



Fig. 3—BLACK ROT MUMMY.

interfering with the water supply, causes the tops to wilt; the Soft Rot, probably a bacterial disease, very destructive in poorly drained soil, causing the roots to become soft and mushy; the Black Rot which attacks the roots only during the winter, killing them and leaving them as tough, black mummies in the soil; and the White Rot, a fungus disease which attacks the roots, particularly at the crown, producing a very soft and mealy white rot. This fungus may also attack the stem. The affected portions of the stem rot throw out white tufts of mycelium which soon develop into very black Sclerotia. Then there are certain damping off diseases of seedlings which are often very destructive. These diseases have been more fully described in various articles in "Special Crops" a ginseng growers paper published at Skaneateles, N. Y., and in Bulletin 219 of the College of Agriculture, Ithaca, N. Y. A new bulletin giving more detail is soon to be issued from the Bureau of Plant Industry, Washington, D. C.

Having indicated briefly the chief diseases of the ginseng, we may now consider those fundamental factors which have favored the development of these maladies. In the first place ginseng, like other wild plants, is naturally subject to fungus diseases, but the wild plants being separated by hill and dale, with thick stands of forest trees and thickets between them, there was little opportunity for the spread of fungus diseases from one patch to another. They were confined to a