

change they produce in food is a most important feature in digestion.

Even the very pus that these micro-organisms have been so persistent in elaborating has a beneficial purpose as a remedial process, such as granulation, etc., and frequently takes the place of far more morbid processes. It also affords a mechanical means of removing foreign bodies, *e.g.*, thorns, splinters, bits of broken glass, etc., from soft parts into which they may have been driven, and likewise in the formation of abscesses, may sometimes serve to eliminate morbid matter from the system.

All nature moves in a continuous change of cycles. Grass and herbs spring from the earth, air and water ; herbivorous animals live and thrive on these, thus changing the constituents into other forms of food. These again are eaten by man and animals, and are again changed into other forms to be again transformed into other material, making food for microbes and finally returned to the earth from which they all originated. Thus we see the whole animal world may be said to be preying on each other; even one set of microbes are destroyed and eaten by others (phagocytism), and these again by others, so that Swift's couplet is quite applicable :—

“ The very fleas that do us tease,  
Have lesser fleas to bite them,  
And these again have lesser fleas  
And so *ad infinitum*.”

Out of the eight different processes by which the animal tissues are enabled to protect themselves against the action of bacteria, there are two which are very efficient, viz., phagocytism, and what may be denominated the bactericidal condition. Phagocytism, whether under normal or pathological conditions, is one of the manifestations of vis medicatrix nature. Under this condition, cellular activity prevents the development and increase of micro-organisms.

Under the latter a chemical condition is induced, which not only destroys microbes, reduces their nutrition, but retards their growth and multiplication.

It is by the activity of the ameboid cell or phagocyte that the gills and tails of tadpoles are removed during their metamorphosis.

Between the pyogenic microbe and the phagocyte there is a constant war even unto death.