

British Association for the Advancement of Science,

22, ALBEMARLE STREET,

LONDON, W.

Dec. 23, 1885.

Sir,

Professor Bonney tells me that you wish to hear of any arrangements made for the next meeting. I therefore enclose a proof of the minutes of the last Council meeting, which, with the notes I have made thereon, will I think tell you all there is at present arranged.

I am, Sir,

Yours faithfully,

W. Dawson. H. C. Stewardson.

## COUNCIL OF THE BRITISH ASSOCIATION.

At a Meeting of the Council of the British Association, held at the Office of the Association, 22 Albemarle Street, London, November 17, 1885.

*Present,—*

PROFESSOR A. W. WILLIAMSON, Treasurer, in the Chair.

CAPT. ABNEY.

A. T. ATCHISON, ESQ.

W. T. BLANFORD, ESQ.

SIR F. BRAMWELL.

PROF. DEWAR.

PROF. FLOWER.

CAPT. DOUGLAS GALTON.

F. GALTON, ESQ.

DR. J. H. GLADSTONE.

G. GRIFFITH, ESQ.

A. VERNON HARCOURT, ESQ.

ADMIRAL SIR E. OMMANNEY.

PROF. MCLEOD.

J. B. MARTIN, ESQ.

PROF. STRUTHERS.

W. T. THISELTON-DYER, ESQ.

A letter was read from Sir Lyon Playfair, regretting that he was detained at Leeds on important business.

1. The Minutes of the last Meeting were read and, after correction, confirmed.

2. The General Treasurer's Report was read and received:—Balance brought forward, £620. 11s. 5d.; received for subscriptions and tickets at Aberdeen and since, £2,405; sale of publications, £26. 16s.; interest on Exchequer Bills, £29. 0s. 8d.; one year's rent from Mathematical Society, £12s. 15s.; total, £3,094. 3s. 1d. Expenditure:—Expenses of Aberdeen Meeting (including printing accounts), £152. 15s.; salaries, £141. 5s.; petty cash expenses and deductions at Bank, £11. 8s. 2d.; Messrs. Kell & Son, lithographers, £25. 5s.; one quarter's rent, £29. 5s.; on account of grants made at Aberdeen, £335; balance at Bank of England (Western Branch), £2,344. 11s. 5d.; in hands of Assistant to General Treasurer, £54. 13s. 6d.; total, £3,094. 3s. 1d.

3. The Council were informed that the following gentlemen, appointed by the General Committee, had consented to act as Vice-Presidents of the Association:—The Earl of Bradford, Lord Leigh, Lord Norton, Lord Wrottesley, The Bishop of Worcester, Thos. Martineau, Esq. (Mayor of Birmingham), Prof. W. A. Tilden, the Rev. A. R. Vardy, and the Rev. H. W. Watson; that the Earl of Beauchamp and Prof. Huxley had declined; and that the Earl of Warwick had not yet replied. It was resolved that Prof. Stokes be requested to allow himself to be nominated a Vice-President of the Association for the next meeting.

4. The following list of names of gentlemen, recommended by the



Local Officers at Birmingham, for election as a Local Executive Committee, was read :

Airy, Osmund, M.A.	Lapworth, Prof. C., LL.D., F.G.S.
Albright, G. S., M.A.	Lea, Henry, M.Inst.C.E.
Avery, Thos., Aldn., J.P.	Lloyd, J. H., M.A.
Barham, F. F.	Lloyd, Wilson, J.P.
Beale, C. G., M.A.	Marshall, W. P., M.Inst.C.E.
Bennett, P. D., J.P.	Martineau, R. F., Councr.
Buckley, Henry, F.Z.S.	Mathews, C. E., F.R.G.S.
Bunce, J. Thackray, J.P.	Mathews, G. S., M.A.
Cay, Albert.	Mathews, Wm., M.A.
Calthorpe, Hon. A. G. C., M.A.	Milward, R. Harding, J.P.
Chance, Alex. M., F.C.S.	Nettlefold, Edward, M.A.
Chase, R. W.	Osler, H. F.
Clarke, David, Councr.	Parker, Lawley, Councr.
Clayton, F. C., Councr.	Player, J. Hort.
Cochrane, Charles, J.P.	Porter, Paxton.
Cooke, Wm., Aldn., J.P.	Poynting, Prof. J. H., M.A.
Cossins, Jethro A.	Russell, T. H.
Crosskey, Cecil.	Ryland, Frederick.
Elkington, Fredk., J.P.	Saundby, Robt., M.D.
Everitt, William, J.P.	Smith, Edwin.
Foster, Dr. B. W., Councr., J.P.	Smith, E. Orford.
Gooch, Sir A. S., Bart.	Stone, J. B., J.P.
Goodman, F. B., J.P.	Tait, Lawson.
Grindley, B. H.	Tilden, Prof., M.A., D.Sc., F.R.S.
Haycraft, Prof., M.B., B.Sc., F.R.S.E.	Timmins, Samuel, J.P.
Heaton, Harry, J.P.	Tonks, Edmund, B.C.L.
Hillhouse, Prof. W., M.A.	Torr, C. W.
Holliday, J. R.	Vardy, Rev. A. R., M.A.
Hopkins, J. Satchell, J.P.	Walliker, S.
Jaffray, John, J.P.	Wallis, Whitworth.
Johnson, G. J., Councr., J.P.	Wiggin, H. A., J.P.
Keen, Arthur, J.P.	Wilkinson, Rev. Canon, D.D.
Kenrick, G. H.	Williams, Francis.
Kenward, J., F.S.A., Assoc. M.Inst.C.E.	Wills, A. W., J.P.
	Woodward, C. J., B.Sc.

Resolved :—

“That the gentlemen whose names are included in the list now presented, and who are not already Members of the Association, be now elected Members.”

“That the gentlemen whose names are included in the list, together with the Vice-Presidents and the Local Officers, be appointed a Local Executive Committee for conducting the arrangements of the Meeting at Birmingham, with power to add to their number.”

“That the Local Executive Committee be authorised to elect Members and Associates for 1886.”

5. It was resolved that the following gentlemen should be requested to accept office, as Presidents of Sections, at the Birmingham Meeting:

*Section A.*—Professor G. H. Darwin.

*Section B.*—Mr. Crookes.

*Section C.*—Professor Bonney.

*Section D.*—Mr. Carruthers.

*Section E.*—Sir Charles Warren.

*Section F.*—Mr. J. B. Martin.

*Section G.*—Sir J. N. Douglass.

*Section H.*—Mr. John Evans.

It was also resolved to request Professor Dewar and Mr. J. N. Langley to deliver the discourses at the above meeting, and Professor W. C. Roberts-Austen to deliver a lecture to the Operative Classes.

6. The election of Corresponding Members was deferred to the next meeting.

7. It was resolved that the days for the regular Council Meetings for the coming year should be the first Friday in February, March, May, and November, and (at Birmingham) Wednesday, September 1st.

8. The consideration of the following resolution, referred to the Council by the General Committee—"That the Council be requested to consider the desirability of admitting ladies as officers of the Association, or as members of the General or Sectional Committees"—was deferred.

9. The following resolutions, referred to the Council by the General Committee, were considered: "That the Council be requested to consider the advisability of rendering the special Reports of the Association more accessible to the scientific public by placing them on sale in separate form;" "That the printed Reports on Special Subjects be offered for sale to the general public at the time of the Meeting, or as soon afterwards as possible;" and it was resolved to refer them for further consideration to a Committee, consisting of the President, the General Officers, Mr. Griffith, Mr. F. Galton, Dr. Gladstone, Professor Bonney, and Mr. Thiselton-Dyer.

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11. The consideration of the other resolutions referred to the Council by the General Committee was postponed.

12. An application from Mr. E. Richardson for unclaimed volumes was granted.



13. An application from the *Revue Internationale de l'Électricité* for the Report of the Association, and for permission to republish extracts therefrom, was not granted; an application from the *Journal of the Institute of Bankers* for copies, past and present, of the Reports of the Association for the Library of the Institute of Bankers, and an application from the Canadian Institute, Toronto, for an exchange of publications, were deferred.

14. On application, extra copies were granted of Mr. Harker's paper on Slaty Cleavage (100), of the Report on Harmonic Analysis (50), and of the Report on Magnetic Observations and Reductions (50).

The Council then adjourned.

Confirmed—

February 5, 1886.

LYON PLAYFAIR.

## COUNCIL OF THE BRITISH ASSOCIATION.

[*Unconfirmed Minutes for the use of the Members of the Council only.*]

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 Bunce, J. Thackray, J.P.  
 Cay, Albert.  
 Calthorpe, Hon. A. G. C., M.A.  
 Chance, Alex. M., F.C.S.  
 Chase, R. W.  
 Clarke, David, Councr.  
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 Cochrane, Charles, J.P.  
 Cooke, Wm., Aldn., J.P.  
 Cossins, Jethro A.  
 Crosskey, Cecil.  
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 Haycraft, Prof., M.B., B.Sc.,  
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 Holliday, J. R.  
 Hopkins, J. Satchell, J.P.  
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 Kenward, J., F.S.A.,  
 Assoc. M.Inst.C.E.

Lapworth, Prof. C., LL.D.,  
 F.G.S.  
 Lea, Henry, M.Inst.C.E.  
 Lloyd, J. H., M.A.  
 Lloyd, Wilson, J.P.  
 Marshall, W. P., M.Inst.C.E.  
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 Milward, R. Harding, J.P.  
 Nettlefold, Edward, M.A.  
 Osler, H. F.  
 Parker, Lawley, Councr.  
 Player, J. Hort.  
 Porter, Paxton.  
 Poynting, Prof. J. H., M.A.  
 Russell, T. H.  
 Ryland, Frederick.  
 Saundby, Robt, M.D.  
 Smith, Edwin.  
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 Torr, C. W.  
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 Wallis, Whitworth.  
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*\* accepts the office  
on account of ill health.*



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It was also resolved to request Professor Dewar<sup>x</sup> and Mr. J. N. Langley<sup>x</sup> to deliver the discourses at the above meeting, and Professor W. C. Roberts-Austen to deliver a lecture to the Operative Classes.

6. The election of Corresponding Members was deferred to the next meeting. *not yet answered.*

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Bull  
W. J. S.

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*Present,—*

LORD RAYLEIGH, President, in the Chair.

PROF. W. G. ADAMS.  
PROF. T. G. BONNEY.  
PROF. DEWAR.  
PROF. FLOWER.  
DR. ANGUS FRASER (*Local Secretary*).  
CAPT. DOUGLAS GALTON.  
F. GALTON, Esq.

DR. J. H. GLADSTONE.  
G. GRIFFITH, Esq.  
A. VERNON HARCOURT, Esq.  
ADMIRAL SIR E. OMMANNEY.  
W. PENGELLY, Esq.  
SIR LYON PLAYFAIR.  
PROF. STOKES.  
SIR RICHARD TEMPLE.

1. The Minutes of the last Meeting were read and confirmed.
2. The General Treasurer's Report was read and ordered to be presented to the General Committee this day:—Balance brought forward, £1,275. 19s. 9d.; subscriptions, £578; dividends on stock, £247. 0s. 8d.; interest on Exchequer bills, £48. 15s. 3d.; sale of publications, £142. 12s. 4d.; rent from Mathematical Society, £12. 15s.; returned unexpended grants, £75; balance transferred by Financial Officer at Montreal Meeting, £1,537. 9s. 9d.; total, £3,917. 12s. 9d. Expenditure:—Part payment of expenses of Montreal Meeting, £289. 1s. 7d.; printing Vol. 53 of Reports, &c., £1,000. 19s. 9d.; salaries (one year), £505; rent of office, £117; grants made at Montreal, £1,385; balance at Bank of England (Western Branch), £436; in hands of Assistant to General Treasurer, £184. 11s. 5d.; total, £3,917. 12s. 9d.
3. The Council recommended the election of the new members as set forth in their Report.
4. It was announced that an invitation had been received from Manchester for the year 1887.
5. The Report of the Council for the year 1884-5 was considered and adopted in the following form for presentation to the General Committee:

### REPORT OF THE COUNCIL

For the year 1884-5, presented to the General Committee at Aberdeen on Wednesday, September 9, 1885.

“THE Council have received reports during the past year from the General Treasurer, and his accounts for the year will be laid before the General Committee this day.



"Since the Meeting at Montreal, the following have been elected Corresponding Members of the Association:

Bowditch, Prof. H. P.	Kikuchi, Prof. Dairoku.
Brush, Prof. G. J.	Michelson, A. A.
Gibbs, Prof. J. Willard.	Newcomb, Prof. Simon.
Gibbs, Prof. Wolcott.	Powell, Major J. W.
Greely, Lieut. A. W.	Ray, Captain P. H.
Jackson, Prof. C. Loring.	Thurston, Prof. R. H.

"The Council have nominated Professor Struthers, M.D., LL.D., to be a Vice-President at the Meeting at Aberdeen.

"Soon after the commencement of the present year, Professor Bonney, the Secretary, informed the Council that a considerable increase in the endowment of his Professorship at University College would demand that in future a larger share of his time should be devoted to teaching. As unfortunately the state of his health for some months past had pointed to the need of diminishing rather than increasing his work, he regretted that he would be unable to offer himself for re-election at the present Meeting. The Council received this announcement with very great regret. Professor Bonney not only brought to the office of Secretary a leading scientific position, but also combined with this advantage great energy, zeal, and discretion. It was largely due to his powers of organisation and tact that the exceptional and grave difficulties which attended the holding of last year's Meeting at Montreal were surmounted, and it was brought to a successful issue. The Council have nominated Mr. A. T. Atchison, M.A., who for some years past has rendered most efficient assistance as one of the Secretaries of Section G, to the office of Secretary, vacated by Professor Bonney.

"During the present year the Council have considered the stipend paid to Mr. Stewardson, the Clerk of the Association, and the amount assigned to the General Treasurer to enable him to obtain such assistance as may be requisite. Mr. Stewardson was engaged in the year 1873 at a salary of £120, which was subsequently augmented to £130. The Council now recommends that for the present year it be raised to £135, and be subsequently increased (subject to the usual conditions) by a sum of £5 at the end of each three years till a maximum of £160 be reached; also that the yearly sum assigned to the General Treasurer be increased from £50 to £60.

"On meeting again in Great Britain, the Council venture to express to the General Committee their belief that the anticipations of a successful meeting, expressed in the Report presented at Montreal, have been fully justified by the results, and once more give utterance to the gratitude, which must be felt by all who visited Canada, for the liberal hospitality and cordial reception which welcomed them there. It will be long before this visit is forgotten, or the stimulus, which its exceptional circumstances gave to the energy and life of the Association, ceases to be felt. Towards the close of that Meeting, the happy idea occurred to several members of the Association, that it would be an appropriate memorial of the visit of the British Association to found a Medal at McGill University, to be given annually for proficiency in Applied Science. The idea, once started, was warmly espoused, and a subscription list was opened, with Lord Rayleigh, the President, as Treasurer, and Messrs. W. Topley and H. T. Wood as Secretaries. The result has been that a sum of about £500 will be transmitted to the authorities of the McGill University for investment. This will enable them to offer, as an annual prize, a Gold Medal



and a sum of money. The first award has already been made. The Council, acting under the powers conferred upon them by the General Committee on Nov. 11, 1884, have instructed Mr. Wyon to prepare, at the cost of the Association, a suitable die for the Medal.

"The Council, in virtue of the powers conferred upon them by the General Committee at Montreal, in regard to the Report concerning Corresponding Societies, have formed the Corresponding Societies' Committee. The Report of the Committee will be presented, and a conference of Delegates, appointed under the new rules, will be held during the present Meeting.

"The following resolutions were referred by the General Committee to the Council for consideration and action, if desirable :

"That the Council of the Association be requested to communicate with the Government of the Dominion of Canada in order (1) to call the attention of the Government to the absence of trustworthy information concerning the tides of the Gulf of St. Lawrence and the adjoining Atlantic coast, and to the dangers which thence arise to the navigation ; (2) to urge upon the Government the importance of obtaining accurate and systematic tidal observations, and of tabulating and reducing the results by the scientific methods elaborated by Committees of the Association ; and (3) to suggest the immediate establishment of a sufficient series of observing stations on the coast of the Dominion.'

"A Memorial in accordance with the above resolution was adopted by the Council and forwarded to the Government of the Dominion of Canada. To this a reply was received from the Canadian Minister of Marine, expressing regret that the Dominion Government were unable at the present time to undertake a special survey of the tides and currents in the Gulf of St. Lawrence. The Council, however, are not without hope that the proposed observations may be regarded as deferred rather than as refused.

"That the Council memorialise the Canadian Government as to the urgent necessity of encouraging investigation and publication of reports with respect to the physical characters, languages, social, industrial, and artistic condition of the native tribes of the Dominion.'

"A Memorial in accordance with the above was also adopted by the Council and forwarded to the Government of the Dominion of Canada. The receipt of this was acknowledged, and the Council were informed that it would be duly considered by the Dominion Government.

"That the attention of the Council be drawn to the advisability of communicating with the Admiralty for the purpose of urging on them the importance of the employment of the Harmonic Analysis in the Reduction of Admiralty Tidal Observations.'

"The above recommendation was duly considered, but the Council, while fully conscious of the importance of the subject, deemed the time inopportune for pressing the matter on the attention of the Admiralty.

"That the Council be requested to examine the feasibility of instituting a scheme for promoting an International Scientific Congress, to meet at intervals in different countries, and to report thereon to the General Committee at the next meeting of the Association.'

"This most important question has been very fully considered by the Council during the past year. The importance of such a Congress can hardly be doubted ; at the same time there are many serious difficulties in devising a practicable scheme, and many considerations to be taken into account, before it would be prudent to undertake so great a departure



from the ordinary procedure of the Association, as would be involved by such schemes as have seemed most feasible. The following is a brief history of what has been done. At the conclusion of the Montreal Meeting a Committee of the Council (of which Mr. Vernon Harcourt, the General Secretary, was a member) took the opportunity of being present at the meeting of the American Association at Philadelphia, to confer with some members of the Committee in America, from whom the latest and most definite proposal of an International Scientific Association has emanated. After returning to England, a letter was received by Mr. Vernon Harcourt from Dr. S. C. Minot, Secretary to the above Committee, which was laid before a Committee of the Council. As a result of their consideration of this letter, the Secretary entered into an informal correspondence with Dr. C. S. Minot. The intent of this correspondence was to bring about an exchange of views and a discussion of certain difficulties which presented themselves at first sight, and as it, in effect, contains the outline of a scheme, the Council (with Dr. Minot's permission) have resolved to place it, together with extracts from his letter to Mr. Vernon Harcourt, in the hands of the General Committee. Copies of it are accordingly distributed with this Report. The Council, in the next place, deemed it desirable to ascertain what support the proposal of a joint meeting of the British Association and of the International Scientific Association, in the suggested rudimentary form, would meet with from the more important Scientific Societies in London; for, without their favourable countenance and the permission to use the rooms of such as were conveniently situated, the project would necessarily be abortive. A circular was accordingly addressed to a number of the London Scientific Societies, with the result that out of 29 societies which sent answers, 3 expressed their inability, in consequence of formal difficulties, to reply at present; 2 were opposed to the scheme; 5 were favourable; and the rest were not hostile. It should, however, be remarked, that while a willingness to lend rooms was very generally shown, any approbation of the scheme was expressed in very guarded terms, and amounted, in the majority of cases, to little more than a non-expression of disapproval. In these circumstances the Council invite the General Committee to take the matter into their consideration during the Aberdeen Meeting, and suggest that the second meeting of the General Committee would be the most convenient opportunity for a discussion.

“One vacancy in the Council has been caused by the lamented death of Dr. Gwyn Jeffreys; another by the resignation of Prof. Prestwich: it follows, therefore, that in accordance with the rule, three other members will retire. The retiring members will be:

Sir F. J. Evans.

Prof. W. G. Adams.

The Right Hon. G. Selater-Booth.

“The Council recommend the re-election of the other ordinary Members of Council, with the addition of the gentlemen whose names are distinguished by an asterisk in the following list:

Abney, Capt W. de W., F.R.S.	De La Rue, Dr. Warren, F.R.S.
Ball, Prof. R. S., F.R.S.	Dewar, Prof. J., F.R.S.
Bateman, J.F. La Trobe, Esq., F.R.S.	Flower, Prof. W. H., F.R.S.
*Blanford, W. T., Esq., F.R.S.	Gladstone, Dr. J. H., F.R.S.
Bramwell, Sir F. J., F.R.S.	Glaisher, J. W. L., Esq., F.R.S.
*Crookes, W., Esq., F.R.S.	Godwin-Austen, Lt.-Col. H. H., F.R.S.
Dawkins, Prof. W. Boyd, F.R.S.	Hawkshaw, J. Clarke, Esq., F.G.S.

Henrici, Prof. O., F.R.S.	Pengelly, W., Esq., F.R.S.
Hughes, Prof. T. McK., F.G.S.	Perkin, Dr. W. H., F.R.S.
*Martin, J. B., Esq., F.S.S.	Sorby, Dr. H. C., F.R.S.
*M'Leod, Prof. Herbert, F.R.S.	Temple, Sir R., Bart., G.C.S.I.
Moseley, Prof. H. N., F.R.S.	*Thiselton-Dyer, W. T., Esq.,
Ommanney, Admiral Sir E., C.B., F.R.S.	C.M.G., F.R.S."

6. The Report of the Local Officers as to the number of members and associates elected by the Executive Committee was received.

7. The claims for admission to the General Committee made by the members in the following list were considered, viz. :

Benham, W. B., D.Sc.	Hulke, J. W.	Martin, Sidney.
Blyth, Prof. Jas.	Kaines, J., D.Sc.	Müller, Hugo.
Bourne, A. G., D.Sc.	Lapworth, Prof. C.	Rae, Dr. J.
Capper, R.	Macgregor, J. G.	Ravenstein, E. G.
Coleman, J. J.	Marshall, Prof. A. M.	Romanes, G. J.
Carnelley, Prof. T.	Marshall, W. P.	Routh, E. J., D.Sc.
Ewart, Prof. J. C.	Martin, J. B.	

The claims made by

Benham, W. B.	Hulke, J. W.	Müller, Hugo
Blyth, Prof. Jas.	Lapworth, Prof. C.	Rae, Dr. J.
Bourne, A. G.	Macgregor, J. G.	Ravenstein, E. G.
Coleman, J. J.	Marshall, Prof. A. M.	Romanes, G. J.
Carnelley, Prof. T.	Marshall, W. P.	Routh, E. J., D.Sc.
Ewart, Prof. J. C.	Martin, J. B.	

were allowed.

8. The Secretary reported that Sir Rawson Rawson, Vice-President Section F, was unable to attend the meeting, and that Mr. E. Rigg had undertaken the duties of Recorder of Section G in the place of Mr. A. T. Atchison.

9. A letter from Prof. Johnson, relating to the survey of the Gulf of St. Lawrence, was read.

10. A letter from Dr. S. C. Minot, announcing a gift of \$25,000 to advance science and the foundation of an International Scientific Association, was read.

11. The Report of the Corresponding Societies' Committee was laid before the Council and ordered to be presented to the General Committee.

12. An application from Col. Lowe, relating to unclaimed volumes, was granted.

13. An application for a grant of the annual volume for Queen's College, Toronto, was refused.

The Council then adjourned

ALEX. W. WILLIAMSON.

Confirmed—November 17, 1885.



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