Editorial
Science in the *Saturday Review* .................................. 565

**Articles**

Standards of Time and Frequency: *G. M. Clemence* .................. 567
Fractionation of Oxygen Isotopes during Respiration:
*G. A. Lane and M. Dole* ........................................ 574
R. C. Osburn, Connoisseur of Living: *F. L. Campbell* ............. 576

**News of Science**

Southern Hemisphere Observatory; Need for Patent Examiners; General Principles of Cooperation on Biological Abstracting; News Briefs; Scientists in the News; Recent Deaths; Education; Grants, Fellowships, and Awards; In the Laboratories; Miscellaneous ........................................... 577

**Reports and Letters**

Hypoglycemic Action of Sulfonylureas in Patients with Diabetes Mellitus:
*I. A. Mirsky, D. Diengott, H. Dolger* .................. 583
Orinase, a New Oral Hypoglycemic Compound:
*W. L. Miller, Jr., and W. E. Dulin* .................. 584
Insulin-Sparing Sulfonamides: *L. W. Kinsell* et al. ............. 585
Black Pigment Concentrating Factor in the Fiddler Crab: *M. Fingerman* ... 585
Detection of Complement-Fixing Antibodies for Carre's Virus:
*J. E. Prier, B. S. Wright, S. S. Kalter* .................. 586
Observations at an Ancient Smelting Site in Negev:
*V. P. Sokoloff* and *A. Seroussi* .................. 587
Cocarcinogens and Minimal Carcinogenic Doses: *W. E. Poel* .......... 588
Preliminary Report on Biological Applications of Color Television:
*M. C. Brown* .................. 589
Scopoletin in Differentiating and Nondifferentiating Cultured Tobacco Tissues: *K. Tryon* .................. 590

**Book Reviews**

*The Fossil Evidence for Human Evolution; Biochemistry of the Developing Nervous System; Small-Angle Scattering of X-rays; Echinodermata; The Atomic Nucleus; Traité de Paléontologie; New Books; Miscellaneous Publications* ........................................... 591

**Scientific Meetings**

Nuclear Engineering and Science Congress; Meeting Notes; Society Elections; Forthcoming Events .................. 595
Equipment News .................. 602