ZENUWSTORINGEN MET DENTALE OORZAAK

DOOR

Prof. Dr. E. C. KIRK. 1)

It has been stated that our famous American humorist, Mr. Samuel Clemens, very well known as Mark Twain, once had occasion to make some remarks at the funeral of a dentist. They had just lowered the coffin into the grave when Mr. Clemens quite unexpectedly was asked to say a few words. Then he arose and said: "Poor fellow! He has filled his last cavity!"

I presume a dentist should always be ready to fill a cavity and it may have been that tendency that made me accede to the request of your president to make a few remarks quite impromptu in order to fill up a certain space on your program.

Perhaps the best I can do will be to direct your attention towards a subject which has been interesting me intensely for perhaps 30 or 40 years.

You are all aware of the tremendous impression which has been made on the activities of the dental profession by the papers published by Sir William Hunter in relation to oral sepsis. You all realise the importance of focal infection in its relation to the general health of the individual as well as the important part that oral sepsis plays in relation to systemic disease.

¹⁾ Voordracht, te Amsterdam gehouden in de 117de Vergadering (Augustus 1923) van het Nederlandsch Tandheelkundig Genootschap.

In studying pathology I have had the impression that the whole pathological atmosphere was clouded with bacteria and I think Holland is somewhat responsible because it was Leeuwenhoek who first discovered them. Ever since then, man has been hunting for the germs that produce diseases and we have found so many different kinds of germs that we are inclined to think that we can 't have a disease unless we have a microbe as the cause of it.

I have always been interested in what may be called the nervous reactions from what we know as pathological dention. In speaking of pathological dentition I raise a question about which there has been much dispute. A famous pathologist, I forgot whom, it may have been Magitot, maintained that pathological dentition may be observed while other scientific men of equal importance have said, it does not exist. Forchheimer, an American author, declared in his book on diseases of childhood, there is no such thing as pathological dentition, dentition is a physiological process, it produces teeth and nothing else.

Unfortunately, as to pathological dentition in infants we can't prove its existence objectively as our ethical standards will not permit us to take a live baby and make a section of its head to see what condition his dentition is in. But when we observe clinically a certain relationship and we see that it happens in the same way in 99 cases out of 100 we are inclined to conclude that we are confronted with a situation involving cause and effect.

Some years ago Dr. Henry S. Upson of the Western Reserve Medical School in Cleveland began to study the nervous reflections caused by disturbed dentition. He wrote an important book on the subject but unfortunately died before he had reached the end of his enquiries. In his book, entitled "Insomnia and Nerve Strain" he collected the reports on a large number of cases of nervous phenomena of diverse types that seemed to be related to difficult dentition. Dr. Upson died before he had sufficiently demonstrated to his colleagues the

soundness of his hypothesis and I think his family felt that he had died with something of a stigma upon his reputation because he had not succeeded in proving to his colleagues the soundness of his contentions.

His widow was much interested in his work. She wanted to know if something could be done to carry out still further the work that her deceased husband had left unfinished. I was able to give her the reports of a number of cases that we had observed in the Evans Institute in Philadelphia. Then we organized a body of researchers under the Henry S. Upson foundation financed by his widow, a group of orthodontists, pediatrists and alienists, as specialists in medicine related to this particular subject and we studied the class of cases we are now considering. Let me report just one of them to you.

In the course of this investigation I heard quite accidently of a young man, 23 years of age, who was committed to a hospital for the insane as an incurable case of dementia praecox, on the result of an examination by 4 eminent specialists. It so happened that one of these specialists was a member of the group we had gathered together for the purpose of studying the nervous reflexes of difficult dentition. I had heard of this case and I asked that the patient be brought into the Institute for examination. This was done, he came there in the care of an attendant and he was manifestly mentally gone. His mind was a blank. I had his jaws radiographed and we found 5 of his teeth that were impacted, held down in their positions so that they could not erupt normally. It was a case that, had it not been for his nervous condition, could probably have been corrected under a long orthodontic treatment but here the patient's mind was in one side of the balance and five teeth in the other. One Monday morning Dr. Cryer went to the hospital, the boy was narcotised and Dr. Cryer removed the five impacted teeth. By Friday night the patient was so far mentally restored that his father desired to take him out of the hospital and on Monday following he was removed from the institution.

I saw the patient six months afterwards when I happened to meet him in a restaurant in Philadelphia with his father. I asked, what is the boy doing now, and the father replied: he is superintending the electrification of the large docks at the Philadelphia Navy Yard. He has about 25 engineers under him and he superintends the work.

The young man later came to my house and asked; what can I do for you, you have saved my life. I replied: I don't know about that, but please go and show yourself to the High Priest, that is to say to the alienist that committed you to the asylum. Give him my compliments and tell him you are that crazy boy patient of his and to please give me a report as to how crazy you are now.

As I said, this specialist was a member of the group who had gathered together to study these dental reflexes. I felt that these medical men were lacking in the special dental knowledge that would enable them to comprehend the anatomical relationship that make reflex dental phenomena possible. So I gave a lecture on that elementary subject to this group of medical men. They gave me a most courteous hearing. I think a lecturer can tell by the faces of his audience whether he impresses his audience, or as we say in America, whether he puts the idea over. Well I might as well have talked to a blank wall as to that group of physicians. I finally got some of them down to the lecture table and I said: I have the impression that you don't believe a word of what I have said. And then I said to the alienist: .. Doctor, come here, I want to give you an example." So I took a childs skull which stood on the table and I said: ... ou may convince yourself and 1 removed with my finger a canine tooth. I said: there it is. You see that the end of this root is unfinished, it is not complete, it has a very large apical foramen. You know Nature abhors a vacuum. Will you please tell me, doctor, what is located in the normal individual within that tooth? He said: the nerve. Yes, I replied, everybody knows that, but what else? Wat is the thing you call the nerve com-

posed of? Isn't it something more than a nerve? In dentistry we speak of it as an organ, a pulp. It has a vascular system and an important group of specialized cells for the building of the dentine and it has nervous relationships which are very important. It has not yet erupted, it is in the alveolus with a very inelastic resistent covering to it. As the root continues to form and to complete itself, it must progress outwardly, the crown must erupt and cut its way through this gum. Now suppose that there is a lack of coordination between the development of the root end and the resorption of the gum tissue. Suppose the tooth can't get out and that as a consequence the root grows inwardly. Into what? Into this dental pulp which is the formative organ of the tooth. And what are its nervous relations? What is the relation to the nervus trigeminus and to the sympathetic nerves and nerves of the special senses? We irritate a nerve which has its origin in the floor of the fourth ventricle, what is the effect upon the group of nerves that arise in the same region? You know what happens in a hotel when the electric wires are crossed and we ring the bell and they bring your coffee into another room? I saw that the idea had gone over. He said: If that is so, well you can get anything from that.

Subsequently when I sent him this case, the one he had himself committed to the insane asylum, he said: "It is a miracle!"

That is only one case out of hundreds, but I will not take too much of your time because I heard your presiding officer speak of lunching.

I have seen patients that had 30 or 40 so called epileptic seizures per day. They were delivered from dental pressure and I have seen the convulsions growing less and less until the nervous disturbance faded out altogether. I was consulted by the father of a young man whose son was attacked with epileptic convulsions that lasted 25 minutes and it was in the balance whether he could recover. He had not erupted his lower third molars and I advised that they be taken out. Since I have been in Europe, I have had a communication from

the father telling me that since the teeth were removed the time between the epileptic seizures had grown greater and the seizures were fading out. Cases of this sort group themselves under the general term of reflex neuroses. Microbes have nothing to do with them, they are caused by purely physical irritation of the nerve terminals in and about the teeth. We know what teething convulsions in children are and we know that if not treated in time the infant may die. But there is a great group of diseases and deficiencies, mental and physical, affecting the special senses and developing spastic difficulties which I believe are wholly dependant upon physical irritation of the nerves about impacted teeth. Recognising the teething convulsion of the infant we have overlooked the fact that we are erupting teeth normally, that is to say theething, till we are 17 or 18 years of age. So at any time during that period and possibly after, we may have an outbreak of trouble characteristic of difficult dentition.

It is curious that the dental literature of all countries is consistently reporting cases of insanity, epilepsy and a variety of nervous disorders cured by the extraction of a tooth or related to the teeth, nevertheless these cases were never studied as a group. I want to impress upon you the importance of the study of these cases which are not necessarily connected with infection, but are due to physical causes.