seismometer for 14 February 1982? Also, the weather bureau records for hot sunshine? When I was checking core loss of Hypersil at 1.1, 2, and 3 cycles per second I had to wait for cloudy days to avoid drift of the special high inertia galvanometer used with the synchronous motor driven graphite/graphite commutator.

I like Joan Cartier's cartoon. It reminded me of the one illustrating Robert Benchley's 1931 sketch in the old *Liberty*, whose caption was "If we can split the atom, we are going to find a lot of little things." Also if one in the 1937 Caltech humor magazine showing a demolished Caltech cyclotron and a badly bruised staff member whose comment was: "Toughest damn atom I ever saw!"

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Science, yes; weapons, no

I object strongly to the editorial opening statement in "Washington Reports" (April, page 55). You say "It would be churlish of physical scientists to complain about the budget for fiscal 1985 that President Reagan sent to Congress on 1 February . . ." and you explain this by detailing how ". . . the budget favors the 'hard' sciences . . ."

Why is this not reason to rejoice? Increasing the NSF budget is a good idea and the activities proposed under NSF auspices are worthwhile. But your article glibly mentions the enormous sums proposed for Trident II missiles, MX missiles, B-1B bombers, ballistic missile "defense" and other dangerous, ridiculous items. Each of these items will cost an amount comparable to or greater than the entire NSF budget. You also report on DOD's share of funding for basic research and related projects such as the Strategic Defense Initiative ("Star Wars"), command, control and communication systems for air–land battles in the year 2000, and so forth, as if it were all just various and sundry pure and applied physics.

It will be much worse than churlish if we do *not* complain about funding these dangerous and foolish weapons systems. The real impact of your opening statement is that physical scientists should not be critical of the President's policies and programs (as implemented by the budget proposal) because we have been generously treated by the President.

People have often asked me what is wrong with accepting DOD money if the research you are doing is good basic research and they are willing to pay for it. One reason is that by funding such research, DOD "buys" your complicit silence, not explicitly, but effectively. Your editorial in the guise of news makes this explicit.

Clearly the physical sciences are treated well this year by the President also because these areas of basic research are deemed important to support the military plans for "Star Wars" and a greatly worsened arms race. The recent DARPA Strategic Computing proposal makes this point. If you doubt the Administration's intentions, look at the fact that the National Institutes of Health are asked in this budget to accept "zero growth."

I support the proposed NSF budget. I demand also a corresponding 13% increase in the NIH budget. The weapons systems mentioned above and the military projects in the DARPA Strategic Computing proposal should not be funded at all. These weapons and the "Star Wars" projects are of no military value. They increase the risk of nuclear war at a time when we should be cutting back nuclear weapons and concluding treaties to stop the insane worldwide arms race.

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Math phobia—squeeze play?

Many thanks for publishing Ya. B. Zeldovich's letter on mathematics as an obstacle to understanding physics (May, page 15). And I had thought things were different in the Soviet Union. May his suggestion be adopted by school districts all over the world!

I have often thought that if average citizens had a mathematical vocabulary equivalent, say, to their baseball or football vocabulary, my job in trying to popularize physics would be many percentage points easier (and I wouldn't have to bore those of my readers who *do* know with frequent repetitions of the same old elementary definitions).

The schools tend to teach multiplication tables and, on a higher level, symbol manipulation. Told that this is boring, they come up with the "new math," which is symbol juggling in binary form or on a computer terminal. Rarely are the spirit, essence and meaning of mathematics taught. (I did not encounter such a course until I was in graduate school.) Yet these things can be taught almost without numbers. Such an approach should be able to reach those who suffer the famous mathematical phobia. These phobics seem to be mainly people who lack the native facility with numbers and symbols that makes lightning calculators and engineers who can integrate the differential equations of a stress analysis in their heads. It seems the ordinary citizen should be able to understand something of the ideas of mathematics, just as he or she can understand the plays of a football team without necessarily having the 100-kilogram body or the motor skills required to play.

One final note: Bourbaki was a real person, a general in the Greek war for independence in the 1830s. A monument to him was erected in Nancy, France, where the Bourbaki school of mathematics began. The story is that these mathematicians, unwilling to risk their reputation in the very rigid French academic world on such wild ideas, picked the name off the statue and signed it to their first paper. After it became famous they had to keep on using it.

DIETRICK E. THOMSON
Senior Editor
5/84 *Science News*

Memories of Bloch

I was saddened to read the obituary of Felix Bloch (March, page 115). In addition to being a great physicist, he was a man of profound wisdom and wit whom I was privileged to meet on various occasions.

I still have a vivid memory of a visit he paid to St. Andrews in 1967, when he gave us a marvelously clear and lively colloquium on "Flux quantization." My memory is helped because since I came to St. Andrews in 1947 we have kept a colloquium book in which all visitors have inscribed the titles of their talks and appended their signatures. The book is of great and increasing value to us.

Following the colloquium, as we were wending our way to the pub, I said how much we had enjoyed the talk, and that I had particularly like one part, of which I already had a little knowledge. He made a very profound and memorable reply: "Never underestimate the pleasure you give an audience by telling them something they already understand." These words of wisdom should be borne in mind by all who plan to deliver colloquia or special lectures in the future.

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No iodine on campus

One of the facets of concern for man's environment includes the safety of personnel and students in an academic setting.[1] A striking example of recognition of the potential impact of chemicals in the academic environment was given[2] in 1982. With regard to radiation hazards, it is easy to overlook the fractions of a curie in a physics laboratory experiment, especially when considering the millions of curies involved