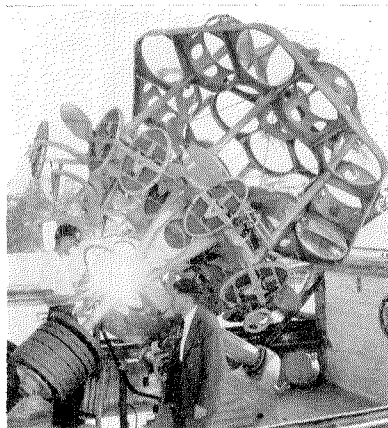


# ENGINEERING AND SCIENCE

## IN THIS ISSUE



On our cover this month is Pol Duwez (with the pipe), professor of mechanical engineering, and Eugene Loh, metallurgist for the Stanford Research Institute, working with Caltech's solar furnace. The brilliant flash in the photo is the concentration of sun rays on a piece of refractory oxide in the focal area. Dr. Duwez tells how solar furnaces achieve temperatures as high as 3200°C. on page 13 of this issue.

Bayard Brattstrom, a herpetologist, becomes a kind of weatherman in his type of research, though he looks back as far as 75 million years to see what the weather was then—and discovers, among other things, that the northern United States and part of Canada were tropical areas, complete with alligators. He uncovers this kind of information by studying snakes, as he explains on page. 22.

Dr. Brattstrom spent last year at Caltech as a research fellow in paleoecology. He got his BS from San Diego State College and his MA from UCLA. All during his undergraduate years he managed to hold down an impressive brace of jobs at the San Diego Natural History Museum—specifically: assistant curator of herpetology; director of education; and assistant in botany, entomology, invertebrates and paleontology. At present he's working in the zoology department at UCLA.

### PICTURE CREDITS

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