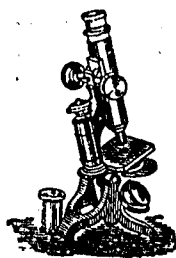


## Medical Matters.

### "EARTH EATERS."



Dr. T. F. Macdonald, of Geraldton, Northern Queensland, has recently made some most interesting statements as to the prevalence of that mysterious disease ankylostomiasis or "earth-eating."

Dr. Macdonald asserts that earth-eating is rampant in Northern Queensland, and that it is spreading rapidly. The disease is said to be caused by the presence of leech worms or ankylostoma in the body. These are blood-suckers, small, but existing in great numbers. Anæmia is thus engendered, says Dr. Macdonald, and that in turn creates appetites of which the desire for earth-eating is one. Not only are the physical appetites vitiated, but often the intellectual and moral as well.

The disease has spread to Melbourne, where a man has been taken into custody by a police-constable, who saw him on his hands and knees eating dirt after the manner of the cases reported by Dr. Macdonald.

The practice of eating earth is not unknown. It is attributed to several uncivilised tribes, but among white people it is very rare. Alexander Von Humboldt and Aimé Bonpland during their travels to the equatorial regions of America visited the Mission of Uruana and saw the heaps of earth which the Ottomacs eat. The Ottomacs during some months eat daily three-quarters of a pound of clay slightly hardened by fire and moistened before swallowing. The earth is a very fine and unctuous clay of a yellowish-grey colour; and when slightly baked the hardened crust has a tint inclining to red, owing to the oxide of iron which is mingled with it.

### PTOMAINES OR FOOD-POISONING.

Dr. B. Burnett Ham, in the course of an article in the *Australasian Medical Gazette* well worthy of study, discusses this question, and says: "When the certain and various conditions by which different foodstuffs may become possessed of poisonous properties is borne in mind, as, *e.g.*, by the addition of substances intended as adulterants or preservatives to infection with certain parasites or their ova; to food conveying a true infection to poisons developed from

and in the food by bacterial agencies; to some poisonous substances accidentally derived from the vessel in which the food is conveyed, and many other causes, some of which are as yet imperfectly understood—when all these sources are kept in view, surely the vague and loose term 'ptomaine poisoning' should give place to a more correct nomenclature, to the more intelligible name of 'food-poisoning.' To classify the poisonous results due either to a toxic metallic salt, a ptomaine, a leucomaine, an albumose, or a toxin under the head of 'ptomaine poisoning' is as unscientific as it is unintelligible. It may, of course, be argued that the term 'food-poisoning' is vague and more indefinite still, but such epithet, at least, allows the physician to guard himself, behind his diagnosis, leaving it to the analyst, chemist, bacteriologist, and food expert to state what the nature of the particular poison, if any, may be. But what are ptomaines, and what is their relation to disease? The word is derived from the Greek *ptoma*—a dead body. It has long been known that the products of putrefaction are poisonous, and that the decomposition of organic substances is caused by the growth of microbes. In the decomposition process various products, *e.g.*, leucine, tyrosin, indol, skatol, &c., are formed. O, H, N, are set free, while H<sub>2</sub>S, CO<sub>2</sub>, NH<sub>3</sub> are formed by combination. Some of the bases formed are very poisonous, producing symptoms resembling those caused by strychnine, atropin, &c. The ptomaines are bases of the nature of alkaloids formed in the putrefying proteid matter by the action of bacteria.

"In 1856 a Danish chemist showed that aqueous extracts from decomposing animal matter contained poisonous substances which he thought to be of a purely chemical nature; but the chemical nature of the substances was not determined. The first ptomaine separated pure was obtained by Nencki, then Brieger obtained several of these alkaloids from pure cultivation of micro-organisms. In 1882 Bouchard demonstrated that not only were alkaloids present in appreciable quantities in normal urines, but that they augmented notably in the course of certain maladies—typhoid fever, for instance. The common ancestor of alkaloids, whether animal or vegetable, is albumin, and, through bacterial agency or otherwise, this complex molecule is split up into several less complex molecules, among which are the animal alkaloids or ptomaines. They vary considerably in their physiological action, some being quite

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