

limitations which must be put upon it. Thus, in my own "Laboratory Text-book of Embryology," published in 1903, pp. 41-43, is given a brief outline of the subject. It seemed to me then that the general opinion was well established, although at that time no single comprehensive essay had been written upon the subject. Hertwig's essay is most creditable, but most of the views he presents were certainly current among embryologists before he wrote. This emphasis of the importance of Hertwig's essay is a most amiable failure, and we may welcome a fresh example of international scientific courtesy, but a critic may be pardoned if he notes that that courtesy is somewhat exaggerated in its expression.

In conclusion, one may recommend Professor Vialleton's work to American readers very cordially. It is a sensible, competent and interesting presentation of a great biological problem, and unquestionably the best we have had.

CHARLES S. MINOT

The Common Sense of the Milk Question.
By JOHN SPARGO.

This book is a layman's endeavor to provide for the average intelligent citizen a popular, easily understandable statement of the politico-social aspects of the milk problem. This being the case, it is unfortunate that the author has emphasized so strongly his opinion as to the cause of the decline of breast feeding and that he has so severely arraigned the public authorities for their supposed crimes of omission and commission with reference to the milk supply. The average reader will be too apt to accept the author's opinions without looking beyond them to determine the sufficiency or the insufficiency of the evidence upon which they are based.

It may be true, as Mr. Spargo holds, that physical disability on the part of the mother is responsible for the larger part of the cases of bottle feeding, but there is a very respectable opinion to the contrary. And so long as the question can not be answered with reasonable certainty and unanimity by the body of men

best able to speak—the medical profession—it might have been better for a lay writer not to declare quite so positively concerning it. For many a mother may find in his teachings the very excuse she is longing for to justify her conscience in submitting her baby to the dangers of bottle feeding. Even admitting, however, that the decline of breast feeding is due to increasing frequency of physical incapacity on the part of the mother, it is not necessary to attribute the increase to racial degeneration; inadequacy of lacteal function in the individual, when it occurs, seems much more likely to be as yet the immediate result of the disuse of the mammary glands during the long period that now commonly ensues after their full anatomical development and before they are called into use, the result of late marriage and postponed child-bearing, rather than the result of racial deterioration.

Mr. Spargo should have submitted evidence to show "the dishonest connection between the manufacturers (of infants' artificial foods) and the health bureaus of the country" or else should have omitted the allegation of its existence. The records of births on file in the health offices of this country are commonly public records, and it bespeaks neither dishonesty nor graft on the part of the health officer if he refrains from denying to the citizen his right of access to such records, even though such a citizen be in the service of a manufacturer of one of the tabooed foods and desires to abstract for advertising purposes the names and addresses of the mothers of children recently born. The allegation, too, that "our civic authorities stand in the position of murderers and accessories to the murder of thousands of infants every year" is ill-advised, since it is not true. It seems remarkable that one who is endeavoring so earnestly as is Mr. Spargo to improve the milk supply should have overlooked the fact that the accomplishment of that end can not be furthered by holding up to public contumely officials who, as a class, are quite as sincere in their desire and quite as earnest in their effort to accomplish that result as is Mr.

Spargo himself, and many and possibly most of whom are doing all that can be done with the authority and money that the people have put at their command. What these men need, if they are to do efficient work, is more public sympathy and support, and more authority and more money wherewith to exercise it, and the publication of such statements as those quoted above will not help them to get any of these things.

With the author's working program no fault can be found: "Healthy herds, efficient inspection, insistence upon cleanliness and careful handling of the milk, municipal farms for providing public institutions, infants' milk depots for the sale of properly modified and pasteurized milk for babies, education of the mothers and the girls before they reach wifehood and motherhood." Too little consideration is given to the cost of producing and marketing milk, for after all it is reasonable to believe that milkmen will be found ready to provide just as good a product as the market demands, providing only that the market is reasonably steady and the market price yields a fair profit. The stress laid on the availability of the goat as a source of milk is unusual. The proper sphere of this animal seems to be, however, as a source of one family supply, so that the consumer can be in entire command of the situation and the milk, taken from the goat under ideal conditions, pass promptly from the udder of the animal to the stomach of the child. But with the prevalence of apartment house life, and with the backyard of the dwelling contracted almost to the vanishing point, there are serious difficulties in the way of introducing goats into the domestic establishment. As a competitor to the cow in the production of the general milk supply the goat does not need to be seriously considered.

The author has followed the common practice of adopting infant mortality as an index to the character of the milk supply. No death rate, however, for infants under one year of age, or for children over one and under five, is of material value unless calcu-

lated on the basis of the population of corresponding age, and too commonly no such basis is available. No general death rate for infants is of value as an index to the efficiency of milk control, since it is based in part on the deaths of infants due to difficult labor, premature delivery and other causes to which the character of the milk supply is in no way related, and is influenced by variations in the numbers of deaths from these causes. And while the death rate from diarrhoeal diseases among children under one or under two years of age possibly forms the best basis for estimating the results of the improvement of the milk supply, the number of deaths from such diseases is so influenced by atmospheric temperature and humidity that a full and accurate knowledge of such conditions is necessary when interpreting such death rates unless the figures relate to periods of time of such considerable duration as to reduce to a minimum the effect of these factors.

It is to be hoped that when another edition of this book is published a more convenient system of references to authors consulted will be adopted. A less diffuse style and possibly the concentration of attention on fewer subjects would probably render the book of more interest and value to the general reader. The fact that a layman should write a book on the milk question for lay readers and that a publisher should expect to find a sale for it is a hopeful sign of the times and augurs well for the early solution of the problem, for people themselves will eventually have to settle all questions concerning it, either through commercial readjustments or through force of law, or probably through both, and the mere official can do only what the people authorize and empower him to do.

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SCIENTIFIC JOURNALS AND ARTICLES

THE June number (volume 14, number 9) of the *Bulletin of the American Mathematical Society* contains the following papers: Report