

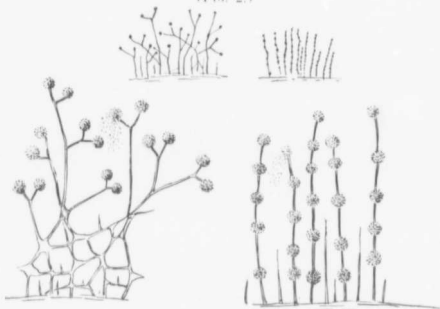
usually influence its flavour and always make it unwholesome, occasionally even poisonous, are all included under the general term *decay*.

Mouldy cheese, sour milk, tainted meat, strong butter, stale fish, decayed fruit, musty flour, bad eggs, and fermented jam have one and all suffered these changes, owing to the invasion of their substance by the invisible seeds of germs, yeasts, and moulds.

#### WHY DECAY SPREADS SO RAPIDLY.

These micro-organisms multiply with extraordinary rapidity when the conditions of food, of temperature, and of moisture are favourable to their growth. It is said that one micro-organism, in itself too minute to be detected apart from its fellows, even under a powerful microscope, might fill the ocean solid with its offspring in five days, were their development unchecked.

(Fig. 2.)



Specimens of moulds which attack food; life-size and also highly magnified to show mode of growth and method of seed distribution.

When we bear in mind that each of these microscopic atoms of life can become responsible for seventeen million descendants in twenty-four hours, it is a cause for thankfulness that the delicacy of their organization and the fastidiousness of their tastes never permit the realization of these risks, or they would rapidly oust us from the world.

#### MICRO-ORGANISMS: GOOD AND BAD.

As a matter of fact, man can only continue to inhabit the earth because of the valuable assistance he receives from these very micro-organisms, who serve his interests faithfully as scavengers when they destroy and remove his refuse, or as labourers when they fertilize his fields and gardens, or as chemists when they heat his silo.

Vinegar, tobacco, linen, and cheese are but a few useful products which we owe to different families of these germs. But, like all good things, they must be kept in their right place, and that place is not in kitchen, larder, or store-room.

#### WHAT IS FERMENTATION?

Mention of one product of the micro-organisms of decay must not be omitted. Certain of these germs, while not actually themselves injurious to the food on which or within which they find a resting-place, yet render that food unwholesome by the results of their presence. Just as much as a number of people occupying a room for some time