and are of the zymotic class, are propagated by germs infinitesimal in their size but as much alive as is the egg of a bird or the seed of a plant. At the same time I am also satisfied that there are cases in which a process arises which does not require a stage of incubation, and in which the product of tissue change is capable of spreading mischief and promoting a similar disease in another person, that the *materies morbi* is not necessarily a living particle capable of reproducing one of its own class, but is a secretion of matter produced by an action on the frame similar to that which arises when a particular gland is irritated. The irritation produces a secretion which, under certain circumstances, is quite different from the ordinary fluid. Thus the milk from the mammary gland of a woman who has recently been in a state of passionate excitement is known to be injurious to her sucking child; convulsions have followed from its use, and it is a case quite to the point.

I will shortly explain the manner in which, according to each of these theories, or rather my view of them, disease may spread. We will suppose that a minute granule of small-pox matter has found entrance into a body susceptible of its influence. A time is required for it to assimilate material to itself. This is called the stage of incubation. It probably increases and multiplies in a manner somewhat similar to the growth of the yeast plant in sweet-wort. There is a constant deduplication of the germ, either by the division of cell or by the aggregation of fresh matter, and with that growth there is a rise of temperature. The period of growth is definite, like to ordinary fungi, and is not prolonged beyond a given time. In some cases there is a continual renewal of growth until the patient succumbs, or all the material available has been used up, and fructification has taken place. Until this process is completed fever runs its course. The new produce has to be expelled from the body. If the material upon which the germ has been able to feed has not been excessive, the patient throws off the disease in a mass of pustules, and then recovers, or the secondary fever set up by the pustules themselves may be fatal. If the quantity of available food is large, the newly-formed material interferes with the nourishment of the body, and the patient succumbs to the disease. In this class of case there are three parties to the disease—the germ or particle to be planted; the body in which it is to take root; and the material by means of which it grows. If the latter is absent the germ aborts and comes to nothing. This is my idea of the germ theory. It applies to small-pox and its allies; to typhus and typhoid and cholera; to diphtheria, scarlet-fever and measles. Whenever a stage of incubation is required after the advent of the germ, there is an action set up as a sequence, and the result of that action must be growth of germ, then development, and afterwards a process similar to fructification. This growth is provided by a material which is not proper to the human body; it is something extraneous, and not necessarily a part of it. It is the retention within the blood of some used-up or absorbed material which ought not to be there, and which is the re-