

FREE!
Latest LABLINE
CATALOG



Includes new advanced designs for Time-Saving and Accuracy

☆
UP-TO-DATE INFORMATION ON OVER 450 PIECES OF:
LABORATORY INSTRUMENTS, APPARATUS, EQUIPMENT

For every type of laboratory
MEDICAL • BACTERIOLOGICAL
CLINICAL • SEROLOGICAL
BIOCHEMICAL • CHEMICAL
PHYSICAL • PETROLEUM
PETROCHEMICAL • INDUSTRIAL
MATERIALS TESTING

Expanded edition of popular catalog contains the latest, most advanced designs to help make your work easier, faster, more accurate. Every laboratory needs this convenient buying guide.

DON'T WAIT!
MAIL COUPON TODAY!

LABLINE, INC.
 3076A W. Grand Ave., Chicago 22, Ill.
 Please Rush me your FREE Laboratory catalog.

Name _____
 Firm Name _____
 Address _____
 City _____ Zone _____ State _____

Subsidiaries: Chicago Surgical & Electrical Co.
 ★ Hudson Bay Co. ★

Letters

Teaching and Research

Impressed by what Caplow and McGee bring out in their book *The Academic Market Place* [see *Science* **129**, 357 (1959)], Victor G. Fourman deplores the deemphasis on teaching ability and the concomitant stress on publication in the academic evaluation of college professors. With this aspect of Fourman's argument I most heartily agree. Unless he be frankly engaged as a research professor, no member of a college or university faculty should be advanced on the basis of publications alone.

However, in all the literature I have seen on this troublesome subject there is little or no mention of what seems to me the really critical thing in the whole question of teaching versus research—the one valid reason why department heads, deans, and presidents may be justified in demanding that a faculty man publish. Unless a college teacher is actively engaged in grappling with the unknown somewhere on the forefront of knowledge, he will not bring into the classroom the point of view, the frame of mind, the mode of attack, the general air of the investigator, and these qualities are just what is essential if a teacher is to show, in the presence of the student, by various forms of example, how to go about dealing with the problems in his subject.

These remarks are directed mainly at the problem of college teaching—teaching in the undergraduate world. Graduate work deserving of the name is concerned with educating the student in the ways of original investigation, and to put a noninvestigator in charge of such work is indeed asking the blind to lead the blind. But even here the investigator should be a good teacher, not necessarily in the way that his colleagues in the undergraduate field are good teachers—and in fact there is often a difference—but a good teacher nevertheless.

Now it is publication that is nearly always emphasized in this picture and, unfortunately, not always research; this is one vice of which Fourman justly complains. Quality of publication should of course take first place in any individual evaluation, for the prime value of publication itself, in this context, is the evidence it affords that the author is really an investigator. Over and above all the cant and hypocrisy that have, regrettably, invested much discussion of the matter, the valid case is after all rather simple: A man can hardly go very far in sound research without finding out something new, and when he does he owes it to his fellow scholars to make known the results of his work.

And there is also the negative side of the picture. If a teacher does no more than read and absorb the literature on his subject (this he must do as minimal preparation) it is highly likely that in the course of a few years he will go stale in his own thinking.

And finally, all this must probably be qualified by the truism that in a broad field like college teaching all kinds of genius are needed. Many years of association with many kinds of teachers have brought me to realize that there probably are some people who can stimulate students in certain desirable ways without doing any kind of research. But for the reasons given above, in view of the essential fact that the main thing college can do for a student is to show him how to learn and how to think, such teachers should be the exception and not the rule. Men and women who can do a good job of both teaching and research are probably not as rare as many would have us believe.

EDMUND M. SPIEKER

*Department of Geology,
 Ohio State University, Columbus*

Department of Science

I should like to express my strong approval of the article on "Government sponsorship of scientific research" by L. V. Berkner [*Science* **129**, 817 (1959)].

Like many members of the scientific community I have had grave doubts about the wisdom of setting up a federal department of science headed by an officer of cabinet rank. Increasingly, however, I have become convinced that such a department is practically a necessity, if science is to play the role that it must play in any vigorous society today. Berkner's article provides the most powerful argument that I have seen in favor of such action, and to me the argument seems practically unanswerable.

As regards the scope of such a department I should go along with Berkner's argument almost entirely except that I should like to see the National Science Foundation included in the proposed department. It is true that its inclusion would modify the structure, and expand the responsibilities, of the department, as envisaged by Berkner. I believe, on the other hand, that the National Science Foundation would probably flourish more vigorously and obtain more adequate support if it were a part of a federal department of science. The foundation has hitherto been almost a stepchild of the government. Its functions are of enormous importance; it should be the government agency with prime responsibility for the promotion of fundamental scientific research in this coun-

(Continued on page 1369)

Letters

(Continued from page 1324)

try. Relative to the Atomic Energy Commission, the Public Health Service, or the Armed Services, it has been, however, starved of funds. I believe that the National Science Foundation is more likely to come into its own and receive the support it deserves if it is a part of a department of the government headed by an officer of cabinet rank.

The size of the research program of the United States Public Health Service is, of course, largely due to the intense interest of the public and of Congress in matters related to health, but I think the program has also been strengthened by the fact that the United States Public Health Service is part of the Department of Health, Education, and Welfare and has a cabinet officer with the departmental organization behind him to speak on its behalf. The actual function of the National Science Foundation, with respect to the support of scientific research, should involve support of research over a much wider area than that of the Public Health Service, since it includes the whole realm of fundamental research in the physical and biological sciences, with overlapping into the area of medicine and social sciences. I believe that the National Science Foundation will stand a better chance of growing to its proper stature as part of a federal department headed by an officer of cabinet rank than it would as a separate and isolated agency.

This criticism, of course, deals with only one aspect of Berkner's proposals, which in general I would endorse wholeheartedly. I hope that his powerful and convincing article will receive the attention it deserves from scientists throughout the country—and from the politicians.

JOHN T. EBSALL

Harvard University,
Cambridge, Massachusetts

Philanthropy

I confess that I was jarred by the editorial, "How to be generous cheaply" [*Science* 129, 805 (1959)]. I am aware of the fact that many pleas for philanthropy are supported primarily by the argument that "you can deduct it from your income tax." But I had not expected the AAAS to be promoting a considered plan for the encouragement of such practice.

Basically, the editorial is an expression of distrust in the capacity of the Federal Government—which is all of us—to

make wise expenditures of its tax receipts. Better, the editorial says, to create a condition in which each individual has increased latitude to decide for himself the social causes and institutions (privately operated and controlled) which he cares to support.

I believe such thinking is headed in the wrong direction. If we traveled far enough along this road, disaster could overtake us. Granted that the Government sometimes does not spend wisely, it does not follow that private, individual judgments in "giving" are certain to be formed in the public interest. Private

philanthropy has often been irresponsible and wasteful.

Certainly, citizens should have reasonable encouragement to form and to support private, volunteer organizations for religion, education, and charity. But the primacy of the larger society should not be undermined. AAAS members should understand this principle better than any other group and not become just another pressure group out to shoot a few more holes in the income tax.

P. W. HUTSON

University of Pittsburgh,
Pittsburgh, Pennsylvania

NEW

LOW COST

CHROMATOCAB®



**HIGH QUALITY
FEATURES**

- Glass wool insulation
- Large capacity troughs
- Full width drawer
- Formica lining
- Solvent refill holes
- Leveling feet

The RSCo Model 125 combines all the functional features which for years have characterized Chromatocabs as the outstanding value in paper chromatography.

COMPARE the PRICE and ask —

Where else can you find in one cabinet the corrosion resistance of a Formica lining PLUS the insulation afforded by glass wool PLUS the convenience of a drawer for cleaning and for set-up of ascending chromatograms?

IN ADDITION —

- An especially large triple-pane window lets you see the troughs when introducing solvent through refill holes in the lid.
- The flat top of the cabinet is Formica-covered to give a durable working surface.

PRICE, complete with 4 trough assemblies..... \$300.00

® REGISTERED TRADEMARK

Write for
Bulletin 125-A
or
contact your
authorized
RSCo dealer



RESEARCH SPECIALTIES CO.

200 SOUTH GARRARD BLVD. RICHMOND, CALIFORNIA