

erence or other notation concerning the source of the material and descriptive information. The subject headings of the index are patterned after the bibliographic indices of those using the material. Colored cards are used for indexing colored slides, white cards for those in black and white.

Any one wishing a certain slide or one on a specific subject turns to that subject in the card index and chooses, on the basis of the picture and attached information, the slide he wants. He may then quickly draw the slide of that number from the slide file.

The slide file is a numerical arrangement of the slides in each major subject. The file of this department is divided into twelve such major fields. As in the card index the subjects are indicated by letters, the slides by numbers. To find slide G-253 one opens the "genetics" drawer and removes the slide bearing that number on the "thumb mark" placed on the upper right-hand corner of the slide as it goes into the projector.

The slides are filed on edge with the numbers toward the front of the drawer, in wooden troughs 2 inches wide by 1½ inches deep inside. A white card which projects slightly above the slides is placed at intervals of 25 slides and bears the number of the series at that point. The troughs are made in units of two, which fit into a 3×5 inch card compartment. Four rows of more than 100 slides each can thus be filed in each of the lower drawers of the cabinet holding the subject index. The bottoms of the troughs are raised above the bottom of the drawer sufficiently to raise the slides to the top of the 3×5 inch compartment. To facilitate removal and handling of slides the inside depth of the trough is one-half inch less than the height of a slide.

The negative file is a comparatively inactive file, since it is likely to be used only for duplication of slides or for making prints of the slide subject. Various methods of filing may be utilized.¹ A convenient one has been to cut the film into strips of three negatives each and place them in 3×4½ inch kraft paper coin envelopes ("bags") which are numbered serially. These envelopes are durable and can be filed in a drawer of the cabinet containing the subject index and slides. (Use of the short length of film has not appeared inconvenient in the enlarger or contact printer used, and when a certain negative is required, unnecessary handling of other negatives is avoided.)

The clerical labor and the printing of photographs necessary for the subject index is well repaid in a large collection by the later saving in time required for finding desired slides and by the fact that several individuals can use the same collection effectively and without confusion. Moreover, the experience in this department shows that slides thus catalogued are

more extensively used because of the ease with which the desired material can be found.

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LANTERN SLIDES FROM TYPEWRITTEN MATERIAL

THE recent note of Carpenter,¹ under the present title, on typing or drawing through white carbon paper onto black paper, to eliminate one step in the photographic process of making white-background slides is useful for certain work, but we have found that another step—that of retyping text material and retracing diagrams through white carbon paper—can be avoided by photographing the material from which slides are to be made onto a contrast grade direct positive film of the type supplied by the Eastman Kodak Company in their "high contrast direct positive film." The result of using this is a positive film (without having to prepare a negative) which can be bound between two standard size slide glasses with a slide mask as usual, effecting a saving in time of preparation.

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BERKELEY, CALIF.

¹ SCIENCE, 89: 372, 1939.

BOOKS RECEIVED

- American Philosophical Society: *Year Book, 1938*. Pp. 407. The Society, Philadelphia.
- BERNAL, J. D. *The Social Function of Science*. Pp. xvi + 482. Macmillan. \$3.50.
- CHIBNALL, ALBERT C. *Protein Metabolism in the Plant*. Pp. xiii + 306. Yale University Press. \$4.00.
- FALES, HAROLD A. and FREDERIC KENNY. *Inorganic Quantitative Analysis*. Pp. xiii + 713. 132 figures. Appleton-Century. \$4.00.
- HEISKANEN, W. *Catalogue of the Isostatically Reduced Gravity Stations*. Pp. 140. Publication No. 5, Isostatic Institute of the International Institute of Geodesy.
- HOLMES, HARRY N. *Introductory College Chemistry*. Third edition. Pp. viii + 619. 171 figures. Macmillan. \$3.50.
- MARSLAND, DOUGLAS and PAUL F. BRANDWEIN. *Manual of Biology; Part One, the Protozoa and the Plant*. Pp. ix + 176. 85 figures. *Part Two, the Metazoan Animals*. Pp. ix + 211. 83 figures. Holt. \$1.20 each.
- MELHUS, IRVING E. and GEORGE C. KENT. *Elements of Plant Pathology*. Pp. x + 493. 259 figures. Macmillan. \$4.00.
- MEYER, BERNARD S. and DONALD B. ANDERSON. *Plant Physiology; A Textbook for Colleges and Universities*. Pp. x + 696. 151 figures. Van Nostrand. \$4.50.
- Ruwenzori Expedition, 1934-5; Vol. I, No. 1, *Introduction*; No. 2-3, *Simuliidae*, by E. G. GIBBINS; *Mosquitoes*, by F. W. EDWARDS and E. G. GIBBINS; Vol. I, No. 4, *Psychodidae*, by A. A. TONNOIR; Vol. I, No. 5, *Ceratopogonidae*, by J. W. S. MACFIE; Vol. III, No. 1, *Trichoptera*, by M. E. MOSELY; Vol. III, No. 2, *Siphonaptera*, by K. JORDAN; Vol. III, No. 3, *Rhopalocera*, by A. G. GABRIEL; Vol. III, No. 4, *Lymantriidae*, by C. L. COLLENETTE; Vol. III, No. 5, *Ephemeroptera and Neuroptera*, by D. E. KIMMINS. British Museum (Natural History), London.
- TAYLOR, F. SHERWOOD. *The March of Mind; a Short History of Science*. Pp. xiv + 320. 36 figures. 14 plates. Macmillan. \$3.00.