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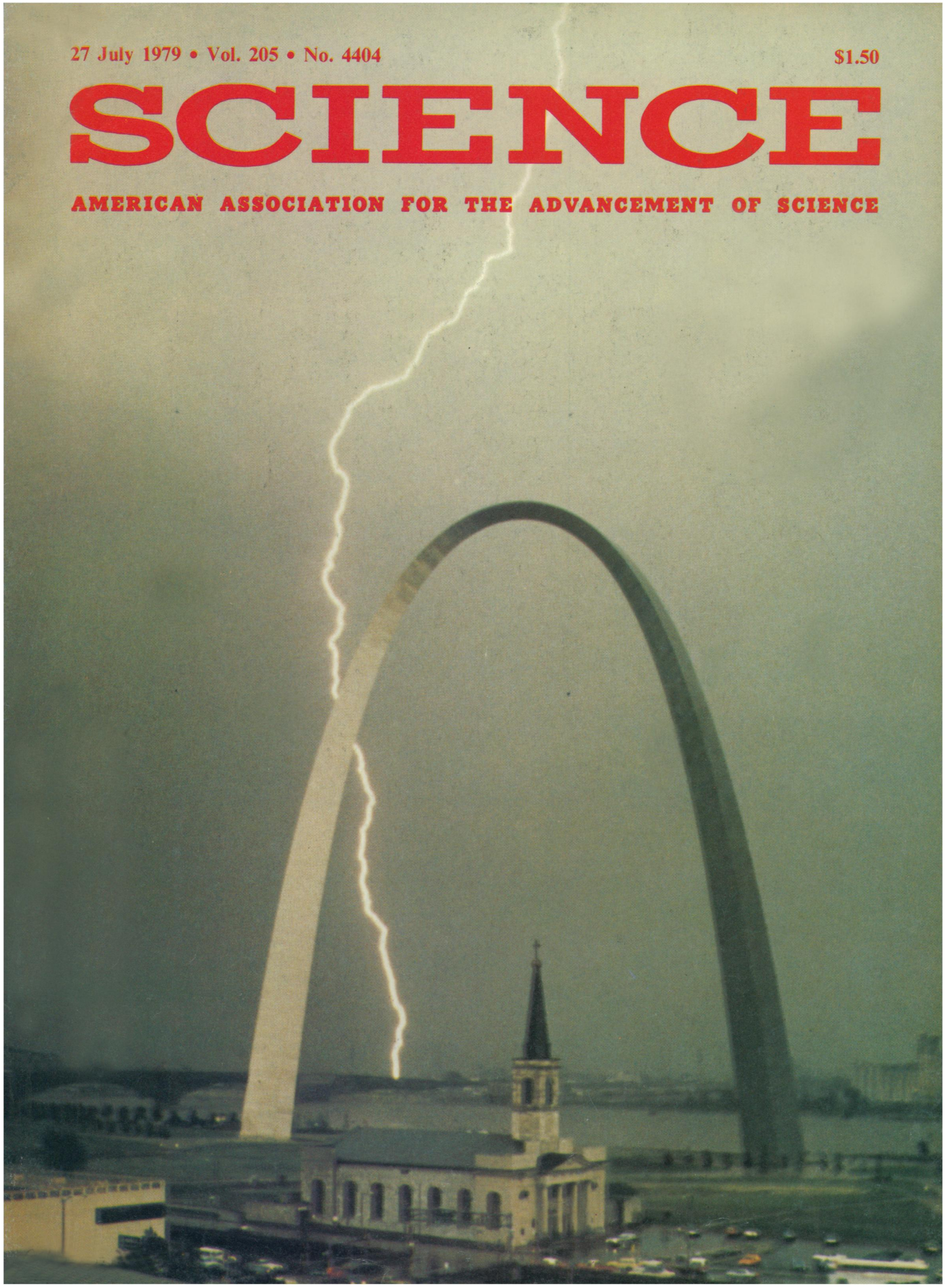

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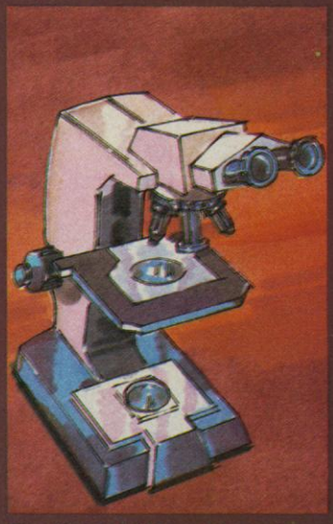

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SCIENCE

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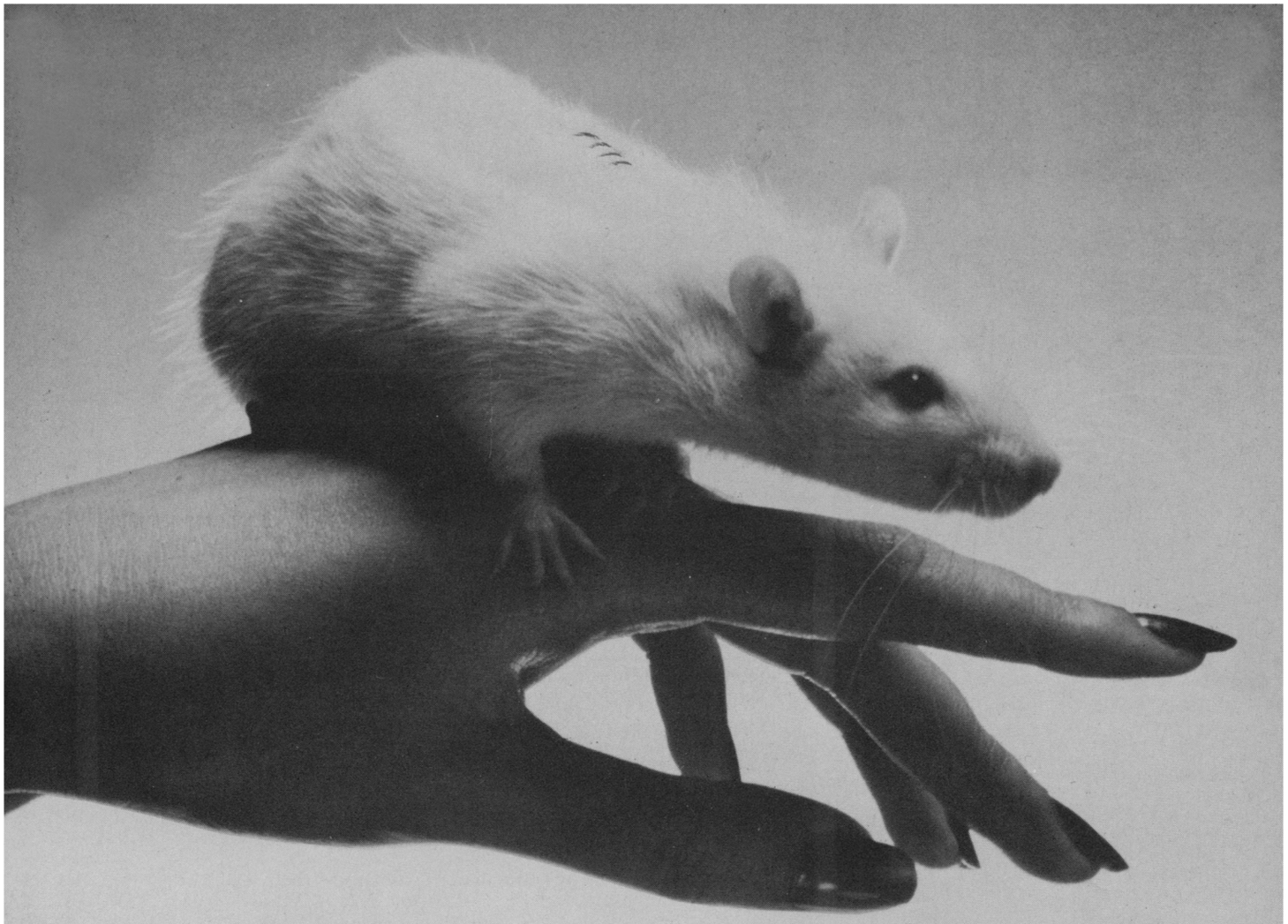
COVER

Lightning flash over Gateway Arch in St. Louis, Missouri. Statistical tests of the summer rainfall distribution in the St. Louis area reveal that values downwind of the city are significantly higher than those of surrounding areas. These results support the idea that major urban areas increase summer rainfall. See page 402. [James T. Van Horn, St. Louis, Missouri]



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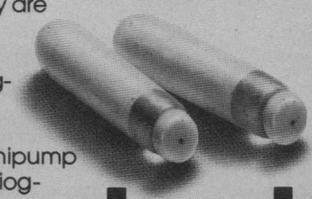

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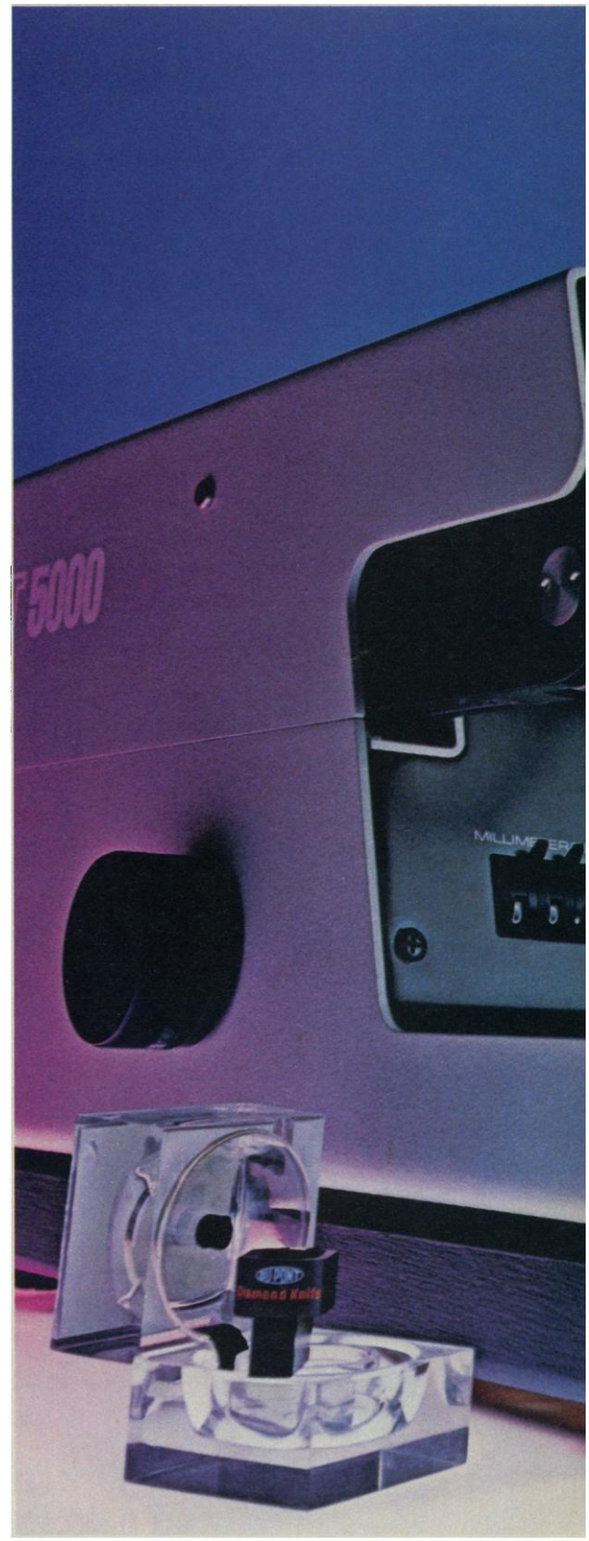

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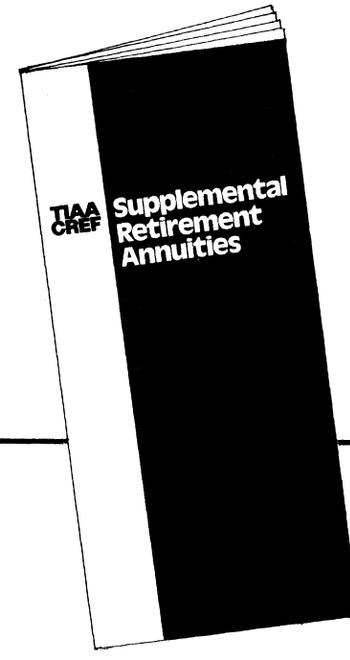

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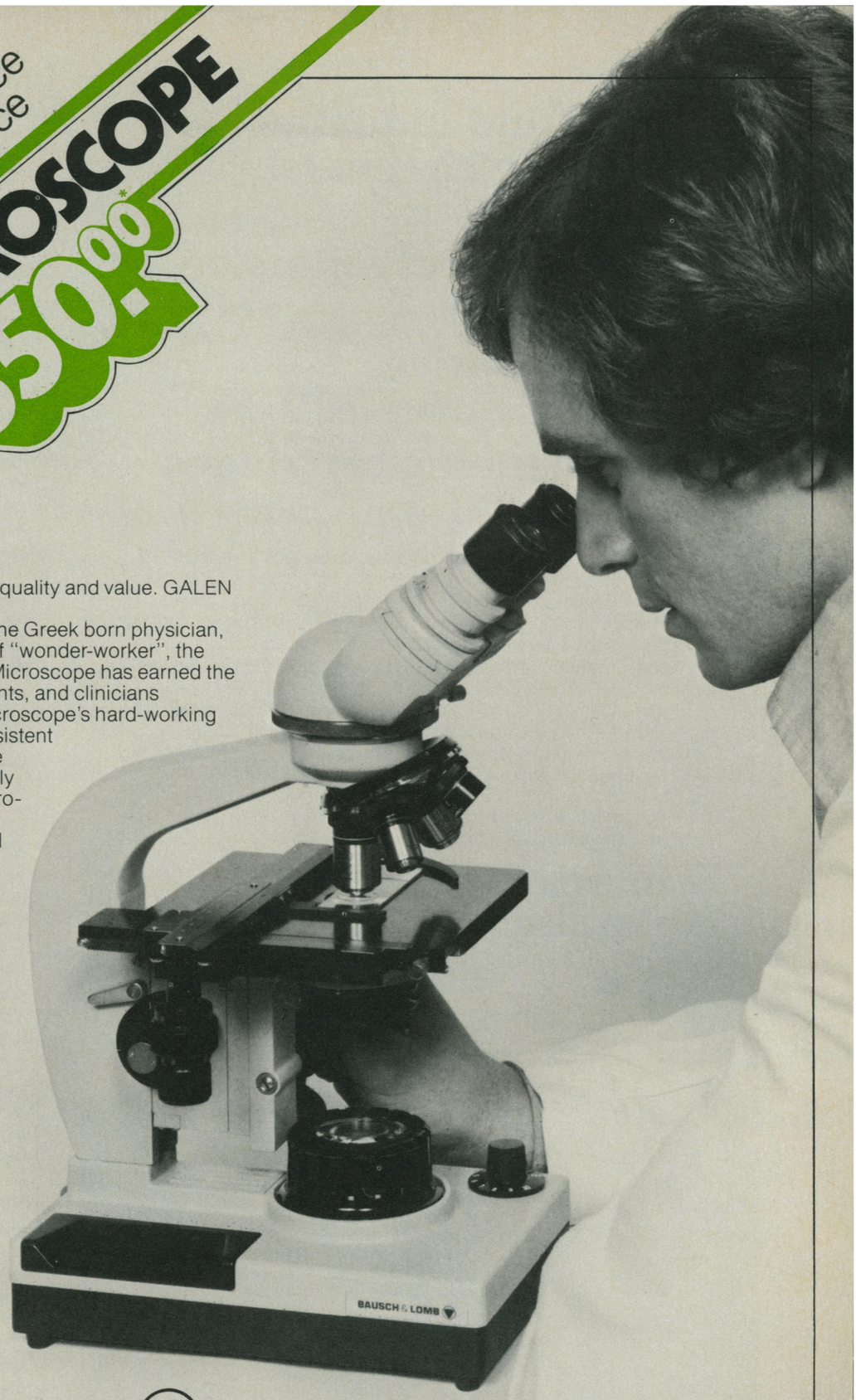

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LETTERS

Asbestos Legislation

The News and Comment section of the 18 May issue of *Science* (p. 712) contained an article regarding legislation that I have introduced to deal with the problem of asbestos-related diseases and compensation for workers who have been exposed to asbestos in a variety of workplaces.

I am more than a bit disturbed by the inaccuracies I have found in the article, and I hope you will set the record straight. The article states that "The bill was drafted by the Johns-Manville Corporation, the major U.S. manufacturer of asbestos, and was introduced by Representative Millicent Fenwick (R-N.J.), who has a major Johns-Manville plant in her congressional district."

The author of the *Science* article never called me or anyone in my office to check the facts; otherwise he would have found that the bill was drafted by a member of my staff (now a member of the Public Defender's staff in the District of Columbia) working with representatives from the Johns-Manville Corporation, with a lawyer for the union, the International Association of Heat and Frost Insulators and Asbestos Workers, and with Irving Selikoff of the Mount Sinai School of Medicine (who is the leading medical expert in this area and a consultant on industrial health subjects for the AFL-CIO). It follows closely the form and the funding system of the Black Lung legislation for coal miners. (And, incidentally, company participation starts 1 January 1980, not December 1980, as the *Science* article states.)

My prime concern is to have a comprehensive program that will provide benefits to affected persons and their dependents for disability or death from asbestos-related diseases. During my research on this legislation, I wrote to each state workmen's compensation board to find out what compensation was provided by their plans to workers for long-developing diseases, such as asbestosis. Lawsuits may certainly be a remedy for some workers, but, as one labor union lawyer told us at a workers' meeting on the subject, it is necessary to prove criminal negligence in a suit of this kind. It is for this reason that the workmen's compensation principle has provided more reliable protection for workers, and is preferred by the AFL-CIO.

In fact, the AFL-CIO is looking forward to drafting national workmen's compensation legislation for all occupations. I would like to see this, too, but

the uncertainty of disease in chemical and other industries means a long delay. Asbestos-related diseases are easily diagnosed, and a compensation program could quickly be set in place. The workers I have spoken with simply cannot afford the many years' delay that might be encountered in drafting comprehensive legislation to compensate workers for all work-related diseases.

Finally, I would like to suggest that if the bill had the origin your article states and the influence it strongly implies, it is most unlikely that Congressman Edward Beard, Democrat of Rhode Island, and a member of the Painters' Union, would have been the first cosponsor with me, and instrumental in introducing the first copy of the bill. Representative Beard is now chairman of the subcommittee on labor standards, and I testified before his subcommittee this year.

In response to the delicate suggestion that I might be influenced by the company, I can only say that I have never accepted any contributions from political action committees—labor or corporate. The fact that workers live in my district and have asked me to help with their problems is the reason for my interest and concern.

MILLICENT FENWICK
U.S. Congress,
Washington, D.C. 20515

Science had three sources for its reference to the authorship of the Fenwick bill. One was Representative George Miller (D-Calif.), who said in prepared testimony that the bill was "drafted and supported by the asbestos industry itself." Through an aide, Miller adds that he heard in several places that Johns-Mansville "played a significant role in drafting the bill." The second source, who asks not to be identified, is with the House Committee on Education and Labor; he also stands by the statement. "The company just brought over a draft," he says. *Science*'s third source, who is active in asbestos issues outside Congress, says the same.

None can offer documented proof. The top Johns-Mansville lobbyist in Washington, John Autry, strenuously denies authorship by his firm. But several others—associated with or knowledgeable about the bill—swear that the company's attorneys have bragged privately that the bill was theirs. Fenwick claims, for example, that Irving Selikoff had a role in its drafting. But Selikoff told *Science* that he "had nothing to do with planning or drafting the bill, and if Fenwick believes this, she is misinformed. It was drafted by attorneys for

Johns-Mansville who showed it to me." He adds, however, that "Fenwick is not a paid stooge for Johns-Mansville" and that both he and she supported the legislation "because it would ameliorate the current very serious human problem facing these workers."

Fenwick's staff also claims that Larry Cohen, an attorney for the asbestos workers' union, is partly responsible for drafting it. Cohen told *Science* that "Johns-Mansville very definitely initiated the idea. They came to us with the idea of joining in a legislative approach as a substitute for litigation, which had been a hit-or-miss deal for our members. They did present the first draft, but we also exercised our option to object to it, and it went through eight or nine drafts before it was introduced by Fenwick. We did get some of the figures changed along the way to get a more liberal bill from the worker's standpoint."—R. JEFFREY SMITH

Nitrite Study

Publication of P. N. Newberne's report "Nitrite promotes lymphoma incidence in rats" (8 June, p. 1079), without alerting uninformed readers to the controversy surrounding the work upon which the report is based, is premature to say the least.

Readers of *Science* should be informed that the results reported by Newberne lack credibility at the Food and Drug Administration (FDA), which sponsored the study at a cost of about $500,000. According to the FDA, "Pathologists associated with the Interagency Working Group on Nitrite Research have determined that there appears to exist a substantial difference with respect to their diagnostic opinions concerning the histopathology as compared to diagnoses made by Dr. Newberne and his associates" (*1*). As a consequence of this "substantial difference," the FDA has contracted with Universities Associated for Research and Education in Pathology, at a cost of $458,095, to determine whether or not the data generated by Newberne and his associates are reliable (*2*).

PAUL G. ROEHRIG
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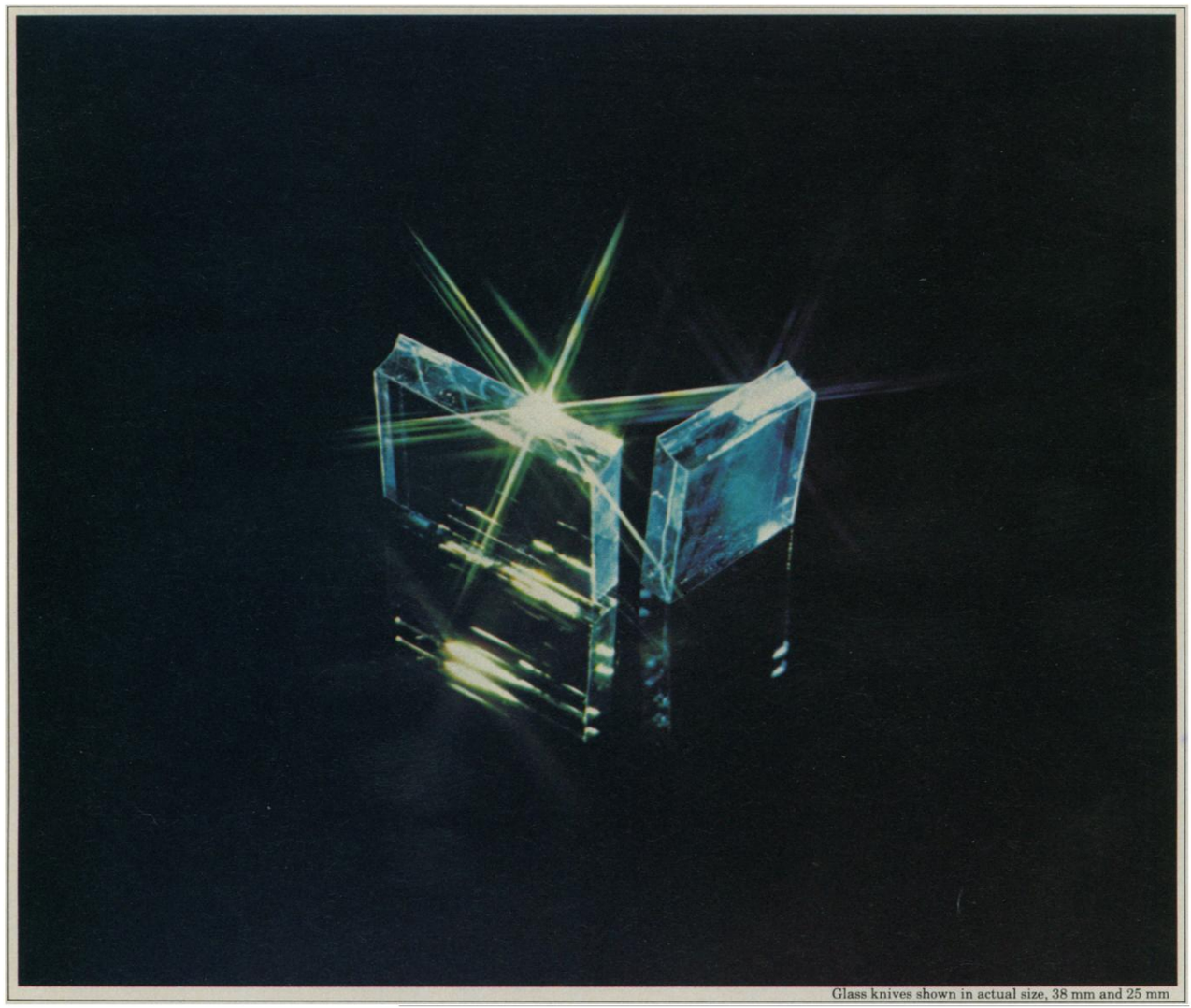
1. A. C. Kolbye, "Justification for non-competitive procurement" (Internal memorandum, contract No. 223-79-2263, "Re-evaluation of histopathology of M.I.T. chronic nitrite ingestion studies in rats," Bureau of Foods, FDA, Washington, D.C., 19 October 1978).
2. *Food Chem. News*, 2 April 1979, p. 49.



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27 July 1979, Volume 205, Number 4404 SCIENCE

Nutrition and E. V. McCollum

The development and application of knowledge of nutrition has been one of the most significant achievements in human history. Among several pioneers who shaped this change, the foremost in total effectiveness was Elmer Verner McCollum, the centennial of whose birth is observed this year. As Jean Mayer and Johanna Dwyer have written, "he changed our understanding of nutrition in much the same way as Albert Einstein (also born in 1879) revolutionized the study of the universe."

From 1907 to 1917, at the University of Wisconsin, McCollum brought into focus disparate facts and views and, in effect, formulated the basic concepts of modern nutrition. To satisfy nutritional requirements it was necessary, he stated, "to solve the problem of what, in chemical terms, constitutes the minimum quota of chemical substances on which an animal (and man) can function normally." His earliest work included establishment of the first rat colony for experimental nutrition studies. He found that certain fats, including milk fat, contain an indispensable nutrient (vitamin A). His introduction of the biological method for the analysis of foods yielded astonishing and fruitful results. The method quickly became a major tool in the discovery and understanding of other indispensable nutrients.

McCollum became the first faculty member of the new School of Hygiene and Public Health at Johns Hopkins in 1917, where he continued to gain recognition as a leader in research and in shaping public, institutional, and industrial attitudes and practices in nutrition. Through their discovery of vitamin D, McCollum and his associates made a significant contribution to unraveling problems concerning rickets, and his leadership became a force in the almost complete eradication of that condition. Under his direction other dietary essentials were discovered and knowledge of specific effects of nutrient insufficiency and imbalance was advanced. He also focused attention on the role of nutrition in dental health.

In 1916 McCollum began an extensive program of writing and speaking to encourage general awareness of the importance of good nutrition. His widely acclaimed book *Newer Knowledge of Nutrition* was published 2 years later and, in the next 21 years, went through four more editions. McCollum greatly influenced the food industry and the public in making milk and other "protective foods" regular ingredients of the diet. He was always scrupulously objective and avoided generalizing beyond well-demonstrated evidence. He held in disdain organizations and individuals who exaggerate facts and deal in pseudoscience, thus deceiving the public.

As stated in a resolution by the American Institute of Nutrition after his death in 1967, McCollum "was one of the first to see the unique and important contribution that could result from the collaborative approach of medically and biochemically oriented scientists to nutritional problems."

Among numerous distinguished recognitions is the annual McCollum Award sponsored by the National Dairy Council for "distinctive research in the area of clinical nutrition" and administered by the American Society for Clinical Nutrition. The McCollum-Pratt Institute was established in support of basic research at Johns Hopkins University by gifts from the late J. L. Pratt, professorships were named after him at Johns Hopkins and at the University of Wisconsin, and McCollum Hall at the University of Kansas was named for McCollum and his brother Burton.

The centennial of McCollum's birth is an occasion for grateful remembrance and constructive appraisal. Various functions are being held to commemorate his work. A highlight was the beginning of an E. V. McCollum international lectureship program, whose first meeting took place at the National Academy of Sciences on 9 March; Jean Mayer was the principal speaker. In honoring the memory of E. V. McCollum, we are reaffirming the importance of imaginative research and sound applications of knowledge in the public interest. These were the hallmarks of his contributions, and they should challenge all today.—HARRY G. DAY, *Professor Emeritus of Chemistry, Indiana University, Bloomington 47405*

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