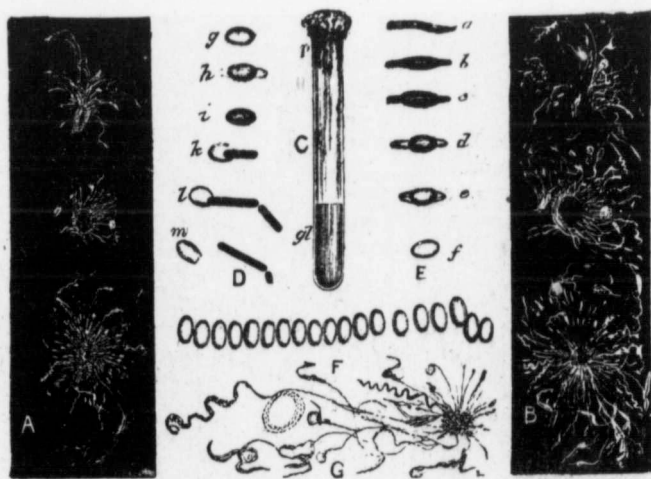


the season some brood that died in the cells which had been capped over becomes a rotten mass—a coffee-colored matter about the consistency of heavy honey. A toothpick dipped into this and drawn out causes this matter to stretch from half an inch to an inch, but does not break and fly back as quickly as in "Foul Brood." The smell is not very bad, but in some cases it has a sour smell, while in some of the sealed, rotten, coffee-colored brood there is a kind of rotten smell, but not like that of the old-time "Foul Brood."

fermentation increases the brownish spot enlarges the larvae dies and stands out swollen and sharp at the ends. In time the brood becomes dark and rotten, and these rotten masses, in time, break down and settle to the lower side of the cells as a watery, syrupy, granular liquid, not like the sticky, ropy or glue-like semi-fluid substance of 'Foul Brood.' It does not adhere to the cell walls like that of 'Foul Brood,' and has not the characteristic foul odor which attracts carrion flies, but a sour, rotten-apple smell. The



Cultures of *B. alvei* (after Cheyne): A. Colonies of gelatine (6 diameters); B, the same Colonies 24 hours later; C, Culture tube; gl gelatine; p, Cotton Wool Plug; D, Spore becoming Bacillus (1800 diameters); E, Bacillus becoming a Spore; F, Spores in line, taken from a gelatine culture; G, Colony developing.

Howard states, with regard to this disease, that the brood is usually attacked late in the larval life and dies during pupation, or later, when nearly mature and ready to come forth through the chrysalis capping. Even after leaving the cell the bees are so feeble that they fall from the combs helpless. Most of the brood die after sealing. When the larvae show the first signs of this disease there appears a brownish spot upon the body about the size of a pin-head. The larvae may yet receive nourishment for a day or two, but as the

cap is disturbed from without, sometimes uncapped and the cell contents removed by the bees."

It will be seen from these accounts that, whilst agreeing in some particulars, there are points of difference between the two descriptions given of this disease, and probably if a bacteriological examination of the diseased larvae had been made by Mr. M. D. West, the New York State Bee Inspector, the organism which produces "Foul Brood" might have been found.

Howard, in connection with this dis-