

took up the study of pharmacology and materia medica, became privat docent and a short time afterward professor of this branch, and in 1879 he was appointed ordinary professor of materia medica in Vienna. In 1897 he became president of the *Oberste Sanitätsrat* (chief board of health in this country). He was elected twice as "rector magnificus" of the Vienna University, and was appointed by the emperor as Hofrath (privy counselor), and finally ennobled. When he retired from university life at 70, his duties were divided among his pupil and successor, Prof. Hans Horst-Meyer, and Professors Schattenfroh and Mitlacher; such was the enormous amount of work accomplished by this one man. The chief books of the deceased are a text-book on materia medica (translated into seven languages), an anatomic atlas of pharmacognosy (a commentary on the pharmacopeia of different countries), and a work on the adulteration of food, especially of flour, condiments and fruits. Among other distinctions he possessed the English Hanbury medal. von Vogl sometimes used to say he had examined more than 50,000 specimens under the microscope. He was a severe but kind examiner of the students, and none bore him a grudge.

Correspondence

Dr. Harvey Cushing's Oration on the Hypophysis Cerebri

To the Editor:—Those who expressed surprise when, over six years ago ("Internal Secretions," 1st Ed., 1903), I asserted that the anterior lobe of the pituitary played a leading rôle in the vital process *per se*, must now acknowledge the far-reaching meaning of Dr. Cushing's statement, in the Oration on Surgery, published in THE JOURNAL, July 24, that "more than one hundred total or partial hypophysectomies" had shown that "the anterior lobe of the hypophysis is a structure of such importance that a condition of apituitarism is incompatible with the long maintenance of life." While fully acknowledging the great value of Dr. Cushing's experiments, however, I must take exception to his conclusion that they sustain the theory that it is by means of a secretion capable of influencing the organism at large that the anterior pituitary carries on these all-important functions.

That extracts of the posterior lobe raise the blood pressure, slow the heart and promote diuresis, is certain, but I maintain that these effects are not produced by a true secretion, but by a mere component of the organ similar to that which, in extracts of the kidney, testis, ovary, etc., produces identical effects. As I have shown recently (*Monthly Cyclopedic*, June and July, 1909), these effects are those of adrenal extracts, and have long misled observers into believing that these various organs produced internal secretions (See "True versus Pseudo-therapy," in a forthcoming number of the *New York Medical Journal*). Additional, but as yet unpublished, researches have suggested, moreover, that this was due to the presence in the pituitary, as well as in all the above-mentioned organs, of cellular elements, the so-called "adrenal rests" (not aberrant cells from my viewpoint, but activators of local metabolism), which are well known to give rise, especially in the kidney, to hypernephroma. Dr. Cushing, in fact, compares the action of the so-called pituitary secretion to that of adrenalin.

Again, although Herring's view that the colloid fluid (laden with broken-down cells, let me add) passes upward is quite warranted, this does not prove in the least that it is a true secretion. Indeed, Dr. Cushing's own text suggests the contrary. Since the blood pressure raising substance is "confined, as Howell has proved, to the posterior lobe," why is it that, as Dr. Cushing says, "after this portion of the gland has been removed, there is no apparent disturbance with the physiologic balance of the body?" Everyone knows that removal of the adrenals or of the thyroid, which produce true secretions, causes marked and even fatal disturbances. Again, the anterior pituitary is regarded by Dr. Cushing as the original source of this secretion; why is it that its extracts are inert? Can we consistently, with him, ascribe acromegaly, overgrowth, etc., to "hypersecretion," and dystrophia adiposogenitalis, Dercum's adiposis dolorosa, etc., to "hyposecretion" of this inert substance? These are but few of the many directions in which the secretion theory blocks all progress.

Permit me to state that such is not the case when the functions I have ascribed to the pituitary, after a far more searching study than has ever been given it by physiologists, are taken into account. The anterior lobe (including its nerve cells) from this viewpoint is connected with the floor of the third ventricle (Ramon y Cajal, Genti's) and the pons (Andriezen) by nerves which can be traced, both physiologically and clinically, to the adrenals and thyroid, while the secretions of these organs, as I have shown by many incontrovertible facts, are active factors in oxidation, metabolism and nutrition. Under these conditions it is plain that any morbid activity of the anterior pituitary, whether caused by hyperemia, hypertrophy, tumor, etc., must, by exciting unduly the adrenals and thyroid, cause excessive nutrition, overgrowth, and even gigantism. Have we not the gigantism of childhood in adrenal hypernephroma and rapid growth in the cretin under thyroid extract? Conversely, destructive or debilitating disorders of the anterior pituitary, by lowering the activity of the adrenals and thyroid, must necessarily entail small stature with deposition of fat and adiposis dolorosa. Do we not use thyroid extract in obesity? Do we not witness also, as symptoms of degeneration of the pituitary, myxedema, lowered oxidation, hypothermia and bronzing? Page after page of perplexing queries could be submitted attesting pointedly to the fact an imported doctrine is not always invulnerable.

All this does not militate in the least against Dr. Cushing's researches or the correctness of his surgical conclusions. His experimental and surgical work is entitled to the greatest appreciation; but it is precisely because I value his work so highly that I would like to see it devoted to the development of something besides mere assumptions.

C. E. DE M. SAJOUS, Philadelphia.

High Enemas—Can a Tube Be Passed Into the Colon?

To the Editor:—In connection with Dr. Horace W. Soper's paper on page 426, and your editorial on page 464 of THE JOURNAL, August 7, I wish to express my appreciation of Dr. Soper's ingenuity and industry, displayed in the scanning of foreign literature. From page 48 of the third edition of Jacobi's "Therapeutics of Infancy and Childhood," I beg to quote as follows: "The great normal length of the sigmoid flexure in the infant and child, which results in its being bent on itself, prevents the introduction of an instrument to a considerable height. It will bend on itself." On page 343 one may read: "The condition of the sigmoid flexure renders the introduction of the instrument beyond the very beginning of the sigmoid flexure, a perfect illusion in many cases. It often happens that an elastic or flexible tube, when introduced to or beyond the third sphincter, bends on itself and reappears at the anus. To facilitate the entrance of the liquid into and beyond the sigmoid flexure, the irrigation should be made slowly and gently, while the pelvis of the infant is raised. The nozzle must be smooth and not thin." Similar statements are found in Jacobi's "Intestinal Diseases of Infancy and Childhood," 1887. The abnormal length and flexures of the sigmoid colon which lend to what Jacobi has called "Congenital Constipation," were first described by him in 1869.

In an article on "Congenital Constipation," which appeared in the Transactions of the American Pediatric Society, vol. vi, page 41 (1894) I wrote as follows: "The article by Jacobi, 'Some Important Causes of Constipation in Infants' is classical, and though it appeared in 1869 (*Am. Jour. Obstet.*, vol. ii), it will repay careful reading and study at the present time." During the twenty-five years of my college assistantship, Dr. Jacobi has annually referred to the difficulty or impossibility of passing elastic or solid tubes through the sigmoid flexure. When felt below the liver, the instrument is not in the transverse colon, but in the sigmoid, which has simply been raised to an abnormal position.

FRANCIS HUBER, M.D., New York City.

To the Editor:—Having observed in THE JOURNAL of Aug. 7, 1909, the article by Horace W. Soper, M.D., of St. Louis, I wish to call attention to the enclosed extracts from a paper read by me before the American Proctologic Society in June, 1904, entitled, "The Present Status of the Flexible Rectal Tube,

Which Should be Paraphrased Non-utility and Impracticability." I make this request in order that the society may be placed in a proper light before the profession, as having taken the initiative in this matter.

"The members of our society generally have definitely accepted the existence and functions of Houston's rectal valves, we have dilated on their pathologic conditions, but have not reflected what effect they must have on the use of the flexible rectal tube. . . . I venture to assert, that notwithstanding all of our boasted knowledge with regard to these valves, that it is the universal practice with rectal specialists, when ordering or giving a high enema, to use the long rectal flexible tube.

"It occurred to me that if the pathologic function of these valves is to shelve and ease down the fecal matter, and if in a pathologic condition they could become so thickened as to form an obstruction to the passage of the fecal matter, that they must interfere materially with the passage of the rectal tube beyond them. I therefore instituted a series of experiments with the soft rubber tubes, to ascertain the true state of affairs. In a number of instances I introduced the rectal tube, then passed in Tuttle's proctoscope over it, and on turning on the electric light, I found, as I had expected, the rectal tube coiled on itself in the lower portion of the rectum, between the first valve and the anal margin. I have not yet found a single exception to this condition, although, I am willing to admit that occasionally it may pass them. This I should regard more as an accident, than an intended result. . . .

"But why should we depend on such uncertain means, and one attended with so much difficulty in its use, when we always have one, that is so much easier and certain to accomplish the purpose. I refer to the application of the physical law of gravity. A patient should be placed in the knee-chest position, or if too weak, in Sims' position, with the head and shoulders lowered, and the hips elevated with a pillow. The high enema can be given in this position with the most satisfactory results, using a short rectal nozzle. Even in cases of impaction, the water so introduced can be made to distend the bowel, and get beyond the point of obstruction, by sufficiently elevating the bag. By using a large quantity of water, it can be made to run around as far as the ascending colon."

SAMUEL T. EARLE, M.D., Baltimore.

are not kept in abeyance, the opium may be repeated. I have yet to see any detrimental results or sequences of employing this method."

Gowers in his work, "Epilepsy," 1901, asserts that he regards it as doubtful whether the subsequent administration of bromid in such large doses has more influence than it would have without the preceding course of opium. The benefit sometimes seen in old obstinate cases of epilepsy, he says, may be explained by the large doses of bromid administered after a period of freedom from its influence.

Oppenheim, in "Diseases of the Nervous System," 1900, p. 783, says: "On the whole, the results of this treatment are very doubtful, and, in addition, it is not harmless, does not suit those of weakened constitutions, and demands careful watching, and is therefore probably only practicable in a hospital."

Starr, in "Nervous Diseases, Organic and Functional," 1907, p. 755, says: "I have not had good results from this course of treatment. I have known the opium habit to be induced. It is a method which is falling into disrepute. Opium and morphin should be avoided in epileptics."

Mettler, in "Diseases of the Nervous System," 1905, p. 220, says: "The plan is of doubtful efficacy and its dangers are not insignificant. In my own experience, though limited, it was not superior to the use of the bromids alone."

Spratling, in "Epilepsy," 1904, p. 374, states: "Flechsigs recommended this treatment only in chronic cases in which the bromids alone had failed and cautions that the patient be carefully watched during the whole course of treatment. In my experience the plan was of little use. . . . The verdict of those who have tried the method is almost uniformly unfavorable, including Donath, Bohme, Landois, Luske, Rathe, Homen, Liehen, Warda, and Bratz."

The Public Service

Medical Department of the Army

Memorandum of changes for week ended August 14, 1909:

Skinner, G. A., major, ordered to Ft. Lawton, Wash., for duty on arrival from San Francisco.

Reynolds, C. R., major, relieved from duty at the Walter Reed General Hospital, Washington, D. C., and ordered to Washington, D. C. for duty.

Shepard, J. L., capt., ordered to duty with militia field exercises, Massachusetts coast, August 14 to 21.

Harnett, E. H., major, granted leave of absence for 10 days.

Glennan, J. D., major, O'Connor, R. P., capt., Brechemin, Louis, Jr., capt., and Smith, H. M., capt., relieved from duty in the Philippines Division in time to sail Nov. 15, 1909, from Manila, P. I., for San Francisco, Cal.

Baker, F. C., major, ordered to Governor's Island, N. Y., for duty during the maneuvers in Massachusetts, August 14 to 21.

Juenemann, G. F., capt., relieved from duty at Fort McDowell, Cal., and ordered to Fort Logan, Colo., for duty.

Wickline, W. A., capt., ordered to accompany troops from San Francisco, Cal., to Washington Barracks, D. C.

Suggs, Frank, M. R. C., ordered from Fort Niagara, N. Y., to Fort Porter, N. Y., for temporary duty.

Brown, W. E., M. R. C., granted sick leave of absence for six months.

Jackson, T. W., M. R. C., when relieved at Washington Barracks, D. C., ordered to Fort Hunt, Va., for duty.

Hart, J. W., M. R. C., when relieved at Fort Hunt, Va., ordered to Henry Barracks, Cayey, P. R., for duty.

Wallace, G. I., M. R. C., when relieved at Henry Barracks, Cayey, P. R., ordered to Fort Sam Houston, Texas, for duty.

Coffin, H. L., M. R. C., relieved from duty on the transport *Burnside*, and ordered to Vancouver Barracks, Wash., for duty.

Eber, A. H., M. R. C., granted sick leave of absence for 2 weeks.

Usher, F. M. C., major, granted leave of absence to and including Sept. 1, 1909.

Wertenbaker, C. I., M. R. C., relieved from duty at Fort Wadsworth, N. Y., and from temporary duty at Fort Terry, N. Y., to take effect on the arrival at the latter post of Major Chandler P. Robbins, M. C., and will then proceed to Fort Jay, N. Y., for duty, relieving Capt. S. J. Morris, M. C., who on being relieved will return to his proper station, Fort Washington, Md.

Clarke, J. T., and Bratton, T. S., majors, relieved from duty as members of the board of medical officers, appointed to meet at Fort Crook, Neb., and Fort Des Moines, Iowa, respectively, for the purpose of conducting examinations of applicants for appointment to the Medical Reserve Corps.

Wells, F. M., M. R. C., ordered to Fort Leavenworth, Kan., for duty with troops to be ordered to Des Moines, Iowa.

Church, J. R., major, left Fort Robinson, Neb., with troops on practice march.

Smith, A. M., major, ordered to Presidio of Monterey, Cal., for duty.

Gunckel, G. I., dental surgeon, ordered to Fort Oglethorpe, Ga., for one month.

Medical Corps of the Navy

Changes for the week ended August 14, 1909:

Rodman, S. S., commissioned surgeon, with rank of lieutenant, commander, from Dec. 11, 1908.

Peck, A. E., commissioned surgeon, with rank of lieutenant, commander, from June 12, 1909.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

HISTORY OF THE LEUCOCYTE MIGRATION

To the Editor:—Who first saw the emigration of leucocytes through the capillaries, or stated that the polymorphonuclear cells of inflammatory exudates were emigrated from the blood-vessels?

LUDWIG F. GULDNER, Davenport, Iowa.

ANSWER.—Adami, in his monograph on "Inflammation" (Macmillan and Co., 1907) gives the history of this discovery as follows: "By his researches, Cohnheim (1867) forcibly attracted the attention of pathologists to the diapedesis of leucocytes in inflammation—a process which had already been very clearly described years before by W. Addison (1843) and Waller (1846) in England, and yet earlier (though without grasp of the connection between the diapedesis and inflammation) by Dutrochet (1828) in France."

FLECHSIG TREATMENT OF EPILEPSY

To the Editor:—In THE JOURNAL, August 7, page 494, is a paragraph in which is mentioned the Flechsigs opium-bromid and baths method of treatment. Please give the details.

J. H. REED, M.D., Sharon, Pa.

ANSWER.—We have received several similar letters asking for details of this method of treatment, concerning the merits of which the various authorities on nervous and mental diseases disagree. The treatment is practically abandoned now, on account of the little benefit obtained in comparison with the dangers run. The Flechsigs method is to administer opium for a short time in enormous doses, then to stop it abruptly and follow with large doses of bromids. Ordinary pulvis opii is administered in ascending doses up to 0.3 gm. (5 gr.) three times a day, the maximum quantity being reached as soon after the beginning of the administration as possible. The patient is kept on this maximum dose for six weeks; at the end of that time the opium is stopped abruptly and bromid of potassium or sodium to the quantity of 2 drams daily is given. After a few weeks, varying according to the evidences of bromism produced, the quantity is reduced one-half, and later may be diminished to 30 or 40 grains, and in some cases even less than this in the twenty-four hours. The opium is regarded as a preparation for the bromid treatment. Flechsigs warns that the patient should be watched throughout the course of opium administration as one suffering from an acute disease.

H. A. Hare in the 1907 edition of his "Practical Therapeutics" states that the frequency and severity of the fits are materially reduced in this way for several months in some cases but that it does not cause a cure. It succeeds best in old cases and is not useful in recent ones. In the 1901 edition of his "System of Practical Therapeutics" he says: "After a year or two, if the attacks