

A.J.S. PIPPARD

CSAC 97/1/84

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CONTEMPORARY SCIENTIFIC ARCHIVES CENTRE

under the guidance of the Royal Society's
British National Committee for the History of Science, Medicine and Technology

Catalogue of the papers and correspondence of

ALFRED JOHN SUTTON PIPPARD FRS

(1891 - 1969)

Compiled by:

Jeannine Alton and Peter Harper

Deposited in the College Archives, Imperial College of
Science and Technology, London

1984

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The work of the Contemporary Scientific Archives Centre, and the production of this catalogue, are made possible by the support of the following societies and institutions:

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GENERAL INTRODUCTION

PROVENANCE

The papers were received from Professor Sir Brian Pippard, younger son of A. J. S. Pippard.

OUTLINE OF THE CAREER AND WORK OF A. J. S. PIPPARD

Pippard was born in Yeovil in 1891 and educated at Yeovil School and Bristol University where he studied civil engineering. Graduating from Bristol in 1911 he served for two years as an articled assistant in the Bristol office of consultant engineer A. P. I. Cotterell before obtaining a position as assistant engineer with the Pontypridd & Rhonda Valley Joint Water Board.

In 1915 he was appointed as technical adviser to the Director of the Air Department of the Admiralty where he contributed to the work of the structures section in improving aircraft safety and, incidentally, advancing structural science. His interest in aircraft structure continued after the war, first as a partner in a firm of aeronautical engineers, 1919-1922, and subsequently as Professor of Engineering at Cardiff, 1922-1928, and Bristol, 1928-1933. In this period he was particularly associated with the experimental testing of airship structures in connection with the building of the R.100 and R.101 (see B.21).

In 1933 Pippard moved to Imperial College where for more than twenty years he presided over one of the finest civil engineering departments in the country, winning the respect and affection of staff and students alike. His own active pursuit of research is evidenced by a growing number of published papers, many written in collaboration with Letitia Chitty. Throughout his career he retained an interest in the structure of dams. His early M.Sc. thesis dealt with masonry dams and in his last five years at Imperial College he undertook research projects on arched dams.

In the public domain, he served for ten years, 1951-1961, as Chairman of the Thames Pollution Committee set up by the Minister of Local Government and Housing to make recommendations on the future management of the tidal reaches of the river. Although Pippard was the subject of some press criticism for the length of time his

Committee took to report, its work proved of immense benefit to those living and working in the capital. He also took part in an investigation for Hatfield Development Corporation into the gale damage to houses which occurred in November 1957, and in 1968-1969 he served as a consultant for Westminster City Council on the safety of system-built tall blocks of flats in respect of the Lisson Green development. Over many years he was actively involved in the affairs of the Institution of Civil Engineers, serving as its president, 1958-1959.

DESCRIPTION OF THE COLLECTION

The collection is particularly strong in material of a biographical and personal nature. Of especial interest is the extensive autobiographical account written by Pippard towards the end of his life (A.4). There are also two scrapbooks covering virtually every aspect of his career (A.2, A.3), and two scrapbooks devoted to his year as president of the Institution of Civil Engineers (A.26, A.27).

Almost all the material available relating to Pippard's scientific work is concerned with his research on aircraft structures which is represented by a series of committee papers and reports prepared for the Aeronautical Research Council in the interwar years.

Unfortunately very little manuscript material relating to Pippard's other interests survives. However, in a small section on the Thames Pollution Committee, there is Pippard's own account of its work prepared at the time of the publication of the official report (B.37).

Much more material survives relating to Pippard's activities as a lecturer, writer of articles and broadcaster. It covers a period of nearly fifty years and a variety of subjects, including aircraft and aviation, engineering structures in general and the education and training of engineers. This last topic was of particular importance to him reflecting his concern about the image of engineering in the world, its lack of appeal as a profession and its disadvantage compared with pure science in attracting the very best recruits. Also of interest in this section is a number of BBC radio broadcasts, especially the scripts for two series of talks to schools in the 1920s (see C.34, C.35).

There is very little general correspondence in the collection. There are letters, however, in all the scrapbooks and the text of a few letters, not otherwise available, is incorporated in the autobiographical account. See also A.12, A.13, A.15, A.16-A.20, A.22-A.24, A.29-A.32, B.23, C.10, C.28, C.30 and C.33.

SECTION A

BIOGRAPHICAL AND AUTOBIOGRAPHICAL A.1 - A.34

A.1

Obituary notices and tributes

Press-cutting of obituary notice of Pippard published in The Times.

Photocopy of obituary notice from unidentified publication.

Memoir by A.W. Skempton (Biographical Memoirs of Fellows of the Royal Society, 16, 1970).

Order of service and press notices of memorial service.

Biographical and autobiographical

A.2-A.8 AUTOBIOGRAPHICAL ACCOUNTS

A.2 Scrapbook no.1, 1909-66.

Principally letters and press-cuttings re Pippard's career, honours and awards in this period.

Includes:

Material re appointment to the Chairs of Civil Engineering at Bristol (1928) and Imperial College, London (1933), election as a Fellow of the Royal Society (1954), appointment as Visiting Professor of Civil Engineering at Northwestern University, Evanston, Illinois (1956-57), award of an honorary doctorate by the University of Bristol (1966).

Material relating to airship research (mostly press-cuttings) and the Thames Effluents Committee, including letters from the departmental ministers: Hugh Dalton, Harold Macmillan and Henry Brooke, and press-cuttings, some with criticism of the length of time the Committee took before reporting.

Material relating to the education and training of engineers, including letters to The Times (one from A.B. Pippard) and an article written for The Times (1963).

Photographs include the civil engineering department staff at Imperial College before the Second World War, the June 1955 Postgraduate Structures Group at Imperial College and the National Physical Laboratory Executive Committee, 1961.

Pippard's own listing of his technical papers, books and broadcasts, lectures and general articles, and a separate listing of lectures given by Pippard in the USA during his Visiting Professorship at Northwestern University.

A.3 Scrapbook no.2, 1920-69 (the most recent material appears first).

Principally letters, including unpublished letters from Pippard to The Times and The Observer, press-cuttings and extracts from periodicals.

Includes:

Material relating to the award of honorary degrees by Bristol and Birmingham Universities (1966) and Brunel University (1968), to his association with the Institution of Civil Engineers and in particular his interest in the education and training of engineers, to his consultancy with Westminster City Council re the safety

Continued

Biographical and autobiographical

- A.3(Cont'd.) of system-built tall blocks of flats (1968) and to his interest in the construction of dams, including correspondence in The Times re a dam on the Thames (1967).

A small number of photographs and, in an envelope at rear of book, miscellaneous press-cuttings and three menus (two signed) from the period 1917-19.

- A.4 'That was yesterday.'

Pippard's autobiography, originally suggested by his dearly-loved wife Olive, and written after her death for his sons.

The work comprises a preface, eighteen chapters and appendices containing a curriculum vitae, lists of technical papers, books, broadcasts, lectures and articles.

This is a photocopy kindly made available by Sir Brian Pippard.

- A.5, A.6 Autobiographical talks by Pippard.

- A.5 'One Man in his Time'

Address to the Birmingham University Civil Engineering Society, 18 October 1966.

25 pp. typescript with ms. additions and corrections.

- A.6 'Sons of Martha'

In this undated talk on the varied life of the engineer, Pippard confined himself 'to some of the parts played by one man in his time'.

7 pp. typescript with a very few ms. corrections.

- A.7, A.8 Private journals of overseas visits.

- A.7 Journal of United States visit, 1949. See also B.35.

- A.8 Journal of West African visit, 1959. With notes for two speeches, one delivered in Ghana. See also A.27, A.34.

Biographical and autobiographical

- A.9-A.32 CAREER, HONOURS AND AWARDS
- A.9 Pippard's thesis on 'The Masonry Dam', submitted for M.Sc. Degree in Civil Engineering, University of Bristol, 1914.
- A.10 Document conferring upon Pippard the dignity of a Member of the Order of the British Empire, 1 January 1918.
- A.11 University of the West at Bristol.
Publication issued in the interests of an appeal for funds while Pippard was Professor of Civil Engineering there. There are ms. identifications of staff by Pippard on some of the photographs.
- A.12 Letter of appointment to the Chair of Civil Engineering at Imperial College, London, 23 March 1933, and letters of congratulation from colleagues, arranged alphabetically.
- A.13 Letters of congratulation from close friends (many written to Olive Pippard). Unindexed.
- A.14 Publishing contracts, 1936 and 1951.
- A.15 Letter from Secretary of the Royal Aeronautical Society (J. Laurence Pritchard), 1 April 1938, informing Pippard of his election to the Council of the Society, with list of new Council for 1938-39.
- A.16 Letters re wartime appointments, conditions of service, 1939, 1940.
Letter from R.E. Stradling, 26 August 1939, re arrangements for Pippard to join his staff at the Forest Products Research Laboratory, Princes Risborough, in the event of war breaking out.
Letters from D.R. Pye, 14 June and 20 June 1940, re Pippard's transfer to the Airworthiness Department of the Royal Aircraft Establishment.
- A.17-A.20 Letters of congratulation on Pippard's election to Fellowship of the Royal Society, June 1954.
- A.17 A - D
- A.18 E - M
- A.19 N - W
- A.20 First names and unidentified signatures.

Biographical and autobiographical

- A.21 Presentation volume of names and signatures of colleagues and students at Cardiff, Bristol and Imperial College, London, 1922-56, on the occasion of Pippard's retirement from the Chair of Civil Engineering at Imperial College.
- A.22-A.24 Letters from colleagues and students re the retirement presentation. Unindexed.
- A.22 A - D
- A.23 E - M
- A.24 N - Z and first name and unidentified signatures.
- A.25 Menu of farewell dinner, 14 June 1956, Imperial College, London.
- A.26 Scrapbook entitled 'The Institution of Civil Engineers. Records of Presidential Year 1958-1959. Volume 1 General'.
Typescript diary of events interspersed with press-cuttings, extracts from engineering journals, letters and official programmes. There are a few photographs and a typescript copy of Pippard's address at the unveiling of a memorial to Brunel at the Clifton Suspension Bridge, Bristol, 15 September 1959.
- A.27 Scrapbook entitled 'The Institution of Civil Engineers. Records of Presidential Year 1958-1959. Volume 2. Visit to West Africa'.
Typescript diary of events interspersed with route map, newspaper cuttings and many photographs.
Includes also a letter from Pippard to Kwame Nkrumah, 28 October 1959, re the education and training of engineers in Ghana.
- A.28 Papers re conferment of Honorary Doctorate of Laws, May 1966, University of Bristol.
Programme, invitations, seating arrangements and photographic record from Illustrated Bristol News, July 1966.
- A.29 Papers re conferment of the Honorary Degree of Doctor of Science, 15 July 1966, University of Birmingham.
Correspondence (four letters) between Pippard and Vice-Chancellor (Sir Robert Aitken), including Aitken's apology for sending the invitation to Pippard's son at Cambridge and Pippard's unsigned draft reply noting similar mistakes in the past.
Statement of the procedure for honorary graduands, seating plans and degree-day luncheon menus.
Telegram of congratulations.

Biographical and autobiographical

- A.30-A.32 Letters of condolence received on Pippard's death, 1969.
- A.30 B - K
- A.31 M - W
- A.32 First name and unidentified signatures.
- A.33, A.34 PHOTOGRAPHS
- A.33 Miscellaneous photographs of Pippard, family and colleagues, including early photographs of wife and family.
- A.34 Photographs, principally relating to Pippard's visit to West Africa as President of the Institution of Civil Engineers, 1959.

SECTION B

SCIENTIFIC RESEARCH, COMMITTEES AND CONSULTANCIES
B.1 - B.42

The material is presented as an alphabetical sequence by order of topic, institution or initiating body.

There is a box of published papers at B.42 which includes bound volumes, offprints, articles in journals and newspapers, etc.

B.1-B.31

AERONAUTICAL RESEARCH

Pippard's association with research on aircraft structures is represented by a series of reports and committee papers of aeronautical research committees. Further related published material is to be found in B.42. Also included here are the official report of the R.101 inquiry and a number of Second World War research papers on self-sealing petrol tanks for aircraft and camouflage structures.

- B.1 Ministry of Munitions. Technical Department - Aircraft Production.
'Handbook of Strength Calculations', by Pippard and J.L. Pritchard, February 1918.
- B.2 Advisory Committee for Aeronautics. Reports and Memoranda, No.592.
'Report on Accidents to Certain Aeroplanes, with Special Reference to "Spinning".' Communicated by the Accidents Investigation Committee, December 1918.
- B.3 Advisory Committee for Aeronautics. Reports and Memoranda, No.629.
'The Longitudinal Stability of "X" Aeroplanes'. Report from the Accidents Committee, December 1918.
- B.4 Advisory Committee for Aeronautics. Reports and Memoranda, No.617.
'Reports on the Behaviour of Aeroplanes when Flying Inverted, with Special Reference to Some Accidents on "A".' Communicated by the Accidents Committee, January 1919.

Scientific research, committees and consultancies

- B.5 Advisory Committee for Aeronautics. Aerodynamics Sub-Committee.
- 'Note with reference to strength requirements on aeroplanes', by Pippard, June 1919. 3 pp. typescript.
- B.6 Advisory Committee for Aeronautics. Sub-Committee on Load Factors.
- 'A possible empirical formula for the load factor of an aeroplane', by Pippard, November 1919. 3 pp. typescript.
- B.7 Advisory Committee for Aeronautics. Load Factor Sub-Committee.
- 'The aeroplane of consistent strength', by Pippard, February 1920. 10 pp. typescript. (Extract from Engineering, 30 January 1920, p.133, presented as a committee paper.)
- B.8 Aeronautical Research Committee. Accidents Investigation Sub-Committee.
- 'Lateral Stability. A suggested figure of merit', by Pippard, December 1920. 2 pp. typescript.
- B.9 Aeronautical Research Committee.
- 'The Basis of Aeroplane Structural Strength Specification', by Pippard, January 1921. 15 pp. typescript and graph page.
- B.10 Aeronautical Research Committee. Reports and Memoranda, No.775.
- 'Report on the Accident to H.M. Airship R.38', by the Accidents Investigation Sub-Committee, March 1922.
- B.11 Aeronautical Research Committee. Reports and Memoranda, No.800.
- 'Report of the Airship Stressing Panel', August 1922.
- B.12 Aeronautical Research Committee.
- 'The transition of a counterbraced framework from the redundant to "simply stiff" condition with increase of external load.' Note by Pippard, July 1924. 5 pp. typescript.

Scientific research, committees and consultancies

- B.13 Aeronautical Research Committee.

'Research on Redundant Structures. Progress Report.' By Pippard, September 1924. 6 pp. typescript and photograph of research structure.
- B.14 Aeronautical Research Committee. Reports and Memoranda, No.970.

'Report of the Airworthiness of Airships Panel', October 1924.
- B.15 Aeronautical Research Committee. Structures Sub-Committee.

'Research on Redundant Structures', January 1926. 3 pp. typescript.
- B.16 Aeronautical Research Committee. Reports and Memoranda, No.1039.

'Stresses in a Stiff Jointed Polygonal Frame under a System of Loads Perpendicular to the Plane of the Frame', by J.F. Baker, presented by Pippard, February 1926.
- B.17 Aeronautical Research Committee. Load Factors Sub-Committee.

'The Strength Requirements for an Aeroplane in a Steep Dive', by Pippard, May 1929. 7 pp. typescript.
- B.18 Aeronautical Research Committee. Load Factors Sub-Committee.

'Note on R. & M.706. "An Analysis of the conditions governing the requisite strength of aeroplane structures"', by Pippard, February 1930. 2 pp. typescript.
- B.19 'Note on Strut OO. "The accuracy of stress calculations for an aeroplane fuselage under combined bending and torsion"', by Pippard, n.d. 2 pp. typescript.
- B.20 Aeronautical Research Committee Reports and Memoranda, No.1360.

'Technical Report by the Accidents Investigation Sub-Committee on the Accident to the Aeroplane G-AAZK at Meopham, Kent, on 21 July 1930', January 1931.

Scientific research, committees and consultancies

- B.21 Report of the R.101 Inquiry. Presented to Parliament by the Secretary of State for the Air, March 1931. Command Paper no.3825.
- As the Air Ministry's Airworthiness Authority (with Sir Leonard Bairstow) for the R.100 and R.101 airships, Pippard was deeply concerned in the outcome of the inquiry. In this his own copy of the report he has added marginal emphasis to passages exonerating those responsible for its structural design. See, e.g., pp.23, 83.
- B.22 Royal Aircraft Establishment. Draft report.
- 'The Accuracy of Stress Calculations for an Aeroplane under Combined Bending and Torsion', by A.G. Pugsley and A.R. Collins, September 1931. 19 pp. typescript and 10 pp. of tabular statements and diagrams.
- B.23 Letter from K.T. Spencer, Royal Aircraft Establishment, Farnborough, 23 October 1931, enclosing:
- 'Notes on Certain Assumptions of the Present Method of Calculating Torsional Stresses in an Aeroplane Fuselage', October 1931. 2 pp. typescript with 'Table Showing Effect of Stiffness of Rear Bulkhead on Loads in Fuselage Members (3 pp.)'
- Letters from Pippard to Spencer, 26 February and 1 March 1932 re the notes enclosed in Spencer's letter of October 1931.
- B.24 Aeronautical Research Committee. Structure Sub-Committee.
- 'Note on the Stressing of an Aeroplane under Combined Bending and Torsion', by Pippard, 3 November 1932. 3 pp. typescript.
- B.25 Aeronautical Research Committee Reports and Memoranda, No.1645.
- 'Report on Puss Moth Accidents by the Accidents Investigation Sub-Committee', March 1935.
- B.26 Aeronautical Research Committee. Structure Sub-Committee.
- 'The Primary Stress Analysis of a Tube Braced on the Geodetic Principle', by Pippard, 13 February 1936. 21 pp. typescript with appendices of calculations and diagrams (75 pp.)

Scientific research, committees and consultancies

- B.27 Aeronautical Research Committee. Reports and Memoranda No.1851.

 'Simple Experimental Analysis of the Stresses in Rings', by Pippard and S.R. Sparkes, 20 October 1938.
- B.28 'Report on Development of Self-Sealing Tanks and Pipes', by Pippard, 9 October 1940. 8 pp. typescript with figures and tables.
- B.29 '2nd Report on the Development of Self-sealing Tanks & Pipes', by Pippard and P. Shaw, 31 December 1940. 4 pp. typescript.
- B.30 'Report on the Design of a 4-Cell Hide for Baginton.' Prepared for the Research and Experiments Department, Ministry of Home Security and dated Imperial College, 12 November 1941. 6 pp. typescript with appendix (6 pp.) and diagrams.
- B.31 Aeronautical Research Committee. Structure Sub-Committee.

 'Note on the Use of Experiments on Structures', by Pippard, 11 December 1944. 2 pp. typescript with ms. additions.
- B.32 Arched Dams. Report on an investigation of the Stresses in Dokan Dam, Iraq. Vol. 2, 1955.

 This record of the investigation carried out at Imperial College is presented here to illustrate this important aspect of Pippard's scientific work. For further published material relating to the structure of dams, see B.42.
- B.33 Hatfield Development Corporation. Report of Local Inquiry into the Causes of Damage to Houses at Hatfield New Town, 1958.

 Pippard took part in an investigation into the damage on behalf of the Development Corporation and subsequently appeared as a witness at the inquiry appointed by the Minister of Housing and Local Government. In this his own copy of the report, Pippard has added much marginal emphasis.

Scientific research, committees and consultancies

- B.34 National Physical Laboratory. Executive Committee Reports.
Pippard served on the Executive Committee for over six years. There are reports on Standards Division of the NPL for 1959, 1961 and 1963. See also D.1.
- B.35 Public Health Engineering at Imperial College.
Report on a visit to the USA, 1949. The Rockefeller Foundation, having allocated funds for the establishment of a Division of Public Health Engineering in the Civil Engineering Department at Imperial College, invited Pippard to visit the USA to inform himself about comparable work there.
27 pp. typescript and 2 pp. draft.
- B.36-B.40 Thames Pollution Committee.
- B.36 'Report of the Departmental Committee on the Effects of Heated and other Effluents and Discharges on the Condition of the Tidal Reaches of the River Thames', 1961.
- B.37 Pippard's own account of the work of the committee, prepared at the time of the publication of the official report.
17 pp. typescript with ms. additions and corrections, with ms. preface and final page of ms. calculations.
- B.38 'Water Conservation England and Wales,'
Command paper presented to Parliament by the Ministers of Housing and Local Government, and Agriculture, Fisheries and Food, April 1962. Cmnd. 1693.
Some underscoring and marginal emphasis by Pippard.
- B.39 'The Cleaner Thames.' Port of London Authority, 1967.
The preface by Lord Simon, Chairman of the PLA, pays tribute to Pippard's contribution to the notable improvement in the condition of the river.
- B.40 Miscellaneous press-cuttings relating to water management, pollution, floods, etc.

Scientific research, committees and consultancies

- B.41 Westminster City Council, Lisson Green Development.
3 pp. typescript record of consultancy, 16 July 1968 to 3 July 1969, with brief diary-like entries.
- B.42 Published papers, 1913-68.
1 box.

SECTION C

LECTURES, ARTICLES, BROADCASTS C.1 - C.37

C.1-C.24

Lectures and articles

C.1-C.3

Three lectures on Aircraft and Aviation.

C.1

'Some Problems of Aeroplane Design.'

Lecture to Derby Society of Engineers, April 1921.

21 pp. typescript.

C.2

'The Aeroplane considered as an engineering Structure.'

Lecture to Students of Royal Aeronautical Society, 12 October 1922.

16 pp. typescript.

C.3

'The Post War Development of Aviation.'

Lecture to South Wales Institute of Engineers, 23 October 1926.

8 pp. typescript with ms. additions and press-cutting.

C.4-C.16

Education and Training of Engineers

C.4

Engineering Studies in British Universities, Universities Quarterly, February 1948.

13 pp. typescript.

C.5

Contribution to Seminar on 'The Role of Public Health Engineering in Europe', Public Works and Roads Congress at Olympia, November 1952.

This was a talk about undergraduate and postgraduate courses in Public Health Engineering at British Universities.

5 pp. typescript with ms. additions and corrections.

C.6

'Engineering as a Career.'

Privately printed verbatim report of a conference, 22 April 1954, at Imperial College, London.

Marginal scorings and underlining.

C.7

'Statement to Education and Training Committee of the Institution of Civil Engineers on my return from Northwestern University.'

3 pp. typescript statement and items reproduced from New York Times and Chicago Tribune.

Lectures, articles, broadcasts

- C.8 Address at opening of Institution of Civil Engineers Commonwealth Training Week (1961).
4 pp. ms. notes.
- C.9 'On Sandwich Courses in Engineering.'
Observations made in response to a request from J. Heywood for a survey of higher technological education sponsored by the Nuffield Trust, 19 September 1962.
5 pp. typescript with a few ms. corrections.
- C.10 'Our Image to the World.'
3 pp. typescript inscribed 'Notes to Council of I.C.E., 22.3.1963'.
3 pp. typescript headed 'Note to President I.C.E., March 1963', with 1p. addendum to the note.
3 pp. typescript with 1p. appendix.
Related correspondence and statistical data.
Comments on Pippard's note by J.H. Jellett.
Also included here are 3 pp. ms. notes headed 'Civil Engineers' Attitude to Science "Smeatonianism"'.
C.11 'The Training of the Professional Engineer.'
5 pp. typescript with a few ms. corrections.
Original form of article published in The Times (13 November 1963) and shortened by the Editor.
For the article as published, see A.2.
- C.12 'Look Ahead', The Engineer, 27 March 1964.
7 pp. typescript draft.
- C.13 'Bounds Unlimited,'
Prepared in January 1966 for delivery at Sandbach School, 21 May 1966.
Two typescript drafts (12 pp.) with ms. additions and corrections.
- C.14 'The Snobbery of Science.'
Address to new science graduates of Birmingham University, July 1966.
6 pp. typescript with ms. corrections and additions.

Lectures, articles, broadcasts

- C.15 'The Activities of the Institution of Civil Engineers.'
Article for Road Tar Association, July 1968.
2 pp. typescript with ms. corrections.
- C.16 'The Relative Merits of Large and Small Departments.'
Contribution to a discussion by Professors of Engineering in
Great Britain at University of London.
'Date unknown but sometime after 2nd war.' (Pippard's own
note.)
6 pp. typescript with underscoring and a few ms. corrections.
- C.17-C.24 Engineering problems
- C.17 'The Civil Engineer and Public Health.'
Lecture to postgraduate students at London School of Hygiene
and Tropical Medicine, 14 October 1952.
22 pp. typescript with ms. additions and corrections.
- C.18 'The Civil Engineer in the Laboratory.'
Typescript and ms. notes for Royal Institution discourse,
8 May 1953.
- C.19-C.21 Three lectures to students at the Royal Institution on the
Behaviour of Engineering Structures.
- C.19 1. 'Behaviour and Design.'
24 pp. typescript with ms. additions and corrections, and list
of slides.
- C.20 2. 'The Evolution of Insight into Behaviour.'
28 pp. typescript with a few ms. additions and corrections, and
marginal scorings.
- C.21 3. 'Study of Behaviour.'
13 pp. typescript with a few ms. additions and corrections.
- C.22 'The Importance of Failures.'
Address to Cambridge Engineering Society, 20 January 1960.
5 pp. typescript notes with ms. additions and corrections, and
typescript extracts from Phil. Mag. 1831 and Manchester
Chronicle (1 p.).

Lectures, articles, broadcasts

- C.23 'Conditions Governing the Discharge of Waste into Estuaries.'
Introductory notes to an informal discussion at the Institution of Civil Engineers, 15 November 1962.
16 pp. typescript and 3 pp. summary.
- C.24 'The Role of Experiments in Applied Science.'
5 pp. typescript draft.
- C.25-C.27 Shorter talks and writings
- C.25 Institution of Civil Engineers Annual Dinner, ? 1957.
Speech in proposing the toast of 'Our Guests'.
Rough draft and clean typescript.
- C.26 The Institution of Civil Engineers Sesquicentenary, 1968.
Vote of thanks to Professor S. Balke, 16 July 1968.
Short notes prepared for inclusion in souvenir programme of Guildhall reception, 16 July 1968. Not used.
- C.27 Undated talks.
Introductory remarks at inaugural lecture of J.R.D. Francis, Imperial College, London.

'Academic Otherwiseness and Wit.'
Incomplete typescript draft (3 pp.).
- C.28-C.33 Obituaries and Biographical Writings
- C.28 J.F. Baker
Note for The Times with a little related correspondence, 1961.
- C.29 I.K. Brunel
Address on the centenary of the death of Brunel when a memorial tablet was unveiled at the Clifton Suspension Bridge, 1959.
- C.30 L. Chitty
Biographical notes written 22 July 1969 for Institution of Civil Engineers on occasion of award of Telford Gold Medal to Miss Chitty.

Letter of thanks from D.H. de T. Reade of the Institution of Civil Engineers.

Lectures, articles, broadcasts

- C.31 A. Gibb
Draft entry for Supplement to Dictionary of National Biography.
Memoir written with G.P. Harrison (Biographical Memoirs of Fellows of the Royal Society, 5, 1960).
- C.32 R.E. Stradling
Draft entry for Supplement to Dictionary of National Biography 1951-1960.
Memoir written by Pippard (Biographical Memoirs of Fellows of the Royal Society, 8, 1952).
- C.33 G.I. Taylor
Draft of citation on the award of the Kelvin Medal, 16 February 1960.
Report of the Proceedings at the Presentation on the 16th February 1960.
Letter of thanks from Grace Stephanie Taylor for the address on the award of the Kelvin Medal to her husband.
- C.34-C.37 Broadcasts
- C.34 'The Conquest of the Air.'
Seven talks broadcast to schools from Cardiff, 1926 or 1927. The talks were:
 'The Age of Dreams'
 'Gliders'
 'The First Aeroplane'
 'Some Historical Flights'
 'Airships'
 'How an Aeroplane Flies'
 'Development During the War and After'

Lectures, articles, broadcasts

- C.35 'Engineering Feats in the West.'
Six talks broadcast to schools from Cardiff, 1927. The talks were:
 'The Severn Tunnel'
 'The Old Stone Bridge at Pontypridd'
 'Clifton Suspension Bridge'
 'Newport Transporter Bridge'
 'Cardiff Waterworks'
- C.36 'Engineering for Health.'
Talk for Home Service broadcast, 27 October 1949.
Digest of the talk from The Municipal Journal.
- C.37 'Public Health and the Engineer.'
Talk for BBC Overseas Service, December 1949.
Reproduction of the talk in The Guilds Engineer, 1950.

SECTION D

CORRESPONDENCE D.1 - D.3

D.1	Beynon, E.G.	1964
	Chandos, J.	1967
	Relates to assistance with television programme on the R. 101 and the future possibilities of dirigibles.	
	Cousins, F.	1965
	Relates to dissolution of Executive Committee of the National Physical Laboratory on which Pippard had served. See also B. 34.	
D.2	McDonald, A.	1964
	Pritchard, J.L.	1958
	Skempton, A.W.	1961
	Refers to the great change for the better which Pippard had made in the civil engineering academic world.	
D.3	Wex, B.	1956
	Wynne-Edwards, R.M.	1964
	Letter of thanks for past services on occasion of Pippard's retirement from Council of the Institution of Civil Engineers.	

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