

meat extracts, broths, soup, meat juices, etc. The consideration of both these forms of food will probably yield some suitable topics for discussion.

The very great convenience of milk as a food has, I think, acted, in a certain sense, as a snare, for there is a tendency especially with nurses, to think no evil of that which is so handy, requires no preparation, and gives so little trouble. But the great drawback in the use of milk in acute disease is the fact that, although a fluid food out of the body, it becomes a solid food in the stomach or intestine. No doubt it is an excellent food in all cases in which it is well tolerated and quickly digested and absorbed, but there are many cases in which it is not so, and when these happen to be cases of typhoid fever very serious injury may be done the patient if this peculiarity is not observed. I have seen several cases of typhoid in which the administration of milk has not appeared to cause any gastric disturbances, but yet has produced great intestinal irritation, and the motions have been largely composed of firm milk curd. One of the reasons why milk so frequently disagrees with patients is that it is given in too concentrated a form and in too great quantity.

Sir Henry Thomson has called attention to the absurd custom, now so prevalent, of using milk as if it were a simple beverage, and to drink it like water, with quantities of solid meat and other food. Why should we hesitate to dilute the milk we give to fever patients? They require water, pure water, in much larger quantity than they usually get, and yet we hesitate to mix water with the milk we give them. Their digestive powers are excessively feeble, and yet we will give them concentrated foods! When we wish to rely on milk as a food in acute disease we should give it in small quantities at a time at short intervals, mixed with water, or, better, with an alkaline water, such as Vichy or Apollinaris. I am accustomed in hospital practice to prescribe powders, each containing 20 grains of bicarbonate of soda and 20 grains of common salt, and to direct that one such powder should be added to every pint of milk, and this is to be diluted when administered, with an equal quantity of water. Two ounces of milk and two ounces of an alkaline water every hour (and a fever patient requires a drink every hour) will give the patient two pints and a half of milk a day. I am, of course, thinking of cases in which the digestion of milk is difficult.

Greater use ought also to be made of whey in those in cases which milk is not digested readily. I have often used it in private practice and in hospital with great advantage. It can be prepared in a pleasant form by boiling a pint of milk with two or three teaspoonfuls of lemon-juice, and a few fragments of lemon peel for the sake of flavor; if the curd be well broken up, then strained through muslin, and all the fluid pressed well out of the

curd, much of the cream and some of the finely-coagulated casein will pass into the whey, which will thus become a fairly nutritive fluid. If necessary, it can be made more nutritious by the addition of meat juice. Or if an egg be whipped up with twice as much boiling water, added slowly and then strained, a fluid will be obtained holding in suspension a considerable quantity of albumen coagulated in fine particles, and this may be added to whey (or to beef-tea), thus supplying the defective albuminate.

I must not dwell longer, however, on milk. I merely make these suggestions with the view of eliciting further observations. I will ask you at the same time to consider the use of "butter-milk" as an invalid food, not so largely used in this country as in Germany, but calculated, I believe, to be of service in many cases of gastric difficulty. It is highly acid from the presence of lactic acid, and it contains the casein of milk in a very finely divided form. I have known dyspeptic patients live upon it in comfort for considerable periods at a time, taking only a little thin water biscuit besides.

Another form of fluid food very extensively used in cases of acute disease is "beef-tea;" this term is usually applied to very strong extracts of beef, and this fluid is generally estimated in exact proportion to its concentration. Why, I have never been quite able to understand. As I have already said, a patient with pyrexia requires and should be given much water; why not give him some of that water with his beef extract? The intense dislike of beef-tea which many patients manifest is especially directed to this very concentrated form. It is mere slavery to routine—mere want of resource—that has perpetuated the invalid's sad restriction to milk and beef-tea. Conceive the dread monotony of a six or seven weeks' limitation to these two articles of diet. Now there are many forms of meat infusion or meat extracts that can be rendered very palatable by suitable care in preparation, infinitely better adapted to serve as foods in pyrexial cases than strong beef-tea. Well-made mutton, veal, and chicken broths to which some well-strained oatmeal or barley gruel can be occasionally added, make excellent invalid foods. They contain in a dilute form the same constituents, and, with the additions I have named, even more nutritive alimentary principles than beef-tea. But clear soups—*consommes*—are exceedingly agreeable, readily absorbable, and stimulating foods, and they usually contain some vegetable juices and salts which greatly add to their food value.

Sir William Jenner some time ago directed the attention of the profession to the remarkable oversight so frequently practised in the feeding of cases of fever, of the omission of vegetable juices from their dietary. It is quite easy to obtain the