CONTEMPORARY SCIENTIFIC ARCHIVES CENTRE

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REPORT ON THE PAPERS OF

Dr. Edward Hindle, F.R.S.

(1886-1973)

Compiled by: Jeannine Alton

Harriot Weiskittel

Deposited in the Archives of the University of Glasgow 1978

DESCRIPTION OF THE COLLECTION

The material was received from Miss Phyllis Barclay-Smith, C.B.E. Many of the items are in poor and fragile condition.

The collection covers most aspects of Hindle's scientific career, and includes some information not elsewhere recorded, such as the proposed expedition to Uganda and Nyasaland in September 1914 (see B.5-B.9) and Hindle's reported death in Africa (see A.2); the box of publications (C.55), though not complete, contains several items not recorded either in the Bibliography of the Royal Society <u>Memoir</u> (A.1) or the 'List of Publications' (A.2), and, in conjunction with Section C, gives a fuller picture of Hindle's scientific and general writings than would otherwise obtain. Hindle's friendly relations with G.H.F. Nuttall, J. Loeb, J.E. Marchoux and other colleagues are also clear (see under Index of correspondents), and his attempt to improve international understanding by means of the proposed publication 'One World' can be seen in B.102-B.106.

Section B (scientific research and activities) is the largest in the collection, and includes scientific material (laboratory notebooks, professional correspondence) and some biographical and administrative correspondence relating to appointments, tenure and the like. The major fields of Hindle's work are fully covered, notably his work on kala-azar, yellow fever and other viruses, and the incident of laboratory infection which affected him, his assistants, and hospital staff attending them. In addition, there is evidence of what has been described by the author of the Royal Society <u>Memoir</u>, Professor P.C.C. Garnham, F.R.S., as his 'electicism and opportunism in science, in that the nature of his research was governed by the conditions in which he happened to be living at the time'; an example of this might be his observations at Dax on the fauna of hot springs (see B.81, B.90) and his interest in hamsters (see B.37, B.93-B.100). Much of Hindle's surviving scientific correspondence is included in Section B; Section D (Correspondence) is in consequence relatively brief.

Very few records survive relating to Hindle's many honorary posts in Associations and Societies, and the interest he took in such activities, both professional and non-professional. A list of some of these is given in the Royal Society <u>Memoir</u>, and the 'Honours and Awards' listed in A.24-A.30 also provide some indication of the wide range of Hindle's interests.

SUMMARY OF THE CAREER OF EDWARD HINDLE

b. 1886	Sheffield.
educ.	mainly at home, by his mother, who was a certificated teacher.
1903-07	Royal College of Science, and King's College, London.
1907-08	Research Assistant, School of Tropical Medicine, Liverpool.
1908-10	work at Marine Biological Station, La Jolla, California.
	Ph.D., and Instructor in Zoology, University of California, Berkeley.
1910-14	Kingsley Bye Fellow, Magdalene College, Cambridge, and Beit Memorial Research Fellow, Quick Laboratory, Cambridge.
1911 (summer)	Institut Pasteur, Paris.
1914-19	War Service with Royal Engineers Signals Service; served as a Divisional Signal Officer, in France and Palestine, except for six months when sent back to England to organise and command the Signal Service Cadet Unit.
1919	(February-October) work at Quick Laboratory, Cambridge.
1919	married Irene Margaret Twist (d. 1933).
1919-24	Professor of Biology and Parasitology, School of Medicine, Cairo.
1924-25	Milner Research Fellow, London School of Hygiene and Tropical Medicine.
1925-28	with Royal Society's Kala-azar Commission in China.
1928-33	Beit Research Fellow in Tropical Medicine, Wellcome Bureau of Scientific Research, London.
1934	work at National Institute of Medical Research, London.
1935-44	Regius Professor of Zoology, University of Glasgow.
1936	married Ellen Mary Theodora Boyen (nee Schroeder) (marriage dissolved 1951).
1936	Founder President, Zoological Society of Glasgow.
1942	Elected Fellow of the Royal Society.
1944-51	Scientific Director, Zoological Society of London.
1945	Freeman of the City of London.
1946-51	General Secretary, British Association.
1947	President, Section D, British Association.
1951-52	Founder and First President, Institute of Biology.
1951-61	Hon. Secretary, Royal Geographical Association (Hon. Vice- President, 1962).
1953	President, Zoology Section, International Union of Biological Sciences.

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	including:			
	Work on Pediculus Humanus	B.10-B.16		
	Work at Cairo	B.18-B.27		
	Royal Society Kala–azar Commission	B.31-B.54		
	Work on Yellow Fever B. 19,		71	
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Section C	Lectures, talks, broadcasts,	publications	C.1-C.55	26
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SECTION A BIOGRAPHICAL AND PERSONAL

Obituaries and tributes.

Includes Addresses at Cremation and Memorial Service;

Memoir by P.C.C. Garnham, F.R.S. (Biog. Mem. Fellows of the Roy. Soc., 20, 1974);

and others.

A.2.

A.1.

Bibliographies, c.v.'s and biographical notes prepared at various times by Hindle, or by others for the award of honours or degrees; includes Hindle's birth certificate, and a press-cutting of a note by G.H.F. Nuttall correcting 'the erroneous statement that Dr. E. Hindle met his death in Africa', 1915.

A.3. Signed photographs of G.H.F. Nuttall and colleagues, one inscribed 'Taken at Alperton, Essex, June 1909', the other n.d. but taken at Cambridge (Hindle is standing L.).

A.4.

A.5.

Miscellaneous material relating to Hindle's military activities. Includes Commissions in R.E. 1914 and in Territorial Army 1936, miscellaneous photographs of O.T.C., University of Glasgow of which Hindle was Commanding Officer in Second World War.

Also includes copy of Hindle's letter to <u>The Times</u> 11/1/43 on National Service in Universities, and a private reply received describing Cambridge in wartime.

Miscellaneous testimonials to Hindle 1912.

from William E. Ritter (La Jolla, California)

Jacques Loeb (Rockefeller Inst. Med. Res.)

J.E. Marchoux (Institut Pasteur)

J. Mesnil (Institut Pasteur)

A.6A.8.	Correspondence <u>re</u> Chair of Biology, School of Medicine, Cairo, 1919–24 and 1951
	Hindle resigned this post, with indemnity and repatriation, because political and administrative changes were impeding his current work and his personal and scientific prospects.
	See B.18-B.27 for notebooks relating to research during his period at Cairo and C.2-C.4 for lectures given there.
A.6	Folder of correspondence with British and Egyptian authorities re Hindle's wish to relinquish his chair, conditions of compensation, etc. October 1923–June 1924.
A.7	Passport, photographs, miscellaneous scientific and social souvenirs of period in Cairo.
A.8	Brief correspondence, letters of congratulation on appointment, and testimonial to work done in Cairo,
	from Jacques Loeb Owen Richards
	Included here is a letter regretting Hindle's decision not to apply for the Chair of Zoology at Cairo in 1950, on his retirement from the Zoological Society of London.
A.9.	Miscellaneous correspondence on appointments 1932-34, re various applications for appointments made by Hindle as his tenure of the Beit Fellowship 1928-33 drew to a close (see B.55).
	Includes: testimonials to Hindle for Chair of Zoology, Newcastle, from P. Chalmers Mitchell ESir Peter Chalmers Mitchell, see C.33] and G.H.F. Nuttall (very fragile and in poor condition) 1932;
	Hindle's application for Chair in Parasitology, Peiping 1933;
	Hindle's memorandum to H.T. Tizard on Dept. Zoology, Imperial College, London 1934.
A.10.	Correspondence <u>re</u> appointment as Regius Professor of Zoology, University of Glasgow 1935.
	Hindle's letter of application, testimonials from G.H.F. Nuttall (copy) and H.H. Dale (original).
	For other documents relating to Hindle's appointment and activities at Glasgow see A.21, A.28, A.29; for research conducted at Glasgow see B.87-B.89, and for lectures and talks at Glasgow see C.10-C.23.

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A.11.	Letters of congratulation on election to Royal Society (not itemised or indexed).	1942
A.12A.16.	Correspondence re appointment as Scientific Director, Zoological Society of London	
A.12.	Correspondence <u>re</u> appointment, with Sheffield A. Near (Secretary of the Society), including Hindle's c.v. and list of publications, and <u>re</u> his resignation of the Regius Professorship at Glasgow, August 1943–January 1944.	
A.13.	Brief correspondence with Julian Huxley (Secretary of Society 1935-42) re appointment, and enclosing off- prints, 1943.	
A.14.	Correspondence re membership and other matters, 1943. with P.A. Buxton, L. Hogben.	
A.15.	Letters of congratulation on appointment, with some personal or scientific interest in the letter or in Hindle's reply, 1943.	a.
A.16.	Letters of congratulation on appointment, many testifying to the range of Hindle's activities in Glasgow and expressing regret at his departure (not indexed), 1943.	
A.17.	Visit to Pakistan, April 1950	
	Hindle represented the British Association at the Second Pakistan Science Conference, Karachi, and visited other laboratories and scientific establishments during visit.	
	Brief correspondence re journey, letters of intro- duction from Sir Harold Hartley (then President of the British Association), ms. of talk broadcast on Radio Pakistan by Hindle, press-cuttings.	
A.18.	Visit to Switzerland 11-24 June 1961	
	This was the first official delegation of the Royal Society to visit Switzerland, arranged by invitation of Pro Helvetic Foundation.	,
	Annotated schedule of visit, brief correspondence <u>re</u> travel, etc., copy of Hindle's Report to President of the Royal Society on visit, ms. draft of another report.	

A.19.	-A.23.	Miscellaneous items of personal and biographical interest.				
	A.19.	Envelope of press-cuttings relating to Hindle's work, career, interests, etc.				
	A.20.	Envelope of press-cuttings from 'Moscow News' relating specially to work of Lysenko, Michurin and other reported achievements in Russian biological sciences.				
	A.21.	Miscellaneous social souvenirs (not itemised).				
		Includes signed menus, Madgalene College, Cambridge dinners, University of Glasgow Final Year Dinners in the Faculty of Medicine 1938, 1939, 1940, 1941, 1942, 1943, The Athenaeum, The Wrong Box Dinner (menu and papers read) 1963.				
	A.22.	Birthday and other greetings exchanged with Sir Ralph Richardson at various dates, and miscellaneous quotations and notes collected by Hindle, probably for anniversary gatherings.				
	A.23.	Miscellaneous shorter personal correspondence, letters of congratulation on research, farewell letters on retirement, etc. (not indexed).				
A.24.	-A.30.	Certificates, Honours and Awards, in chronological order. (academic, personal and honorific) 6 folders as follows:				
	A 24					
	A.24.	1905 Matriculation Certificate, University of London				
		1905-06 Associate Certificate, Royal College of Science, London				
		1908 Intermediate Certificate, University of London				
		1909 Membership Sigma ${\mathcal H}$ i, California				
		1910 Doctorate Philosophy, University of California				
,	A.25.	Roll of miscellaneous Masonic certificates 1912-14.				

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A.26.	1912	Dissertation distinction certificate, University of Cambridge
	1913	Automobile Association, vehicle and driving certificate, Racing-Club de France, Touring Club Italiano membership cards
	1917	M.A., University of Cambridge (certificate dated 1919)
	1919	Alma Mater Lodge (resignation on taking up post at Cairo)
	1919	Membership certificate, Société entomologique d'Egypte
A.27.	1920	Membre correspondant, Société de pathologie exotique
	1929	D.Sc., University of Cambridge
	1931	Croix Civique, Première Classe, Belgium
		Société belge de Médicine Tropicale, Membre correspondant
	1931	Fellow, Royal Microscopical Society
	1934	Member, Company of Veteran Motorists
	1935	Member, The Athenaeum
	1935	The Carnarvon Lodge (resignation on moving to Glasgow)
A.28.	1935	Commission as Regius Professor of Zoology, University of Glasgow
	1935	Member, Royal Philosophical Society, Glasgow (includes correspondence, programmes, etc.)
	1935	Fellow, Royal Entomological Society, London (includes correspondence)
	1936	Member, British Film Institute
	1936	Member, Société zoologique de France
	1936	Fellow, The Eugenics Society

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A.29.	1936	Hon. President, City of Glasgow Ornithological Association (includes correspondence)	
	1936	Member, Scottish Wild Birds Sanctuaries Trust	
	1936	Member, Adam Smith Club	
	1936	(Dec.). Letter from Viscount Mountmorres <u>re</u> founding of Glasgow Zoological Society, of which Hindle was Founder P r esident	3
	1937	Council, Zoological Society of Scotland	
	1939	Matriculation as Member, the Merchants House of Glo	sgow
A.30.	1942	Fellow, Royal Society, London	
	1944	Freedom and Livery, Worshipful Company of Farriers of London	
	1945	Freedom of the City of London (copy)	
	1957	Hon. Fellow, Imperial College, London	
	1960	Darwin Medallion of USSR	
A.31.	Miscella	neous items of biographical interest. Includes:	
		4 photographs of Hindle, his colleagues, laboratory and lecture-room at Cairo	
		Hindle's Royal Society Personal Record book	
		Signed menu of luncheon given by Scientific Advisory Committee to Hindle and Sir Robert Robinson on the occasion of their 80th birthdays (with photographs)	1966
		Photograph of Hindle's 85th birthday cake, specially made with models of his various interests and achievements	1971

Note from Royal Geographical Society describing the location of the 'Hindle Glacier' in the Antarctic, named after Hindle by Duncan Carse during his surveys of South Georgia 1951–57 1974

SECTION B SCIENTIFIC RESEARCH AND ACTIVITIES

The material is presented chronologically as far as possible, and includes laboratory notebooks and records, and related correspondence including some biographical information on appointments, etc. It is linked where possible to the various stages and places of work of Hindle's career.

B.1., B.2. 2 sketchbooks of drawings of various marine species, molluscs and parasites, one inscribed '1905. R.C.S.' [Royal College of Science 1.

The drawings are in pencil, ink and colour, carefully labelled.

B.3. Black notebook, inscribed 'Quick Laboratory Cambridge. Spirochaetes'.

> Notes of transmission experiments of Spirochaeta duttoni (now known as Borrellia duttoni) 1910-11;

at rear of book, notes of experiments on transmission of Sarcosporidia 1910, followed by notes on Argas persicus raising experiments 1912 (see also B.17.).

B.4.

'Notes on the emergence of the sexes from the galls of Teras terminalis'.

A notebook in which Hindle copied the original observations of Thomas B. Goodall, covering 58 collections made by Goodall in June 1900, and brief notes for 1904 and 1908.

2 letters from Goodall, 1914.

B.5.-B.9.

Proposed expedition to Uganda and Nyasaland 1914

Correspondence and papers.

The expedition was scheduled for September 1914 and was cancelled on the outbreak of the First World War.

Its purpose was to undertake research into the effects of dipping solutions and methods on cattle exposed to infection by cattle Trypanosomiases (see B.7. for a detailed exposé of the project). It was to be a joint venture of the Quick Laboratory, Cambridge, and the Cooper Laboratory for Economic Research, Watford, financial support being provided by a grant from the Colonial Office to Professor G.H.F. Nuttall (Director of the Quick Laboratory), by a personal grant from P.A. Molteno, and by the Cooper Laboratory. Hindle was to be Nuttall's Assistant in the field.

B.5.

Correspondence March-August 1914.

Correspondence exchanged by G.H.F. Nuttall with H.J. Read (Colonial Office) re grant from Tropical Diseases Research Fund and outline of project, with P.A. Molteno re his financial support of the project (3 letters), with W.F. Cooper (of Cooper Laboratory).

Also includes correspondence <u>re</u> facilities for expedition, letters of introduction.

B.6.

Correspondence August-September 1914.

Hindle's correspondence with directors and staff of the Cooper Laboratory re the project, and his letters arranging to postpone expedition 'until the conclusion of Peace'.

B.7.

'Draft scheme of Trypanosomiasis work in Uganda'.

9 pp. typescript account, no date or signature, prepared after meeting between Nuttall, Cooper and Robinson, May 1914; gives a detailed account of the projected work, with itemised budget.

W.F.C. = W.F. Cooper L.E.R. = L.E. Robinson (of the Cooper Laboratory)

B.8.

Hindle's itemised budget for the expedition, including fares, stores, porterage and servants, camp and safari equipment, etc. 'A dinner jacket and sometimes a tail coat' were thought to be necessary.

B.9. Correspondence and printed matter from tropical and overseas outfitters and suppliers for the expedition, including several leaflets and brochures from Lawn and Adler which provide interesting information on currently available equipment and costs.

B.10B.16.	Work on Pediculus Humanus
	Research begun at the Quick Laboratory, Cambridge, 1913, the results of the work, which was interrupted by war, being published in papers in 1917 and 1919.
B.10.	Hindle's notes on the louse, on the series of experiments to be done, calculations on the results, etc., various dates 1913-14.
B.11.	Records of experiments, almost daily June-October 1913 (kept by laboratory assistant and by Hindle).
B.12.	Continuing records 'Series I', all by Hindle, January 1914.
B.13.	Notebook and ms. notes, at front 'Series 2', March 1914, at rear 'Series 3', April 1914.
B.14.	Notebook and ms. notes 'Series 4', June 1914.
B.15.	Ms. draft for paper 'Sex distinction in <u>Pediculus humanus</u> var. <u>corporis'</u> , published in <u>J. Genetics</u> , <u>8</u> , 18 pp.
B.16.	Ms. draft (fragmentary) of Hindle's report to the M.R.C. on his work on Rickettsia in lice, March-September 1919.
B.17.	Black notebook inscribed 'E. Hindle 1919' with note on first page 'March 1st received from Prof. E. Marchoux Inst. Pasteur about 60 <u>Argas persicus</u> infected with the Brazil strain of S. Gallinorum'.
	(Hindle had studied with Marchoux at the Institut Pasteur on fowl pest in 1911.) (see B.3.)

Experimental records April-August 1919.

B.18B.27.		Notebooks of research during period as Professor of Biology, School of Medicine, Cairo				
B.18,B.19.		2 notebooks one inscribed 'Ova findings in faeces', recording observations on various medical cases in the hospital, notes on tropical diseases, graphs of incidence of parasites, etc.				
		on 'Inves of yellow re testing Colonies,	21-22; includes beginning of draft paper tigations on the aetiology and pathenogenesis fever', and a draft letter from Hindle g of his vaccine in French West African n.d. but (c) 1930; not all the observa- in Hindle's hand.			
	B.20-B.23.		ooks of observations and experiments, 21 (not all in Hindle's hand).			
t	B.24-B.25.		ils'. 2 notebooks of observations and s dates 1922–24 (not all in Hindle's hand).			
	B.26.	Green notebook inso	cribed 'Miscellaneous experiments'.			
			rejuvenation, X-rays, cancer, others, various dates 1921–23.			
	B.27.	Green notebook inscribed 'Antisperm sera' experiments on rats 1922.				
B.28.	-B.30.	the second se	arch Fellow, London School of Ind Hygiene 1924–25.			
	B.28.	Green notebook inse	cribed 'Spirochaetes'.			
			nts with <u>Argas Persicus</u> , with specimens y different sources, various dates h 1925.			
			with records of work on <u>Leptospira</u> ined from Thames water, April-May 1925.			
	B.29.	offer of 3-year post taking some organise	spondence <u>re</u> grants for research, and at School 'for the purpose of under- ed research into the Spirochaetes and es', April-November 1924.			
	B.30.	on disseminated scle Hindle to Dobell Ma	n Clifford Dobell re possible research erosis 1925; includes letter from arch 1926 giving an account of his in China (see below).			

B.31.-B.54.

B.31.

Royal Society's Kala-Azar Commission in China 1925-27

Hindle was a member, and later the leader, of the Commission, the purpose of which was to investigate the problem of visceral Leishmaniasis (kala-azar) in N. China.

The Chinese hamster was used as the main laboratory animal in the transmission experiments, and at the end of the expedition Hindle attempted to introduce them as laboratory material in Britain, but the species failed to breed successfully. The Golden hamster, brought from the Hebrew University, Jerusalem, to Hindle's laboratory by Saul Adler in 1931, was bred with conspicuous success as a laboratory animal and as a pet.

See B.37. for correspondence relating to the unsuccessful attempt with the Chinese hamster, and B.93.-B.100. for material on the Golden hamster.

The material on Kala-Azar is presented as follows:

B.31B.37.	Correspondence: B.31, B.32 personal,
	B.33-B.37 Scientific

B.38.-B.54. Notebooks and working papers.

The correspondence often reflects the disturbed political and military conditions of the time as well as the research in progress. In one of his letters to H.H. Dale (then Secretary of the Royal Society) Hindle mentions that he sent his correspondence in duplicate 'one copy via Siberia and the other via Suez'; his experiences in China made a lasting impression on Hindle, who often referred to them in talks and lectures, particularly in his later years.

For other material on Kala-Azar, see B.30, C.6.

Letters of introduction, brief correspondence re transport of boxes at end of expedition.

Photographs and notes taken by Hindle on 'manure factory' in China.

A reprint of the published Reports on the Commission's work is included here.

B.32. 2 notebooks of a journal kept sporadically on the outward journey to China and of a holiday visit to Japan, both in the hand of Hindle's first wife, who died in 1933.

B.33.

Correspondence with Royal Society, May 1925-June 1928, chiefly with H.H. Dale (Secretary) and F.A. Towle (Assistant Secretary). Includes some of Hindle's accounts of expenditure, correspondence <u>re</u> staff and research, continuation of investigation on improvement of political situation, draft letter on congenital Kala-Azar written by Hindle for publication in <u>British</u> <u>Medical Journal but not submitted on advice from Dale,</u> letter of congratulation from Dale on successful completion of work under difficult conditions.

B.34. Correspondence re supply of drugs for Kala-Azar patients 1926-27 with C.M. Wenyon.

B.35. Miscellaneous documents: notice inserted in <u>Tsingtao</u> <u>Times</u> explaining research and requesting help from members of public; letter from C.H. Lei; Hindle's final report on research to Royal Society (incomplete) 1927-28.

- B.36. Correspondence re identification of insects from China, 1928, with Guy A.K. Marshall.
- B.37.

Correspondence re hamsters. 1927-28.

Chinese hamsters were used as the main laboratory animal in the transmission experiments of the expedition. At the end of the investigation, most remained in the charge of Feng Lan Chow of the Shantung Christian University, but some were brought to England for Hindle 'on the understanding that they are exclusively for laboratory use'.

The letters chronicle the arrival of the hamsters and their first breeding at the London Zoo. The animals failed to breed successfully, and the Golden hamster was introduced from Aleppo in 1930 and reached Hindle's laboratory in 1931 (see B.93.-B.100.).

From Feng Lan Chow H.F. Johnson G.M. Vevers

Notebooks and working papers on Kala-Azar

B.38.

Folders of casenotes of patients with Kala-Azar, in Shantung Hospital 1920–25, and 2 notebooks of 'new cases' April-July 1926.

B.39. Large ledger-type notebook, recording varying results of infection by species of Phlebotomus chinensis, <u>P. major</u>, <u>P. sergenti</u>, <u>P. mongolensis</u>; includes ms. drafts for paper, and letter from L.C. Feng. Various dates 1926-27.

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B.40.	Black notebook inscribed 'Kala-Azar transmission experiments 1927'.
B.41.	Black notebook inscribed 'Phlebotomus'. Observa- tions on various species, 1925–27.
B.42.	Black notebook of observations on hamsters: nos. 1-402
B.43.	Ditto nos. 403-565 1926
B.44.	Ditto nos. 566-924 1926-27
B.45.	Black notebook of 'transmission experiments' on hamsters: nos. S.1–S.125 1927
B.46.	Ditto nos. S. 126-S. 201 1927
B.47.	Ditto nos. S.202-S.260 1927
B.48	Black notebook of observations on hamsters infected with Leishmania infantum, Tunis strain, 1926.
B.49.	Ditto, on Indian Kala-Azar from Gologhat, 1927.
B.50.	Ditto, on Leishmania tropica from Baghdad, 1927.
B.51.	Black notebook inscribed 'Cultures etc.' of notes of preparations and methods of treatment on human patients and hamsters, various dates 1925–27.
B.52.	Black notebook inscribed 'Collections from Tsinan'. Miscellaneous observations on other specimens found or brought to Hindle's laboratory – fish, scorpions, toads, etc. 1925–27.
B.53.	Fragment of notebook of observations on Leishmania donovani, Indian strain, 1928.
B.54.	Correspondence with colleagues in UK re identification of various species of creatures sent from China by Hindle:
	H.W. Parker, 1926–28 (reptiles and batrachians) Hugh Scott, 1926 Oldfield Thomas, 1926, 1928 (mammals, bats).

B.55B.85.	Beit Research Fellow in Tropical Medicine at the Wellcome Bureau of Scientific Research 1928–1933.					
	as leader of th ship was award relation to the	e Kala-Azar ded for resear e etiology of ly topic on w	is post while still in China Commission. The Fellow- ch on 'Spirochaetosis in Yellow Fever', though this which he worked during his			
	The material i	The material is presented as follows:				
	B.55B.63.	Corresponde	ence and reports on yellow feve	<u>er</u>		
	B.64B.70.	Notebooks	on yellow fever			
	B.72B.85.	Other resea	rch notebooks and corresponder	nce		
	For lectures or	n yellow feve	r, see C.9.			
B.55.	Correspondence re application, and appointment to Fellowship. With Dr. (later Sir) Andrew Balfour (Director, London School of Hygiene and Tropical Medicine, where Hindle was Milner Research Fellow, see B.28B.30.), and Sir James Fowler (Secretary, Beit Fellowships Committee). Some scientific corres- pondence and information on Kala-Azar expedition is included. 1926-28.					
		hich was not	1929–34 re extension of renewed after original			
B.56.		f research ani	als and colleagues re supply mals, expenses and refunds,			
B.57.	Copies of letters from Hindle to various colleagues in UK and abroad requesting laboratory space after accidental infection from the virus had caused Hindle and two attendants to contract the disease, and the death of a hospital technician. The work was trans- ferred from London to the Wellcome Field Station in Kent. 1930			1930		
B.58B.62.	and exchange in alphabetice	of specimens I order, with nterest. Mos	fever re supplies , results, etc. presented dates and a note of material t of the letters are brief			
B.58.	B. Blacklock		1928			
	Anton Breinl		1929 (Hindle's carbon only)			
	W.A. Calmett Clement C. C		1928 1928-29			

Firestone Co.

, ,		
B.59.	L.W. Hackett	1950, 1951 (laboratory infections)
	Max H. Kuczynski	1929 (also later correspondence 1932)
	Sir John W.D. Megaw	1932 (Hindle's 5 pp. letter on possible spread of yellow fever to India)
B.60.	J. Marchoux	1929 (laboratory infection)
	R.A. O'Brien	1929 (with Report to C.W. Wenyon on results of research in vaccines)
	J.L. Pawan	1931, 1933 ('red howler' monkeys)
	A. Pettit	1928, 1929
B.61.	Frederick F. Russell	1928
	Wilbur A. Sawyer	1929-31 (research results, laboratory infection, etc.)
	W. Schüffner	1929
	A.W. Sellards	1928
B.62.	C. Strickland	1929
	G.K. Strode	1929 (Hindle's carbon only)
	V.B. Wigglesworth	1928
	unidentified	
B.63.	November 1928, June 1929	o included here is a copy of
B.64B.69.	Sequence of 6 notebooks of on yellow fever in monkeys	experimental records of work , numbered and dated.
	B.64. nos. H.1-H.3	March 1928
	B.65. nos. H.7-H.95	April-September 1928
	B.66. nos. H.96-H.150	September 1928 – January 1929
	B.67. nos. H.151-H.216	January-June 1929
	B.68. nos. H.217-H.281	June-November 1929
	B.69. nos. H.282-H.371	November 1929-July 1930

B.70. Notebook 'Mosquitoes', record of experiments January 1929-March 1930, some linked with monkeys in above sequence.

- B.71. Bundle of newspaper cuttings <u>re</u> Hindle's work on yellow fever.
- B.72.-B.85. Other research carried out as Beit Research Fellow.

Bartonella Muris, 1931.

2 notebooks of observations on mice infected with Bartonella and subsequently splenectomised.

- B.72. April-June 1931
- B.73. July-October 1931 (and some experiments on hamsters November 1931)

Feline Distemper

see also B.81, B.91

2 notebooks of observations on numbered specimens.

B.74. December 1930-October 1931

B.75. September 1931-January 1932

Included here are 2 publications by Hindle on Feline Distemper and letter <u>re</u> possible human contraction of the disease.

Leptospira

5 notebooks of observations on wild rats, sources and specimens numbered, with dissections especially of rat kidney, 1931-33.

B.76. nos. 1–169 (book begins with experiments on rabbits, and includes correspondence from Charles Elton)

B.77. nos. 176-197

B.78. nos. 200-394

B.79. nos. 400-543 (includes hamsters and rabbits)

B.80. nos. 544-632 (includes dogs and rabbits)

B.81

Notebook inscribed 'various', 1929-30; includes work on climatic bubs, rat kidney virus, Dax spirochaetes (see also B.90.), feline distemper (see also B.74-B.75, B.91.).

B.82. Black notebook of tests of serum and virus on mosquitos, March-June 1930.

B.83. Notes on Spirochaetes, 1933.

Correspondence on rats, mainly re exchange and analysis of specimens.	1931-33
E.V. Cowdry	
Jethro Gough	
David Keilin	
John O. Oliver	
Dorothy Russell	
W. Schüffner	
Correspondence on spirochaetes, mainly re exchange of specimens.	1928-34
L.A.P. Anderson	
William Fletcher	
T. Hewer	
Η. Κτόο	
R.A. O'Brien	
H.J. Parish	
W. Schuffner	
Edmond Sergent	
J. Smith	
M. Theiler	
P.H. Van Thiel	
J.V. Vásárhelyi	
	analysis of specimens. E.V. Cowdry Jethro Gough David Keilin John O. Oliver Dorothy Russell W. Schüffner Correspondence on spirochaetes, mainly re exchange of specimens. L.A.P. Anderson William Fletcher T. Hewer H. Króo R.A. O'Brien H.J. Parish W. Schüffner Edmond Sergent J. Smith M. Theiler P.H. Van Thiel

E. Hindle CSAC 61/5/78		
B.86.	Work at the London Zoo as Guest of the Zoological Society, June-October 1935.	
	Ledger of observations on various animals, and duplicated copy of Hindle's report on his research for the period.	
B.87B.89.	Work at Glasgow University, 1938-39.	
B.87.	Work on Voles at Glasgow, 1938.	
	Notebook 'Observations on Field Voles, Argyle'. Observations run 24 May 1938–24 March 1939 and cover 19 batches of voles.	
B.88.	Folder of notes and data 'Microtus and Toxoplasma' kept by S. Greenhill of Hindle's department, May- October 1938 and correspondence re supply of the animals.	
B.89.	Notes and correspondence <u>re</u> laboratory methods and techniques for use at Glasgow University.	
B.90B.101.	Miscellaneous notes and correspondence arising from scientific research	
	Presented alphabetically by topic.	
B.90.	Presented alphabetically by topic. Algae and fauna of hot springs see also B.81.	
B.90.	Algae and fauna of hot springs	
B.90.	Algae and fauna of hot springs see also B.81.	
B.90. B.91.	Algae and fauna of hot springs see also B.81. Correspondence and notes, 1930, 1932. Correspondence and notes 1935 from Dr. Jean Orr Ewing <u>re</u> her expedition to the hot springs of Iceland,	

B.92. Dogs

Miscellaneous material on breeding and showing of various types of dog owned by Hindle and Mrs. Hindle.

Includes report, rules and list of members and correspondence re 'Miniature Dachshund Club', of which Hindle was Secretary before taking up his appointment at Glasgow, various dates 1930-36.

B.93.-B.100. Hamsters

see also B. 37.

B.93.

Research notes and writings by Hindle. Includes: reprint of his paper (with H.M. Bruce) 1934; research notes and a ms. draft of a short paper on the history of the Golden hamster, c.1942; ms. draft and typed version dated 1945 of Hindle's contribution (Chapter 15. The golden hamster) to The UFAW handbook on the care and management of laboratory animals, 1947; draft of exhibition and discussion of hamster mutants, probably for British Hamster Club (c) 1950.

B.94, B.95. Correspondence re British Hamster Club 1947-53 chiefly with Mrs. Jean E. Cook (Secretary), and other members of club and of general public, on hamster breeding and affairs of the club. Observations on the behaviour, colouring and health of hamsters occur passim in the correspondence.

B.94. 1947-49B.95. 1950-53

B.96. Correspon

Correspondence etc. with Midlands and Northern Hamster Club, especially with Secretary, H.W. Reynolds, <u>re</u> breeding of hamsters and the affairs of the club. (Includes some duplicated newsletters of the club.)

1947-50

- B.97. Duplicated bulletins and newsletters of the British Hamster Club (produced by the Secretary, Mrs. Jean Cook - see also B.94.-B.95.).
- B.98. Printed matter: reprints of scholarly articles, popular handbooks on hamsters as pets.

> B.99. Correspondence re hamsters, including some material re genetic abnormalities, breeding and other information. 1950 Boots Pure Drug Co. A.J. Cork 1947 C.D. Darlington 1948 1951 T. Deegan 1948 Geoffrey Eden G. Edward Eversole 1948 A.L. Hagedoorn 1945, 1953 Correspondence re hamsters (continued) B.100 1945-46 (includes correspondence loseph A. Johnson

	re founding of the British Hamster Club of which Hindle was Patron)
M.P. Nightingale	1949
A.F. Prosser	1949

B.101.

Miscellaneous short notes on mutations and colorations of mink (perhaps for talk or exhibition at London Zoo).

Porcupine

Mink

Miscellaneous short notes and correspondence (perhaps for talk or exhibition at London Zoo).

B.102B.106.	One World
	This publication was intended to be an 'International Review of the Arts, Sciences, Letters'. Hindle served on the Advisory Board, took the Chair at Board meetings, and wrote to many scientific colleagues to enlist support and contributions. The project was financed wholly by Mr. Sydney Walton, who was unable to continue his backing beyond the agreed sum. No other support was found and the publication was abandoned.
B.102-	3 folders of correspondence with the Editor, Mr. Mark
B.104.	Joffé, and with colleagues re affairs of the project, including Minutes of meetings, publicity statements, etc.
B.102.	April-December 1946:
	M. Joffé
	F. Gross
	Sir E. John Russell
	Sir John Boyd Orr
	Adriano Buzzati-Traverso
	General Sir James Marshall-Cornwall
B.103	1947:
	Sir John Russell
	Sir Julian Huxley
	E.A. Spaul
	Sir Wilfrid Le Gros Clark
	Sir James Marshall-Cornwall
	M. Joffé
	F. Gross
B.104	1948:
	M. Joffé
B.105	Documents re One World: statements of aims, articles of association.
B.106	Copy of Vol.1, no.1, published for private circulation for fund-raising purposes, and the only issue to appear, April 1947.

This specimen issue includes articles by Sir John Boyd Orr, Sir John Russell and F. Gross, written at request of Hindle.

B.107B.108.	Drawings	
pages of drawings and de		ion of Coelenterata': miscellaneous awings and descriptions, all in Hindle's ably for Glasgow lectures).
B.108.	Helminths:	miscellaneous labelled drawings, probably not by Hindle.
	Lice:	ink drawings by Hindle for paper.
	Spirochaete	es: drawings and figures by Hindle.

SECTION C	LECTURES, TALKS, BROADCASTS, PUBLICATIONS
	The material is presented chronologically as far as possible, though many drafts and mss. are undated and fragmentary.
C.1.	Flies in relation to disease. C.U.P. 1914
	Contract with publishers, misc. correspondence repermission to use figures, diagrams, etc., royalty statements, press-cuttings of reviews, letters of congratulation, etc. 1913-15.
C.2C.4.	Notes for lectures at Cairo
	3 folders labelled 'Zoology', 'Animal Physiology', 'Ciliates', bearing various dates 1921–23 and some with notes in the hand of H. Munro Fox.
C.5.	19 pp. ms. for a lecture on history and disease, and miscellaneous other notes and drafts on the subject; apparently given during visit to China with Royal Society Commission on Kala-Azar, probably at Tsinan Christian University. (c) 1926.
C.6.	Ms. notes for remarks following an address by Dr. C.M. Wenyon, on sandflies as transmission agents of <u>Leishmania</u> , n.d. but (c) 1928.
C.7.	Copy of letter to <u>The Times</u> by Sir Walter Fletcher, on Yellow Fever in West Africa and making refer- ence to Hindle's work, November 1928.
C.8.	The William Withering Lectures in the Faculty of Medicine, University of Birmingham 1935.
	Invitation to give lectures (1933) and brief ms. notes on filterable viruses. See also C.12.
C.9.	Talks on yellow fever
	10 pp. ms. notes for talk, n.d.
	4 pp. ms. and 1 p. report, of talk to University Philosophical Society EGlasgow], n.d.
	'Yellow fever, by Edward Hindle', 14 pp. ms., probably also given at Glasgow, n.d. but (c) 1942.
a	'Yellow fever', pps. 11 and 12 of a more general lecture on filterable viruses, n.d.
	C.9. continued

C.9. continued 2 pp. heavily-corrected ms. for talk, n.d. but (c) 1942.

7 pp. ms. with note 'B.B.C.', an expanded version of the above.

25 pp. transcript of programme on 'Yellow Fever' by Nesta Pain, broadcast in BBC Home Service, 16 January 1945. This was a dramatised documentary, for which C.M. Wenyon and Hindle acted as scientific advisers.

C.10C.23.	Lectures and talks at Glasgow University see also A.21, B.87-B.89.
C.10.	Folder of notes, diagrams, classifications, etc. inscribed 'Evolution', including Mendelism, heredity, vestigial organs.
C.11.	Similar folder on 'Parasitology'.
C.12.	Similar folder on 'Filterable viruses' (included with later material is part of Hindle's ms. for the William Withering Lectures in Birmingham 1935, see C.8.)
C.13,C.14.	2 folders of notes, diagrams, etc. for course on Zoology (for medical students), including protozoa, parasitology, and many drawings.
C.15.	Shorter notes on immunity and virus infections.
C.16.	Typescript notes for extensive course on 'Animal Ecology', n.d. but (c) 1940.
C.17.	Folder labelled 'Entomology, 3rd term 1943'.
C.18.	'The fauna of the Scottish National Park', 6 pp. ms. talk, with 1 p. abstract, map, and notes and statistics on various species.
C.19.	6 pp. ms. lecture to medical students, on tropical medicine, and including autobiographical reminiscences.
C.20.	Ms. notes and draft for talk on 'Insects and Disease', n.d.
C.21.	Abstract of lecture on 'Disease and History', probably for Philosophical Society, Glasgow, n.d.
C.22.	Summary and notes for talk on 'Zoology in Glasgow since 1800', for Adam Smith Club, Glasgow, 1941.
C.23.	Miscellaneous shorter notes for speeches at Glasgow:
	Juridical Society Dinner 1939
	Scottish Universities Biological Conference, opening Address, 1943
	Visit of Educational Institute of Scotland to Department, n.d.

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C.24.	'Filterable viruses'.
	15 pp. typescript lecture, perhaps related to 1938 papers published on the subject.
C.25.	Ms. notes for talk 'Hawks etc.' at London Zoo 1942.
C.26.	'Mammalian carriers of human infection'.
	2 ms. drafts of paper given to South Eastern Union of Scientific Societies, n.d. but (c) 1948.
C.27.	Transcript of first number of 'Science Magazine' series broadcast on BBC Home Service, August 1945, to which Hindle made a short contribution.
C. Z.	Included here is a 2 pp. ms. note by Hindle on suitable subjects for radio talks or series on zoology.
C.28.	'Zoos'.
	Article for Oxford Encyclopaedia for boys and girls; draft for article, and correspondence with editor, C. Day Lewis, 1946.
C.29.	'Robert Newstead'.
	Obituary, probably prepared for the Linnean Society, 3 pp., 1947.
C.30.	'Zoology in a changing world'.
	5 pp. typescript, incomplete, probably prepared for Penguin Science News 1950.
C.31.	'Biology as a career'.
	35 pp. typescript, n.d. but (c) 1946-47.
C.32.	'Primates'.
	Presidential Address to Bournemouth Natural Science Society, November 1948.
	Ms. draft, summary and report.
C.33.	'Sir Peter Chalmers Mitchell'.
	Entry for D.N.B.
	Draft for entry, and correspondence with editor, L.G. Wickham Legg, 1949.

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C.34.	Transcript of 'Searchlight', broadcast on BBC Light Programme February 1950, with contribution by Hindle on elephants.	
C.35.	10 pp. ms. draft for lecture to children on methods of scientific discovery, organised by Council for Educa- tion in World Citizenship, and correspondence with Secretary, David Ennals, December 1950.	
C.36.	Note on the Zoological Record.	
	4 pp. ms. draft, and reprint of another note on the subject published in Trop. Dis. Bull., 1950.	
C.37.	'The Development of entomological science in Britain during the last century'.	
	5 pp. typescript, n.d. but (c) 1950.	
C.38.	'Ancient cave-dwellers use spray technique', pub- lished as 'Primeval pictures were spray-painted' in Paint, December 1953.	
C.39.	Speech (in French and English), Congrès du Bureau International de la Sauvagine, and press-cutting 1958.	
C.40.	'Game versus Tsetse', published as 'Game and the Tsetse fly', <u>Oryx</u> , April 1957.	
C.41.	'Problems of Ageing'.	
	6 pp. report on symposium on the Biology of Ageing held at Institute of Biology.	
C.42.	8 pp. speech at celebration of 10th Anniversary of founding of the Institute of Biology. Hindle was a founding member and the first President of the Institute (1951–53) and the speech includes reminiscences of the early days, 1961.	
C.43.	2 drafts for talk on 'Zoology and Medicine', n.d., but (c) 1960.	
Undated lectures a	nd writings	
C.44.	Miscellaneous reviews, and summaries for <u>Medical</u> <u>Abstracts</u> (not itemised).	
C.45.	Miscellaneous shorter notes for talks at London Zoo.	

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C.46.	'Children's lecture' at Royal Geographical Society, n.d.
C.47.	Notes for talk on 'Appreciation of beauty in animals'.
C.48.	Notes for article on 'Parasitism', probably for <u>Chambers</u> Encyclopaedia, 1961.
C.49.	'Monkeys and filterable viruses', 8 pp.
C.50.	'Venomous Snakes'.
C.51.	Speech at dinner of Kingston debating society; includes reminiscences, especially of expedition to China.
C.52.	Notes for animal scenes in films 'Animal Wonderland' and 'Denizens of the Wild'.
C.53.	Notes for talk on 'Animal Camouflage'.
C.54.	Notes for talk on 'Flight'.
	Obituary note on Captain W.H. Livens, cutting from <u>The Times</u> , February 1964.
C.55.	Reprints of published works, press-cuttings of notes in journals by Hindle or about his writings and speeches.
	1 Box.

SECTION D

CORRESPONDENCE

Other correspondence, kept by Hindle with N.B. the topics of research to which it relates, can be found in the relevant files in Sections B and C.

All correspondents are listed in the general index on pps. 34-37.

D.1. Letters from Saul Adler, 1931, 1932, 1935, 1939, 1943.

> The correspondence relates to many aspects of Hindle's life and work, e.g., sandflies, Bartonella muris, G.H.F. Nuttall ('Have you noticed his remarkable facial resemblance to Thomas Hardy?'), relapsing fever, spirochaetes, etc.

D.2. With J.R. Baker, re Society for Freedom in Science, 1950-51.

D.3.

With Alan A. Boyden, 1948-51.

Mainly re work of the Serological Museum, Rutgers University, New Jersey, and its recognition as a subsection of the Section of Zoology of the International Union of Biological Sciences, of which Hindle was then President; also includes 2 pp. ms. note by Hindle of reminiscences of G.H.F. Nuttall, for publication in the Bulletin of the Serological Museum no.6, May 1951, the Nuttall Memorial Issue.

D.4.

Correspondence from Gerrit B. Brouwer, re 'Starling Pots', 1961.

Includes reprint of article on the subject.

D.5.

From:

Bute, Marquess of	1949
Gordon E. Davis (classification of spirochaetes)	1951
Claude E. Dolman (history of yellow fever research)	1963
Charles Elton	1931

D.6.

From:

J.E. Marchoux

Julian S. Huxley		1944				
(enclosing letter	from	Anton	Pratt	re	Koala	bears)
I.E. Marchoux		1932				

D.7.	With Carl Pantin (evolutionary theory)	1950
D.8.	From L.E. Robinson (also H.J. Crauford-Benson	1942 n - on lice)
	With Miriam Rothschild (nature reserves)	1946
D.9.	With Lord Rothschild	1946-51
	Mainly scientific correspondence surface changes, discussion of wo Some reference to 'One World' (and some personal and social mat	ork in progress, etc. see B.102-B.106)
D.10.	From E.C. Smith (on spirochaetes. Smith w Research Institute at Lagos strains for Hindle)	
D.11.	From Nora G. Sproston (on scientific research, an China where she was then	

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