

The CANADIAN ILLUSTRATED NEWS is printed and published every Saturday by THE BURLAND LITHOGRAPHIC COMPANY (Limited), at their offices, 5 and 7 Bleury Street, Montreal, on the following conditions: \$4.00 per annum, in advance; \$4.50 if not paid strictly in advance. All remittances and business communications to be addressed to G. R. BURLAND, General Manager.

TEMPERATURE

as observed by Hearn & Harrison, Thermometer and Barometer Makers, Notre Dame Street, Montreal.

THE WEEK ENDING

| August 27th, 1882. | | | | Corresponding week, 1881. | | | |
|--------------------|------|------|-------|---------------------------|------|------|-------|
| Mon. | Max. | Min. | Mean. | Mon. | Max. | Min. | Mean. |
| Tues. | 80 | 60 | 70 | Tues. | 71 | 60 | 65 |
| Wed. | 75 | 60 | 67.5 | Wed. | 74 | 60 | 67 |
| Thur. | 75 | 60 | 67.5 | Thur. | 73 | 55 | 64 |
| Fri. | 75 | 60 | 67.5 | Fri. | 73 | 55 | 64 |
| Sat. | 75 | 60 | 67.5 | Sat. | 73 | 61 | 67 |
| Sun. | 81 | 60 | 70.5 | Sun. | 80 | 61 | 70.5 |

CONTENTS.

ILLUSTRATIONS.—CARTOON.—Portraits of the Scientific Professors—A Warm Corner at Polo—Cetewayo's Visit to England—Opening of the Session of the American Association—Reception in the Redpath Museum—Sketches at the Lachine Regatta—The English Generals Commanding in Egypt—The Armoured Train—Cetewayo and his Suite.

LETTER-PRESS.—The Week—Our Scientific Visitor—The Egyptian Soldier—Our Illustrations—Commanding Officers in Egypt—News of the Week—A Soldier's Last Letter—Jessie's Married Life—How it is Done—A Lawyer's Advice—Vanitas Vanitatum—Echoes from London—Echoes from Paris—Doctor Zay—Ships in Shakespeare—The Lyonesse—A Hard Egg—Humorous—The Poet's Charm—Over the Border—Musical and Dramatic—A Garden Secret—Paris at the Seaside—Our Chess Column.

CANADIAN ILLUSTRATED NEWS.

Montreal, Saturday, Sept. 2, 1882.

THE WEEK.

The interest of the week has of course centered upon the visit of the American Association for the Advancement of Science, which opened its Montreal session on Wednesday last. The first day was occupied by the formal opening of the proceedings in the Molson's Hall, McGill College, and on the evening of the same day the retiring President, Professor Brush, of Yale, delivered his valedictory address in the Queen's Hall. Subsequent to this the meetings of the various sections have taken place regularly day by day, varied only by excursions on Saturday to Quebec and Ottawa. We do not propose here to attempt and description of the work done. The papers which have been read have been reported daily by the morning and evening papers, and the mass of matter dealt with is beyond the scope of a paper like ours. We can only say that the interest taken in the various subjects treated has been most real, and that it is evident that besides the "good time" which we trust all the members of the Association are enjoying in our midst, that there has also been some real work done in the interests of Science, of which the results will duly appear.

The visitors have been entertained during their stay by a number of receptions, of which there are yet more to come. Thursday night was devoted to the formal opening of the Redpath Museum, which was made the occasion of a reception by Dr. Dawson, the new President, in the building. This reception, with the first night's proceedings at the Queen's Hall, form the subject of our middle page illustrations. The hall was crowded with an assemblage mainly composed of the members of the Association, with a sprinkling of our principal citizens, who had been invited to meet them. After the company had paid their respects to their host and hostess, Mr. Peter Redpath made a formal presentation of the building, as completed, to Judge Day, on behalf of the University of McGill College.

Our scientific friends already number several of world-wide reputation, and a few more, including Mr. Herbert Spencer, who is at present in New York, are expected in Montreal before the close of the session. We give the portraits and brief biographical sketches of several among the number, including the late President, Prof. Brush, the Permanent Secretary of the Association, Prof. Fred. Putnam, together with Prof. Youmans and Dr. Carpenter, and we hope next week to supplement these with several other celebrities, including Dr. Houghton, of Trinity College, Dublin, and Mr. Herbert Spencer, should he arrive during the week.

The Lachine Regatta, which was advertised to take place upon Friday and Saturday of last week, dragged over until Monday, on account of the postponements made necessary by the weather. In spite of a few drawbacks, however, occasioned by waiting mainly, a very pleasant time was enjoyed by those, and they were no small crowd, who daily visited the course. During the evenings of Friday and Saturday the little village was illuminated by strings of Chinese lanterns hung along the fronts of the cottages, and presented a very picturesque aspect.

Last year, during the progress of the Exhibition, we pointed out the abuses which prevailed upon and near the grounds in the presence of a number of gambling booths which flourished serenely under the shadow of the Exhibition walls without let or hindrance from the guardians of law and order. These abuses were even more openly displayed on the grounds adjoining the course at Lachine, and many a heedless youth "from the country" learnt to his sorrow the uncertainty of roulette as a means of gaining a rapid independence. All this is a disgrace to us in the eyes of the world. The Exhibition is drawing near, when the same or like iniquities will be openly practised, unless some one is brave enough to step forward and do his duty.

One of the daily papers, after commenting upon the nuisance, asks feebly enough, "Can nothing be done to put an end to this?" and apparently is satisfied that which is everybody's business is nobody's. But, as a matter of fact, this is not so in the present case. The law provides a definite course of action, which we pointed out a year ago, and which we repeat now for the benefit of those whom it concerns. Our municipal laws do indeed give the constables themselves the power to summarily arrest offenders against the Act of Parliament, which forbids the existence of gambling tables and the like. But this power does not extend beyond the limits of the municipality, and hence the police are powerless to act on their own responsibility. But the Act of Parliament itself is sufficiently comprehensive, nay, it even particularizes the way in which the evil should be dealt with. The statute requires the Chief Constable, or his deputy, to report the existence of such places in writing to the Mayor or Police Magistrate, and empowers the latter to issue a warrant for the arrest of the offending parties. Don't some of you fellows know the Chief Constable well enough to take him by the button-hole and suggest to him that here is a chance to distinguish himself from other Chief Constables by the simple process of obeying the clear instructions of the law?

The law goes beyond making the proprietors of these tables responsible for their ill-doing. The Act in question was specially amended a few years since, so as to include by-standers and on-lookers, who, whether or no they are engaged in the game, become liable to a fine of not less than twenty nor more than one hundred dollars, with imprisonment for two years. It might be well for spectators to remember this fact in the case of the Chief Constable some day being persuaded to do his duty. Even New York is instituting at last in real earnest a raid upon her gambling-houses, while in London and Paris the hells that exist survive only by strenuous exertions to ensure secrecy. Are we going, then, to invite those gamblers who cannot carry on their illicit profession elsewhere to make their home amongst us? This may be part of some new scheme of emigration, but its weak points are somewhat obvious.

A true sportsman has ingrained in his very nature a code of rules for his guidance, which make it impossible for him to commit any of the petty cruelties upon dumb creatures which are perpetrated daily in England, and, we fear, even in this our own country, under the guise of sport. The ruling principle of genuine sport is the existence of equal chances between pursuer and pursued, or between contending parties for a prize. The moment inequality of chance becomes apparent, a true sportsman's interest diminishes. Fox-hunting, as it is practised in the present day, is good sport. The cunning and fleetness of the fox is fairly pitted

against the intelligence and power of scent of the hounds, as is proved by the fact that more trails are struck and lost than foxes killed. It may be cruel to pursue a fox at all, and fox-hunting may be indefensible from other causes; but it at least possesses the essential feature of all true sport—equal chances. Mr. Anderson has introduced a bill to prevent a continuance of the horrible cruelties perpetrated at pigeon-shooting matches. It would be bad enough if the poor birds were merely murdered at short ranges to please the fancy of those who have learnt to pull the trigger, and are proud of it; but pigeon clubs are gambling hells, and the love of money has stimulated the ingenuity of those who take part in shooting-matches to the extent of inducing them to "operate" upon the pigeons, in order to make them answer certain requirements. The birds are shamefully mutilated in various ways, to force the defenceless victims of this latest development of "sport" to fly out of the traps in certain peculiar ways to aid or defeat the "sportsman," who is shooting for heavy stakes. Mr. Anderson's bill, however, has been "blocked" by Mr. Wharton and Mr. Richard Power "in the interests of British sport."

OUR SCIENTIFIC VISITORS.

PROFESSOR G. J. BRUSH.

Professor George J. Brush was born in Brooklyn, New York, on the 15th of December, 1831. His father was a merchant in that city, but in 1835, retiring from business, took up his residence in Danbury, Connecticut. Young Brush intended to pursue a business career, and accordingly entered, in the latter part of 1846, the counting-house of a merchant in Maiden Lane, New York City. There he remained for nearly two years, but the taste for scientific study he had already acquired did not desert him, and, in particular, he took advantage of every opportunity that came in his way to go off upon mineralogical excursions.

Just about this time Professor John P. Norton and Professor Silliman, Jr., opened at Yale College a laboratory for the purpose of practical instruction in the applications of science to the arts and agriculture. To attend these lectures, Professor Brush, not as yet seventeen years old, repaired to New Haven in October, 1848, intending at this time to change his mercantile life for that of a farmer. This event changed his career. He came to attend a single course of lectures on agriculture. He remained two years as a student of chemistry and mineralogy. In October, 1850, he went to Louisville, Kentucky, as assistant to Benjamin Silliman, Jr., who had been elected Professor of Chemistry in the university of that city. There he remained the following winter, and in March, 1851, made one of the party who accompanied the elder Silliman on a somewhat extended tour in Europe. Returning to Louisville in the autumn of that year, he continued acting in his old capacity until the spring of 1852. Then he returned to New Haven, and after undergoing examination, received, with six others, at the commencement of 1852, the degree of Ph. B., the first time it was given by the college.

The academic year 1852-53 was now spent by him at the University of Virginia, where he was employed as assistant in the chemical department. In 1853, he sailed for Europe, and, during one year at the University of Munich, devoted himself to chemistry and mineralogy under Liebig, Von Kobell, and Pettenkofer. The year following—that of 1854-55—he spent at the Royal Mining Academy in Freiberg, Saxony. Just about this time an effort was being made at New Haven to put the scientific department of Yale College in a more satisfactory position than it had previously held.

He was first offered the chair of mining and metallurgy; but this he declined as embracing too much, and the title was limited to that of metallurgy alone. This, several years after, was exchanged for that of mineralogy. To qualify himself still further for the position, the newly-elected Professor went, in the autumn of 1855, to London, where he pursued his studies in the Royal School of Mines. The following year he made an extended tour through the mines and smelting works of England, Scotland, Wales, Belgium, Germany, and Austria. In December, 1856, he returned to this country, and, in January, 1857, he entered upon the duties of his professorship.

From this time, the history of Professor Brush has been the history of the special scientific department of Yale College, which, in 1860, owing to the liberal benefactions of Mr. Joseph E. Sheffield, received the name of the Sheffield Scientific School.

Others have done their part towards developing various departments of the school, but its growth as a whole, the position which it has acquired among scientific institutions, whatever that position may be, has been due to him very much more than to any other one man connected with it.

Nor has Professor Brush been idle in his special work, in spite of the exhausting demands made upon his time and thought by the management of the Sheffield Scientific School.

He cooperated with Professor Dana in the preparation of the fifth edition of his treatise on "Descriptive Mineralogy," published in 1868.

In 1875 he brought out also a "Manual of Determinative Mineralogy and Blowpipe Analysis." In addition to these and other works he has been a constant contributor to the *American Journal of Science*.

In 1862 Professor Brush was made a corresponding member of the Royal Bavarian Academy of Sciences; in 1866 a member of the Imperial Mineralogical Society of St. Petersburg; and in 1877 a foreign correspondent of the Geological Society of London. He is also a member of the American Philosophical Society, of the National Academy of Sciences, and of various other scientific bodies in this country. In 1880, at the meeting of the American Association for the Advancement of Science, held at Boston, he was elected its president for the following year, and in that capacity presided over the meeting held in August, 1881, at Cincinnati.

PROF. FREDERICK PUTNAM.

Prof. Frederick Putnam, of Cambridge, Mass., the permanent Secretary, is one of the oldest members of the Association, which he joined in 1857, at the age of seventeen, the "baby member."

For a year previous to this he had been the assistant of Agassiz, whose pupil he was for eight years, and under whom he had charge of the department of ichthyology.

In 1864 Mr. Geo. Peabody gave \$180,000 to found the Peabody Academy of Science at Salem, Mass., and of this Professor Putnam was appointed the first director, an office which he held for eight years.

A few years after his first gift, Mr. Peabody founded, in addition, a museum in connection with Harvard University, known as the Peabody Museum of American Archaeology and Ethnology, and of this Professor Wyman was appointed the first curator, an office which he held until his death. On this occurring, in 1874, Professor Putnam was appointed his successor, a post which he still holds.

In addition to this, the Professor received, last July, at the hands of the Governor and Council of Massachusetts the appointment of Commissioner of Inland Fisheries, in succession to Col. Lyman, a post for which his early studies have particularly fitted him.

Besides his connection with the American Association, Professor Putnam is a member of the Society of Anthropology of France, and of various other Scientific societies at home and abroad.

DR. CARPENTER.

Dr. William B. Carpenter, eldest son of the late Dr. Samuel Carpenter, brother of Mary Carpenter, the well-known philanthropist, and of Dr. Philip Carpenter, late of Montreal, was born in Exeter, in 1813; but passed the greater part of his early life in Bristol, whither his father had removed in 1817. After receiving his general education under his father, he entered upon the study of medicine, which he pursued in the Bristol Medical School, and afterwards in London and Edinburgh. He took the degree of M.D. in Edinburgh in 1839; in which year he published the first edition of his "Principles of General and Comparative Physiology," a work which at once gained a high scientific rank, and was soon followed by a companion treatise on "Human Physiology," which speedily acquired an extended reputation, being used as a text-book in many of the principal medical schools, as well in America as in Great Britain.

Desiring to make the science rather than the practice of medicine the business of his life, Dr. Carpenter removed to London in 1845, where he has held several public appointments, notably that of Registrar (or Principal Executive Officer) in the University of London, which institution under his administration has undergone a remarkable development. That office he held from 1856 to 1879, retiring from it in order to be able to devote the remainder of his life to scientific pursuits, and especially to the completion of several Monographs among them one on *Evolutionary Conditions* for which he has been collecting materials during several years.

As an original investigator, Dr. Carpenter first became known by his microscopic researches on the structure of shells; then by his studies in the group of Foraminifera, on which he now ranks as the leading authority; and subsequently by his researches on the physical geography of the deep sea, the further prosecution of which by the "Challenger" Expedition was undertaken by the British Admiralty on his (Dr. Carpenter's) representation of its scientific interest and importance.

Dr. Carpenter is a Fellow of the Royal Society, and received about 20 years ago one of its Royal Medals in recognition of his researches on the Foraminifera. He is also a Fellow of the Linnean and Geological Societies of Great Britain. In 1872 he was elected President of the British Association for the Advancement of Science at its meeting at Brighton. He is a Corresponding Member of the Institute of France, of the American Philosophical Society, as well as of many other foreign academies.

To the present generation of scientific workers, Dr. C. is best known by his "Treatise on the Microscope," the sixth edition of which embodies the results of nearly half a century of microscopic experience. And his treatise on "Mental Physiology," first published about nine years ago, has gained for him a large body of readers among those who desire to acquaint themselves with the constitution and operations of the human mind.