REVIEW OF REVIEWS

INFANT MORTALITY IN THE UNITED STATES, 1927

The following facts concerning infant mortality in the United States during 1927, were taken from *Hygeia:*

"In 1927 the infant death rate for 683 cities in the birth registration area was 64.9. Approximately sixty-five babies out of every thousand that were born died before they were 1 year old. The number is in itself sufficiently striking to demand serious consideration. This is even more the case when one realizes that the rate is the lowest ever reached by the cities of the United States as a group. Think of the sadness, of the feeling of futility, that must come to a mother who has undergone the travail and the burden of childbirth and who loses her baby before it is one year old.

"In 1915, when the birth registration area was first established and consisted of ten states and the District of Columbia, 100 out of every 1,000 infants born, died before the first year. In 1926 the rate was 73.7. It is important to realize that there are some places in the world in which the rates are constantly around 50.

"An analysis of the figures made available gives to Seattle, Wash., the distinguished honor that it has had for many years among the cities with a population over 250,000; namely, the low rate of 41 infant deaths per 1,000. Portland, Ore., and Minneapolis follow with rates of 47. Among cities with a population of from 100,000 to 250,000 the four with the lowest rates were Bridgeport, Conn., 43; St. Paul, Minn., 49; Oakland, Calif., and Grand Rapids, Mich., each 53. East Orange, N. J., leads the cities with a population between 50,000 and 100,000 with a rate of 26. Alameda, Calif., led those between 25,000 and 50,000 with a rate of 9, and Summit, N. J., with a population between 20,000 and 25,000 led with a rate of 15. Not one important southern city is included among the leaders in the saving of infant lives. Chicago has lowered its rate from 87 to 63 in a period of five years, and New York from 75 to 56 in a similar period. These figures are an indication of what can be accomplished by the community that is willing to spend sufficient money in the education of its public.

"Contrasting with the figures that have been quoted, the cities of Denver and New Orleans have rates of 81 and 88; Lowell, Mass., and Fort Worth, Texas, rates of 91 and 94; Portland, Va., Chattanooga, Tenn., and Charleston, S. C., rates of 154, 125 and 130; Wilmington, N. C., Winston-Salem, N. C., Joliet, Ill., and Columbus, Ga., rates varying from 116 to 140, and Florence, S. C. 142.

"Obviously there is still great room for improvement in America as a whole so far as relates to the control and prevention of infant deaths."

RELATON OF CLOVER TO MALARIA

The following abstract was taken from the June number of *Tropical Diseases Bulletin:*

"Sir William Willcocks is satisfied that the relative (it is not absolute as his paper suggests) immunity of Egypt from malaria is due to clover, and all else is fitted into the picture. 'There must be something in all leguminous plants, especially in certain kinds of clover, which makes mosquitoes immune from Malaria.' He quotes D'Herrelle that in all malaria-free regions of Argentina there is a scented clover, *Melilotus altissima*, whose blossoms are frequented by the malaria mosquitoes which feed on the syrup coumarin and he asks—'May not this act on the mosquito as does quinine on man?' Melilotus introduction has coincided with expulsion of malaria from certain islands of New Zealand and from the northern provinces of Holland. In comment it may be asked—Has the freedom from malaria of cultivated Algeria anything to do with clover? or for that matter is cultivated England's freedom so caused?"

SERUM PROPHYLAXIS OF MEASLES

Concerning the use of convalescent serum in the prevention of Measles, M. G. Peterman, in an article which appeared in the July number of the "American Journal of Diseases of Children", states the following:

"Five cubic centimeters for children 5 years of age and 10 cc. for older patients, of human blood serum plasma, obtained within eight or ten days after defervescence, or within ten to twelve days after the initial appearance of the rash, injected intramuscularly not later than the fourth day of the incubation period, will usually confer a passive immunity of from six to ten weeks' duration. From 15 to 30 cc. of whole blood obtained and injected under the same conditions will be found as effective. The protective power decreases after recovery from the disease. Pooled blood, serum or plasma is preferable and a preservative is added if the material is to be kept (phenol, tricresol or quinosol). The preserved serums or plasmas will probably retain their potency for from three to six months if kept at about 5 C."

He refers to the use of Tunnicliff's antimeasles diplococcus goat serum, and mentions the following cases, in which Tunnicliff's serum was used:

"Hoyne and Sasul first reported the clinical results of Tunnicliff's antimeasles goat serum. Thirty-nine children with definite exposure to measles were given the serum and thirty-four of these did not develop the disease. In December 1926, Tunnicliff and Hoyne reported further clinical results with the goat serum in 105 persons; 97 per cent of those who received the serum in the first four days after exposure did not develop measles. In 1927, Tunnicliff and White described the production of a specific immune measles serum with Tunnicliff's organism in a horse.

"In April, 1926, a case of measles developed in the infants' ward of the Milwaukee Children's Hospital. Through the courtesy of Dr. Ruth Tunnicliff antimeasles goat serum was made immediately available. The majority of the infants who received injections of 5 cc. or more of the goat serum, on or before the fourth day of incubation, did not develop measles. Serum injected after the fifth day of incubation, did not prevent the disease and when injected on the fifth day it was occasionally successful. Doses of from 2 to 4 cc. in-

jected before the fifth day of incubation were followed by a mild fever for two to three days and a transient rash. Several infants who received from 2 to 4 cc. of serum before the fifth day of incubation developed mild cases of measles from twenty-one to thirty days after exposure. All infants over four months of age who were exposed developed the disease. These cases are included in the report of Tunnicliff and Hoyne.

"A case of measles developed again in June, 1927. Antimeasles diplococcus, goat and horse serum (E. R. Squibb and Sons) were supplied through the courtesy of Dr. Tunnicliff. Thirty-five exposed infants and children with no history of previous measles were given antimeasles diplococcus serum. Eight children received concentrated horse serum, and none developed the disease. Twenty-seven infants and children were given goat serum, twenty-three did not develop the disease, while three had mild cases of measles, eighteen, nineteen and twenty-two days after exposure. One infant received the injection supposedly on the fifth day after exposure and measles developed on the second day following. In this case, the serum was given too late for protection or modification of the disease. Two exposed infants, aged 9 and 11 months, who were not given serum developed measles.

"Excluding the infant who received the serum two days before developing the disease, there was complete protection from measles in 31 of 34 patients inoculated. There was a modification of the disease in the remaining three."