to regard them as similar-that is, analogous-to sprouting barley in a malt-house. If the sprouting barley is taken out, planted in proper soil, it will grow very rapidly; but if it be kept in a dry heat for a short time, as in the kiln, or placed in a dry place, or put in the hot sun for a short time, it loses its vitality and will not fructify. So the germs of living protoplasm contained in the breath of a feverish smallpox patient will take root if immediately transplanted to the mucous membrane of a susceptible person; but if floated about in the air for a hundred yards they will lose their vitality and abort, for they cannot bear the influence of exposure to light and air, and especially to the action of ozone. Hence isolation and ventilation as rapidly as possible is necessary for such cases, so that the growing living germs contained in the breath given off by the patient may be destroyed before they can have the opportunity of saving their own lives by infecting some other person. The conveyance of such cases through crowded streets is adding to the danger of those living in the neighbourhood of large small-pox hospitals, especially if such are situated in crowd-In moving cases, thereed districts. fore, the greatest care must be taken to prevent the spread of infection by such means, and the air of the ambulance in which they are moved should be treated in some way by the production of ozone in the ambulance by means of iodine, carbolic acid, creasote, sanitas, or some other chemical which is capable of assisting in the production of that agent; and I should recommend that such patients should, if they could bear it, use a few folds of aniseptic gauze, as a respirator, which has been soaked with solution of carbolic acid or sanitas, or else employ a layer

of thinly-pressed cotton-wool, so that the infecting agents contained in the breath may be retained and then destroyed. But the germs multiplying infective disease are not limited to these sprouting particles. These are living, growing at the time of the separation from their human host, and cannot live for many seconds in isolated existence, any more than the corpuscles contained in the human blood can retain their vitality under similar transference from one human body to another; but this is not the case with the matters thrown off during subsequent stages of the disease. It is probable that the growing germ is more allied to the vegetable kingdom than to the animal, and that it follows a little way upon the same lines as the algae or seaweeds do, in lakes and seas. The pustules of small-pox which form upon the skin as the disease progresses are clusters of seeds which are not sprouting, which have a vitality of their own just as the grain of barley has which is kept in a dry and cool place-retaining vitality under such circumstances for almost any number of years, provided. air and organic life is kept away from it. It may be carried any distance, and when it meets with its favorite nidus, or manure heap, it develops into another plant; and so the disease spreads from case to case, from district to district, and from generation to generation, without much chance of our being able to destroy it utterly out of the land, unless we make everybody unsusceptible of its influence by changing the character of their moist tissues by means of vaccination. It is probable also that the germs of small-pox, like to those of algal vegetation, consist of two different kinds of sporesthe growing and the resting. The growing, like to those which come from