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SENT TO EVERY MEMBER OF THE PROFESSION IN ONTARIO, BRITISH COLUMBIA,
AND NORTH-WEST TERRITORY.

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Contributions of various descriptions are invited. We shall be glad to receive from our friends ever, where current medical news of general interest. Secretaries of County or Territorial Medical Associations will oblige by forwarding reports of the proceedings of their Associations.

Physicians who do not receive their Journal regularly, or who at any time change their address, will please notify the editor to that effect.

Editorials.

ANTITOXIN.

The serum treatment of diphtheria has occupied the attention of the medical world for some time past. It has been the leading subject for discussion at associations, at congresses, and in the European medical press.

It is considered upon all sides that it possesses both curative and prophylactic actions, the degree of success alone being discussed. The success of this remedy in this particular disease has opened up new fields for research in the same line in the treatment of other germicidal diseases. We desire therefore to review briefly the curative action and the mode of preparation of the serum.

The cardinal principle upon which its curative action depends is contained in the fact that the blood possesses in its normal constituents a certain germicidal action due to some constituent not yet clearly defined. This constituent destroys micro-organisms that find their way, from whatever source, into the animal economy. The battle wages in every germicidal disease for a longer or shorter time, till either the blood or the micro-organisms and their products predominate. For instance, typhoid fever twenty-one days, small-pox and diphtheria a shorter time. If the blood is

victorious in the struggle, this germicidal constituent is enormously increased, and consequently produces an immunity to the particular disease until it has disappeared from the blood, which in different diseases varies greatly—for instance, small-pox or scarlet fever probably for life, in diphtheria not more than six or eight months. In consideration of this fact, the question arose in Behring's Memorandum, how can we produce an artificial immunity in an animal and make a practical application thereof. So that the action of antitoxin is physiological or natural in that it is simply transmitting this accumulated germicidal constituent from the animal in which it has been generated to the animal or person suffering from this disease, and the disease is cured by the serum containing this constituent acting upon and destroying the organisms in the system into which it has been introduced.

The artificial immunity is produced in this way: A healthy animal susceptible to the disease is selected, either a goat, sheep or horse—preferably a horse. He is treated with a subcutaneous injection of a culture media containing diphtheria bacilli. This injection, which is called the primary, is in an attenuated form as the germs are subjected to 85° Cent. of heat for five minutes, thus rendering them less virulent. In three days he is again treated with a stronger