

the last century these tendencies developed with increasing power and rapidity, until in 1831 a crisis came, and a still greater one in 1845, when, with the then limited knowledge of bacteria, it became a puzzle to men of science and a terror to cultiva-

Fig. 1



Healthy potato leaf.

tors. Previous to the advent of the greatly destructive disease of 1845, four or five other forms of disease of the potato had been noticed; the dry rot, in which the tubers decayed before they had come to their full growth; the curl, which affected the leaf and thus prevented the healthy development of the tuber; a third disease which was a combination of the two former, and a fourth called "taint," which was a malignant form of the dry rot.

Scab is another disease, evidently caused by the action of a fungus; it affects only the skin of the tuber and renders it unsightly, but does not injure it as regards flavour and quality.

From 1831 to 1837 these diseases proved fatal to the crops in the best soils, and excited universal alarm amongst growers.

The taint abated its force in 1838, but was, more or less, extensively known during the next seven years when in 1845, Fig. 3 and 4, it was eclipsed by a disease of far greater general violence and destructiveness which seemed to burst into existence

Fig. 2



Under surface of diseased potato leaf; black blotches where the disease commences.

with tremendous energy, and, what was curious it appeared at about the same time, wherever the potato was cultivated; sweeping away whole fields, and desolating whole districts. In Ireland, in consequence of its adaptability to small holdings, the potato had become a staple article of food amongst the peasantry, and the sudden destruction of the crop entailed a famine upon that country, causing an immense amount of suffering and costing the British Government an enormous amount of money to keep the Irish people from actual starvation. In 1846, it looked as if the potato would be entirely exterminated, and few cultivators were bold enough to risk planting them. The alarm which this disease created in the public mind of those days is curious to look back