

as expressed by Revington. To such as these Dr. Clouston, the great Edinburgh alienist, would preach "the gospel of fresh air and fatness." But should it appear to the physician that this is outside the ordinary perimeter of his circle, and should he enquire as to the work left for him to do, we would urge that in the present position of medical science it seems absolutely necessary that we realize that our ordinary facilities for the effective treatment of such are very limited. Whatever is practicable in treatment, as taught us by the neurologist, the alienist and the hygienist, we must make our own as individual physicians. Shall we not look rather to such, to gymnastics and the gymnasium, for the secret of success in this truly philanthropic and national work than to our past beliefs and practices in the treatment of a class of conditions apparently increasing as Canadian life is developing in the never-ending turmoil and competition incident to the rapid evolution of society?

THERAPEUTICS.

Electro-Therapeutics.

The *Law cell*, which is an improvement on the Leclanché cell, is manufactured by the Law Telephone Company. This is the most reliable cell for constant battery. The simplicity of its construction is seen by the cut.

Instead of a perishable negative element as mentioned above in the Leclanché cell they have a simple carbon plate made in such a form as to generate the most force. The cover prevents evaporation which is a fruitful source of annoyance and inconvenience with the ordinary Leclanché. Its strength is about 1.5 volts. The exciting fluid is a solution of ammonium chloride. The directions for setting up the battery are as follows:—Place the salt in the jar and then pour in water up to the bottom of the word *law*, stir until the *whole* of the salt is dissolved, being careful not to slop the sides of the cell; now put in the elements and give a half turn of the lid which seals it. Place the cells in order whenever you require them and attach the carbon of each to the zinc of the next by short copper wires No. 18. The terminal zinc and carbon at each end of the series will represent the negative and positive poles respectively.

In portable batteries we have first small Leclanché cells which are sealed and arranged in

cases for convenience in carrying. All that was said regarding the large Leclanché answers here.

The zinc carbon battery which has been so long in use, is, as far as strength goes, superior to any other form and is also very convenient, that form of it devised by Dr. Rosebrugh being the best. It is shown below.

The plates are already arranged in pairs for intensity. The exciting fluid is a solution made by taking saturated solution of potassium bichromate 6 parts, and strong sulphuric acid 1 part, mixing and allowing to cool before being used. Much better than this, however, is the solution of chromic acid itself. The acid in crystals may be obtained from Mr. Potter. In using the chromic acid solution there is no polarisation by deposition of chrome alum settling on the carbon as there is with the bichromate solution. To use the battery after filling the cells with fluid, the plates are placed in the fluid by lifting them out of the hydrostat and moving them to the left into the cells the last set to the right projecting over the side.

The negative cord is attached to the left anterior corner, the positive is attached to any desired number of cells by inserting it in the connection corresponding to the number desired. Where more than six cells are required the terminal connections of the two sets are joined by a connecting wire supplied with the battery.

It is much better to interpose a rheostat and use all the cells at the same time.

Nitro-glycerine in Epilepsy.

Osler, in the *Journal of Nervous and Mental Diseases* for January, 1888, reports his use of nitro-glycerine for epilepsy, as follows:—

I have notes of nineteen cases in which the nitro-glycerine was tried for periods ranging from six weeks to six months. In thirteen of these cases there were severe epileptic seizures, six were instances of *petit mal* with occasional convulsions. Briefly stated, in nine cases there was improvement, as shown in the reduction of the frequency of the attacks. Of these, six were cases of major epilepsy; and three, instances of *petit mal*. The benefit was usually manifested within a week or ten days. Thus case 16, a man aged twenty-seven, had had fits for ten years; and when seen, April 5th, had as many as two or three a day. He had taken potassium