tices, including the incredible and horrible cruelty associated with "witch" trials and executions of those suffering from now-recognizable mental twists. The reaction from this state of affairs appears in the text as "The First Psychiatric Revolution," stressing among others the pioneer labors of Vives (1492–1540), Paracelsus (1493–1541), Cornelius Agrippa (1486–1535), Johann Weyer (1515–1588) and Jean Bodin (1530–1596), all of whom took active parts in attempts to unravel many complexities and to demonstrate that mental disorders were natural diseases and not the handiwork of the devil.

From the "Age of Reconstruction" during which there were many important creative movements, one is led to the period called "The Discovery of the Neuroses," at which time psychiatry was vitalized by the work of Mesmer, Braid, Charcot, Janet and a number of their contemporaries who had gained glimpses of the laws of the mind in action. The "Era of Systems" is described next, at which time the special trend in the direction of differentiation and classification of mental diseases was forwarded by the outstanding investigations of Esquirol, Falret, Tuke and Kraepelin.

The climax in this history of medical psychology is found in the "Second Psychiatric Revolution," which describes the researches and ideas of Sigmund Freud, psychoanalytic and other psychodynamic concepts, and their expansion into the various divisions of modern work and thought. The contributions of Adolf Meyer, A. A. Brill, W. A. White and S. E. Jelliffe are included here.

The history of the concepts of some of the organic mental disorders, such as general paresis, senile conditions and alcoholic reaction types has been ably presented by Dr. Henry. He has also contributed a very useful section on the history of the influences governing the building and organization of mental disease hospitals from the earliest times to the present, which includes the story of the dire conditions and sad state of the early asylums as compared with modern accommodations and humane treatment.

The approach is humanistic and the style of writing is spontaneous and vivid. Although it would require a number of volumes to include all the desirable details of the history of medical psychology, the book will take an important place in the literature of the medical sciences, where it will serve those interested in human psychology, and it should stimulate a demand for further expansion.

NOLAN D. C. LEWIS
COLUMBIA UNIVERSITY

SOCIETIES AND MEETINGS

THE SOUTHERN ASSOCIATION OF SCIENCE AND INDUSTRY

THE Georgia Academy of Science served as host at the second annual meeting of the Southern Association for the Advancement of Science at the Biltmore Hotel in Atlanta, on April 2 and 3. At this meeting it was agreed that the name of the organization be changed to The Southern Association of Science and Industry, in order that the participation of industrialists and business men in the organization might be more properly indicated.

With Dean Wortley F. Rudd, Medical College of Virginia, presiding, addresses were given before the association by Dr. W. B. Baker, Emory University, president of the Georgia Academy of Science, and Governor Eugene Talmadge, of Georgia. Dr. George H. Boyd, University of Georgia, president-elect of the association, spoke on "Some Basic Considerations in Building for Research in Southern Problems."

Panel discussions, open forums, etc., were conducted on important regional problems, and many southern and national leaders participated. Chairmen and topics of the various discussion groups included Dean C. F. Korstian, School of Forestry, Duke University, "Conservation of One of the South's Major Crops—Its Forests"; Dean Stewart J. Lloyd, University of Alabama, "The Teaching of Science in the Secondary Schools of the South"; Dr. Milton H. Fies, De-Bardeleben Coal Corporation, Birmingham, Alabama, "As Others See Us"; and Dr. J. Sam Guy, Emory University, "Role of Scientific Research in the Development of Natural Resources of the South." Dean Rudd delivered the presidential address, entitled "Remarks," at the banquet, on Thursday, April 2, at 8:00 P.M.

Certain business matters, such as the constitution, reports of standing and special committees, were considered and agreed upon. It was further agreed that the incoming president should appoint a "Long Range Planning Committee" and a committee to make a survey of all research now being carried on in the South. The president was requested to appoint a committee to consider the possibility of increasing a service such as is now being rendered by Dr. E. Emmet Reid through visitation and technical advice to the various research groups in the South.

The original territory was changed to include all of Texas, and, upon insistence by representative residents, it was agreed that Maryland and the District of Columbia be added for membership in the Southern Association of Science and Industry. Several state academies and other state and regional science or-

ganizations have requested that they be affiliated with the association.

Officers elected were:

President: Dr. George H. Boyd, University of Georgia.

President-elect: Dr. Milton H. Fies, DeBardeleben Coal Corporation.

Vice-president: Dr. J. Sam Guy, Emory University.

Treasurer: Dr. L. B. Roberts, Arkansas A. and M. College, Monticello.

Secretary: Dr. George D. Palmer, University of Alabama.

Members of the executive committee:

E. Morrell, Maryland; Dr. Austin Clark, District of Columbia; Major W. Catesby Jones, Virginia; Dean C. F. Korstian, N. C.; Dr. James E. Copenhaver, S. C.; Dean Robert C. Wilson, Ga.; J. H. Allen, Florida; Dr. James T. Mackenzie, Alabama; Dr. W. F. Hand, Miss.; Dr. H. A. Webb, Tenn.; Dr. M. Scherago, Kentucky; Dr. Richard J. Anderson, Arkansas; Dr. E. F. Pollard, La., and Dr. Edward O. Heuse, Texas.

GEORGE D. PALMER,
Secretary

SPECIAL ARTICLES

STEROID HORMONE EXCRETION BY NORMAL AND PATHOLOGICAL INDIVIDUALS

A STUDY is in progress of the abnormalities of the intermediary metabolism of the steroid hormones which are associated with disease. As a part of this program a systematic investigation has been initiated involving the examination of individual urine collections in amounts adequate for extensive fractionation and chemical characterization of the constituent steroids. This note presents the findings to date from the processing of 2- to 6-month collections of urine from six normal persons, six patients with cancer and four patients with clinical evidence of hyperplasia of the adrenal gland.

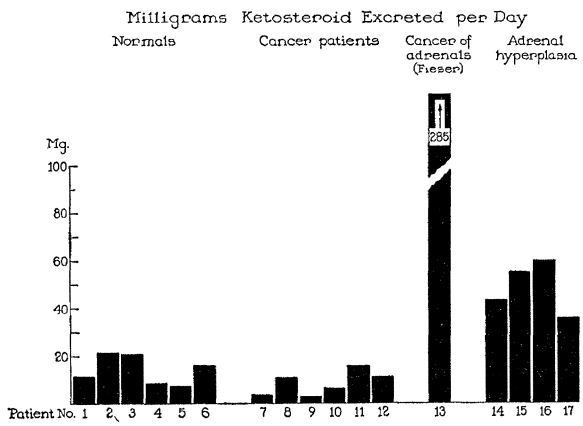

FIG. 1

After hydrolysis of the urine with sulfuric acid and extraction with ether, the extracts were partitioned into acidic, phenolic and neutral fractions. The neutral material next was separated with Girard's reagent (T) into ketonic and non-ketonic fractions. Each of these then was processed with digitonin into the 3-alpha- and 3-beta-ketosteroid fractions.

The 24-hour excretion rate of the total ketosteroids by the individuals studied, as estimated by the Callow modification[1] of the colorimetric method of Zimmermann,[2] are summarized in Fig. 1. Included for comparison are the results of a previous study (Fieser[4]). The cancer patients excreted, in general, smaller amounts than did the normal individuals and the patients with adrenal hyperplasia.

The average contents of digitonin-precipitated material (or 3-beta-hydroxy steroids) in the total ketosteroid fraction were: normals, 0.6–2.2 per cent.; cancer patients, 0.3–6.0 per cent.; patients with adrenal hyperplasia, 3.7–11.4 per cent. (Fig. 2).

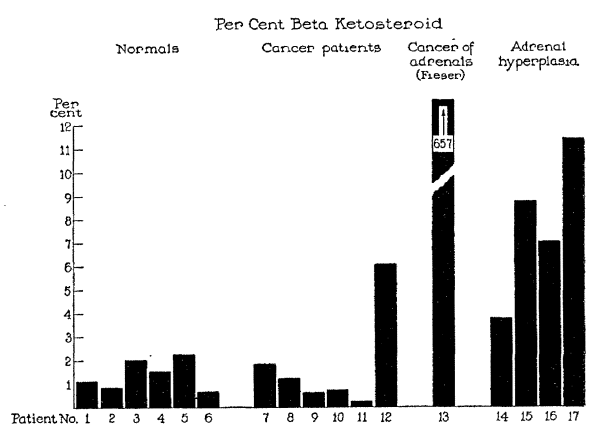

FIG. 2

The material not precipitated by digitonin (3-alpha-hydroxy-ketosteroids and 17-ketosteroids) was adsorbed from ligroin solution onto activated alumina (Brockmann) and separated by systematic fractional elution into the following fractions (Fig. 3):

Fraction I (elution with mixtures of petroleum ether and benzene). The presence in this fraction of $\Delta^{3,5}$-androstadienone-17[3,4] was demonstrated in the material from four of six normals and from all the patients with adrenal hyperplasia. This was done by the isolation of the semicarbazone and oxime and

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[3] H. Burrows, J. W. Cook, E. M. F. Roe and F. L. Warren, *Biochem. Jour.*, 31: 950, 1937.

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[5] H. Hirschmann, *Jour. Biol. Chem.*, 136: 483, 1940.