

instantaneously cured by its application. The girdle, it is explained, tends to check the derangement of the diaphragm.—*Barnes' Educational Monthly*.

—Prof. Marsh, of Yale, has been finding more toothed birds among the Wyoming and Colorado fossils, besides the petrified remains of 300 or 400 dinosaurs, a mammoth kangaroo of the crocodile order, sometimes 100 feet long, and about 1,000 pterodactyles, a sort of contemporary flying dragon, with a spread of wing 30 or 40 feet.

BOTANY—The Italian botanist, Professor Caruel, has recently proposed to divide the vegetable kingdom into five groups, setting aside the ancient classification. His groups are as follows: 1. Phanerogamia or flowery plants, divided primarily into Monocotyledones and dicotyledones. 2. Schistogamia, including the characeae only. 3. Prothallogamia, continuous with Vascular cryptogams and divisible into heterosporous and isosporous. 4. Bryogamia, synonymous with muscineae, and divided into musei and hepaticae. 5. Gymnogamia, corresponding to thallophyta, an assemblage which Caruel believes will ultimately be broken up into several primary groups.

—Professor Pierce, of Harvard College, has startled the scientific world by declaring that far beyond the uttermost planet bounding our solar system is a vast spherical shell of matter broken up into small fragments, from which come the meteors. This shell he calls the home of the meteors. He gives the reasons why some such theory must be adopted to explain the movements of the planets and comets, and the persistence of the constant amount of heat given out from the sun. The hitherto accepted theory that comets may be, and some necessarily are, strangers to our system, he rejects.

SCIENTIFIC EDUCATION.—It would certainly be a great boon to the world if the general level of scientific education could be raised, so that each young man or young woman, when he or she issues from school doors, should have enough definite knowledge of the great laws of the physical universe to instantly denounce blue-glass theories and attempts at perpetual motion, not from the pride of knowledge, but from the feeling that error, credulity, and superstition should be combatted with truth.—*Prof. John Troubridge, in Popular Science Monthly*.

MICROSCOPIC STUDY OF THE LEAVES OF PLANTS.—Dr. R. H. Ward, of Troy, describes a method by which much of their structure may be preserved. A piece of dry leaf is laid on a thin piece of platinum, or mica, covered with mica or colored glass, and heated on an alcohol lamp until the organic matter is burnt out, and the mineral matter or ash remains. This is dropped on a slide wet with turpentine, and very carefully mounted in soft balsam. The preparations show the construction of the parenchyma, veins, epidermis, stomates, and hairs with great beauty and distinctness.

ONTARIO TEACHERS' ASSOCIATION.

ANNUAL CONVENTION.

The nineteenth annual Convention of the Ontario Teachers' Association opened on Tuesday, August 12th, in the public hall of the Normal School; the President, Mr. Jas. A. McLellan, M.A., LL.D., in the chair.

The proceedings were opened with the reading of a selection from the Bible and prayer by the Secretary, Mr. Jas. Hughes.

TREASURER'S REPORT.

The Treasurer, Mr. F. S. Spence, presented his report for the year 1878-9, which showed a balance to the credit of the Association of \$158.97.

On motion, the report was referred to Messrs. Wm. McIntosh, A. McMurchy, M. A., and H. Dickenson for audit.

MINUTE SECRETARY.

Mr. Andrew Hendry, of Toronto, was appointed Minute Secretary for the Convention.

OBITUARY.

Mr. S. McAllister referred to the death, since the last Convention, of Mr. Archibald McCallum, M.A., of Hamilton, one of the most esteemed members of the Association, and moved, "That

Messrs. McMurchy, D. Johnson, and McIntosh be a Committee to draft a suitable resolution." Carried.

The Association then adjourned till the afternoon.

AFTERNOON SESSION.

The President took the chair at two o'clock.

CONSTITUTION OF THE ASSOCIATION.

Mr. Hughes presented the report of the Committee appointed last year to consider the advisability of making the Association representative, recommending in favor of that change, and the appointment of a Committee for that purpose to report during the present meeting of the Association. He stated that though the Committee did not recommend any specific arrangement, their opinion generally was that each inspector might be a representative to his own section and to the general Association; that all High School masters and all High School teachers might be representatives as at present in the High School section, but only head-masters of High Schools or Collegiate Institutes representatives to the general Association; that all Public School teachers might continue to be members of the Public School section, but that only two Public School teachers from each inspectorial district should be representatives to the general Association. This would leave the sections as they are, and give the general Association a membership of 344 members—about 80 inspectors, 104 High School masters, and 160 Public School teachers.

Mr. D. Johnson, Cobourg, approved of the report, because the Association would no longer be open to the imputation of being a Toronto Association, and the Public Schools of the country would be more fairly represented than they are at present.

Mr. Boyle, of Elora, expressed himself warmly in favour of a representative Association. He believed it was the desire of all the Associations of Western Ontario that this Association should be representative in its character. If it were so every vote would be properly cast, there would be no bad ones, and it would then be the imperative duty of every local Association to send representatives. He believed the Association would be composed of delegates from every part of the Province.

The President said that all teachers might attend the meetings of the Association, but they would not be permitted to speak or vote.

Mr. McIntosh, of North Hastings, said there was unanimity as to the desirability of giving the Association a representative character. Their decisions would then carry greater force and influence in the country. But how to give a fair representation was where the difficulty lay. He thought nobody should be excluded from the privilege of discussion in the meetings of the Association.

Mr. Harvey, of Barrie, spoke in favor of the general principle, and proposed to leave the details to the Committee.

Mr. Carson, of Middlesex, thought the representatives should be elected, and not appointed under the constitution as Inspectors or High School masters.

Mr. Scarlett, of Northumberland, held that the Association must be a representative one, if it was to have its due influence on the educational affairs of the province. The money granted to local Associations by Government would enable them to pay the expenses of their delegates.

After further discussion the report was adopted, and the following Committee appointed to mature the details:—Messrs. Hughes, McMurchy, Dawson, Johnson, of Cobourg, McAllister, Dearness, Doan, Carson, Boyle, and Seath.

DISTRIBUTION OF LEGISLATIVE AND MUNICIPAL GRANTS.

Mr. R. McQueen, of Kirkwall, on behalf of the Committee on the Distribution of Legislative and Municipal Grants, Township Boards, and Equalization of Assessments, reported as follows:—

DISTRIBUTION OF LEGISLATIVE AND MUNICIPAL GRANTS.

1. That in addition to the present legislative grant to Public Schools the Government should give to every section employing a second-class Provincial certificated teacher the sum of \$10, and to every section engaging a first-class Provincial certificated teacher the sum of \$20; and that the municipality in which such teachers are employed be required to grant to each section so employing them a sum equal to that contributed by the Government.

2. That the legislative and municipal grants to townships be discontinued, and that in lieu thereof grants to inspectorial districts be made, in order that the present unequal distribution may be remedied, and that they be apportioned on basis of average attendance in the said inspectorial division.