Correspondence

The St. Louis Vaccination Situation

[The occurrence of tetanus in three school children in St. Louis who had recently been vaccinated, and the death of two of these children, has given rise to considerable discussion in the newspapers in regard to compulsory vaccination. It has given opportunity, also, for the condemnation of vaccination by the antivaccinationists. The health authorities have made a thorough investigation of the three cases and have expressed it as their unanimous opinion that the infection was not the result of the vaccination. In order to get a statement of the situation we wrote for the facts concerning the matter, and are glad to publish the following statement from Dr. G. A. Jordan, Assistant Health Commissioner of St. Louis.]

HEALTH DEPARTMENT, ST. LOUIS, Oct. 29, 1910.

To the Editor:—In accordance with the request for a history of the development of tetanus in vaccinated children in this city, I have the honor to submit the following:

On September 15 R. S. was vaccinated at the Franklin School; September 25 the site of vaccination was injured by a rock, the crust being knocked off, leaving a raw surface. The wound was dressed at the Central Dispensary September 25 and daily thereafter until October 5, at which time he manifested symptoms of tetanus. This department was consulted October 7, the boy was removed to the hospital on that date and died October 9.

On October 4 W. K. was vaccinated at the Carondelet School. On October 16 he developed tetanus and the parents asserted that no injury to the vaccinal site had occurred. Dr. M. C. Woodruff of this department and Dr. M. C. Starkloff, who saw the boy in consultation, are both of the opinion that there had been an injury which had resulted in the removal of the crust. He died October 18.

On September 30 J. M. was vaccinated at the Coté Brillante School and on October 14 the crust came off and the wound was dressed by the mother by the application of a bandage. On October 22 the patient developed symptoms of tetanus. A careful examination of the boy for wounds of any kind showed a wound of the right hand which had the appearance of having been made by two punctures separated about 1 inch and connected by a line which had the appearance of a scratch. The parents were unable to give any history of this wound, what had caused it or when it occurred, and the patient was not able to do so. This boy is at present under treatment and we believe will recover.

A careful investigation of these cases fails to show how these patients came to develop tetanus. At the time the first-mentioned boy (R. S.) was vaccinated, fifty-six other vaccinations were done at his school on the same day with the same virus, eight others in the same room with him. At the time the second boy (W. K.) was vaccinated, eighty-two other children were vaccinated at the same school, with the same virus. The third boy (J. M.) was vaccinated at the same time with eighty-four other children.

All of these children, you will notice, were vaccinated in widely different sections of the city. They were vaccinated by different physicians with the same manufacturer's product. None of the other children who were vaccinated with the material out of the same box showed any untoward symptoms.

The city bacteriologist has examined the remaining lot of the virus used in these cases and fails to find any pathogenic organisms. We are forced, therefore, to conclude that the development of tetanus in these cases was a coincidence due to some local condition probably subsequent to the time of operation.

The fact that tetanus followed a vaccination has been made much of by the antivaccinationists, in spite of the fact that no connecting link between the vaccination and the tetanus can be shown on the most exhaustive examination. Cases of tetanus develop not uncommonly, and following any

other injury would simply be regarded as an unfortunate infection. As an instance, we had within the past two weeks a woman dying from tetanus, the infection following childbirth; and as an indication of the anxiety of the anti-vaccinationists to discredit vaccination in every possible way, we had yesterday a case of tetanus reported in a child who recently had been vaccinated and the physician positively asserted that the tetanus was due to the vaccination. Examination of this case showed that it was positively not tetanus but a mastoid abscess following a suppuration of the middle ear. Two eminent physicians of this city, who are not connected with the health department, are authority for this statement. The patient has been bacteriologically examined, diagnosis confirmed and the patient operated on, which operation also confirmed the diagnosis.

G. A. JORDAN, St. Louis,
Assistant Health Commissioner.

Electric Treatment of Poliomyelitis—A Comment

To the Editor:—Everyone must agree with Dr. Diller (THE JOURNAL, November 5, p. 1663) that electrical currents which produce pain and nervousness are harmful to children with poliomyelitis. But there is a difference of opinion as to whether or not any benefit is to be derived by passing electrical currents through the muscles which have ceased to respond on account of atrophy. Many observers believe that a galvanic current stimulates muscle growth. As to this, lacking precise data, my personal practice is dependent on such authorities as Duchenne, Bergonie, Zimmern and Erb, who recommend the daily use of the current even when there is no response to stimulation.

Be this as it may, the main advantage of galvanic stimulation of the muscles after poliomyelitis is the excitation of their physiologic contractility, a function otherwise unprovokable in muscles of which the nerve supply is destroyed. It should be obvious enough that the excitation of this function is possible only before the structures on which it depends have disappeared. These are the muscle elements. As degeneration of these is well under way in three weeks, it should be equally obvious that the use of galvanic stimulation should not be delayed beyond that period. To postpone it for four months, as some advocate, is to dispense with it at the very time when it is most urgently required. It is to this unscientific delay that must be attributed the difficulties due to the need of such powerful currents as are required in order to produce a visible contraction when only a few fibers remain in the muscle stimulated.

Again, when the therapist omits the elementary precaution of gradually accustoming a child to an electrical application, and alarms the child by suddenly making and breaking the current before the little patient is accustomed even to the sight of the battery, there is created another source of discredit of the only means we know of to prevent muscular atrophy of peripheral-neuron type.

In the Washington epidemic this year, electricity has been extensively used immediately after the acute stage of the disease; and I have cognizance of only one instance of trouble of the kind alluded to by Dr. Diller. This was in the case of a girl aged 11, and was due to the injudicious suggestions of the mother, whose whole attitude expressed dread of the power of electricity. She derived this, in part, I believe, from previous advice that electricity was likely to do harm if used within four months of the commencement of the disease. The child herself was willing to bear the discomfort of the application, and the serious perturbation did not occur until some time after I had left the house. Hence the electricity itself cannot be blamed for an outbreak which was clearly suggested to the child.

It is unfortunate that the exaggerated claims of electricians as to some of their powers should prejudice one of the few clearly established medical uses of an electrical current, viz., the keeping alive, by maintaining its contractile function, a