lems. The very few arms-race articles published by the AIP have been very wordy and descriptive; traditional technical articles in these areas have been totally lacking. It seems to me, for a balanced discussion, that physicists from outside the weapons industry should be able to estimate roughly the effects of superhardening missile sites, MIRV, and so on. If we, the physicists, can not do this, then how can we expect our nontechnical congressman to do any better? It seems to me that there should be a place somewhere in the AIP journals for technical articles on science-and-society topics.

DAVID HAFEMEISTER
California Polytechnic State University
San Luis Obispo, California

Remembrances of 1910

In the October 1974 issue (page 9) a picture was published in the "Letters" section—a 1910 picture of those who attended a Washington meeting at the old Bureau of Standards, and readers were asked to identify people in the group.

I believe that no. 73 is Irwin G. Priest. He was at the Bureau during 1907–32. In the years when I knew him he was head of Colorimetry. While I did not know him in 1910, I did know him a dozen years later, when cooperation was established between the Bureau and the Munsell Research Laboratory, which at his suggestion was moved from New York to Baltimore (June 1923). Priest died in 1932 or 1933, following a coronary attack on his return from the 1931 conference of the International Commission on Illumination, where he had successfully helped to conclude the adoption of the 1931 CIE standards for colorimetry, used today throughout the world as basic standards in this field of science.

While I knew H. E. Ives and E. C. Crittenden in the late 1920's, I do not feel nearly so certain of their identification as I do of no. 73 as Priest. Of him I feel very certain—his stance, and shock of hair, as well as face and height, help in the identification.

DOROTHY NICKERSON
Washington, D.C.

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I believe that the person in the back row, identified by number 73 in your legend, is the late Irwin G. Priest.

Priest was born on 27 January 1886, received his BA degree from Ohio State University in 1907, and went to work immediately as a laboratory assistant at the National Bureau of Standards. Successively, he became an assistant physicist in 1908, an associate physicist in 1915 and a physicist in 1919.

Priest became the Head of the Colorimetry Section of the NBS in 1913, a post to which the late Deane B. Judd succeeded in 1932.

ARTHUR C. HARDY
Wellesley, Mass.

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Number 70 in the photo is Clark W. Chamberlain, who at the time of the meeting was chairman of the physics department at Vassar College.

Chamberlain did his graduate work at the University of Chicago and at Columbia University, and was noted for his design and construction of an instrument which he called a "compound interferometer" much to the disconcertment of A. A. Michelson.

Prior to the position at Vassar, Chamberlain was chairman of the physics department here at Denison University, and in 1912 he was called to the presidency of Denison, a position he held for over a decade.

After leaving the presidency of Denison he did advanced study in the Cavendish Laboratory and returned to the US to take a position on the staff of Michigan State University.

It was my pleasure to serve on the staff of the physics department here at Denison during Chamberlain's term of presidency.

RICHARD H. HOWE
Denison University
Granville, Ohio

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My wife and I were able to identify two of the persons attending the 1910 meeting of the APS in Washington. They are: no. 26, Edward L. Nichols, who was head of the department of physics at Cornell University and President of APS, 1907–08, and no. 73, Irwin G. Priest, who was Head, Colorimetry Section at NBC.

E. P. T. TYNDALL
Long Beach, California

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... I believe that no. 27 in your photograph is Daniel Shea, who was the chairman of the physics department of the Catholic University of America in Washington, D.C.

JAMES G. BRENNAN
Chairman, Dept. of Physics
The Catholic University of America
Washington, D.C.

In praise of AAPT

The October issue contains a welcome profile on Arnold A. Strassenburg, the Executive Officer of the American Association of Physics Teachers (page 79).

The AAPT is one of the most worth-

while, dare I say exciting, member societies of the American Institute of Physics, and I have no doubt that Strassenburg contributes in a major way to this situation.

I am one of a number of overseas physicists who value membership of the AAPT. I cannot attend conferences and other meetings, and yet I am more than satisfied with the returns I get from my dues. There are a few bargains left in life these days; surely the *American Journal of Physics*, PHYSICS TODAY, *The AAPT Announcer*, and so on, all for $22.00, must be one of them!

But more than this, there is an air of enthusiasm, exploration, innovation and pride in the subject of physics and the teaching of it that emanates from the pages of the various AAPT publications, which I personally find refreshing and invigorating. At a time when it is fashionable to "knock" physics (or science in general) from within the profession, from students and from the world at large, it is indeed gratifying to see that the subject is alive and growing, not only in *The Physical Review*, but also in the classroom and teaching laboratory.

Perhaps the greatest contribution that the AAPT is making is to emphasize that high-school and college teaching are just as "respectable" and significant as applied or pure research. The community of professional physicists in my own country have not yet learned this vital lesson.

Arnold Strassenburg deserves our gratitude for his very significant work in all these areas.

JOHN G. JENKIN
La Trobe University
Victoria, Australia

Non-hazards of fusion

B. L. Cohen's letter (November 1974, page 15) suggests that routine tritium emissions from fusion power plants would be significantly greater than those currently permitted by AEC regulations for fission power plants. "Can anyone really believe," asks Cohen, "that 10^5 times as much tritium can be handled without releasing more to the environment?"

Cohen's rhetorical, if not specious, question (the answer is "yes"—see below) may prove to be irrelevant as well. Despite the disclaimer that "we know very little of the form fusion reactors will eventually take," his 10^5 ratio tacitly assumes a reactor that utilizes a 50-50 tritium–deuterium fuel mixture and breeds a new triton for each one burned. There is every reason to believe that second (or *n*th) generation reactors will operate on deuterium alone.[1] Tritium formed in D-D reactions would remain in the reactor cycle to be burned; there would be no net production of tritium. More remote possibilities, involving lithium and boron isotopes, might eventually provide tritium-free cycles.

In the case of D-T reactors, two independent studies of conceptual fusion plants predict tritium emissions that are of the order of[2] or less than[3] the limits applicable to fission plants. To decrease the emissions further would require only an incentive to do so and the capital investment for providing additional barriers against tritium permeation.

The literature on projected environmental effects of fusion power is substantial and growing. Physicists who are concerned about environmental matters would do well to explore that literature before firing broadsides at a technology with such immense potential for contributing to the solution of the world's energy problems. A 1968 letter to *Science* from F. L. Parker[4] presented an argument remarkably similar to Cohen's; a retraction, signed by Parker and D. J. Rose, was published two months later.[5] Recently an activist group, which is opposed to the development of fusion power, has begun to quote Parker's *first* letter as an example of what respected scientists think about fusion.

Henceforth, one supposes, they'll be citing B. L. Cohen's opinion as well.

References

1. R. F. Post, F. L. Ribe, Science **186**, 297 (1974).
2. A. P. Fraas, H. Postma, "Preliminary Appraisal of the Hazards Problems of a D-T Fusion Reactor Power Plant," Oak Ridge National Laboratory Report, 1970.
3. V. A. Maroni, in "A Fusion Power Plant," (R. G. Mills, ed.) Princeton Plasma Physics Report, chapter 15, 1974.
4. F. L. Parker, Science **159**, 83 (1968).
5. F. L. Parker, D. J. Rose, Science **159**, 1376 (1968).
6. Anonymous, "The Dangers in Nuclear Fusion," Bulletin of People Against the Atom, 166 Second Avenue, New York, N.Y. 10003, undated.

ROBERT C. AXTMANN
Princeton University

Corrections

February, page 33: Reference in first column, next-to-last line should be "5,6" not "5,3." In figure 1 add "1 MeV" midway between "1 keV" and "1 GeV."

—page 34: The lifetime of 6.8 microsec should apply to the first excited state of Ta^{181}, shown in color.

—page 35: In figure 3, the laser and its first mirror images should be equally spaced from the mirrors; in figure 4 the point for Ir^{191} should lie on the slanting red line. □