

Mass., 1966. 352 pp. Illus. Paper, \$2.95. Reprint, 1936 edition.

Transients in Power Systems. Harold A. Peterson. Dover, New York, 1966. 373 pp. Illus. Paper, \$3. Reprint, 1951 edition.

Miscellaneous Publications

California, Los Angeles County Museum. Contributions in Science, No. 104, "Observations on the distribution, coloration, behavior and audible sound production of the spotted dolphin, *Stenella Plagiodon* (Cope)," David K. Caldwell and Melba C. Caldwell (28 pp.); No. 105, "Comparison of the Early Permian vertebrate faunas of the Four Corners region and north-central Texas," Peter Paul Vaughn (13 pp.); No. 106, "New distribution data for *Martarega*, *Buenoa* and *Abedus*, including the first record of the genus *Martarega* in the United States (Hemiptera: Notonectidae, Belostomatidae)," Arnold S. Menke and Fred S. Truxal (6 pp.); No. 107, "Two fossil birds from the Lower Miocene of South Dakota," Hildegard Howard (8 pp.). Los Angeles County Museum of Natural History, Los Angeles, 1966.

Digital Computer Needs in Universities and Colleges. Report of the Committee on Uses of Computers. Natl. Acad. Sciences-Natl. Research Council, Washington, D.C., 1966. 190 pp. Illus. Paper, \$4.50.

Lexicon of Geologic Names of the United States, for 1936-1960 (Geological Survey Bulletin No. 1200). Compiled by Grace C. Kerohar and others. Government Printing Office, Washington, D.C., 1966. A list of 14,634 names, including cross references, covering the United States and its possessions, the Panama Canal Zone, and the Trust Territory of the Pacific Islands presently administered by the United States.

Marine Mammals of California. Anita E. Daugherty. California Department of Fish and Game, Sacramento, 1965. 87 pp. Illus. Paper.

Natural Environmental Radioactivity. Alfred W. Klement, Jr. Atomic Energy Commission, Washington, D.C., 1965. 128 pp. \$4 (available from Clearinghouse for Federal Scientific and Technical Information, Springfield, Va.).

Physics: Survey and Outlook. A report by the Physics Survey Committee. Natl. Acad. of Sciences-Natl. Research Council, Washington, D.C., 1966. 131 pp. Illus. Paper, \$5.

Smithsonian Institution. Proceedings U.S. Museum 118, pp. 155-208, "Revision of the Pilargidae (Annelida: Polychaeta), including descriptions of new species, and redescription of the pelagic *Podarmus ploa* Chamberlin (Polynoidae)." Marian H. Pettibone. Smithsonian Museum, Washington, D.C., 1966.

Surficial Geology of the New Brighton Quadrangle, Minnesota. John E. Stone. Univ. of Minnesota Press, Minneapolis, 1966. 47 pp. Illus. Maps. \$1.75.

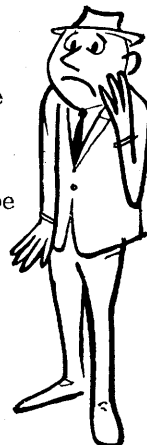
Teaching Population Dynamics: An Instructional Unit for Secondary School Studies. Hazel W. Hertzberg. Population Instructional Materials Project, Teachers College, Columbia Univ., New York, 1965. 95 pp.

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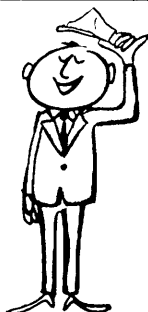
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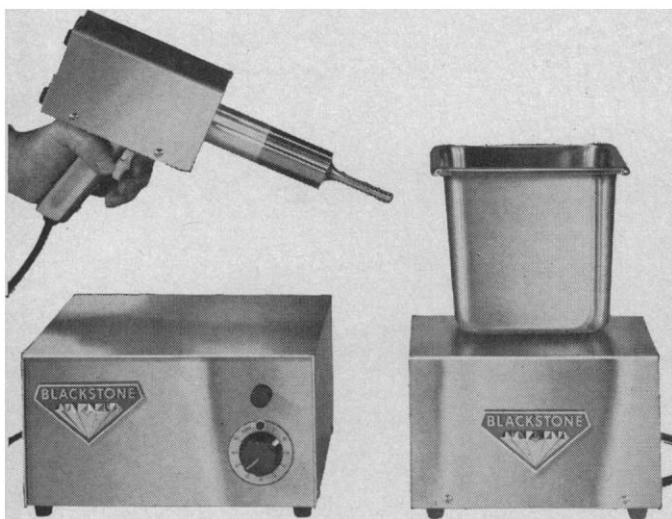
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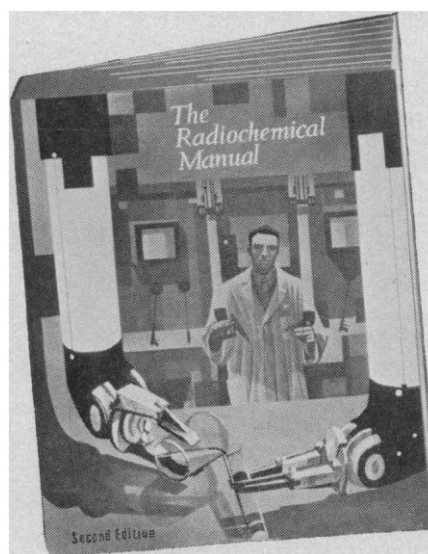
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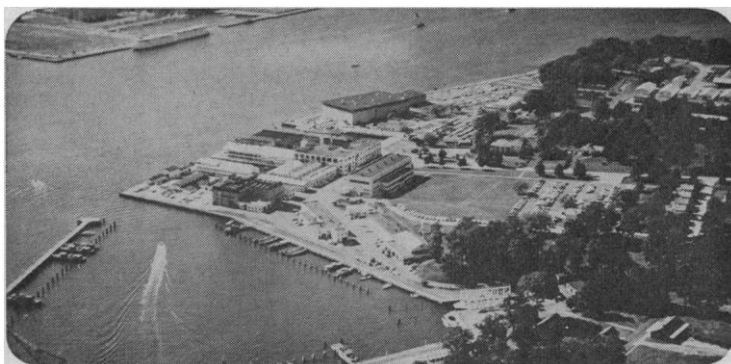
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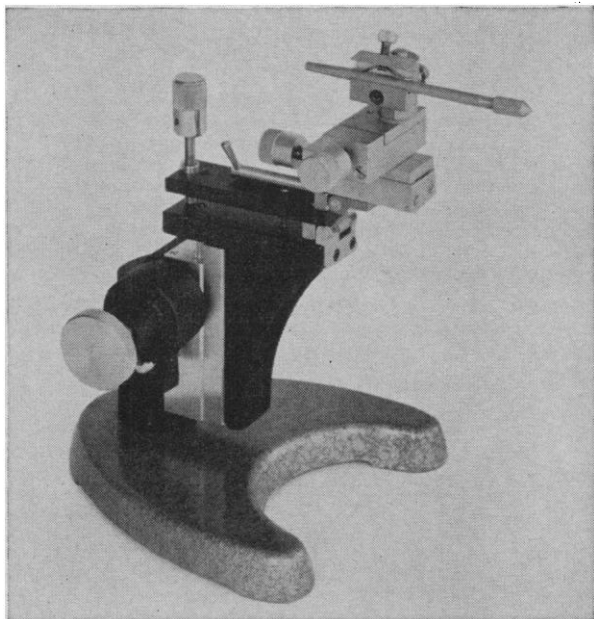
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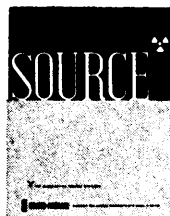
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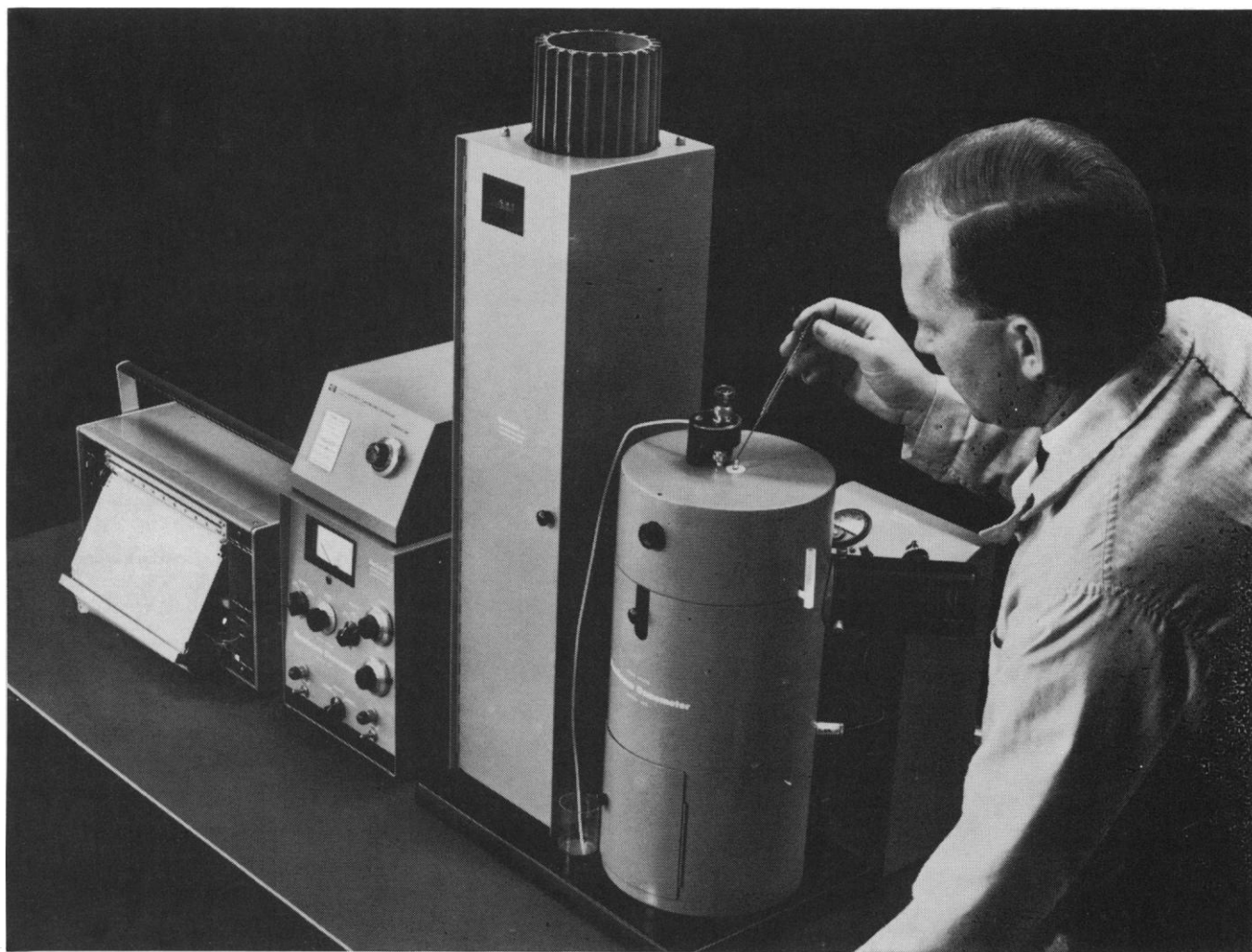
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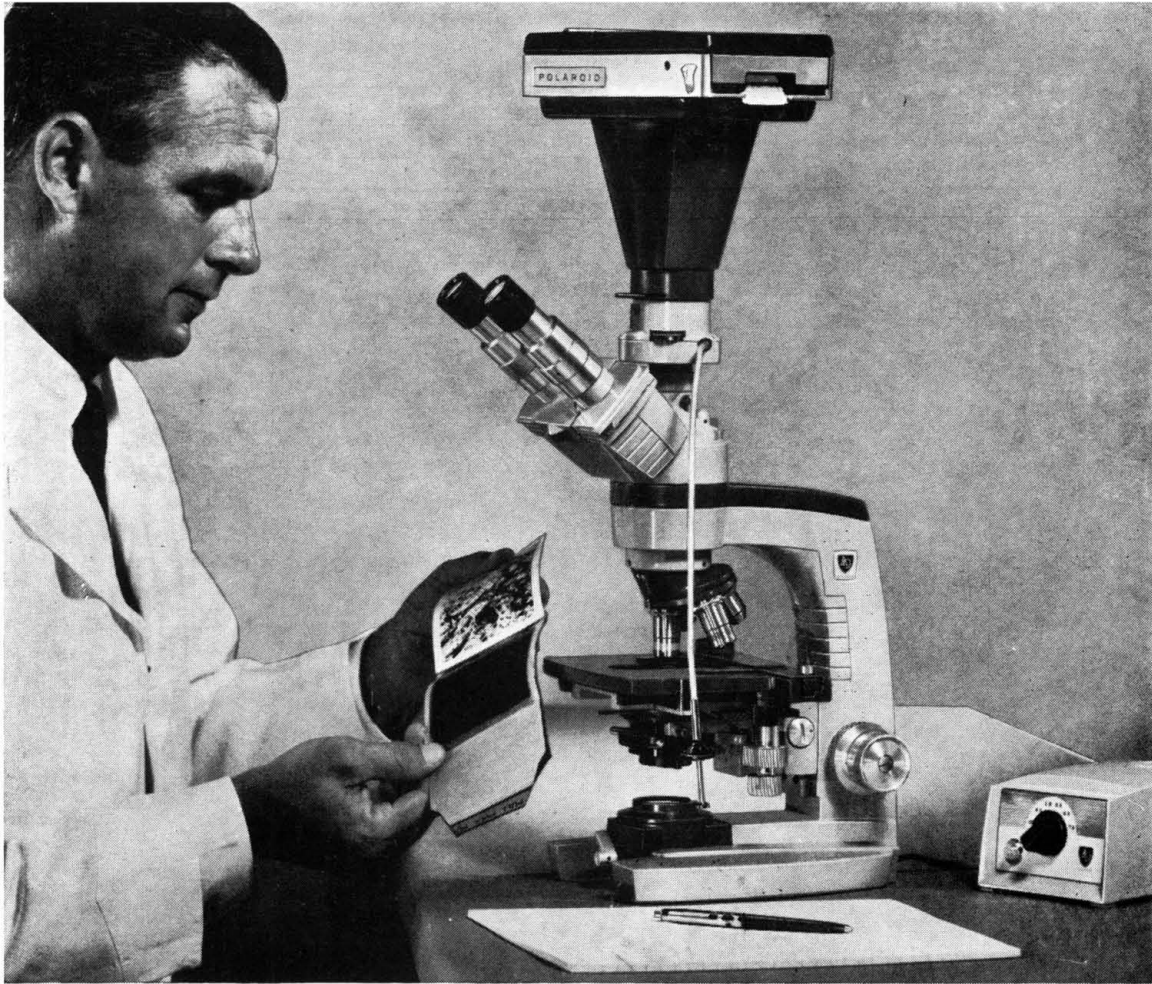
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