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COVER: Viking lander 1 does not have a "fisheye" lens on Mars, but Jet Propulsion Laboratory in Pasadena does have the computer that Viking team member Ken Jones used to combine existing photos into this nearly 360° panorama of the lander's surroundings. Instructing the computer to reposition the individual picture elements, or "pixels," of each component image, Jones created a view in which every point on the horizon is at its precisely correct compass heading (as shown, north is up). This has allowed Viking researchers to match differing elevations and other features on the horizon with views of the landing site terrain taken from orbit, in which the lander itself is far too small to be seen. For more views of Mars, see p. 205. (Photo: Ken Jones/JPL)

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LETTERS

Gone with the wind again

In "Gone with the Wind" (SN: 8/13/77, p. 106), Dietrick E. Thomsen makes a fundamental error in describing the evolution of stars along the main sequence of the Hertzprung-Russell diagram. When plotted on an H-R diagram most stars are found along a line called the main sequence which runs from the upper left (hottest and most luminous) to the lower right (coolest and dimmest). During the course of its life along the main sequence a star will remain essentially at one spot. In other words, a spectral class G star like the sun began as a class G star and will remain so until it makes the jump to being a red giant.

Robert E. Willis
Durham, N.C.

Your excellent article "Gone With the Wind," omitted mention of the collaboration between the Los Alamos Scientific Laboratory, Indiana University, and the University of Texas that produced the recent Betelgeuse observations. The Betelgeuse shell was discovered at MacDonald by Andy Bernat and David Lambert. The recent observations with the LASL television system were made jointly by C. Gow and M. Sandford (LASL), D. Lambert (Texas), and A. Bernat and R. K. Honeycutt (Indiana).

Also, the lower photograph showing scattered light from the stellar continuum consists of light reflected by the telescope optical system, not by dust in the shell. This light is more intense than that in the KI line (upper photo) since the star has a photospheric absorption line which reduces the scattered light contribution.

M. T. Sandford
Los Alamos, N.M.

Fluid-bed beauty

Concerning your characterization of fluidized-bed coal combustion (SN: 8/27/77, p. 134) as "lack-luster" and "unglamorous," and more particularly your statement that fluid-bed research is "almost two decades old," I feel that I, and I hope others, should set the record straight in a number of particulars. In the first place,research in fluid-bed coal combustion was being actively pursued by students of W. K. Lewis and E. R. Gilliland at MIT as early as 1940. I know because I was there at the time and came away from the semiworks blackened with coal dust many a night. Fluidized-bed research actually started as a result of trying to find a better way of cracking petroleum to produce high-octane gasoline. Fluid-bed catalytic crackers are commonplace in the oil industry today, and the technology as a whole must be at least 40 to 50 years old.

As far as the luster and the glamor of the field are concerned, these qualities, like beauty, are in the eye of the beholder. To those of us sweating it out in the semiworks at the time, fluid-bed research was new, exciting and about as glamorous as a chemical process can reasonably be expected to get. Rather than to a lack of glamor, I think the failure of fluid-bed technology to gain a foothold in the power industry can be ascribed to the much lower emphasis on research in that industry than in the chemical industry, to conservatism and resistance to change, to a desire for someone else to foot the bill for the necessary development costs, and perhaps to a soupscon of professional chauvinism that dislikes to admit that a good idea can come from a different branch of engineering.

Randall N. Pratt
Newark, Del.

Gin and tonic

Although the gist of what "The dangers of gin and tonic" (SN: 7/16/77, p. 40) says is correct, there is one inaccuracy which should be mentioned, i.e. "Ten healthy young subjects drank gin and tonic on two occasions." In fact, the "tonic" was a fundamentally different mixer on each occasion. The first was a standard tonic containing a high concentration of carbohydrate (sucrose) whereas the second was saccharin sweetened and carbohydrate free. Thus, in effect, the study consisted of a comparison of the metabolic and psychological effects of carbohydrate, alcohol, and a mixture of the two together. Thus, the conclusion that mood change and hypoglycemia was more attributable to glucose *plus* alcohol, than either glucose or alcohol alone. One may then suggest that alcohol mixed with carbohydrate sweetened drinks may be ill advised under certain conditions—e.g. car driving.

Stephen J. O'Keefe
Boston, Mass.

Dodo digestion

With reference to "Don't coevolve with a dodo" (SN: 8/27/77, p. 138), the seeds of *Calvaria major* ingested by the dodo were egested, not excreted. This much is certain.

James M. Moulton
Professor of Biology
Brunswick, Me.