

one who has spent almost his whole active life in protecting the interests of the consumer against unwarranted practices by the manufacturer and dealer to have sympathy with the adulterators of flour from any point of view. Such adulterations add to the miller's profit without adding anything to the nutritive value of the flour. Bleached flour has been pronounced by the courts both adulterated and misbranded and has therefore no right to enter interstate commerce nor to be sold in the District of Columbia. In closing this discussion, I am content to submit the question to the readers of *SCIENCE*, a group of citizens well qualified to judge without prejudice. At the same time, I must admit that the dietitians of the country look with a very considerable degree of disfavor upon diminishing the nutritive value of flour in order to secure the greatest yield and the least nutritious product. Dr. Briggs asks: "What is nutritive value?" I answer, that nutritive value is to secure the largest amount of nutriment that nature has put in our foods. The millers are endeavoring to produce a food with a minimum content of nutritive value. Graham bread may not supply a sufficient amount of iron or iodine, but it does supply a sufficient amount of phosphorus and high grade proteins to give the maximum nutritive value to ground wheat. This is not denied in any place by Dr. Briggs. It is, of course, possible to supply some of the vitamins and minerals removed in the milling, by others existing in other kinds of foods. Is it reasonable, however, to increase the demand for such foods as do supply these missing elements, when they could all be secured by eating our wheat in a form as nearly as possible to its natural composition? Not only does it cost a lot more money to make white flour a nutritious food, as Dr. Briggs admits, but it is a useless expenditure when we have to buy from other sources the very elements which the millers take out of the grain.

I take it that no better exposition of the merits of white and bleached flour can be presented than has been done by Dr. Briggs. I hope, however, that many other writers on health can give a better exposition of the merits of whole wheat flour than I have endeavored to give in the review of the books in question. I am quite content to leave the matter now to the judgment of the intelligent people of this country, and that includes all the readers of *SCIENCE*. I feel that the theories which I have endeavored to present are those which will commend themselves more and more to the sober judgment of the American people in general.

Dr. Eckles claims that there are three errors in my review of Sherman's book on the subject of butter. The first error is that the butter fat standard has

been reduced by 4% in the last few years. He admits that the best butter made for exhibition purposes had a percentage of butter fat 4% higher than the standard at the present time. He also points out that 2,051 exhibition samples of butter in 1923 showed an average of 83.46% of fat, almost 4% above the present standard. His own statements, therefore, sustain my point.

The second error is that 75% of the creameries neutralized the cream before churning. My authority for this statement is found in the hearing before the Commissioner of Internal Revenue in a remark made by the attorney of the so-called neutralizers.

The third error pointed out by Dr. Eckles was that the purpose of neutralizing butter was to make it possible to use cream otherwise unfit for butter manufacture. I know by personal observation and study that this statement is positively correct. The authorities enforcing the food and dairy laws of Minnesota, the state in which Dr. Eckles resides, agreed with me in my statements respecting the butter made from neutralized cream. Dr. Eckles does not, therefore, represent the official opinion of Minnesota on this question.

All the butter made in creameries of neutralized cream enters interstate commerce with no statement of the origin or character. The people who buy creamery butter suppose they are getting the highest type of butter and they do not know until they eat it, or try to eat it, that some of it is the lowest type of butter.

The final solution of this problem is quite similar to that of white and bleached flour. Shall the manufacturers be protected in selling a depreciated article for the price which they get for the real genuine article? There is a tendency in some quarters of official life to protect the manufacturer while, under the food laws which Congress enacted, the first duty of the officials is to protect the consumer.

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SCIENCE NOT IN IT

ON January 1, 1926, the *Washington Post* published a symposium on "The Helpful Achievements of 1925" composed of replies of a number of national and local business, professional and political leaders, to the question "What in your opinion has been the most helpful and outstanding development of the year 1925?"

It is worthy of consideration that no one of the fifty-eight distinguished men cited any scientific discovery among the achievements of the past year.

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