

tions; the pulp should then be capped with oxy-chloride of zinc, and the cavity filled permanently.

Fatty degeneration is a gradual disorganization of the pulp tissue caused by partial necrosis, as for example: when a pulp has been capped and a non-conductor not placed between the gold and pulp, heat and cold are conducted by the agency of the metal to the living tissue, causing devitalization by the sudden shocks of temperature, as a consequence a separation of the elements takes place, which is fatty degeneration. This explains why a tooth will often decay to the fangs without the least sensation of pain being felt by the patient. Symptoms. Irritation of the tooth by pressure upon the soft parts, but the gums are not inflamed. When such is the case, the pulp chamber should be opened as soon as discovered, it will be found to contain a fluid resembling pus, filled with small fatty globules, which are the products of degeneration and emits a very offensive odor, caused, probably, by the gases that were generated from the disintegration. Treatment. The treatment should be, of course, antiseptic; after removing as far as possible, all the disintegrated pulp substance from the chamber and canal, applications of the saturated solution of iodine in creasote or carbolic acid, (which is quicker in its action than the former), should be made and repeated every twenty-four hours, until there is no more of that putrid odor left.

Calcification occurs either with or without exposure, and by the wearing of the tooth by mastication; in the the two latter cases it is found principally in persons of old age. In calcification, the recuperative power of the \* germinal matter of the peripheral cells becomes lost as age advances, it is thereby converted into formed material, which becomes fused together and hardened by the deposition of calcareous salts. This explains why a pulp gradually becomes smaller and calcified as a person gets older.

Calcification is also produced in young subjects in the same manner. If we find a pulp slightly exposed in young patients, and inflammatory action has not yet set in, or if it should become accidentally exposed while excavating, by capping it with gutta percha or Hill's stopping, temporarily for a year or more, a layer of osteo-dentine as it is called, will be found in a number of cases on removing the filling; not always, as it greatly depends upon the constitution of the individual at that age. Osteo-dentine does not resemble nat-

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\* Germinal matter, as called by Beale, corresponds to the nucleolus and nucleus of Virchow's cell, while his formed material corresponds to the last named author's cell contents and cell wall.