

For a moment let us look at some marked changes in the theory and practice of medicine and surgery that have occurred in recent years,—at certain winds which have arisen lately, and enquire whether they are safe winds to sail by or whether we must go cautiously.

The first thing that comes to mind is the matter of proteid diet. Many of us heard the discussion upon this matter that occurred in this room months ago. Professor Chittenden then proved with great skill that men can live for weeks without loss of weight or energy upon a much less proteid diet than in generally taken. Professor Woods Hutchison, writing in a recent magazine, is very sceptical about these results, and says: "From the reports of colleagues, who saw the soldiers at the close of their fast, anaemic, nervous, so eager to get back to regular rations that they would say *anything* about their feelings," which would bring the experiment to a close, it strikes me simply as a test of human indurance, like Dr. Tanner's famous fast." This probably is too severe, but Professor Benedict very ably criticises the same results in the last number of the *American Journal of Physiology*. One of the persons experimented upon by Professor Chittenden was a Mr. Horace Fletcher. He was shown not to have lost weight in the six days, during which the metabolic changes were closely studied by Professor Chittenden. He carried out severe muscular exercises, and, from calculations of his food, Professor Chittenden concluded that his daily consumption of food only equalled 1,700 calories, and, since he did not lose weight, that food was sufficient for his needs. Professor Benedict had the opportunity of observing Mr. Fletcher during the experiment. He tested the output of heat by a respiration calorimeter. This output was about 1,896 calories when he was resting and much more when active, and yet he was taking food of a much less heat value than this. He explains the fact that although Mr. Fletcher was using up more tissue than he was replacing by food, and yet his weight remained the same, by saying that each day a pound or two of his fat was replaced by water,—surely a very far from satisfactory state of things. It is evident that experimental evidence to date is far from convincing.

But granting that it be proved now or in the future that a man can, under fixed conditions of climate, etc., live upon a very limited proteid diet without apparent detriment, it does not at all follow that it is *best* for him to do so. This was well put by Dr. Robert Hutchison here, when he said that what we wanted to know was not the *minimum* proteid diet, but the *optimum*. Is the resisting power of people upon the minimum diet as great as upon a more generous one? Is their opsonic index to various microbic invasions raised or lowered? An interesting