

*Stated Meeting, held at the New York Academy of Medicine,  
Tuesday evening, November 7th, 1893.*

Dr. B. SACHS, Vice-president, in the Chair.

DEMONSTRATION OF THE NEW METHOD OF  
BEVAN LEWIS FOR STAINING THE COR-  
TEX.

By Dr. IRA VAN GIESEN. The speaker stated that, notwithstanding our increased knowledge of the structure of the brain cortex, we are still very much in the dark as regards its finer pathology, for the simple reason that we have not had at our command a satisfactory method to show the finer details of the cortex, and especially the ganglion cells. The ordinary method of examining the brain by Müller's fluid, and subsequent staining by the various dyes, is open to many objections. By this method we gain no knowledge of the finer processes of the ganglion cells or their structure. We can very well imagine, in the light of the wonderful recent advances in cortical histology, due to Golgi's methods, the existence of a number of processes in the cortex of the greatest etiological importance that are entirely hidden from our view by the Müller fluid hardening and ordinary staining. Numerous artificial products arise, attending the hardening process. In staining, after Müller's fluid hardening, we have no view of the ramifications of the nerve cell; we merely see the cell body. It also induces a change in the volume of the ganglion cells, and, all things taken together, the method is crude when we are searching for any of the finer changes in the cortex, such as we would be led to expect in chorea, epilepsy, etc.

The new method of Bevan Lewis for staining the cortex is certainly free from these disadvantages. This excellent method has received a very tardy recognition. It is quite simple, and does not require much time. Frozen sections of the fresh brain are placed for a few seconds in a solution of osmic acid (one-quarter of one per cent.); they are then rinsed in water and stained with aniline blue-black (one-quarter of one per cent. solution), and again rinsed; they are then allowed to dry on the slide over night. In a section prepared in this way the ganglion cells are free from artificial products, there is no shrinking, and we get a very much

better preserved picture than by Müller's process. The cells are very perfect. Within the past year or two the process of freezing the sections has been much facilitated by the use of carbonic acid gas and the freezing microtome. (See article by Dr. Frank B. Mallory, *Boston Medical and Surgical Journal*, January 26, 1893.) By this process we can freeze a convolution of the brain in three-quarters of a minute. The sections are cut off with an ordinary carpenter's plane.

Dr. VAN GIESEN exhibited a number of microscopical sections of the brain cortex, stained by the method of Bevan Lewis. He stated that the literature on this subject can be found in the *American Journal of Insanity* for July, 1892.

Dr. EDWARD D. FISHER read a paper on

#### ANOMALOUS CASES OF GENERAL PARESIS.

(See page 822.)

#### THE RELATION OF SYPHILIS TO GENERAL PARESIS.

##### DISCUSSION.

Dr. FREDERICK PETERSON opened the discussion by reading a paper on this subject. He stated that the question of the position taken by syphilis in the etiology of dementia paralytica is one that has been attracting great attention among syphilologists and alienists of late years. No fewer than seventy authors have contributed to the elucidation of this problem. The majority of these contributions treat of the subject from a statistical standpoint, and it would seem that sufficient data have been collected to fully satisfy all inquiries regarding that particular. Naturally, the first point upon which precise information was needed was as to the percentage of cases of general paralysis with a history of syphilis, and we are now in a position to supply it fully. Although these statistics differ very materially at times, yet the results in the main agree. The figures range from as low as 13 per cent. to as high as 88 per cent. Kjellberg has taken the stand that all cases of general paralysis are of syphilitic origin; that the cases are affected either congenitally or through acquisition. This author stands quite alone in his assertion, which is not justified by observation or facts.

Dr. Peterson said his own statistics on that point are rather questionable, as are all obtained from large