

exposed to fresh air and sunlight, but has been found living and virulent after many months in the dust of close, badly ventilated rooms. If anyone susceptible to the disease shares such a room with a consumptive, or, as is too often the case, takes up his abode in it without any proper cleansing or disinfection after the consumptive dies, is it any wonder that he, too, contracts the disease; and we know that in every large town there are crowds of such dwellings—well described as veritable nests of tuberculosis.

In order to deal with the disease we want to teach the people that it is possible, without spending more money than they do at present, to have better food, purer air, and more healthy homes. Consumption is a house disease, and if all, or even the majority of women were enlisted in this crusade the battle would be more than half won.

#### HOW IS A CONSUMPTIVE'S HOUSE TO BE KEPT FREE FROM INFECTION?

I should like to be certain that no one in this hall should be ignorant of the fact that the infection lies in the expectoration, and for practical purposes in the expectoration only.

I want every child to know that it is not the consumptive that is dangerous, but his expectoration. And that, moreover, the expectoration is no more dangerous than gunpowder if properly handled.

The expectoration contains millions of microbes, but these cannot move themselves, and as long as the expectoration is moist they will not be blown about in the air; but if any particles of expectoration are allowed to dry on handkerchiefs, bedclothes, dirty vessels, or elsewhere, then the conditions are such that minute infectious particles will be carried about in the air, will mingle with the dust, and the room becomes infected.

If a fire is at hand, one of the best ways of dealing with the sputum is to receive it on a piece of paper, and immediately burn each spit as it is coughed up. On an ordinary fire you can only burn at one time a very small quantity of sputum. If you try to burn any larger quantity there is great danger that some of it will fall through the fire and be only dried.

Dr. Steede advocated the teaching of elementary hygiene in the National Schools, especially how to avoid tubercular infection, the establishment of sanatoria for the treatment of hopeful cases, and accommodation for advanced cases, and the establishment of anti-tuberculosis dispensaries.

## Wound Infection.

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#### A LECTURE DELIVERED TO SECOND-YEAR NURSES AT MONSALL HOSPITAL.

In the preceding lecture, I shewed you that germs frequently obtain entrance to a wound, and pointed out where they might come from, and how we should proceed in order to prevent their appearance there either before or after the wound was inflicted. To-day, I propose to tell you something about what happens when they appear in a wound, and what we ought then to do.

As a matter of fact, a very great deal has been written about the pathology of wound infection, and it is really a very difficult subject. I shall have to put what I am going to say very dogmatically, in order that you may not lose sight of the important facts in a multitude of details.

If you remember the general principles I gave you some time back as to the behaviour of the body generally when organisms obtained an entrance, you will have no difficulty in understanding that the process is essentially the same whether the germs settle on the tonsils, as in scarlet fever or diphtheria, or obtain entrance to a wound. We have thus the preliminary growth and multiplication of the organisms at the part, then the calling up of the leucocytes (or white blood cells) to fight them, and the battle itself that ensues, with the two methods of combat—that at close quarters, where the cells swallow up the germs; and the long range action, where both germs and leucocytes manufacture poisons, which meet and neutralise one another in the blood stream or the tissues. In the case of wound infection, the battlefield is in or around the wound itself, and toxins are absorbed from it which pass into the blood stream and produce various constitutional effects which we recognise as an attack of "blood poisoning."

Let us take the changes in the wound first. Though the process is really the same, we in practice get different appearances which are determined by the depth of the organisms in the wound. This division is convenient clinically, though it is scientifically unsound to make a distinction in kind, where such exists in degree only.

Let us suppose, then, that the wound is a mere scratch, and we will take as an instance a "Saturday night" cut head in an alcoholic patient. As he is not in full possession of

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