PHIMSY

Decimal time is here

DEAR PHIMSY: Your comments on decimal time units in September are interesting. Astronomers have long understood the scientific value of expressing times decimally in the use of the Julian date. Those concerned with observation of variation with time of the radiant output of variable stars have special need for such units.

At Flower and Cook Observatory the Pierce-Blitzstein photometer used mainly for variable-star observations uses as its basic unit of time 10^{-5} day or, as Edward A. Rossit would name it, a "blink." We have merely called it a "time unit" when referring to the operation of the instrument.

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Gamow gambols

Stories by and about George Gamow, I predict, will never cease. Dwight Gray, the American Institute of Physics man in Washington, relayed one to us a little while ago from Mrs. Alan Waterman. A few years ago Alan Waterman received a postcard from Gamow, written in haste at an airport. It announced that Gamow had just worked out a much needed solution to an Einstein field-theory equation; details would follow. Next day came a telegram: "Disregard card; found mistake in mathematics."

Gamow may have been the first to consider bomb detonations for propelling space probes. According to Reinhold Gerharz, he used to liven advanced-quantum-mechanics lectures at George Washington with blackboard presentations of spherical surfboards riding nuclear shock waves through space.

One of the Gamow inventions I like best is the only flawless perpetual motion machine I know: 6's hung on the spokes of a wheel turn into 9's as they go over the top and give you more weight on one side than on the other.

Gamow stories have a rare and unusual charm built on his rare and unusual combination of science, sophistication, naïveté and sincere simplicity. We plan to collect them. With the approval of Barbara Gamow, George's widow, my boss is setting up a file. If you have any Gamow letters, please send us copies or send us the originals so that we can copy them and return the originals. If you know any stories, please send them for our collection.

Pulsars in poetry

Saying that it should be dedicated to the memory of George Gamow, whose own efforts produced some verse on quasars that you find in *Relativity Theory and Gravitational Collapse* (University of Chicago Press, 1965), Jay M. Pasachoff of the Harvard College Observatory sends me the following:

Twinkle, Twinkle, 1969

Twinkle, twinkle pulsing star
Newest puzzle from afar.
Beeping on and on you sing.
Are you saying anything?
Twinkle, twinkle more, pulsar.
How I wonder what you are.

Purcell on Dicke

After Robert H. Dicke of Princeton compared polar and equatorial diameters of the sun and found a ratio of 5×10^{-5} between their difference and their value, I hear that Edward M. Purcell, Harvard, remarked, "If I had done it, I wouldn't have believed it, but when Dicke does it, I've got to take him seriously."

A practical Peltier effect

Now who would expect anyone to make any practical use of the Peltier effect? One of the editors showed me with a sketch on the office blackboard that you can tie wires of different metals together and make a thermocouple; if one junction is hotter than the other, you can measure an electric current. You can also reverse the process, he told me. An electric current makes one junction cold and the other one hot, and the heat transfer is the Peltier effect.

Now Philip Golden of Consultants Collaborative has used the Peltier effect to solve an old problem: keeping

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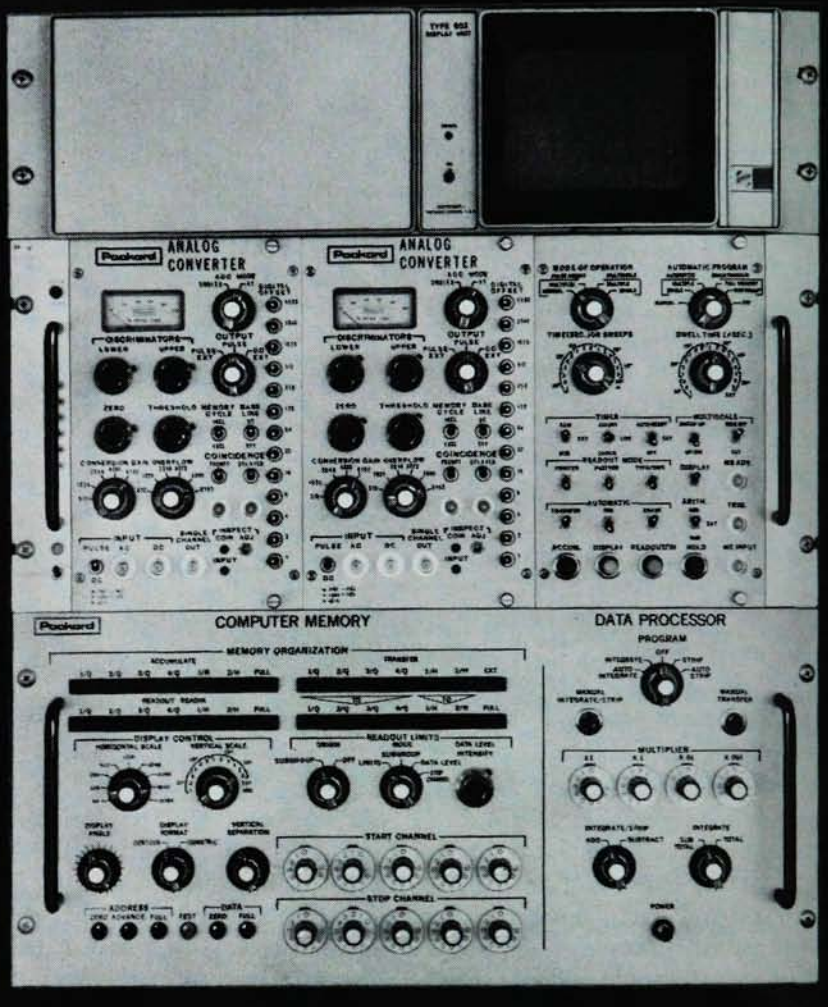

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milk and lettuce cold and soups hot when you are serving 30 or 40 hospital patients. He has a patent on a cart-and-tray system in which a cover on each tray carries the Peltier junctions and a storage battery provides the power while you wheel the assembly along the wards. He tells me it is the only such system that chills and heats simultaneously and that it weighs about half what conventional systems for such food service weigh.

I'm glad he found a good use for the Peltier effect. I'm glad, too, that he designed a cart to serve sick people, who need it, instead of pampered airplane passengers, who don't.

Chicago Tribune speaks

"Thousands of professors, particularly scientists with no credentials other than a Ph.D. in physics or chemistry, set themselves up as authorities on political and social problems," says the 24 Nov. lead editorial in the *Chicago Tribune*. Shades of the past. Didn't my friends the editors write the following in their December 1967 editorial: "Public assertion that physicists have special competence might be an arrogance that would bring discredit to a community in place of the respect it now enjoys."?

The editorial, as you may have guessed, comments without joy on the anti-Chicago letters of the November PHYSICS TODAY. "Fortunately not all scientists are intellectual and moral ciphers," it says at one point, though, and quotes at length from Bernard Cohen's letter, which took a propolice stand.

You fellows who are looking for the action appear to be finding out where it is.

Lasers in the kitchen

"The model 120 can be used for many home applications, including holography," reads an adman's telegram announcing a "laser sweepstakes." His client is giving away nine (count them, nine) helium–neon lasers to entrants who qualify in a census that the adman's agency is conducting.

If you could put Allseeing Optical's filter on *your* laser, you'd have a better laser. You could have a lot of fun with it in many applications right in your own home. □