subjected to the process of pancreatic digestion. I cannot do this better than by describing an experiment performed this forenoon, of which the results are placed in these phials before me. A pint of milk was diluted with half-a-pint of water, and after being heated to 120° F., was placed in a glass beaker with a teaspoonful of liquor pancreaticus and twenty grains of bicarbonate of soda. The beaker was then placed in a warm chamber, and maintained at a temperature of 110° F. until the close of the experiment. In about ten minutes the milk was observed to thicken and become softly curdled. This phase soon passed away; the soft curds became dissolved; and in about half-an-hour from the commencement, the milk had recovered its diffluent condition. Meanwhile, the milk had lost something of its glossy white appearance, and become a shade yellower. Very gradually, further changes took place; the milk got to look a little thinner and greyer; its flavor also progressively deteriorated, and at length became somewhat bitter and unpleasant. The process was completed—that is, all the casein was converted into peptone—in two hours and a half from the commencement of the experiment. The milk no longer precipitated with acetic acid nor even with nitric acid. These numbered bottles contain samples withdrawn from the beaker at different periods, and immediately boiled to prevent further changes. No. 1 represents the original mixture; No. 2 was removed in half-an-hour; No. 3 in an hour; No. 4 in two hours; and No. 5 at the end of the experiment. Nos. 1, 2, and 3 are scarcely distinguishable from each other, either in appearance or in taste; and yet I know, from other and parallel experiments, that in No. 3 at least three-fourths of the casein is changed into peptone. Nos. 4 and 5 are perceptibly altered in taste, but even these have nearly preserved their original milky appearance. The slight yellowing and greying just spoken of are not appreciable, except by comparison with a specimen of unaltered milk placed by the side of the digested samples. The series of changes do not cease with the completion of the peptonising process. The milk continues to deteriorate; and in the course of some hours it becomes more grey and watery-looking, and its taste becomes decidedly bitter and nauseous. It is important to know that you can arrest this series of changes at any point or at any moment by simply heating the milk to the boiling point. This at once destroys the activity of the ferments and puts an absolute check to all changes. It is also important to know that the greater part of the casein is converted into peptone soon after the commencement of the process, and that it takes a disproportionately long time to convert the remaining portion. Thus I found, when the experiment was so arranged that the milk was wholly peptonised in two hours and a half, that two-thirds of the casein was converted in the first half-hour and three-fourths in the first hour; and that it took an hour and a half longer to convert the remaining one-fourth. In this respect, the peptonising process followed the rule observed in many other ferment actions; namely, that the gradually accumulating product of the ferment-action hampers the operation.

In preparing peptonised milk for invalids, it is absolutely essential to immediately boil the milk when the process has reached the desired point, in order to stop ulterior changes. It is, morever, obvious that it is not necessary for a therapeutical purpose that the milk shall be completely peptonised. A milk in which three-fourths of the casein is digested, and which is so little altered in flavour that it can be taken like ordinary milk, would probably fulfil all the service capable of being rendered by fully peptonised milk. Such a result as this is, I believe, now within our reach. The rate at which milk can be peptonised by pancreatic extract—in other words, the time within which a given quantity of milk can be digested by this means—varies almost indefinitely according to the attendant circumstances. Four conditions have especially to be taken into account, namely, temperature, the degree of alkalescence, the degree of dilution, and, above all, the quantity of the ferment. The higher the temperature, up to about 140° F., the quicker the digestion. The process is arrested and the ferment destroyed at 157°-158° F. On the other hand, a slow action takes place even in the cold. The process is hastened by increas-