laryngeal involvement and slight difficulty in swallowing. This patient greatly improved, but she still has marked facial paralysis and loss of control of the ocular movements with diplopia.

Dr. Andrew H. Woods presented a paper with the title "Segmental Distribution of Fifth Nerve. Two Case Reports."

Dr. William G. Spiller said the subject of the distribution of the branches of the trigeminal nerve had been of interest to him for many years. The cavity in Dr. Woods' case did not go into the pons and yet there was a loss of pain and temperature sensations in the forehead, which would seem to confirm the view that the upper branch of the trigeminal nerve has the lowest representation in the spinal fifth root. From several investigations, experimental and others, which Dr. Spiller had helped to carry on, he believed that the peripheral branches of the trigeminal nerve are sharply represented in the Gasserian ganglion, and to a considerable degree also in the spinal root of the fifth nerve. Dr. Spiller agreed with Dr. Woods that the spinal root of the fifth nerve contains merely pain and temperature fibers and that the tactile fibers decussate very soon after entering the pons and brain.

Dr. Charles K. Mills said that he could corroborate what Dr. Woods had brought out. Studies of this kind backed up by necropsy were of course of the greatest importance. Dr. Mills agreed with Dr. Spiller in the view that in the Gasserian ganglion there was a separation of the representation of the roots of the three divisions of the fifth nerve. In the same way the nucleus and sensory root would be separated into several parts. When the Gasserian ganglion is thought to have been extirpated by the surgeon this is not always the case. It is only rarely fully extirpated. When the sensory root of the fifth is thought to be entirely cut this also is not always the case. His statements were borne out by some investigations of anesthesia after operation which he had made, when a portion of the Gasserian ganglion was not extirpated, and a part of the sensory root was not cut it would usually be found that the second branch, or rather the portions of the Gasserian ganglion or sensory root related to this branch, had been successfully operated. In conclusion Dr. Mills said that he wished to congratulate Dr. Woods on his excellent work. His going to the orient would remove from Philadelphia and the University one of its best neurological workers, but what would be our loss would be China's gain.

PRIMARY DEGENERATION OF THE PYRAMIDAL TRACT

By Alfred Gordon, M.D.

After a historical review of the subject Dr. Gordon pointed out the fact that there are very few records in the literature showing a degenerative condition strictly limited to the pyramidal tracts. In the majority of cases the posterior columns and direct cerebellar tracts, also cells of the anterior cornua are involved. Alongside the rare cases Dr. Gordon places his own, which corresponds to the clinical picture of spastic paraplegia, as described by Erb and Charcot. Pathologically an exclusive involvement of the crossed pyramidal tracts was found. No trace of a lesion was found in any other tract of the cord, medulla, peduncles or internal capsule. A careful search for a diseased condition of the cells through the entire cerebro-spinal axis was equally negative. The degeneration

was observed only in the crossed pyramidal tracts in the entire cord and its upper limit was at the level of the decussation in the uppermost segment of the cervical portion. Clinically the patient presented a typical picture of spastic paraplegia of 20 years' duration. Dr. Gordon discussed the pathogenesis of the affection and arrived at the conclusion that very probably the disease belongs to the abiotrophies on the order of Friedreich's ataxia, syringomyelia and others. An interesting etiological element in Dr. Gordon's case is the history of a persistent and prolonged exposure to cold. The patient worked in an ice plant since the age of 12 and at 16 the first symptoms made their appearance. He died at 34.

CHICAGO NEUROLOGICAL SOCIETY

December 20, 1911

PRESENTATION OF A HISTORY AND A BRAIN OF A CASE OF HYPOPHYSEAL DISEASE

By Geo. McBean, M.D.

Miss S. E. K. Age 36. Refused to give history as it might prejudice diagnosis.

Condition March 14, 1910. Height 5 feet 10 inches, weight 160 pounds. Eyes rather prominent, left pupil larger than right. Right eye convergent, outward rotation limited. Vision right 10/10, left 8/10. Some metamorphosis in both eyes. Choked disc + 1 D right, + 2 D left. Fields slightly contracted, color fields partly overlapping, natural blind spot slightly enlarged. Post nasal examination shows small polypus in right nares coming from interior of sphenoidal sinus, which was found diseased, a tentative diagnosis of optic neuritis secondary to nasal sinus disease with paresis of the right external rectus muscle, an operation advised.

March 16 at operation the sphenoidal sinus was found packed with polypoid mass, curetted, and examined. Considered carcinoma and granuloma by different men. Vision and diplopia much improved. After making the diagnosis the patient gave the history which had been previously refused. She had had amenorrhea for eight years without apparent cause, and had gained about fifty pounds in the first year. About August, 1909, she had had an acute rhinitis, and all the symptoms had apparently dated from that time. The diplopia of recent development was the most annoying symptom. There was history of frequent, transitory glandular enlargements in various parts of the body, especially the axillæ. There was also a transient, non-inflammatory edema of the ocular conjunctiva which appeared occasionally and lasted a few hours. Within three weeks after the operation the sinus began to fill up again. Drs. Shambaugh, Brown, Fish and Lewy in consultation urged further operative measures, which were refused. November 18, 1910, patient showed a paracentral scotoma in the left eye, vision r. 6/10, l. 6/5. Mass was projecting from the open sphenoidal sinus. Patient went to California. In June, 1911, patient consulted a physician for severe headaches accompanied by mental disturbances, transitory loss of memory, and increasing blindness. K. I. had a remarkable effect, clearing up the pain at once. February 21 Dr. McBean had a Wassermann test made which was reported moderately positive and the patient was put on larger doses