

Medico-Dental History of Cloves

THE issues of *Dental Items of Interest* for June-October 1942 contain an interesting and scholarly article on this subject by Dr. Eugene J. Molnar, research associate of the Northwestern University Dental School, Toledo, Ohio. Originally, cloves were first used in the East Indies, India and China. After the decline of the Roman Empire the medical use of cloves was introduced into Byzantium, probably owing to its proximity to the East. The practice of using cloves for the treatment of dental caries, which developed in the middle of the sixteenth century, was introduced from extra-dental sources, namely, laymen, amateur botanists, apothecary-grocers and others. Eugenol, which was first extracted from oil of cloves by Ettling in 1834, received its name from Cahours in 1858, and is widely used in dentistry for the relief of pain. Its exact pharmacological properties for the treatment of caries and odontalgia have received considerable attention, but have not yet been fully determined. The action of eugenol in zinc-oxide-rosin cements, which form the best temporary filling material, also remains unknown.

Larch and Scots Pine Poles

RESULTS of tests carried out on British-grown poles suitable for transmission lines have been reported (*Electrician*, Jan. 22). The tests were made to measure the deflexion of the poles, rigidly supported at 5 ft. from the butt, for any given loading; up to the ultimate load, applied at 2 ft. from the top of the pole; to obtain a value for their ultimate breaking load, and to calculate the average value of fibre stresses. The poles tested were 36 ft. long by 1½ in. diameter at 5 ft. from the butt, with an average diameter of 8½ in. at the top. An analysis of the test results shows the deflexion for any given loading is much greater for Scots pine than for larch poles. On the other hand, the larch has a much greater ultimate strength, requiring an average load of 4,443 lb. compared with an average of 2,800 lb. for Scots pine. Other things being equal, it is apparent from these tests that, from a strength point of view, larch poles are much better for transmission line supports than Scots pine. The ultimate fibre stress of larch is much greater than that of pine, being of the order of 10,500 lb./sq. in., as against 6,500 lb./sq. in. in the case of pine. The figure for Scots pine is well below the generally accepted figure of 7,800 lb./sq. in. for Baltic fir.

The creosote penetration was found to be much better with Scots pine poles than with the larch. The poles were creosoted six days before the tests were carried out, and from an examination of the cross-sections, it appeared that the penetration in the larch poles varied between ¾ in. and ¾ in. with an average of ½ in., and in the Scots pine between 1 in. and 4 in. with an average of 2¾ in. From the figures obtained it is evident that with the same loading and in order to maintain a given factor of safety, the span-length allowed with Scots pine poles should not exceed 63 per cent of the allowable span-length with larch poles; the ultimate fibre-strength of larch accords closely with the figure of 10,000 lb./sq. in. given in *B.S. 513-1933*; the ultimate fibre-strength of Scots pine is considerably below the value generally assumed for Baltic fir (6,500 lb./sq. in. as compared with 7,800 lb./sq. in.); there does not seem to be any relationship between ultimate load and the moisture content of the pole.

Otto Obermeier (1843-1873)

DR. OTTO HUGO FRANZ OBERMEIER, the founder of German parasitology and father of German tropical medicine, was born at Spandau in Prussia on February 12, 1843, the son of a non-commissioned officer. He received his medical education in Berlin where he studied under Du Bois-Reymond, Virchow, Langenbeck and Frerichs and qualified in 1866 with a thesis on Purkinje's fibres. While working in a laboratory at the Charité Hospital in Berlin he discovered in the blood of persons suffering from relapsing fever minute organisms presenting a twisting or rotatory movement. His first publication on the subject appeared on March 1, 1873, in the *Zentralblatt für die medizinische Wissenschaften*, and a few weeks later he gave an account of it at the Berlin Medical Society. His attempt to transfer relapsing fever to laboratory animals by intravenous or subcutaneous injection of blood from relapsing fever patients was unsuccessful. His promising career was cut short by a laboratory infection with cholera, and he died at the early age of thirty on August 20, 1873. The following year, at Cohen's suggestion, the organism which he had discovered was given the name of *Spirochaeta obermeieri*.

Earthquakes Registered in Spain

DURING October 1942, twenty-four earthquakes were registered on the seismograms obtained at the Geophysical Observatory at Toledo. The greatest shock was on October 20 when, from an epicentre calculated to have been some 12,010 km. distant, an earthquake recorded *PPz* at 23h. 41m. 25s. U.T. and attained a maximum ground amplitude at Toledo of 170 μ. The shock finished recording at 01h. 30m. U.T. on October 21. Other strong shocks were on October 9 (max. ampl. 50 μ), October 26 (max. ampl. 27 μ) and October 28 (max. ampl. 2 μ). The earthquake of October 14 which began recording at Toledo with *ePz* at 8h. 26m. 45s. U.T. had an estimated epicentral distance from Toledo of 390 km. The epicentre may have been situated at lat. 38° 50' N., long. 0° 55' W., which is nearly 80 km. north-north-west of Alicante, and the focus may have been some 29 km. deep. Microseisms interfered with some of the interpretations during the month, all interpretations being provisional.

Disinfection of Cereal Seed

IN reply to a question by Major Thorneycroft in the House of Commons on February 4, as to whether, in view of the importance which the Minister of Agriculture and Fisheries attached to the increased production of spring cereals, he would consider making it compulsory on all farmers to disinfect their seed according to the best modern practice, Mr. Hudson said that he is anxious that all oat and barley seed should be dressed this spring with a mercury dressing to prevent disease but he prefers to rely on propaganda and advice rather than compulsion. War agricultural executive committees are carrying out campaigns to this effect.

Errata

In the article "Utilization of Glass", in *NATURE* of February 6, p. 173, it should have been stated that the electrical resistance varies by "at least ten thousand-million-fold", and that plate glass is "rolled continuously eight to nine feet wide".