THE FOUNDERS AND WORK OF THE PHILADELPHIA NEUROLOGICAL SOCIETY

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It is fitting on an occasion like this which celebrates the thirtieth anniversary of our society, that a record should be made of those who thirty years ago came together to start an organization which has continued as one of the leading factors in the development of neurology in this country. The initial meeting to take into consideration the organization of a neurological society was held in the office of Dr. Charles K. Mills in November, 1883, and was brought together through a call issued by him to a few of those interested in neurology in Philadelphia. Those present at this meeting were Drs. Sinkler, Eskridge, Dercum and Mills.

On December 15, 1883, a meeting was held in the hall of the College of Physicians in response to a call to take into formal consideration the establishment of a Philadelphia Neurological Society. It may be of historical interest to give here the names of the nineteen who were present at this meeting: Drs. Granville L. Angney, Alice Avery, Alice Bennett, Lewis Brinton, A. P. Brubacker, Robert H. Chase, Francis X. Dercum, J. T. Eskridge, Robert A. Given, S. Preston Jones, I. N. Kerlin, James Hendrie Lloyd, Charles K. Mills, George Moorehouse, N. A. Randolph, Edward F. Reichart, D. D. Richardson and Wharton Sinkler. Of the nineteen at least nine (Drs. Sinkler, Eskridge, Moorehouse, Kerlin, Richardson, Jones, Randolph, Given and Angney) have died.

A word or two might be said of some of these. Dr. George Moorehouse is chiefly known to neurologists by his association with Dr. S. Weir Mitchell and Dr. W. W. Keen in their work

on diseases and injuries of the nerves done chiefly at Turner's Lane Hospital, Philadelphia, during the Civil War. Dr. S. Preston Jones who was for many years the first assistant physician at the Pennsylvania Hospital for the Insane, was a well-known alienist and medical jurist. Dr. I. N. Kerlin was the able and energetic superintendent of the Pennsylvania Training School for feeble-minded children at Elwyn, Pa., which institution was brought by him to a high state of efficiency. He was a frequent contributor to psychiatry, especially in its relations to the mentally defective.

Dr. Wharton Sinkler left behind him a name which is dear to all members of this society and one which is respected wherever American neurology is known. He later became the president of the society and of the American Neurological Association. He always took an active interest in our proceedings, as is evidenced by even a casual examination of the minutes of the society. For many years he was one of the most active members of the staff of the Orthopedic Hospital and Infirmary for Nervous Diseases. He was also one of the founders of the Epileptic Hospital and Colony Farm at Oakburn, Chester County, Pa., the development of which owes more to him than to anyone else. In 1903 he was president of the National Association for the Study of Epilepsy and the Care and Treatment of Epileptics. He was the author of important contributions on the subjects of infantile paralysis (anterior poliomyelitis), chorea, epilepsy, and neurasthenia and wrote one of the earliest papers on syringomyelia recorded in this country. The phenomenon usually spoken of as the great toe reflex was first described by him in the *Medical News* for December 1, 1888.

Although he was personally known to only a few of the older members, it is well worth while to recall Dr. J. T. Eskridge, who was the first temporary secretary of the society. Dr. Eskridge was a man of great ambition and powers of work. In a few years he made for himself a reputation as a neurologist in Philadelphia, contributing numerous papers to the neurological, pathological and other societies. Owing to his poor health he went to Colorado, where he remained until the time of his death. Although hampered by ill health his courage never left him and he soon made himself the most prominent man in neurology and

ophthalmology in the Rocky Mountain west, becoming well known as a medical teacher, writer, neurological consultant and medico-legal expert.

The first formal meeting of the Society was held January 28, 1884, in the Hall of the College of Physicians, 13th and Locust Streets, at which time a plan of organization was presented by a committee and adopted by the society. At this meeting Dr. I. N. Kerlin acted as temporary chairman and Dr. Eskridge as temporary secretary.

The first officers of the association in accordance with the recommendations of the organizing committee were Dr. S. Weir Mitchell, president, Dr. Mills and Dr. Kerlin vice-presidents, Dr. Lloyd, secretary, Dr. Brinton, recorder, and Drs. Eskridge, Sinkler, Brubacker and Jones, councillors. The first meeting of the society for scientific work was held February 25th, 1884.

Dr. S. Weir Mitchell accepted the first presidency on the urgent invitation of all those interested in the formation of the society and continued as president for six years. He was usually present at the meetings and contributed valuable material to the society's proceedings. He was looked upon by every member as a guide, councillor and friend and his personal influence did much to promote the society's welfare. Since the death of Dr. Mitchell, January 4, 1914, many memorials of him have been held, his character has been ably delineated by those who knew him best, and the story of his work in science, medicine and general literature has been fully told. The readers are referred to these biographical sketches and analyses for details of the life and character of this great Philadelphian.

From time to time in the proceedings of the society Dr. Mitchell directed attention to those neurological matters which had for him especial interest and which he made particularly his own by numerous contributions to medical literature,—injuries and diseases of the peripheral nerves and physiological conclusions drawn from their study, neurophysiological investigations of various kinds especially those relating to the cerebellum, and the therapeutics of the nervous system. Not infrequently in the society he urged his younger colleagues in their zest for physiological and pathological investigation not to lose sight of the real work of the doctor, which was to relieve suffering and cure

disease. The attention of the society was often directed by him to new clinical types and subjects presenting such features of dramatic interest as allowed both his literary and scientific tendencies full play.¹

Of those who were present at the organization of the Philadelphia Neurological Society three are with us this evening and have places on the scientific program of this celebration. The society has also seen fit to elect them as its chief officers for this anniversary year. They are Drs. Mills, Dercum and Lloyd. From the time of the inception of the society to the present they have been active spirits in promoting its welfare as they have that of American neurology in general. The evidence of this is ample in the society's minutes and in current medical literature.

It is not always best to leave the recounting of the work and merits of those who deserve such recognition until they have passed from among us. It will assuredly not be out of place on the thirtieth anniversary of our society to recall to its members and its friends the neurological work of those of its number who have continued with it during its entire existence and have contributed largely to the advance of neurology.

A study of the bibliography of Dr. Mills shows that in the period between 1875 and 1914 inclusive he made 301 contributions to the literature of the period, all of these with the exception of about a score neurological. Among these were three text-books or treatises, parts of many "systems" concerned with

¹ Among the biographical memoranda relating to Dr. Mitchell are the following:—

At a special meeting of the College of Physicians of Philadelphia, held on the day of Dr. Mitchell's funeral, January 6, 1914, a minute was passed and addresses were made by the president of the college, Dr. James C. Wilson, by Dr. James Tyson, Dr. W. W. Keen and Dr. George E. de Schweinitz. On March 31, 1914, a joint memorial meeting was held at the college by the College of Physicians, the American Philosophical Society, the University of Pennsylvania, the Library Company of Philadelphia, the Jefferson Medical College and the Academy of Natural Sciences, at which addresses were made by the president of the college, by Talcott Williams, Esq., of Columbia University, by Dr. William H. Welch, of Johns Hopkins University, and by Mr. Owen Wister. The above addresses have all appeared in a memorial volume which can be consulted at the principal libraries of Philadelphia and the country at large. Other biographical sketches of Dr. Mitchell have been published, among these one by Dr. Charles K. Mills in the *JOURNAL OF NERVOUS AND MENTAL DISEASE*, Vol. 41, No. 2, 1914; another by Dr. James J. Putnam in the *Boston Medical and Surgical Journal*, Vol. clxx, No. 22, 1914, and others by Dr. Edward Jackson in *Colorado Medicine*, November, 1914, by Dr. Beverley R. Tucker, published by Richard G. Badger, Boston, 1914.

nervous diseases, general medicine, therapeutics, diseases of children and medical jurisprudence and numerous monographs and special articles. A study of his writings shows that they would fall more or less into subjects included under at least five groups, —(1) cerebral, spinal and peripheral localization, (2) cerebral schema and mechanisms, (3) new symptoms, syndromes or types of nervous disease, (4) miscellaneous contributions, clinical, clinico-pathological and medico-legal, and (5) medical biography and history.

In no field of neurology has the work of Dr. Mills been carried further than in that of localization, especially cerebral localization, although a consultation of his writings shows that he has given much attention to the subject in its spinal, plexic and peripheral aspects. So numerous have been the contributions of our president to the subject of cerebral localization that reference can be made in the time at my disposal to only a few.

As early as 1879 he began to record instances of focal disease of the brain with localization phenomena, reporting then a case of tumor with comments indicating the psychic functions of the frontal lobe and callosum.

Dr. Mills early indicated the importance of cerebral fissures, at least certain of the main fissures of the cerebrum, as probable boundaries of functional areas. He recognized more than twenty-five years ago the fact that the motor region was largely in advance of the central fissure, a position now almost universally held especially since the work of Grünbaum and Sherrington on the gorilla. In conjunction with surgeons like Dr. Keen, Dr. Frazier, Dr. Hearn and others he has added to our knowledge of cortical localization as the result of faradic applications to the human cerebrum, such applications having been made with the view of assisting in the more exact circumscription of fields of operation. He demonstrated, among other things, on the human subject the centers for movements of the head and of the head and eyes, for elements in the movements of Darwin's muscles of grief, the widespread diffusion of the representation of movements of the muscles of the jaw and the differences in stimulation required to produce localized movements by electrical excitation, caudad and cephalad of the central fissure. With the writer and Dr. Stewart Rodman, he was I believe the first to

indicate the representation of synergic movements in the cerebellum by stimulation of the human cerebellar cortex.

Dr. Mills postulated the existence of an orientation center (higher cerebral vestibular center) in the temporal lobe and to him is largely due the development of the symptomatology of the parietal lobe, a fact referred to by Bruns of Hanover at the meeting of the seventeenth international congress in London (1913). His work on the physiology of taste and uncinate symptomatology is well known and received recognition from Dr. J. Hughlings Jackson, the pioneer in this field.

The record of one of his cases,—that on the localization of the center for word-hearing through the study of a case with lesions of the superior temporal regions of both hemispheres,—has become classical in the history of the subject of aphasia, but it is not necessary for me to tell the members of this society of his numerous additions to our knowledge of such subjects as aphasia and the cerebral zone of speech, tumors of the brain and of the spinal cord, and cerebellar symptomatology and localization.

Among the most important contributions to cerebral mechanisms and cerebral physiological topography are those which are contained in his expositions of various new schema of the zones and centers of the human cerebrum, and his discussions of the separate localization of the motor and sensory functions in the cerebral cortex, of the subdivisions of the areas of representation of cutaneous and muscular sensibility and of stereognosis, of the subdivisions of the posterior association area of Flechsig which he has designated as the concrete memory field, of emotional expression and its cerebral representation and of the cerebral tonectic apparatus and some of the clinical problems of cerebral tone.

Dr. Mills has contributed his share to the list of new symptoms, symptom complexes and clinical types of nervous disease. To Wilbrand the credit for first calling attention to macular hemianopsia is usually given, but as Dr. W. C. Posey points out, this is due to Dr. Mills (*The Ophthalmic Record*, May, 1908).

What is known as Korsakoff's disease, the combination of alcoholic polyneuritis with special psychic phenomena indicating cerebral involvement, was recognized by Dr. Mills in 1886, some time before the publication of Korsakoff's first paper.

To him we owe the clinical type known as unilateral ascending paralysis due to degeneration of the pyramidal tract. On this subject he published not only his original case, but other papers dealing with different types of both unilateral ascending and unilateral descending paralysis. Still fresh in the memories of our members is his report of the first case of occlusion of the superior cerebellar artery, presented both to this society and to the American Neurological Association (1912). In not a few instances he was among the first to call attention in this country to types of organic nervous disease which had been observed abroad and in some of these cases without knowledge of their previous record. This was true with regard to disseminated sclerosis, he having published a paper embodying the report of a case with necropsy and serial microscopic examination as early as 1879.

A fact brought out in the bibliography of Dr. Mills and by a knowledge obtained from a study of his writings is the wide range of practical subjects which his contributions cover—neurological surgery or surgical neurology, cerebral morphology, vasomotor and trophic affections, hydrophobia, tuberculous meningitis, multiple neuritis, poliomyelitis, myotonia and athetoid spasm, surface thermometry, electro-therapeutics, problems in electrical potential, hypnotism, hysteria, neurasthenia, psycho-therapeutics, mental overwork, massage and Swedish movements, systematized exercises as a therapeutic measure, occupation neuroses, the localization of brain tumors by roentgen-ray exploration, aphasia and its treatment by training, disorders of pantomime, the symptomatology of lenticular lesions, intradural root anastomosis, insanity in children and adults, criminal lunacy and the medico-legal aspects of nervous diseases and of insanity.

The contributions of Dr. Mills to medical biography and history have not been without their interest. Among biographical sketches written by him are one on Benjamin Rush and American psychiatry, one on Isaac Ray, the great alienist and medical jurist, and his recent tribute to his friend of many years, Dr. S. Weir Mitchell. His historical papers include the history of medical jurisprudence in Philadelphia, the history of neurology in Philadelphia from 1874 to 1904, and historical sketches of the Philadelphia Hospital for the Insane and the Philadelphia Alms-

house and Hospital from 1854. One of his favorite recreations is the study of the local history of one of the most interesting sections of Philadelphia which has for its center the place of his birth, the Falls of Schuylkill. The associations of this old village with the history of the University of Pennsylvania and the military history of the neighborhood from colonial times to the end of the Civil War are among his additions to local history. He is a member both of the Pennsylvania Historical Society and of the City History Society of Philadelphia.

Dr. Mills began his teaching at the University of Pennsylvania as early as 1877, his first connection with the University as chief of the clinic for nervous diseases dating back about three years before this time. Subsequently he filled various positions, psychiatric or neurological, until on the retirement of Dr. Wood he was elected to his present position in 1901. In 1892 he was made Professor of Mental Diseases and of Medical Jurisprudence, the latter under what was known as the "George B. Wood Foundation." While he held his professorship of jurisprudence he was for several years dean of the auxiliary faculty of medicine of the University of Pennsylvania. It is interesting in connection with the chairs of mental disease and medical jurisprudence to note in the first place that with the exception of a few cases demonstrated at the Philadelphia Hospital by Dr. D. D. Richardson for Dr. Isaac Ray to illustrate his lectures on mental diseases at the Jefferson Medical School, Dr. Mills' clinical lectures on insanity were the first of the kind ever given in this city and probably in this country and in his chair of mental diseases he gave the first formally organized instruction in psychiatry in the university after the time of Benjamin Rush. He inaugurated the clinical teaching of the medical jurisprudence of insanity and nervous diseases by illustrating his university lectures by the demonstration of cases of medico-legal interest at the Philadelphia Hospital.

It is not as well known as it should be in how many instances Dr. Mills has been the initiator or founder of medical movements of importance both neurological and general. Reference has already been made to the part played by him with others in the foundation and development of this society. His greatest work, not only for neurology, but also for humanity, according not only

to my own estimation, but to that of many others, was the founding of the nervous wards of the Philadelphia General Hospital in 1877, to which he has given unflagging attention and interest from their organization to the present time. His last work to broaden the field of American neurology was the initiation of the movement which has just been consummated to establish a Philadelphia post-graduate school of neurology largely on the basis of the opportunities afforded by these wards which have grown to such proportions that they are now recognized as one of the greatest neurological services in the world.

He was one of the founders of the Philadelphia Polyclinic. He took a prominent part in the movement which resulted in the organization of the Congress of American Physicians and Surgeons in 1888. At its first meeting in Washington in September, 1888, he was one of the four to whom the main addresses at the general meeting were assigned. His address, the subject of which was "Cerebral Localization in its Practical Relations," was published in its entirety, not only in the proceedings of the Congress but also in *Brain*.

Dr. Francis X. Dercum, who with Dr. Mills and Dr. Lloyd had the honor of being one of the founders of this society, from the beginning of his professional career was interested in neurology. He has written altogether 132 papers, 8 parts of text-books or systems, one text-book on nervous diseases and one on insanity. At first he was on the neurological staff of the University of Pennsylvania, becoming chief of the out-patient department of the University Hospital. He was called to fill the chair of nervous and mental diseases in the Jefferson Medical College in 1892, this position being created for him. The manner in which he has conducted this department has made it one of the most important and distinguished of this school. For twenty-five years he was one of the visiting neurologists to the Philadelphia General Hospital, to the reputation of which he has largely contributed. Much of his valuable work has been based on his neurological service in this hospital. He has been connected with many institutions in Philadelphia and its vicinity, having been at various times on the staff of the Pennsylvania Institution for Feeble-Minded Children at Elwyn, the State Hospital for the Insane at Norristown, Pa., the Orthopedic Hospital and Infirmary for Nervous Diseases of Philadelphia, St. Agnes Hos-

pital, the Jewish Hospital, the Hospital for the Chronic Insane at Wernersville, etc. He was the third president of this society and has been president of the American Neurological Association and the Philadelphia Psychiatric Society. He is the present chairman of the Section of Nervous and Mental Diseases of the American Medical Association. He is one of the few American corresponding members of the Neurological Society of Paris and the Neurological and Psychiatric Societies of Vienna and a member of the Royal Medical Society of Budapest.

An analysis of Dr. Dercum's bibliography shows that his papers divide themselves into certain groups. Early in his career he became much interested in anatomical and morphological research. His first paper in 1878 on the "Sensory Organs, Suggestions with a View to Generalization," embraced localizations in regard to morphology which were later formulated by Haeckel.

In a paper on the "Morphology of the Semi-circular Canals" (1879), Dr. Dercum pointed out that these structures were in all probability evolved from the lateral line system of a remote aquatic ancestor by the involution of dermal structures, a view which was subsequently adopted by other biologists. In an investigation on the lateral line system of fishes, he pointed out that the nerve hills in this apparatus had a structure identical with that of the macula acustica and that the lateral line system was a sensory apparatus like that of the semi-circular canals and was adapted to receiving coarse wave impressions, the waves in this instance having a lower rate than that of sound vibrations.

Later came papers by Dr. Dercum on the "Morphology of the Brain in Epileptics" and "Studies in Criminal and Racial Morphology."

Especially interesting were some of his findings as regards the transition convolutions between the occipital and parietal lobes in some cases of arrested development and in the brain of a murderer. Some of the anatomical conditions were as he pointed out comparable to those met with in the higher apes.

In 1884 Dr. Dercum described in connection with Dr. A. J. Parker² convulsive seizures which could be induced by artificial means, demonstrations of convulsions so induced being subsequently made at a meeting of the Philadelphia Neurological Society at the request of the president, Dr. S. Weir Mitchell.

² The contributions of Dr. Parker to cerebral morphology have been described at length in the presidential address this evening.

A full account of the character of these seizures and of the method of their production was published in the *JOURNAL OF NERVOUS AND MENTAL DISEASE* in 1884. About this time (1884) Edward Muybridge was conducting his epochmaking investigations by his method of successive instantaneous photographs of animals in motion. Mr. Muybridge seized the opportunity of making photographs of a subject in these artificially induced convulsions. These pictures have since become historic, this being the first time in which photographs were made of a person in convulsions.

At about the same time Dr. Dercum took part with Mr. Muybridge in the extensive investigation conducted at the University of Pennsylvania of animal locomotion by means of instantaneous photography. These included the study of normal and pathological human gaits and various manifestations of disease. The results were published by the University in a book on "Animal Locomotion," in 1888. This volume included a chapter by Dr. Harrison Allen on the locomotion of animals as illustrated by instantaneous photography and another by Dr. Dercum on locomotion in man, normal and pathological. The Muybridge studies are interesting not only because of the results achieved at the time, but because they were the forerunners of the modern moving pictures.

Dr. Dercum has always had a marked interest in the functional side of neurology. This is evidenced by the large number of papers he has published on functional disorders, especially on hysteria and neurasthenia, and in the last few years in psychoanalysis; although it is not to be understood that Dr. Dercum by any means favors Freudian psychology, he being, in fact, one of its most determined opponents. In 1903 he published a treatise on "Rest, Mental Therapeutics and Suggestion," this being one of the first to contain in the English language a comprehensive consideration of psychotherapy.

Dr. Dercum has written on practically every phase of mental disease. It is interesting to note in connection with the subject of his address this evening on "Nervous and Mental Diseases and the Newer Pathology," that as early as 1885 he advocated a theory of the toxic origin of mental disease. In 1901 he advanced a clinical classification of insanity which has since in large measure been adopted. In 1902 he published a paper on "Hypochondria"

in which he delimited this neurosis and pointed out its differentiation from the other great neuroses,—neurasthenia and hysteria. Dementia præcox has received his attention in various contributions of unusual value. During the present year (1914) he has given the profession an excellent text-book on mental disease which embodies the results of his experience in practice, in teaching, and in the study of current medical literature.

Allied with his interest in mental diseases has been his work on different forms of dystrophy, especially in regard to the ductless glands. One of his earliest papers concerned itself with myxedema. Few if any have contributed more of value to our knowledge of scleroderma, acromegaly, cretinism, primary neurotic atrophy and the different types of obesity.

In 1888 he described under the title of "A Subcutaneous Connective Tissue Dystrophy" a new symptom group to which he subsequently in 1892 gave the name of *Adiposis Dolorosa*, publishing the first case with necropsy in 1900. Many articles on the same subject in which full credit has been given to the original observation have appeared during the last twenty years.

To clinical neurology, to cerebral and spinal localization, and to the surgery of the nervous system Dr. Dercum's contributions have been numerous and important.

In 1889 he reported with Dr. J. William White two cases of spinal surgery, in one of which complete recovery from paraplegia ensued after operation for a localized serous meningitis, this being one of the earliest of the successfully reported cases and in 1894 he reported with Dr. W. W. Keen two cases of in-gravescent cerebral hemorrhage treated by the rare operation for this affection,—ligation of the common carotid artery.

The early development of optic neuritis in cerebellar lesions; lead poisoning with special chemical investigation; Wernicke's pupillary reaction in a case of pulvinar disease; colloid implication of the blood vessels of the spinal cord; metastasis of the thyroid gland to the spinal column—these are a few of the numerous neurological papers by Dr. Dercum worthy of special mention.

As early as 1886 Dr. Dercum wrote a paper entitled "Facts and Deductions Bearing Upon the Action of the Nervous System," this containing many views recently advocated by Crile of Cleveland. In 1896 he advanced a theory of neuronie action,

according to which the terminations of the collaterals, dendrites and neuroaxons of nerve cells had the property under stimuli of retracting or extending, thus separating or uniting with other nerve cells.

In recent years, Dr. Dercum in his writings on aphasia has ably espoused the views of Marie, in this connection reporting many cases with necropsy.

As a medical jurist Dr. Dercum's reputation is more than local, his contributions to legal medicine being widely known and quoted.

James Hendrie Lloyd, from 1881 up to the present has written 100 papers, 12 special articles or treatises in different systems or text-books, and one book on the medical jurisprudence of insanity.

Dr. Lloyd has by no means confined his energies to neurology, he being one of the most scholarly physicians in Philadelphia. For several years he was the able editor of the Philadelphia Medical Journal, now incorporated with the New York Medical Journal.

Dr. Lloyd has been on the neurological staff of the Philadelphia General Hospital, with the exception of two brief intervals, since 1887. He has long been a member of the medical board of the Training School for the Feeble-Minded at Elwyn, Pa., and of the Hospital for the Chronic Insane at Wernersville, Pa. He founded the neurological service at the Methodist Episcopal Hospital of Philadelphia. He was the fifth president of the Philadelphia Neurological Society and was president of the American Neurological Association in 1889.

In cerebral localization the work of Dr. Lloyd has been conspicuous. In 1888 he published a paper with Dr. J. B. Deaver on trephining in focal epilepsy, one of the earliest articles based upon physiological cortical experimentation. The cortex was exposed and certain motor centers located by faradic stimulation. In 1888 another paper with Dr. Deaver was based upon the application of the principles of localization to spinal surgery.

His bibliography shows that Dr. Lloyd has contributed largely to the symptomatology of brain and spinal cord tumors. In 1885 he published with Dr. Mills monographic articles on tumors of the brain and of the spinal cord in Pepper's System of Medicine, this being one of the earliest contributions on the modern aspects of this subject.

Among other notable neurological contributions of Dr. Lloyd are those on diseases of occupation and diseases of cerebrospinal and sympathetic nerves, published in the *Twentieth Century Practice of Medicine* in 1895 and 1897 respectively; porencephalon; cerebral decompression; the X-ray localization of brain tumors; the surgery of the brain in pituitary disease and the changes in the spinal cord due to pernicious anemia.

In the discussion of the subject of aphasia Dr. Lloyd has taken the ground that both sensory and motor defects are found in so-called motor aphasia and in general he has antagonized the views of the extreme localizationists.

A case of syringomyelia with complete microscopic study was early recorded by Dr. Lloyd, and among his most valuable contributions are those on the traumatic affections of the cervical region of the spinal cord simulating this disease. With Dr. Ludlum, in a paper on primary lateral sclerosis, he advocated the view that this disease is a clinical entity and that it is frequently due to syphilis.

The medical jurisprudence of both insanity and of nervous diseases has been enriched by the pen of Dr. Lloyd. His treatise on "Insanity; Its Various Forms and Its Medico-Legal Aspects" in Wharton and Stille's *Medical jurisprudence*, Vol. 31, 5th edition, is the most valuable work on the subject since the treatise of Ray.

Among the many noteworthy papers Dr. Lloyd has published on mental diseases is that on the metaphysical conception of insanity as shown in the terminology of psychiatry (1904). Others by him are those on faith cures (1886), hysteria (1883), moral insanity (1886) and the Œdipus complex in Hamlet (1911). Psychoanalysis as advocated by him is not of the Freudian school.

It would be unjust in reviewing the work of Dr. Lloyd not to refer to the unusual value of his contributions from the standpoint of scholarship and literary merit as well as from their scientific aspects. The charm of his style and his enthusiasm in presentation have never failed to awaken and fix the attention of the society.

The Philadelphia Neurological Society was the second of local neurological societies in this country. The New York Neurological Society was founded in 1872. In Boston in 1880 a society was founded which was at first known as the Boston

Medico-Psychological Society. This was not in name or scope a strictly neurological organization. It became known later as the Society of Psychiatry and Neurology under which designation it still flourishes. The Chicago Neurological Society was founded in 1894, and other societies in St. Louis, Baltimore and elsewhere were organized at later periods. The American Neurological Association was founded in 1875.

At the twentieth anniversary of the founding of the Society, held in January of 1904, Dr. Mills read an address on Neurology in Philadelphia from 1874 to 1904. In this paper he gave a résumé of the work of the society during the first twenty years of its existence which I might be permitted to quote in this connection.

"During the twenty years of the existence of the Philadelphia Neurological Society 616 contributions to its proceedings have been made. The presentation of a list of these contributions would probably serve no useful purpose except to show the interest and industry which have characterized the society during its life of two decades. A tabular analysis of these contributions may be of some value as giving a general idea of the work done. A list of the contributions was prepared under my direction by Dr. J. W. McConnell and Dr. T. H. Weisenburg. I have found it somewhat difficult to group these contributions under a few heads, but with the list before me and with a personal knowledge of the work of the society, from whose meetings I have been absent less than a dozen times since its foundation, I have arranged these contributions to the proceedings under the four heads of (1) formal papers; (2) minor scientific contributions; (3) cases reported and patients presented; and (4) pathological specimens and special pathological reports. Under formal parts have been classed all contributions important in their quality or length or in both; under minor scientific contributions have been included notes on special matters often of much value, such as those referring to new instruments or methods of investigation, new drugs or therapeutic measures, and new observations in symptomatology; under cases reported and patients presented have been grouped not only patients actually presented to the society, but also cases and sets of cases reported from time to time without presentation of the patients; and under pathological specimens and special pathological reports have, of course, been

classed the numerous specimens with and without special reports so frequently exhibited at the meetings of the Society. Thus classified, the 616 contributions to the Society's proceedings during the twenty years have been as follows: Formal papers, 244; minor scientific contributions, 39; cases reported and patients presented, 229; and pathological specimens and special pathological reports, 104; total 616.

"A study of this wealth of material shows that scarcely anything has been brought before the society which has not had some interest, and that some articles of great importance, and a few that may be classed as among the most valuable contributions to neurology during the last twenty years are to be found. During the twenty years about 140 meetings of the society have been held, so that the average number of contributions at each meeting would be between four and five.

"It is difficult to single out particular contributions from a society's proceedings of two decades for special mention, but a few of the most important of these are S. Weir Mitchell's edema in hysterical hemiplegia (1884); Dercum and Parker's paper on the artificial production of a hysterical state with convulsive manifestations (1884); the nuclear anatomy of the nerves which supply the muscles of the eyeball, by E. C. Spitzka (1888); Lloyd's traumatic affections of the cervical region of the spinal cord simulating syringomyelia (1894); a case of merycismus, by Riesman (1895); experimental lesions of the cortical tissues of the rabbit's brain induced by alcoholic poisoning, by Berkley (1896); gliosis cerebri, by Sailer (1897); J. K. Mitchell's headache with visual hallucinations (1897); the report by E. Lindon Mellus of original investigations on motor tracts in the brain and cord (1898); and Spiller's Pepper Laboratory contribution on a case of amyotrophic lateral sclerosis showing the extent of the motor cortex in man (1899)."

Following the plan of enumeration used by Dr. Mills in recording the work of the first twenty years of the society, an examination of the minutes of the scientific proceedings shows that during the last decade 568 contributions have been made. This record indicates that while during the first twenty years the average number of contributions for the year was about thirty or in the seven monthly meetings between four or five for each, in the last ten years the average almost doubled, being annually 56

or about 8 for each meeting. The analysis of these 568 contributions shows that 153 were formal papers, 14 were minor scientific contributions, 370 were cases reported and patients presented, and 31 were pathological specimens and special pathological reports. While the number has increased their value has not diminished.

During the last decade several important symposia and special meetings have been held. The first of these was a combined meeting of the society with the New York Neurological Society on November 24, 1906. At this meeting cases which had been chosen because of their unusual interest were shown by Drs. Burr, McConnell, Mitchell, Rhein, Gordon and Weisenburg, and an important paper was read by Dr. Spiller on "Psychasthenic Attacks Simulating Epilepsy." Dr. H. S. Fraenkel of Berne, Switzerland, was present and discussed several of the papers, especially that on tabes, giving particular attention to an exposition of his methods of treating ataxia by systematic exercise. The presentation of these cases preceded the main topic of the symposium which was a consideration of Marie's views of aphasia, which was discussed by Drs. Mills, Dercum, and Lloyd and by Drs. E. D. Fisher and M. Allen Starr of New York and Fraenkel of Berne.

On March 26, 1909, the distinguished bacteriologist of the Rockefeller Institute, Dr. Hideyo Noguchi, enlightened the society with a valuable demonstration of a new and simple system of the complement fixation test, and of the butyric acid test for syphilis and parasyphilitic affections.

A second combined meeting of the New York and Philadelphia Neurological Societies was held in Philadelphia, December 18, 1909, at which, in the first place, a series of cases was shown by Drs. Potts, Mitchell, McConnell, Dercum and Allen. In the second place, Drs. Spiller and Frazier contributed a paper with illustrative cases on the treatment of spasticity by resection of the posterior spinal roots and another article was contributed by Dr. Frazier on division of the auditory nerve for persistent vertigo and tinnitus. Dr. Mills introduced the special subject for discussion which was the clinical study of changes in sensibility due to organic and functional disease, especially with reference to the methods of testing. This paper was discussed by visiting members from New York and some of the members of the society.

On February 24, 1911, Dr. Sidney I. Schwab of St. Louis opened a discussion on the Freudian theories of the neuroses by an instructive paper entitled "An Estimate of Freud's Theory of the Neuroses and Its Value to the Neurologist."

A special meeting of the Neurological Society was held on Friday, November 10, 1911, in honor of the Congress of Clinical Surgeons of North America. At this meeting the following program was presented:

Dr. Hugh T. Patrick of Chicago: "The Technique and Results of Deep Injections of Alcohol for Tic Douloureux." Dr. Harvey Cushing of Baltimore: "Some Clinical Types of Disordered Function of the Pituitary Body," Dr. A. R. Allen of Philadelphia: "Operative Treatment of Experimental Lesion of the Spinal Cord Equivalent to the Crush Injury of Fracture Dislocation of the Spinal Column."

On February 27, 1914, at a special meeting for the discussion of aphasia papers were presented by Drs. Mills, Dercum, Burr, Lloyd, Rhein, Spiller and Weisenburg. The older or classical views of aphasia, Liepmann's doctrine of apraxia, the relations of aphasia to mental disorders and the special significance of anarthria were leading subjects of discussion, and Dr. Spiller presented specimens from the Laboratory of Neuropathology of the University of Pennsylvania showing lesions causing aphasia situated at various positions in Wernicke's zone, the lenticular zone and Broca's convolution.

The papers and discussions of all the symposia referred to were of a high order. The society held special return meetings in New York and Boston in combination with the New York Neurological Society and the Boston Society of Psychology and Neurology.

Time will not permit me to review in detail the contributions of individual members of the society to some of which however I would like to make brief reference. There is no doubt that in some instances the omissions will be quite as important as the inclusions; indeed I have found it difficult to discriminate as to what should be recalled, owing to the wealth of material at my disposal.

Dr. William Pickett, whose loss is sadly remembered by the society, shortly before his death presented several careful psychiatric and neurological contributions, including an elaborate

statistical and general study of puerperal insanity based on work at the Philadelphia Hospital for the Insane.

Dr. John K. Mitchell among other valuable contributions gave to the society studies of some phases of tabes and recorded a number of cases of much diagnostic and therapeutic importance.

Dr. C. W. Burr in this period of ten years has presented besides several formal papers a series of instructive and in some instances unique cases, among which were cases of epilepsy with myoclonus, paralysis agitans in the negro, tetany involving one side of the body, and mirror writing.

The variety and value of the contributions to the proceedings of our society by Dr. William G. Spiller are such that it is difficult to properly recognize these in a brief retrospect. Twenty-five papers and twenty cases were presented by him during the last decade, he contributing also numerous pathological specimens.

A few among his formal papers of special interest were those on multiple motor neuritis (with Dr. Longcope), the clinical resemblance of cerebro-spinal syphilis to disseminated sclerosis (with Dr. C. D. Camp), the syphilitic form of multiple sclerosis, dissociation of sensation in pontine lesions, the treatment of spasticity by resection of the posterior spinal roots (with Dr. Frazier), and traumatic brachial neuritis, probably caused by tearing off the nerve roots; while among the interesting cases which he presented were one of polioencephalitis superior and inferior involving the corpora quadrigemina, one with bilateral spasticity and athetoid movements, one of hemicraniosis, and one of dystonia musculorum deformans.

Notable among the contributions of Dr. C. S. Potts have been those on pseudo-sclerosis (with Dr. Spiller), and cases of traumatic cervical hematomyelia, periodic paralysis, tic of the tongue, and encephalitis due to gasoline poisoning.

Dr. D. J. McCarthy, from his rich experience at the Phipps Institute and elsewhere, contributed to our proceedings papers and cases dealing with the various phases of tuberculous involvement of the nervous system and other contributions by him worthy of note were on ascending paralysis, psychoanalysis considered apart from the Freud concept, and the hemosiderin infiltration of the wandering cells of the pia-arachnoid, the last presenting a subject of rare interest.

Instructive and interesting cases were presented by Dr. J. W.

McConnell including a case of postero-lateral sclerosis with involvement of the cells of the anterior horns, one of voluntary monolateral ocular movement, and one of aphasia and apraxia with unusual associated movements. A specimen exhibited by him showing the limitation of the face area in the human cortex was a distinctly valuable contribution to accurate cerebral localization.

The list of contributions by Dr. Alfred Reginald Allen includes annular degenerations of the spinal cord, the distribution of the sixth cervical anterior root in the cervical spinal cord, and a symptom-complex of transverse lesion of the spinal cord and its relation to structural changes therein. His presidential address on psychoanalysis in June, 1912, will also be especially recalled.

Dr. John H. Rhein's paper discussing apraxia in relation to aphasia will be remembered by members of the society as one of the most valuable contributions to the subject to which Liepmann has given so much attention. This article since its publication has been much cited both here and abroad. A paper by Dr. Rhein on spastic paraplegia is also worthy of special note, and his list of cases presented illustrated a variety of interesting or unusual clinical types.

The presidential address of Dr. George E. Price, June 23, 1914, on a "Sixteenth Century Paranoiac" was as entertaining as it was instructive and represented work in a field not much tillied by members of the society. To Dr. Price the society also owes the discussion of two forms of familial disease—one of migraine in a large family associated with unusual sensory disturbances, and the other, spinal gliosis occurring in three members of the same family.

Papers by Dr. S. D. Ludlum on neurofibrillary changes, on regeneration of the peripheral nerves and various serological contributions in collaboration with Dr. E. P. Corson-White, have greatly enhanced the value of our proceedings.

Worthy of particular mention are the papers and cases of Dr. Williams B. Cadwalader on a case of segmental astereognosis resulting from a lesion of the parietal area, the pathology of acute anterior poliomyelitis, a case of unilateral optic atrophy and contralateral hemiplegia consequent upon an apoplectic attack, and pituitary and uncinate symptoms and lesions (with Dr. Mills).

The contributions of Dr. S. D. Ingham include encephalitis with a report of two cases with necropsy, and a case of cerebro-spinal syphilis with internal hydrocephalus causing symptoms of cerebellar tumor.

The record of cases of unusual interest in some instances is so large and has been added to by so many members of the society that it is difficult to make any discriminating reference to them. Dr. Alfred Gordon, for example, among other cases and contributions has reported a specially instructive case of neurofibromatosis, several cases of myotonia congenita, a series illustrating unilateral ascending and descending paralysis, bulbar palsy with total aphemia, a neuritic form of syringomyelia, and a case of hemiplegia with hemiatonia probably due to lenticular lesion. To Dr. Samuel Leopold the society owes the presentation of specimens of osseous plaques of the spinal pia-arachnoid with a discussion of their relations to pain in acromegaly, and cases of unilateral cauda-equina lesion.

Dr. N. S. Yawger's contributions on indurative headache and colloid bodies in the central nervous system will be especially remembered, the first involving consideration of a therapeutic measure of great value and the second as of much pathological interest.

The physiology of the cerebro-spinal fluid as a problem in intracranial surgery by Dr. Chas. H. Frazier was a comprehensive and excellent study of the nature and functions of the cerebro-spinal fluid.

Among the contributions of Dr. C. D. Camp, now clinical professor of neurology in the University of Michigan, were pre-eminently, a study of six cases of paralysis agitans and another paper on multiple sarcomata of the brain and cord (in collaboration with Dr. Burr). He also brought before the society a variety of cases, all of particular interest.

To two of our out-of-town members, Dr. Tom A. Williams, of Washington, and Dr. C. M. Byrnes, of Baltimore, the society is indebted. Among the interesting cases presented by the former should be mentioned variable migrainous recurrent paralyzes followed by permanent lateral homonymous hemianopsia, cerebellar disease and bulbar thrombosis resulting from malaria, and interesting cases in which the value of psychoanalysis was dem-

onstrated. Two important contributions of Dr. Byrnes embodied an interesting description of a new instrument and method of directly injecting the gasserian ganglion for the relief of pain in tic douloureux and an account of a new method of injecting mercury directly into the spinal canal for the treatment of syphilis.