

the numerous illustrations ranges from good to excellent. Other figures, diagrams, charts, and distribution maps are commensurate with the handsome format. The 35-page index is an example of how an index should be but seldom is prepared. Indeed, the entire book is an important scientific contribution, a guideline for workers elsewhere, and a service to biomedical and allied disciplines.

HARRY HOOGSTRAAL

*Medical Zoology Department,
U.S. Naval Medical Research Unit
No. 3, Cairo, Egypt*

Drosophila Handbook

Genetic Variations of *Drosophila melanogaster*. DAN L. LINDSLEY and E. H. GRELL. Carnegie Institution of Washington, Washington, D.C., 1968. 11 + 472 pp., illus. \$3. Carnegie Institution of Washington Publication No. 627. A revision of *The Mutants of Drosophila melanogaster*.

Here, at last, is the long-awaited compendium and a guide to the study of the genic and chromosomal variations in *Drosophila melanogaster* described in world literature. The book modestly calls itself a revision of C. B. Bridges and K. S. Brehme's *The Mutants of Drosophila melanogaster*, published almost a quarter of a century ago. In fact, it is a new and monumental work, embodying what must have been a prodigious amount of meticulous and conscientious work on the part of the authors. Not the least remarkable among the qualities of the book is the low price, which makes it accessible to all who may be interested.

The book is divided into seven parts of very unequal size. The first is a review of mutants, comprising some 3000 entries and 282 pages. For each mutant are given its name, its symbol, and, wherever possible, its location in the chromosome, its origin (spontaneous or induced), the name of the discoverer, literature reference or references, a concise description of the phenotype, and other information, such as the cytologically visible changes with which it is associated. The second part, Chromosomal Aberrations, contains some 1500 entries in 120 pages. Deficiencies, duplications, translocations, inversions, and transpositions are listed with data and references similar to those for the mutants. The third part, Special Chromosomes, 16 pages, lists "balancers," compound chromo-

somes, multiply marked chromosomes, X-Y chromosome combinations, and variants of Y chromosomes. Here, then, one has an abundance of materials usable for a variety of genetic tricks and contrivances, possible thus far only in *Drosophila* and permitting a latitude of experimental design possible with no other experimental organism. The following short chapters deal with cytological markers, polyploids and aneuploids, and non-chromosomal inheritance and include a list of only ten more or less widely used wild-type strains (for *Drosophila* species other than *melanogaster* such lists would have to be considerably longer). In lieu of conclusions and a summary, there are 50 pages of cytogenetic maps of the chromosomes. The loci of the mutants on genetic maps are here given in the linear order as derived from linkage and recombination studies; for a minority of the genes located also on the cytological maps of the giant chromosomes of the salivary gland cells, the particular discs, or groups of discs, which correspond to these genes are indicated. The seven folded plates reproduce the disc patterns in the salivary gland chromosomes, as drawn by C. B. Bridges and P. N. Bridges. In sum, the authors' many colleagues will profit greatly by using this book in their work.

THEODOSIUS DOBZHANSKY

Rockefeller University, New York

Natural Therapy

The Great American Water-Cure Craze. A History of Hydropathy in the United States. HARRY B. WEISS and HOWARD R. KEMBLE. Past Times Press, Trenton, N.J., 1967. viii + 236 pp., illus. \$7.50.

In a day in which chiropractic and naturopathy attract wide popular support and mount strong political pressure, the serious study of past -isms and -pathies not only enriches the history of science but also casts light on social processes still very much at work. Books such as Davies' *Phrenology: Fad and Science*, Kett's *The Formation of the American Medical Profession* (as to homeopathy and Thomsonianism), and Darnton's *Mesmerism and the End of the Enlightenment in France* treat sects not as amusing aberrations of a prescientific age but as embodiments and reflectors of complex social, scientific, and philosophical currents.

The Great American Water-Cure Craze is not so rewarding because, although there are occasional hints, its authors do not place hydropathy within a broad frame of reference and relevance. They have, however, with unflagging antiquarian zeal, gleaned from a few manuscript collections and numerous printed primary sources, especially the prolific water-cure journals, data about scores of hydropathists and the institutions at which they practiced.

This flood of evidence demonstrates that hydropathy was indeed an American craze from the 1840's, when disciples imported from Austrian Silesia the cold-water gospel of Vincent Priessnitz, until the early 1900's, when the followers of a later leader, the Swabian priest Sebastian Kneipp, found their businesses languishing. The vogue owed something to the ancient mystical faith in water's healing power. It owed more to the fact that water was thought a "natural" mode of treating disease in an age when many people came to deem drugs and bleeding unnatural, especially as heroically practiced by orthodox physicians. Hydropathy itself had its heroic practitioners, prescribing regimens of up to 16 baths a day, including icy plunges and the powerful pounding of the douche, a narrowly focused stream falling from great heights. As time went on, however, hydropathic rigor was generally watered down and, at rural water-cure establishments (as at more aristocratic spas), became one element in a pattern of healthful, natural living to which the harried urbanite escaped. One Pennsylvania promoter, for example, offered the public "Nature's agencies, sunlight, pure air, exercise, sleep, food, right social relations, hope and trust and last but not least, water."

In a period of ultraism, hydropathy also merged with other doctrines challenging the establishment. Many of its articulate proponents combined hydropathic sentiments with homeopathy, vegetarianism, phrenology, abolitionism, woman's rights. Mary Gove Nichols provides an instructive example of such a fusion of beliefs. It is indicative of the authors' restricted researches in the broader range of materials that might have provided them a sounder interpretative setting that they did not use Blake's excellent article on Mrs. Nichols in the 1962 *Proceedings of the American Philosophical Society*.

JAMES HARVEY YOUNG

*Department of History,
Emory University, Atlanta, Georgia*