



Fig. 11. *Rhizoctonia* on potato-tubers.

is important, however, to avoid as far as possible introducing it into the soil. Seed-treatment with corrosive sublimate is effective, but formaldehyde is unreliable and often worthless. However, the sclerotia are very resistant to the penetration of liquids, and the fungus-tissue in the interior of the larger ones may remain undisturbed by any treatment that is safe for the tubers. For this reason it is best to discard altogether, for seed purposes, tubers bearing large sclerotia.

DRY-ROT AND WILT (*Fusarium oxysporum*).

This disease affects the underground parts of the plants in the field. As a consequence the foliage takes on an unhealthy colour and the leaves curl in from the margins. The shoots die prematurely and the yield is diminished. In the field, however, unless severe, the disease is likely to pass unnoticed. Affected tubers may shrivel up with dry-rot in storage. They also seem to offer better facilities for the invasion of the bacteria which produce wet-rot. Wet-rot in the field during the past season seemed particularly abundant in hills affected with the *Fusarium*. Many tubers may, however, go through the winter without apparent change, and these, if used for seed, serve to introduce the disease into the soil. When once introduced, the fungus may persist in the soil for several years. Affected tubers may be detected by cutting them across close to the stem end, when a ring of brownish spots will be seen marking the position of the vascular bundles.

Control.—Avoid using for seed tubers which show the discoloration referred to. Do not grow potatoes again for several years on land which has borne a diseased crop. Seed-treatment is useless against this disease.

SUN-SCALD AND TIP-BURN.

These are physiological troubles which may result from prolonged hot sunny weather, but more rapidly when such weather follows a dull cloudy period. The tip and margins of the leaf present a black scorched appearance which in bad cases may extend almost to the midrib. Where the crop is sprayed with Bordeaux mixture this trouble is diminished, probably through some of the light being screened off.