

BLACK ROT OF THE TOMATO.

SIR,—I send you a couple of tomatoes affected with the black rot, which seems to have affected all varieties in this section. I would be obliged if you can give a cause and remedy for it. It affects those upon the ground as well as those suspended. I would be glad to know, too, if the sound portions of those affected would be injurious to those eating them.

J. G. FITZGIBBON, *Norwood.*

The specimens of diseased tomatoes sent by Mr. FitzGibbon present an appearance only too familiar. The tomato rot has been wide-spread during the last five years, not only throughout Canada, but also throughout the United States. Some growers report that as much as one-third of their crop has been destroyed by it.

The cause of this rot is very difficult to explain, but it is a fungus growth which first affects the tomato at the apex and gradually spreads over a large portion of the fruit. (See Fig. 53.) The parts affected soon harden and the whole fruit becomes dried and shriveled, rendering it unfit for market. So far as we know there is nothing injurious to the health in the sound portions of those tomatoes which are slightly affected.

Prof. Bailey is of the opinion that the tomato rot is made worse by the abundant use of stable manure, and the general opinion is that some varieties

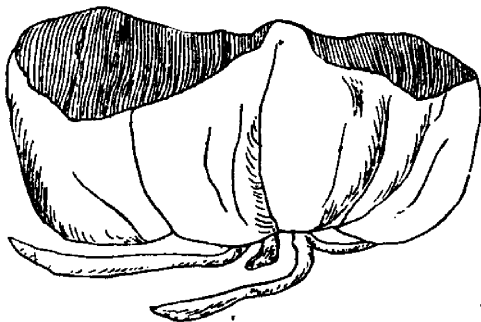


FIG. 53.—TOMATO AFFECTED WITH ROT.

are more subject to it than others. Thus the Acme and the Mikado are very badly subject to it, while the Perfection, Paragon and Trophy are not so easily affected.

To scientists the fungus is known as *Macrosporium tomato*, and consists of a dark-colored mycelium and vegetative system, the growing tubes of which can be readily traced to the cells of the sound tissue of the tomato (see Fig. 54 *d*); and of spores, which are borne on the ends of the branches, called hyphæ, all of which are plainly represented in Fig. 54 *a* and *b*. These are at first dark brown, but at length turn olive-black. When these spores come in contact with either ripe or green fruit they germinate rapidly under favorable circumstances, such as