attention directed at the formerly designated "tropical diseases," and to the effects of various forms of radiation upon tissues. Also treated comprehensively are the diseases of the skin, special sense organs, lips, mouth, teeth, and skeletal system. A surprising omission is a chapter on diseases of muscles. This is especially disappointing since a growing interest in this subject is increasing the number of muscle biopsies to be diagnosed by pathologists.

As a textbook, this book will create by its bulk a real problem for medical students who are expected to assimilate it in the usual one-semester course. As a reference book, it can be recommended unreservedly to all who are interested in the problems of disease.

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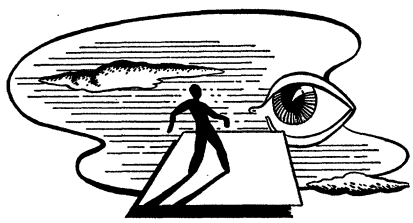

Psychiatry in general practice. Melvin W. Thorner. Philadelphia-London: W. B. Saunders, 1948. Pp. xi + 659. $8.00.

The author of this book has attempted to present psychiatry in a language relatively free of confusing terminology, and yet he manages to cover the theories and concepts that are generally accepted today.

The book is divided into two main parts, which are designated as "The People" and "The Methods." In the first part the chapters are named by the principal problem or mental symptom, e.g., "Intelligent People," "Dull People," "People and Sex," "People and Catastrophe," "Unhappy People," "Dreamy People," "Confused People," "Anxious People." One might raise the objection that such titles detract from the dignity of the book. Each chapter has a short informative introduction to the topic, complete illustrative life histories of patients, and an excellent summary. The author hopes to give the student or physician the "feel" of the psychiatric patient and his use of many well-selected case records and brief interpretations of the patients' behavior does much to accomplish this purpose.

Treatment is the theme of the second part of the book. There are good chapters on interviewing, sedation, and psychotherapy. The limitations of such procedures as electroshock therapy and prefrontal lobotomy are discussed. The information about the related shock therapies is concise but adequate to enable the physician to discuss with the family the nature of a treatment that may have been recommended by a psychiatrist or hospital.

This book offers much help to the general practitioner in understanding and treating many of his patients. It is recommended.

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The aviation psychology program in the Army Air Forces. (Rep. No. 1.) John C. Flanagan. (Ed.) Washington, D. C.: Supt. of Documents, U. S. Govt. Prntng. Office, 1948. Pp. xii + 316. $2.00.

This is the first of a series of 19 volumes designed to record, evaluate, and make available the major research findings and experience of the AAF Psychology Program during the period of World War II. In this volume, Col. Flanagan, who directed the program under the Air Surgeon, Major General David N. W. Grant, and the chief of the Medical Research Division, Col. Loyd E. Griffis, reviews the research findings and discusses their implications. The book is both an introduction and a summary of the series; the titles and editing authors of all 18 volumes of the series are listed on pages 3 and 4. So much credit is given to his military and civilian associates that Col. Flanagan's own outstanding contributions as director and research leader of the program are not immediately evident. The volume is arranged in three parts: I. Background and development of the Aviation Psychology Program; II. Specific solutions of problems; and III. General contributions.

Building on the experience of World War I and on some work accomplished by civilians through the National Research Council and the Civil Aeronautics Administration in 1939 and 1940, the Army program took shape. It was decided to organize a coordinated research program rather than a strongly centralized agency, and to place the work in intimate association with the AAF training fields. Twenty categories were identified by analyzing the reasons for eliminating men from primary flight training. These were grouped into four principal areas for assigning responsibility for test development: (1) tests of information, judgment, and intellectual ability, (2) tests of alertness, observation, and speed of perception, (3) tests of coordination and visual-motor skill, and (4) tests of personality, temperament, and interest. Previous efforts had centered chiefly on selection of pilots. The AAF program envisaged a broader need, that is, the selection and classification of all air-crew.

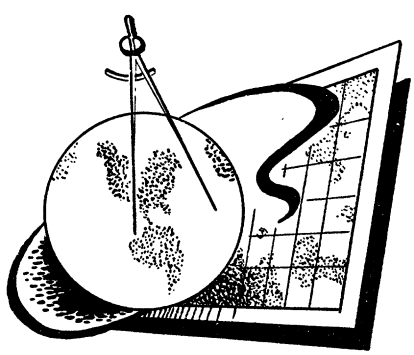
There are five fundamental steps that psychologists use in aptitude testing and personnel selection: I. *Job analysis* of positions for which applicants are to be selected; II. *Test construction* in line with the job analysis by adapting previously used tests or in making up new ones; III. *Test reliability determination* through giving alternate forms to sample populations and noting degree of score agreement; IV. *Rehearsal administration* of proposed tests to training groups otherwise selected for discovering the relation of test scores to success and failure in training; and V. *Validation appraisal* through selecting men for training by the tests developed; then after training or other exhibits of compe-

tence in job performance relating the test scores to the success or failure records, and finally discarding those tests which have proved low in prediction value. In the Air Force program several hundred tests were worked through these five steps and only the best twenty or so were used in the final selection batteries. There were two main groups of tests used: (1) The AAF Qualifying Examination (in place of the earlier requirement of two years of college), which was given to more than a million men, and (2) Special Abilities, given to more than a half million in making selections for bombardier, flight engineer, navigator or pilot training.

It is interesting and illustrative of the material presented in Col. Flanagan's Report to note (pp. 82 ff.) that when step IV was applied to more than 1,000 men assigned to pilot preflight schools only 23 percent succeeded in becoming rated pilots, whereas if only the upper half had been admitted, as rated by their scores on the tests being tried out, 75 percent, on the same criteria, would have been rated successful. When the matured selective techniques were used the failure rate dropped so low that fewer training fields were required.

The aviation psychologists were able to develop objective measures of flying skill, aerial measures of navigation proficiency, rating methods for flexible gunnery, and proficiency tests for flight engineers, bombardiers, and radar observers. Their success in screening and selection proved so valuable that they were set to work on the content of training courses and methods of training, and the development of new training devices and equipment. Finally, in the latter part of the war, they initiated a number of testing methods and procedures concerned with individual reactions to combat. As an illustration of the important role that social science can play in human affairs, and of scientific method in social science, this introductory-summary volume and the series of reports it represents may be strongly recommended. Considered from the standpoint of variety of measurements, types of tests, and size of test samples and populations examined, these data from the AAF Psychology Program constitute the largest mass of psychological measurement materials ever gathered in any experimental or applied psychological project. This report and later volumes in the series will long retain their importance in the field of aviation psychology.

Yale University W. R. MILES



General cartography. (2nd ed.) Erwin Raisz. New York-London: McGraw-Hill, 1948. Pp. xv + 354. (Illustrated.) $6.00.

General cartography is a thoroughly revised edition of the book which appeared a decade ago under the same title. It contains a wealth of valuable information and will become one of the indispensable reference books of the cartographer's library.

The quickest way to obtain an idea of the scope of the book is to examine its table of contents: I—The History of Maps, II—Scales and Projections, III—Representation of the Earth's Pattern on Maps, IV—Lettering, Composition and Drafting of Maps, V—Surveying on the ground and from the air, VI—Official and Professional Maps, VII—Cartographic Specialities, VIII—Scientific Maps.

Each of the eight parts listed is composed of four chapters, making 32 in all. This division of the text makes the volume readily adaptable to use in a majority of college courses. There is also an appendix offering instructions for preserving and cataloguing maps, laboratory and field exercises for student assignment, a series of useful tables, and a bibliography of easily available references.

General cartography holds the distinction of being the only book covering the field of modern cartography by an American author. It is up to date, well illustrated, and authoritative. The task of gathering and assembling the material for this volume obviously has required many years of careful research. The finished work is a credit to the author.

As might be expected in view of Dr. Raisz's extensive study of the history of maps, the book contains an excellent treatment of early map making. With the aid of four fully annotated time charts, the author traces the history of cartography from 600 B. C. down to the present. The reader will find descriptions and illustrations of the charts of the Marshall Islanders, the clay tablet maps of the Babylonians, and the early maps of the Greek, Egyptian, Chinese, and Roman cartographers, including the Ptolemy maps and portolan charts. The achievements of the Dutch, French, German, English and Italian cartographers, the work of the National Surveys, and the growth of American cartography are all fully reported. The four chapters dealing with the history of maps are valuable reading for all cartographers.

The main body of the text is devoted to methods and techniques employed in modern cartography. Unfortunately the author has attempted to cover everything and consequently has failed to give adequate attention to many of the basic elements of the subject. This situation is understandable when one realizes the magnitude of the assignment but it is nevertheless regrettable. Important topics such as relief presentation, map composition, map reproduction, and projections are treated briefly. In the opinion of the reviewer the book would serve more effectively as a text if it gave more attention to how to plan and execute cartographic jobs and less attention to what has been done in the field and by whom. Every page contains interesting and useful information, but much of this is not directly applicable to teaching the subject.