

Ten slotte spreekt de heer C. de hoop uit, dat het gedemonstreerde een bewijs te meer moge zijn, dat een school als de vermelde in een noodzakelijke behoefte voorziet.

De heer HAMER vraagt op welken leeftijd een dergelijk systeem dient begonnen te worden. Het antwoord luidt, dat, als een "Dental practitioner" bedoeld wordt 17 jaar, anders 15 à 16 jaar als geschikte leeftijd is te beschouwen.

De Hr. TH. DENTZ vraagt naar het aantal der leerlingen; als antwoord geeft de heer C. op, dat dit van omstandigheden afhangt, maar dat in elk geval bij gebleken ongeschiktheid gedurende den proeftijd den leerling wordt aangeraden van werkkring te veranderen.

Bij het begin van de namiddagzitting spreekt de heer CECIL RHODES de vergadering toe met een korte rede, waarin hij vermeldt hoe deze vergadering tot stand kwam en spreekt den wensch uit, dat vereeniging van machten moge plaats grijpen, zoodat bij een eventueel volgend bezoek van de Engelsche collega's zij één groote tandheelkundige vereeniging mogen vinden.

Hierna houdt de heer A. HOPEWELL SMITH een voordracht over "The patho-histology of the Dental Tissues" toegelicht en opgeluisterd door lantaarnbeelden.

Some Notes on the Patho-histology of the Dental Tissues.

BY

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Mr. President, Ladies and Gentlemen.

The subject which I have the honour and pleasure of presenting to you to day — paradoxical though the expression

may at first appear — needs, I think, *an* apology, and yet *no* apology from myself.

An apology, because microscopical science, from its very nature, cannot be of such great interest to a gathering like this, as to a company of histologists generally; and yet *no* apology, when we recall the fact that the foundations of microscopical work, were first laid in this country of Holland more than two centuries ago. The invention and elaboration of the microscope constituted a new era in science; and it is safe to say that one of the greatest discoveries of modern times was due to two men whose memory all good histologists should be proud of.

Our Dutch friends will appreciate what I mean when I refer of course to their own countrymen, the celebrated JANSEN and LEEUWENHOEK, — giants of intellectual strength and foresight, — marvellous founders of what is, day by day, proving to be, through its manifold workings of such great utility to mankind!

Holland, I consider, should boast of its sons whose names, though little known in England, are worthy of being placed side by side with those of men like STEPHENSON, LISTER and EDISON!

To JANSEN, the world owes the invention of the microscope, to LEEUWENHOEK the elaboration of its parts, and the exploration of the wonderful field of Bacteriology *). Therefore, I trust, ladies and gentlemen, that you will pardon the introduction of such a technical subject as that announced on the programme of a meeting like this. Though I am greatly comforted by and find much satisfaction in a knowledge of the fact that our friends Drs. GREVERS, DENTZ and HAMER are themselves interested in the pathohistology of the dental tissues.

*) LEEUWENHOEK made these bacteriological Researches known to the world, by sending letters to the English Royal Society. The first of these bears the date, Sept. 17, 1683 and curiously enough, was a dissertation on the bacteria of the oral cavity.

And practice and science go hand in hand and will ever continue to help each other, as we have already had clearly demonstrated to day by Dr. WITHAUS' clever paper and Dr. CUNNINGHAMS' able exposition of the scientific method of treatment of practical questions such as those of mechanical dentistry.

My desire is too briefly conduct you through the field of Dental pathohistology in the form more of a demonstration of some of my own specimens than by any formal paper.

Fibroid degeneration of the pulp occurs as a result of normal senile changes in a tooth which has withstood caries. It is remarkable for the fact that no cellular tissue whatever exists. There are no odontoblasts, no nerve bundles, no blood vessels, no connective tissue cells; the whole organ is simply reduced to a fibroid mass incapable of receiving and transmitting painful sensations to the brain.

Another form of degeneration of the pulp is that known as calcareous. This often occurs in sound young teeth and gives rise to exceeding great pain, due to increased tension, by mechanical agents on the nerve bundles of the pulp.

It is deposited very much after the fashion of "intra-membranous ossification" of bone; the chief factors being the small round central pulp cells which secrete calcific material round the connective tissue fibrils of the pulp.

In the early stages of acute inflammation of the pulp, a hyperæmic condition of the capillaries is noted. Secondary dentine or "dentine of repair" as it was originally called by SALTER, is seen opposite the carious breach of surface of enamel and dentine. This dentine presents many appearances — lamination, areolation, and cellular and tubular forms. The points of interest to note are the infection by micrococci and bacilli of the new tissue, enormous multiplication in the numbers of the peripheral pulp cells (the so-called odontoblasts) and the concomitant occurrence of

long rods of calcified material in the centre of the pulp.

When the caries has advanced far, the whole or part of the pulp may become inflamed, and then shews signs of great degeneration. The formative pulp cells are reduced in size, escaped leucocytes crowd the tissues, the normal connective tissue cells become proliferated, and foci of inflammation appear. These rapidly break down and form localised abscesses, as shewn well in the photomicrograph projected on the screen.

In chronic inflammations which have fungated from the cavity (a condition known in England as "polypus of the pulp"), we see that the structure of the growth consists of large square nucleated cells, having on their free surface, a thick epithelial layer. This occasionally simulates closely the characteristics of the normal gum, dipping in and forming simple and compound papillæ. It is believed that the presence of epithelial cells on the surface of the pulp is due to a process of "skingrafting", produced primarily by the squamous and cylindrical epithelial cells of the mucous membrane of the cheek being rubbed off and planted on the free pulp surface.

Polypi often contain nodules of laminated secondary dentine.

In acute pericementitis, the membrane is greatly thickened the perivascular tissues being particularly enlarged by inflammatory products: and abscess of the peridental membrane exhibits an external thick tough stroma, divided into compartments by trabeculæ, the whole being filled with pus cells. Rarely the peridental membrane may be the seat of myeloid sarcoma, or still more rarely of round-celled sarcoma. This may progress until the floor of the antrum, the alveolar sockets of neighbouring teeth, and the adjacent gums become secondarily infiltrated. Cases of fractured teeth are usually of great interest because they shew marked attempts on the part of the pulp to heal the lesion by redeposition of hard osseous cementum-like material.

These are a few of the fragmentary remarks, I have to offer you, ladies and gentlemen. You will have observed that there are subjects herefor many papers and discussions, and these fields of research are open for investigation. I shall be perfectly satisfied, if through the medium of anything that I have said or hinted at, some member present may be stimulated to follow in the great work of exploration in these hitherto untrodden paths of dental science.

I cannot conclude, without offering to my dear friend Dr. GREVERS, my best thanks for the way in which he has passed my photomicrographs through his beautiful lantern: and to you friends, for the kind attention you have given to my remarks.

Bij rondvraag door den voorzitter, wenscht de heer HAMER ingelicht te worden omtrent 's heeren SMITH's meening hoe de besproken kalkconcrementen (noduli) gevormd worden. H. meent, dat de odontoblasten niets met deze nieuwvormingen te maken hebben, dat de holten in de noduli geen tubuli zijn, maar eenvoudig niet gecalcificeerde deelen. De calcificatie volgt de vezels van het bindweefsel; spreker zag nooit werkelijk dentine.

De Hr. TH. DENTZ vraagt den heer HOPEWELL SMITH of hij in den histologischen bouw van de zoogenaamde dentikels onderscheid heeft gevonden tusschen vrije dentikels en die, welke van den wand der dentine uitgroeien.

Beiden vragers beantwoordt spreker aldus:

Daar de odontoblasten alleen aan de peripherie van de pulpa bestaan, moet het voor deze cellen onmogelijk zijn om een afzetting van secundair dentine in het midden van genoemd weefsel te weeg te brengen. De nieuwste theorie over het vraagstuk van de dentinevorming in 't algemeen is, dat de odontoblasten alleen deelnemen aan de vorming

van tubuli en fibrillen, terwijl de matrix-vorming geschiedt door kleine ronde cellen.

Tubulaire vorming is volstrekt niet constant in dentikels. Zelfs die, welke afgezet zijn aan de randen van de pulpa-holte, kunnen lappig zijn of structuurloos. Natuurlijk wordt in vele gevallen tubulair secundair dentine gevonden, maar het vertoont nooit precies het uiterlijk van normaal tubulair dentine.

Na den heer H. S. werd het woord verleend aan den heer TH. DENTZ, die voorlezing deed van de voordracht van den Hr. C. VAN DER HOEVEN, die wegens ziekte verhinderd was, zelf ter vergadering te verschijnen.

De rede luidde als volgt:

Premature extraction of deciduous teeth
more especially of temporary canines,
as a method of treatment for crowded position of the
front teeth.

Mr. President, ladies & gentlemen.

I shall have the honour to bring under your notice a series of plaster casts taken by my partner dr. BECHT from the upper jaw of his daughter at successive stages, to prove conclusively that in certain cases the extraction of deciduous teeth — in this case the temporary canines — is not only justifiable but may be considered the easiest and pleasantest mode of treatment both for patient and dentist, when dealing with a crowded position of the front teeth.

Of the models here before you, my friend Mr. JOHN E. GREVERS, has been kind enough to make lantern slides, which will enable me to illustrate more clearly the present case: