

would require to come directly in contact with the micro-organism to be effectual. Taking such to be the case, I believe you will all agree with me that we have no such a substance at present in our *materia medica*, for the quantity that would be required to saturate the system so as to kill the germ in the circulatory fluids would produce toxic effects fatal to the organism, fatal to the patient, as all those substances which we are familiar with which are most efficacious in destroying germ life are those which interfere most readily with tissue cells.

The second question which would then present itself would be in strictly constitutional diseases of bacterial origin: Of what value therefore, is any internal chemical antiseptic? which might be answered by saying, only of a mitigating and not of a certain value. But to this answer I take exception, as I fully believe in the curative properties of chemical compounds as antiseptics, taken internally. Bacteriologists have been able to demonstrate that bacilli in bacterial culture produce a toxin destructive to themselves, poisonous to the very germs that produce them.

Then we have a *similar illustration in the self-limitation of infectious diseases, especially exanthemata*, where the recovery usually occurs spontaneously and within a certain period, which must lead us to believe that, as in the case of bacilli culture, is due to some organic antiseptic which checks the increase of germs circulating in the system. Then, if organic substance has the power of destroying germ life in the circulation, either directly or through the destruction in the organism of the substances necessary to the life of the parasite, why should there not be some inorganic product which would have similar results? I believe it can be fully demonstrated that there is—not having the power to produce an immunity from disease, but in destroying the bacilli or their toxins in specific constitutional troubles due to germs.

For an example, I might mention the use of creasote in tubercular troubles, which in all cases prolong life, and in many cases when used early in the disease, makes permanent cures. Then again there is mercury, one of the best external antiseptics we have got. When taken internally it is almost a specific in the cure of syphilis, a germ disease, and it matters not how it enters the circulation either by inoculation, inhalation, subcutaneous injections, or by absorption through the stomach, it has the power of destroying the syphilitic bacilli, and I have seen excellent results in the free use of mercury in diphtheric and membranous croup.

Then a third chemical substance I might draw your attention to is *sul. quinine* as a germicide, and if there is any remedy in the *materia medica* which can be classed as a specific in the cure of disease, it is the *sul. quinine* in the cure of malarial fevers. It is a remedy that has been long in use, but until bacteriologists dis-