

the Pathological Society, pointed out a chemical process having resemblances to the multiplication of contagion. Several fermentations are recognized to be due to the growth of distinct vegetable forms. May not decayed or changed albuminous compounds act as similar ferments when introduced into the fluids of the body? Fever producing agents, it is now well recognized, find a ready vehicle in water, but the separation of the active agent from the liquid is difficult, though recent experiments seem to show not impossible. Dr. Burdon Sanderson, by precipitating with alcohol and then extracting with water, obtained an extract which caused fever. He has ascertained that no animal poison is really soluble, and adopts a plan of filtering through porcelain, by which a filtrate is obtained that does not produce fever. The first filtrate has no bacteria, but particles are seen in it. An hour after, bacteria are found in considerable numbers. The filtrate through porcelain shows no bacteria, and twenty-four hours afterwards remains barren. Now here the natural inference is, that the fever producing agents are to be found in particles, and yet it is possible that an animal fluid in passing through the fine cells of porcelain may be chemically changed and that the absence of fever-producing energy is due to this change. It is well understood that all bacteria found in diseased tissues are not to be regarded as causes of disease. When an animal fluid begins to decompose bacteria are seen, and the forms of vegetable life which appear depend upon the composition of the fluid. One specimen of urine will show the bacterium termo; if sugar be present, the torula cerevisiæ also appear. In other specimens small round cells appear, sometimes isolated, at other times in chains. So also it is probable that, according to the tissue decomposing, different forms of bacteria are present, each form as it were choosing that tissue most suitable for its growth. Hence, even if after death bacteria are found in any tissue, they cannot at once be regarded as causes of disease. It may be that in the dying body, the bacteria infesting the surface of the body and mucous-lining of the intestines in innumerable multitudes, may pass inwards to lay hold of the elements that are dead before the life of the whole body has ceased. This may serve to explain how it is that in different diseases similar forms of bacteria appear. It has been suggested that after all the diversity which is seen in fevers, several may depend upon the same bacteria, modified in the course of time with the circumstances of its growth. Dr. Ogston has unquestionably shown that in cases of acute suppuration attended with fever, certain forms of micrococci are invariably present. He found that micrococci taken from an acute abscess and carefully transferred to the albumen of an ordinary fresh egg reproduced themselves in myriads. He also found that if the minutest portion

of this albumen were injected under the skin of a healthy animal, similar abscesses resulted, abounding with micrococci. Ogston's experiments prepare us to receive the recent teaching regarding the cause of tubercular disease. This disease brings with it conditions favorable to the growth of bacteria, for parasitic growths are known to flourish in weak organisms. The breaking up of tissues incident to this disease also furnishes most fertile soil for the growth of bacteria. It may be true, as affirmed, that the bacillus is invariably present in cases of tubercle. This the above considerations would lead us to expect, without looking to it as the sole cause of the disease.

Many questions respecting these minute organisms and their influence in life and disease are still to be settled, but their study has unquestionably led to much improvement in the practice of the healing art. Our efforts to combat disease must to a very great extent depend upon our success in teaching the public to rely less upon antidotes and more upon those means which tend to build up strong bodies capable of resisting the agencies causing disease.

Dr. Tye, of Chatham, was appointed chairman of the surgical section, Dr. Gardner, of Montreal, secretary; and Dr. Graham, of Toronto, chairman of the medical section, and Dr. McDonald, of Montreal, secretary. The meeting then divided into sections.

#### MEDICAL SECTION.

Dr. Graham in the chair.

Dr. Playter read a paper on "Diet as a Therapeutic Agent." He thought a very large proportion of the cases of sickness which engage the attention of physicians is caused by errors in diet; especially were diseases of the digestive organs, liver, and kidneys and also the gouty and rheumatic diathesis thus caused. Such diseases, though, enrich the quack more than the regular physician. He would enquire very closely into the usual diet of all such patients and often a radical change in diet is a sufficient remedy.

Dr. Reeve, of Toronto, said he believed many cases of phlyctenular ophthalmia in children were caused by overeating of fresh fruit.

Dr. Graham referred to the influence of food in skin affections, acute attacks depending frequently upon peculiar sorts of food, and chronic cases upon either a defective or excessive diet.

Dr. Grant, of Ottawa, urged the importance of combining massage with regulation of diet.

Dr. Sheard, of Toronto, exhibited a specimen of "Invaginated and Gangrenous Bowel." The patient, a man aged 37, had a right inguinal hernia, with symptoms of obstruction. Hernia was reduced without much difficulty, but the symptoms of obstruction continuing and becoming urgent, Dr. Burns opened the abdomen, and found the tumor to be an invagination of the ileum into the