

cases of tetanus. Fortunately, however, the serum is almost a certain preventative of the disease. Thus, in 1903, in the United States, there were 406 cases of tetanus reported, following accidents received during the Fourth of July. In the present year only 73 cases were reported. This marked improvement is attributed to more careful treatment of the wounds, and the administration of the antitoxin. In a recent discussion of this disease before the Surgical Society of Paris, Berger stated that during the last seven years all patients, with one exception, entering his wards with wounds in which there was a possible infection with the tetanus bacillus, received a small dose of anti-tetanic serum. The one patient who had not received the serum was the only one that developed tetanus.

It is now the rule in many hospitals in America to give the serum in all cases having wounds which could have become soiled by dirt, manure, or other foreign substance. The serum should be repeated, as a single dose will not always prevent the disease. Suter and James Bell have each reported a case where tetanus developed forty-seven days after a single prophylactic dose of the serum had been given.

Although hemophilia is a comparatively rare condition, it comes to our attention at times in a very realistic manner. It is very disagreeable for a surgeon to be called to operate on some acute surgical condition when the patient is affected with this interesting blood state. The use of calcium chloride and subcutaneous injections of gelatine, although at times very useful, fail to check the copious oozing in subjects of this disease.

Hemophilia is presented in two distinct etiological conditions, first accidental, and second hereditary. In the accidental variety there is no history of heredity, or injury, or previous serious disease. Its course is more or less benign, and occurs at less frequent intervals, and requires a more serious injury for its production. In the hereditary variety, on the contrary, the tendency to hemorrhage follows the slightest wound, owing to the fact that coagulation is very much retarded. Emile Weil has shown that fresh human or animal serum introduced into the system of patients affected with hemophilia produces a marked increased coagulability of the blood in the hereditary variety, and in the accidental variety the coagulation becomes normal. This followed the intravenous injection of 20 cubic centimetres of animal blood serum. The change in the blood occurs about twenty-four hours after the introduction of the serum. Locally the serum has much the same action.

It appears that in the accidental form of hemophilia there is an absence or diminution of the ferment which causes coagulation, while in the hereditary form there seems to be some anti-