave., Chicago, Ill. 60604.

WOODWORKING TOOLS. Series of 6 super 8mm loop films, color, silent, 4 min. each. Helps to develop safe and correct use of hand wood-working tools by students. Following tools are demonstrated: screwdrivers; hammers; hand saws; chisels, rasps, and clamps; jack and block planes; hand drill and bit brace. Audience: high school students in industrial education classes, adult vocational education. Purchase \$20 each or \$114 for series from Bailey Films, 6509 De Longpre Ave., Hollywood, Calif. 90028.

THE WORK OF THE HEART. 16mm, color or b&w, sound, 19 min. Rare visuals provide intimate close-ups of structure and function of the heart. Shows actual heart surgery, transplant of an artificial valve, and use of the heart-lung machine. Audience: high school through adult. Purchase color \$232.50 or b&w \$119 from Encyclopedia Britannica Educational Corp., 425 N. Michigan Ave., Chicago, Ill. 60611.

Letters from p. 28

cuss scientific experimentation. It is almost as if statistics represents a philosophical approach to experimentation subject to chance (and all experimentation is) and at the same time, is a numerical methodology for doing scientific analysis; this makes sense when one realizes that any analysis must be based on some philosophy or way of looking at the experiment.

Your publication has never recognized this fundamental and pervasive role of statistics in science. Its mention of statistics is very infrequent; I do recall an article on some new uses for probability several years ago.

The occasion for writing this note to you is your article "Regression Analysis for Chemicals" (SN: 10/19, p. 391). Whereas regression analysis has been a standard part of statistics, taught in statistics courses and "sold" by statisticians for years, your article describes it as "computer statistics and numerical analysis." Your phrase "The technique, called regression analysis, relates four molecular factors that affect drug potency, . . ." seems to be telling the reader that chemists doing research in drugs and computer people have jointly developed regression analysis.

I believe I understand the problem involved here, which is that scientists and science reporters do not understand a great deal about statistics, but are now discovering it, its power, its usefulness and its fundamental importance to science. Their problem then becomes how to obtain training for themselves and for future scientists in this fundamental matter. Perhaps you should do an article on the phenomenon of the rapid growth of the statistics business—40 new departments of statistics in the last three years in colleges and universities; departments of mathematics, psychology, sociology, engineering, political science, business administration, all frantically seeking personnel in statistics; a mushrooming consulting business in statistics, somewhat related to public opinion polls, industrial experimentation, decision theory in business, etc. One might make a case that intellectually there will be more content in the field of statistics for the long range future than in computing; this opinion might be stated in an oversimplified way as "it is more important to decide what to compute than to decide how to compute it."

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