

letters

other words those areas that are under "effective governmental jurisdiction." That statement was signed by Chien Shih-Liang, president of the Academia Sinica following lengthy discussions between the two of us and several highly placed government officials.

Many avenues have been explored that might get us off the horns of the present dilemma, including joint delegations (used successfully at one time during the German difficulties). ICSU and the unions (except for IAU) do not have individual memberships. Difficulties of financing major international collaborative programs make this approach most undesirable.

Speaking as an ICSU officer, I believe that the most palatable sequence of events would be for an organization such as the Academy of Sciences of the PRC to join ICSU and the unions, stressing that its membership is tentative until such time as there is an overall resolution of the geographical and political problems between the governments in Peking and Taipei.

Finally, it is most unfortunate that I find myself compelled to defend an important matter of principle under such trying circumstances. Those of your readers who know me realize that I started a major effort 15 years ago to re-establish contact with our scientific colleagues in the People's Republic of China. That effort was eventually successful. I hope that the present effort will also be successful, but not at the expense of giving up a principle that many of us believe is essential if there is ever to be a true world community of scientists.

HARRISON BROWN
The East-West Center
Honolulu, Hawaii

7/24/78

Inventor's horror story

I was much interested in Betsy Ancker-Johnson's editorial in April (page 96), and especially in the *imaginary* event with Samuel B. Morse.

Apparently Ancker-Johnson is unaware that the actual situation today is far worse than what she sees as a possibility, at least when it comes to defense-related inventions. I will relate my own experience:

In 1943, on my own initiative, and wholly at my own expense, I started development of an electronic fuel-control system for jet engines. By 1945, my development had proceeded far enough that the Air Force asked me to make a *gratis* demonstration of the control, on a jet engine (of course, in those days only the government had jet engines, and all my development was based on simulation and calculation). The demonstration was considered a great success, although they did not actually test fully one feature of

the control—its ability to protect from overtemperature. For this, we simulated an overtemperature condition, which the engineers found convincing.

I continued my developmental work, and a year later the Air Force asked to purchase one of my fuel-control systems, at a total price of \$10 000. I built one for them, which they had tested by an engine manufacturer. It was again found to operate relatively well, and the development proceeded.

Because of this one sale of a device I had developed at my own expense, the government held that they had a free license to use my invention. They purchased many millions of dollars worth of controls based on my invention from the major jet-engine manufacturer of the period (who had learned of the invention through my work with the Air Force), and have denied me any compensation for my invention, based solely on their having purchased and tested this one control! I have sought relief in vain through the Court of Claims for the last twenty years, and have been constantly turned down—all based on this one sale.

This may all sound like a distorted picture of what happened, from a disgruntled inventor. But everything stated above (except for the question of how my competitor learned of the invention, on which the court was silent) is to be found in the Court's own statement of the facts in the case (*Technical Development Corp and Franklin Offner v. The United States*, 202 Ct. Cl. 237). Nor was my development of the electronic control a minor advance. In a companion case, the US Tax Court, in *Offner Products v. The Renegotiation Board*, stated "It is clear that [Offner's] contribution to the defense effort was historic and immense. . . . It gave the US a decided edge over its international rivals. It saved the government millions of dollars in money and time."

So, Dr Ancker-Johnson, you don't have to look back in time to imaginary situations to find horror stories; nor do we only have to guard against new infringements on the rights of inventors: Things could hardly be worse than they are at present, at least for inventors who would contribute to the national defense. Since this experience, I have steered clear of defense-related projects as if from the plague—possibly to the country's detriment, but to my own peace of mind, at least.

FRANKLIN F. OFFNER
Northwestern University
Evanston, Illinois

5/15/78

THE AUTHOR COMMENTS: Franklin Offner's experience is not atypical; literally hundreds of small inventors have found to their chagrin that the government acquires property rights to inventions that are "first actually reduced to

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13

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letters

practice during the course of or under a government contract"—even if the invention was conceived and patented years before the contract was executed. Large corporations rarely make this mistake. They either refuse proffered government contracts entirely or they reduce their previously conceived inventions to practice before entering such contracts. While my own sense of justice is outraged at the treatment accorded Offner by the government, it seems that Senator Gaylord Nelson is no less outraged in the opposite direction. To his way of thinking the government has played the dual role of Santa Claus and the Tooth Fairy by allowing Offner and other small inventors to collect royalties from parties other than the US Government.

If Offner were to deal with the Department of Energy today, he would find his position vastly more difficult. Instead of simply taking a royalty-free license, the government would have the right to demand the entire right, title and interest to his invention. Thanks to Senator Nelson, this identical result would obtain today if Offner's invention were first actually reduced to practice during a government-guaranteed loan, despite the fact that the loan was fully repaid on time and with interest. With friends like Senator Nelson, the small inventor needs no enemies.

BETSY ANCKER-JOHNSON
Argonne National Laboratory
Argonne, Illinois

5/30/78

Demand for good physicists

G. Adomian in his letter on tenure (June, page 48) seems to imply that for the physicists who are not "on the frontier" a "junior college would be in order or industry."

In the very same issue (page 54), in a book review, it is reported that Bell Telephone scientists Arno Penzias and Robert Wilson confirmed the existence of a cosmic microwave background, predicted by the big-bang theory, while engaged in a satellite communication experiment.

Is cosmology far enough "on the frontier"?

The same youthful naivety is displayed by Adomian when he proposes that only "superbright" and "200 IQ" new graduates should be considered for tenure.

As a good physicist, Adomian should know that "superbright" has no operational meaning and that IQ tests are not as reliable as Newton's equations.

M. MARTINI
Oak Ridge, Tenn.

6/20/78

In his letter (June, page 48) G. Adomian makes the incredible statement, "Good

people are still being hired." This letter clearly implies that if a physics PhD cannot get a job, he is no good. The author would have us believe that all is right with our American system, and the problems lie with certain PhD's who have a "lot to learn."

Strong exception to Adomian's letter must be made, and a challenge is in order. For any criteria he produces to define a *good physicist*, a large number of physicists meeting these criteria and no longer employable as physicists can be demonstrated. Unless, of course, Adomian insists on defining *good* physicists as *employed* physicists. A few case histories will provide anecdotal evidence that good physicists—even excellent physicists—cannot find work.

Sharing an office for a year with physicist A, a theorist who worked intently and alone, was unnerving. Every two months or so he completed a paper and mailed it to *Physical Review*, and a few weeks later a postcard arrived informing him that his paper had been accepted for publication. Over the course of a year he submitted six original manuscripts to the *Physical Review*, and not a single referee voiced a single criticism of his work. This journal has very high standards, and certainly physicist A was a good physicist. Unfortunately for physics, he was forced to take his powerful intellect elsewhere.

Physicist B was good enough to go to one of the leading graduate schools, and there he excelled and was able to write his PhD thesis under the direction of a highly respected Nobel laureate who developed a special affection for physicist B and his work. Unable to find employment as a physicist, Dr. B programmed computers for several years before returning to school in another field.

These examples are too often the rule rather than the exception, and the list could go on and on, but only one more tragedy will be related here. Graduating number one in his college class, physicist C was offered seven fellowships to do graduate work, which he successfully completed. Though he completed his PhD in a hard year for finding jobs, five research groups offered him post-doctoral positions. For several years he held temporary positions, publishing some twenty papers in leading journals. Then, like physicists A and B before him, he was unable to continue and left physics.

The past decade has been a difficult one for physics. Many research fields have had their funding slashed severely. The number of students entering physics had decreased, and science no longer gets the cream of the crop. Many excellent physicists, both young and old, have had their careers smashed by the decreased number of jobs. To dismiss them as being "not good" is an injustice to them and their abilities.

Perhaps one day physicists will learn to

continued on page 77

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