

1. A certain temperature, about 110 deg. Fahr.; 212 deg. Fahr. kills the ferment, and it will not act in a lower temperature than 70 deg. Fahr.

2. Some ferments will act only in an acid solution, others only in an alkaline solution, and, again, others will act only in a neutral solution.

The peptonising ferment of the stomach acts best in an acid media, and that of the pancreas in an alkaline media, and one of the functions of the bile, which is alkaline, is to act on the acid chyme (*i.e.*, partly digested food) coming from the stomach before the ferment of the pancreatic juice can have any action upon it; when foods are artificially peptonised with pancreaticus, carbonate of soda is added to make them alkaline.

Now that we have seen under what conditions these ferments can act, we will enter into detail about the peptonising of certain foods.

Milk being more largely used for invalids than any other food, is the most important. There are two ways in general use for peptonising milk:—(1) Fairchild's method; and (2) Benger's method.

1. *Fairchild's Method*.—For this is used pepsin, which is generally obtained from pigs' stomachs, these juices being more like those of human beings' stomachs than are those obtained from most other animals.

Ingredients: 1 pint milk, $\frac{1}{4}$ pint water, 1 tube peptonising powder.

Method.—Mix the milk and water and warm to about 110 deg. Fahr., add the powder, mix well and stand the jug in water as hot as the hand can bear (about 140 deg. Fahr.) for as long as the peptonising is required to go on.

2. *Benger's Method*.—*Ingredients*: Two-thirds of a pint of milk, one-third of a pint of water, fifteen grains soda bicarb., one teaspoonful liqr. pancreaticus.

Method.—Mix the milk and water and warm to about 110 deg. Fahr. Add the pancreaticus and soda (which should previously be mixed together), and stand the vessel containing the milk in a warm place or in water about 140 deg. Fahr.

In both methods to partially peptonise the milk leave it from twenty to thirty minutes; to completely peptonise it takes about two hours or longer.

As the peptonising proceeds a slightly bitter taste is developed, which can be hidden (if it is disliked) by the addition of a little coffee, but many patients do not object to the bitter taste. The milk also looks slightly curdy.

To stop the peptonising ferment from acting, the milk must be boiled, and this will also prevent it having such a bitter taste.

To delay peptonising put the milk on ice, and when it is again put in a warm place the ferment will go on acting.

It is not wise to give a patient peptonised milk for any length of time, as if the stomach is not worked it begins to lose its power.

Diseases in which Peptonised Milk is Used.—Peptonised milk is used in bad dyspepsia, and indeed is useful whenever the power of assimilation of the digestive organs is impaired. It is also used for rectal feeding.

Other Foods which may be Peptonised.—Almost any liquid food can be partially digested outside the body by the addition of a peptonising ferment and under suitable conditions—*e.g.*, beef-tea and gruel.

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Nursing Echoes.

. All communications must be duly authenticated with name and address, not for publication, but as evidence of good faith, and should be addressed to the Editor, 20, Upper Wimpole Street, W.



Miss Peter, late General Superintendent of Queen Victoria's Jubilee Institute for Nurses, has been making a farewell tour of inspection throughout Ireland, and in Dublin was present at the opening meeting of the Irish Nurses' Association, when Miss Kelly expressed from the chair the pleasure it gave the meeting to have her in their midst. We hear Miss Peter was much gratified to find how progressive and harmonious a spirit animates Irish nurses; indeed, they have set an example to their colleagues in the sister kingdoms of England and Scotland it would be well they should follow.

A very interesting article on district nursing in the West of Ireland appeared in a recent issue of *Country Life* by the Hon. Mrs. Lyttelton, who recently accompanied the Countess of Dudley on a visit to this district. She describes the dearth of doctors, the people being too poor to pay fees, the excessive mortality, women dying in child-birth, men of fever, children of tuberculosis, who might easily have been saved if help could have come in time. The writer describes the work of the nurse at Bealadangan. She lives in a cottage with one servant, and is liable to be sent for at any hour of the day or night, in any weather, to go any distance from one to twenty miles on a bicycle. The nurse has to fight illness constantly without a doctor's help; she has to fight the ignorant fears and prejudices of the people, their dirt, squalor, and carelessness, and, worst of all, she has to fight famine. It is a hard and very lonely life, but, like all lives spent in helping others, a happy one. And the reward is immediate; the people love their nurse and are grateful to her; they bring her touching little presents of eggs and cream and butter, they sometimes try to carry out her instructions as to cleanliness, and they depend upon her in all their troubles.

The description of the conditions under which the people live is appalling. One little cabin where the "daughter had just been taken away to a lunatic asylum, and the son was beginning to mutter and look strange, was simply a pile of stones huddling together somehow, with a thatched roof. There was no chimney and no window, and the smoke had to stream out of the door. Inside was nothing but a

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