the disease is probably best known and most directly injurious, such fruit being much reduced in market value. The spots are circular, or nearly so, and dark olive to black in colour. The dried remains of the cuticle are often visible around the margin of the spot. Cracking of the fruit at the affected spots often follows and may lead to the formation of large cracks right across the fruit if the spots are numerous. When the infection takes place early and is at all severe, it may cause serious malformation and stunting of the fruit. Twig-infection is not common with us. Throughout the season conidia are formed on the spots, and new infections may take place if the conditions are suitable. On stored fruit old infections may increase in size and new ones may also occur. Owing to the removal of the protecting cuticle at the affected spots, such apples shrivel sooner than sound ones, and rot-fungi, particularly the pink-rot (*Cephalothecium roseum*), can readily obtain an entrance.

Fig. 2. Apples affected with scab. No. 2 shows the skin of the apple, split off from the underlying tissue, persisting round the edge of the fungus-spot. No. 3 shows the cracking which often supervenes. Both 3 and 4 show malformation as a result of scab-infection.

After the affected leaves have fallen the fungus in them undergoes a further development during the winter months, giving rise to spores of a different kind (*ascospores*). These are first liberated about the time when the blossoms are opening, and over a period of perhaps three or four weeks. The first infections each season come almost entirely from this source.

Control.—This is a typical case of a disease controllable by preventive spraying. The spores germinate and produce infection throughout the growing season if moisture conditions are favourable. To prevent this it is necessary that all susceptible parts be kept covered with a suitable fungicide as long as climatic conditions are such as to favour new infections. Owing to the difference between one season and another, one of the chief difficulties is to judge correctly the number and times of application of the sprayings required; two sprayings may be sufficient in one season where three or four might be required during the next. Bordeaux mixture is an effective spray material as far as the control of the disease goes, but often causes serious russeting of the fruit, and for this reason has been largely superseded by lime-sulphur for sprayings after blossoming-time. Since infection comes from the fallen leaves about blossoming-time, the "dormant" spray with lime-sulphur has little effect in controlling scab, although it may destroy a few overwintering conidia. The important sprays are as follows: First, when the blossoms are well separated in the cluster, showing pink, but still unopened. Lime-sulphur solution 1 to 30 or Bordeaux mixture 4-4-40 may be used at this stage, as there is little danger of russeting. Second, when last petals are falling, with lime-sulphur 1 to 30 or 1 to 40, according to circu-