

Catalogue of the papers and correspondence of

SIR ALFRED GRENVILE PUGSLEY FRS FEng

(b.1903)

Compiled by Peter Harper and Timothy E Powell

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LIST OF CONTENTS		<u>Items</u>	<u>Page</u>
DESCRIPTION OF THE COLLECTION			3
OUTLINE OF THE CAREER OF A G PUGSLEY			4
SECTION A	BIOGRAPHICAL	A.1-A.36	5
SECTION B	BRISTOL	B.1-B.23	9
SECTION C	LECTURES, PUBLICATIONS, ADDRESSES	C.1-C.40	11
INDEX OF CORRESPONDENTS			19

DESCRIPTION OF THE COLLECTION

The material is presented in the order shown in the list of contents. Section A (Biographical) includes a little family material, documentation of Pugsley's career, honours and awards, and correspondence. There are, for example, papers relating to his move from the Royal Aircraft Establishment, Farnborough, to Bristol as Professor of Civil Engineering (A.7-A.10) and papers relating to posts he was subsequently asked to consider at Manchester, Birmingham and the National Physical Laboratory (A.11-A.13). The correspondence is mostly personal but includes an exchange relating to the safety of the Queen's Flight (A.31). Section B (Bristol) consists of papers relating to the design, construction and opening of the Queen's Building to house the University's Faculty of Engineering. The material includes plans, correspondence and photographs. Section C (Lectures, publications, addresses) is a chronological sequence of principally unpublished lectures material covering the period 1949-84.

We are very grateful to Sir Alfred Pugsley for making the collection available for cataloguing.

OUTLINE OF THE CAREER OF A G PUGSLEY

b.1903	Wimbledon
educ.	Rutlish School, Merton London University
1923-26	Civil Engineering Student Apprentice, Royal Arsenal, Woolwich
1926-31	Technical Officer, Royal Airship Works, Cardington
1928	Marriage to Kathleen M Warner (d.1974)
1931-45	Member scientific and technical staff, Royal Aircraft Establishment, Farnborough Head of Structural and Mechanical Engineering Department 1941-45
1938	D.Sc. (Eng.Lond.)
1938-40	Visiting Lecturer on aircraft structures, Imperial College London
1944	Conferral of OBE
1945-68	Professor of Civil Engineering, Bristol University
1952	Election to Fellowship of Royal Society
1952-57	Chairman, Aeronautical Research Council
1956	Conferral of Knighthood
1976	Election to Fellowship of Engineering

SECTION A

BIOGRAPHICAL

A.1 - A.36

A. 1 - A. 3	Family
A. 4	Bibliographical
A. 5 - A.26	Career, Honours and Awards
A.27 - A.32	Correspondence
A.33 - A.36	Miscellaneous biographical items

Family

- A.1 'The Pugsley family' by Sir Alfred Pugsley in Devon & Cornwall Notes & Queries XXXII (1973), 203-210.
- A.2 Obituary of H W Pugsley (father) in Nature 161 (1948), 121.
- A.3 'Cliffords of Kent and London'. Table of the recent forbears of Pugsley's mother.

Bibliography

- A.4 List of publications, 1981-88. This list supplements the bibliography deposited with the Royal Society.

Career, Honours and Awards

- A.5 D.Sc. (Engineering), University of London, 1938.
- A.6 Invitation to consider the 'Sydney Chair' (declined), March 1939.

Biographical

- A.7 - A.10 Royal Aircraft Establishment (RAE), Farnborough,
1944-45.
- Pugsley had been Head of the Structural and Mechanical Engineering Department from 1941. In 1945 he moved to Bristol as Professor of Civil Engineering. Much of the material relates to the move to Bristol.
- A.7 1944 April - October. Letter applying for Oxford Professorship of Engineering Science (April), letters of congratulation on Bristol appointment (July, August), consultancy agreement with the Bristol Aeroplane Company (R W Verdon-Smith).
- A.8 1944 October - December. Correspondence with Air Registration Board, W Lockwood Marsh (Editor, Aircraft Engineering), B N Wallis and A Robertson (Dean of Faculty of Engineering, Bristol); also 'second draft' of 'Proposals for the institution of a Department of Aeronautics in the Faculty of Engineering [Bristol]' by Robertson.
- A.9 1945 January - May. Correspondence with Robertson, N F Mott, Ministry of Aircraft Production (H M Garner, B Lockspeiser) and Bristol Aeroplane Company.
- A.10 Staff chart of Structural and Mechanical Engineering Department RAE under Pugsley's headship.
- Pugsley has indicated the seven members of the Department (including himself) who became FRSSs.
- A.11 Brief correspondence re Beyer Chair of Engineering, Manchester, December 1949.

Biographical

A.12 Invitation to consider nomination for Chair of Civil Engineering, Birmingham (declined), March, April 1950.

A.13 Brief correspondence re Directorship of the National Physical Laboratory, May 1955.

A.14 - A.20 Knighthood 1956.

A.14 Brief correspondence with Home Office, College of Arms.

A.15 - A.20 Letters of congratulation.

A.15 A,B (including Bristol)

A.18 M-P

A.16 C-F

A.19 Q-W

A.17 G-L

A.20 Unidentified

A.21 Honorary D.Sc., Queen's University of Belfast,
8 July 1965.

A.22 Retirement 1968.

Copy of A R Collar's speech to the Senate, Bristol University, 17 June.

A.23 Honorary degree, University of Surrey, 2 December 1968.

A.24 James Alfred Ewing Medal of the Institution of Civil Engineers 1979.

Honorary Fellowship of the Institution of Civil Engineers 1981.

Biographical

- A.25 80th birthday 1983.

Dinner menu; list of those who attended; toast (in
verse) by A R Collar; Pugsley's response; brief
correspondence; press cuttings.
- A.26 Honorary Fellowship, Bristol University, 1986.

Correspondence

- A.27 Letters thanking Pugsley for his services.
- A.28 Letters re benefactions by Pugsley.
- A.29 - A.32 Miscellaneous personal and professional correspondence.
- | | | | |
|------|---------|------|--------------------|
| A.29 | 1955-57 | A.31 | 1970-79 |
| A.30 | 1960-66 | A.32 | 1980-83, 1989, nd. |

Miscellaneous biographical items

- A.33 Dinner menus; programme for prize-giving.
- A.34 The Globe Magazine, 21 February 1959. Includes interview
with author Nevil Shute referring to Pugsley's work on
metal fatigue as the inspiration for the novel No Highway.
- A.35 'A G Pugsley, further biographical notes'. 4pp ms July 1989.
- A.36 1937 paper for Journal Royal Aeronautical Society illustrating
work Pugsley was doing at Farnborough then.

SECTION B

BRISTOL

B.1 - B.23

- B.1 - B.8 'Papers relating to the building and opening of Queen's Building'. Contents of a folder so inscribed divided into eight for ease of reference.

The Queen's Building was erected on the southern slopes of St Michael's Hill above the city of Bristol to bring together all departments of the Faculty of Engineering and expand their activities. In addition to Civil, Mechanical, Electrical and Aeronautical Engineering the building was also planned to house the departments of Geology, Mathematics and Theoretical Mechanics. Work on the building began in 1949 when the first sod was cut by Emeritus Professor A Robertson and the foundation stone was laid in 1951 by W S Churchill, Chancellor of the University. The building was officially opened in 1958.

The material is principally Pugsley's ms notes and plans, and correspondence with colleagues and others re space allocation, official opening etc. There is also a copy of a university publication to mark the opening of the Physics Laboratory in 1927, found with the Queen's Building material.

- B.1 1945-46.
- B.2 Undated notes and plans found with 1945-46 material.
- B.3 1950-51. Includes 'History of Engineering in University College Bristol' by A M Tyndall, October 1950 (lOpp typescript) and programme for conferment of honorary degrees and laying of foundation stone of new engineering school, 14 December 1951.
- B.4 1952-53.
- B.5 1954-55.

Bristol

- B.6 1957. Includes minutes of informal meeting to discuss allocation of space in the new building, 11 July.
- B.7 1958. Includes minutes of a meeting on a publication for the opening of the Queen's Building 17 September, timetable for Duke of Edinburgh's visit on 13 November, and Pugsley's contribution to a special supplement of the Bristol Evening Post to mark the opening of the new building (3pp typescript). The official opening took place on 5 December.
- B.8 'Henry Herbert Wills Physics Laboratory'. Commemorative publication by the University of Bristol to mark the official opening of the laboratory by Sir Ernest (later Lord) Rutherford, 21 October 1927. Enclosed at front of book are letter and ms notes by A M Tyndall dated 1936 and 1937.
- B.9 - B.21 Photographs.
- B.9 - B.13 Chancellor's visit, 14 December 1951.
5 folders.
- B.14 - B.17 Chancellor's visit to the new building, 1954.
4 folders.
- B.18 - B.23 Miscellaneous.
6 folders.

SECTION C

LECTURES, PUBLICATIONS, ADDRESSES

C.1 - C.40

- C.1 'Discussion... on paper by D B Steinman on "Aerodynamic theory of bridge oscillations" (Oct. 1949)'.
2pp typescript.
- C.2 Address to Stress Analysis Group of Institute of Physics, Bristol, January 1954.
8pp typescript + 1p summary.
- C.3 Review of: E G Broadbent, The Elementary Theory of Aero-Elasticity (for Aircraft Engineering).
2pp typescript dated 8 November 1954.
- C.4 'Revised version of spoken reply' to unidentified discussion meeting, 5 May 1955.
5pp typescript.
- C.5 'Current Trends in the Specification of Structural Safety'.
7pp typescript + summary and references (latest bibliographical reference, June 1955).
- C.6 Lecture on 'Engineering Structures', Bristol Grammar School, May 1956.
1p typescript.

Review of: W Merchant and A Bolton, An Introduction to the Theory of Structures (1950).
1p typescript dated 9 July 1956.

Lectures, publications, addresses

- C.6 cont'd.. Lecture on 'Safety', Cranfield, 24 July 1956.
3pp typescript.
- C.7 'White Elephants'. Presidential address to Engineering Society, Bristol, November 1956.
6pp typescript + outline.

Review of: G Temple and W G Bickley, Rayleigh's Principle and its Applications to Engineering.
1p typescript dated 17 December 1956.
- C.8 Lecture on 'Problems of Progressive Failure', Cheltenham, 12 December 1957.
2pp typescript + 8pp ms diagrams.
- C.9 'Engineering and Architecture'.
5pp typescript + 1p references (latest bibliographical reference 7 December 1958); proof copy.
- C.10 Lecture on 'Economy of Structures', Shrivenham, 10 December 1959.
1p typescript + 2pp ms graphs.
- C.11 Residential course on Metal Fatigue, Bristol, 28 March - 1 April 1960.
Programme and list of members; 'Fatigue Lecture' (1p typescript).
- C.12 'Metal and the World of Engineering Structures', 31st Autumn Lecture of the Institute of Metals, Bath, 9 September 1960.
14pp typescript.

Lectures, publications, addresses

- C.13 Talk on the 'Royal Society and its work', Bristol
Rotary Club, 7 November 1960.
- 3pp typescript.
- Review of: G L Payne, Britain's Scientific and Techno-
logical Manpower (1960).
- 5pp typescript dated December 1960.
- C.14 Institution of Structural Engineers Lecture on 'The
behaviour of tubular structures in compression, static
and dynamic', Liverpool, 20 March 1961.
- 2pp typescript.
- Review of: J Comrie ed., Civil Engineer's Reference Book
(2nd edition, 1961).
- 2pp typescript.
- C.15 'Discussion on Manpower Report (Cmd. paper 1490)',
Appointments Board Conference, May 1962.
- 4pp typescript.
- C.16 Vote of thanks on the occasion of the Maitland Lecture,
[Institution of Structural Engineers], November 1962.
The lecturer was R P Linstead.
- 3pp typescript.
- Review of: A C Eringen, Non-linear theory of continuous
media (1962) (for Engineering).
- 2pp typescript; published version.

Lectures, publications, addresses

- C.17 Vote of thanks on the occasion of the Colston Symposium,
Bristol, 3 April 1963.
- 2pp typescript.
- Summary of papers presented, ISE [Institution of Structural
Engineers] and ADA Symposium, June 1963. Pugsley acted
as rapporteur and opened the meeting for discussion.
- 6pp typescript.
- C.18 Vote of thanks on the occasion of the Anniversary Address,
Royal Society, 30 November 1963.
- 2pp typescript.
- Address at the Royal Corps of Naval Constructors Dinner,
Greenwich, 1963.
- 4pp typescript.
- Review of: N M Newmark ed., Selected Papers of Hardy Cross
(1963).
- Proof copy.
- C.19 'To the Memory of I K Brunel', Bristol, 10 December 1964.
- 4pp typescript.
- C.20 Lecture on the contributions made by aeronautics to structural
engineering, Institution of Structural Engineers, January 1965.
- 7pp typescript.

Lectures, publications, addresses

- C.21 'Accidents and Catastrophes'. Presidential Address to
the Engineering Society, Bristol, 1965.
- 7pp typescript + ms diagrams; published summary in Society's
journal Matrix.
- C.22 'The Well-balanced Structure'. This was the title of the
Royal Aeronautical Society Wilbur and Orville Wright
Memorial Lecture delivered by Pugsley, 9 December 1965.
- Booklet with photograph and brief biographical account of
Pugsley; list of guests attending the dinner after the
lecture. There is no lecture text.
- C.23 Lecture on 'Impact' to the Bristol Association of Engineers,
October 1966.
- 3pp typescript.
- C.24 Lecture on 'Impact on Structures', Swansea, 10 March 1967.
- 2pp typescript.
- 'Cream'. Presidential address to the Engineering Society,
[?Bristol], November 1967. Pugsley categorised as 'cream'
projects of high endeavour and the men to lead them.
- 6pp typescript.
- C.25 Institution of Civil Engineers - Institution of Structural
Engineers lecture on 'Civil Engineering in the 20th Century',
Bristol, 8 March 1968.
- 3pp typescript + list of engineers and representatives of
Bristol University.
- Lecture on 'Mechanics of Bridges', Physical Society, March 1968.
- 3pp typescript.

Lectures, publications, addresses

- C.26 CIRIA [Construction Industry Research and Information Association] technical note 2 on 'Guidance for the drafting of codes of practice for structural safety', August 1968. The technical note was prepared by the CIRIA Study Committee on Structural Safety which was chaired by Pugsley.
- Published version only.
- C.27 Introduction to discussion on 'The relevance of history', The Structural Engineer 52, 441 (December 1974). The discussion was held at the Institution of Structural Engineers, 9 January 1975.
- Published version only.
- C.28 Report on discussion on 'The relevance of history', The Structural Engineer, 53, 387-398 (September 1975). Includes Pugsley's introduction and contributions to discussion.
- Published version only.
- C.29 Letter, 14 July 1983, thanking Pugsley for talk to Institution of Structural Engineers History Group at Bristol.
- C.30 Institution of Civil Engineers - Institution of Structural Engineers lecture on 'Some Changes in Structural Engineering, 1900-1980', 1 March 1984.
- 11pp typescript; ms notes.
- C.31 Institution of Structural Engineers 75th Annual Conference on 'The art and practice of structural design', Imperial College London, 11 July 1984. Pugsley gave his personal view of structural engineering.
- Report on conference as published in The Structural Engineer 62A, 253-256 (August 1984).

Lectures, publications, addresses

Undated

- C.32 'The Structure Testing Apparatus in the Civil Engineering Laboratory, University of Bristol'.

3pp typescript with ms additions and corrections.

Folder also includes draft specification of beam testing apparatus, May 1952, found attached to preceding.

2pp typescript + diagram.
- C.33 Contribution to unidentified symposium on 'Structural analysis and the economy of structures'.

15pp typescript with ms additions and corrections.
- C.34 'Forth Road Bridge Paper (14 December) contribution to discussion'.

3pp typescript.
- C.35 'The Severn Suspension Bridge: An Appreciation'.

7pp typescript.
- C.36 CEI [Council of Engineering Institutions] lecture on 'Risks in Engineering'.

19pp typescript.
- C.37 'Electronics and the Bridge Builders'.

3pp typescript.

Introductory remarks for 'Symposium on Aluminium Structures'.

2pp typescript.

Lectures, publications, addresses

- C.38 'The Development of Fail-safe Structures'.
7pp typescript.
- C.39 Review of: B B Low, Strength of Materials.
2pp typescript.
- C.40 'Big Structures - land, sea and air'.
4pp ms.

INDEX OF CORRESPONDENTS

ADRIAN, Edgar Douglas, 1st Baron	A.29
AGNEW, Sir (William) Godfrey	A.27
<u>Aircraft Engineering</u>	A.8
AIR REGISTRATION BOARD	A.8
ATKINS, Sir William Sydney Albert	A.15
BAILEY, Sir Donald Coleman	A.15
BAKER, John Fleetwood, Baron	A.15
BALL, Norman	A.15
BALLANTYNE, A M	A.19
BARLOW, Harold Everard Monteagle	A.15
BARNES, E M	A.15
BENNETT, J B	A.15
BICKLEY, William Gee	A.15
BLACKFORD, Glyn Keith Murray Mason, 2nd Baron	A.15
BLENKINSOP, J R	A.19
BRABAZON OF TARA, John Theodore Cuthbert Moore-Brabazon, 1st Baron	A.15
BRETNALL, Ralph H	B.6 See also B.4
BRISTOL AIRCRAFT COMPANY	A.7, A.9
BRUNT, Sir David	A.13, A.15
BUTTERFIELD, H C	A.15, B.4, B.6, B.7

Index of correspondents

CHILVER, Amos Henry, Baron	A.16, A.31 See also A.32
CLOSS, August	A.15, A.30
COLLAR, Arthur Roderick	B.5, B.6 See also A.22, A.25
COLLINS, H John	A.16
COOK, Sir William Richard Joseph	A.16
COX, Sir Harold Roxbee	A.16
CRABTREE, Lewis	A.25
DARWIN, Sir Charles (Galton)	A.16
DUNCAN-SANDYS, Duncan Edwin, Baron	A.19
FARREN, Sir William Scott	A.16
FEDDEN, Sir (Alfred Hubert) Roy	A.16
FOLLETT, Samuel Frank	A.16
FREEMAN, Sir Ralph	A.16
GARNER, Sir Harry Mason	A.17 See also A.9
GRAY, Phyllis	A.31
HALL, Sir Arnold (Alexander)	A.17
HAWTHORNE, Sir William (Rede)	A.17
HEILBRONN, Hans Arnold	B.4

Index of correspondents

HIGHAM, Norman	A.25
HINSHELWOOD, Sir Cyril (Norman)	A.30
HOFF, Nicholas John	A.31
HOOKE, Sir Stanley (George)	A.17
KASTNER, Leslie James	A.17
KERENSKY, Oleg Alexander	A.17
KING, John Lawrence	A.27
KINGMAN, Sir John (Frank Charles)	A.26
LEACH, Admiral of the Fleet Sir Henry (Conyers)	A.27, A.31, A.32
LEATHER, Sir Edwin (Hartley Cameron)	A.17
LEGGETT, Douglas Malcolm Aufrère	A.17
LICKLEY, Robert L	A.17
LIGHTHILL, Sir (Michael) James	A.17
LOCKSPEISER, Sir Ben	See A.9
MARSH, W Lockwood	A.8, A.18
MARSHALL, William Thomas	A.18
MEDAWAR, Sir Peter (Brian)	A.12
MERRISON, Maureen, Lady	A.32
MORGAN, Sir Morien Bedford	A.18

Index of correspondents

MORICE, Peter Beaumont	A.18
MORRIS, Florence, Lady	A.31
MORRIS, Sir Philip (Robert)	A.13,A.15,A.27,B.5 See also B.1,B.3,B.6
MOTT, Sir Nevill (Francis)	A.9,A.18
MURPHEY, Alfred John	A.18
MUSGRAVE, Sir (Frank) Cyril	A.18
NEWING, Sidney	A.18
NOBLE, Celia	A.30
NORTH, John D	A.18
NORWAY, Nevil Shute	See A.31, A.34
OLD RUTLISHIANS ASSOCIATION	A.18
PAGE, Sir Frederick Handley	A.18
PENROSE, Harald J	A.31
PIPPARD, Alfred John Sutton	A.18
PITMAN, C E	A.18
PRITCHARD, J Laurence	A.7
PUGSLEY, H W	See A.2,A.28,A.30
QUARTERMAINE, Sir Allan (Stephen)	A.19

Index of correspondents

RAWCLIFFE, Gordon Hindle	B.6
REDSHAW, Seymour Cunningham	A.19
RIDEAL, Sir Eric (Keightley)	A.19
ROBERTSON, Andrew	A.8, A.9 See also B.1
ROSS, Allan Dawson	A.31
ROYAL AERONAUTICAL SOCIETY	A.7, A.19
RUTLISH SCHOOL	A.19
SELL, P D	A.30
SERBY, John Edward	A.19
SEVERN, R T	A.25
SHEPHEARD, Sir Victor (George)	A.19
SHIPP, J C K	A.19
SINCLAIR, R	A.19
SINGER, C M	B.4-B.6
SMITH, Julian	A.31
SNOW, Sir Frederick (Sidney)	A.19
SPENCER, Sir Kelvin (Tallent)	A.19
STOPFORD, John Sebastian Bach, Baron	A.11
SUTHERLAND, R James M	C.29

Index of correspondents

TAYLOR, Sir Geoffrey (Ingram)	A.19
TEMPLE, George Frederick James	A.19
THOM, Alexander	A.19
THOMSON, James Leonard	A.19
TODD, Alexander Robertus, Baron	A.27
TYNDALL, Arthur Mannering	B.8 See also B.3
VERDON-SMITH, Sir (William) Reginald	A.7, A.9
WALKER, P B	A.19
WALLACE, William Kelly	A.17
WALLIS, Sir Barnes (Neville)	A.8, A.19, A.31
WHITTARD, W F	B.5 See also B.6
WILLIAMS, Frederic Calland	A.19
WILLIS, Hector Ford	A.19
WITTRICK, William Henry	A.32