PHIMSY

Physicists on coins

Things are tough all over, but not so tough in some places as in others. For example, West Germany, which regularly treats scientific happenings as news and lets you find them in the daily papers, has honored some of my former friends by putting them on coins. Back in 1947 they put a handsome profile of Max Planck on a two-mark piece. Alexander von Humboldt (of the Humboldt current and

some other geophysical discoveries) and his brother Wilhelm (of letters and language) shared the face of a five-mark piece recently. On a similar five-mark piece is Gottfried Wilhelm Leibniz (commonly "Leibnitz"), who invented the calculus independently while Sir Isaac Newton was doing so. East Germany got out a 20-mark Leibniz coin and a 20-mark Wilhelm von Humboldt coin at about the same time.

Send me your coins with physicists.

Some meetings are informative

You people are my people, and I like to see you enjoy your work. So it bothers me when I hear about more and more literature that is less and less read and meetings at which corridor talk is important and presented papers a waste of time. Sometimes, though, I hear words of cheer:

The German Physical Society has its own meeting style that several Americans have admired and called to my attention. The emphasis is on education and conversations between different fields of specialization, and this, from what I hear, is the opposite of the custom at US meetings. Morning plenary sessions report current topics at a PHYSICS TODAY level; in the afternoons topical reports from the divisions open with an introduction for the outsider and then go on to a general review. An "evening of contact" brings young students together with senior citizens, and evening lectures are arranged to be entertaining and informative.

The moral of my story is: If you must go to a meeting, go to a good one. When you don't have to, though, just stay home and read PHYSICS TODAY.

The Special Theory of Relativity

The life of a meson is short:
One would think it could not get far.
But, by extreme energy in its brief existence
From creation in the topmost air
To ultimate decay, its allotted span
Suffices for the flight to earth.
Perhaps there is no moral
Which the resting observer may draw—
But he might at least take a hint.

ALAN MACKAY

The Fairbank Anti-Murphy Law

Working with meticulous care and close attention to detail William Fairbank of Stanford has derived the Anti-Murphy Law. In planning the Stanford orbiting-gyroscope experiment to test general relativity, he and his colleagues ran into the problem of readout. If you get a superconducting sphere spinning in orbit, even the light you might shine on it would offer too much interference by destroying superconductivity. It seemed impossible to observe the spin axis and measure precession.

Ah! But there is a way—one way. A superconducting loop around the sphere has quantized flux through it, and the sphere has an associated magnetic field. If the sphere precesses, the flux changes, and you can observe the change without disturbing the sphere or its superconductivity.

Then there was the question of cooling. There isn't any room, weight or power for a Collins cryostat or a helium-dilution refrigerator. But liquid helium, being a superfluid, has just the right properties. It will flow around where you want it to be and evaporate through a porous plug to

keep everything continuously cool. As if that were not enough, the escaping helium is a few times as much as you need to operate the position and orientation jets of the satellite.

One expression of Murphy's Law is, "If anything can go wrong with an experiment, it will." The corresponding form of the Anti-Murphy Law, says Fairbank, is, "If there is only one way to do an experiment, Nature will allow you to do it."

D'Abro: the search goes on

My little story about d'Abro in September turned up a lot of d'Abro hunters and not much about d'Abro. Almost the morning my story appeared Charles Gottschalk, Atomic Energy Commission librarian, came in to say that when he was at the Library of Congress some years ago, he had had occasion to find d'Abro. Gottschalk remembers entering a New York City building that was supposed to be d'Abro's residence and *thinks* he actually talked to d'Abro. On reflection he is not sure whether d'Abro was at home when he called.

Gottschalk sent us to Liveright Publishing Corp, which, he told us, had applied in 1954 for renewal of copyright on the book published in 1927 by Boni and Liveright, *The Evolution of Scientific Thought from Newton to Einstein*. On the application d'Abro's address was 55 West 55th Street, New York City. The Liveright answer contained the statement that d'Abro had died recently and the following biographical information: "Aram d'Abro, educated at Eton (England) and studied mathematics in Paris; resident of New York; author of *Bergson ou Einstein*, published in France in 1926." (I must write to Eton.)

Maybe the prize for Best d'Abro Hunter, though, goes to Joseph Ford, who writes, "We have been asking your 'Who is d'Abro?' question for over a decade here at Georgia Tech. Indeed when recommending volume 2 of *The Rise of the New Physics* to beginning quantum-mechanics students, we offer an A in the course to anyone who can unravel the mystery of d'Abro. Despite this enticement, d'Abro has remained a mystery."

I am still on the track and plan to use my success, when I get it, to earn my first A in physics at the Georgia Institute of Technology. □