



National Cataloguing Unit for the Archives of Contemporary Scientists

Catalogue of the papers and correspondence of

LEWIS FRY RICHARDSON FRS

(1881 - 1953)

Compiled by Timothy E. Powell and Peter Harper

Deposited in Cambridge University Library

NCUACS 44/6/93

All rights reserved
University of Bath
1993



National Cataloguing Unit for the Archives of Contemporary Scientists

Catalogue of the papers and correspondence of

LEWIS FRY RICHARDSON FRS

(1881 - 1953)

Compiled by Timothy E. Powell and Peter Harper

Deposited in Cambridge University Library

NCUACS 44/6/93

All rights reserved
University of Bath
1993

The work of the National Cataloguing Unit
for the Archives of Contemporary Scientists,
and the production of this catalogue, are made
possible by the support of the following societies
and organisations:

British Petroleum plc

The Institute of Physics

The Royal Society

The Wellcome Trust

LIST OF CONTENTS

	Items	Page
GENERAL INTRODUCTION		3
SECTION A	BIOGRAPHICAL	A.1-A.47
		6
SECTION B	NOTES AND DRAFTS	B.1-B.42
		14
INDEX OF CORRESPONDENTS		20

GENERAL INTRODUCTION

PROVENANCE AND DESCRIPTION OF THE COLLECTION

The papers were received in September 1993 from Mr O. M. Ashford, a colleague and close friend of Richardson and the Richardson family, who brought the material together over many years in the preparation of his biography of Richardson *Prophet or Professor? The Life and Work of Lewis Fry Richardson* (Adam Hilger, Bristol & Boston MA, 1985). An outline summary of the career of Richardson, drawing upon *Prophet or Professor?* and the Royal Society obituary of Richardson by E. Gold, *Obituary Notices of Fellows of the Royal Society* 9 (1954), is presented on page 5.

The bulk of the papers were listed by Ashford in a 2pp manuscript note of 'Material handed over to Cambridge University Library...23 Sep. 1993'. This may be found at A.2. Ashford's list divides the papers into 'Correspondence', 'Miscellaneous' and 'Original notes by LFR'. This arrangement has largely been followed in the presentation of this catalogue; the items listed under 'Correspondence' and 'Miscellaneous' comprise the bulk of the Biographical section of this catalogue, and the majority of the items listed by Ashford as 'Original notes' are in the Notes and drafts section. Not all the material in Ashford's possession was listed, however, and the catalogue also lists Ashford's Richardson photographs, and the contents of a file originally held by Mrs Elaine Traylen, Richardson's daughter.

Section A, Biographical, consists of general and miscellaneous biographical material, correspondence and photographs. The general and miscellaneous material includes sketches by Richardson, his house diary recording aspects of life at the family home Hillside House in Argyll 1943-1953 and later material collected by Ashford, including recollections of R. Barbour relating to Richardson. The correspondence, arranged alphabetically by correspondent, includes Ashford's own correspondence with Richardson, correspondence between Ashford and others in the 1980s relating to his biography of Richardson *Prophet or Professor?*, and letters of Richardson's (including many letters in the form of photocopies used by Ashford in the preparation of the biography). The photographs include portrait photographs of Richardson and group photographs taken during meetings of the International Commission for the Investigation of the Upper Air in the 1920s.

The items at A.13-A.17 (Ashford's correspondence with Richardson), A.25 (correspondence between Richardson and his son Stephen) and A.34-A.47 (photographs) were made available for listing in this catalogue but are retained by Ashford during his lifetime.

Section B, Notes and drafts, comprises material ranging from manuscript jottings and research notes to lecture notes on differential equations 1937-1938 and drafts submitted for publication. The subjects relate to Richardson's meteorological and mathematical interests, to his study of war and to his interest in psychology. They include drafts of 'Gregariousness and its opposite' and 'Voting in an international organisation'. The material in this section is presented in chronological order.

LOCATION OF OTHER MATERIAL

In Appendix E of *Prophet or Professor?* Ashford presents a very full list of 'Archives containing material relating to L F Richardson' which he used in the preparation of his book, and the present collection includes photocopies of material held in some of these. As Ashford relates in his biography, pp. 240-241, many of Richardson's papers were destroyed after his death. The principal collections of surviving Richardson material listed by Ashford are at Paisley College of Technology, Paisley, which holds about thirty files, chiefly of lecture notes but also including correspondence and notes, and sixty textbooks with marginalia by Richardson (a catalogue of these papers is at A.11), and the Richardson Institute, Lancaster University, which holds six bound volumes of Richardson's, principally working material for books on peace research but including correspondence and notes on other subjects, and two files on languages and religion and on mapping of populations.

ACKNOWLEDGEMENTS

We are very grateful to Mr Ashford for making the papers available for listing and for his comments on the draft catalogue.

T. E. Powell
P. Harper
BATH 1993

OUTLINE SUMMARY OF THE LIFE AND CAREER OF LEWIS FRY RICHARDSON FRS

- 1881 Born 11 October, Newcastle upon Tyne.
- 1894 Bootham School, York.
- 1898 Durham College of Science.
- 1900 King's College Cambridge.
- 1903 Student Assistant, National Physical Laboratory.
- 1905 Junior Demonstrator in Physics, University College Aberystwyth.
- 1906 Chemist, National Peat Industries Ltd.
- 1908 Metrology Division, National Physical Laboratory.
- 1909 Married Dorothy Garnett.
- 1909 Sunbeam Lamp Company, Gateshead.
- 1912 Demonstrator and Lecturer in Physics, Manchester College of Technology.
- 1913 Superintendent of Eskdalemuir Observatory, Meteorological Office.
- 1916 Friends' Ambulance Unit, attached to 16th French Infantry Division.
- 1919 Meteorological Office, Benson, Oxfordshire.
- 1920 Physics Department, Westminster Training College.
- 1922 Publication of *Weather Prediction by Numerical Process*.
- 1926 Election to Fellowship of the Royal Society.
- 1929 Principal, Paisley College of Technology and School of Art.
- 1940 Retirement, research on wars and eddy-diffusion.
- 1953 Died 30 September.

SECTION A

BIOGRAPHICAL

A.1 - A.47

- A.1 Obituary of Richardson from *Nature* **172** (1953), pp. 1127-1128.
- Notice of Richardson from *Dictionary of National Biography 1951-1960*, pp. 837-839.
- A.2 Ashford's 2pp manuscript listing of 'Material handed over to Cambridge University Library...23 Sep. 1993'.
- A.3 Photocopied extracts from Richardson's mother's diary, recording his birth on 11 October 1881 and events in his life up to his departure for France in 1916 to serve with the Friends' Ambulance Unit.
- A.4 Photocopy of 'A North-Durham Colliery' by Richardson. 5pp manuscript.
- This short account of a visit to a colliery at which a cousin worked as surveyor was written while at Bootham School, York (1894-1898).
- Hand-drawn cartoons of 'A visit to the Moonbeam Lamp Co.', c.1912.
- The cartoons and accompanying captions draw on Richardson's experiences as head of the laboratory of the Sunbeam Lamp Company, 1909-1912.
- A.5 Municipal School of Technology, Manchester. Regulation Note Book. Inscribed on label 'L. F. Richardson Session 1912-13'.
- The notebook contains manuscript notes on 'Reflections on discipline in Schools & Colleges', 14pp, including notes on lecturers reputed to keep poor or excellent discipline, and 'The Art of Lecturing', 5pp.
- Richardson was Demonstrator and Lecturer in Physics at the College for the period 1912-1913.
- A.6 Pastel sketches by Richardson of 'Falling Rain. Camp Vauban', 19 April 1918, and 'View from the shrine looking towards La Neuville au Pont', 28 June 1918.

Biographical

- A.7 Recollections of Richardson by R. Barbour, and brief related correspondence.
- Barbour was a student at Paisley Technical College and School of Art and attended Richardson's lectures on mathematics 1931-1933.
- He wrote two 6pp typescript sets of recollections in September 1983, and c.1987, both of which were passed on to Ashford by P.G. Drazin, University of Bristol.
- A.8 Exchange between Ashford and Executive Secretary of the British Association for the Advancement of Science (BA) *re* Richardson material in BA archives; photocopies of summaries of talks given by Richardson at BA meetings 1907, 1915, 1928, 1932, 1938, 1940.
- A.9 *Bulletin of the American Meteorological Society* 48, August 1967.
- Contains article by G.W. Platzman 'A retrospective view of Richardson's book on weather prediction', at pp. 514-550.
- A.10 Correspondence between Ashford and McMaster University *re* Richardson material in the Bertrand Russell archive, 1982, 1984, 1985.
- Includes copy of letter from Russell to Stanley Unwin, 29 December 1918, commenting on the draft of Richardson's book *Mathematical Psychology of War*.
- Exchange with George Allen & Unwin *re* material relating to *Mathematical Psychology of War*, 1982.
- A.11 Catalogue of 'Lewis Fry Richardson (1881-1953) Manuscripts and documents held in the Library of Paisley College of Technology', 1983.
- A.12 Richardson's 'House diary' (Ashford's term) of Hillside House, Kilmun, Argyll.
- The diary is a bulky hardback binder used to record aspects of the history of the house and the Richardson family's habitation thereof from the purchase of the house in 1943 to Richardson's death in 1953. The contents are arranged by Richardson's own subject dividers into sections ranging from 'Plans & Legalities' and 'Electric power' to 'Midges' (a diary of midge activity in the garden) and 'Preserves' (recording jams made by Richardson and his family). The material is Richardson's manuscript notes, and documents relating to the house (bills, plans, legal documents, memorabilia) pasted onto pages. Some loose intercalated material.

Biographical

- A.25 Richardson, S.A. (son) 1946-1952
- This correspondence is retained by Ashford during his lifetime.
- Includes letters *re* Stephen's 'thesis' on life on a merchant ship at sea.
-
- A.26 Rogers, G.L. 1950-1951, 1982-1984
- Rogers was a colleague of Richardson's and a former member of the Society of Friends.
- Correspondence between Ashford and Rogers *re* Richardson material, with photocopies of 1950-1951 letters from Richardson to Rogers, chiefly *re* Rogers's comments on microfilms of 'Statistics of deadly quarrels'.
-
- A.27 Ross, P.M. 1948, 1952, 1953
- Correspondence 1948 chiefly *re* energy in vibration of a string and (with C.H. Mortimer) turbulence problems; correspondence 1952 includes Richardson's comments on Ross's paper on entropy.
-
- A.28, A.29 West, R. 1943-1952, 1981-1985
- West was a close friend of Richardson's. They first met at a British Psychological Society meeting in ?1941 and found they had similar scientific and moral interests.
- A.28 Correspondence between Ashford and West 1981-1985 *re* reminiscences of Richardson and *re* Richardson correspondence held by West. Folder also includes copy of West's curriculum vitae and article by his wife Jean from *Quaker Monthly*, September 1970, on Richardson's idea of God.
-
- A.29 Photocopies of letters from Richardson to West 1943-1952, and of one letter from West to Richardson, 1 July 1952; two letters from Q. Wright to West, chiefly *re* publication of Richardson's work, 1959, 1961.
-
- A.30-A.33 Wright, Q. 1943-1955, 1981-1982.
- Wright was Professor of international law at the University of Chicago. He was author of *A Study of War*, published in two volumes in 1942, which referred to Richardson's work. The correspondence between Wright and Richardson was initiated by Richardson on reading *A Study of War*. Subsequent letters concern their mutual interest in the analysis of causes of wars.

Biographical

- A.30 Correspondence between Ashford and Louise L. Wright, daughter, and University of Chicago archives, *re* Richardson correspondence in the Q. Wright papers. Includes listing of Wright papers in University of Chicago archives.
- A.31-A.33 Photocopies of correspondence between Wright and Richardson, 1943-1953, and correspondence with Dorothy Richardson, 1955.
- A.31 1943-1948.
- A.32 1950-1952.
- A.33 1953, 1955.

Photographs

Many of these photographs are reproduced in *Prophet or Professor?*. With one exception they are monochrome. Most are identified on verso. They are arranged in a chronological sequence.

These photographs are retained by Ashford during his lifetime.

- A.34 Richardson with his sister, Catherine, c.1886.
- Richardson aged 9, May 1891.
- A.35 Group photograph of Senior Class, Bootham School, York, 1898 (features Richardson, second row, fourth from left).
- Richardson aged 19, autumn 1900 (2 photographs).
- A.36 Wedding photograph, 9 January 1909.
- The Richardson brothers, The Gables, Gateshead, (parental home), 1 January 1911.

/...

Biographical

- A.36 (cont'd) Richardson and his wife, The Gables, 1911.
- Group photograph of garden party at Eskdalemuir Observatory, 21 June 1913 (features Richardson and his wife).
- A.37 Group photograph of International Commission for the Investigation of the Upper Air, Bergen, 1921 (2 photographs).
- Mounted group photograph of International Commission for the Investigation of the Upper Air, London, 1925.
- A.38 Photographs, including signed mounted group photograph of International Commission for the Investigation of the Upper Air, Leipzig, 1927.
- Folder also includes list of delegates attending the meeting.
- A.39 Group photographs of meeting, one annotated on verso by Ashford 'Prague 1927? Copy from Napier Shaw archives Cambridge'.
- A.40 Mounted photograph of Richardson, taken during British Association meeting, Glasgow, 1929.
- Mounted photograph of Richardson, 1931.
- A.41 Richardson family and friends, Ben Lomond, July 1935.
- A.42 Group photograph of St Andrews Mathematical Colloquium, July 1938 (with key).
- A.43 Photographs of Richardson, 1940, and his wife.
- A.44 Hillside House, Kilmun, Argyll. Colour photograph taken 1984.
- The Richardsons moved to Kilmun in April 1943.

Biographical

- A.44 (cont'd) Blairmore pier, Loch Long.
- This was the site of Richardson and H. Stommel's 1948 'parsnip experiment' to test Richardson's theory of eddy diffusion at sea.
- A.45 Photograph of Edward Heath, Prime Minister, at opening of the Richardson Wing of the British Meteorological Office, 6 October 1972.
- A.46 Photographs from 'A Computer Perspective' exhibition, featuring Richardson's contribution to the history of computing.
- A.47 Group photograph from unidentified meeting, nd.
- Richardson, nd.

SECTION B

NOTES AND DRAFTS

B.1 - B.42

- B.1, B.2 'L.F. Richardson LFR's own reflections on the war...' Contents of Richardson's folder so inscribed divided into two for ease of reference (the cover of the folder has been retained): manuscript notes and drafts, chiefly relating to Richardson's attitude towards the First World War. 1912-1918.
- B.1 Includes 'The important elements of character according to different people', 1912, manuscript notes so titled, the circumstances of their being written are described on the last page; letter from M. Wilson *re* Richardson's 'Sound invention' and 'Under-water scheme', September or October 1914; 'Reflections on the War 1914-'15'; 'The conditions of a lasting peace in Europe', 10pp, March 1915.
- B.2 Includes 'Attempts at a Play', pages of draft, 'Written in France before 1918'; 'Walk & serious conversation with Roger Carter', 3 April 1918; 'Christ & War', nd.
- B.3-B.5 Meteorological instruments.

Manuscript notes, diagrams and correspondence *re* design of instruments by Richardson, 1916-1920. The material is listed by Ashford in a manuscript note in B.3.
- B.3 'Ideas for meteorological instruments. France 1916 - 1919'. Contents of Richardson's folder so inscribed. Includes exchange with Cambridge Scientific Instrument Company *re* manufacture of galvanometer designed by Richardson.
- B.4, B.5 'Measurement of temperature in Upper Air'. 2 folders.
- B.6-B.13 Contents of "Traylen" file.

The material comprises pages of notes on experiments, and notes on the literature and for lectures, calculations, graphs and Richardson's correspondence, originally taken from a loose-leaf binder organised by subject-dividers (retained), the titles of which are reproduced in the catalogue entries. 1919-1924.

Ashford's listing of these papers (B.6) notes that prior to 1968 this file was in the possession of Mrs Elaine Traylen, Richardson's daughter.

Notes and drafts

- B.6 Ashford's listing; exchange of correspondence 1968 *re* the file.
- B.7 'Lecture Newcastle' (subject divider only, no material found), 'Mean values', 'Aviation'.
- B.8, B.9 'Observational methods'. 2 folders.
- B.10 'Wind by spheres shot up', 'Eddies & Heterogeneity'.
- B.11, B.12 'Meteor. various'. 2 folders.
- B.13 'Atmospheric optics' (subject divider only, no material found), 'Trajectories of fluid particles', 'Upper air conference Bergen 1921'.
- B.14 'Sun flash balloons (see Q. J. Roy. Met. Soc. 1920 pp. 293-4)'. Contents of Richardson's folder so inscribed: manuscript notes.
- B.15 'Bergen July 1920 Aug 1921 Danzig July 1939'. Contents of Richardson's folder so inscribed: manuscript notes on visits to Bergen (those from 1920 are photocopied notes paginated 72-75, originally from the folder at B.40-B.42); typescript account of visit to Danzig describing relations between Germans and Poles, with photocopies of newspaper articles in the *Paisley Daily Express* and *Northern Echo* by Richardson in which the account appeared.
- B.16 Photocopy of manuscript letter from Richardson to the Royal Society, 9 August 1921, *re* his book *Weather Prediction by Numerical Process*.

'Barometric recurrences after intervals of from four to 72 hours'. Photocopy of manuscript and typescript draft, June 1923.
- B.17 '1927 Draft report of B.A. Committee Postcard Balloons'. Contents of Richardson's folder so inscribed: correspondence and papers *re* report of British Association/Royal Meteorological Society Joint Committee on the Upper Air. The material chiefly concerns the use of balloons to investigate the upper air.

Notes and drafts

- B.18 Letter and manuscript note from Richardson to R.H. Fowler on the elegance of theorems, 23 January 1932.
- B.19-B.22 'Gregariousness Letter from Gilbert'. Contents of Richardson's folder so inscribed divided into four for ease of reference, 1936-1943.
- B.19 'Gregariousness and its Opposite'.
Manuscript and typescript first draft; 8pp typescript 'unrevised' draft.
- B.20 Letter from G.H. Richardson (brother) commenting on draft, 28 June 1941; manuscript notes, earliest dated 1936.
The letter is written in phonetically spelt English.
- B.21 'An abstract formulation of Fashions' (originally titled 'An abstract formulation of pure gregariousness'), 26pp typescript + figures.
- B.22 'Towns and Stars', manuscript draft of 'Mathematical theory of population movement', *Nature* **148** (1941), 784; 'How much company do you like?', manuscript draft questionnaire 'Prepared 16 May 1943.
- B.23 Letter from Richardson to A.H.R. Goldie, enclosing 3pp manuscript note 'Quanta and diffusion', 9 February 1936.
This note has been published in *Collected Papers of Lewis Fry Richardson* ed. O.M. Ashford *et al* (Cambridge University Press, 1993).
- B.24 Bound volume of manuscript lecture notes on 'Differential Equations Vol II by Series Involving 3 or more variables'.
The notes are organised by subject dividers. At the back are Paisley Technical College examination papers 1937 and 1938.
- B.25, B.26 'Some biological waves and the equation $d^2 \log y/dx^2 = 1 - y$ ' by Richardson and J. Carson.
This paper was submitted for publication in *Biometrika* by J.B.S. Haldane but never published.

Notes and drafts

- B.25 53pp typescript and manuscript, 'Best copy'. Retained in original binder.
- B.26 Brief correspondence *re* publication, including letter from Haldane to Richardson, commenting on the paper, February, April 1940; brief correspondence, 1983, including letter to Ashford from Carson.
- B.27-B.30 'L.F. Richardson Miscellaneous...'. Contents of Ashford's folder so inscribed divided into four for ease of reference: miscellaneous material 1940-1953
- A list of the contents is inscribed on the front of the original folder (preserved at B.27).
- B.27 Original folder; manuscript notes including 'Maxims for peacemakers', 'Written 22 July 1940'; 'Distilling seawater in a lifeboat with fuel. Proposals Sept 1943', 8pp photocopied manuscript.
- B.28 Photocopied manuscript 'Lecture on Turbulence to G.I.O. (Gas Identification Officers)' and notes on experiments with galvanometer, 1942.
- B.29 Photocopied manuscript notes on experiments on angular momentum, 5pp, 1951-1953; photocopied manuscript talk to students on passing the 'Inter Science' examination, nd; newspaper cutting on the use of mathematical equations in social science, citing Richardson equations in studying the dynamics of the arms race, 1960s.
- B.30 Correspondence between Richardson and A.C. Aitken, December 1952. Includes 11pp manuscript draft 'Repeated latent roots and non-linear elementary divisors' by Aitken, sent to Richardson for comment.
- B.31 Correspondence and papers *re* 'The use of the Richardson number in meteorological problems' by O.G. Sutton, 1942.
- This paper was sent to Richardson for comment after it was discussed at a meeting of the Air Ministry's Meteorological Research Committee on 29 October 1942.
- The material includes copy of the paper and photocopies of Richardson's comments thereon.

Notes and drafts

- B.32 'Demonstration-Lectures in Physics', article by Richardson for *Nature* (1943) reviewing *Analytical Experimental Physics* by H.B. Lemon and M. Ference.
- 4pp manuscript draft; photocopy of published review; brief correspondence between Ashford and University of Chicago, 1990.
- B.33 Manuscript notes on 'The geostrophic wind', 7 and 8 December 1945, 'Dynamical meteorology', 7 December 1945, and 'Barometric gradient and wind speed', 4 January 1946.
- B.34 Request from Mass Observation to Richardson as a member of the British Psychological Society to assist survey into why people gamble. The request covered a brief questionnaire. The questionnaire itself was not found but Richardson's replies to the questions are attached to the request.
- B.35 'To what extent is it possible to establish criteria for the delimitation of research of direct relevance to the problems of peaceful adjustment in international relations?' by Richardson (writing as 'Nihil humanum a me alienum est'), 4pp manuscript. c.1951.
- This was Richardson's response to a notice that the Oslo-based Institute of Social Relations was offering a prize for the best paper on this question.
- B.36-B.39 'Voting in an international organisation'.
- This was written in 1953 shortly before Richardson's death. It was submitted to the United Nations Educational, Scientific and Cultural Organisation (UNESCO) for publication, and translated into French by them. Ashford tried to ensure its posthumous publication but the paper remained unpublished until its inclusion in *Collected Papers of Lewis Fry Richardson* (Cambridge University Press, 1993).
- B.36 Bound 'Best copy', 24 August 1953.
- B.37 Revised draft, 44pp typescript with manuscript corrections.
- B.38 'Le vote dans une organisation internationale', French language version, 32pp typescript.

Notes and drafts

B.39 Letter to the editor of *International Voting*, August 1946; letter to Ashford *re* posthumous publication, 21 February 1956; correspondence between Ashford and UNESCO archives, 1983.

B.40-B.42 Contents of Ashford's folder divided into three for ease of reference.

The material is described in a note by Ashford as follows:

'Photocopy of significant extracts from a very important file of notes by L.F.R. for possible second edition of "Weather Prediction by Numerical Process"...The photocopy was made by Prof. G. Platzman when he had the file on loan from O.M. Ashford, prior to its being handed over to the Roy. Met. Soc.'

The material is paginated 1-75, but the final four pages of the original photocopy are at B.15. There is a listing of the papers and a description of the nature of the material by Platzman at B.40.

INDEX OF CORRESPONDENTS

AITKEN, Alexander Craig	B.30
GEORGE ALLEN & UNWIN	A.10
ASHFORD, Oliver M.	A.7, A.8, A.10, A.13-A.17, A.19 A.23, A.26, A.28, A.30, B.6, B.26, B.32, B.39
BARBOUR, Robert	A.7
BJERKNES, Vilhelm	A.18
BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE	A.8
CAMBRIDGE SCIENTIFIC INSTRUMENT COMPANY LIMITED	B.3
CARSON, James	B.26
CHREE, Charles	B.41
DINES, William Henry	B.40
DOBSON, Gordon Miller Bourne	B.11
DRAZIN, Philip G.	A.7
EKMAN, Walfrid	See A.18
FOWLER, Sir Ralph Howard	B.18
GODSKE, C. L.	B.40
GOLDIE, A. H. R.	B.23
JOHN J. GRIFFIN & SONS LIMITED	B.17
HALDANE, John Burdon Sanderson	B.26
HAURWITZ, B.	B.42
<i>INTERNATIONAL VOTING</i>	B.39
JAY (née GARNETT), M. C. ('Peggy')	A.18
JEFFREYS, Sir Harold	B.40, B.41
KNIGHT, Frank	B.2

Index of correspondents

LAMB, Hubert H.	B.42
LIENAU, Carl C.	A.19-A.22, A.33
MASS OBSERVATION	B.34
METEOROLOGICAL RESEARCH COMMITTEE	B.31
MORTIMER, Clifford H.	A.20
OSÉEN, C. W.	See A.18
OWENS,	B.11
PASQUILL, Frank	A.23
PATERSON, Clifford C.	B.11
PLATZMAN, George W.	B.6
RICHARDSON (née GARNETT), Dorothy	A.13-A.17, A.24
RICHARDSON, Gilbert Hancock	B.20
RICHARDSON, Stephen Alexander	A.21, A.25
ROGERS, Gordon L.	A.26
ROSS, Peter McGregor	A.27
ROYAL METEOROLOGICAL SOCIETY	B.6
ROYAL SOCIETY	B.16
RUSSELL, Bertrand Arthur William (Earl Russell)	A.10
SHAW, Sir (William) Napier	B.17, B.40, B.41
SIMPSON, Sir George (Clarke)	B.40
SUTCLIFFE, Reginald Cockcroft	B.41
THOMAS J. SYER & COMPANY	B.5
TAYLOR, Sir Geoffrey Ingram	B.42
TRAYLEN (née RICHARDSON), Elaine Dorothy	B.6
UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANISATION (UNESCO)	B.39
WENGER, Robert Karl	A.18

Index of correspondents

WEST, Ranyard	A.21, A.22
WHIPPLE, Francis John Welsh	B.42
WILSON, Maurice	B.1
WRIGHT, Louise Leonard	A.30
WRIGHT, Quincy	A.29, A.31-A.33