

Pringle and Helcher both knew that these fevers were more apt to occur when the ground water fell to a lower level.

Coming to more modern times, Henle said :—" Since putrefaction does not invariably cause disease, it must depend upon special conditions what kinds of infusoria and plants develop, that they do not act equally detrimental to health. The body is not represented as resisting putrefaction by a special 'vital power,' but by the fact that the living tissues in health oppose the entry of putrefactive organisms. If this opposition be overcome, a special form and direction is given to the putrefactive process, which remains essentially the same as external putrefaction. That this is so is substantiated by the recent teachings on the chemistry of bacteria of Nencki, Gautier, Selmi, and, above all, Brieger. Similar views were subsequently maintained by Pettenkofer."

Recently the octegenous cultivation of various kinds of pathogenic bacteria by Koch has proved that they possess a saprophytic stage (associated with decomposing organic matter) like ordinary putrefaction bacteria, and that a parasitic stage within the human body is not necessary to their existence as a species, but merely accidental. Henle, and later Pettenkofer, had long known this to be true as regards the parasites of plants.

Sirotoinin, Peiper, and Beumer have shown that typhoid bacteria which in man act as "invasive" parasites, act in animals like the ordinary bacteria of putrefaction. Naegeli says that the contagious organisms are derived from the miasmatic, and these again from the putrefactive, these latter organisms having an unlimited variability of form and action. Putrefaction he maintains is not dangerous as long as it is accompanied by a bad odour, for this indicates moisture, and the organisms are only transported when dry and easily diffused.

The British Medical Journal says :—" Various experiments have amply proved that the more contagious the organisms are the more distinct are they from putrefaction ; indeed, there is antagonism between true contagion and putrefactive bacteria, the former succumbing in the struggle, though Koch's comma bacilli can survive about a fortnight, and those of Finkler and Prior for a still longer period. . . . It must be granted for the whole