

letters

with this company, I wrote the president of the company (having not reached anyone else in the organization). The letter has never been acknowledged!

I wonder if the readers have had any similar difficulties with the scientific-apparatus suppliers.

GEORGE L. HAZELTON
Chowan College
Murfreesboro, North Carolina

Wrong affiliation

In your news story about second-class currents in beta decay (November 1971, page 18) you incorrectly state that both J. Delorme and M. Rho are affiliated with Saclay and CERN. Although this is true for Rho, who is a member of Saclay and was at CERN when this work was done, it is completely incorrect for Delorme who never belonged to either of these organizations. He is and has always been at Institut de Physique Nucléaire, Université de Lyon, and his paper is signed from the above address.

This may seem a minor point, but for an institute that is working to establish its reputation in intermediate-energy physics, such details do matter, both for external and internal recognition.

M. ERICSON
Institut de Physique Nucléaire
Villeurbanne, France

Why not Solar Physics?

Five years ago a new journal, *Solar Physics*, appeared on the information scene. As though of one mind, solar physicists the world over abandoned their traditional communication channels (*Astrophysical Journal*, *Physical Review*, *Monthly Notices of the Royal Astronomical Society* and so forth) and adopted this new journal. To active workers in this field the move has been a complete success. (No, I am not an agent of the publisher or in any way connected with it!)

English-speaking solar astronomers now publish almost exclusively in *Solar Physics*. Non-English workers, particularly the east Europeans, tend to publish first in their national journals; but papers of importance appear in short order in our journal. Having a dual editorship (C. de Jager for the West and Z. Svestka for the East) has no doubt put contributors at their ease. The absence of page charges is also an essential ingredient to its international acceptance.

There have been a few drawbacks to *Solar Physics*. At first the papers were inadequately refereed and more should have been rejected. But things have

improved and I think the quality is now on a par with the prestige journals. More worrisome is the fact that, in solving our own communication gap, we have retreated in the interdisciplinary sense. Our nonsolar colleagues think we have stopped publishing. Significantly, Arthur Herschman did not include *Solar Physics* in SPIN (Searchable Physics Information Notices). I think in the future it should be included.

WILLIAM C. LIVINGSTON
Kitt Peak National Observatory
Tucson, Arizona

The author comments: William Livingston's letter echoes a number of others that I have received in suggesting additional journals for inclusion in the selected set covered by the AIP program for Current Physics Information. Such suggestions are very welcome; it is our intention to include all of the important physics journals in this set. However, budgetary limitations have forced us to begin operations while still somewhat short of this goal.

ARTHUR HERSCHMAN
American Institute of Physics

Lament of a scientist's wife

My husband is enamored
Of shining things that count,
Of bright metallic cases
That fit in tall steel mounts.
He polishes and lines things up
Until the dawn light breaks.
I often think I haven't got
Exactly what it takes.

I should be made of metal,
Of bright aluminum
With hair of burnished copper,
And when my husband comes,
Instead of vocal greetings
Like normal people make,
My response to him
Will be neatly placed
Upon magnetic tape.

SARA SINN
CERN
Geneva, Switzerland

Radiation exposures

In Table 2 of "Ionizing-Radiation Standards for Population Exposure" (November 1971, page 32), Joseph Lieberman estimates the exposure to the US population from nuclear power to be 400 man-rems and 56 000 man-rems for the years 1970 and 2000. These estimates are for releases from reactors alone, assuming 5 mrem at the site boundary and the population at risk being those that live within 50 miles of the reactor sites. If one adds the dose estimates for other nuclear power sources, namely,

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letters

fuel reprocessing plants, worldwide K^{85} , worldwide H^3 (from nuclear power) and nondefense AEC facilities, the nuclear-power contribution becomes substantially higher, although by the year 2000 it is still an order of magnitude less than the dose from fallout. Estimated doses in 2000 from K^{85} and H^3 , if they continue to be released to the environment, are 12 and 8400 man-rems, respectively, with approximately one-half of the tritium coming from the nuclear-power industry. Release from fuel reprocessing plants in 2000 is estimated to be 65 000 man-rems. Those values are taken from the most recent draft of "Estimates of Ionization Radiation Doses in the United States, 1960-2000," prepared under the direction of the Office of Radiation Programs of the Environmental Protection Agency.

THOMAS B. COCHRAN
Resources for the Future, Inc
Washington, D. C.

Sexagesimal reciprocals

I was fascinated by the recent letters that tried to represent the fine structure constant by a product of the form

$$2^{i/3} 5^{j/5} \pi^l$$

where i , j , k and l are low-order integer fractions, because of the similarity to a totally different problem. Whenever possible, the Babylonians reduced division to multiplication by means of reciprocal tables. In the sexagesimal system, numbers of the form

$$2^{i/3} 5^{j/5}$$

all have "regular" (that is, terminating) reciprocals when i , j and k are integers. Several years ago, when I set out to calculate all the 11-digit regular sexagesimal reciprocals (as an aid to the cuneiformists) I had to estimate how many there would be. I found the number (3338) by essentially the same geometrical scheme that Asher Peres used in your November issue (page 9) to estimate the number of solutions for the fine structure constant. The results of my calculations are found in the *Transactions of the American Philosophical Society*, 55, part 8 (1965).

OWEN GINGERICH
Harvard University
Cambridge, Mass.

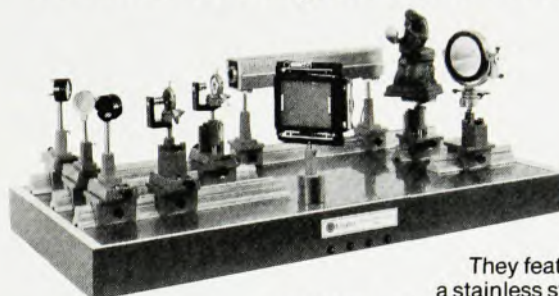
Unemployment understated?

I am astonished at the extent to which the employment problem in physics has been understated among even the pessimists in your letters column.

continued on page 56

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