fact that there are often in the patient's family persons who have that or some other neurosis; that is, some other nervous affection of which there is no morbid anatomy. Why is it that we speak with most confidence of the inheritance and interchangeability of those very diseases of which there is no morbid anatomy? The occurrence of these neuroses cannot be adduced as evidence that epilepsy is a disease primarily nervous. I wish to put forward, again, another hypothesis; viz., that the cells suffer secondarily, as a consequence of arterial disease; that there is thrombosis or embolism of small arteries in most cases of epilepsy proper. I have held this opinion since 1864, as regards those epileptiform seizures in which there were no signs of gross organic disease. It first occurred to me on finding epileptiform seizures in patients who had valvular disease of the heart. I have since applied it to epilepsy proper. It may be said, "Your statement is only an hypothesis". So is any other view which can be taken of a disease of which there is no morbid anatomy.

REPORT ON THE ATTACK OF DIPHTHERIA IN THE GRAND DUCAL FAMILY OF HESSE-DARMSTADT.*

By DR. EIGENBRODT,

Physician-in-Ordinary to the Grand Ducal Family, Darmstadt.

II.—THE CAUSATION OF THE OUTBREAK.

HAVING spoken of the previous throat-affections of the members of the Grand Ducal family during the last four years, I now proceed to some remarks on the etiology of the outbreak of diphtheria.

Although Princess Victoria has been good enough to write down for me the names of all the persons with whom she had spoken on the days preceding the outbreak of the disease, I have not succeeded up to the present in finding that any of these persons or their relations had been ill. However, their number is so considerable, and my time so pressed in consequence of professional duties, that it has not been possible up to the present to carry out these investigations in such a way as I should have wished.

Professor Oertel having mentioned, in the JOURNAL for January 11th, a series of facts which militate against the idea of an autochthonous origin of the epidemic, I will now simply refer to his remarks without repeating them.

The hypothesis that Princess Victoria was infected by a slight case has become still more probable to my mind, in consequence of continued investigations. It does not yet appear to be generally known in the profession that diphtheria sometimes appears in so slight a form that the patients suffering from the affection do not feel themselves really ill, but merely indisposed; and that, consequently, they have no occasion to interrupt their usual occupations. I therefore would like to suggest that such cases, which generally escape medical observation, should be published, if some fortunate accident should afford the opportunity of recording them. It might be interesting, perhaps, to learn that I had the opportunity of observing here two such slight cases during and shortly after the epidemic in the Grand Ducal family, the patients not having had any intercourse with the New Palace. On November 27th, 1878, I was called to see a lady who was suffering from "splitting" headache. I could not, however, see her before the morning of the next day. Complaining very much about her headache, she mentioned, merely by the way, that there was a little discomfort in the throat during deglutition. The palatal arches, tonsils, and uvula were greatly congested, but only a little swollen. There was no fever. On repeated examination in the evening of the same day, there was no change to be detected. On the next day, I was assured that "the throat was all right". Examination revealed, however, that the tip of the uvula was covered with a very well developed diphtheritic membrane. This was very small indeed on the anterior part of the uvula (about one millimetre in breadth). I succeeded, however, in turning up the uvula with a spatula, and discovered that the membrane extended two millimetres upwards on the posterior side. In the evening, I again examined the throat. The membrane had extended two millimetres further up posteriorly, but had not changed otherwise. On the morning of the next day, not a trace of this affection was to be seen; the uvula and all the other parts had regained their normal appearance. If this lady had not had the headache, she would not have sent for me, and none of the prophylactic measures would have been taken, which I ordered at once in order to protect those who were about her.

On December 22nd, a cook asked me to examine her throat, because she felt some pain in deglutition. I could not see anything abnormal.

On the 24th, I was asked by her master to examine her again, because the throat had become more sore. I found the patient in bed with slight fever. There were two well-developed diphtheritic membranes on both tonsils, each about one centimetre in extent. On the following day, these membranes had completely disappeared; the tonsils were still greatly swollen and congested; their surfaces had an apparently normal condition. In order to avoid infection, the cook was removed to the hospital, and the physician in charge was at the same time told of the appearances observed on the previous day. Without this communication, a correct diagnosis would have been impossible; the patient would not have been isolated, but would have been put in one of the general wards together with other patients.

In another instance observed in 1877, the infection of a person through a very slight case could not be prevented, in spite of the patient's isolation. On June 5th, 1877, I found in a boy aged 7 a diphtheritic membrane, about half a centimetre in diameter, on one tonsil; at the same time, there was a very slight degree of fever. On the morning of the next day, this membrane had completely disappeared, the boy being quite free from fever and well in all respects. In the afternoon, I was called in again by the mother, and now found membranes on both tonsils; on one of them occupying a space about a centimetre in diameter, whilst the other was a little smaller. There was a higher temperature than on the previous day. Three days later, these membranes had vanished entirely; there were no other symptoms of disease. Nevertheless, the boy remained isolated up to June 15th, i.e., up to the tenth day after his falling ill. A female servant, who had been separated during the entire period from the patient, cleaned the sick-room on the 15th, and afterwards slept in the same. Five days later, she fell ill with headache. On June 21st, I found diphtheritic membranes on both tonsils, extending on the next day over the palatal arches and the uvula. There was at the same time high fever for two days. Cure was effected after five days. By a fortunate accident, I was also enabled to fix with certainty the period of incubation in the case of the little boy who had infected the servant. It had lasted nine days. The boy had, on May 26th, played with another who became a patient of mine on May 27th. It was a case of typical diphtheria, with swelling of the submaxillary glands and fever lasting eight days.

I have communicated these cases fully, because they appear to me to be suitable contributions towards the explanation of the origin of diphtheria. I believe that more importance is to be attributed to the propagation of this disease by slight cases than has been done up to the present by the majority of physicians.

In order to characterise the intensity of the epidemic in the Grand Ducal family, I must state at once that, in all cases without exception, there was considerable swelling of the cervical lymphatics. In the case of Princess Alice, in which the swelling was less intense than in the other patients, there were tumefactions of the glands at the angle of the jaw on both sides, attaining the size of a walnut.

Further details of single cases of the epidemic, especially regarding the course in so far the latter has not already been described by Professor Oertel, I intend to communicate in a subsequent article.

THE MISLEADING EFFECTS OF ATTENTION IN CASES OF FACIAL NEURALGIA FROM DENTAL IRRITATION.

By A. STEWART, F.R.C.S.E.,

Surgeon-Dentist to the City of London Freemen's Orphan School.

DR. CARPENTER's contribution, "The Effects of Attention on the Bodily Organs", in the JOURNAL of December 14th, Dr. A. Hughes Bennett's test-case in that of October 12th, and Dr. Donkin's valuable paper (October 26th), have probably convinced most readers that the effects of metal plaques, magnets, and solenoids, as observed by Charcot on hystero-epileptics at the Salpêtrière, may be regarded as what I think may be called *hysterical facts*—unreliable.

The doings at the Salpêtrière are so fully reported in the above noted and other recent numbers of the JOURNAL, that its readers are fortunately in early possession of sufficient evidence on both sides to determine their judgment; but they would do well, I think, in addition, to peruse Dr. Carpenter's volume on Mesmerism, Spiritualism, etc. If it be found that Charcot, Burg, and others, have mistaken mental for physical results, at any rate medical and surgical practice will have benefited by the prominence given to "attention" as an *ignis fatuus* in diagnosis that may beguile.

It has not been left out of consideration by careful observers, as the following extract from Holmes's *System of Surgery*, vol. iv, page 73, article "Diseases of the Joints", by Mr. Athol A. Johnstone, shows.