

## OF THE WEEK

Neutrino velocity verified	244
Gravity law discrepancy	244
Family size affects IQ	245
Liquid membranes eat poisons	246
Loch Ness: Something there?	247
Orbiting message-bearer	248

## RESEARCH NOTES

Chemistry	249
-----------	-----

## ARTICLES

Technology of Metro	250
---------------------	-----

## DEPARTMENTS

Books	242
Letters	243
Off the Beat: Edward Teller	253

**COVER:** Into its seventh year of construction, Washington, D.C.'s, metropolitan rapid transit system—Metro—has finally opened its first short line, and a labyrinth of tunnels is creeping out in all directions toward the Maryland and Virginia suburbs. Creating this complex system, and getting it to work, has required sophisticated new technology and a small army of construction workers. The ultimate impact on Washington and on other communities with similar plans remains uncertain. See p. 250. (Photo: Metro)

<b>Publisher</b>	E. G. Sherburne Jr.
<b>Editor</b>	Kendrick Frazier
<b>Senior Editor and Physical Sciences</b>	Dietrick E. Thomsen
<b>Senior Editor and Behavioral Sciences</b>	Robert J. Trotter
<b>Biomedical Sciences</b>	Joan Arehart-Treichel
<b>Biology/Chemistry</b>	Janet L. Hopson
<b>Science and Society</b>	John H. Douglas
<b>Space Sciences</b>	Jonathan Eberhart
<b>Contributing Editor/ Mathematics</b>	Lynn Arthur Steen
<b>Copy Editor</b>	Michelle Galler Riegel
<b>Art Director</b>	Dale Appleman
<b>Assistant to the Editor</b>	Susan Strasburger
<b>Books</b>	Margit Friedrich
<b>Advertising</b>	Scherago Associates, Inc. 11 W. 42nd St. New York, N.Y. 10036 Fred W. Dieffenbach Sales Director

Copyright © 1976 by Science Service, Inc., 1719 N St. N.W., Washington, D.C. 20036. Republication of any portion of SCIENCE NEWS is prohibited.

**Editorial and Business Offices**  
1719 N Street, N.W.  
Washington, D.C. 20036

**Subscription Department**  
231 West Center Street  
Marion, Ohio 43302

Subscription rate: 1 yr., \$10; 2 yrs., \$18; 3 yrs., \$25. (Add \$2 a year for Canada and Mexico, \$3 for all other countries.) Change of address: Four to six weeks' notice is required. Please state exactly how magazine is to be addressed. Include zip code.

Printed in U.S.A. Second class postage paid at Washington, D.C. Title registered as trademark U.S. and Canadian Patent Offices.

Published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington, D.C. 20036. (202-785-2255). Cable SCIENSERV. Telex 64227.

# LETTERS

## Future of scientific journals

With reference to your article on the future of the scientific journal (SN: 3/13/76, p. 168), there is a more important consideration than the mere increase of page costs. That is its continued viability as a research tool. No matter what technique may be used to print a journal, the increasing volume of paper must lead to an ever decreasing accessibility of any contribution. If reader A "potentially" desires to consult an unknown paper by author B, he must either accidentally stumble across B's paper as he browses through his *limited* (and somewhat arbitrary) selection of journals, or accidentally discover a paper by author C which happens to mention the paper by author B, or accidentally discover a paper by author D which refers to the paper by author C which refers to the paper by author B, and so on. Clearly, as the number and size of journals increase, all these probabilities decrease, until we reach the point where the probability that any author's paper will be read by any reader is so small as to render the journal useless.

What we need is an end to the present anarchy wherein the content of a journal is decided independently of other journals. There must be a reorganization of the subject matter within the existing volume of paper. This will mean a loss of autonomy by the publishing groups, but a great increase in consulting efficiency on the part of consumers. Even within the sphere of one journal there can be a marked improvement of consulting efficiency. Long-established journals that have grown oversized should be split up into two or more smaller journals according to subject discipline.

Ultimately, one wishes to avoid duplication of subject discipline among journals—at least in those of one language. I would like to see more thought being given to this problem than to that of how to increase the yearly output of paper at reduced cost. After all, the increased costs may prove beneficial in the long run, acting as a natural selection mechanism to decrease the volume rate of publication by eliminating marginally significant contributions.

Gerald McHugh  
Center for Wetland Resources  
Louisiana State University  
Baton Rouge, La.

## The Xerox case

I have just now noticed that you reported a story on the panel discussion at the AAAS in Boston in which I took part, entitled "Corporate Scientists: Ethics of Dissen-

sion" (SN: 2/28/76, p. 135). You quoted, without attribution, the sad tale of one Xerox chemist who was fired in 1972 "for playing devil's advocate." The information you gave, for which I was responsible, was unfortunately not exactly correct. The instance refers to what happened to Dr. R. H. MacClaren. Since the matter is now in the courts, there is no need to keep Dr. MacClaren's name secret. He was fired not because he criticized Xerox but because in the speech he was critical of the paper industry's slowness in adopting sophisticated instrumentation which would allow them to produce more consistent and higher quality paper—a matter that Xerox was vitally interested in. His words were echoed in different ways by the other two (paper industry) people on the panel. At the time he was fired he was manager of paper technology for Xerox. His firing was probably inspired by some personality conflict, following the death of the Chairman of the Board of Xerox. He has not been able to get a job in his field since and is suing Xerox alleging blacklisting.

It is because of this sort of irresponsible corporate action that I am calling for a law to place some restraint upon it. If corporations were required to provide their professional employees with annual evaluations of their performance, they could not then, for trivial reasons, fire an employee using a trumped-up charge which in this case was the implication that the corporation was "embarrassed."

It is time to move conditions of professional employment out of the medieval framework of the English common law master/servant relationship.

Alan C. Nixon  
Berkeley, Calif.

## Magnetism and the Milky Way

In reference to your article "Of Life and Death and Magnetism" (SN: 3/27/76, p. 204), I would like to offer some thoughts. I had noticed, on charts depicting evolution, what appeared to be cyclical mass extinctions of species. I hypothesized that these were linked to magnetic reversals. I attributed these abnormally destructive events to a possible correlation with the earth's passage through the galactic plane of the Milky Way galaxy. It was my contention that the galactic plane contains more intense radiation than encountered outside the plane and that upon passing through it, the strength of earth's magnetic field would regulate the amount of radiation reaching the surface.

James W. Benson  
Division of Solar Energy Research and  
Development Administration  
Washington, D.C.

## SCIENCE SERVICE

Institution for the Popularization of Science founded 1921; a nonprofit corporation

**Board of Trustees**—Nominated by the AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE: **Deborah P. Wolfe**, Queens College of City University of New York; **Bowen C. Dees**, The Franklin Institute; **Athelstan Spilhaus**, National Oceanic and Atmospheric Administration. Nominated by the NATIONAL ACADEMY OF SCIENCES: **Gerald F. Tape**, Associated Universities; **Allen V. Astin**, Bethesda, Md.; **Glenn T. Seaborg** (President), University of California, Berkeley. Nominated by the NATIONAL RESEARCH COUNCIL: **Gerald Holton**, Harvard University; **Joseph W. Berg Jr.**, National Research Council; **Aaron Rosenthal**, National Academy of Sciences. Nominated by the JOURNALISTIC PROFESSION: **Edward Bliss Jr.**, American University; **Julius Duscha**, Washington Journalism Center; **O. W. Riegel** (Secretary), Washington and Lee University. Nominated by E. W. Scripps Trust: **Milton Harris** (Treasurer), Washington, D.C.; **Edward W. Scripps II** (Vice President and Chairman of the Executive Committee), Edward W. Scripps Trust; **John Troan**, Pittsburgh Press.

Director: E. G. Sherburne Jr.; Assistant Director: Dorothy Schriver; Business Manager: Donald R. Harless; Things of Science: Ruby Yoshioka.