

THIS WEEK

Sun's oblateness shakes up relativity 260
JPL head announces departure 260
Anti-anxiety drug use defies theory 261
Giving kidney stones a shock 261
Dietary zinc roundup 262
Preventing premature deliveries 262
TMI core to be shipped for study 263
Science education: Computer donation 263
India's 6th satellite includes a bill 263

RESEARCH NOTES

Chemistry 264
Technology 265
Environment 265

ARTICLES

Captive propagation gets a test 266
Battle between stars and streetlights 269

DEPARTMENTS

Letters 259

COVER: A whooping crane chick hatched at Patuxent Wildlife Research Center learns what food to eat from a closely related sandhill crane foster parent. Foster parenting is just one of many strategies developed by Patuxent biologists to ensure that they not only breed endangered wildlife successfully but also produce offspring that can survive reintroduction to the wild. See page 266 (Photo by Scott Derrickson U.S. Fish and Wildlife Service)

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LETTERS

Happy Anniversary

I enjoyed your lucid and informative article on "A Matter of Energy Levels" in your 60th Anniversary Issue (SN: 3/13/82, p. 183).

In your section on Hahn/Meitner, it should be noted that Otto Hahn and Fritz Strassmann discovered, on December 17, 1938, the "Barium Anomaly" resulting from neutron interaction with the uranium nucleus (probably U238, but U235 could have been involved).

Lise Meitner had already left for Sweden some months before. Hahn, after several other experiments, wrote her at once. She, discussing the letter with Otto Frisch, who was visiting her in Sweden, concluded that the nucleus might have "split." Frisch, returning a couple of days later to Copenhagen, saw Bohr off to the United States (Lise did *not* — she stayed in Sweden), and told him of his and Lise's interpretation of Hahn's findings.

Frisch then, at the Institute in Copenhagen, demonstrated "fission" — as he now called it after discussions with a U.S. biologist colleague — electronically and sent a wire to Bohr, in the United States. Several U.S. experimenters (e.g., Dunning) then performed several similar electronic experiments, after listening to Bohr, but Frisch was first.

*Kurt R. Stehling
Rockville, Md.*

In your 60th Anniversary Issue, in Janet Raloff's history of computers (p. 170), she omits mention of one machine that I think belongs in the genealogy. This was a machine dubbed "MANIAC" built at Los Alamos Scientific Laboratory in the forties.

At the time I was supervising the electronics shops there. After almost forty years my memory may not be precise, but as I recall it, originally the idea was to copy the Moore School Machine. This was pretty much the case, but as I recall our Theoretical Physics Division did alter the philosophy of the machine somewhat.

What turned out was a system of 5,000 vacuum tubes. To minimize the interference of random pulses, the filaments of these tubes were heated by a bank of storage batteries. The result was that the room had to have a special air conditioning system to keep the temperature within reason.

Perhaps some of your readers can remember the exact characteristics of MANIAC and in what way it may have differed from the Moore School machine. I am sorry to say that I cannot at this point, but I do know we were all proud of what we had in this computer.

*Paul Sperling
Santa Cruz, Calif.*

Enjoyed the 60th anniversary issue enormously! I thought you might be interested in a strange coincidence in the article "On Beyond Babbage" (p. 170). As the article points out, a major impetus to the development of the digital computer was the need of the Ballistic Research Laboratory (BRL).

Oddly, BRL is an acronym that any Bombarrier understands. It means Bomb Resolver Locus, the very thing that the computer was designed to calculate. Interesting, wot?

Keep up the good work — outstanding!

*Dale W. Edwards
Hemet, Calif.*

Ms. Raloff's article on the rise of automatic computers, while an excellent summary of the technological advances made in the development of modern digital computers, completely ignores the contributions made to these advances by the mathematicians: George Boole, in his work "An Investigation of the Laws of Thought," published in 1854, and Claude Shannon, in his work "A Symbolic Analysis of Relay and Switching Circuits," published in 1938 while a research assistant at MIT as a method of representing the switching of circuits by a set of mathematical expressions analogous to the logical expression of Boolean algebra. Ms. Raloff does make three references in her article to logical concepts, but she fails to mention the works of Boole and Shannon in developing and applying these concepts. Without them, the advances she so well describes would have been impossible within the time framework she describes.

*J. F. Gillis
East Falmouth, Mass.*

Your 60th Anniversary issue of SCIENCE NEWS is definitely another noteworthy milestone in the propagation and enlightenment of science to layman and scientist alike.

However, permit a correction which challenges the entry — in the 1970s bracket — of "1977—First Human-powered Flight, Gossamer Condor, by Bryan Allen" on page 192.

You might be surprised to learn that the first such flight was successfully performed by Mr. (Capt.) Taggart in Lowell, Mass., 132 years ago this coming July 4!

Man-powered flight includes both lighter-and heavier-than-air contraptions. Thus far, an earlier date for such a flight has escaped me, whereby the Taggart flight of July 4, 1850 deserves the claim, also, of a world's first in this category. What has happened subsequently to Taggart continues to be elusive. If you have any information on this subject, I would be grateful for it.

Please rest assured that my bringing to light the Taggart event does not detract one iota from the legion of most informative facts and theories of science you continue to publish.

Wishing SCIENCE NEWS continued success in the years to come.

*Constantine D. J. Generales Jr.
New York, N.Y.*

Although I've only been a subscriber 1/2 of your 60 years of existence, please accept my congratulations for producing a science magazine worthy of the highest acclaim. Your unbiased straightforward, concise and timely reporting of the scientific events and happenings around the world can keep every person interested in science well informed and basically knowledgeable. Your feature articles and special reports are consistently written thoroughly and understandably even for persons with minimum scientific backgrounds.

Science, in all of its numerous branches, is ever increasingly becoming involved in our personal lives and in the decisions we must make not only for ourselves but also expect our national and world governmental leaders to make. Thank you for providing a source of information for us through SCIENCE NEWS.

Again, congratulations and please continue your pursuit of scientific and journalistic excellence in SCIENCE NEWS.

*Theresa O'Malley
Oreland, Pa.*