pect that the pragmatic attitude that makes them effective in this position limits their ability to resist major structural changes that might have a negative effect on our situation—and, without reforms such as those suggested by Schwartz, no voices will be heard from the potentially more influential "masses" of working scientists.

I would also like to comment on the more specific issues brought into the open by the Sherwin interview and Arthur Shawlow's letter in response. In the period of growth mentioned above, "pure" science has, relatively, developed more than "applied" (although of course both have done so well that the rest of the world is now complaining that they will never catch up!). One familiar with the history of science will realize that that is a recurrent pattern that will almost correct itself—or, at most, one that requires gentle and skillful guidance. Certainly one of the lessons of World War II is that the best applied science is done by people trained in pure science who are given some motivation by society and have the opportunity to work at the applied problems in their own way. However, notice the recent actions by those in power in Washington: a severe slash in fellowship funds, basic research supported by DOD, etc., coupled with a crude carrot-and-stick approach—"Project Themis"—to develop applied science at weak institutions ("centers of excellence" is one of the more amusing euphemisms of recent years).

Shawlow, in his December letter, has commented very effectively on the specifics of the Sherwin interview as it involved Stanford. I can add my experience with another institution mentioned in the article, Lincoln Laboratory, where I worked from 1959 to 1961. It was one of the first places to be affected by the policy of a sharp distinction between "basic" and "mission-oriented" research. One major effect of this change of rhetoric was that many of the best minds that the laboratory acquired in the 1950's felt forced to leave. This was tragic; the laboratory was in an ideal and almost unique position to develop pure and applied science together, but this opportunity was missed. I am glad to see from the Sherwin interview that some good pure science survived, but, from what I could see, I cannot but feel that this was despite the system.

In summary, I cannot have any confidence that the people in Washington who make decisions in similar cases will act wisely without some strong pressure from us to base these decisions as far as possible on the traditional principles of support of the best science, pure and applied, in terms of both individuals and institutions.

ROBERT HERMANN
Visiting Professor of Physics
University of California, Berkeley
Professor of Mathematics
University of California, Santa Cruz

Highly edited dialogue

In connection with the highly edited dialogue you deign to allow in your dignified pages, amongst the advertising of the scientific–military–industrial complex and features like Search and Destroy (oops! I mean Discovery), I would like to point out that German science remained pure and unpolitical during the 1930's. It has not yet recovered.

C. H. BLANCHARD
University of Wisconsin, Madison

A campaign technique

With the impact of the latest business meeting of the American Physical Society upon me, I would like to make a suggestion to my colleagues in the society. I can imagine a future in which the present happy situation of essentially uncontested elections to the council and offices of the society might no longer reflect the opinions of most of our membership. The nominating committee is adequately responsive in that a petition signed by only 1% of the membership will put additional candidates on the ballot. However, I am concerned that all candidates have fairly easy access to the whole membership to advance their candidacy. (For example, 8¢ per letter to 24 000 physicists is not easy access.)

Next year the APS *Bulletin* is to be published monthly and will contain news. I suggest we establish a policy whereby space for personal advertisements will be sold at cost to any member of the society. Many other useful ends would also be served by such a service. (Incidentally, accepting commercial ads at rates above cost may defray some of our expenses.) It would be clear that the views expressed would be only those of the contributor. This section might become

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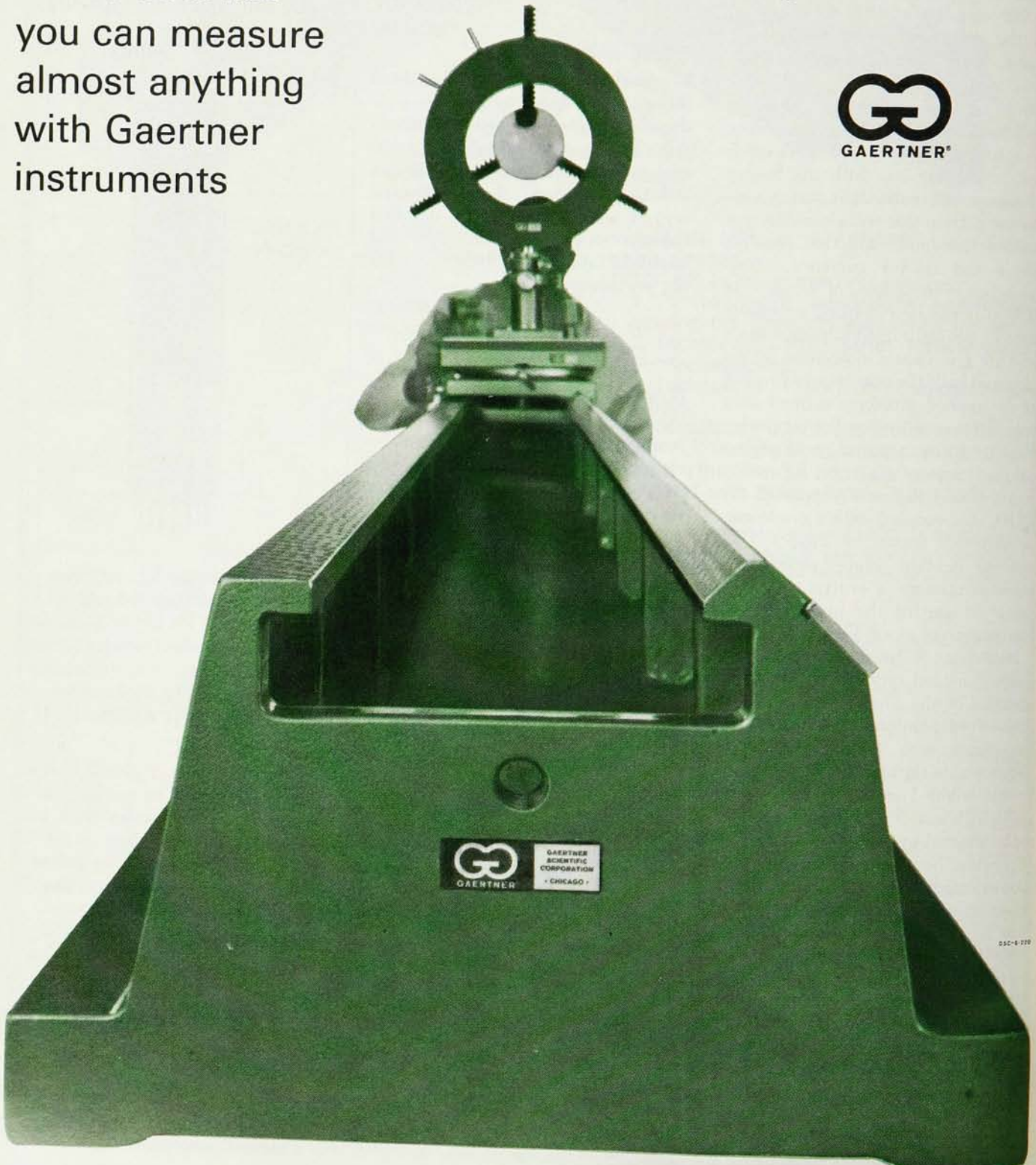

one of the more popular parts of the *Bulletin*.

STAN RUBY
Argonne National Laboratory

Debugging the students

I used to think that we showed average aggressiveness in advertising our graduate program, but it is becoming clear that we are simply not with it. Some institutions send us the names of their seniors and ask us to reciprocate. We comply because, except for the clutter in mailboxes, little harm results. Our students are so sophisticated that their egos are not inflated by all those nice invitations, and they do not think that frantic recruiting is necessarily a sign of a weak institution.

We are, however, troubled by a spreading habit that violates the rights and privacy of students. Some institutions are mailing lists of seniors whom they "recommend for graduate study." Others are including on their lists "grade point averages" or other indices of performance. I have even seen a short paragraph of evaluation for each student so that one can learn from the wastebaskets of hundreds of physics departments that Mr A is "ambitious and industrious," but that Miss B is "a marginal prospect for graduate work." I do not know whether permissions of the students were sought before these circulars were prepared; if they were, it would not improve the situation much because a student who wants to refuse is in a difficult position.

When such material arrives, there is of course an implied suggestion that we reciprocate. We send evaluations, grades and indices of performance to those institutions to which a student is applying only upon the request of the student. I hope that I have not soaked up too much 18th-century stuffiness from my surroundings, but I believe that some departments have, without meaning any harm, drifted into procedures that they might want to reconsider.

ROLF G. WINTER
College of William and Mary

I strongly urge that this practice [of exchanging lists] be examined carefully with full attention given to the interests and privacy of the students.

C. A. DOMENICALI
Temple University □