Editorial

Two-Way Street .................................................. 13

Articles

A Molecular Theory of General Anesthesia: L. Pauling .................. 15

Anesthesia is attributed to the formation in the brain of minute hydrate
crystals of the clathrate type.

Drugs in the Brain: L. J. Roth and C. F. Barlow ................... 22

Autoradiography and radioassay techniques permit analysis of penetration
by labeled drugs.

Winter Thermal Radiation Studies in Yellowstone Park: D. M. Gates ..... 32

Infrared reveals surface phenomena of hot springs and temperatures of
vegetation and Old Faithful geyser.

Science in the News

Disarmament and the Test Ban: Several New Developments Merely
Confirm That the Outlook Is Dim .................................. 36

Book Reviews

Earth and Beyond: S. Chapman .................................... 41

The International Geophysical Year in retrospect: Was it a “turning point
in history”?

W. Madsen’s The Virgin’s Children, reviewed by E. Z. Vogt; other reviews ...... 43

Report

Exploration of Venus by Radar: W. K. Victor and R. Stevens ........... 46

Precision range and velocity data can be obtained with a supersensitive
radar receiving system.

Correlation between Mean Litter Size and Mean Life Span among 12 Inbred Strains
of Mice: T. H. Roderick and J. B. Storer ............................. 48

Termite Attractant from Fungus-Infected Wood: G. R. Esenther et al. ...... 50

Initiation of Flower Buds in Rhododendron after Application of Growth
Retardants: N. W. Stuart .............................................. 50

Inhibiting Effect of Tobacco Smoke on Some Crystalline Enzymes: R. Lange ..... 52

Response of Condylar Growth Cartilage to Induced Stresses:
L. J. Baume and H. Derichsweiler .................................. 53

Blood Trehalose and Flight Metabolism in the Blowfly: J. S. Clegg and D. R. Evans ... 54

Long-Term Nontoxic Support of Animal Life with Algae:
R. O. Bowman and F. W. Thomas .................................. 55

Diageotropism in Vanilla Roots: J. E. Irvine and R. H. Freyre ............ 56

Departments

Forthcoming Events; New Products .................................. 58

Cover

Columnar or comb frost on the soil in a thermal area of Yellowstone National Park,
23 February 1961. The frost was produced by the freezing of wet soil and capillary
growth which raised the soil surface about 4 inches. On the day the picture was
taken, the air temperature dropped to −10°F and the radiant temperature of the
sky dropped to −72°F. The vertical rod is a thermometer. See page 32. [David M.
Gates, Boulder Laboratories, National Bureau of Standards]