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COVER: *Clostridium botulinum* cells, which spawn the potentially deadly botulism poison, have been found growing in intestines of infants who apparently did not ingest contaminated food. Puzzled scientists have confirmed the disease in 63 infants, two of whom have died. See page 297. (Photo by A. S. Clainer and J. L. LeFrock, courtesy of Upjohn Co.)

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LETTERS

Corrections and suggestions

In your article on metal hydrides for hydrogen storage (SN: 4/8/78, p. 213), you state that "lowering the temperature causes the hydrogen to break loose from the metal." Instead, of course, it causes the hydrogen to bind more tightly. Increasing the temperature is required to "break the hydrogen bomb."

D. R. MacKenzie
Upton, N.Y.

There are some fascinating possibilities related to the production and storage of hydrogen gas to be used as a nonpolluting fuel. If the gas is produced through the electrolysis of water and if the wind is used to generate the electricity, it appears feasible to use low-cost generating equipment, because no batteries are needed to supply energy in the absence of wind.

It would also appear that large buildings could be designed to funnel the prevailing winds into the turbines that are designed as integral parts of the buildings' structures. The hydrogen gas thus produced by wind-driven generators and electrolysis of water could be used for heating and air conditioning, and the surplus sold as vehicle fuel.

Bruce L. Meyer
Bloomington, Minn.

A jet black possibility

The pun in the title of the story about our work on NGC 6251 (SN: 3/25/78, p. 180) is clever, and I suppose that once it came to mind was too good not to use. But the main conclusion of our work is that we have found powerful evidence supporting the "beam" model for radio sources and (although we didn't say so explicitly) against the "slingshot" model. We were able to make calculations concerning the likely physical conditions near the center of the galaxy, under the assumption that we truly were dealing with a beam, and at the very end pointed out that these were typical of the conditions to be expected near a black hole. This is not evidence for a black hole and we carefully avoided claiming that; the most that can be said is that a theory which includes a black hole is consistent with the observations.

Marshall H. Cohen
Pasadena, Calif.

Having taught astronomy on the college level for the past eight years, I think it's about time somebody said it. Cygnus X-1 and HDE 226868 notwithstanding, there is no more proof for the existence of black holes than there is for life after death. Indeed, I believe there is more "proof" for the latter than the former.

Having read about everything there is to read about black holes, it seems to me that theoretical astrophysicists — some of the more renowned ones — are staring into a black box from which any number of assumptions can be made on the existence of things they envision from the nothingness they see.

By what sophistry of the imagination can some astrophysicists describe the properties of a black hole—its diameter, mass and (assuming it is rotating) its angular momentum — if the object has disappeared?

Einstein's laws for the state of empty space can be stretched too far and mathematics can just about prove anything. Accordingly, let's treat black holes in the proper perspective, namely, as philosophical curiosities until we have some trustworthy evidence for their existence, not as absolute certainties.

Ray Benton
Baltimore, Md.

Stalking the wild carcinogen

Would that the unborn of this country today could have read the article on occupational hazards to their health (SN: 4/8/78, p. 214) — would they cheer or cry? In these times when so much in science and medicine is due to "unknown causes" why do we persist in seeking obscure truths while ignoring the more blatant revelations of yesterday's research?

At least three of the chemicals known to be hazardous to the unborn (benzene, cadmium, and pesticides [DDT]) are regular byproducts of one of this nation's most pervasive industrial pollutants — tobacco smoke. Has the National Institute for Occupational Safety and Health investigated the epidemiologic and toxicologic effect of first- and second-hand smoke? I wonder how many "average [women] ... with no exposure to toxic chemicals" either voluntarily or involuntarily inhale tobacco smoke, and whether such exposure could explain in part the high rate of fetal loss.

If there is a relationship between toxic chemicals in smoke and danger to the unborn, perhaps we should, in keeping with industrial practices, bar both men and women of child-producing age from all workplaces subject to smoke pollution. (That would certainly open up job opportunities to displaced homemakers ...)

How much longer will we stalk the wild carcinogen while stoking the fires of known toxic substances?

Edith L. Stunkel
Manhattan, Kan.

"Sister George to O. R. 4"

Your sexism is showing! In "Occupational hazards to the unborn" (SN: 4/8/78, p. 214) concerning constant exposure to gas anesthetics in hospitals correlated with stillbirths, etc., the line could have read "... spontaneous abortions among wives of operating room nurses and among the doctors" Watch it.

M. B. King
Berkeley, Calif.

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