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.


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

Reports

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. Thomae ..................................... 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 $-10^\circ$F and the radiant temperature of the
sky dropped to $-72^\circ$F. The vertical rod is a thermometer. See page 32. [David M.
Gates, Boulder Laboratories, National Bureau of Standards]