doubt its practical value in dealing with the cases, because patients in their conscious moments find it impossible to place the jaws in the position through which the irritation comes. Further, I do not think a patient asked to do so could exert force enough to give the amount of stress on the teeth that would be given in a moment of nervous excitement or when the nerve centers were excited by some dream.

Prophylaxis is, of course, what this all leads to. All we can hope to do with a paper of this kind is to call attention to the necessity of finding the causative factor in the nervous disturbance. The most interesting part of my work is in being able to lead these children whose jaws are imperfect in a direction which I hope will prevent much future trouble for the individuals. When parents have seen the ill-effect of neglect and their attention is called to proper treatment they are usually quite willing to bring their children.

Autointoxication is a predisposing factor and often an exciting cause in these conditions. I have an interesting case under treatment at the present time and have seen others illustrative of this cause. The case is that of a young lady whose headaches have almost entirely disappeared, except when she meets a young man whose influence is such that usually pain follows the excitement incident to an evening in his company. Though she may seem to be in perfect health, invariably in a short time symptoms of autointoxication are noticeable following the attack and precisely in a similar way do headaches in other cases follow in the train of digestive and other disturbances which bring about autointoxication and through it the painful condition which usually ensues.

Clinical Report.

AN EPIDEMIC OF THE "FOURTH DISEASE." P. C. CURTIS, M.D.

ROUND LAKE, N. Y.

Round Lake, lying about midway between Troy and Saratoga, has a winter population of about four hundred, and of these about half had the disease which I am about to describe.

Before this epidemic I had never heard of the so-called "Fourth Disease," but there was something in this so entirely different from anything I had previously seen, that very early I came to the conclusion that it was something new and I now believe that it was the so-called "Fourth Disease" described first by Dr. Dukes in 1900, and by Dr. Simpson in the *Archives of Pediatrics* for September, 1901.

March 11, 1901, I was called to the family of Mr. M. L., as their three children were all taken slightly ill at about the same time, with temperatures of about 99, pulse 86 to 100. The throat showed what looked like a follicular tonsillitis. The glands of the neck were enlarged and tender. Two patients had a bright red eruption on their bodies, extending from the neck uniformly over the chest, trunk, arms and legs. The tongue had somewhat the appearance of scarlet fever. There were no other cases in the vicinity and the children had not been from home for at least three weeks.

My diagnosis was scarlet fever, and I reported them to the health officer of the town of Ballston, Dr. F. J. Sherman. As the children's father furnished milk for Round Lake, I told him he must not go near the house and must wash his cans elsewhere. He assured me later that he complied with my orders and I have no reason to doubt it. The eruption lasted about three days and then disappeared. About a week after, I was called again and found the glands of the neck were greatly enlarged, but there was no rise in temperature. I gave them the usual treatment and the glandular trouble soon disappeared. The children had previously had scarlet fever.

This was the commencement of the epidemic which followed at Round Lake. March 29, nineteen days after, I was called to Mrs. M.'s, a neighbor of the family just referred to. I found a young man, aged 20, with a well-marked case of German measles, the eruption beginning on his face and extending all over his body. At the same time, his sister, aged 12, had a fine red rash beginning on the neck. Temperature was about a degree above normal, but the patient said she did not feel ill.

I reported these cases to Dr. Sherman and asked him to see them. He agreed with me that one of the cases was German measles and the other was scarlatina. But it seemed strange that the fever was not higher and the pulse more rapid, as the eruption was very general over the whole body—deep-red in color. With such an eruption one would expect a temperature of 103 or 104. The following day I had a case at Round Lake and the next day six more. They all commenced with a sore throat and glandular trouble, the rash extending from the face downward and with very slight febrile disturbance.

A doubt of the correctness of my former diagnosis entered my mind, and I called Dr. F. C. Curtis of Albany, who saw with me ten or twelve cases. He said they were very puzzling as they had a rash very like scarlet fever, perhaps not quite as deep a red, minus the fever. Also that there were patches of healthy skin in places, whereas if it had been scarlet fever the redness would have been uniform. He considered that it was German measles with a scarlet fever form of eruption.

In nearly all the cases there was a pronounced exudate on both tonsils, which gave rise to the fear that some of them might develop diphtheria. To be certain, we sent several cultures to the Bender Laboratory and no diphtheria bacilli were found. One particular case I wish to describe. I was called, April 1, to see W. B., aged 21, who had a well-marked case of German measles. He soon recovered, and ten days after developed the same disease that was epidemic at Round Lake.

In all, there were 147 cases. Their ages were as follows: From 1 to 5 years, 9 cases; 5 to 10 years, 26 cases; 10 to 20 years, 31; 20 to 30, 18; 30 to 40, 18; 40 to 50, 19; 50 to 60, 8; 60 to 70, 11; 70 to 80, 4; 80 to 90, 3.

During the epidemic, Drs. Sherman, Curtis, Shaw, Finder and Booth saw some of the cases and were unanimous that it was the most remarkable epidemic they had ever seen. The period of incubation was from seven to nineteen days. The desquamation was mostly branny scales, although on about 10 per cent. of the cases it was lamellar, being able to take the cast of the finger as you would draw off a glove.

As to the cause—did it arise from the milk? Taking into consideration the fact that the disease originated in the family of the man who furnished all the people of Round Lake with milk (with the exception of five or six families—none of whom contracted the disease), is it not fair to presume that it was thus transmitted? To me it is the only logical solution.

The following complications occurred: Rheumatoid symptoms, 29 cases; bronchitis, 4; pneumonia, 2; erysipelas, 3; erythema nodosum, 3; acute otorrhea, 12; quinsy, 3; pleurisy, cystitis and myocarditis, each 1; and 18 previously had scarlet fever.

My opinion is that the epidemic was the so-called "Fourth Disease," for the following reasons: First, an indescribable difference; second, not one case of nephritis followed the disease; third, the age (75 being over 30 years of age); fourth, the fact that 18 of them previously had scarlet fever; fifth, the incubation period, 7 to 19 days: sixth, many had had rubella.

Le Seure's Dry Refrigeration Apparatus.—Major E. C. Carter of the Army, while in charge of the Leiter Hospital at Chickamauga, thus describes the apparatus which in his experience proved most satisfactory: "When refrigeration was indicated and bathing was impracticable use was made of an apparatus first demonstrated to me by Major Oscar Le Seure of Detroit. A rectangle of bolsters—muslin stuffed with cotton batting—about six inches in diameter was placed about the patient, one bolster passing over the neck and projecting some distance beyond the shoulders. To each end of this bolster another was attached which lay parallel with the body from shoulder to feet. The lower ends of these long bolsters were joined by a short bolster parallel with the one passing over the patient's neck. Patient and bolsters were covered with a rubber blanket, which was pressed down between the patient and the long side bolsters, so as to leave a waterproof trough on each side of the patient. Then cracked ice was laid on the rubber blanket over the legs, thigh, abdomen, thorax, and arms of the patient, a thermometer placed in his mouth and an ice-cap on his head. It is a process of dry refrigeration, easy and simple of application and effective."