CHALLENGES DR. WILEY'S STATEMENT

Editor, JOURNAL OF OIL & FAT INDUSTRIES:

In the March issue of THE JOURNAL OF OIL & FAT INDUSTRIES, page 84, second paragraph, Dr. Wiley makes the statement, "The great function of fats and oils is to supply heat, and through heat, energy. Many people think that the fats which we eat enter into the fats of the human body. This is not the case. All the fats we eat are burned in the body. The fats that are deposited in our bodies are made from sugar and starch and not from the fats we eat."

This is at variance with the present day conception and the work of the physiological chemists. The literature is full of authoritative and convincing facts to show that the body fat of various animals can be and is directly deposited from the fats ingested. I give you below illustrations:

In "Feeds and Feeding," by Henry and Morrison, 1922, page 86, Section 126:

"Body fat from food fat. Many experiments have conclusively shown that the fat in food which has been acted on by the digestive fluids in the intestines, may be directly stored in the body tissues when supplied in large quantity.

"Hoffmann allowed a dog to starve until its weight had decreased from 26.5 to 16 kilograms and the supply of fat in its body had practically disappeared, as shown by the increased decomposition of the protein tissues at that time. For five days this dog was fed large quantities of fat and only a little fat-free meat, during which time it gained 4.2 kgms. in weight. When slaughtered its body contained 1,353 grams of fat, only 131 of which could possibly have come from the protein fed. Hence much of the fat formed during this time must have come from the fat of the food.

"Henriques and Hansen fed two three-months-old pigs barley meal together with oil. The first pig received linseed and the second cocoanut oil. Samples of the body fat were removed from the back of each pig through incisions, and analyzed. The fat which had formed during the feeding resembled in odor, consistency, and composition the vegetable fat which had been fed. Later, when the feeds were reversed the body fat then formed showed a corresponding change in properties.

"All the digested fat taken into the body of the animal beyond that required for maintenance cannot, however, be deposited as body fat, since considerable losses always occur through the energy expended in digestion and metabolism.

"The amount of body fat which can be formed by farm animals from 100 lbs. of digestible fat in the food consumed varies from 64.4 lbs. in the case of pure fats to 47.4 lbs. in the fats of roughages."

"Chemistry of Food and Nutrition," by Sherman of Columbia University, also shows that the views set forward by Dr. Wiley are old, and that it is now recognized that fat maybe stored directly.

It is, of course, recognized by all the investigators that fat can be made from carbohydrates. In fact, most of the herbivorous animals obtain their fat in this manner.

It should be noted that the body fat of the Eskimo contains fats of greater unsaturatedness than that normal to the great mass of people living in the temperate zone. Also it is true that the fats of the Polynesians contain fatty acids of the cocoanut oil series, which are not normal to the great mass of people receiving a more varied diet. In the case of the Eskimo, this seems, undoubtedly, to be due to the fact that their body is influenced by the blubber fats consumed, and in the case of the Polynesians, by the cocoanut oils which enter largely into their diet.

H. J. MORRISON,
April 10, 1926.

The Uehling Instrument Company, of Paterson, N. J., announces the appointment of W. B. McBurney, 619 Trust Company of Georgia Building, Atlanta, Ga., as representative for Georgia and eastern Tennessee.