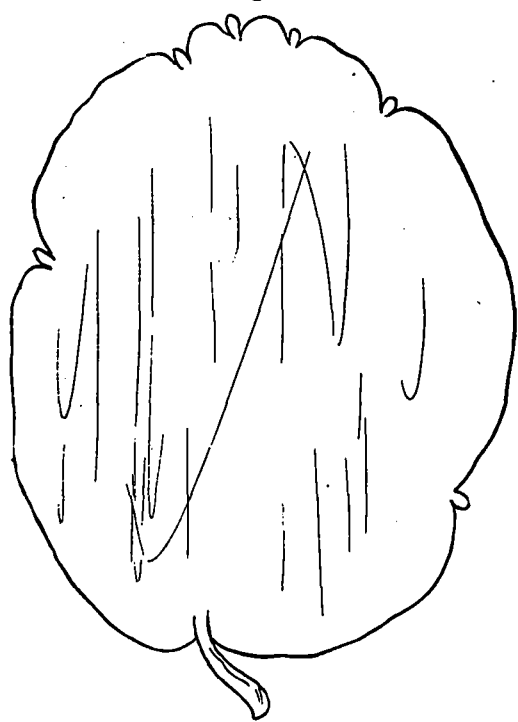


Fig. 7, the germs of which are egg shaped, and so small that 800 laid in a line, measure only one inch : they are so light that they float about in the air, unperceived, and so numerous are they, and so rapid in their growth that infection is almost miraculous. They settle upon whatever they touch, but germinate only when they strike their natural prey, the potato. This fungus, as before stated, is a "parasite." Parasites are either animal or vegetable ;

Fig. 5

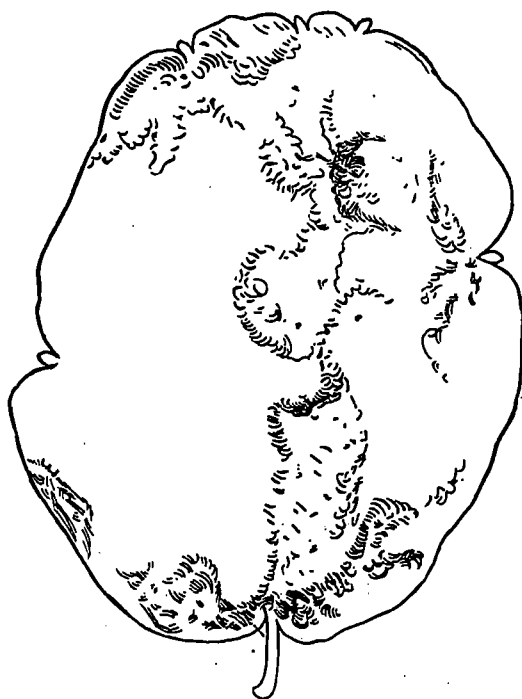


A good potato cut through the middle.

the animal comprise a number of insects, worms, and multitude of minute and less perfectly organized orders which we call microbes on account of their minuteness ; it is said that they surpass in number all other animals and are productive of all sorts of diseases and discomforts. But the parasites which prey upon vegetables are, many of them, also plants which live upon, or within, other plants, somewhat in the same way as these plants live upon the soil, but with the difference of robbing them of the juices which they had absorbed and elaborated for their own susten-

ance. Parasites belonging to the cryptogamus fungi, not only live upon the exterior, but nestle and develop in the interior tissues of the plant, and may be likened to those animal parasites which have been found in the intestines, the liver, the kidneys, and even the brain of animals. The methods in which their spores enter the plant on which they feed are different in different species, but they are mostly imbibed by the leaves, Fig. 8, or

Fig. 6.



A diseased potato cut through the middle.

absorbed by the fine spongioles of the roots, their development is the most rapid in dark, warm, moist weather. After considerable observation and research, the particular parasitic fungus which attacked the potato has been found to be "*Phytophthora infestans*" a plant belonging to the mushroom family ; the reason why it cannot continue to live, even although it might sprout, is because it is peculiar to the potato, for as some plants grow only in water, others in marshes, and others in dry land, so parasites grow on particular plants: one live on clover, and another on wheat, and the one causing this form of