

The Weekly Newsmagazine of Science

A Science Service Publication Volume 126, No. 25 & 26, December 22 & 29, 1984

E.G. Sherburne Jr. Joel Greenberg Dietrick E. Thomsen

Publisher Editor Senior Editor/ Physical Sciences Laurie Jackson Phillips Managing Editor Production/Design Wendy McCarren Director

Behavioral Sciences

Biomedicine

Earth Sciences

Space Sciences

Science Writer Interns

Business Manager

Assistant to the Editor

Books

Life Sciences Policy/Technology

Bruce Bower Deborah Franklin, Joanne Silberner Stefi Weisburd

Julie Ann Miller Janet Raloff, Ivars Peterson Jonathan Eberhart Susan Welch

Steven I. Benowitz, Christine Mlot

Jane M. Livermore Donald R. Harless

Scherago Associates Advertising Fred Dieffenbach, Sales Director 1515 Broadway, New York, N.Y. 10036 Advertising

Copyright * 1984 by Science Service, Inc., Editorial and Business Offices, 1719 N St., N.W., Washington, D.C. 20036. Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

Subscription Department 231 West Center Street, Marion, Ohio 43305

Subscription rate: 1 yr., \$27.50; 2 yrs., \$47.50; 3 yrs., \$67.00. (Foreign postage \$5.00 additional per year.) Change of address: Four to six weeks' notice is required. Please state exactly how magazine is to be addressed. Include zip code. For new subscriptions only call (1) 800-247-2160. 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) ISSN 0036-8423

Letters Farmland fading fast

The excellent articles on the problems of salt contamination of agricultural land (SN: 11/10/84, p. 298; 11/17/84, p. 314) should help make Americans aware of the value and fragility of the most precious natural resource we have: our land. Destruction of farmland by salt is just part of an even wider problem, however, since farmland is also disappearing daily under housing subdivisions and shopping malls. The problems of reclaiming salt-polluted land are simple when compared with the problems of reclaiming land that has been paved over and built on.

John Linsenmeier Cleveland Heights, Ohio

English escalators

When entering or getting off a moving staircase ("Down the up escalator," SN: 10/13/84, p. 236), there are two things to think about: to ad**This Week**

388 Schizophrenia: Support Therapy Gets Boost 388 Learning the T cell handshake 388 Picking ancient brains 389 Zoo-bred tamarins fare well in wild 389 Bacteria? If so, they're the oldest 389 Secrecy comes to the space shuttle 390 Cholesterol confab: Advise and dissent 390 Finding a cellular sign of age 390 Hamburger beefs up cancer protection 391 An OK for coherent ultraviolet light 391 Whales and dolphins use magnetic 'roads'

Research Notes

396 Earth Sciences 397 Science & Society 397 Environment

Articles

392 HVEM: The Big Picture of Small Structures

Cover: New computer graphics techniques enhance the power of high-voltage electron microscopy; here, a reconstruction of a taste cell making contact with two nerve cell fibers. Scientists view two such images, one prepared for each eye, to visualize three-dimensional structure. (Graphic: Courtesy John Kinnamon, University of Colorado Medical School)

408 Planning by Computer: The Inside Answer



Departments

387 Letters

399 Science on the Air 400 Science News of the Year

410 Semi-Annual Index

Science Service Institution for the public understanding of science founded 1921; a nonprofit corporation. Board of Trustees—President, Glenn T. Seaborg; Vice President, Gerald F. Tape; Treasurer, Willis Harlow Shapley; Secretary, Julius Duscha; Joseph W. Berg Jr.; Edward Bliss Jr.; Bowen C. Dees; David A. Goslin; Milton Harris; Hilleary F. Hoskinson; Elizabeth F. Neufeld; O. W. Riegel; H. Guyford Stever; John Troan; Deborah P. Wolfe.

Director: E. G. Sherburne Jr.; Assistant Director: Dorothy Schriver; Business Manager: Donald R. Harless.

just to the change of movement and to avoid the crack between treads. In many North American escalators, only the end tread is at floor level; the second is moving vertically and horizontally.

A statutory requirement and marked difference is noticeable in the United Kingdom. This is the addition of a horizontal portion, 8 or 10 feet long, at the top and bottom of the stairway. The 1 or 2 seconds' respite between vertical and horizontal permits a safer approach.

I wonder whether, in the course of his studies, Professor Cohn came across any safety statistics to compare the two concepts?

John A. Williams Mississauga, Ontario

Cohn replies: I know of no statistics on this point. Others who have studied the problem share the view, though, that an elongated horizontal run at exit and entry should improve safety performance.

Cold-contagion misconception

The article about disinfectant tissue ("Something to sneeze at," SN: 10/27/84, p. 267) and a subsequent letter (SN: 11/17/84, p. 318) call into question my understanding of the nature of common respiratory infections. A general practitioner informed me that 95 percent of common colds are viral and that 90 percent of viral infections are communicable before symptoms are displayed. How can disinfectant tissue be effectively used if people have no clue as to when they are contagious?

Donald E. Horton Easthampton, Mass.

Elliott Dick, the University of Wisconsin researcher who headed the study, replies: The question is a good one, and many people hold that belief. However, studies show that the first few days of a nice juicy cold are when you're particularly contagious. Before that, you hardly shed any virus at all.

DECEMBER 22 & 29, 1984

387