

this new book may arouse to action other authors and publishers, and especially such as will devote their energies to the presentation of the new meteorology. FRANK WALDO.

*The Genesis and Dissolution of the Faculty of Speech.* A Clinical and Psychological Study of Aphasia. By JOSEPH COLLINS, M. D., Professor of Diseases of the Mind and Nervous System in the New York Post-graduate Medical School; Neurologist to the New York City Hospital, etc. Awarded the Alvarenga Prize of the College of Physicians of Philadelphia, 1897. New York, The Macmillan Company. 1898. Pp. viii + 432.

This volume, to which was awarded the Alvarenga prize of the College of Physicians of Philadelphia for 1897, is a monograph of importance. There is no more fruitful field of investigation than the various forms of speech disturbance, for the student both of psychology and pathological anatomy. That progress has been slow is due to the fact, as Collins points out, that observation and analysis of speech defect has been inaccurate and post-mortem examinations incomplete. If not offering very much that is new the book before us has the merit of calling attention to our deficiencies and of urging greater care in the future. The author shows from beginning to end an admirable grasp of his subject and a complete acquaintance with the literature, which he has used with skill to produce throughout an eminently readable and stimulating book.

The monograph opens with a chapter on 'Disorders of intellectual expression, known as aphasia.' This is largely a discussion and criticism of terms, the outcome of which is a general classification of aphasia as follows:

1. True 'aphasia'—aphasia of apperception. Due to lesion of any constituent of the speech region, the zone of language.
2. Sensory aphasia. Due to lesion of the central and peripheral pathways leading to the zone of language.
3. Motor aphasia. Due to lesion of the motor pathways, over which motor impulses travel in passing to the peripheral speech musculature.
4. Compound aphasia. Any combination of two or more of these.

Such a classification the author regards as sufficient for all practical purposes, but as a concession to established usage he makes certain sub-divisions in order to avoid possible confusion of nomenclature. For example, he retains the word 'motor' as applied to aphasia produced by lesion of Broca's convolution 'solely because such usage has been consecrated by time,' and not because he believes this center to be in reality entirely motor.

Following this chapter is a valuable historical sketch comprised in twenty-three pages, with a good bibliography. Charcot's autonomous speech centers are sharply criticised, both here and later in the book, and Dejerine's services to the subject receive the warmest appreciation, particularly because of their general opposition to Charcot's views.

Under the heading of 'An analysis of the genesis and function of speech,' Collins analyses, from the point of view of physiological psychology, the various elements which ultimately result in the development of the faculty of speech. It is clearly too large a subject for so cursory a handling, and on the whole is less satisfactory than the discussions which are concerned solely with the physical side of the process.

Chapter IV. concerns itself with remarks on the anatomy of the brain, the zone of language, and the evidence regarding a special graphic motor center. It is largely anatomical and presents with clearness the facts we should know relative to the structure of the brain in general, and particularly of those parts to which are attributed special functions in regard to speech. Flechsig's recently expressed views as to the zones of projection and the zones of association are narrated in considerable detail, because of their more or less direct bearing upon the conception of aphasia which the author has elaborated. Collins is definite in his opinion that the zone of language, made up mainly of Broca's convolution, the posterior portion of the first temporal convolution, and the angular gyrus, does not send fibers directly into the motor projection tract. The Rolandic cortex must first be called upon before an idea can be expressed as speech. He is equally confident that we now have sufficient evidence to overthrow com-

pletely Charcot's conception of four more or less independent centers and particularly of a so-called graphic center, and that we may confidently maintain that the zone of language is, as it were, a unit in its action, no part of which may be seriously injured, without in a measure impairing the entire mechanism of speech. These claims are supported by much skilful analysis of reported cases, and a careful reading leaves us with the conviction of the reasonableness of Collins' views.

The greater part of the remainder of the book is taken up with a more detailed consideration of the varieties of speech disturbance, frequently and pleasantly interrupted by the narration either of personal cases or of cases reported by others. In the discussion of motor aphasia much stress is laid upon a distinction too often overlooked, namely, that between *cortical* and *sub-cortical* motor aphasia. In the failure to recognize this distinction—and the same applies to sensory aphasia—Collins sees one of the greatest impediments to progress in our knowledge; and, conversely, the greatest possible hope for more accurate knowledge in the future must lie in the careful microscopic study of the brains of aphasic individuals, particularly when the lesion lies beneath the cortex. The details of differential diagnosis do not concern the present review, but these chapters are to be cordially recommended to those desiring something beyond a vague conception of the real problems of the future.

The diagnosis, etiology, morbid anatomy, treatment and, finally, the medico-legal aspects of aphasia are discussed in a somewhat less complete form, as the scope of the book amply justifies. Collins disagrees with certain other writers as regards the responsibility of the aphasic. His contention here is that in so far as internal speech is unaffected, or put anatomically, if the cortical areas for stored memories are intact, a person must be regarded as responsible, other things being equal. If, on the contrary, such areas are involved, *e. g.*, the area for motor word memories, the person's testamentary capacity should always be called in question. Hence, again, the extreme importance of determining whether the lesion leading to the speech defect be actually in the zone

of language or in that part of the nerve mechanism which simply subserves the emission of words—sub-cortical.

In general the monograph must be regarded as a valuable contribution to American neurological literature. The subject-matter is presented in a scholarly way, and with a directness and certainty of his position which is characteristic of the author. It is to be regretted that Bastian's recent work should have been published too late to be fully included in Collins's critical analysis. On the whole the author's conception and treatment of his subject seem to us sound and representative of the best type of scientific discussion. He gives us few new observations, worked out with the detail, particularly after death, which he so urgently recommends, but this, no doubt, is due to lack of opportunity.

The style is for the most part clear. There is, however, a constant tendency to use unnecessarily pedantic words, for which we can find no excuse. In writing on scientific subjects simplicity of diction is surely a first requisite, and this Collins lacks. The following words and expressions are correct, it may be, but certainly not well chosen: 'Ancientness,' 'super-ambient cortex,' 'speechfulness,' 'cotton rain guard,' 'perishment,' 'disablement.' This is, however, a minor criticism in an otherwise excellent piece of work.

The book is admirably printed on rather unnecessarily heavy paper and the proof reading is almost faultless. An index adds materially to its usefulness and convenience.

E. W. T.

*Codex Borbonicus.* Manuscrit Méxicain de la Bibliothèque Du Palais Bourbon, Livre divinatoire et Rituel figuré. Publié en fac-simile avec une commentaire explicatif par M. E.-T. Hamy. Paris, 1889. ERNEST LEROUX, Editeur. Text pp. 1-24, introduction and 4 chapters. Plates folded screen fashion No's. 2-38 in colors.

This ancient Mexican book, formerly known as the *Codex Législatif*, is now published for the first time, in exact fac-simile, color, size and form. The original is on maguey paper, and