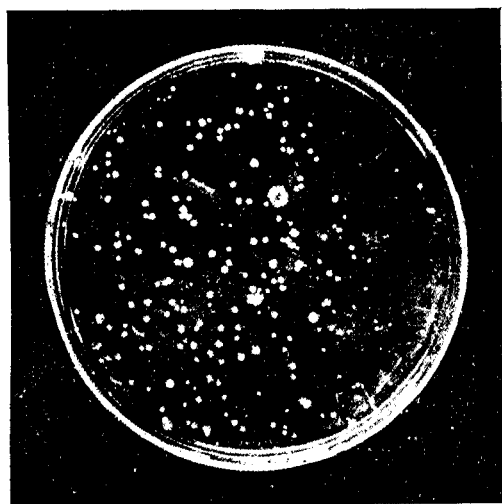


Professional Review.

THE STORY OF THE BACTERIA.

"The Story of the Bacteria and Their Relation to Health and Disease," by Dr. T. Mitchell Prudden, is a book which should be read by every nurse, for she will thereby gain a practical, intelligent insight into the nature of bacteria, their method of growth, their uses and dangers, without over-burdening herself with knowledge pertaining more properly to the province of medicine. A second edition of this valuable little book has just been published by G. P. Putnam's, 24, Bedford Street, London, W.C. The revision of the book for the second edition has been everywhere extensive, and the author expresses the hope that "the addition of pictures, and the enlarged scope of the book, will make it useful to the new generation of readers, whose outlooks for increased efficiency

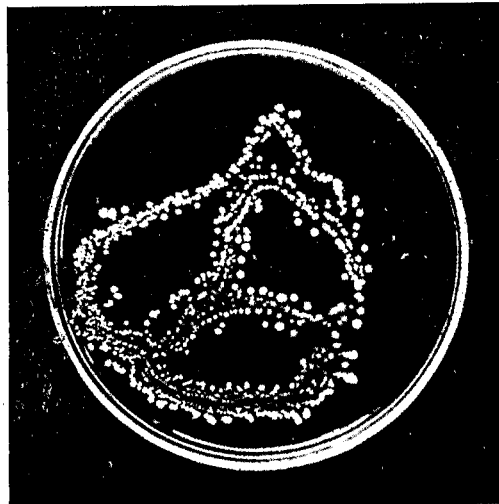


A SNEEZE PLATE CULTURE.

Bacteria, also called "germs," or "microbes," or "micro-organisms" (i.e., small living beings), are distinguished from one another by names which refer to their shapes or habits. Thus the most common form of the round or spheroidal bacteria is called a *micrococcus*=a little berry; one variety which produces a yellow colour in masses is called the *micrococcus luteus*=the yellow micrococcus. Another genus of germs are called *streptococci*=a chain of berries, because the little balls tend to cling together, and form chains as they grow, and others are known as *staphylococci*=a bunch of berries.

Among the rod-shaped bacteria the most common germ is the *bacillus*; others are spiral in form.

The great majority of bacteria are beneficent in their action, but some are inimical to health and life, and it is with these that nurses have most to do, and upon which, intelligently or unintelligently, they wage constant war. Those which give the



TRACKS OF A WANDERING "TYPHOID FLY."

and happiness in life is curiously interlinked with the performances of these invisible earth neighbours, whose story is here briefly rehearsed."

The first chapter is devoted to the cells of the human body, and after describing the lowest form of animal life, consisting of a single cell, the author shows that in man, too, life commences in a single cell; "a cell which, though harbouring potentialities of the highest order, in many respects resembles our little denizens of the water. In man the simple cell, under favourable conditions, divides and sub-divides, and ultimately we see each highly developed cell working for the others as well as for itself, and for the organisation as a whole."

Next our attention is directed to the bacteria. "There is a great group of lowly plants so small as to be quite invisible to the naked eye, and which, until within a few years, have been entirely unknown to man, which still linger in the primitive simplicity which we imagine to have belonged to the earth's earliest denizens. These are the bacteria."

greatest trouble are the *streptococcus pyogenes* and the *staphylococcus pyogenes*; *pyogenes*=pus forming.

Lastly, the soluble poison produced (toxins) by these bacteria may enter the circulation and cause *toxæmia*, or when the bacteria themselves escape from their primary seat and with their toxins gain access to the blood, the condition is called *septicæmia* or *bacteriæmia*.

These bacteria of suppuration apparently do no harm when they lodge on the uninjured surface of the body, but only when they get into the tissues through an injury, or lodge upon the surfaces of the respiratory or digestive tract, or in the heart and blood vessels, which are already the seat of disease, or when they get into the hair follicles of the skin, and under certain conditions incite boils.

This knowledge applied to surgery has supplanted the antiseptic by the aseptic system, the aim being to keep bacteria out of wounds rather than to kill them with antiseptics when they have been allowed

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