# Letters

## Women and Science

Both Abelson's editorial (10 July, p. 115) and a recent article ("Physics for girls," *The Physics Teacher*, October, 1963) neglect one aspect of the situation which concerns both the shortage of physicists in general and the shortage of women physicists.

Many women in this country consider their role in society to be motherhood and the purpose of their education to be to help them enrich their homes and enable them better to raise and educate their children. If women felt at home with physics, it seems clear that not only their daughters, but their sons as well, would benefit by being encouraged to explore phenomena, question results, and ask more information, and by having their curiosity immediately satisfied and reinforced, rather than having to wait for their fathers to come home to answer their questions.

Since the parent who spends most time with small children is the mother, the task is clear. In our science-oriented culture one would like to see women stimulate as much interest in the home in physical and biological sciences as they do in music, art, and athletics.

The future mothers now in high school and college science classes are the ones who can foster awareness and appreciation of science and interest in it. We should not underestimate the significance of this happy byproduct of encouraging women to enter the scientific world.

C. W. PETERSON
*Wesleyan University, Middletown, Connecticut*

Wasted female brainpower is of current concern to the federal government, while at the same time there is a cry from industry that women leave their jobs too quickly. I wish to suggest that one reason for the short tenure of women scientists is industry's misjudgment of the intellectual capacity of these women.

Consider the female chemist with a bachelor's or master's degree. To earn her degree she puts in long hours in laboratories and over her books. The quality of education of the woman chemist is not affected by her sex, but her job opportunities will be.

Teachers of undergraduate chemists assume that a Ph.D. is necessary for research in industry or for college teaching. Male graduates in science are encouraged to continue for the doctoral degree, and this encouragement is so vigorous and financial aid is so available that many do continue their education.

Women are not discouraged from continuing toward the doctorate, but neither are they encouraged. For various feminine reasons most do not, but this does not lessen their qualifications as chemists. On the contrary, because so many of the capable women chemists do not continue their training, female bachelor's and master's degree holders in chemistry are on the whole superior in ability to their male counterparts who have not continued.

What jobs may these women expect to find? Most women chemists in industry work in analytical laboratories or technical libraries. Only too often these become monotonously routine and frequently could be filled more appropriately by technicians than by professional scientists.

Often the young woman chemist is assigned boring tasks with no thought that she could do anything better. Women do not major in chemistry because it is easy. Almost every chemist could have majored in something easier, and it is tragic for a woman who has completed a challenging, varied college career to be put on a job where her intelligence is not respected and her enthusiasm will be killed.

If her intelligence is not being used, it is natural for the woman to look elsewhere for a challenge. She may find teaching or marriage and a family more challenging and rewarding, and an eight-to-five job with good pay has definite advantages. Nevertheless, if a job leaves her with feelings of uselessness, it is not worth any amount of money and leisure time.

Therefore, I suggest to industry that the short tenure of women may not be the fault of the women only. Given an interesting, challenging position where she is free to use her imagination, the woman chemist may make contributions to the industry that industry itself does not now permit her to make.

CLAUDINE CARLTON
*Oberlin High School, Oberlin, Ohio*

## Public Scrutiny of Research Grants

The editorial "Too much freedom of information" in the issue of 29 May is most thought provoking. Wolfle suggests, as I interpret it, that neither the government agency nor the research organization that is receiving grants from it should be required to provide detailed information concerning the research project, because of the burden thus placed on the agency and because some research organizations might wish to keep some information confidential. He suggests that the only information that should be required is "the granting agency, the recipient, the principal investigator, the amount of money, and a brief description of the purpose." Any additional information would be released only when the agency or the recipient considered its release to be desirable.

This proposal, it seems to me, is in direct contradiction to our whole concept of government. Anyone who occupies public office can expect to have all the details of his background, education, and experience subjected to public scrutiny, because he holds a public trust. All the actions of every agency in general are subject to public scrutiny so that we, as citizens, can determine whether we wish them to continue. The only exceptions, and these seem to be reasonable, have to do with subjects or information which might affect the national security. I think the courts have ruled that there are very few areas which may be considered to be confidential and not open to public scrutiny.

It seems to me to be of even greater importance that research projects be open to public scrutiny. As citizens, we have a right to know how our tax money is being used and what will result after it has been expended.