

Colin's ignorance, asked him to produce before the Academy a hen suffering from anthrax. This Colin was unable to do. Pasteur then showed that the reason of this was the high temperature of birds, which is about 107 degrees F. Then by lowering the temperature of a hen to 100 degrees, by immersing it in a cold bath, and placing it under the influence of the germs the splenic fever resulted. The Academy again gave their favorite unstinted applause.

Further justifying Pasteur's theory came the alarming mortality caused by puerperal fever in the maternity hospitals of Paris and elsewhere. In one year in one Parisian hospital 310 out of 1,350 patients perished. To women of the lower classes going to this institution, it was said that this hospital was the vestibule of death. One day when this subject was being discussed in the Academy of Sciences, one of Pasteur's colleagues was enlarging eloquently upon the various causes of the epidemic. The practised scientist arose and said, "It is none of these things which causes the outbreak; it is the nursing and medical staff who carry the microbes. The orator replied that he feared the microbe of this disease would never be found. Pasteur went to the blackboard, drew a diagram of the chain-like organism and said: "There—that is what it is like." Thus again did the germ theory gain an emphatic impetus.

His Greatest Discovery.

An epidemic of chicken cholera in 1880 excited the notice of Pasteur. In experimenting he found that in his cultures in flasks containing diseased portions, the microbes sown without an interruption of more than twenty-four hours in new fowls held all their virulence; but when the culture was kept for several weeks the hens on being inoculated, became ill, but recovered. If then new culture were administered to the same fowls they were found to be immune or unaffected by the deadly germs. His explanation was that the oxygen of the air weakened the microbe when for a time exposed. The microbe usually survived, but was harmless. The similarity of this experiment to the vaccine of Jenner was very striking.

But, asked Pasteur, is this general? What about the virulent anthrax? Can it be subdued in this way?

One of the difficulties in experimenting was that liquids which suit some microbes for growth are entirely unsuitable to others. A wide spread and long-continued examination and treatment of the microbe of anthrax was then given by the scientist. Wavering betwixt hope and fear he at last succeeded in obtaining the antidote for the disease in the weakened anthrax.

His statement was:—

1.—Artificial attenuation of virus, i. e., by the oxygen of the air weakens and abates the virulence of disease.

2.—Inoculation by this attenuated virus makes the patient immune.

This was undoubtedly the greatest discovery made by Pasteur, and the subsequent discoveries of other investigators, by which in the same manner the terrors of Diphtheria have been removed, justify us in awarding to the French scientist for this the brightest gem in his crown of honor.

A Famous Experiment.

We have seen already that while Pasteur was of a most sympathetic and kindly disposition, yet there was in him a fiery Gallic spirit which rejoiced in the heat of conflict. His desire to see his benevolent schemes succeed made him impatient of opposition. Accordingly, every one of his great discoveries