volumes contain a great wealth of valuable information for all categories of nutritionists and especially for those who are concerned with enzymology and intermediary metabolism. The discussions are extensively documented with tables, figures, and references to the literature. In general, the writing is clear, readable, and remarkably free from errors. The organization and format are good. All students of the science of nutrition in its many aspects will find the treatise of much value.

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Dvorine Pseudo-Isochromatic Plates. Israel Dvorine. Israel Dvorine, 2328 Eutaw Place, Baltimore, Md., ed. 2, 1953. $12.

This is a conventional type of color-vision test, identical in principle and similar in appearance to earlier pseudo-isochromatic plate tests, such as those of Stilling, Ishihara, and the American Optical Company. By way of explanation, it may be noted that a pseudo-isochromatic plate is a figure and ground composed of many small disks or dots of irregularly varied color and size; ideally, there is enough hue difference between the figure and ground to permit the color normal to distinguish the figure but not enough for the color blind.

The Dvorine test plates are assembled in a six-ring binder between hard covers about 7 in. square. The first section contains 15 number plates, including a demonstration plate with a number anyone can read. The second section, headed "Alternate testing plates," contains eight trial plates in which the figure to be identified is not a number but rather an irregular path to be traced by the testee. The sections of plates are preceded by instructions regarding illumination and administration and a sample score sheet. Incorrect responses to three or more plates of the first section or to two or more plates of the second section are said to indicate defective color vision.

An advantageous detail that is not found in most tests of this type is the loose-leaf binder, which permits rearrangement of the plates to baffle malingerers. The similarity of the dot patterns on all plates is designed to provide another stumbling block for the unscrupulous. Such devices augment the difficulty of responding to secondary criterions rather than to the test figures themselves. On the other hand, the Dvorine test lacks a valuable diagnostic feature of the Ishihara test, namely, the double identification plate. Such a plate is difficult to produce, but it affords the double check of presenting different figures that are readable, respectively, by persons with normal color vision and those with abnormal color vision.

The Dvorine test is similar to the new edition of the Ishihara test in respect to an especially important limitation—there remains to be published validation data to demonstrate whether or not, or how well, the test does detect defective color vision. In view of this limitation, several of the deviser's representations cannot be accepted, at least at the present time. They include the assertions that this is the most sensitive test yet devised for red-green color blindness, that certain specific critical scores (mentioned earlier) separate the normals from the color weak, and that as few as two or three plates suffice to diagnose specific protanoid and deuteranoid types.

A review of a test can scarcely be of value to readers interested in using tests unless it provides some indication of validity. Therefore, I sought to secure, by reference to a few unpublished data, some advance idea of what a proper validation of this test might eventually reveal. Number-plates tests of 47 color-deficient and 16 normal subjects (most of which were made by Louise Sloan and others at Eastman Kodak Company) seem to indicate that the Dvorine test compares quite favorably with better tests of this type. There was only a single case of misclassification and this particular case also had given trouble in other plate tests.

The relationships between the first and second editions are not without interest. The present edition includes four plates that, to persons with normal vision, appear to be essentially identical to the plates in the first edition. All the present plates, however, are said to be new printings. A more significant point, perhaps, is the fact that the first edition was associated with an abortive effort to improve color vision by training, whereas the present edition is presented simply as a test of color vision without any claim to a special capacity to modify the testee's status. As such, it may well prove to be a satisfactory screening test.

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Sea-Birds. An introduction to the natural history of the sea-birds of the North Atlantic. James Fisher and R. M. Lockley. Houghton Mifflin, Boston, 1954. xvi + 320 pp. Illus. + plates. $6.

This is a review of the sea-birds that nest on the shores of the North Atlantic from the Arctic Ocean to the equator, with special reference to their habits and place in nature. All must lay their eggs on land, and many do so in spectacularly crowded colonies at some favorable spot. The characters of at least their major nesting stations on the circumference of the North Atlantic, and the species pertaining to each, are considered, with somewhat greater emphasis on the northeast quadrant of the ocean, which is presumably most familiar to the authors.

A chapter on "Sea-birds, numbers and man" shows that man is their greatest enemy and introduces data on which the conservation of sea-birds may well be based. A companion chapter on "What controls the numbers of sea-birds?" sets forth the argument that food supply is the chief factor, and it undoubtedly is an obvious and very important factor and states that species, however closely related, when successful