

with as much freedom and mobility as the particles of the liquid in which they float.

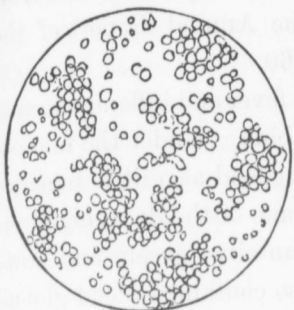
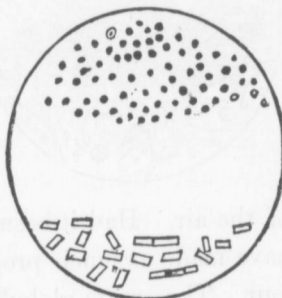


Figure 2 shows a sample of tainted milk, with the globules nearly all in clusters. This was caused by a little fever in the cow. When cows become feverish from any cause, as improper food or water, or exposure to too much hot sun, or by worrying with dogs or flies, their milk under the microscope takes on this appearance. The cream

globules change at once when fever occurs, and, probably from incipient decay, their surfaces become viscid and adhesive, and they stick together in little bunches or clots, and make cream appear thick and ropy.

Milk, whether healthy or unhealthy, always contains more or less organic germs that acts as ferments. Those peculiar to healthy milk are represented by figure 3. The circular ones, on the upper part of the illustration, are what are called *Micrococcus* cells, or spores, and are always present in the milk when it is



sweet, and are in it when drawn from the cow. The cylindrical ones, on the lower part of the view, are the germs concerned in the production of sour milk. They are the same species as those above. They have only assumed a new form from the altered condition of the milk. They are the only germs that necessarily belong to healthy milk. Others will be shown by-and-by.

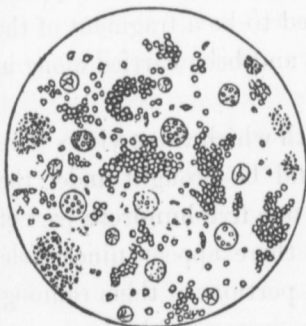


Figure 4 exhibits an aggravated case of diseased milk. It was drawn from a sick cow in a distillery stable in Williamsburg, at the time of the notorious swill-milk exposition in the city of