# Editorial
The Well-Rounded Man ........................................ 1393

# Articles
### The Optical Spectrum of Lightning: L. E. Salanave
A revival of the spectrographic study of lightning may help solve some outstanding puzzles in cloud physics.

### Federal Support of Research Careers: J. A. Shannon and C. V. Kidd
Government joins universities to increase the number of career appointments in research.

### Biochemistry of Aging: F. M. Sinex
The mechanism of aging presents a challenge to modern biochemistry and biology.

# Science and the News

# Book Reviews
### Culture in History, reviewed by E. A. Hoebel; other reviews 1411

# Reports
### Use of Fat-Soluble Fluorescent Brighteners on Microorganisms: R. M. Lycette and L. R. Hedrick 1415
### Correlation of Chemical Structure and Taste in the Saccharin Series: G. H. Hamor 1416
### Recent Change in the Pattern of Tree Growth in Northern Arizona: W. S. Glock, S. R. Agerter, D. G. Smith 1417
### Interocular Transfer of Pattern Discrimination without Prior Binocular Experience: R. A. McCleary and L. A. Longfellow 1418
### Radar Observation of Venus: I. Maron, G. Luchak, W. Blitzstein 1419
### On the Site of Action of Amethopterin: P. T. Condit 1421
### An Overview of Sleep as an Experimental Variable (1940–1959): W. B. Webb 1421
### Miniature Subcutaneous Frequency-Modulated Transmitter for Brain Potentials: C. J. Sperry, Jr., et al. 1423
### Passage of Saccharides from Cerebrospinal Fluid to Blood: L. D. Prockop, L. S. Schanker, B. B. Brodie 1424
### National Academy of Sciences: Abstracts of papers presented at the autumn meeting 1425

# Association Affairs
### 128th Annual Meeting: Program Summary 1438

# Departments
### Forthcoming Events 1440

# Cover
Graphite cloth, single-ply plain weave, reinforced with clear plastic. Each yarn bundle contains 1440 graphite filaments. Fabrics or filaments are combined with plastic resins for molding of missile and rocket motor components. This specimen was prepared by slicing parallel to one direction of the cloth before examination under the microscope (about × 150). [National Carbon Company]