

# MEMORANDUM

*With reference to Mr. GEORGE M. DAWSON, F.G.S.*

## ASSOCIATE ROYAL SCHOOL OF MINES.

Mr. Dawson is a native of Nova Scotia, the oldest surviving son of Principal Dawson, of McGill College, Montreal, and now in his 28th year. He received his early education in Montreal, but did not enter the University except as a partial Student, in consequence of delicate health. In 1869 he entered the Royal School of Mines, London, and took its full course of study extending over three years. He passed in 1872 as Associate of the Royal School of Mines, taking the first place in his class, and the Edward Forbes Medal and Prize in Palæontology and Natural History. He had previously taken the Duke of Cornwall's Scholarship in his Second Year. (See certificates below.) On returning to Canada, he was engaged for a year in Mining Surveys in Nova Scotia, and in lecturing in Morrin College, Quebec. He was then appointed Geologist and Botanist to the British North American Boundary Commission, in which capacity he served for two years, and prepared an elaborate Report on the Geology and Resources of the country in the vicinity of the 49th parallel, which was published by the Commission. In connection with this work he also prepared a Report on the Lignite Tertiary Formation, a Memoir on the Superficial Deposits of the great interior plains of America, which was published in the Proceedings of the Geological Society of London, of which he is a Fellow, and papers on the Locust Visitation, and on the Fresh-water Sponges of Canada, which were published in the Canadian Naturalist; also a paper on the Fluctuations of the great American Lakes, published in "Nature." On the completion of the Boundary Survey, he received an appointment on the Staff of the Geological Survey of the Dominion, and has been occupied for nearly two years in the Survey of British Columbia.

While attending the School of Mines, Mr. Dawson devoted especial attention to Geology and Palæontology, under the able tuition of Ramsay, Huxley and Etheridge, and to Chemistry and Metallurgy in the Laboratories of Frankland and Percy. In connection with his work on the Boundary Commission he has given much time and study to the special geology and fossils of the principal North American formations. He is also a good microscopist and a skilful draughtsman. His merits as a careful observer and accurate and lucid describer may be judged of by his published Reports, while his personal character and relations with his Colleagues are referred to in the Testimonials attached. It is to be observed that most of these testimonials were given with reference to his candidature for the office of Palæontologist to the Geological Survey of Canada, for which, however, the greater part of them were received too late.

October, 1876

It is hereby certified that Mr. G. M. Dawson has attended the course of lectures on Mining, during the Session 1871-72, and has passed an examination in the highest degree satisfactory.

(Signed) WARRINGTON W. SMYTH  
Lecturer on Mining.  
London, 8th July, 1872.

It having been duly reported that George Mercer Dawson stood at the head of the Students at the examination for the Session of 1870-71 and 1871-72, he is hereby authorized to hold one of the Duke of Cornwall's Exhibitions of £30 per annum, for two years, namely for the Sessions of 1870-71 and 1871-72.

(Signed) ALBERT EDWARD F.  
London, July 10th, 1871.

CERTIFICATES FROM THE ROYAL SCHOOL OF MINES AND FROM THE ROYAL COLLEGE OF CHEMISTRY, LONDON, ENGLAND.

It is hereby certified that Mr. George Mercer Dawson has attended the course of lectures on PHYSICS, during the Session 1869-70, and has passed an examination with credit.

(Signed) FREDERICK GUTHRIE,  
London, October 10, 1870. Professor of Physics.

It is hereby certified that Mr. G. M. Dawson has attended the course of lectures on MECHANICAL DRAWING, during the Sessions 1869-70 and '70-71 and has passed an examination, in the highest degree satisfactory.

(Signed) J. H. EDGAR, M. A.  
London, October 30, 1871. Lecturer on Mechl. Drawing.

It is hereby certified that Mr. George Mercer Dawson has attended the course of lectures on CHEMISTRY, during the Session 1869-70, and has passed an examination, in the highest degree satisfactory.

(Signed) E. FRANKLAND,  
London, October 10, 1870. Professor

It is hereby certified that Mr. George M. Dawson (Montreal, Canada) attended the course of Instruction in PRACTICAL CHEMISTRY, given in the Laboratories of the College, six days each week during the three Sessions of 1869-70, and acquired a good knowledge of qualitative and quantitative analysis.

(Signed) E. FRANKLAND,  
Professor.

ROYAL COLLEGE OF CHEMISTRY,  
London, June 19, 1871  
(Signed) Wm. GEO. VALENTIN,  
Hon. Secretary.

It is hereby certified that Mr. G. M. Dawson has studied in the METALLURGICAL LABORATORY, during six months, from the first of October 1871, to the 31st of March 1872. His attention was directed to the assaying of ores of Iron, Lead, Tin, Gold, Silver, Copper and Zinc; and the alloys of Gold and Silver, by the wet and dry methods. He attended with regularity and worked with commendable perseverance and industry. His results were frequently tested and found to be correct.

(Signed) JOHN PERCY, M. D., F. R. S.  
London, 6th July, 1872. Lecturer on Metallurgy.

It is hereby certified that Mr. George Mercer Dawson has attended the course of lectures on MINERALOGY, during the Session 1870-71, and has passed an examination in the highest degree satisfactory.

(Signed) WARRINGTON W. SMYTH.  
London, 1st October, 1871. Lecturer on Mineralogy.

It is hereby certified that Mr. George Mercer Dawson has attended the course of lectures on GEOLOGY, during the Session 1870-71, and has passed an examination in the highest degree satisfactory.

(Signed) ANDREW RAMSAY, LL.D., F.R.S.  
London, 2nd October, 1871. Lecturer on Geology.

It is hereby certified that Mr. G. M. Dawson has attended the course of lectures on APPLIED MECHANICS, during the Session 1871-72, and has passed an examination in the highest degree satisfactory.

(Signed) T. M. GOODEVE,  
London, 8th July, 1872. Lecturer on Applied Mechanics.

It is hereby certified that Mr. G. M. Dawson has attended the course of lectures on NATURAL HISTORY, during the Session 1871-72, and has passed an examination in the highest degree satisfactory.

(Signed) T. H. HUXLEY.  
London, 8th July, 1872.

It is hereby certified that Mr. G. M. Dawson has attended the course of lectures on MINING, during the Session 1871-72, and has passed an examination in the highest degree satisfactory.

(Signed) WARRINGTON W. SMYTH,  
London, 8th July, 1872. Lecturer on Mining.

It having been duly reported that George Mercer Dawson stood at the head of the Students at the examination for 1870-71, he is hereby authorized to hold one of the Duke of Cornwall's Exhibitions of £30 per annum, for two years, namely for the Sessions of 1870-71 and 1871-72.

(Signed) ALBERT EDWARD, P.  
London, July 10th, 1871.

DIPLOMA FROM THE COMMITTEE OF PRIVY COUNCIL ON EDUCATION.

It is hereby certified that Mr. G. M. Dawson has passed the examinations which entitle him to be an ASSOCIATE OF THE ROYAL SCHOOL OF MINES.

(Signed) WARRINGTON W. SMYTH, Chairman.

Approved, (Signed) RIPON  
Lord President of the Council.  
Entered, (Signed) TRENHAM REEKS,  
Registrar.

FROM VENERABLE ARCHDEACON LEACH, LL.D., VICE-PRINCIPAL AND DEAN OF THE  
FACULTY OF ARTS, MCGILL UNIVERSITY.

In 1868, Mr. George M. Dawson, attended my Lectures on "English Language and Literature." His attention and conduct were all that could be desired, and I remember having then the conviction that his superior intelligence gave promise of success and distinction in whatever profession or course of study he might engage. I am well acquainted with Mr. Dawson, and should find it difficult to tell, were I to try, how highly I esteem him on other accounts than his great intellectual abilities. I allude to his disposition and gentlemanly manners, and his excellent moral character.

WILLIAM T. LEACH,

Montreal, Oct. 7th, 1876.

ADDRESS FROM MEMBERS OF CLASS IN CHEMISTRY, IN MORRIN COLLEGE, QUEBEC.

Quebec, 17th March, 1873.  
GEORGE M. DAWSON, Esq.,  
Associate of the Royal School of Mines, (London.)

DEAR SIR.—The members of the class to which you have delivered the present course of lectures on Chemistry, being about to separate, are desirous before doing so, of unitedly expressing to you their high sense of satisfaction with the amount of information imparted.

The deeply important subject which has engaged our attention was comparatively new to many of us, and we consider ourselves fortunate in having been introduced to an interesting though somewhat difficult study by a gentleman who combines in an extraordinary degree, deep knowledge of his subject with an attractive facility in communicating that knowledge to others.

Wherever you go, or in whatever field your rich talents may find exercise, we desire that you should carry with you our best wishes for your future prosperity and success, and hope that some of our country's institutions of learning may permanently secure your valuable services for the popular exposition of a science so much bound up with the future welfare of Canada as Chemistry.

(Signed by the Students of the Class.)

FROM REV. DR. COOK, PRINCIPAL OF MORRIN COLLEGE, QUEBEC.

DEAR DR. DAWSON,

It will give me much pleasure on any occasion, on which it may be supposed useful, to bear my favorable testimony to your son, Mr. George M. Dawson, whose acquaintance I had the pleasure to make, while he delivered a course of Lectures on Chemistry in Morrin College. Of his scientific attainments, it would be as presumptuous as it is unnecessary for me to say anything. To these he has ample testimony, from those better qualified to judge. But I may be allowed to state the very favorable impression which he produced among us, as a Teacher, able to communicate his knowledge on scientific subjects with precision and simplicity, and so as to gain the attention and commend himself to the understandings of those studying under him. And I would like further to state, that in my frequent personal intercourse with him, I had constant occasion to note and to admire his excellent temper and sound judgment.

Believe me, Dear Dr. Dawson,  
Very truly yours,

JOHN COOK, D.D.,

Principal of Morrin College, Quebec, 4th Nov., 1876.

Dr. Dawson, Principal of McGill College, &c.

EXTRACT FROM A LETTER OF SIR C. LYELL, (JUNE, 5th 1874.) RELATING TO THE "REPORT  
ON THE LIGNITE TERTIARIES."

"The style is so clear, and the paper on the Lignite formations, without being overloaded with details, gives so entirely all the features of the formations which he has been studying, that I look forward to his playing a great part in the Geology of the future."

FROM THE DIRECTOR OF THE GEOLOGICAL SURVEY OF GREAT BRITAIN, WITH REFER-  
ENCE TO A REPORT ON A MINING PROPERTY.

I am well acquainted with Mr. George M. Dawson. He attended all the classes at the Royal School of Mines during three years. In every branch he distinguished himself in the highest degree, and he gained the esteem of every one who knew him.

I have the highest opinion of his ability and integrity, and I know his range of knowledge to be unusually extensive. He also served on the Geological Survey of England for a summer as an amateur, and proved in the field that he easily understood and could take part in all the operations of the Survey in Cumberland.

(Signed) AND. RAMSAY,

Geol. Survey of England and Wales, Jermyn Street, 13th January, 1873.

FROM MAJOR CAMERON, R. A., LATE N. AMERICAN BOUNDARY COMMISSIONER, (SEPT. 9th, 1876.)

As Mr. George M. Dawson, who was recently Geologist to the North American Boundary Commission, is a candidate for the office of Palæontologist on the Canadian Geological Survey, it is my pleasing duty to say in his behalf that I have never met a gentleman better entitled to consideration on the score of love of his profession, indefatigable zeal, official bearing, and conscientious regard for public interests.

Although my knowledge of the science of which I believe him to be an able master, would not justify my passing a personal opinion upon his merits in this respect, I may nevertheless unhesitatingly urge their excellence; for the results of his labors during the boundary-marking expedition—embodied in his elaborate published Report—have elicited here, since my return to England, expressions of very high praise from most eminent Professors.

The Report to which I refer, discloses an extensive and familiar knowledge of the subject; and the hurry and difficulties of the circumstances under which it was made, are evidence that Mr. Dawson is endowed with rare power of quick and accurate observation and of generalization, and that he is possessed of great energy and endurance.

(Signed) D. R. CAMERON.

Late North American Boundary Commissioner.

FROM CAPT. ANDERSON, R. E., LATE CHIEF ASTRONOMER NORTH AMERICAN BOUNDARY COMMISSION, (SEPT. 13th, 1876.)

I have much pleasure in testifying to the eminent fitness of Mr. George M. Dawson, for the position of Palæontologist to the Geological Survey of Canada.

For upwards of two years I was employed in the North American Boundary Commission with Mr. Dawson, and had the best opportunities of observing his skill and ability as a Geologist, Naturalist and Palæontologist, together with his zeal and devotion to research in the Field. The best evidences of Mr. Dawson's ability are his published works, which have now a world-wide reputation.

(Signed) S. ANDERSON, Captain R. E.,

Late Chief Astronomer N. A. Boundary Com.

FROM PROF. T. H. HUXLEY, F.R.S., SEC'Y. ROYAL SOCIETY, (AUG. 28th, 1876.)

I was well acquainted with Mr. George M. Dawson, during the period of his Studentship at the Royal School of Mines in London; and I am glad to be able to speak in the highest terms of the intelligence and power of work which he displayed, and which led to his becoming one of our most distinguished associates.

Mr. Dawson's large knowledge of Natural History, Palæontology and Geology, has not been allowed to lie idle since his student days, and it is my belief that he only needs opportunity to attain scientific eminence.

I should therefore be very glad to see him appointed to the office of Palæontologist to the Geological Survey of Canada, for which I understand him to be a candidate. Mr. Dawson's scientific qualifications for the place are unquestionable, and my knowledge of his character leads me to entertain a strong conviction, that he would discharge its duties conscientiously and energetically.

(Signed) T. H. HUXLEY, Sec'y. R. Society.

Professor of Natural History, Royal School of Mines, London.

FROM DR. BIGSBY, F.R.S., LATE OF THE BOUNDARY COMMISSION OF BRITISH NORTH AMERICA, AUTHOR OF "THE SAURUS SILURICUS," AND OF SEVERAL MEMOIRS ON NORTH AMERICAN GEOLOGY, (SEPT. 18th, 1876.)

Having had for some years, intercourse with Mr. George M. Dawson, while he was a diligent and successful student of certain branches of Geology at the Royal School of Mines, I feel assured that he would fill the important office of Palæontologist to the Geological Survey of Canada, to your complete satisfaction. Mr. George M. Dawson, a young man of high endowments, has had extraordinary educational advantages. Of these he has well availed himself, and the result we have in his recent Memoir on the Geology of Western America, a memoir which has been received with great approbation, as abounding in valuable facts, well stated and excellently arranged.

I shall greatly rejoice in his success.

(Signed) JOHN J. BIGSBY, M.D., F.R.S., &c.

Murchison Medallist.

FROM PROFESSOR JAMES HALL, STATE GEOLOGIST AND PALÆONTOLOGIST OF NEW YORK, SEPTEMBER 16, 1876.

Learning that Mr. George M. Dawson is a candidate for the position of Palæontologist upon the staff of the Geological Survey of the Dominion, I beg leave to offer my expressions in his favor. From the training and discipline which he has received, and from his successful competition for honors in the School of Mines, as well as from his published reports and scientific papers, I consider him not only competent to fill the position, but also the most competent person within the Dominion who will be likely to become a candidate for the place.

(Signed) JAMES HALL.

FROM DR. F. V. HAYDEN, DIRECTOR OF THE UNITED STATES SURVEY OF THE WESTERN TERRITORIES, (SEPT. 11th, 1876.)

SIR,  
I understand that Mr. George M. Dawson of Montreal, Canada, is a candidate for the vacant position of Palæontologist to the Geological Survey of Canada; and, though a Geologist, engaged in similar pursuits in an official capacity under the United States Government, I beg permission to offer my cordial endorsement of his fitness, and my wish that he may receive the appointment.

It has been necessary for me, in connection with my explorations of the north western portion of the United States, to study with much care Mr. Dawson's report of the 49th Parallel, as well as his other writings, and I have always been strongly impressed with their breadth and thoroughness. The fairness and justice with which he treats the labors of other Geologists, forms an important moral element in his writings.

I am confident that there is no person available at the present time who combines so many qualifications for the position as Mr. Dawson, and should the Survey secure his services, I feel assured that the Palæontology would be prepared in a conscientious and creditable manner.

Hoping for the good of the Survey and the advancement of science, that Mr. Dawson's application may be successful, I beg to remain,

Your obedient servant,

(Signed)

F. V. HAYDEN,

United States Geologist.