

ravages of a microscopic bacillus, the existence of which was not known thirty years ago—there will be born upon you the great importance of as wide a knowledge of the question as may be possible, not only among the medical profession, but among the community at large. No one should be ignorant of a few of the important points in the life history of the germ which is causative of consumption, not even the rag picker in the street, nor the Chinaman who looks after your linen, nor the colored man who waits upon you in your hotel. For these people, and others like them, can do much to prevent the spread of the disease once they are fully seized of the idea that it is infectious. Dirt and unhygienic surroundings are detestable, but no amount of dirt, no environment, no amount of exposure, intemperance, want or vice, will *per se* produce tuberculosis. *Omne vivum ex ovo*—all life from pre-existing life—is the text of modern pathology. The tubercle bacillus is a living entity. The question, whence it comes, takes us back to that old abyss, the dawn of life, a question forever as unanswerable to the mind of science as to the eye of faith.

The germ, as I have said, is a living entity, with certain characteristics in which it differs from other germs, just as rye differs from wheat, the orange from the lemon, the oak from the ash. It must be present before anyone—no matter what his heredity, his physical condition, reduced it may be by alcohol, starvation, excesses, vice or other disease—can have tuberculosis. This germ, I say, must get into our system from without before we can contract tuberculosis. Now, two points upon which I wish to lay stress, are :

(a) An individual is more liable to contract the disease who lives in squalor, with unhygienic surroundings, whose system is reduced by vice, intemperance, other diseases, want, cold, dampness or overwork, mental or physical.

When we get down to the ultimate, the battle between the invading germ and the system it has invaded, is a battle between the tubercle bacillus and the white blood corpuscle, or, as it is called, the "leucocyte." Now, these terms, "white blood corpuscle" or "leucocyte," may not convey much idea to some of the purely actuarial part of my audience. Suffice it to say, that it is a small, microscopically small, portion of protoplasm, a substance something like the white of an egg; vitalized, generally globe-shaped, but capable of changing its form and position, capable of feeding itself, and of excreting what is not needed for its own growth and sustenance. The white blood corpuscle exists in countless myriads in the blood, muscle, bone, nerve tissues, and indeed, in all the tissues of the body.

When the germ, say a tubercle bacillus, finds entrance into an animal body, at once these white blood corpuscles—