

able than those of American foul brood. This disease is most destructive in late spring and early summer before the honey flow; in late summer it sometimes disappears, to return the following spring. It spreads through the apiary and district more rapidly than American foul brood.

Black bees are more susceptible to European foul brood than Italians, but both races are equally susceptible to American foul brood. Neglected apiaries of black bees quickly die out when attacked by European foul brood, and many a careless bee-keeper has been put out of business by it.

European foul brood is spreading in Ontario and Quebec, the principal centres at present being the Niagara district and from Durham county in Ontario eastwards into southwestern Quebec.

The organism causing European foul brood is *Bacillus pluton* (White).

METHODS OF SPREADING OF FOUL BROOD.

Both American foul brood and European foul brood spread from colony to colony and from apiary to apiary in much the same way. An affected colony becomes very weak or dies. The hive is robbed and the honey containing the germs of the disease is carried by the robbers to their hives. The bee-keeper may unwittingly aid the spread of the disease by feeding the bees with infected honey or by putting swarms into hives or upon combs that have come from diseased colonies. Discarded receptacles that have contained honey from a diseased colony, if not thoroughly cleaned, may also be a source of infection.

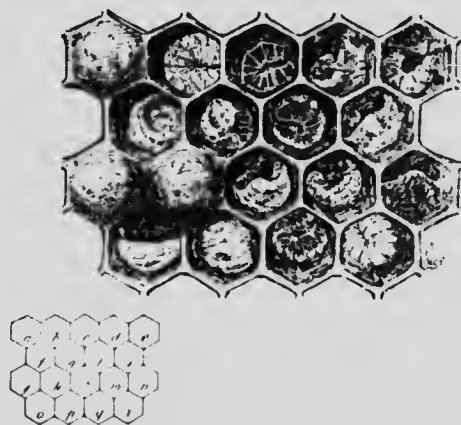


Fig. 39.—European foul brood: *a, j, k*, normal sealed cells; *b, c, d, e, g, i, l, m, p, q*, larvae affected by disease; *r*, normal larvae at age attacked by disease; *f, h, n, o*, dried-down larvae or scales. Twice natural size.

(Phillips, *Farmers' Bull.* No. 442. U.S. Dept. Agric.)

PREVENTIVE MEASURES.

The following precautionary measures are recommended for adoption by all bee-keepers: Never purchase colonies of bees unless it is certain that they are free from disease. Never feed bees with honey of unknown origin. If the bees need feeding give sugar syrup, not honey. Do not purchase old combs, used hives or second-hand bee supplies unless it is certain that they came from healthy apiaries. Keep all colonies strong. The disease should be explained to neighbouring bee-keepers, and they should be invited to co-operate in its prevention and treatment. Such practices as leaving colonies to die on their stands and exposing combs of honey taken from