

## THE EDITOR'S COMMENTS.

### ANTI-TOXIN.

Considerable interest is taken everywhere in the newly discovered remedy against diphtheria. Experiments have now been made in different parts of the United States as well as in some of the principal cities abroad, and reports continue at the almost miraculous cures effected.

Thus, a dispatch from Milwaukee says that anti-toxin has saved a number of lives in that city during the last ten days. One case mentioned is particularly striking. A child, aged 4 years, whose parents reside on Findu Lac avenue, was stricken with diphtheria in bad form about two weeks ago. The family physician treated the patient for four days with no being able to stay the progress of the insidious disease. On the fifth day the father of the child requested the doctor to try the anti-toxin, and accordingly Dr. A. J. Scott, who was the first physician to advocate the use of the new remedy in Milwaukee, was called to for consultation. Dr. Scott injected the child with an amount of the anti-toxin last Sunday. At that time the child was unconscious, its pulse was 156, and its temperature 103.5, and the urine contained a large percentage of albumen. The case was so bad that four treatments were necessary. The anti-toxin attacked the disease from the first injection, and soon the child was playing around the house and crying for permission to go out.

The discovery of this remedy is the result of scientific experiments in Germany and France, and Dr. Roux, of the Pasteur Institute in Paris, is said to be the first one to put it into practical use. As soon as it had been established that the deadly effect of diphtheria is due to a poison secreted by the microbes and entering the blood of the patient, the doctors commenced to search for a substance to neutralize the poison or kill the little animals that emit it. The investigation resulted in the discovery of the remedy now known as anti-toxin.

It is a long and tedious process to obtain it. A collection of microbes from a very bad case of diphtheria is first secured. These are carefully placed on a media d'incubation, where they grow very rapidly. After a few hours they are transferred to a liquid for further nourishment. In this broth of veal and peptone, there is, in a month or six weeks, enough poison secreted to kill a guinea pig, if two tenths of a gramme is injected into its veins. The liquid is now filtered and the colorless substance, no longer containing any microbes but charged with diphtheria poison, is injected into the vein of a horse. On the first day about one gramme is given. The operation is repeated daily as the dose increased until an ounce is reached. The animal at first shows symptoms of fever, but after a while these pass away.

After six weeks, blood is drawn from the horse, and the serum separated. This is now anti-toxin. By continuing the treatment of the horse for longer periods, the strength of the remedy is

aid to increase, and the animal can be used for years, its general health apparently not being impaired.

The injection of the anti-toxin is made under the skin above the thigh and the quantity must vary according to the virulence of the case. Twenty grammes is the usual amount. The remedy works as a tonic as well as an antitoxin. Patients under treatment get ruddy faces and present an altogether striking appearance to those who have not the benefit of the new discovery.

If anti-toxin really does all that medical authorities claim for it—and here seems to be very little room for doubt—it may safely be called the most important medical discovery of later years. If it can protect from the embrace of death the little children who are generally the victims of the dread disease, it marks a victory of science over one of the most bitter enemies of mankind. Discoveries of this nature are generally far-reaching. By indicating the true road, they lead to new discoveries, which again may open the doors to others still more startling. And thus science goes on step by step toward infinite perfection.

### ON THEIR RESERVATION.

As stated in Agent Day's report to Washington, the Indians from Colorado are again on the Southern Ute reservation. The agent reaffirms his statements regarding the whole proceeding, which were to the effect that the few Indians were away from the reservation and no damage had been committed. He also adds that the "expense of returning Governor Wemyss' mammoth invasion has been \$39,700." Then he telegraphs for a man and dullist supply India a "deplorable condition and 110 miles from the enemy." He seeks to make a lay upon the altered fact that only thirteen lodges of Utes were off the reservation, whereas the complaint of the San Juan settlers was against Utes, Weminica and all others unlawfully in Utah. Then the agent says he could only eleven Utes, but in his report he names eleven chiefs who were at the Monticello conference, to say nothing of their followers.

These statements are numerous other inaccuracies and contradictions in the agent's reports go to indicate that the San Juan paper may have been Mr. Day an injustice unwittingly. They looked upon him as a person, possessing an ordinary amount of brains and as fairly shrewd, but somewhat overburdened by a stock of conceit and imperiousness. Recent developments, however, lead to the conclusion that he has not a modicum of common sense. Taking his proceedings for the opening to the closing of this season, they carry a conviction of the mental incompetency of the agent, for which he is to be pitied rather than berated. But just the same, the Southern Ute reservation needs a new agent, for it is even more dangerous to both white men and

Indians to have the office filled by a crank than by a knave.

Were the dispatch referred to the only authority for believing that the Indians have returned to their reserve, there might be some doubt as to the fact. News of a similar nature, however, comes from San Juan county, and is also confirmed by Colonel Lawton, in the following, which appears in the *Denver News* of December 25th:

A telegram was received yesterday at army headquarters from Colonel Lawton, inspector general of the department of the Colorado, in which the colonel states that Ignacio and his band of Utes have shaken the dust of Utah from their garments and are again within the friendly shelter of Colorado. The Utes were divided into two parties for the journey. Colonel Lawton states that he had been six days and three nights in the saddle, under trying conditions. He is expected to reach Denver from Durango on Friday or Saturday of this week.

### A PROPER CHRISTMAS.

Among the many other excellent lessons taught by the "hard times," one of the most salutary has been that gift-giving at Christmas does not necessarily mean a large outlay of money to the purchase of expensive presents. Probably the holiday just passed found as few children as provided with the tokens of parental love as any similar occasion in many years; and yet there have been few seasons, at least in the last twenty or twenty-five years, when money was more scarce or when people generally felt as poor as they do just now. Notwithstanding this, the shopkeepers have done a fairly good business. The trinkets and other remembrances inextricably connected with the coming of Santa Claus, have not failed the reluctant wee ones, and the holiday all round has been as merry and joyous as though there were no such things as debt or money stringency in the world. The merchants have shown wisdom in the selection of their stock, leaving the high-priced novelties out of their purchases altogether, and their customers, acting under the force of necessity if not of prudence, have been able to convert a small sum of money into a really large number of useful or appropriate remembrances of the festival time.

We consider this a very proper and gratifying result; if it required that there should be hard times in order to bring it about, then the hard times have again proven themselves a blessing. Of recent years the custom of giving presents at Christmas, like that of giving presents at weddings, has been one that to perhaps the majority of cases deserved more to be honored than the breach than the observance. Young men and women, as well as those who are older and ought to know better, have fairly squandered means that they could not afford, in many cases actually borrowing or running into debt, for gift articles for one another. Through having accepted like tokens on previous occasions, they have felt under obligations to make payment in kind. The spirit and significance of the birthday has thus been turned into a nervous worry or a cold, calculating business transaction. It is all wrong—a sad departure