

gradually adopted by the hospitals in great cities, and, finally inculcated in the rank and file of the doctors. After all this has been done several years must elapse before the results can be woven into mortality tables.

Now let us enumerate a few of the discoveries that are likely to directly lessen the death-rates of the next forty years.

**ANTISEPTICS.**—So modern and so scientific a work as the 9th edition of the "Encyclopædia Britannica" says, vol. II., p. 136, "Although the antiseptic system in surgery is *but on its trial, and its practical advantages over the methods of treatment in general use are still questioned by many higher authorities*, it has already obtained wide repute and is extensively employed by surgeons both in this and other countries." And vol. XXII., p. 679,—"The introduction of this practice by Lister effected a complete change in operative surgery."

Which proves that modern science moves so fast that there is room for a complete revolution in surgical methods between two volumes of the same book.

It has been roughly estimated (comparing the experience of the Civil war with that of the recent Spanish war) that by the use of antiseptics the proportionate number of deaths from wounds is reduced one-half.

**APPENDICITIS.**—This disease has lately become a sort of fashionable *culte*, and the eagerness of surgeons to cut away the useless but malicious organ in which the disease flourishes has become a standard pleasantry with the humorists of the day. Even now, when the disease is checked by an almost infallible diagnosis and a high degree of operative skill, still it continues to claim its victims. We may judge then of the slaughter by appendicitis alone during all the years when its very existence was unknown, and when it was killing while the physician was curing something it was mistaken for.

**ROENTGEN'S RAYS.**—This marvellous method of seeing through the opaque structure of the human body has its value as well for the would-be-insured as for the accepted-risk. During the past three years, twelve otherwise sound men, have been rejected by the I.O.F. for the cause, "Bullet in body."

The news of Roentgen's discovery came almost as of yesterday, and already every up-to-date hospital is verifying its surgery by the scrutiny of the rays. Ten years later humanity may be able to make an estimate, and reward the discoverer according to his works.

**THE DISCOVERIES OF PASTEUR AND KOCH.**—Pasteur and Koch, by not theorizing about disease, but actually picking out the guilty bacteria, making

cultures of them, and condemning them to breed their own antidotes, have given a direction to research that twenty years ago was not dreamed of. The work of these men does not end with the bacillus of hydrophobia, cholera, or tuberculosis. They are responsible for the fact that thousands of eager men are investigating the hidden agents of every disease that effects man, beast, grape-vine or peach tree.

Hydrophobia has yielded to Pasteur. Cholera, Yellow Fever, and the Bubonic Plague are, if not under sure control by inoculation, at least under surveillance by the microscope.

**DIPHTHERIA.**—The treatment of diphtheria by injecting anti-toxic serum is so recent that it may be said in one sense to be on its trial—in other words, the discovery is so recent that it has hardly had time to make itself a familiar method with the medical profession at large. A doctor is conservative about trying a remedy he has not personally seen applied. When the profession is ready and satisfied, diphtheria as a scourge will be a reminiscence.

**TYPHOID FEVER.**—The abortive treatment of typhoid is so recent that standard works on medicine had not heard of it; and yet it is probable that in a few years we shall see items like these:

"Mr. Smith is back; he has been rusticated for two weeks at his country residence—cause, typhoid fever;" or "Capt. Jones has been granted ten days' leave of absence on account of typhoid."

At present this disease is killing men like flies at Dawson City. It has (during the past 24 years) caused 8.67 per cent. of the death claims of the I.O.F.

**CURES INVENTED "WHILE YOU WAIT."**—You are never sure when you pick up the morning's paper that you may not learn of the successful treatment of some *incurable* malady. Two years ago the great Sir Joseph Lister told us: "Behring's darling object was to discover means of curing tetanus and diphtheria in man. In tetanus the conditions are not favorable; because the specific bacilli lurk in the depths of the wound, and only declare their presence by symptoms caused by their toxin having been already in a greater or less amount diffused through the system, and in every case of this disease there must be a fear that the antidote may be applied too late to be useful. But in diphtheria the bacilli very early manifest their presence by the false membrane which they cause upon the throat so that the antitoxin has a fair chance, and here we are justified in saying that Behring's object has been attained."

And yet the other day did we not read in the papers that a severe case of tetanus had been successfully treated in a New Jersey hospital by injections of anti-toxin. Two years ago there was