

seven as fine-looking horses as one could wish to see. These had all been selected under the supervision of Dr. Vaughan, of the University, and were chosen for their healthy and youthful condition. None of them had ever been broken to harness, and they were obtained from localities where glanders and other diseases are wholly unknown. They were being given the best of treatment, and were under the constant scrutiny of a veterinary surgeon acting under Dr. Vaughan's orders.

"The *modus operandi* of securing the antitoxine is about as follows: A small colony of diphtheria bacilli, obtained from whatever source found possible, is cultivated in whatever medium decided upon. They multiply rapidly, as anyone who has had a severe attack of diphtheria will readily testify. The culture medium is kept at the same temperature as the body. Several of these were presented for inspection to the *Journal*, and they contained a sufficient number of the bacilli to supply all the giraffes on the continent with well-developed cases of diphtheria. These bacilli were busying themselves secreting various substances, including toxine, and devouring the bouillon, or culture medium. After the busy little fellows have enjoyed themselves in the "soup" for several weeks, they have formed quite a quantity of the toxine, which is filtered through porous porcelain to extract the dead bacilli. Here is where the guinea-pig comes into play, for it is by him that the strength of the toxine is to be tested. He is properly weighed and given a dose accordingly. Of course he dies, but that is what he is there for, and he is immediately carried, caged and all, and placed in a sterilizer. The toxine, when its strength has been ascertained, is injected into the backs of the horses, just at the base of the mane. The horses don't like the injecting process, but they are given it just the same. A mild form of sickness follows the injection, but the horse soon recovers, and in course of time the size of the dose can be greatly increased. They are given plenty of exercise and wholesome food, and are looked after as carefully as a mother would watch a child suffering from the simon-pure diphtheria bacilli in the throat. The next step is to withdraw a portion of the horse's blood, which is carefully set aside in air-tight vessels. The red blood corpuscles

gradually sink to the bottom, and the serum, which is a light yellow color, containing the antitoxine, remains.

"This antitoxine is then put through various stages of preparation, and is finally run into a small glass tube, in which shape it is to be presented to the trade. This, however, will not be for some weeks and probably months yet. The tube containing the antitoxine is corked with a sterilized cork, and every precaution taken to keep the solution free from contamination, even with the air. A needle syringe is placed in a like tube, sealed in like manner, and these two tubes are to be placed in a wooden overcoat, which is about the way it will be sold to the trade."

Dr. Edson says the antitoxine, prepared by order of the Board of Health, is superior to the imported.—*N. Y. Medical Times*.

[We print this as being of special interest to the profession, in consideration of this new article.—ED.]

EDITORIAL NOTES.

A daily medical journal appears every now and again with star-like brilliancy, and, like the stars, wanes at the coming dawn of nothing to print or nothing paid. Philadelphia is the home of one termed *The Daily Lancet*, edited and published by Dr. Jos. F. Edwards.

Queens and nations have their semi centennial and centennial celebrations, and, although we jubilate on these occasions if by any chance we belong to that country which has a right to jubilate, we think of it as not a very extraordinary occurrence. Now comes on the fiftieth year of a medical journal, an event unusual enough in this world to call for notice. In the middle of this month of April, the *Buffalo Medical Journal* was fifty years old, never having missed an issue since its inauguration. It certainly is beyond our province to criticise a confrère, but we may say that its large number of subscribers and long life should testify sufficiently of its worth without any of us expressing an opinion. Our congratulations are extended, and we hope to be alive to receive return ones from them when our jubilee is celebrated.