

THE ROYAL COMMISSION ON HISTORICAL MANUSCRIPTS

Report on scientific and family correspondence and papers of

SIR GEOFFREY INGRAM TAYLOR (1886-1975) OM, FRS

aerodynamicist

1777-1975

deposited in Trinity College Library,

Cambridge

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Catalogue of the papers of

SIR GEOFFREY INGRAM TAYLOR, OM, FRS

(1886 - 1975)

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Deposited in the Library of Trinity College, Cambridge, 1979

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GENERAL INTRODUCTION

PROVENANCE

The material was received from Professor G.K. Batchelor, Taylor's scientific executor. It had been assembled over a period of time from various sites in 'Farmfield', Taylor's home in Cambridge, and from colleagues and friends; it represents all that remains of Taylor's personal and professional papers.

DESCRIPTION

These surviving records are variable - even capricious - in content and time-span, for reasons inherent in Taylor's temperament, interests and methods of work. For most of his career he held research posts, especially the Yarrow Research Professorship of the Royal Society, to which he was appointed in 1923; he was thus almost wholly absolved from routine teaching, administrative, departmental or institutional tasks, and free to pursue whatever research suggested itself, or was suggested to him. He had the help of his technician, Walter Thompson, and a room in the Cavendish Laboratory, originally made available by Rutherford, who described Taylor as being 'paid provided he does no work'. This lack of formal establishment obligations, though ideal for Taylor's research, meant that he had no office or secretarial help. He worked with rough notes and drawings, often on any piece of paper that came to hand; even when he used a notebook of more conventional kind, the content is somewhat heterogeneous and lacks dates or headings (see B.2, B.3, for examples). Several of the official committee reports in Section C originally took the form of personal letters which were then typed out in a more acceptable official style (see, for example, C.37, C.41, C.42, C.45, C.49, C.50). Conversely, several letters in Section D are statements of research in progress, and were typed up and used as such by the recipients. Furthermore, it should be remembered that Taylor did much work at home at 'Farmfield', whence most of the surviving letters are addressed.

The general consequences of these conditions of work are often mentioned in biographical articles about Taylor, and are best summarised by Batchelor in his Memoir (Biographical Memoirs of Fellows of the Royal Society, 22, 1976), p.597:

Perhaps I should explain here that, so far as I know, at no time in his life did Taylor employ a secretary or have his letters typed. The documentary evidence of what he did throughout his life consists wholly of incoming letters and papers (including, of course, his own in published form), and since his filing system was rudimentary, and dependent more on his wife's wish to contain the papers in one room than on his need to find something later, I am sure there are some gaps. He did make an effort to retain one copy of every published paper in a set of boxes, but typed or duplicated reports, by him or by someone else, often remained in the envelopes in which they were delivered, and incoming letters were collected in large brown envelopes marked only with the year. Periodically Stephanie had a clearing-up operation which led to some documents being thrown out in order to make room for new ones, and few of the letters and documents that came in before about 1960 have survived.

The result is that very little now survives by way of notebooks, experimental records or laboratory observations to document Taylor's scientific research (see Section B). In order to supplement these scanty resources, Batchelor assembled from some of Taylor's correspondents copies of letters which might permit the reconstruction of a collaborative piece of research, joint publication or substantial scientific discussion. Successful examples of this enterprise are enumerated in the introduction to Section D and itemised in the relevant entries. Because of the paucity of surviving material by Taylor himself, a list of all items in that Section which include his letters or draft replies to correspondents is also given in the introduction to Section D. In addition, Batchelor assembled many of the reports and committee papers by Taylor, and these, together with other drafts and papers found in the collection, constitute the considerable body of unpublished work brought together in Section C.

A word may be said here about Taylor's handwriting. Although he wrote a fairly standard legible hand until about 1913 (see the manuscript of the Adams Prize Essay in C.2), the 'Scotia' notebook of the same year (see B.1) is in the characteristic script, resembling the waves and eddies it often describes, of most of his subsequent letters and papers. It has certain similarities with his mother's hand, especially in her later years, and is not easy to read. Most of the recipients of his letters had typed copies made.

The personal material in Section A includes documents relating to a little known episode in 1911 when Taylor was obliged to spend several months in a sanatorium with a lung infection (see A.17 - A.23), and a considerable amount of information relating to Taylor's family, and particularly to the Boole connection. Taylor's mother, Margaret, was the second of the five daughters of George Boole, and Taylor both inherited and contributed to a sense of family continuity (see especially A.79 - A.135 and introductory note). The numerous photographs in E.1 - E.15 are a useful additional record of Taylor's family, career, travels and interests.

Probably the most widely known of Taylor's achievements is the CQR anchor. Material relating to this can be found in A.157, A.160, B.6, C.22, C.23, C.79, D.26, D.63, E.14.

ACKNOWLEDGEMENTS

As will be clear from the foregoing, the essential debt is owed to G.K. Batchelor. The assembling, ordering and identification of many of the items in the collection are primarily due to his expert knowledge, and his personal affection for Taylor.

Thanks are also due to those correspondents who made available copies or originals of letters from Taylor which appear in Section D.

REFERENCES

The main reference throughout is to the Memoir written by Batchelor (Biographical Memoirs of Fellows of the Royal Society, 22, 1976, pp.565-633) and is given in the form: Batchelor, Memoir, p...

References to The scientific papers of Sir Geoffrey Taylor, ed. G.K. Batchelor, IV vol., C.U.P. are given in the form (SP....).

SECTION A BIOGRAPHICAL AND PERSONAL A.1 - A.174

- | | |
|---------------|--|
| A.1 - A.11 | Biographical and autobiographical material |
| A.12 - A.53 | Career and appointments |
| A.54 - A.64 | Honours and Awards |
| A.65 - A.78 | Letters of congratulation |
| A.79 - A.134 | Family papers and correspondence (the Taylor family, A.79 - A.104) (the Boole family, A.105 - A.134) |
| A.135 - A.174 | Personal correspondence |

Biographical and personal

A.1-A.11 Biographical and autobiographical material

A.1-A.6 Manuscript and published articles, notes and information about G.I. Taylor, presented in chronological order.

A.1 'The Hintons visit English relatives'.

23 pp. typescript account by Carmelita Hinton (Taylor's cousin by marriage, see index) with a ms. note 'Written for friends for Xmas 1924', and a ms. note by Batchelor 'Sent to Stephanie Ravenhill. Part 2 describes a cruise on "Frolic" with G.I.T. as skipper'

The party included 'Aunt Maggie' (Taylor's mother), 'another cousin Ursula' [Nettleship, see A.161], a 'Dr. Adrian' [E.D. Adrian] and 'The O'Malleys' [see A.163].

A.2 'Sir Geoffrey Taylor' (Monthly Science News, 1945).

9 pp. ms. biographical notes on Taylor (to c. 1945) by Stephanie Taylor, 1954.

'G.I. Taylor. A biographical note', by R.V. Southwell (Surveys in Mechanics, C.U.P., 1956).

'Sir Geoffrey Taylor. His life's rule: to do what interests him' (New Scientist, 1957).

A.3 'An Interview with Sir Geoffrey Taylor', by D.B. Spalding (The Chartered Mechanical Engineer, 1962).

'Close-up. Sir Geoffrey Taylor' (Trinity Review, 1964).

'The man who was paid to do no work' (Preliminary notice of Scientific Papers, ed. G.K. Batchelor, C.U.P., 1971).

A.4 'G.I. Taylor - a profile', by T. Griffiths (Trinity Review, 1972).

See also A.11.

Obituary, The Times, 1975.

Order of Memorial service, 1975.

Biographical and personal

- A.5 'An unfinished dialogue with G.I. Taylor', by G.K. Batchelor (J. Fluid Mech., 1975).

'Geoffrey Ingram Taylor', by G.K. Batchelor (Biographical Memoirs of Fellows of the Royal Society, 22, 1976).

'G.I. Taylor as I knew him', by G.K. Batchelor (Advances in Applied Mechanics, 1976).
- A.6 Press-cuttings about Taylor and his activities.
Not sorted or indexed.
- A.7-A.10 Autobiographical notes and writings.
- A.7 Taylor's 'Green Book' (Personal records of Fellows of the Royal Society), with entries by him and by Lady Taylor (last entry 1973).
- A.8 Ms. extracts compiled by Taylor mainly from his father's diaries (indicated as 'EIT') but occasionally from his mother's ('MT') referring to family affairs and especially to the early years of Geoffrey (nicknamed 'B') and Julian ('b'). Some comments or notes have been added by Taylor.
The entries cover the period 1889-1908.
- A.9 Ms. autobiographical account by Taylor of his family, childhood, school and student period, and early sailing adventures, up to 1913.
- A.10 3 pp. ms. account by Taylor of his main scientific research interests, 1919-34; written for Science and Humanity Year-book, 1971.
- A.11 Misc. requests for biographical information, interviews, etc. Includes correspondence with:
- | | |
|---|------|
| J.I. Beck | 1969 |
| J.S. Bunt (Taylor's bequest of his portrait to Glenn Vivian Art Gallery, Swansea) | 1969 |
| M. Deacon (taped interviews with Taylor) | 1969 |
| T. Griffiths (his profile of Taylor, see A.4) | 1972 |
| J. Hanson (history of Royal Aeronautical Establishment, etc.) | 1968 |
| R. MacLeod (Taylor's papers) | 1972 |
| M. Slocombe (BBC Sound Archives) | 1970 |

Biographical and personal

A.12-A.53 Career and Appointments

- A.12-A.14 University College School, London (Taylor attended the school, then in Gower Street, 1899-1905).
- A.12 Testimonials to Taylor, 1905, from:
H. J. Spenser, H. Sydney Jones, A. Kahn (all University College School) and J. L. Paton (formerly of the school, but later High Master, Manchester Grammar School).
- A.13 Four letters from J. L. Paton to Taylor's parents, about Julian and Geoffrey Taylor, 1899-1910.

One letter to Taylor, congratulating him on his scholarship at Trinity College, Cambridge, 1905. (The letter is addressed to 'Dear Herr Kapitän', and all the correspondence is warm and affectionate.)
- A.14 Letters from A. McFadyean with reminiscences of the school, 1965, 1969 (2 letters).

Letter from headmaster, 1973.
- A.15 Award of B.Sc. (External), with First Class Honours in Mathematics, University of London (Certificate only), 1908.
- A.16 Letter from N.B. Michell to Taylor's parents, on his prospects of obtaining a Fellowship at Trinity, 1909.

Letter of congratulation to Taylor on his election to a Prize Fellowship at Trinity, from 'Your respectful Paw', 1910.
- A.17-A.23 Correspondence and papers, April-July 1911.

Taylor spent several months in Linford Sanatorium, Ringwood, with a lung infection. He received many letters from his family and friends, mainly personal, but some including news of Cambridge. There are no surviving letters from Taylor for this period.
- A.17 Letters from Taylor's parents, E. I. Taylor (usually dated) and M. Taylor (undated, signed 'M').
- A.18 Letters from Taylor's family: grandmother, Mary Boole (signed 'Missus'), aunt Alice Stott, cousin Mary Stott.

Biographical and personal

- A.19 4 letters from E.D. Adrian, May-June 1911 (on Adrian's Tripos, and misc. news from Cambridge).
- A.20 Letters from friends and colleagues at Cambridge:
 M. Brophy
 T. Knox Shaw
 J. Meek
 H.V.T. Thompson (2 letters)
 C.T.R. Wilson
 M. Wynne-Jones
- A.21 Letters from N.B. Michell.
- A.22 Misc. letters from friends (not itemised or indexed).
- A.23 'The Treasure of Linford'.
 Chapters I, XVII and XVIII of a humorous story written by Taylor and others during his illness at Linford Sanatorium. (Chapters I and XVII are in Taylor's hand, Chapter XVIII in another's.)
- A.24 Misc. items of biographical interest, 1911.
 Includes: Letter of appointment as Sublector in Physics, Trinity College, Cambridge, and letter re Taylor's rooms.
 Letter from shipyard at Ipswich re Taylor's boat 'Elaine' (with photographs).
 Misc. invitations, social engagements, etc.
- A.25 Misc. items of biographical interest, 1914-1918.
 Includes: Notice of course of lectures on Meteorology given by Taylor at the Cavendish Laboratory, 1914.
 Letter announcing award of Adams Prize to Taylor, 1915.
 See also C.2.
 Notice of Friday Discourses at the Royal Institution, 1918 (Major G.I. Taylor lectured on 'The Use of Soap Films in Engineering', 19 April).

Biographical and personal

- A.26 Scientific and personal correspondence, 1915, from:
 J.W. Bush
 H. Lamb
 H. Ayrton
 R.A. Herman (fragment only)
- A.27 Misc. documents relating to First World War.
Includes: Letter from War Office, 6 August 1914.
 This reads: 'Captain Paine came in just after you
 left and tells me that you have considerable
 experience in scientific instruments - you could
 probably help us a good deal at the Royal Aircraft
 Factory* where there is plenty of very interesting
 scientific work going on'.
 See Batchelor, Memoir, pp.574-575.
 * renamed Royal Aircraft Establishment from
 April 1918.
 Taylor's Commission in Royal Flying Corps, 1915.
 Particulars of his training as pilot, 'but has not
 passed in Gunnery, or in Certificate A', 1917.
 Letter of demobilisation, with rank of Major, 1920.
 Included here is a ms. copy of a poem by Ivor
 Gurney 'To Certain Comrades (E.S. and J.H.)'
 (not in Taylor's hand).
- A.28-A.30 Misc. items on sailing, 1921-68.
- A.28 Bill of Sale to Taylor of 'Frolic', 1923, and some related
 correspondence, 1921, and re salvage claim, 1924.
 See A.1 for a description of a cruise in 'Frolic' in 1923
 and her running aground at Coll.
 Also included is a letter to Stephanie Taylor, n.d., with
 a note by Batchelor 'probably after their cruise to the
 Lofoten Islands in 1927'.
- A.29 Later correspondence on 'Frolic' and on recollections of
 sailing companions, especially the 'Coddy' of Barra.
 Includes correspondence with Eleanor Megaw (daughter of
 Sir William Hardy) 1960, 1967-68, and with Rose Bell
 (daughter of Sir George Thomson) re commemorative Volume
 for Thomson's 80th birthday, to which Taylor contributed,
 1972.

Biographical and personal

- A.30 Misc. items re boat servicing and equipment for boat hired by Taylor, 1964.
- A.31-A.37 Journey to Borneo, 1929 (and later material).
Taylor was invited to represent H.M. Government at the 4th Pacific Science Congress in the Netherlands East Indies in May 1929.
He and Stephanie Taylor took the opportunity to explore the interior of Borneo.
See Batchelor, Memoir, p.585.
See E.16 for film of visit to Japan, made on the same occasion.
- A.31 Ms. lecture on journey, by Taylor, to be accompanied by slides and film.
9 pp. + 4 pp. notes on slides.
Included here is letter of invitation to attend Congress as H.M. Government representative, and letters of invitation from friends in Japan, 1929.
- A.32 Ms. talk on journey, by Stephanie Taylor.
Paginated 2-18, but talk begins on p.2 and there is no missing page.
- A.33 'A journey through Borneo', talk by Stephanie Taylor.
11 pp. typescript and ms.
- A.34-A.36 3 notebooks containing diary and photographs of journey all in Stephanie Taylor's hand.
A.35 includes (loose) signed photograph of Rajah of Sarawak.
- A.37 Misc. later material on volcanic explosions.
Taylor's interest in long gravity waves was aroused by a visit to Krakatau during the 1929 Congress (see Batchelor, Memoir, p.585).
Folder includes ms., translation of Pliny's letters on the eruption of Vesuvius, made for Taylor by the Archbishop of New Zealand, 1947, and brief correspondence re film of Tristan da Cunha eruption, 1964.

Biographical and personal

- A.38 Misc. items of biographical interest, 1930.
Includes: Letter of appointment as H.M. Government's representative, Third International Congress of Applied Mechanics, Stockholm, 1930.
Letter re 'supply of metallurgists'.
Nomination to Council of Royal Society.
Also includes a letter from a friend to Stephanie Taylor.
- A.39 'Farmfield'.
Taylor's house in Cambridge which he and Stephanie Taylor built in Huntingdon Road, Cambridge, and in which they lived for the remainder of their lives.
Includes: Final itemised account for building of house, 1931.
Correspondence re sale of Taylor's previous house to J.A. Ratcliffe, 1930.
Account for sale of part of J.E. Lennard-Jones's garden to Taylor, 1934.
Later correspondence re alterations, valuation, etc., 1964, 1967.
- A.40 Journey to Canada, 1933.
Includes correspondence re arrangements for exploration in the Rocky Mountains, and a letter from Taylor to his mother, written on board ship (mainly re visit to Liverpool for Hon. Degree).
- A.41 Misc. items of biographical interest, 1934-35, 1943.
Includes: Letter from J.L. Paton, addressed to 'Dear Geoffrey of yore', 1934.
Letters from E.H. Lamb, and W.R.M. Lamb, thanking Taylor for his obituary notice of their father, Sir Horace Lamb, in Nature, 1935.
Letter from H.E. Wimperis, 1935.
Letter from Director-General, Petroleum Warfare Department, informing Taylor of the first successful use of the device FIDO to disperse fog on airfields, and thanking him for his work which was 'a major factor', December 1943.
See Batchelor, Memoir, p.604 for later applications of this work.
See C.39-C.43 for reports and papers prepared by Taylor for Petroleum Warfare Department in 1943.

Biographical and personal

- A.42 Taylor's 70th birthday, March 1956.
- Arrangements and seating plan for dinner in Taylor's honour, at Trinity College, Cambridge.
- Letters and telegrams of congratulation (not indexed). Only a relatively small number have survived.
- A.43-A.50 Misc. financial matters.
- A.43 Correspondence re Taylor's Royal Society research grants, 1963-64, 1973.
- The correspondence in 1963-64 refers to Mr. W.E. Thompson, who had been Taylor's assistant and technician since 1923.
- See Batchelor, Memoir, p.581.
- A.44 Misc. letters re fees and consultancies, 1965-73.
- See also D.97.
- A.45 Correspondence re bequests to Trinity College, Cambridge, 1965.
- A.46 Taylor's own calculations, cheques, 'Valuations' of his and his wife's estate at various dates.
- A.47 Misc. receipts, fees, royalties, etc.
- A.48 Correspondence with Francis & Company (Taylor's solicitors) re wills, annuities, Power of Attorney held during Stephanie Taylor's illness, 1964-74.
- Includes a photocopy of Taylor's will.
- A.49 Correspondence with Peters, Elworthy & Moore (Taylor's accountants), 1965-75.
- A.50 Correspondence with H. & R. Wagner (Taylor's stockbrokers), 1963-75.

Biographical and personal

A.51 Misc. later items of biographical interest.

Includes: Correspondence re portrait of Taylor by Ruskin Spear, to commemorate his 80th birthday, 1965-66.

Telegram of greeting from conference at Kyoto, 1966.

Group letter of greeting for birthday, 1973.

Letter from Taylor to Bertha Jeffreys, which begins: 'Thank you so much for coming in and relieving my boredom for an hour today', and continuing with a scientific speculation on hydraulic resistance.

The letter tails off, and was never sent. It is undated, but may be one of the last he wrote and is characteristic of Taylor's unquenchable scientific curiosity and his fight against increasing physical disability.

A.52 Misc. correspondence and documents, mainly medical.

A.53 Misc. invitations, social engagements and shorter personal correspondence (not indexed).

Biographical and personal

A.54-A.64 Honours and Awards

Letters, documents, printed matter, etc. re honours, awards and medals.

The material is listed chronologically, and correspondents are indexed. A list of Taylor's honours, compiled by G.K. Batchelor for his Memoir and with many later additions in his hand, is enclosed with A.54; it should be noted that documentation has not always survived and the entries below do not constitute a complete account of the many honours and awards received by Taylor.

| | | |
|------|--|------|
| A.54 | D.Sc. University of Liverpool (programme of events) | 1933 |
| | University of British Columbia (programme of events) See also E.9 | 1933 |
| | Royal Medal, Royal Society (letter of award, citation) | 1933 |
| | King's Silver Jubilee Medal | 1935 |
| | D.Sc. University of Oxford (programme of events, oration, press-cuttings) | 1938 |
| | Hon. Fellow, Royal Society of Edinburgh (letter of election) | 1938 |
| | | |
| A.55 | Foreign Member, Royal Netherlands Academy of Sciences (letter of election) | 1940 |
| | Knighthood (correspondence) | 1944 |
| | Copley Medal, Royal Society (press-cutting) | 1944 |
| | Foreign Associate, US National Academy of Sciences (letter and press-cutting) | 1945 |

Biographical and personal

| | | |
|------|---|------|
| A.56 | Correspondant, Académie des Sciences, Paris (letter of election) | 1946 |
| | D.Sc. University of London (programme of events, citation) | 1946 |
| | U.S. Medal for Merit (citation, printed material, correspondence <u>re</u> presentation) | 1946 |
| | Hon. Member, Institute of Metals (letter to Stephanie Taylor, 1955) | 1947 |
| | Hon. Fellow, Royal Aeronautical Society (letter of election) | 1948 |
| | Hon. Member, Calcutta Mathematical Society (letter to Stephanie Taylor, 1955) | 1948 |
| | Hon. Fellow, Indian Academy of Sciences | 1952 |
| A.57 | D.Sc. University of Birmingham (programme of events) | 1952 |
| | LI.D. University of Edinburgh (Laureation Addresses) | 1953 |
| | Gold Medal, Royal Aeronautical Society | 1954 |
| | Exner Medal, Österreichischer Gewerbeverein (letter of election and Taylor's draft letter of acceptance) | 1954 |
| A.58 | Member, American Philosophical Society (letter of election) | 1955 |
| | Hon. Member, Institution of Civil Engineers (correspondence <u>re</u> election and presentation) | 1955 |
| | Foreign Member, Swedish Royal Academy of Sciences (letter of election) | 1955 |
| | Hon. Degree, University of Cambridge (programme of events, citation) | 1957 |
| A.59 | Panetti Prize and Medal, Academia delle Scienze, Turin (correspondence <u>re</u> election and presentation, citation) This was the first award of the Panetti Prize. | 1958 |
| | Timoshenko Medal, American Society of Mechanical Engineers (letter of award) | 1958 |
| | D.Sc. University of Bristol (programme of events) | 1959 |
| | Kelvin Medal, Institution of Civil Engineers (correspondence <u>re</u> award and presentation, citation, published Report of Proceedings with Taylor's speech of thanks) | 1959 |

Biographical and personal

| | | |
|------|--|------|
| A.60 | Hon. Degree, University of Paris (citation) | 1961 |
| | Trasenster Medal, University of Liège (letter of award, citation) | 1961 |
| A.61 | Franklin Medal, Franklin Institute (citation, published Report of Proceedings, photographs of the award showing Taylor, W. Lepage (President, Franklin Institute), W. von Braun (Director, Space Flight Center). Another photograph is in E.12. | 1962 |
| | Albert Sauveur Achievement Award, American Institute of Metals (copy of <u>Metals Review</u> with details and interview with Taylor. The award was presented via Telstar. See also E.12.) | 1962 |
| A.62 | Platinum Medal, Institute of Metals (press-cutting) | 1964 |
| | Hon. Fellow, Institute of Physics and the Physical Society (letter of election) | 1964 |
| | Hon. Degree in Aeronautical Engineering, Politecnico, Milan (letter of election) | 1964 |
| | Foreign Member, Academia delle Scienze, Turin (letters of election) | 1964 |
| A.63 | James Watt International Gold Medal, Institution of Mechanical Engineers (letter of award, citation) | 1964 |
| | Hon. Member, Mathematical Society of Cork (letter of election, referring to George Boole) | 1965 |
| | Hon. D.Sc. University of Michigan, as part of a program 'The Voices of Civilization' to mark 150th anniversary of university (letter) See also D.99. | 1966 |
| | Foreign Member, USSR Academy of Sciences (telegrams) | 1966 |
| | Order of Merit (list of Members) See A.69-A.77 for correspondence <u>re</u> this honour. | 1968 |
| | Von Kármán Medal, American Society of Civil Engineers (correspondence, including ms. letter from Taylor) | 1969 |

Biographical and personal

- A.64 50th Anniversary Medal, American Meteorological Society 1970
 (letters re award and presentation, photographs of
 Taylor taken 1962 when he was elected to Hon.
 Membership of the Society)
- D.Sc. Colorado State University 1971
 (letter of award)
- Foreign Member, Polish Academy of Sciences 1971
 (letters of award and congratulation, and re Taylor's
 lecture at a symposium in Poland). See also C.80.
- Von Kármán Prize, Society for Industrial and Applied
 Mathematics 1972
 (letter of award, citation and biographical material)
 Taylor was the first recipient of the Von Kármán Prize.
 See also A.78
- Paul Bergsøe Medal, Danish Metallurgical Society 1973
 (letter)

Biographical and personal

A.65-A.78 Letters of congratulation

Many of the letters in these folders contain personal or historical reminiscences, of Taylor's own career and achievement, and of his family. All identified correspondents have been indexed.

With the exception of the Award of the Order of Merit, 1969 (A.69-A.77) it will be seen that the surviving documents are only a partial and random sample of Taylor's original postbag. The remaining letters, however, testify to the esteem and affection in which he was held, and his unassuming approach to honours and awards.

| | | |
|-----------|--|------|
| A.65 | The Royal Medal, Royal Society | 1933 |
| | In alphabetical order, with some unidentified at end. | |
| A.66 | Hon. D.Sc. Oxford (one letter only) | 1938 |
| A.67 | The Copley Medal, Royal Society | 1944 |
| A.68 | The Symons Medal, Royal Meteorological Society (one letter only) | 1951 |
| A.69-A.77 | Order of Merit | 1969 |
| A.69 | Correspondence with Buckingham Palace <u>re</u> award and presentation of Order | |
| A.70 | Taylor's ms. list of those who had sent congratulation, and carbons of his replies to some. These were kept separately by Taylor from the letters he received, some of which are in the folders below. | |
| A.71 | A - C | |
| A.72 | D - G | |
| A.73 | H | |
| A.74 | J - M | |
| A.75 | N - R | |
| A.76 | S - V | |
| A.77 | W - Z and unidentified. | |

Biographical and personal

A.78

Von Kármán Prize

1972

Taylor was taken ill and unable to travel to Philadelphia to receive the Prize.

Folder includes correspondence re award of Prize in absentia, arrangements for its delivery to Taylor, letters of congratulation, and correspondence with nurses who cared for Taylor during his illness.

See also A.64.

Biographical and personal

A.79-A.134 Family papers and correspondence

Taylor was descended, through his mother, from George Boole, whose five daughters maintained a strong sense of family. Taylor inherited this, as well as various documents, mementos and photographs, including some relating to his father's family (A.80). He became, in the course of time, holder of documents concerning various family estates on the death of relations (A.117-A.122) and contributed to various celebrations of Boole which occurred during his own lifetime (A.107-A.113, E.17). The many letters from nephews and nieces of varying degrees, and of more remote cousinage (esp. A.100, A.103, A.104, A.123-A.134) indicate his wish to keep in touch with his family, and the mutual affection and understanding felt by and for people of very different generations and background.

The material is presented as follows:

A.79-A.104 Material relating to the Taylor family, including Taylor's paternal relations, his parents and brother, and his wife Stephanie (née Ravenhill).

A plan of the paternal lineage of Taylor, kindly furnished by G.K. Batchelor, is included as a guide (A.79).

A.105-A.134 Material relating to the Boole family, and to various financial and property affairs of members of the Boole family (including Taylor's mother) in which Taylor was concerned.

A family tree of the descendants of William and Alice Boole (photocopy supplied by G.K. Batchelor) is included as a guide (A.105)

See also E.1, E.2 for photographs of members of the Boole and Taylor families.

Biographical and personal

- A.79 Paternal lineage of Taylor.
(Photocopy supplied by G.K. Batchelor)
- A.80 Misc. documents re Taylor family.
Birth, marriage, death, burial certificates.
Photographs of Taylor's grandparents (some identified
by Stephanie Taylor on verso).
(Earliest date 1777)
- A.81 Misc. documents relating to James Taylor, paternal grand-
father of Taylor; James Taylor was a foundling and some
of the information was obtained by G.K. Batchelor from the
Foundling Hospital, now called the Thomas Coram Foundation
for Children, London.
(These are photocopies of the original documents,
which are now held by the Thomas Coram Foundation.)
- A.82 Misc. family correspondence.
Includes: Various letters exchanged between Taylor's
parents, some dated by Batchelor, 1893, 1895.
Letter from Alice Stott (née Boole), 1895, to
her sister, Margaret Taylor.
2 letters from M. Hinton to Margaret Taylor, 1895, 1896
Letters from H.J. Spenser re Julian Taylor's
education, 1906.
Letter re Geoffrey Taylor, 1913.
- A.83 Letters exchanged between Taylor and his parents, various
dates, c.1896-1925.
Includes: Very early letter about sailing, n.d., c.1896.
2 letters from Trinity, c.1905.
3 letters written from S.S. 'Scotia', June-July 1913.
Other misc. letters and greetings, 1919, 1925.
- A.84-A.100 Material relating to Stephanie Taylor.
Taylor married Grace Stephanie Francis Ravenhill in
1925, when he was 39.
The marriage was very happy, Stephanie Taylor sharing
her husband's interests in sailing and travel. She died
in 1967 after three years of increasing incapacity during
which Taylor helped care for her, and accepted many
restrictions on his own activity (see A.98).
- A.84 Letters from Taylor to Stephanie Ravenhill, August 1924-
August 1925.

Biographical and personal

- A.85 Letters from Stephanie Ravenhill to Taylor, October 1924-
 August 1925.
- The last letters in both these folders are dated 12 August,
 immediately before the marriage.
- A.86-A.97 Letters from Taylor to Stephanie, 1926-65.
- Mainly written when he was away at conferences or symposia.
 They contain personal and scientific information. Some are
 headed 'Frolic' or other boats.
- A.86 1926, 1927, 1930, 1931
- A.87 1933, 1934, 1935
- A.88 1936, 1937
- A.89 1942, 1944, 1945
 (all from various addresses in USA)
 1946
- A.90 1948 (lecture tour in USA)
- A.91 1948 (visit to Australia, etc.)
- A.92 1951
 1952 (USA, Guernsey, Istanbul)
- A.93 1953, 1954 (sailing on 'Guiding Light')
 1955 (Madrid)
 1956 (final cruise on 'Guiding Light')
- A.94 1957
- A.95 1958
 1959 (USA)
- A.96 1960 (New Mexico)
 1961 (France)
- A.97 1962 (USA)
 1963 "
 1965 "

Biographical and personal

- A.98 Stephanie Taylor's death certificate, 1967.
Letters of condolence received by Taylor on her death (not indexed).
Enclosed here is a ms. letter from Taylor to J. Rotblat, declining an invitation to a Pugwash Conference because of his wife's incapacity. The letter concludes: 'In fact, except for fulfilling an engagement in 1965 which I had made before she was so ill, I have not been away from home for a night since 1964'.
- A.99 Letters from Lewis and Dolly Graham (friends of Stephanie Taylor), 1964-72. Mainly personal.
Included here is a lively letter written December 1964 to the Grahams by Stephanie Taylor before she became seriously ill.
- A.100 Letters to and from Bess Rosenthal (Stephanie Taylor's sister) and her family (son Michael, m. Molly, and their children, and daughter Margaret), c. 1951-73.
Bess Rosenthal died in 1971 but the family continued to write to 'dear Uncle G'.
- A.101 Material relating to Edward Ingram Taylor (Taylor's father).
Mainly letters to Margaret Taylor re presentation of drawings and paintings by her husband to various museums and galleries, 1931-35.
Includes correspondence from:
S. Cockerell (Fitzwilliam Museum, Cambridge)
C. Dodgson (Dept. of Prints and Drawings, British Museum)
M. Hardie (Victoria and Albert Museum), 1931-33
Fine Art Society
A curriculum vitae of Edward Taylor is also included.
- A.102 Material relating to Julian Taylor (Taylor's brother).
Includes: Letter to Julian from W.B.L. Trotter, 1914
Letters to Taylor from Julian, 1919, 1956-61
Press-cuttings, and order of Memorial Service after death of Julian Taylor, 1961.

Biographical and personal

- A.103, A.104 Material relating to Simon and James Taylor (Taylor's nephews).
Correspondence from Simon and James Taylor (Julian Taylor's sons), their wives and other interested parties, c.1961-73.
Some of the letters contain information about Taylor's last years, and about his continuing active concern for the welfare and education of his great-nephews.
- A.103 re Simon Taylor and family.
See also D.91
- A.104 re James (Jim) Taylor and family.
- A.105 Family tree of the descendants of William and Alice Boole.
(Photocopy supplied by G.K. Batchelor)
- Misc. genealogical notes on the Boole family (to 1879).
- Notes for a family tree by Taylor, with a ms. footnote 'notes of talk between GIT and E.L. Voynich, May 1952'.
- A.106 Misc. items relating to George Boole.
Includes: 2 autograph signatures of George Boole.
Notes of various items relating to Boole in the possession of the Taylor family.
List of items relating to Boole left at 'Farmfield' at Taylor's death, and their disposition (compiled by G.K. Batchelor).
List of material presented by Taylor to the Royal Irish Academy, May 1954.
Press-cuttings re Boole.

Biographical and personal

- A.107 Centenary of publication of Boole's 'The Laws of Thought', 1954.
Material relating to the celebration of the occasion at the Royal Irish Academy, at which Taylor gave a talk 'George Boole and his family connexions'.
Includes: Invitation to attend, programme of events.
Letter from W.C. Kneale on Boole's poetry.
Letter from H.B. Hartley re Taylor's article.
- A.108-A.113 Centenary of death of Boole, 1964.
Misc. material relating to the event, and especially to celebrations at Lincoln (Boole's birthplace), at which Taylor gave an address on 'The Life of George Boole'.
The meeting, held on 7 November 1964 at the City School, Lincoln, was a joint meeting of the Mathematical Association, Lincolnshire Branch and the Lincolnshire Local History Society; an exhibition of Booleana was shown at the Central Library, 7-21 November.
See also C.63 for a manuscript of Taylor's address, and E.17 for a tape recording.
- A.108-A.110 Preliminary correspondence re meeting, arrangements for Taylor's lecture, journey to Lincoln, loan of Booleana, etc. from:
- A.108 F.T. Baker (City of Lincoln Libraries) (one of these letters has ms. notes and calculations by Taylor on verso).
- A.109 J.C. Faull (City School, Lincoln).
- A.110 D. Traviss (Mathematical Association, Lincolnshire Branch).
- A.111 Misc. enquiries re Boole's life and family made by Taylor in preparation for his biographical talk at Lincoln, 1964.
(not indexed)
- A.112 Programme of events at Boole Centenary Celebrations (2 copies).
Photographs of unveiling of commemorative plaque by Taylor, and of members of the Boole family assembled for the occasion (identified on verso by Gabrielle Boole).
- A.113 Correspondence re portraits or drawings of Boole, presented by Taylor on the occasion of the Centenary, 1964, with:
J.O'Malley (Royal Irish Academy)
E.F. O'Docherty (University College, Dublin)
M.A. MacConaill (University College, Cork)
D.T. Piper (National Portrait Gallery, 1964 and 1966)

Biographical and personal

- A.114 Correspondence from A.P. Rollett, 1964-67, re a biography of Boole which Rollett was writing. After his death in July 1968, the task was taken over by his son, J.M. Rollett, and correspondence continues to December 1971.
- Some of the letters from J.M. Rollett bear ms. annotations re material, by G.K. Batchelor.
- A.115, A.116 Misc. correspondence re George Boole and his family.
- A.115 1962-67
- Includes ms. letter from Taylor re Alice Stott's work, and Professor Schoute.
- Letters from:
- K. Murray
 - N.T. Gridgeman (writings on Boole)
 - B. Harrison (with photographs of Booleana)
 - H.W. Gould
 - G.F. Heaney (on Robert Everest)
- A.116 1969-74
- M.G. Kendall (request for article on Boole to be written by Taylor)
 - H.S.M. Coxeter } exhibition of Alice Stott's models
 - K. Lonsdale }
 - E. Avak (Mary Boole)
 - J.H.H. Merriman (new letters of George Boole)
 - W.B. Lewis
 - R.H. True (Alice Stott)
 - H.G. Hopkins
- A.117-A.122 Material relating to the estate and financial affairs of members of the Boole family, including Margaret Taylor.
- In chronological order
- A.117 Will of Mary Boole (widow of George Boole), 1913.
Photocopy.
- A.118 Re estate of Alfred Wing Everest, 1929-34.
Correspondence addressed to Margaret Taylor and Alice Stott.

Biographical and personal

- A.119 Re estate of Edward Ingram Taylor, 1923.
Correspondence addressed to Margaret Taylor.
- A.120 Correspondence re Margaret Taylor's financial affairs, 1929-34.

Many of these are annotated by her, or bear a note 'answered', in the manner of Taylor who may have acquired it from his mother.
- A.121 Re estate of Margaret Taylor, 1935.

A signed passport photograph of Margaret Taylor is included here.
- A.122 Re estate of Walter Stott, 1943
 (widower of Alice Stott)
- A.123-A.134 Correspondence with members of the Boole family.

The correspondence is presented in alphabetical order, dated and with a brief indication of any material of particular interest. Some guidance is given about family relationships, especially where these are obscured by the alphabetical sequence.

A fuller family tree is included in A.105.

All these letters contain some information about members of the Boole family, past and present, as well as personal news.
- A.123 Gabrielle Boole, 1962-73
 (great grand-daughter of William Boole, brother of George Boole).

Includes 2 letters from Rex Boole (brother of Gabrielle).
- A.124 Robert Boole, 1964-65, 1969
 (great grandson of Charles Boole, brother of George Boole)

Sister Rosemary (Boole), 1965
 (grand-daughter of Charles Boole above).

One letter only.

Biographical and personal

- A.125 Carmelita Hinton, 1937, 1964-75.

Carmelita (née Chase) was the widow of Sebastian Hinton, son of Mary Boole. She was thus a cousin by marriage to Taylor and his close contemporary (b.1890).

The 1937 letter is addressed from Putney, Vermont, where Mrs. Hinton ran a school; others are from her Pennsylvania home, but many are from various addresses in China which she frequently visited, and always admired. Her son William wrote 'Fanshen' on land reform in China, and her daughter Joan settled there. The impact of Chinese culture and ideas on an idealistic American family is well illustrated in these letters.

There is a letter from Taylor dated 7 May 1969 in the sequence, and letters from other members of the family.

See also A.1, A.127, A.128.

- A.126 Howard Everest Hinton, 1964, 1972.

(grandson of Mary Hinton, née Boole, daughter of George Boole)

and Margaret Hinton, 1973.

H.E. Hinton FRS died in 1977. Some family papers remain in charge of Dr. J. Hinton, Department of History, University of Warwick, to whom enquiries should be addressed.

- A.127 Joan Hinton (Han Chun), 1958-72.

(daughter of Carmelita Hinton - see A.125)

Letters from China; that of October 1964 discusses the wide readership of E.L. Voynich's novel The Gadfly in China.

- A.128 Jean Rosner, 1963-75.

(daughter of Carmelita Hinton - see A.125)

Includes some letters from Steven Rosner (husband), Marni (daughter) and Ted (son), a letter from Jean Rosner to E.L. Voynich with ms. annotations by Mrs. Voynich, and a pre-publication notice of William Hinton's 'Fanshen: A documentary of revolution in a Chinese Village', 1966.

- A.129 Alice Stott (née Boole)

(daughter of George Boole)

1 letter only, re family grave, n.d.

Includes also letters from Mary Stott (daughter) 1954, a press-cutting of the obituary of Leonard Stott (son), and a letter re poetry of George Boole.

Biographical and personal

- A.130 Jean Stott, 1963-73.
 (wife of Leonard Stott)
- A.131 Ethel Lilian Voynich (née Boole), 1925, 1950, 1954, 1956.
 (daughter of George Boole)
- Letter of 1925 is to Stephanie Ravenhill, with advice and plans for her and Taylor's garden.
- Letters of 1954 contain recollections and anecdotes of George Boole.
- Includes also a copy of E.L. Voynich's Will, and a press-cutting on her death in 1960 at the age of 96.
- A.132 Re E.L. Voynich, 1960-69.
- Includes: Correspondence with Anne Nill (Mrs. Voynich's companion) with an account of her death.
- Correspondence with Winifred Gaye, 1961-69 ('who though not legally adopted by me has always been considered by me as a daughter' according to Mrs. Voynich's Will).
- Correspondence re Mrs. Voynich's estate and portrait.
- A.133 Re E.L. Voynich, 1961-73.
- Misc. correspondence re articles or biographies about E.L. Voynich, requests for information, etc.
- Includes a long letter from Taylor correcting errors in an article about Mrs. Voynich, published in the Princeton University Library Chronicle, 1967 (see also A.136).
- A.134 Ethel Whittingham, 1965.
 (descendant of Susanna Chalmer, aunt of George Boole)

Biographical and personal.

A.135-A.174 Personal correspondence

Most of the letters date from c.1966-74, though a few are of earlier date. Their survival is due to random chance.

Much of the correspondence, though relatively trivial, is not without interest. It shows Taylor's constant plans for travel and activity, the continuing invitations and social links, the lifelong affection in which he was held, and - by implication - his own promptness and lightness of touch in maintaining his own side of the correspondence. Because Taylor did not keep routine copies of his letters, however, the items below consist of incoming letters only, some of them bearing a ms. note 'ans.' indicating that a reply had been made.

The material is presented alphabetically, with dates and a brief indication of any information of particular biographical or historical interest.

Shorter exchanges are grouped together in the folders; more substantial correspondence has been placed in individual folders. The names of all identified correspondents appear in the Index of Correspondents.

| | | |
|-------|----------------|---|
| A.135 | Adams, H.M. | 1973 |
| | Allibone, T.E. | 1969, 1973 (Jubilee of Taylor's Bakerian Lecture) See also D.83 |
| | Anderson, T. | 1972 |
| A.136 | Barker, N.J. | 1970 (<u>re</u> Mikhail Voynich) |
| | Barry, R.E. | 1964 |
| | Bird, A. | 1969 |
| | Bowden, M. | n.d. probably 1968 |

Biographical and personal

- | | | |
|-------|---|---|
| A.137 | Brown, V. | 1969-73 (includes recollections of Sir William Farren) |
| A.138 | Burkill, J.C. | n.d. |
| | Busemann, A. | 1974 (and a letter 1971 re Busemann's 70th birthday celebration) See also E.13 |
| | Cadbury, L.J. | 1973 |
| A.139 | Carr, F.G.G. | 1971-73 |
| A.140 | Carrier, G.F. | 1967 |
| | Chabot, C.J. | 1971 (recollections of work at Farnborough) |
| A.141 | Cherry, O. | 1949 (to Stephanie Taylor), 1964-74 |
| | Olive Cherry was the widow of Sir Thomas Cherry FRS (d.1964), and the correspondence includes recollections of their long friendship with the Taylors, and of other scientists. | |
| A.142 | Clarke, H.T. | 1963-70 |
| | Clarke, F. | 1971-74 |
| | Hans Clarke had been a school-fellow of Taylor at University College School. He became ill in 1970 and died in 1972, the correspondence being continued by his wife Flora. | |
| | Also included is correspondence 1973 with Clarke's sister Rebecca Friskin, on early recollections of Clarke's experiments with tear gas. | |
| | See also A.159. | |

Note: A collection of Clarke's notebooks, papers and correspondence (including c.30 letters from Taylor 1955-72) is deposited at the American Philosophical Society Library, Philadelphia. An outline description of the collection can be found in the Survey of Sources Newsletter, May 1977, pp.12-13, of the Survey of Sources for the History of Biochemistry and Molecular Biology, Philadelphia.

Biographical and personal

| | | |
|-------|-----------------------------------|---|
| A.143 | Collins, M.W. | 1968-74 |
| A.144 | Conway, W.G. | 1970 |
| | Corrsin, S. | 1970 (recollections of L.V. King and others) |
| | Crick, F.H.C. | 1972 |
| | Darwin, K. | 1963, 1964 |
| A.145 | Davidson, K. and Davidson, A. | c.1965-75 |
| A.146 | De Navarro, T. | 1974 |
| | Den Hartog, J. and Den Hartog, E. | 1971-74 |
| | Evans, U.R. | 1965, 1973-74 |
| | Farren, M.A. | 1967-73 |
| A.147 | Gardner, M. | 1972 |
| | Goldschmidt, V.W. | 1972 |
| | Gordon, S. | 1972 |
| | Granfield, M. | n.d. |
| | Hansard, D. | 1967 |
| | Hawthorne, E. | 1974 |
| A.148 | Hill, M. and Thompson, H. | 1965-74 (re material for a projected biography of Geoffrey Hill; includes early photographs of sailing in 'Frolic', c.1931) |
| | Hoff N.J. | 1971 (book on aeronautical history) |
| | Holtum, R.E. | 1969 |
| A.149 | Keenan, J.H. | 1965 |
| | Kennedy, L.A. | 1972 |
| A.150 | Knight, E. | 1965-75 |

Ella Knight was the widow of A.H.J. Knight, a colleague of Taylor at Trinity College, and a keen sailor.

Includes correspondence 1972 with D. Cole.

Biographical and personal

- | | | |
|-------------|--|--------------------------------------|
| A.151 | Koiter, W.T. | 1973 |
| | Kovaszny, L.S.G. | 1973 |
| A.152-A.154 | Laphorn, M. | 1915, 1961-75 |
| | <p>Mabel Laphorn studied art under Taylor's father. Her portrait drawing of Taylor hung in his room at 'Farmfield' (a copy is in E.5). There seems to have been a strong attachment between them in early years, and Miss Laphorn remained a faithful and assiduous correspondent, though it will be seen that only a small proportion of her letters survives.</p> | |
| A.152 | 1915 (includes a letter from Mrs. G.M. Laphorn (mother of Mabel), September 1915). | |
| A.153 | 1961-69 | |
| A.154 | 1970-75 | |
| A.155 | Ledesma, E.M. de | 1972 (recollections of early flying) |
| | Lloyd, D. | 1972 |
| A.156 | Levetus, J. | 1959-64 |
| | <p>Jill Levetus was an old family friend, and the correspondence refers to the portrait of E.L. Voynich in her possession.</p> | |
| A.157 | McKerrow, G. | 1933 (one letter), 1962-75 |
| | <p>George McKerrow had collaborated with Taylor and Farren in The 'CQR' Anchor company, in which he was mainly responsible for manufacture and marketing. He was also a keen sailor, and on retirement from Metropolitan-Vickers he settled at Glencaird and maintained a regular correspondence with Taylor whom he addressed as 'Skipper'. His own letters are signed 'Jock'. It is clear that Taylor kept up the correspondence on his side, but none of his letters are preserved.</p> <p>The 1933 letter discusses the manufacture and testing of the 'CQR' Anchor, and there are references to this and related matters <u>passim</u> in the later correspondence.</p> | |
| A.158 | MacCready, J. | 1924 |
| | Maclean, C.H.F. | 1972 |
| | MacPhail, D.C. | 1972, 1974 |

Biographical and personal

- | | | |
|-------|--|--|
| A.159 | Middleton, D. | 1961, 1967-74 |
| | Dora Middleton was the sister of H.T. Clarke (see A.142) and widow of Admiral Gervase Middleton. | |
| A.160 | Morgan, M. | 1972, 1973 |
| | Morris, J.H.C. | n.d. (sailing, CQR anchor) |
| | Mott, N.F. | 1972 |
| A.161 | Nettleship, U. | 1924 (mainly re cruise on 'Frolic', see A.1), 1962 |
| A.162 | Oatley, C.W. | 1974 |
| | Oliphant, M.L.E. | 1974 |
| A.163 | O'Malley, M. | 1924-75 |
| | <p>Lady O'Malley published extensively under the name Ann Bridge. Her letters to Taylor are addressed 'My dear Skipper' and signed 'Mary Anne'.</p> <p>The O'Malleys had been on the 1924 cruise in 'Frolic' (see A.1) and Mrs. (later Lady) O'Malley remained a lifelong friend of Taylor. Sir Owen served at the British Legation, Peking, and letters of 1926 contain descriptions of life and travel in China.</p> <p>Included also is a poem (1924) in praise of Taylor's Royal Society Yarrow Research Professorship; the last stanza runs:</p> <p style="margin-left: 40px;">And last I praise the Frolic That academic boat! Her lockers alcoholic The crews she keeps afloat! Worthy, though comically manned For ever may she be Of G., Sir Alfred Yarrow and The Royal Society!</p> <p>There is also a letter, 1974, from Jane O'Malley about the death of her parents.</p> | |
| A.164 | Pantin, C.F.A. | 1963 (on C.G. Darwin) |
| A.165 | Parry, V. and Parry, N. | 1963-75 (on sailing) |

Biographical and personal

| | | |
|-------|--|---|
| A.166 | Pick, E.E. | 1966 |
| | Prosser, L.E. | 1972 |
| | Raven, J. | 1974 |
| | Richardson, L.F. | 1944 |
| | Rossi, B. | 1974 |
| A.167 | Rosenheim, M.L. | 1972 |
| | Roskill, S.W. | 1966, 1972-75 |
| | Rouse, H. | 1972 |
| A.168 | Salt, G. | 1972 |
| | Schlapp, R. | 1968 |
| | Scott, P.A.J. | 1970 |
| | Sears, W.R. | 1973 |
| A.169 | Sheldon, C. and Sheldon, P. | 1967-74 |
| | Carol and Paul Sheldon were American friends, met through Kay and Anne Davidson (see A.145). | |
| A.170 | Simpson, J.A. | 1972 |
| | Skimmins, S.G. | 1963, 1965 |
| | Smith, R. | 1973 |
| A.171 | Southwell, R.V. and Southwell, I.W.W. | 1924 1970-72 |
| A.172 | Stewart, R.W. | 1970 |
| | Sutton, O.G. | 1966 |
| | Temple, G. | 1965, 1974 |
| | Turnbull, H.W. | 1954 |
| A.173 | Vander Werff, T.J. | 1972 |
| | Wedgwood, C.V. | 1973 (recollections of the Wedgwood family) |
| | Welbourn, D.B. | 1972 |
| | Whiddington, R. | 1970 |
| | Williams-Ellis, B.C. | 1972, 1973 |
| | Wilson, S.C. | 1970 |
| | Woods, R.S. | 1974 |

Biographical and personal

A.174

Unidentified or first-name signatures
(in chronological order).

SECTION B NOTEBOOKS, WORKING NOTES, PATENTS B.1 - B.10

The paucity of material in this Section is regretted. It derives in part from Taylor's idiosyncratic working methods which led him to make random jottings on any piece of paper that came to hand; the folder in B.3 is characteristic, and many of the letters, committee papers and other documents in the collection bear notes, drawings and calculations of this kind. Even so, it is probable that many other notebooks have not survived.

Notebooks, working notes, patents

B.1

Exercise-book, with ms. note by G.K. Batchelor inside front cover 'Notebook used by G.I.T. on 'Scotia' in 1913'.

Contains notes, drawings and calculations on anemometer observations on turbulent air, 8 May-27 July 1913.

Includes drawings for the tethered kite on the mast-head which enabled successful observations to be taken.

Pages have been torn from the rear of the book.

For a description of the work on 'Scotia', see Batchelor, Memoir, pp.573-574 and references.

For photographs of 'Scotia', see E.4.

B.2

Exercise-book, with ms. note by G.K. Batchelor inside front cover 'Typical working note-book used by G.I.T. in 1921'.

The contents are described by Batchelor as follows:

- '1. Notes on differential equations, source not stated.
2. Data and readings in experiments on stability of flow between rotating cylinders.
3. (at other end) Readings for some experiment involving specimens of solid material'.

The first set of work is not dated.

The second set begins 15 May and continues at various dates to 20 December 1921.

The third set (at rear of book) begins 26 October 1921.

B.3

Folder of miscellaneous jottings and drawings.

Included here is a sequence of notes dated 5 November 1971 on porous discs with a ms. note by Batchelor 'Laboratory record of measurement of K for Beaver's disk'.

See also D.8.

Notebooks, working notes, patents

B.4 Shorter writings and reports (see also Section C).

Includes: Taylor's referee's report on a paper, n.d.
or indication of journal.

Letter to The Times on concrete kerbs, 1967
(press-cuttings).

Taylor's referee's report on degree application,
n.d. but after 1970.

B.5-B.10 Patents and Inventions.

B.5 Invention for improvement in parachutes. 1920
No. 11816/1919.

B.6 'A new or improved hawse-piece for a ship, yacht,
flying boat, sea plane or other vessel'. 1936-37
Patent no. 19208/36.
This is the 'C.Q.R. Anchor'.

B.7 'Improvements in or relating to propelling mechanisms
for swimming toys or models'. 1937
Patent no. 547/37.

B.8 'A new or improved swimming model or toy'. 1937
Patent no. 548/37.

B.9 Assignment agreement. 1951
Patent no. 9676/51.

B.10 'Wet end drainage system for paper machines'. 1958

See also C.56, D.43-D.46.

SECTION C. REPORTS, ARTICLES, ADDRESSES, PAPERS 1916-72 C.1 - C.81

These consist of reports for government and advisory committees, drafts and typescripts for talks, addresses and papers, etc., presented chronologically. Some are photocopies obtained by G.K. Batchelor, and all are typescript unless otherwise indicated. When the item is accompanied by correspondence, this is noted in the entry and indexed.

The majority of these papers deal only with scientific research and problems, but a few of the later addresses include reminiscences and biographical material of historical interest.

Material published in The Scientific Papers of Sir Geoffrey Taylor, ed. G.K. Batchelor, IV Vol., C.U.P., is indicated in the form (SP....). With these exceptions, and any others noted in the entries, the items in this Section are unpublished.

A complete set of Taylor's published papers 1909-73 is held in the Library of Trinity College, Cambridge.

A photocopy of the list of publications is reproduced by permission from Batchelor, Memoir, on pp.74 - 83.

Reports, articles, addresses, papers

- C.6 'Observations and speculations on the nature of turbulent motion'. 1917
20 pp. ms. + 2 pp. tables, of paper published as
Rep. Memo. advis. Comm. Aeronaut. no.345
(SP II, 7).
See also D.19.
- C.7 'Note on a particular form of eddy'. March 1919
Paper T.1328 (Met.40) for Advisory Committee
for Aeronautics.
- C.8 Untitled paper on turbulence. c. 1920
26 pp. ms., with a ms. note by Batchelor,
'Manuscript of a paper on turbulence and skin
friction not subsequently published in the same
form'.
- C.9 'Statistical representation of turbulence'. Jan. 1920
Paper Met.58 for Advisory Committee for
Aeronautics.
- C.10 'Notes on T.1421: On the analysis of the flow of Jan. 1920
an incompressible viscous fluid'.
Paper T.1421d for Advisory Committee for
Aeronautics (Taylor's comments on the paper
T.1421 by Cowley and Levy).
The paper has various diagrams, calculations and
'doodles' by Taylor, probably made during committee
meeting.
- C.11 'Suggestions for making fixed static pressure tubes'. April 1920
Paper Met.66 for Advisory Committee for
Aeronautics.
- C.12 'Note on Mr. Griffith's report T.1636'. Oct. 1921
(A theory of the stalling of aerofoils at speeds
near that of sound.) Paper T.1636b for
Aeronautical Research Committee.
P.1 of paper has many 'doodles' by Taylor.

Reports, articles, addresses, papers

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|------|---|------------|
| C.13 | 'Note on T.1636c'. Paper T.1636d for Aeronautical Research Committee. | Nov. 1921 |
| C.14 | 'Note on T.1696'. Paper T.1696a for Aeronautical Research Committee. | March 1922 |
| C.15 | 'Remarks on T.1696b'. Paper T.1696c for Aeronautical Research Committee. | May 1922 |
| C.16 | 'Suggested experiments in gliding'. Paper T.1759 for Aeronautical Research Committee. | Oct. 1922 |
| C.17 | 'Note on the Prandtl Theory'. Paper T.1875 for Aeronautical Research Committee. | Jan. 1924 |
| C.18 | 'Note on airscrew vortex theory'. Paper T.1999 (P.33) for Aeronautical Research Committee. | Dec. 1924 |
| C.19 | 'The effect of parallel walls on the flow past a symmetrical aerofoil'. Paper T.2761 for Aeronautical Research Committee. | April 1929 |
| C.20 | 'The conditions which determine plastic flow of metals'. Paper E.F.271 for Aeronautical Research Committee. | Aug. 1930 |
| C.21 | 'Note on T.3046 - "Experiments relating to Steady Air Flow"'. Paper T.3046a (F.M.26a) for Aeronautical Research Committee. Photocopy. | Feb. 1931 |

Reports, articles, addresses, papers

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| C.22 | 'Tests of certain anchors'. Paper S.177 (994) for Aeronautical Research Committee. Describes tests with CQR and other anchors, by Taylor and W.S. Farren. | Dec. 1933 |
| C.23 | 'Notes on the C.Q.R. Anchor'. Paper T.3595. S.216 (1449) for Aeronautical Research Committee. | Oct. 1934 |
| C.24 | 'Report on current measurements in the Ouse'. Prepared by Taylor and W.S. Farren for Ely Sugar Beet Factory. Typescript (2 copies) + 1 p. ms. drawing. | Oct. 1934 |
| C.25 | 'Notes on Turbulence II'. 20 pp. ms. draft for paper F.M. 206 (1656), prepared for Aerodynamics Sub-committee. A copy of the typescript committee paper, dated February 1935, is also included. | Feb. 1935 |
| C.26 | Ms. draft, undated and untitled, pp. 4-10 + 1 un-numbered. with a ms. note by Batchelor 'Apparently an early form of the paper published in <u>Proc.Roy.Soc. A, 156, 1936 (SP II, 33)</u> '. ['Statistical theory of turbulence V'.] | |
| C.27 | 'Explosion and blast waves'. Paper R.C.12. for Civil Defence Research Committee, Home Office. | May 1939 |
| C.28 | 'Stress-strain relationship in impact'. Paper R.C.36. for Civil Defence Research Committee, Home Office. | Sep. 1939 |
| C.29 | 'The effect of apertures in an external window shutter subjected to blast'. Paper R.C.74. for Civil Defence Research Committee, Ministry of Home Security. | Feb. 1940 |

Reports, articles, addresses, papers

- C.37 'Effects of moving band of pressure in gun tube'. Feb. 1942
Paper A.C.1724. Gn.96. for Advisory Council on Scientific Research and Technical Development, Gun Design Committee, Ministry of Supply.
The paper begins 'I have been spending the week-end working on the problems' and ends 'Please return the curves so that I may finish this work'.
- C.38 'Strains in a gun barrel near the driving band of a March 1942
moving projectile'.
Paper A.C.1851. Gn.104. for Advisory Council on Scientific Research and Technical Development, Gun Design Committee, Ministry of Supply.
- C.39 'Analysis of the shape and effectiveness of a vertical Dec. 1942
wind jet used as a wind shield'.
For Petroleum Warfare Department, Ministry of Fuel and Power.
- C.40 'Theory of forced jets and convection currents above March 1943
sources of heat'.
Written for Petroleum Warfare Department, Ministry of Fuel and Power.
- C.41 'Wind tunnel experiments with cross wind line 3 Sep. 1943
source of heat'.
For Petroleum Warfare Department, Ministry of Fuel and Power.
- C.42 'Convection from a line source of heat in a side 12 Sep. 1943
wind'.
For Petroleum Warfare Department, Ministry of Fuel and Power.
- C.41 and C.42 are typed copies, prepared for official use, of letters from Taylor to A.O. Rankine.
- C.43 'Convection from a line source of heat in a side Oct. 1943
wind'.
Paper M.R.P.144 for Petroleum Warfare Department, Ministry of Fuel and Power.
The report is dated 7 September 1943 and refers to Taylor's letter to Rankine of 3 September (C.41 above).

Reports, articles, addresses, papers

- C.44 'A possible explanation of muzzle bursts and expansions of howitzers'. Dec. 1943
Paper A.C.5270. Gn.315 for Advisory Council on Scientific Research and Technical Development, Gun Design Committee, Ministry of Supply.
- C.45 Report on 'The distance to which a sound will penetrate below the surface at which the wind speed changes through the critical reflecting value'. Aug. 1944
In the form of a typed version of a letter by Taylor to H.Q., Royal Artillery (Sound Ranging).
- C.46 'Note on 7482 - F.M.669 - (H.H. Pearcey) "The Effect of the condensation of atmospheric water vapour on total head and other measurements in the N.P.L. high speed tunnels"'. Jan. 1945
Paper 8343. F.M.669a for Aeronautical Research Committee.
- C.47 Typescript for broadcast talk on the first atomic bomb test at Los Alamos. Aug. 1945
Also included is a photocopy of The Listener, 16 August 1945 in which the talk was published under the title 'Trying out the Bomb'.
- C.48 'Notes on ranges of big rockets'. Feb. 1946
Memorandum written for Co-ordinating Committee on Guided and Propelled Missiles and Projectiles. C.C.G.P. (45) 15.
23 pp. + 5 figs., and 3 pp. corrigenda dated March 1946.
- C.49 'Model experiments for predicting concentrations of gas emitted from a chimney'. Jan. 1950
Document 3/50 B, Electricity Supply Research Council Working Party B - Atmospheric Pollution.
- C.50 'Model experiments on pollution'. Feb. 1950
Document 6/50 B for above working party.

C.49 and C.50 are typed copies, prepared for official use, of letters from Taylor to Sir Harold Hartley.

Reports, articles, addresses, papers

- C.51 Ms. for closing remarks at a meeting of engineers. c.1950
- C.52 'Address to the Accademia dei Lincei on the occasion of the centenary celebration of the birth of Vito Volterra'.
Typescript with ms. corrections.
Taylor spoke on behalf of the Royal Society, Cambridge University and the London Mathematical Society.
- C.53 'Recollections of a scientist'. c.1952
Typescript of lecture given in Australia. Has many parts in common with 'A scientist remembers'. See C.54 below.
- C.54 'A scientist remembers'. c.1952
Typescript with ms. corrections, of Hitchcock Lecture at University of California.
This was the fifth and last of a course of lectures given in March 1952 at the University of California; the other lectures were on the mechanics of swimming, turbulence and rotating fluids.
- C.55 'Stability of fluid in a vertical tube'. c.1953
Typescript and ms.
- C.56 'An applied mathematician's apology'. 1956
Typescript with ms. corrections of an address of reply after receiving the De Morgan Medal from the London Mathematical Society.
Taylor refers in this address to his work on drainage in paper-making. See also B.10, D.43-D.46.
- C.57 'Is there still scope for simple methods in science?' Nov. 1959
Typescript of Davidson Memorial Lecture given at Stevens Institute of Technology, New York.
- C.58 'Speech at Manchester School (sic) of Technology, after admission as a Honorary Fellow. Nov. 1959
11 pp. heavily-corrected manuscript.
- C.59 Manuscript of address in reply to presentation of Kelvin Medal by the Institution of Civil Engineers. Feb. 1960
- C.60 Manuscript of address of welcome to a symposium in Cambridge, on a topic connected with the paper-making industry. c.1960

Reports, articles, addresses, papers

- C.68 Review (published in Eureka, February 1968), of 1968
 G.K. Batchelor: 'An Introduction to Fluid Dynamics'.
 Typescript.
- C.69 Ms. of untitled lecture on electrohydrodynamics to July 1968
 the Institute of Mathematics and its Applications.
- C.70 Ms. of opening remarks at IUTAM Symposium on April 1969
 'Electrohydrodynamics'.
 This was the conference at Massachusetts Institute of
 Technology which Taylor initiated. See also D.50.
 See Batchelor, Memoir, pp.618-620 for an account
 of Taylor's work on this subject, much of it between
 the ages of 78 and 83.
- C.71 8 pp. ms. talk on A.A. Griffith, September 1969. Sep. 1969
 Delivered to the Materials Sciences Club, on the
 award to Taylor of the A.A. Griffith Medal.
 Includes correspondence with Chairman re award,
 history of club, and arrangements for talk.
- C.72 'Motion of axisymmetric bodies in viscous fluids'. 1969
 13 pp. ms., contribution to Sedov anniversary
 volume (SP IV, 48).
- C.73 'Amateur Scientists'. 1969
 30 pp. ms., and 17 pp. typescript versions for talk
 illustrated with slides.
 A reduced version was published in Michigan Q.Rev.,
 8, 1969.
- C.74 'Aeronautical Experience before 1919'. May 1971
 The Lester Gardner Lecture, given at Massachusetts
 Institute of Technology.
 26 pp. ms. draft, and photocopy of typescript
 version.
 See also D.7, D.101, E.6.

SECTION D SCIENTIFIC CORRESPONDENCE D.1 - D.105

The material is presented alphabetically, with dates and a brief indication of any information of particular interest.

Taylor's undimmed scientific reputation, the high respect he enjoyed, and the eagerness with which younger scientists continued to seek and accept his advice, emerge with remarkable clarity from the letters, most of which date from the later period of his life.

As with the personal correspondence in Section A, only incoming letters usually survive. Professor G.K. Batchelor was, however, able to obtain originals or photocopies of Taylor's letters from some of his correspondents, and thus reconstruct a relatively complete sequence. Examples of this can be found at D.7, D.13, D.29, D.43-D.46, D.52, D.60, D.64, D.65, D.71, D.87.

Apart from these more substantial exchanges, some ms. drafts or copies of Taylor's replies to individual correspondents also survive. They are noted in the relevant entries. A full list is appended below for ease of reference.

D.6, D.7, D.9
D.10, D.12, D.13, D.14
D.21, D.24, D.29
D.30, D.35
D.41, D.44
D.50, D.52, D.53
D.60, D.64, D.65
D.71, D.72, D.74, D.76
D.87
D.91

Scientific correspondence

- | | | |
|----------|--|--|
| D.1 | Ackerley, R. | 1968 |
| | Adam, N.K. | 1964 (electric effects at surfaces) |
| D.2 | Adrian, E.D. | 1965, 1973, 1974 |
| | <p>Adrian had been a contemporary of Taylor at Trinity and remained one of his closest friends; many of the personal letters in Section A include references to meetings, dinners, holidays, etc. shared by the Adrian and Taylor families. Because of their close contact, little correspondence remains.</p> <p>Folder includes two letters from A.S.F. Gow, 1972, about Adrian's car accident.</p> | |
| D.3 | Andrade, E.N.da C. | 1928 (results of viscosity experiment with rotating cylinders) |
| D.4 | Aranow, R.H. | 1965 |
| | Atkinson, R.H. | 1968, 1974 |
| D.5 | Bacon, F.T. | 1973 (fuel cells) |
| | Bagnold, R.A. | 1970 (water 'boils') |
| | Baker, S. | 1968 |
| | Barenblatt, G.I. | 1968 (see also Kochina, P.) |
| | Barreto, E. | 1970 |
| D.6, D.7 | Batchelor, G.K. | |
| | <p>Batchelor was the editor of <u>The scientific papers of Sir Geoffrey Taylor, IV Vols., C.U.P.</u>, and author of the biographical <u>Memoir of Taylor in Biographical Memoirs of Fellows of the Royal Society, 22, 1976</u> (see also A.5). His notes and attributions appear <u>passim</u> in items in the collection.</p> | |
| D.6 | <p>General correspondence, 1949-74, re scientific research problems, visits, publication of Taylor's papers, etc. Folder consists mainly of ms. letters from Taylor.</p> | |
| D.7 | <p>Correspondence, 1971-72.</p> <p>Exchanged between Taylor, Batchelor and Van Dyke about a proposed article 'A Dialogue with G.I. Taylor' to be published in the <u>Annual Review of Fluid Mechanics</u>.</p> <p>The project was not completed, but the material was incorporated in 'An unfinished dialogue with G.I. Taylor', published in <u>Journal of Fluid Mechanics, 70, 1975</u> (see A.5). See also C.74, D.87, D.101.</p> | |

Scientific correspondence

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|------|--------------------------|--|
| D.8 | Beavers, G.S. | 1971-72 (porous disc experiment See also B.3) |
| | Benher, M. | n.d. |
| | Benjamin, T.B. | 1963, 1969 |
| | Berg, T.G.O. | 1966 (work on water drops) |
| | Besant, R.W. | 1969 |
| D.9 | Binnie, A.M. | 1947-72 (includes correspondence exchanged on vibrations of a falling sheet of water) |
| D.10 | Birkhoff, G. | 1963 |
| | Blanchard, D. | 1966-67 (bubble collapse, includes photographs and article) |
| | Bloom, M.H. | 1967 (includes ms. of Taylor's reply) |
| D.11 | Brabazon of Tara, J.T.C. | 1953-56 (formation, constitution, membership, records of early meetings of The Yacht Research Council. Taylor was a founder member of the Council, and Chairman of the Committee on Sail Design. Includes related correspondence, and a copy of a brochure on the Council's work, 1961) |
| D.12 | Bullard, E.C. and others | 1950-51 Re proposed 'Science Centre' on the South Bank, where the Royal Society would have had premises in 'New Burlington House'. Taylor was strongly opposed to the idea, and the folder includes ms. letters sent by him to Fellows and Officers of the Society. |
| D.13 | Burgers, J.M. | 1920-48, 1973 General correspondence on research in fluid dynamics, publications, conferences and visits. The letters for 1929 refer to the Taylors' journey through Dutch East Indies (see A.31-A.37) and also Taylor's trip in R 101. Letters for 1945 refer to Burgers's journey to England to learn scientific developments, etc. during the period of the German occupation of Holland. The 1973 correspondence is mainly recollections of visits and of other scientists. |

Scientific correspondence

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|------|---|--|
| D.14 | Carstoiu, J. and others | 1966-67 (with Taylor's ms. letters) See also D.89 |
| D.15 | Caruso, H.A. | 1964 ('Liquid Bell') |
| | Chapman, S. | 1970 |
| D.16 | Chemical Warfare Committee | 1921 (particulate clouds) |
| D.17 | Chin, G.Y. | 1968 |
| | Cole, J.A. | 1957 |
| | Colgate, S.A. | 1966 |
| | Coombs, T.A. | 1964 |
| | Cox, B.G. | 1964 |
| D.18 | Davies, S.J. | 1928 |
| | Dawson, G.T. | 1949 |
| | de Bruyne, N.A. | 1957-58 ('peeling strength' of adhesives) |
| | de Yong, L.N.J. | 1964 |
| D.19 | Dines, W.H. | 1917-18 |
| | On turbulence, with sketches and photographs of observations. The correspondence, sent from the Meteorological Office Observatory at Benson and addressed to 'Major Taylor', relates to Taylor's work as meteorological adviser to the Royal Flying Corps (see Batchelor, <u>Memoir</u> , pp.576-577). See also D.74. | |
| | Dobson, G.M.B. | 1917 |
| | Includes a note by Dobson 'Note on R & M. 345. Turbulent Motion in the Air', commenting on Taylor's report no.345 to the Advisory Committee on Aeronautics (see C.6). | |
| D.20 | Dombrowski, N. | 1972 |
| | Drummond, J.E. | 1956 |

Scientific correspondence

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|------|-------------|------|
| D.21 | Ekman, V.W. | 1927 |
|------|-------------|------|
- Ekman was a Swedish meteorologist whose work in 1905 on turbulent flow had partly anticipated Taylor's papers on eddy motion published in 1914 and 1915. Taylor had not known of Ekman's work until 'some years later' than his own papers, and Ekman for his part remained unaware of Taylor's 'independent solution of the problem of gradient currents (1915) ... which has important advantages as compared to my own previous solution'. After a meeting at a conference in Zurich, Ekman initiated correspondence with Taylor on differences in their solutions; the letters run May-November 1927, Taylor's being ms. drafts, some with tentative dating by G.K. Batchelor.
- For ELAM, C.F., see under Tipper.
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|------|----------------|------------|
| D.22 | Forrest, J.S. | 1960-66 |
| D.23 | Fraenkel, L.E. | 1967, 1968 |
- Correspondence in 1968 calls attention to an error in Taylor's paper contributed to the Sedov Anniversary Volume (on 'Motion of axisymmetric bodies in viscous fluids', see C.72).
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|------|---------------------|---|
| | Friedman, J.R. | 1965 |
| D.24 | Gaskell, T.F. | 1964, 1968 |
| | Gheorghitza, St.I. | 1969 (includes Taylor's letter on boundary conditions in a porous medium) |
| | Ghosh, N.L. | 1972 |
| | Gill, W.N. | 1970 |
| | Görtler, H. | 1966 (Symposium on electrohydrodynamics) |
| D.25 | Gran, T. and others | 1973-74 |
- Tryggve Gran was a Norwegian explorer who had been navigator of the Handley Page bomber entered for the Daily Mail prize contest for the Atlantic air crossing (won by Alcock and Brown in a Vickers machine) (see Batchelor, Memoir, p.577).
- Folder includes a letter from Gran, and related correspondence from colleagues, researchers, etc., and a photocopy of a telegram from the U.S. Minister in Norway re a purported visit by Gran to Berlin, 1939.

Scientific correspondence

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|------|---|--|
| D.26 | Granger, R. | 1974 |
| | Greening, R.G. | 1967 (anchors) |
| | Gupta, A.S. | 1972 |
| D.27 | Hay, T.T. | 1970 (Japanese watermills) |
| | Herczynski, R. | 1966 |
| | Hirshfelder, J.O. | 1968 |
| | Hislop, G.S. | 1939, 1973 |
| D.28 | Hobbs, P.V. | 1972 (contact angles) |
| | Hopkins, H.G. | 1969, 1973, 1975 |
| D.29 | Howarth, L. | 1969-73 |
| | Correspondence in 1969 is a detailed exchange of views on boundary conditions at a viscous liquid/porous medium interface, and on effect on flow of a high-resistance septum. | |
| D.30 | Huang, C-P. | 1966 (includes ms. draft of Taylor's reply) |
| | Hughes, C.J. | 1962 |
| D.31 | Hunsaker, J.C. and Hunsaker, A.P. | 1956-74 and including a letter from Taylor to Hunsaker, 1940 |
| | Jerome and Alice Hunsaker were old friends of Taylor. The correspondence includes scientific and personal material, recollections, etc. | |
| D.32 | Iben, H. | 1966 |
| | Ippen, A.T. and Chu, Y-H. | 1971 |
| | Jacobsen, J.P. | 1931 |
| | Includes typescript report on the hydrographic scientific meeting, Copenhagen, 27 March 1931, in which Taylor took part. | |
| | Jeffrey, J.R. | 1973, 1974 |
| D.33 | Johnson, N.K. | 1927 |
| D.34 | Jones, G.M. | 1962-67, 1969 |
| | Geoffrey Melvill Jones was the son of Sir (Bennett) Melvill Jones, one of Taylor's oldest friends, nicknamed 'Bones'. Folder includes a letter from Sir Melvill Jones, 1969. | |

Scientific correspondence

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|------|--|---|
| D.35 | Joseph, D.D. | 1969-73 |
| | Includes several ms. letters from Taylor, on viscous liquid/porous medium interface. | |
| D.36 | Kapitza, P.L. and Kapitza, A. | 1963-73 |
| | Mainly social and personal correspondence; includes arrangements and guest list for dinner given by Taylor in Trinity College for the Kapitzas on their visit to Cambridge, 1966 | |
| | For photographs of Taylor and Kapitza, taken in 1966, see E.12. | |
| D.37 | Kearton, C.F. and Cotterill, E. | 1967 (on triangular cloth) |
| | Keller, J.B. | 1967 |
| | Kelly, A. | 1967 |
| D.38 | King, L.V. | 1915-18 (correspondence on research problems and papers, especially on sound-waves and fog signals) |
| D.39 | Kochina, P. | 1961, 1969-71. See also D.5, Barenblatt, G.I. |
| D.40 | Krasucki, Z. | 1965 |
| D.41 | Latham, J. | 1965-70 (some letters in this sequence are missing), 1974. Includes some of Taylor's ms. draft replies. |
| D.42 | Lemanczyk, G. | 1974 |
| | Lewis, W.B. | 1972-73 |
| | Liepmann, H.W. | 1966-67 |
| | McEwan, A. | 1969-71 |
| | Magyar, L. | 1972 |
| | Mannheimer, R.J. | 1971 |

Scientific correspondence

D.43-D.46 Mardon, J. 1955-75

Jasper Mardon, who had known Taylor in Cambridge, worked for various paper and pulp manufacturing firms in Canada and USA and used Taylor as a consultant. The correspondence deals with miscellaneous problems on which Taylor was consulted, including related reports and calculations and patents arising. The letters sent from firms' addresses are all dated, but some of Mardon's ms. letters from his private houses are undated and are assigned an approximate place in the sequence based on their content. Very few of Taylor's letters survive though it is clear that he was a punctual correspondent when engaged on a project.

4 folders as follows:

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|------|--|
| D.43 | 1955-58 |
| D.44 | 1959-61 |
| D.45 | 1962-65 |
| D.46 | 1966-75 (This includes scientific, personal and social correspondence from Mardon and his wife (Babs) to Taylor) |

See also B.10, C.56.

D.47 Mason, G. 1969 ('water bells')

D.48 Mason, S.G. 1964-67

D.49 Matisse, P. 1966

Meadley, C.K. 1964-65

D.50 Melcher, J.R. 1966-74

Much of the correspondence 1966-67 relates to a symposium on electrohydrodynamics held at Massachusetts Institute of Technology in 1969 and includes some correspondence with H. Görtler (see also D.24, D.87); there is also reference to the review-article on electrohydrodynamics by Taylor and Melcher for the first volume of Annual Review of Fluid Mechanics, 1969, and an undated ms. letter of comment by Taylor on a paper by Melcher.

D.51 Meksyn, D. 1972

Meyer, H. 1957

Scientific correspondence

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|------|---------------|---------|
| D.52 | Michael, D.H. | 1971-73 |
|------|---------------|---------|
- Mainly correspondence relating to the research and publication of a joint paper 'On making holes in a sheet of fluid', J. Fluid Mech., 58, 1973. The correspondence runs July 1971-April 1973, and consists of the originals of Michael's letters to Taylor, and photocopies of Taylor's letters to Michael, kindly made available by Michael.
- This was one of Taylor's last pieces of research, which he had hoped to present at the 13th International Congress for Theoretical and Applied Mechanics, Moscow, September 1972. In the event, he was unable to attend and the paper was read for him by Michael.
- See Batchelor, Memoir, pp.620-621.
- Michael's index to the letters is included in the folder, and indicates where material has not survived.
- Other research problems and papers are also discussed in the course of the correspondence.
- See also C.81, D.60, D.64.
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| D.53 | Milgram, J.H. | 1972 |
| | Miller, J.C.P. | 1963, 1968 (includes letter and calculations by Taylor) |
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|------|--------------|--|
| D.54 | Millsaps, K. | 1970-74 (Taylor's visit to Colorado State University, etc.) See also A.64, E.13 |
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| D.55 | Müller, A. | 1926 |
|------|------------|------|
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|------|--|---------|
| D.56 | National Committee for Fluid Mechanics Films | 1964-67 |
|------|--|---------|
- Mainly arrangements to incorporate Taylor's 1923 experiment on the motion of bodies in rotating fluids in a film entitled 'Fluid Motion in Rotating Systems'; includes a postcard re a film of undulatory movement from Sir James Gray.
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| D.57 | Nicholl, C. | 1970 |
| | Ornstein, W. | 1969, 1972 |
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| D.58 | Orowan, E. | 1962, 1969 |
|------|------------|------------|

Scientific correspondence

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|------|----------------|---------------------|--|
| D.59 | Orr, W.McF. | 1923 | |
| | | | Letter and calculations commenting on Taylor's rotating cylinder experiment and paper. |
| D.60 | Padday, J.F. | 1971-74 | |
| | | | This is a sequence of letters, some original and some photocopies, kindly made available by Padday, who has also provided a short account (1976), included in the folder, of the substance of the correspondence. The material complements the correspondence with D.H. Michael on the stability of holes in liquid (D.52). Padday's explanatory note concludes: 'There can be no doubt that this correspondence which is complete stimulated each investigator to seek for the singularity which represented the criteria for stability'. |
| | | | See also C.81, D.52, D.64 |
| D.61 | Palmer, G. | 1973 | |
| | Peierls, R.E. | 1966 | |
| | Pekeris, C.L. | 1969 | |
| D.62 | Penney, W.G. | 1969, 1972 | |
| D.63 | Phillips, O.M. | 1968 | |
| | Pindell, R.G. | 1973 | |
| | Platt, E.L. | 1973 (CQR anchor) | |
| D.64 | Pitts, E. | 1957-60, 1962, 1972 | |
| | | | The correspondence August 1957-April 1958 consists of a detailed exchange of information and results on the flow of liquid over rotating rollers. Taylor's letters are usually typed copies of his originals; some are photocopies. |
| | | | See also C.81, D.52, D.60. |
| D.65 | Prandtl, L. | 1923, 1927, 1930-38 | |
| | | | Prandtl was Director, Kaiser Wilhelm Institut für Stromungsforschung, Göttingen. |
| | | | The correspondence is mainly scientific, on turbulence, but includes a little personal material. |
| | | | Almost all the letters, by both correspondents, are photocopies, kindly assembled by G.K. Batchelor, who also compiled a chronological list of the correspondence (included in the folder). |

Scientific correspondence

D.66 Proudman, J. 1916, 1919

D.67 Quarterly Journal of Mechanics
and Applied Mathematics (O.U.P.)

Includes letter, 1946, re founding of journal (Taylor was a Trustee), and later matters re control and policy of journal, 1964-68 (many of these are circular or copy letters).

For Rayleigh, see under Strutt, J.W.

D.68 Reeve, J.E. 1970

Remenyik, C.J. 1970

D.69 Richardson, L.F. 1919, 1933

D.70 Rosenweig, R.E. 1967

Roy, M. 1930

D.71 Rothschild, N.M.V. 1950-51, 1962, 1970

The correspondence 1950-51 consists of photocopies of Taylor's letters to Rothschild, kindly made available by him. It relates to Taylor's study of the swimming of microscopic organisms and his papers on the subject. Though this work had its immediate origin in an enquiry from Rothschild about the movement of spermatozoa, Taylor says in his letter of 24 April 1951: 'I had thought about this problem long before you mentioned it in connection with your work. Bidder used to write to me about it'. *

See Batchelor, Memoir, p.613.

See also D.75

The letters of 1970 are on the trajectory of golf balls.

D.72 Saffman, P.G. 1956-74

Scientific and personal correspondence. Taylor's letters are photocopies kindly made available by Saffman.

Correspondence 1956-57 and 1963 is re collaborative papers by Taylor and Saffman; none of Saffman's letters for this period survive here.

Correspondence 1970-71 is on porous disc experiments and boundary layers.

* George Parker Bidder (1863-1953) was a marine biologist, who lectured at Cambridge and had dining rights at Trinity between the wars.

Scientific correspondence

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|------|---|--|
| D.73 | Sample, S.B. | 1972 |
| | Saville, D.A. | 1970 |
| | Sen-Gupta, B.K. | 1972 |
| | Singh, K.L. | 1964 |
| D.74 | Shaw, Sir (William) Napier | 1914 (ventilation currents) 1917 (re Taylor's note (enclosed) of his recent results on wind velocities) See also D.19 and D.78 |
| D.75 | Sleigh, M.A. | 1964 (on swimming of flagellae) See also D.71 |
| | Smith, C.S. | 1968 |
| | Sneddon, I.N. | 1962 |
| | Spalding, D.B. | 1972, 1975 (includes draft of Taylor's letter 1972 protesting to USSR Academy of Sciences at dismissal of B. Levich) |
| D.76 | Stanton, T.E. | 1923-30 |
| | <p>Sir Thomas Stanton was Superintendent of the Engineering Department, National Physical Laboratory, whence all these letters were sent.</p> <p>Correspondence, sometimes accompanied by photographs, graphs and calculations, on various problems of eddy currents, velocity, etc. Very few of Taylor's letters survive, though it is clear that he sent prompt and careful replies to Stanton's letters and enquiries.</p> | |
| D.77 | Stewartson, K. | 1967-68 |
| D.78 | Strutt, John William, Third Baron Rayleigh | 3 letters, 1910, 1915, 1916 |
| | <p>The letter of 1916 (March 12) is addressed 'Dear Shaw' (perhaps Sir Napier Shaw, see D.74).</p> | |
| D.79 | Stuetzer, O.M. | 1967 (on electrostriction; Stuetzer acknowledges the correctness of Taylor's views and thanks him for his 'educational efforts') |
| D.80 | Swiatecki, W.J. | 1967 |
| D.81 | Thomson, G.P. | n.d. (on a wind-tunnel made by Taylor, c.1937) |

Scientific correspondence

D.82 Thomson, J.J. 1919, 1938

Letter of 1919 informs Taylor of his election to a Lecturership in Mathematics at Trinity College, Cambridge, for 3 years from October 1919.

D.83 Tipper, Constance F.
(née Elam) 1924, 1927, 1961-75

Constance Elam, working at the Royal School of Mines, 'inspired' Taylor's interest in studying the deformation of crystalline materials, and collaborated with him in various studies on the subject, and on the Bakerian Lecture of the Royal Society in 1923.

The early correspondence refers to these collaborative studies and papers; the letters (all from the Royal School of Mines) give the date of the month, but not the year and are tentatively assigned to 1924 and 1927. The letter of 'November 9th' (?1924) describes her tough interrogation at a Royal Society meeting and sends 'Many thanks for standing up for me at the R.S. I really felt horribly squashed'.

The letters 1961-75 are mainly personal, with reminiscences and recollections, and include arrangements for a commemorative dinner of the Royal Society Dining Club on 14 June 1973, 50 years after the Bakerian Lecture by Taylor and Elam. Dr. Tipper was present, but Taylor's health prevented him from attending.

See also A.135.

D.84 Tuck, E.O. 1967

D.85 Turner, R. 1967-75

D.86 Vaisey, J. 1954

Includes tables and calculations on 'Sir Geoffrey's dispersion problem', and some ms. notes by R.V. Southwell under whose supervision the work was done.

Scientific correspondence

- D.87 Van Dyke, M. 1965-75
- The correspondence covers various research problems in fluid mechanics; visits by Van Dyke to Cambridge and by Taylor to USA and in particular to Stanford University, California (1971); publications; conference on electrohydrodynamics; review-article by Taylor and Melcher for Annual Review of Fluid Mechanics; declaration of 'G.I. Taylor Day' by Department of Aeronautics and Astronautics, Stanford University, in honour of Taylor's 85th birthday, etc.
- Correspondence January-April 1971 refers to the novel A Random State by Thomas McMahon, which Van Dyke drew to Taylor's attention as conveying misleading but identifiable pictures of Taylor and other distinguished scientists who worked at Los Alamos on aspects of the atomic bomb project. Taylor complained to the publishers of the English edition (Macmillan) and received apologies from them and from the author.
- Some of the letters, or parts of letters, are photocopies kindly made available by Professor Van Dyke.
- See also C.74, D.7, D.101
- D.88 Volterra, Enrico 1964-73
- Includes some letters from Volterra's family, following his death in 1973, continuing the correspondence to 1974.
- D.89 Vonnegut, Bernard 1966-69
See also D.14, D.93
- D.90 Wager, L.R. 1964 (one letter only, on lava flow)
- D.91 Wallis, B.N. 1956-74
- Personal and scientific correspondence, including:
- correspondence 1956 on gyroscopes, and spin of a ball;
- 1968 on submarine jet (in this letter Wallis mentions that a flood has destroyed many of his files and wartime films);
- 1971 re Wallis's sponsorship of Julian Taylor (Taylor's great-nephew) at Christ's Hospital (see also A.103);
- 1972 re any surviving diaries of Sir Charles Craven d.1944 (in his letter Wallis mentions his own lifelong suffering from migraine);
- 1974 re R.100, designed by Wallis.
- Very little survives of Taylor's contribution to the correspondence.

Scientific correspondence

| | | |
|------|-----------------|------|
| D.92 | Whipple, R.T.P. | 1954 |
| | White, C.M. | 1954 |
| | Williams, A.S. | 1970 |

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|------|----------------|------|
| D.93 | Wilson, C.T.R. | 1955 |
|------|----------------|------|

One ms. letter only, from Wilson 1955, on lightning strikes on trees, written after Taylor had had a narrow escape. Wilson also refers to his recent flight, at the age of 86, in an RAF aircraft.

The folder includes photocopies of 2 letters, 1956, from Wilson to B. Vonnegut, on electric storms.

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| D.94 | Wynn, A.H.A. | 1954 |
| | Yih, C-S. | 1968-75 |

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|------|---------------|------|
| D.95 | Zuckerman, S. | 1973 |
|------|---------------|------|

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| D.96 | Unattributed letters with pages missing, first-name signatures only, etc. | |
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Scientific correspondence

D.97

Misc. correspondence on committees and consultancies.

See also A.44.

Includes: Taylor's resignation from Undex Panel [Underwater explosions], Royal Naval Scientific Service, 1964.

In his letter accepting Taylor's resignation, R.H. Purcell, Chairman of the Undex Panel, writes:

'I am very sorry indeed to hear you find it necessary to resign from the Undex Panel and Sub-Panel. It is with much hesitation that I acknowledge your official severance from Undex.

'You were the fountain head in so many ways of the big advances made in the field of underwater explosions since 1939. Your papers on shock wave theory and on the damage processes led to important advances; also your paper on the vertical motion of the bubble was the foundation of bubble theory. In addition, in the early days of Undex you inspired people like Penney, Temperley, Fox and Bryant (to name only a few) who in turn made their contributions. In every respect your guidance on both Undex Panels has been of immense value.'

There is a similar letter from A.N. Harrison, Director of Naval Construction.

See Batchelor, Memoir, pp.603-605.

Visit to Atomic Energy Research Establishment, Harwell (Reactor Group). 1964

Taylor's resignation from Naval Construction and Research Group. 1964

Aeronautical Research Council (re various grants to Taylor from the 'Thousand Pound Fund for Individual Investigators'). 1966-69

Boeing International Corporation (NASA program on fluid systems at low gravity). 1966

Taylor's resignation from Electricity Supply Research Council and acceptance of consultancy. 1969

Scientific correspondence

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|------------|--|---------|
| D.98-D.101 | Invitations to attend conferences, visit laboratories, give lectures, etc. | 1962-75 |
| | Presented chronologically: | |
| D.98 | Conference on aeronautical engineering, Southampton. | 1962 |
| | See also C.62 | |
| | Tenth International Congress, International Association for Hydraulic Research, London. | 1963 |
| | Fire Research Station. | 1963 |
| | Conference at University of Auckland. | 1964 |
| | Institute for the study of metals, University of Chicago. | 1965 |
| | Talk to Royal Aeronautical Society, Bedford Branch. | 1965 |
| D.99 | Sesquicentennial celebrations, University of Michigan. | 1966-67 |
| | Visit to Harvard University. | 1967 |
| | Visit to Massachusetts Institute of Technology. | 1967 |
| | Seventh International Shock Tube Symposium, Toronto. | 1967 |
| D.100 | Visit to California Institute of Technology. | 1968 |
| | Eighth Symposium on Naval Hydrodynamics, Pasadena, California. | 1969 |
| | British Hydromechanics Research Association: talk on fluid science. | 1969-70 |
| | Visit to Massachusetts Institute of Technology. | 1970 |
| | Visit to Fort Collins, Colorado State University. | 1970 |
| D.101 | Third Canadian Congress of Applied Mechanics (CANCAM 71). | 1971 |
| | Visit to Massachusetts Institute of Technology. | 1971 |
| | Taylor delivered the Lester Gardner Memorial Lecture, which encouraged G.K. Batchelor and M. Van Dyke to propose a 'Recorded dialogue with G.I. Taylor' to take further some of the ideas expressed. | |
| | See also C.74, D.7, E.6. | |
| | Invitation to Jubilee Session, USSR Academy of Sciences, Moscow. | 1971 |
| | Invitation to Second Congress of Polish Science, Warsaw. | 1972 |

D.101 continued

Scientific correspondence

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|-------|--|------|
| D.101 | continued | |
| | 150th Anniversary of Franklin Institute. | 1973 |
| | Congress on 'Advanced Problems in Mechanics', and Panetti Centenary, Turin. | 1975 |
| | 250th Anniversary celebrations, Academy of Sciences, Moscow. | 1975 |
| D.102 | Invitations to write articles, furnish biographical information, etc. (not indexed). | |
| D.103 | Requests for reprints, permission to reproduce or quote from Taylor's publications (not indexed). | |
| D.104 | Requests for references, nominations for awards, etc. (not indexed). | |
| D.105 | Shorter correspondence on articles forwarded by Taylor for publication (not indexed). | |

SECTION E. PHOTOGRAPHS, FILM, TAPE E.1 - E.18

E.1-E.15 Photographs

These are presented chronologically as far as possible. Many of them have identification on verso in the hands of Taylor, Margaret Taylor, Stephanie Taylor, Batchelor, Gabrielle Boole, and others.

E.1 Photographs of Taylor, Margaret and Edward Taylor (parents), Julian Taylor (brother), and their family home in London.

E.2 Photographs of members of the Boole family, mostly identified by Taylor or Batchelor.

Includes a group photograph of Mary Everest Boole, with her five daughters, and her Taylor, Stott and Hinton grandchildren, n.d. c.1894.

E.3 Photographs of Taylor and his room at Trinity College, Cambridge, 1905 and 1911-12.

E.4 Photographs of 'Scotia' and her crew, 1913.

Some of these are originals, some are copies made in 1969 with captions by Batchelor, and a ms. letter from Taylor mentioning points of special interest.

E.5 Photographs of portrait drawings of Taylor by Mabel Laphorn, c.1915.

See A.152-A.154.

E.6 Photographs of Taylor, colleagues and aircraft at Farnborough, 1914-18, and of Taylor, 1919.

Envelope of photographs of early aircraft (originals and copies) with a ms. note by Taylor 'Photos for lecture on Aeronautics before 1919'. (Lecture published in Nature and Bull.Inst.Math.Applic., see Batchelor, Memoir, p.632, 1971b)

See also C.74.

Photographs, film, tape

- E.7 Photographs 1920s.
Includes Taylor with Rutherford; skiing with I.A. Richards; making parachute jump at Girton; with Stephanie Taylor at Lofoten Islands.
- E.8 Photographs 1930s.
- E.9 Group photograph, Fifth Pacific Science Congress, Victoria and Vancouver, 1933.
- E.10 Photographs 1940s, including photographs of Taylor's visit to Long Range Weapons Establishment, Salisbury, S.A., 1949.
- E.11 Photographs 1950s.
Personal and group photographs at conferences, dinners, etc.
Includes photograph of Taylor and P.A. Sheppard, 1958.
- E.12 Photographs 1960s.
Personal and group photographs, including Taylor with W. Von Braun at presentation of the Franklin Medal 1962; Taylor receiving Faraday Award via Telstar 1962; Taylor with P. Kapitza in Cambridge 1966; Taylor and colleagues at Stanford Congress, 1968.
- E.13 Photographs 1970s.
Includes photographs (all identified on verso) of Taylor's visit to Colorado State University 1971, and a passport photograph endorsed 'I certify that this is a true likeness of Sir Geoffrey Taylor. Adrian 10.1.74.' (intended for Taylor's planned visit to USA which his failing health obliged him to cancel).
- E.14 Misc. photographs, of sailing, skiing with friends, and of Taylor at 'Farmfield', c.1936, with a model of the CQR anchor.
- E.15 Misc. photographs of Taylor, colleagues and friends at meetings, lectures, degree ceremonies, etc.

Photographs, film, tape

- E.16 Film of visit to Japan, 1929.
- E.17 Tape-recording of Taylor's address, 'The Life of George Boole', given at Lincoln on the occasion of The Boole Centenary Celebrations, 1964.
- See also A.108-A.113, C.63.
- E.18 16 mm. sound film in colour, 'An Interview with G.I. Taylor', produced by Educational Services Incorporated in 1966. (Kindly given by G.K. Batchelor.)

LIST OF PUBLICATIONS

Reproduced by permission from Biographical
Memoirs of Fellows of the Royal Society, 22,
1976, pp. 565 - 633

Almost all Taylor's scientific papers, published and unpublished, have been reprinted in four volumes with the title *The scientific papers of Sir Geoffrey Ingram Taylor*, published by Cambridge University Press. The designation SP IV, 1 in the list below indicates that a paper has been reprinted in volume IV and is paper no. 1 within that volume.

- 1909 Interference fringes with feeble light. *Proc. Camb. phil. Soc.* 15, 114-115 (SP IV, 1)
- 1910 The conditions necessary for discontinuous motion in gases. *Proc. R. Soc. Lond. A* 84, 371-377. (SP III, 1)
- 1914 Report on the work carried out by the s.s. *Scotia*, 1913, pp. 48-68. London: H.M.S.O.
- 1915a Eddy motion in the atmosphere. *Phil. Trans. R. Soc. Lond. A* 215, 1-26. (SP II, 1)
- b The use of fin surface to stabilize a weight towed from an aeroplane. *Rep. Memo. advis. Comm. Aeronaut.* no. 184. (SP III, 2)
- c Report on the accuracy with which temperature errors in determining heights by barometer may be corrected. *Rep. Memo. advis. Comm. Aeronaut.* no. 239.
- 1916a Skin friction of the wind on the earth's surface. *Proc. R. Soc. Lond. A* 92, 196-199. (SP II, 2)
- b Conditions at the surface of a hot body exposed to the wind. *Rep. Memo. advis. Comm. Aeronaut.* no. 272. (SP II, 3)
- c On the dissipation of sound in the atmosphere. Paper for Advis. Comm. Aeronaut. (SP II, 4)
- d (With C. J. P. CAVE) Variation of wind velocity close to the ground. *Rep. Memo. advis. Comm. Aeronaut.* no. 296, part 1. (SP II, 5)
- e Pressure distribution round a cylinder. *Rep. Memo. advis. Comm. Aeronaut.* no. 191. (SP III, 3)
- f Pressure distribution over the wing of an aeroplane in flight. *Rep. Memo. advis. Comm. Aeronaut.* no. 287. (SP III, 4)
- g Phenomena connected with turbulence in the lower atmosphere. *Rep. Memo. advis. Comm. Aeronaut.* no. 304.
- 1917a (With A. A. GRIFFITH) The use of soap films in solving torsion problems. *Rep. Memo. advis. Comm. Aeronaut.* no. 333, and *Proc. Inst. mech. eng.*, pp. 755-789. (SP I, 1)
- b (With A. A. GRIFFITH) The problem of flexure and its solution by the soap-film method. *Rep. Memo. advis. Comm. Aeronaut.* no. 399. (SP I, 2)
- c The formation of fog and mist. *Q. Jl R. met. Soc.* 43, 241-268. (SP II, 6)

List of publications

- 1917d Observations and speculations on the nature of turbulent motion.
Rep. Memo. advis. Comm. Aeronaut. no. 345. (SP II, 7)
- e Phenomena connected with turbulence in the lower atmosphere.
Proc. R. Soc. Lond. A 94, 137-155. (SP II, 8)
- f Motion of solids in fluids when the flow is not irrotational. *Proc. R. Soc. Lond. A* 93, 99-113. (SP IV, 2)
- g Fog conditions. *Aeronaut. J.* 21, 75-90.
- 1918a (With A. A. GRIFFITH) The application of soap films to the determination of the torsion and flexure of hollow shafts. *Rep. Memo. advis. Comm. Aeronaut.* no. 392. (SP I, 3)
- b On the dissipation of eddies. *Rep. Memo. advis. Comm. Aeronaut.* no. 598. (SP II, 9)
- c Skin friction on a flat surface. *Rep. Memo. advis. Comm. Aeronaut.* no. 604. (SP II, 10)
- 1919a Tidal friction in the Irish Sea. *Phil. Trans. R. Soc. Lond. A* 220, 1-93. (SP II, 11)
- b On the shapes of parachutes. Paper for Advis. Comm. Aeronaut. (SP III, 5)
- 1920a Tidal friction and the secular acceleration of the moon. *Mon. Not. R. astr. Soc.* 80, 308-309. (SP II, 12)
- b Navigation notes on a passage from Burnham-on-Crouch to Oban. *Yachting Monthly*.
- 1921a Tidal oscillations in gulfs and rectangular basins. *Proc. Lond. math. Soc.* 20, 148-181. (SP II, 13)
- b Diffusion by continuous movements. *Proc. Lond. math. Soc.* 20, 196-212. (SP II, 14)
- c Tides in the Bristol Channel. *Proc. Camb. phil. Soc.* 20, 320-325. (SP II, 15)
- d Scientific methods in aeronautics. *Aeronaut. J.* 25, 474-491. (SP III, 6)
- e The 'rotational inflow factor' in propeller theory. *Rep. Memo. Aeronaut. Res. Comm.*, no. 765. (SP III, 7)
- f Experiments with rotating fluids. *Proc. R. Soc. Lond. A* 100, 114-121. (SP IV, 3)
- g Experiments with rotating fluids. *Proc. Camb. phil. Soc.* 20, 326-329.
- 1922a A relation between Bertrand's and Kelvin's theorems on impulses. *Proc. Lond. math. Soc.* 21, 413-414. (SP I, 4)
- b Notes on Mr Glauert's paper, 'An aerodynamic theory of the airscrew'. Paper for Aeronaut. Res. Comm. (SP III, 8)
- c The motion of a sphere in a rotating liquid. *Proc. R. Soc. Lond. A* 102, 180-189. (SP IV, 4)
- 1923a (With C. F. ELAM) The distortion of an aluminium crystal during a tensile test. *Proc. R. Soc. Lond. A* 102, 643-667. (SP I, 5)
- b The decay of eddies in a fluid. Paper for Aeronaut. Res. Comm. (SP II, 16)
- c Stability of a viscous liquid contained between two rotating cylinders. *Phil. Trans. R. Soc. Lond. A* 223, 289-343. (SP IV, 5)
- d The motion of ellipsoidal particles in a viscous fluid. *Proc. R. Soc. Lond. A* 103, 58-61. (SP IV, 6)
- e On the decay of vortices in a viscous fluid. *Phil. Mag.* 46, 671-674. (SP IV, 7)
- f Experiments on the motion of solid bodies in rotating fluids. *Proc. R. Soc. Lond. A* 104, 213-218. (SP IV, 8)
- 1924a The singing of wires in a wind. *Nature, Lond.* 113, 536. (SP III, 9)
- b Extracts from the log of *Frolic*. *R. Cruising Club. J.*, pp. 85-105.
- 1925a (With W. S. FARREN) The heat developed during plastic extension of metals. *Proc. R. Soc. Lond. A* 107, 422-451. (SP I, 6)
- b (With C. F. ELAM) The plastic extension and fracture of aluminium crystals. *Proc. R. Soc. Lond. A* 108, 28-51. (SP I, 7)

List of publications

- 1925c Notes on the 'Navier effect'. Paper for Aeronaut. Res. Comm. (SP I, 8)
- d Note on the connection between the lift on an aerofoil in a wind and the circulation around it. *Phil. Trans. R. Soc. Lond. A* 225, 238-245. (SP III, 10)
- e (With C. T. R. WILSON) The bursting of soap-bubbles in a uniform electric field. *Proc. Camb. phil. Soc.* 22, 728-730. (SP IV, 9)
- f Experiments with rotating fluids. *Proc. 1st Int. Congr. Appl. Mech., Delft, 1924*, pp. 89-96.
- g Versuche mit rotierenden Flüssigkeiten. *Z. angew. Math. Mech.* 5, 250-253.
- 1926a (With W. S. FARREN) The distortion of crystals of aluminium under compression. I. *Proc. R. Soc. Lond. A* 111, 529-551. (SP I, 9)
- b (With C. F. ELAM) The distortion of iron crystals. *Proc. R. Soc. Lond. A* 112, 337-361. (SP I, 10)
- 1927a The distortion of single crystals of metals. *Proc. 2nd Int. Congr. Appl. Mech., Zürich, 1926*, pp. 46-52. (SP I, 11)
- b The distortion of crystals of aluminium under compression. II. Distortion by double slipping and changes in orientation of crystal axes during compression. *Proc. R. Soc. Lond. A* 116, 16-38. (SP I, 12)
- c The distortion of crystals of aluminium under compression. III. Measurements of stress. *Proc. R. Soc. Lond. A* 116, 39-60. (SP I, 13)
- d An experiment on the stability of superposed streams of fluid. *Proc. Camb. Phil. Soc.* 23, 730-731. (SP II, 17)
- e Turbulence. *Q. Jl R. met. Soc.* 53, 201-211.
- f Across the Arctic circle in *Frolic*, 1927. *R. Cruising Club J.*, pp. 9-26.
- 1928a The deformation of crystals of β -brass. *Proc. R. Soc. Lond. A* 118, 1-24. (SP I, 14)
- b Resistance to shear in metal crystals. *Trans. Faraday Soc.* 24, 121-125. (SP I, 15)
- c A manometer for use with small Pitot tubes. *Proc. Camb. phil. Soc.* 24, 74-75. (SP III, 11)
- d The energy of a body moving in an infinite fluid, with an application to airships. *Proc. R. Soc. Lond. A* 120, 13-21. (SP III, 12)
- e The forces on a body placed in a curved or converging stream of fluid. *Proc. R. Soc. Lond. A* 120, 260-283. (SP III, 13)
- f (With C. F. SHARMAN) A mechanical method for solving problems of flow in compressible fluids. *Proc. R. Soc. Lond. A* 121, 194-217. (SP III, 14)
- g The force acting on a body placed in a curved and converging stream of fluid. *Rep. Memo. aeronaut. Res. Comm.* no. 1166.
- h Report on progress during 1927-8 in calculation of flow of compressible fluids and suggestions for further work. *Rep. Memo. aeronaut Res. Comm.* no. 1196.
- 1929a The criterion for turbulence in curved pipes. *Proc. R. Soc. Lond. A* 124, 243-249. (SP II, 18)
- b Waves and tides in the atmosphere. *Proc. R. Soc. Lond. A* 126, 169-183. (SP II, 19)
- c The air wave from the great explosion at Krakatau. *4th Pacific Science Congr., Java, 1929*, vol. II B, 645-655.
- 1930a The application of Osborne Reynold's theory of heat transfer to flow through a pipe. *Proc. R. Soc. Lond. A* 129, 25-30. (SP II, 20)
- b The flow of air at high speeds past curved surfaces. *Rep. Memo. aeronaut. Res. Comm.* no. 1381. (SP III, 15)

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- 1930c Some cases of flow of compressible fluids. *Rep. Memo. aeronaut. Res. Comm.* no. 1382. (SP III, 16)
- d Recent work on the flow of compressible fluids. *J. Lond. math. Soc.* 5, 224-240. (SP III, 17)
- e Tour in the East Indies. *Proc. R. Instn* 26, 209.
- f Strömung um einen Körper in einer kompressiblen Flüssigkeit. *Z. angew. Math. Mech.* 10, 334-345.
- 1931a (With H. QUINNEY) The plastic distortion of metals. *Phil. Trans. R. Soc. Lond. A* 230, 323-362. (SP I, 16)
- b Effect of variation in density on the stability of superposed streams of fluid. *Proc. R. Soc. Lond. A* 132, 499-523. (SP II, 21)
- c Internal waves and turbulence in a fluid of variable density. *Rapp. P.-v. Réun. Cons. perm. int. Explor. Mer* 76, 35-42. (SP II, 22)
- d The flow round a body moving in a compressible fluid. *Proc. 3rd Int. Congr. Appl. Mech., Stockholm, 1930*, vol. I, 263-275.
- e Round Ireland in Frolic. *R. Cruising Club J.*, pp. 213-225.
- 1932a (With H. QUINNEY) The distortion of wires on passing through a draw-plate. *J. Inst. Metals* 49, 187-199. (SP I, 17)
- b Note on the distribution of turbulent velocities in a fluid near a solid wall. *Proc. R. Soc. Lond. A* 135, 678-684. (SP II, 23)
- c The transport of vorticity and heat through fluids in turbulent motion. *Proc. R. Soc. Lond. A* 135, 685-705. (SP II, 24)
- d The resonance theory of semidiurnal atmospheric oscillations. *Mem. R. met. Soc.* 4, 43-51. (SP II, 25)
- e Applications to aeronautics of Ackeret's theory of supersonic aerofoils moving at speeds greater than that of sound. *Rep. Memo. aeronaut. Res. Comm.* no. 1467. (SP III, 18)
- f The viscosity of a fluid containing small drops of another fluid. *Proc. R. Soc. Lond. A* 138, 41-48. (SP IV, 10)
- g Note on review by Davies and Sutton of the present position of the theory of turbulence. *Q. Jl R. met. Soc.* 58, 61-65.
- 1933a The buckling load for a rectangular plate with four clamped edges. *Z. angew. Math. Mech.* 13, 147-152. (SP I, 18)
- b (With J. W. MACCOLL) The air pressure on a cone moving at high speeds. I. *Proc. R. Soc. Lond. A* 139, 278-297. (SP III, 19)
- c (With J. W. MACCOLL) The air pressure on a cone moving at high speeds. II. *Proc. R. Soc. Lond. A* 139, 298-311. (SP III, 20)
- d (With J. W. MACCOLL) L'onde ballistique d'un projectile à tête conique. *Mém. de l'Art. Franç.* 12, 651-683.
- 1934a (With H. QUINNEY) The latent energy remaining in a metal after cold working. *Proc. R. Soc. Lond. A* 143, 307-326. (SP I, 19)
- b Faults in a material which yields to shear stress while retaining its volume elasticity. *Proc. R. Soc. Lond. A* 145, 1-18. (SP I, 20)
- c The mechanism of plastic deformation of crystals. I. Theoretical. *Proc. R. Soc. Lond. A* 145, 362-387. (SP I, 21)
- d The mechanism of plastic deformation of crystals. II. Comparison with observations. *Proc. R. Soc. Lond. A* 145, 388-404. (SP I, 22)
- e The strength of rock salt. *Proc. R. Soc. Lond. A* 145, 405-415. (SP I, 23)
- f A theory of the plasticity of crystals. *Z. Kristall.* A 89, 375-385. (SP I, 24)
- g The formation of emulsions in definable fields of flow. *Proc. R. Soc. Lond. A* 146, 501-523. (SP IV, 11)
- h The holding power of anchors. *Yachting Monthly and Motor Boat-ing Mag.* (SP IV, 12)

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- 1935a Lattice distortion and latent heat of cold work in copper. Paper for Aeronaut. Res. Comm. (SP I, 25)
- b Turbulence in a contracting stream. *Z. angew. Math. Mech.* **15**, 91-96. (SP II, 26)
- c Statistical theory of turbulence. I. *Proc. R. Soc. Lond. A* **151**, 421-444. (SP II, 27)
- d Statistical theory of turbulence. II. *Proc. R. Soc. Lond. A* **151**, 444-454. (SP II, 28)
- e Statistical theory of turbulence. III. Distribution of dissipation of energy in a pipe over its cross-section. *Proc. R. Soc. Lond. A* **151**, 455-464. (SP II, 29)
- f Statistical theory of turbulence. IV. Diffusion in a turbulent air stream. *Proc. R. Soc. Lond. A* **151**, 465-478. (SP II, 30)
- g Distribution of velocity and temperature between concentric rotating cylinders. *Proc. R. Soc. Lond. A* **151**, 494-512. (SP II, 31)
- h (With J. W. MACCOLL) The mechanics of compressible fluid. Section H of *Aerodynamic theory*, vol. III (ed. W. F. Durand), pp. 209-250. Berlin: Springer.
- 1936a The mean value of the fluctuations in pressure and pressure gradient in a turbulent fluid. *Proc. Camb. phil. Soc.* **32**, 380-384. (SP II, 32)
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