

this large book,* written jointly by Mabel R. Fernald, Mary H. S. Hayes, Almena Dawley, and Beardsley Ruml. Some 550 cases were studied by use of the Yerkes-Bridges, Stanford-Binet, the Woolley general intelligence tests, educational performance, and other tests by a staff of psychologists. Social investigators secured family histories, school records, hospital, institutional, criminal, and vocational histories, and a detailed account of circumstances preceding and following offenses. Information concerning habits of addiction to drugs, alcohol, and tobacco was secured. The most important findings relate to educational attainment, mental levels, early home conditions and occupational history and efficiency. As regards educational attainments, the mean grade reached is 4.5, with about 15 per cent finishing the eighth grade and 1.6 per cent finishing high school. Eleven per cent had received no regular schooling. Educational tests showed a group median about equal to that of the fourth grade. The intelligence rating by the Stanford-Binet gave a mean of 11.8 years, which may be compared to 13.4 years, the mean of an army group. Delinquent women apparently are, as a group, somewhat inferior to the general public, in both intelligence and school attainments, but the overlapping is so great, and the increase of the delinquent tendencies so slight with a decrease in intelligence, that other important causes must be sought. The results of the social and economic histories and surveys led the authors to the following conclusion as regards causation: "A somewhat inferior intellect," coupled with poor economic background, with few advantages and opportunities, including such conditions as poor homes, bad company, limited schooling, early age of starting to work, and no useful industrial training at length becomes involved in economic straits from which prostitution, theft, etc., offers a most convenient escape. More than many early writers, especially psychologists, the authors are inclined to emphasize the role of environmental influences, rather than constitutional limitations, as the cause of delinquency.

A. I. G.

7. *A book on physical growth by a French writer.*—Mr. S. L. Eby states that his purpose in translating Dr. Godin's book from the French is, first, to introduce the writings of a Frenchman who has

*Fernald, Mabel R. Hayes, Mary H. S. Dawley, Almena, and Ruml, Beardsley. *A Study of Women Delinquents in New York State.* New York: The Century Co., 1920. Pp. XVIII + 541.

long been a student of scientific education, and, second, to direct greater attention to the contributions to the theory and practice of education in France.' Dr. Godin's point of view is admirable:

"The only physical measurements worth while are those which admit of comparisons with previous states of development of the same individual. Such comparisons can be valid only when repeated measurements are taken at regular intervals. These repeated measurements are necessary in order to enable the teacher and educator to know the child intimately and profoundly; it makes possible a degree of individualization of education unknown in the past."

In order not to lose the variations in "rhythm" and alternation in growth, measures are taken semi-annually. Emphasis is placed upon the fact that gross measures mean little unless broken up by finer analysis. Growth is not uniform, but proceeds with variations in the case of the limbs, trunk, and head. The book includes many charts and diagrams illustrating segmental development from birth to puberty.

Part I is devoted to a discussion of the nature of growth, and Part II applies the results to education. No actual data are given, a fact which makes the volume seriously unsatisfactory. As regards applications to education, many of them are most curious, for example, the following:

"The trunk is cubed by the product of the multiplication of its dimensions. * * * The product of this double multiplication is called V (Viscera). V varies enormously from birth to adult age, and it is expressed by a different figure at each of the stages of growth. * * * It is the same with the product of C of the double multiplication of the diameters of the cranium, of which the content is the encephelon, the brain, consequently. The relation of C to V gives a quotient which instructs us on the relative proportions of the viscera, of the vegetative life, and of those of the psychic life. The quotient informs the educator of the free field which the individual vegetative resources for cerebral culture leave to him."

A. I. G.

¹Godin, Paul *Growth during School Age; its Applications to Education*. Translated by Samuel L. Eby. Boston: Richard G. Badger. 1920. Pp. 268.