

breakfast foods and invalid foods, cocoa and coffee, of "brain foods" and specially treated foods.

The actual extent and character of food adulteration at the present day amounts mainly to harmless frauds upon the consumer. Gross old fashioned adulteration is not prevalent in foods, but still is in drugs. Artificial color, as now used, is not deleterious, but stands for sophistication almost always. This is much used in flavoring extracts, including lemon and vanilla. Extracts of manana, strawberry, etc., of this type are worthless. Bottled soda containing such flavors are condemned. Imitation liquors are prepared from fusel oil essences. Under the Taft decision (not endorsed by state officials) such may be sold as whiskey. This decision is proving a great thing for the essence manufacturers.

In the matter of food preservatives, the danger is in cumulative effect (especially on the young and feeble), of daily doses gotten from various foods if artificial preservation is allowed to become general. The referee board's decision on benzoate does not decide. Vinegar, spices and salt are preservative, but they also are foods, the last named being a constituent of the body. Borax and benzoate are drugs and nothing else. Chemical preservatives are unnecessary and the absence of their use is the best guarantee of purity and cleanliness in preparation. Conversely, benzoate was found always by the government in the past year in its "rotten ketchup" prosecutions.

A Pure Milk Report from the Department of Agriculture at Washington.

The Department of Agriculture at Washington has made public a report on the use of the tuberculin test to prevent the transmission of disease through meat and milk. Laws of extremely rigid requirements are recommended for enactment by the states and the nation, not only to the end that bovine tuberculosis may be extirpated, but that the public may be protected from other food supplies carrying with them the danger of infection. Naturally it is the little children who are the first victims of infection through milk, and the saving of their lives is worth all the time and money required to make the tuberculin test universal. Under the best conditions, however, the progress in applying

the necessary preventive measures must be slow, and it is important that the public should know the best make-shift measures to employ in the meanwhile.

Director Tonney, of the Municipal Laboratories, of Chicago, recently contributed to the "Journal of the American Medical Association" a valuable discussion of milk and tuberculosis and he classified in the order of their importance the diseases transmitted by milk as follows:—

"First—By far the most deserving of attention is the group of infantile diarrhoeal diseases, which are responsible for about one-third of the death rate among children under two years of age in our large cities. As to the bacteriology of these conditions, we have but little satisfactory knowledge, but the evidence furnished by vital statistics is convincing in establishing the important relation of milk thereto.

"Second—Typhoid fever, the relation of which to milk supplies is now well understood.

"Third—Tuberculosis.

"Fourth—Scarlet fever.

"Fifth—Diphtheria.

"Sixth—A group of miscellaneous affections not particularly important in this country, such as cholera, foot and mouth disease, milk sickness and others."

Sanitary regulations in the production and handling of milk will eradicate these various diseases as the tuberculin test will eradicate tuberculosis, but until these regulations, effectively enforced, are secured the safety of the public lies in pasteurization. Dr. Tonney considers compulsory pasteurization practicable for towns and cities, but pending laws to this end private households may do much to protect the health of the little ones.

The idea has been abandoned by the experts that any extreme degree of heat is necessary to destroy the dangerous bacteria in milk. A temperature of 140 degrees Fahrenheit — which is only a trifle too hot to be borne with one's hand—is all that is necessary under proper conditions. The closed nursing bottle filled with fresh milk should be kept in water of this temperature for forty minutes, and this effectively sterilizes the fluid. Methods of pasteurization practiced by some dairymen are useless; such, for example, as heating milk to a high temperature for a few seconds. This is done to keep the milk sweet until it can reach the customer, and an authority