



Dr. Alfred Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

January 7, 1993

Mr. Eric Beecham c/o Mr. Ralph Emanuel 61 Redington Road London NW3 7RP England

Dear Mr. Beecham:

Please forgive my being so tardy in thanking you for that wonderful book which you left at the Spiro Institute. We have just been swamped with work, partly with the acquisition of Herstmonceux Castle and partly with paintings, and I am only just catching up.

It was so thoughtful of you to leave the book for me, and I will enjoy looking at it for a long time.

I am scheduled to speak at the Spiro Institute again on Sunday, July 4, and might then have a chance to thank you personally.

Best wishes.

Sincerely,



Eight, Clorane Gardens, London, NW3 7PR

071-435 9261

13th January 1993.

Dr. Alfred Bader, 2961 North Shepard Avenue, Milwaukee, Wisconsin 53211.

Dear Dr. Bader,

Thank you for your letter and I fully appreciate the delay, especially as it was in such a wonderfully worthy cause for which you have my absolute admiration.

I am delighted that the book which, for so many years has been gathering dust in my cupboard, has found an owner who may find it of some use. It was left to me by my uncle, Mr. Edwin Baer, whose family firm of Josef Baer & Co. was one of the leading antiquarian book dealers in Frankfurt.

I am surprised our paths have not crossed before because, like you, I came first to Brighton in 1933 where the Emmanuel Family were my second home, and I grew up with Ralph and he is still a very close friend of mine. Like you I also went to the Isle of Man and just missed being sent to Canada on the Arandora Star which as you may remember was torpeodoed and sank with a large loss of life.

I look forward to seeing you on the 4th July. I did enjoy your last lecture.

With kind personal regards,

Yours sincerely,

Eric M. Beecham





ALFRED BADER FINE ARTS

ESTABLISHED 1961

DR. ALFRED BADER

February 1, 1993

Mr. Malcolm R. Gold 39, Temple Avenue Whetstone London N20 9EJ England

Dear Mr. Gold:

In response to your letter of January 20th, your qualifications might be exactly what is needed at the Aldrich Chemical Company, The Old Brickyard, New Road, Gillingham, Dorset SP8 4JL, provided that you are willing to move from London to such a small town in Dorset.

If so, I would suggest that you first take counsel with Ralph Emanuel, one of my best friends and the founder of Aldrich's English company. His telephone number in London is 71 435 9969. He will probably recommend that you write to Dr. Robert Smith, the Managing Director at Aldrich.

However, I am sure that both Ralph and I should not be mentioned, for the reasons that will be clear from my enclosed letter to chemists.

Best wishes.

Sincerely,

Enclosure

By Appointment Only astor hotel suite 622 924 East Juneau avenue Milwaukee wisconsin usa 53202 Tel 414 277-0730 Fax 414 277-0709



39, Temple Avenue Whetstone London N20 9EJ UK tel: +4481 445 8402 +4481 445 8468 fax: +4481 447 1077

Dr Alfred Bader Bader Fine Arts 924 Junau Avenue Milwaukee Wisconsin 53202 USA

12th January 1993

Dear Dr Bader

Whilst reading the Jewish Chronicle last week I noticed an article about your generous gift of Herstmonceux Castle to Queens University. Consequently I was reminded of the time we met in 1968 when you attended the university to give a lecture in the Chemistry Department.

I am currently starting a job campaign and though naturally I am not seeking a position in your company I was wondering if you had any advice to offer and possibly any contacts that in your extensive encounters may be of help.

I have taken the liberty of enclosing my CV to bring you up-todate and the key strengths I have to offer are:-

- . experience of setting up and running effective business operations
- . implementation and end user knowledge of computer systems in industry
- . personable with drive and determination
- . analytical problem solver and business developer founded on my MBA and practical experience

I am looking for a General Management, Operational or Marketing position either in this or a related industry.

I would therefor be most grateful to receive your views however brief.

Yours sincerely,

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Malcolm R. Gold

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Malcolm R. Gold M.B.A.

39, Temple Avenue, Whetstone, London N20 9EJ tel:081 445 8402 or 081 445 8468 (answerphone)

PROFILE

GENERAL MANAGER with seventeen years experience of specialist lighting, and the electrical wholesaling & distribution industry, particularly in sales, customer service, supply and computer system development. Supported by a blend of scientific (B.Sc.) and business (M.B.A.) training. Now seeking a similar post in this, a related sector, or in consultancy. My strengths include:-

- starting up, managing and developing business operations
- building a profitable quality "customer focused" service
- identifying customer needs and providing technical consultation and support
- promoting, marketing and sales of technical products
- building an effective team to operate at full potential
- analytical and innovative approach to problem solving
- development of user friendly business and computer systems

CAREER

ALECTRALINK DISTRIBUTING COMPANY Managing Director

Sept 1987-Sept 1991

1973-1987

Started own electrical wholesale company with some key high profile customers, developed to a customer base of 500. Set up and very rapidly put in place the various business functions including buying deals, premises, computer system and staff.

- unique products with quality customer service
- manufactured own brand fittings from drawing, to finish
- researched and developed niche market for low voltage lighting.
- produced budgets, cash flow forecast, and administration control
- developed full marketing plan, from design and production of brochures and price lists, through to advertising and exhibitions.
- devised solutions to customer problems with special made-to-order fittings

BRITISH DISTRIBUTING COMPANY General Manager/ Director/ Park Royal

Electrical wholesaling company, TO £40M, 300 staff on three sites; 10,000 product lines of electrical accessories, appliances and lighting.

Set up from scratch and developed a highly profitable business in new 70,000sq ft Park Royal premises for warehousing, counter sales and offices. Built business up to sales of £3.5M, 30 staff, stock level of £2M (including common stock) with fully functioning computerised system.



- built up a valuable business base from scratch developing new customers
- established the highest standard of quality customer care service
- greatly reduced waiting time with the implementation of "call & collect" system subsequently implemented throughout the company
- established procedural controls to manage special profitable non-stock items
- welded staff into an enthused team
- initiated continual counter promotions ... eventually led to a monthly magazine "BDC Times"
- organised goods flow, materials handling, staff training, order picking, transport, stock layout, communications
- maintained stock control and responsible for all day to day administration, including credit control & safety at work

ELI LILLY

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1972-1973

Hospital Representative

Leading multi-national pharmaceutical company.

- specialising in Hospital sales well exceeded company target.
- produced a comprehensive guide to Cephalosporins (antibiotics) to enhance selling approach which was adopted throughout the company.
- 18 months outstanding sales training and induction from world class company.

PERSONAL

Date of Birth	n:	25/12/45 (46yrs)					
Married	:	two girls 17,19					
British							
Health	:	Good Ht 5'10" Wt 1771bs					
Interests	*	Tennis, Chess, Sailing					
Languages	:	Working knowledge of French					
Computer	*	Knowledgeable PC experience of APL, BOS programs,					
		Wordperfect, SuperCalc, Info Select, Revelation					

EDUCATION

A level B.Sc. (Hons) M.B.A.	Maths, Physics, Chemistry Chemistry (Univ of London) Queen's University, Ontario	
Thesis	"Cost Benefit Study of a Com Health Clinic". An innovative approach, business techniques to a topic. Well received for its achi Health Authority	bringing scientific tenuous and nebulous
Professional Association	Member of the Chartered Inst: (M.C.Inst.M.)	itute of Marketing





103 Bedford Court Mansions Bedford Avenue London WC1B 3AG

1 February 1993

Dear Dr. Bader,

I apologize for the amount of time that has passed since you wrote to me. I take it that you knew I had left London just before Christmas to spend a bit of time in the US. I was in New York, Boston (for Christmas), Miami Beach, New York again, and then back here. So it all took quite a lot of time, and I didn't read your letter, of course, until I had returned.

In any case, without any more preamble or excuses, I want to say how generous and thoughtful I find the contents of your letter. I do understand your feelings about Dr. Schapiro and his memory. And your wish to be helpful to Susanne Lepsius in this tragic situation is of course most appreciated.

For the time being, everything is okay as far as the finances go, and I keep on pressing for various bits of insurance and compensation for which she is eligible. I will certainly keep in mind the money you have put in reserve in case of need and would naturally be in touch with you if the time came for help.

At the moment, everything is going well in the Summer House; the new young Portuguese woman is a great improvement over the East German who didn't suit Susanne at all. Susanne is also able to look after her daily banking and cash needs, which has relieved me from a great burden.

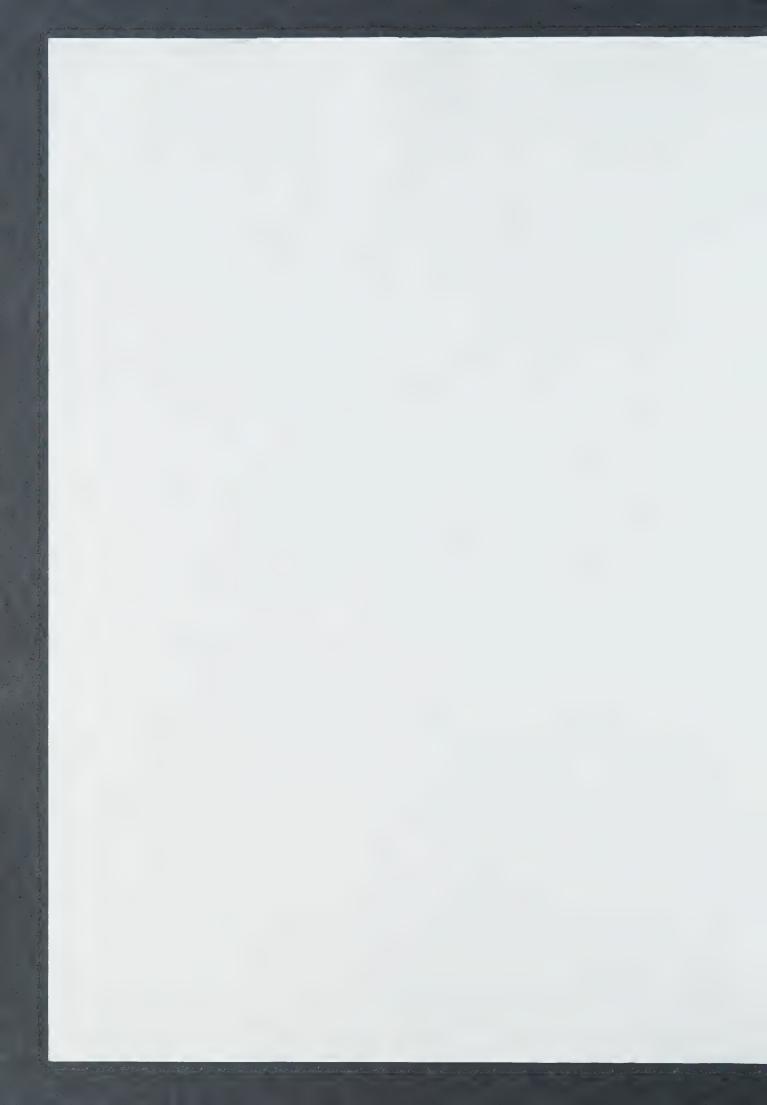
We'll have to see how she gets through the winter and then decide whether there is anything further to be done in the way of therapy.

I do thank you for your kind thoughts and actions, and will try to keep you informed how things develop.

All/ best wishes to you,

ley Bardy

STANLEY BARON





ALFRED BADER FINE ARTS

DR. ALFRED BADER

February 3, 1993

ESTABLISHED 1901

Professor David-Hillel Ruben Department of Philosophy, Logic and Scientific Method London School of Economics & Political Science Houghton Street London WC2A 2AE England

Dear Professor Ruben:

Thank you for your letter of January 18th.

Your two projects seem eminently worthwhile, but surely they should be funded by Jewry in Britain.

My wife and I are Canadian and American Jews, respectively, and we try very hard to help our communities and education in Israel.

Best wishes.

Sincerely,

By Appointment Only ASTOR HOTEL SUITE 622 924 EAST JUNEAU AVENUE MILWAUKEE WISCONSIN USA 53202 TEL 414 277-0730 FAX 414 277-0709



The London School of Economics and Political Science



Houghton Street London WC2A 2AE Telephone: 071-405 7686 Telex: 24655 LSELON G Fax: 071-242 0392

Direct line: 071-955 7340/1

Department of Philosophy, Logic and Scientific Method

January 18, 1993

Dear Dr. Bader,

I write, to see if I can share my enthusiasm with you, in two educational projects in the U.K. which, I believe, combine the best of secular and Jewish interests. The Chief Rabbi is fully supportive of both projects, but-alas-finances at the United Synagogue and the University of London, as well as the generaly low level of Anglo-Jewish philanthropy, do not permit any concrete steps to be taken from available resources here. I seek your help with whatever in the enclosed might, in your view, be worthwhile.

The first project is the establishment of a Chair in Jewish Philosophy at the University of London. The University of London has the largest student enrolment of any establishment of higher education in the U.K.; in addition, I think it likely that it has, both relatively and absolutely, the highest number of Jewish undergraduates and postgraduates in the country (although I know of no official figures to support this judgment). My thought is that the Chair should be established at the federal University level, rather than at one particular school of the University (e.g., University College, or the London School of Economics). The person holding this chair would then be able to be used at various Schools or Colleges of the University, within different degree schemes, as might seem most effective at the time. Since Jews' College is also part of the University of London, some use might be made of the holder of the Chair there, although this might prove sensitive and would need to be discussed carefully and candidly with the Chief Rabbi.

The second project is specific to the London School of Economics. Discussions I have had with the former head of the Philosophy Department, Professor Avishai Margalit, of the Hebrew University, suggest that that Department of Philosophy at the Hebrew University needs a reliable 'receiving' department in the U.K., for their postgraduates in the philosophy of science who would find a year or more's study outside Israel profitable. In this connection, the Department of Philosophy, Logic, and Scientific method at the London School of Economics would be ideal from

The London School of Economics is a School of the University of London. It is a charity and is incorporated in England as a company limited by guarantee under the Companies Acts (Reg. No. 70527)



their point of view. Margalit, who works closely with Rabbi David Hartman of Machon Hartman, in Jerusalem, suggests the idea of establishing fellowships at the L.S.E., to cover tuition and living costs for a number of such postgraduates each year. The postgraduates would be selected carefully, so that they would be qualified, as a condition of the fellowship, to undertake high-quality Jewish studies teaching of university level. How and where they would be best employed to do this is a matter that can be discussed with a number of people (once again, of course, including the Chief Rabbi); it certainly would not be appropriate to use them fully (perhaps even at all) at the L.S.E. where the fellowship would alone be tenable. Indeed, the fellows might be made use of within the wider Jewish community, as well as within the University of London.

The two projects are, of course, very different. The Chair of Jewish Philosophy would need a sufficiently large capital endowment to generate about £50,000 per annum income. On the other hand, if one calculates each fellowship at about £11,000 per annum, to cover tuition plus living costs, the funding of 4 such fellowships would cost £44,000 per annum and could be awarded on a year-by-year basis, with the next year's funding depending on positive evaluation of the preceding year. Both projects would, I believe, enormously enhance the provision of Jewish education of university standard to a potentially large number of young Jewish men and women at the largest university in the U.K. I am sure that I do not need to convince you of the desirability of such an outcome.

I would be happy to discuss any of this with you further, if you so wish.

Yours sincerely, Daird Ruber

David-Hillel Ruben Professor of Philosophy



Dr. Alfred Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

February 3, 1993

Mrs. Annetta Green "Amana" 9 Robson Road Goring-by-Sea, Worthing West Sussex BN12 4EE England

Dear Mrs. Green:

In response to your kind letter of January 19th, I regret that our schedule for this summer is so very full that we could not give a lecture in Worthing.

Thank you for thinking of us.

Sincerely,



Worthing 41155

"Amana" 9 Robson Road, Goring-by-Sea, Worthing, West Sussex. BN12 4EE

19th January 1993

Dr. Alfred Bader 52 Wickham Avenue 5 XHILL-ON-SEA East Sussex TN39 3ER

Dear Dr. Bader

WORTHING & DISTRICT HEBREW CONGREGATION

I understand from Sarah Orkin that you will be residing in Bexhill probably from May, and wondered if it would be possible for you to give one of your lectures to the members of our congregation.

We are trying to revive the congregation and started last June. So far we have been very pleased with the response, but stimulating lectures are few and far between. In order to book our usual hall, it would be appreciated if you could confirm whether you would be interested in visiting us and if so please supply a choice of dates. Sarah suggested "The Bible through Dutch Eyes."

Yours sincerely

annetta Green





ALFRED BADER FINE ARTS

DR. ALFRED BADER

February 10, 1993

ESTABLISHED 1961

Mr. Tony Alce 4 Ditchling Road Brighton, East Sussex BN1 4SF England

Dear Tony:

I am just delighted to have your thoughtful letter of January 12th. Of course I remember you, but must confess that I had forgotten your family name.

Some years ago a friend of mine from Chemistry at the University in Falmer accompanied me to look at our old school, and while the building still existed, it had been turned into a school for adult education. Newspapers tend to get things mixed up.

I knew early in May of 1940 that someone had reported me, not for being a dangerous enemy alien, but for dealing in stamps, something I was not supposed to do.

An old lady in Hove paid one guinea a week for my room and board, but being in her eighties did not realize that kids also should have a little pocket money. That I tried to make up for by selling stamps.

The greatest pleasure I had while at the East Hove Senior School for Boys was to become a school prefect; I really must have been a goody-goody little boy as evidenced by the headmaster's recommendation.

The enclosures will tell you a little of what I have been up to.

Isabel and I have a little home in Bexhill where we usually are in May, July, November and December. I will telephone you in May to see if we can get together.

All good wishes,

By Appointment Only ANTOR HOTEL SUITE 622 924 EAST JUNEAU AVENUE MILWAUKEL WISCONSIN USA 53202 TEL 414 277-0730 FAX 414 277-0709



Tel: 602793

4 DITCHLING ROAD BRIGHTON BN1 4SF EAST SUSSEX UNITED KINGDOM

12 January 1993

Dear Dr Bader,

Our local newspaper, the "Evening Argus" has just published an article about Herstmonceux Castle. As I read it, bells started ringing, and the accompanying photograph of yourself clinched the matter - I was at school with you in 1939 - East Hove Senior School for Boys, Connaught Road, Hove - Form 4 - Mr. Dimberline form master.

Whether you remember me is another matter! Do you recall a shy, rather withdrawn boy, left-handed, with bright red hair, called Anthony (Tony) ALCE? One of the interests we shared was stamp collecting, and we used to compare and swap specimens in the playground at break-times. I remember you said the star item in your collection was a Canada 1851 12d black, which impressed me enormously! In September 1939, after the arrival of the London evacuees with whom we had to share the school on a rota basis, we were taken for long walks over the Downs, and I distinctly recall walking with you on one of these.

I have searched in vain for a photograph of myself taken around that time, but the only ones I can findshow me in my pram, or considerably later, wearing spectacles. Not very helpful!

Returning to the newspaper article, you will be glad to learn that the old school has NOT been demolished, but survives virtually intact (I went there yesterday just to make certain!) These days it is an Adult Education Centre, and the playground where we swapped stamps is now a car park.

Some time after we lost touch in 1940, I visited the little shop of W. Spowart, stamp dealer, of Queen's Road, Brighton, and mentioned your name. Spowart is long gone, so there can be no harm in telling you he told me he had informed the police you were a dangerous enemy alien! This may explain your arrest and internment.

I must take this opportunity to thank you for 'rescuing' Herstmonceux from the hands of the dreaded developers, who would probably have turned it into a supermarket, or worse!.

This letter reaches you through the kind assistance of Dr David Walton of the University of Sussex.

My very best wishes to yourself and your wife.

Tony alce

PS Please excuse typewritten letter- my hand-writing is totally indecipherable - even to me!

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Dr. Alfred Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

February 10, 1993

Mr. M. Fisher Assistant Principal Brighton College of Technology Pelham Street Brighton, East Sussex BN1 4FA England

Dear Mr. Fisher:

Thank you for your thoughtful letter of January 21st.

Unfortunately, I was able to attend the Brighton College of Technology only from January to early May of 1940.

Best regards.

Sincerely,



Your Ref:		Date:		
Our Ref:	95 (E).	When calling please ask for:	Elt Te4	
	Ar Alt au sader 1901 North anex Milwaukes Mil 52011			BCT

Principal: M K Jones BSc MSc DipEd CPhys MinstP COLLEGE OF

TECHNOLOGY

Cear Mr Bauer

A enser of my staff recently showed we a copy of an article solution Sigma-Aldrich affair" from the June 1992 Chemistry in Britin. We perticularly noted the following comment

"Sader with bery in known in 1924 but became a refugee when the Naris tough over Austria in itses, sits mather sent him to England where he want to Brighton Technical Colloge."

Enclosed is an oblight attent of the Recorded Ferrade Durlding which may wall bring buck is oblight, for part of the College celebrates its centerury in face and we are froing to build up constructly and sublicit material to review the chievements brough on the bast.

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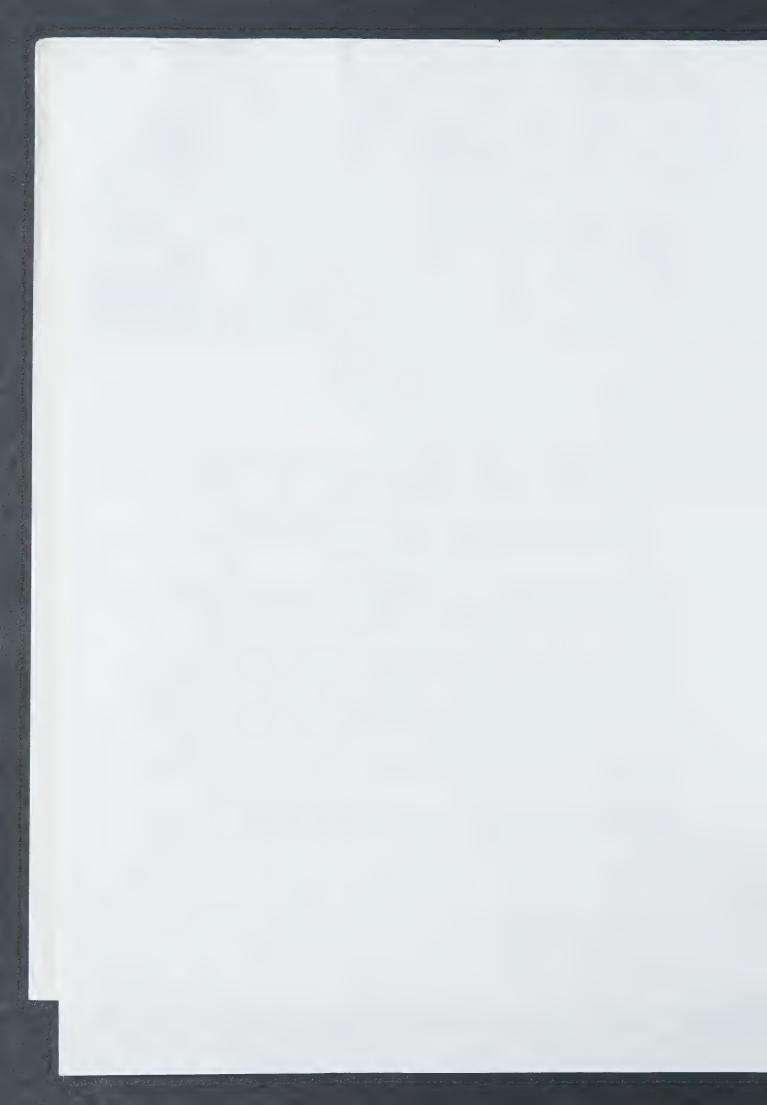
An estimation of four of four one shape of you are visiting Engla of the fore eeable future you might be inclined to revisit your roots in Brightin we while we pleased to greet . J.

doub incereily

Michael Files

h Flaher Lant Principal

Pelham Street, Brighton, East Sussex BN1 4FA Telephone: (0273) 667788 Fax: (0273) 667703





RICHMOND TERRACE



5 Seaford Court, 220 Great Portland Street, London W1N 5HH. Tel: 071-387 6067 Fax: 071-383 3470

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and we have the to and an

Dear Dr. Bader, El bance you for it our Lefter. I in so sorry about the ecores in "Act & Antiques". Using the highly currency conversion is mudder with ask market journalism & Should have warned them. & look forword way unch te scering you again in Discombor. years Sincould



February 11, 1993

Mr. Felix Posen 49 Wigmore Street London W1H 9LE England

Dear Mr. Posen:

Thank you so much for your kind and most interesting letter of February 2nd. Of course, I would very much like to meet you.

Isabel and I plan to arrive in England on May 19th, but then spend the week of May the 24th lecturing in Durham, Edinburgh and Glasgow. Most of June we will spend on the continent but will be back in England from the 1st of July until the 25th. I plan to give a lecture at the Spiro Institute on July the 4th and perhaps meeting there might be convenient to you.

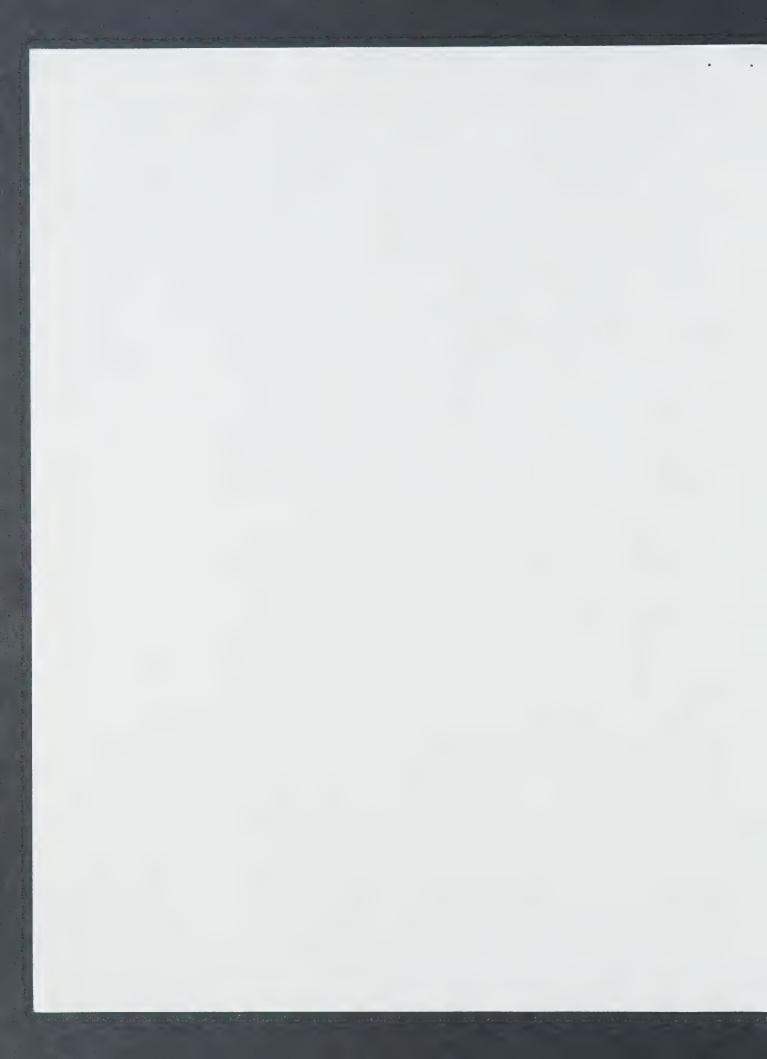
Our home in England is at 52 Wickham Avenue, Bexhill-on-Sea, East Sussex TN39 3ER, and our telephone number there is 0424 222 223.

The enclosed description of our purchase of Herstmonceux is essentially correct.

I much look forward to meeting you.

Sincerely,

Enclosure



FELIX POSEN

Dr Alfred Bader c/o Guinness Mahon & Co 32 St Mary at Hill London EC3 8DY

2nd February 1993

Dear Dr Bader,

First of all, I congratulate you on the purchase of Herstmanceaux, one of the UK's most glorious castles, and above all on the purpose to which you will apply it.

It so happens we have quite a bit in common and so I particularly welcome you to these shores. I also was born in Central Europe (Berlin) and left after Kristallnacht. My education and basic culture is North American but I decided to move back to this country 25 years ago.

One of my consuming interests in this country is stately homes and castles. I have been fortunate in occupying a very beautiful 15th century moated house in Surrey, near the Sussex and Kent borders.

I have now retired from the commodity business and am devoting most of my time to philanthropic endeavours in the area of Jewish identity in a secular world. Inter alia I am also a Governor of the Oxford Centre for Postgraduate Hebrew Studies at Oxford University and so I believe we may have quite a lot of common interest also in the field of education.

It would give me great pleasure to meet with you on one of your forthcoming trips to the UK and would be happy to invite you to my home to see whether our paths are indeed so intertwined that we could reinforce each others interests.

Sincerely yours,

Vnen



February 15, 1993

Mr. Leslie Donn, J.P. The Villa 119 Higher Lane Whitefield, Manchester M25 7WZ England

Dear Mr. Donn:

In response to your letter of January 18th, there is no doubt in my mind that Christie Hospital in Manchester is doing excellent work in cancer research and treatment.

But surely contributions for that work should come mainly from Britain.

Best wishes,



PHONES: 061-766 2411 (Private)

061-833 0000 (Business)

FAX 061-832 1976



"THE VILLA" 119 HIGHER LANE WHITEFIELD MANCHESTER M25 7WZ England.

FROM LESLIE DONN, J.P.

Dear Dr. & Mrs. Alfred Bader, Jan. 18th.93 I read in the Jewish Chronicle about your wonderful gesture in buying Herstmonceux Castle in Sussex and I congratulate you on this noble effort. You will see from the enclosed I am a Cancer patient and just want to help my Prof. Crowther and Christie Hospital, Manchester with their project which will help other Cancer patients in the future. We have over £500,000 in the Bund of which I have raised by my own efforts over £150,000. We just need another £250,000 to build the ward at this foremost Cancer hospital in Europe. Can you possibly assist? If so any donation should be made to the Medical Oncology Research Fund LD appeal. Thanks and may you and your family have good health.



PHONES: 081-788 2411 (Private)

061-833 0606 (3 LINE1 (Business)



"THE VILLA" 119 HIGHER LANE WHITEFIELD MANCHESTER M25 7WZ

FROM LESLIE DONN. J.P.

Dear Friends,

PLEASE GIVE SERIOUS CONSIDERATION TO THIS LETTER BEFORE THROWING IT AWAY IN THE WASTE BIN AS JUST ANOTHER APPEAL.THANKS.

<u>CANCER</u> is a word which sends a shudder through the system. As a patient of <u>Prof. Crowther at Christie Hospital, Manchester</u> and having recently had <u>CHEMOTHERAPY</u>, I know it.

Prof. Crowther & Christies, both renowned in the field of <u>CANCER</u> and to where <u>CANCER</u> patients come from all over, wish to establish a much needed ward, where they can research the effects of <u>CHEMOTHERAPY</u> and the new drugs being constantly used. We have £500,000 in the fund and just require another £250,000 to commence the work, so we are well on the way to our target. I have personally collected over £150,000 and as I am 72,I am very anxious to see the ward commenced if not built, in my lifetime.

Please do send a donation, no matter how large or small NOW, or consider leaving a bequest in your will.

All donations and bequests must be made out to the

MEDICAL ONCOLGY RESEARCH FUND LD APPEAL

otherwise they will not assist Prof. Crowthers project. Registered Charity No. 514520.

I do hope that you and your friends will help and send contributions made out to the above fund, either to myself at the above address or direct to the Appeals Office, Christie Hospital, 555, Wilmslow Road, Manchester M20 9BX.

Thank you for taking the trouble to read my note and for your anticipated support.

May you and yours be blessed with good health and may you never require the services of Christies.

Yours very sincerely,

LESLIE DONN <u>PLEASE KEEP THIS LETTER ON FILE FOR FUTURE REFERENCE AND</u> ALLOCATIONS.



PHONES: 061-766 2411 (Private)

061+833 0606 (3 LINES) (*Business*)



"THE VILLA" 119 HIGHER LANE WHITEFIELD MANCHESTER M25 7WZ

FROM LESLIE DONN. J.P.

One of the main aims of Prof. Crowther's <u>MEDICAL ONCOLGY</u> <u>RESEARCH FUND. LD. APPEAL</u> is to build a 12 bed ward at <u>CHRISTIE HOSPITAL, Manchester</u>, to monitor cancer/leukaemia patients after having had chemotherapy.

As a CANCER patient of Prof. Crowther at Christie's, and having had chemotherapy, I appreciate the great value of this project, particularly when new drugs are being 'constantly used.

The ward will cost about £750,000 and I nam pleased to say that through the large and small donations of individuals, companies, charity committees and trusts etc, I have been able to collect over £150,000 of the £500,000 in hand. The <u>MEDICAL ONCOLOGY RESEARCH FUND LD APPEAL</u> is a registered Charity no. 514520 and therefore is able to receive covenants and charity vouchers.

If you are intending leaving a bequest to Christie's in your will, please consider making it to the MMEDICAL ONCOLOGY ONCOLOGY RESEARCH FUND LD APPEAL, CHRISTIE HOSPITAL, MANCHESTER" and this will help Prof. Crowther's Cancer Research. PLEASE help me to quickly raise the balance of the money required...large or small donations will be equally appreciated.

As I am 72, you can understand how anxious I am to see the ward commenced.

All contributions and bequests must be made out to the <u>MEDICAL ONCOLOGY RESEARCH FUND LD APPEAL</u>, CHRISTIE HOSPITAL and should be sent direct to Christie Hospital.555, Wilmslow Rd., Manchester M20 9BX or to myself at the address below. Thanking you in anticipation of your support and wishing you and your families good health always. May they never need the services of Christie Hospital.

Yours sincerely

Leslie Donn J.P. II9 Higher Lane, Whitefield, Manchester M25 7WZ.

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Wilmslow Road, Withington, Manchester. M20 9BX

Telephone: Direct: 061 446 Hospital: 061 446 3000 a production of the second sec

CHRISTIE HOSPITAL

NATIONAL HEALTH SERVICE TRUST

September 1992

TO WHOM IT MAY CONCERN

Dear Sir

Several exciting developments have taken place in cancer treatment during the past year. The use of genetically engineered growth factors is revolutionising the way that patients are treated with chemotherapy. These factors are normally produced in the body but are now available in highly purified form for clinical use. Some are factors capable of stimulating the bone marrow and production of blood cells. The doctors in my department have more experience in the use of these new bone marrow growth factors than any other centre in the UK and we were the first to publish evidence showing that one of these factors (G-CSF) could enhance blood count recovery following chemotherapy and reduce the risk of infection. During the course of 1991 we have shown that bone marrow transplantation following intensive chemotherapy with curative intent can be replaced by using the patients own blood cells stimulated by G-CSF (the patients own blood cells collected from a vein are separated and given back following ehemotherapy).

These new procedures are allowing us to use chemotherapy at higher dose, safely and more effectively than in the past. It is now of vital importance to implement these new developments on a wider scale and to treat more patients. The intensive approach to therapy we are using is already leading to improved long term survival for patients with tumours of the immune system such as Hodgkin's disease and lymphoma. The recognition that this approach can be used more safely using blood cell growth factors is therefore an important one which requires further development.

At present our facilities for intensive chemotherapy at the Christie Hospital are severely limited and we do need more beds to cope with the new advances in cancer management which have been made. We are intending to create a new ward facility for conducting this work but more funds are required to build the new ward and provide at least some of the necessary revenue to treat the patients. Already more than $\pounds 400,000$ has been collected to forward these aims but more than twice this will be needed to build the new Unit. Our goal is to collect $\pounds 1M$. This is an extremely well worthwhile aim since more cures are to be expected using these new approaches.

Yours sincerely

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Professor Derek Crowther, Ph.D., F.R.C.P., F.R.C.R. Director, Department of Medical Oncology



Christie ward bid on target

THE New Year could bring a dream come, true for fund-raising stalwart Leslie Donn.

Three years ago the. Whitefield businessman began a crusade to raise £200,000 for a 12bedroom ward at Christie Hospital, where cancer patients can be monitored after receiving chemotherapy.

Now the fund stands at a staggering £150,000 and, if all goes according to plan, Mr Donn, 72, of Higher Lane, could reach his goal in the next 12 months.

Mr Donn said: "If all goes well work could start on the project soon."

M/CEVENING NELOS 29/12/92

LESLIE NEAR TO TARGET

THE New Year could bring a dream come true for fundraiser extraordinaire Leslie Donn.

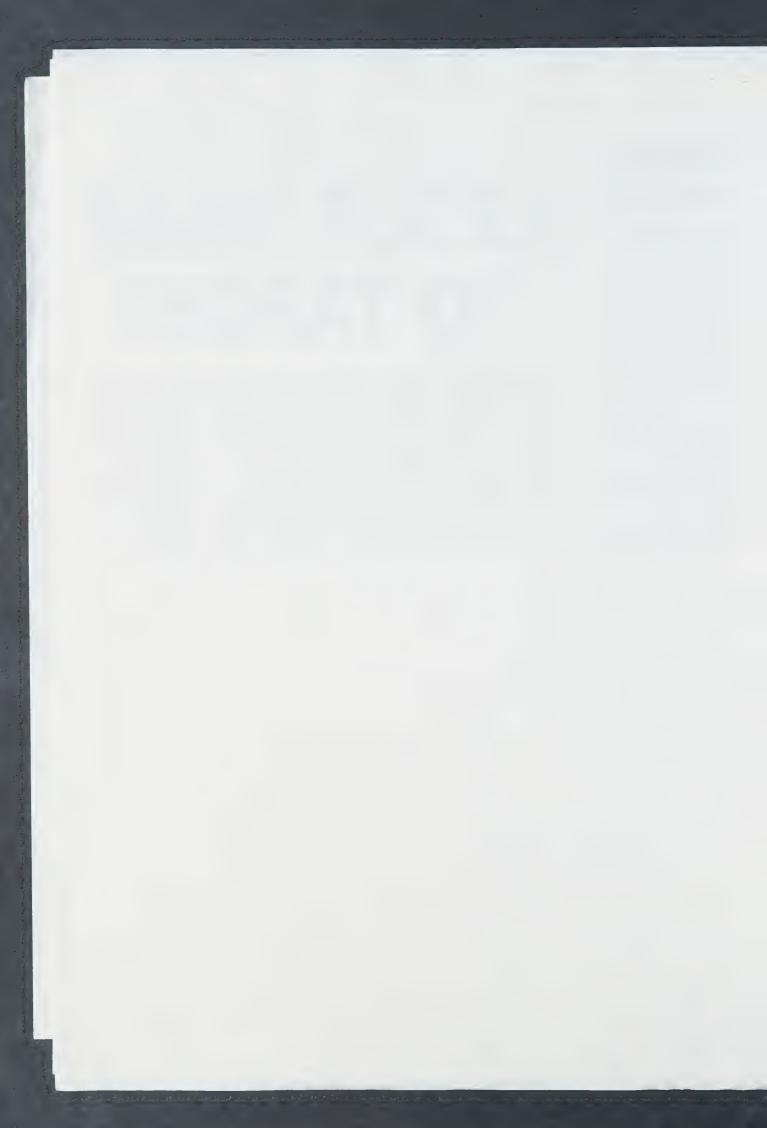
Just three years ago the Whitefield busincssman, now 72, began his own personal crusade to try and raise £200,000 for Christie Hospital's Mcdical Oncology Research Fund LD Appeal. Now the fund stands

Now the fund stands at a staggering £150,000 and, if all goes according to plan, Mr Donn from Higher Lane could actually reach his golden goal during the next twelve months.

Mr Donn said: "I spend much of my time writing to charitable trusts and organisations to bring in the money and obviously I also rely on donations from well-wishers. I have been treated personally at Christie Hospital and I cannot praise their professionalism and care enough." Money from Mr Donn's efforts is to go towards setting up a specialist 12-bedroom ward at the hospital in Withington where cancer patients can be monitored after receiving chemotherapy.

He added: "The specialist involved has set a £500,000 target figure and if all goes well work could hopefully be starting on the project soon. "It is urgently needed for with the constant use of new drugs, there is a need to monitor results and observations which in themselves can help to save lives and prevent suffering in the future.

"I am making a special appeal to everyone to help with this effort. From a personal point of view I am just £50,000 short of my target now and I would love to reach that as soon as possible."





ALFRED BADER FINE ARTS

DR. ALFRED BADER

February 23, 1993

ESTABLISHED 1961

Rabbi Pesach Efune Torah Academy School 31 New Church Road Hove BN3 4AD England

Dear Rabbi Efune:

In response to your fax of yesterday, I admire your persistence.

I remember the community in Brighton and Hove to be both wealthy and unfriendly.

To illustrate how unfriendly, let me tell you this: some two years ago the Jewish community invited me to speak in Hove. The weather that Sunday was so horrible that train service from Bexhill to Brighton was cancelled. My wife and I did not want to disappoint the community and so we drove the 30 miles, even though the roads were truly miserable. After my talk, no one in the community even invited us for a cup of tea, and on our way home we could just shake our heads in disgust. The one exception was Miss Rosen, a friendly lady who had been with me in the Middle Street Synagogue.

I hope that your schooling succeeds in teaching hospitality to strangers.

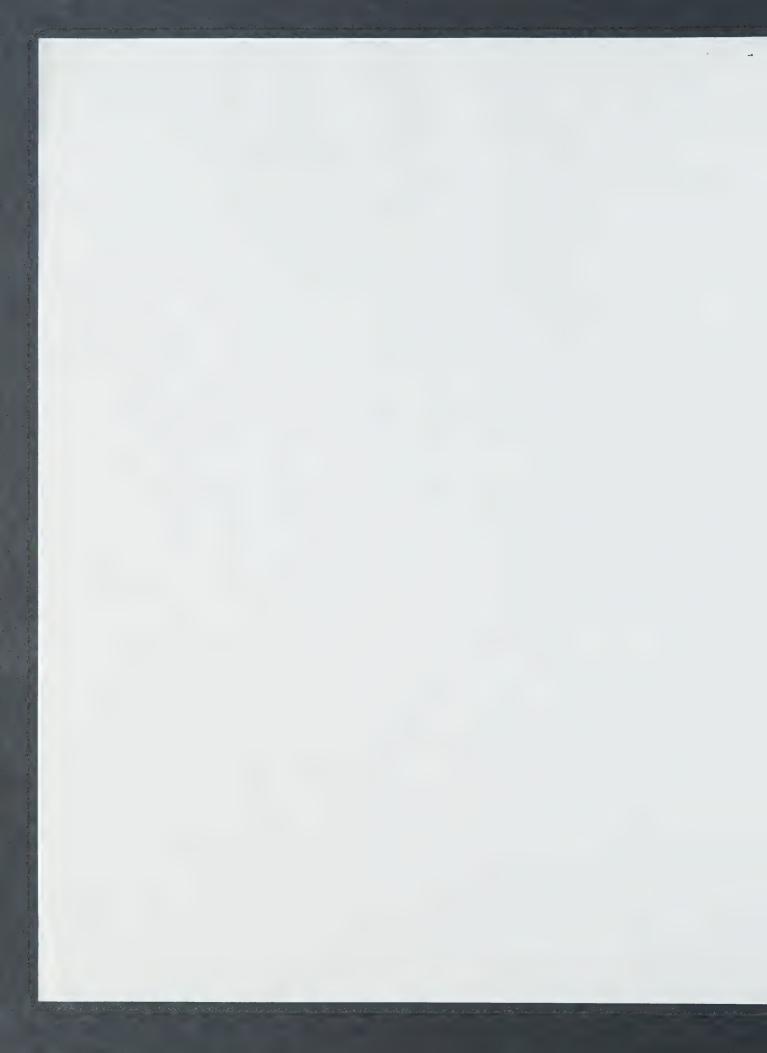
As the enclosed will show you, the foundation run by my son is involved in helping Jewish organizations, but schools in Britain should be supported by British Jewry.

Best wishes.

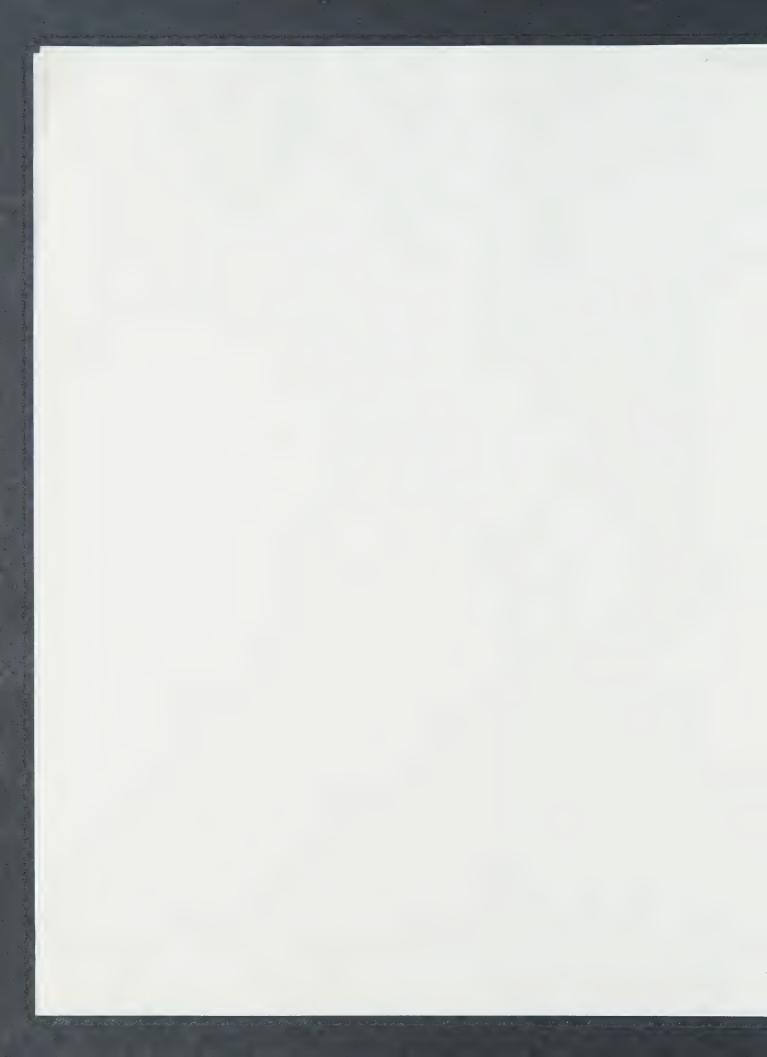
Sincerely,

Enclosure

By Appointment Only ASTOR HOTEL SUITE 622 924 EAST JUNEAU AVENUE MILWAUKEE WISCONSIN USA 53202 TEL 414 277-0730 F4x 414 277-0709







February 24, 1993

Dr. David E. Kime School of Biological Sciences Department of Animal & Plant Sciences University of Sheffield P.O. Box 601 Sheffield S10 2UQ England

Dear Dr. Kime:

In response to your letter of February 3rd, the entire MRC reference collection of steroids has been taken to Sigma Poole, and I would suggest that you call either Dr. Colin Broomfield or Miss Anna Loisidou on the Sigma Poole 800 number to inquire about charges.

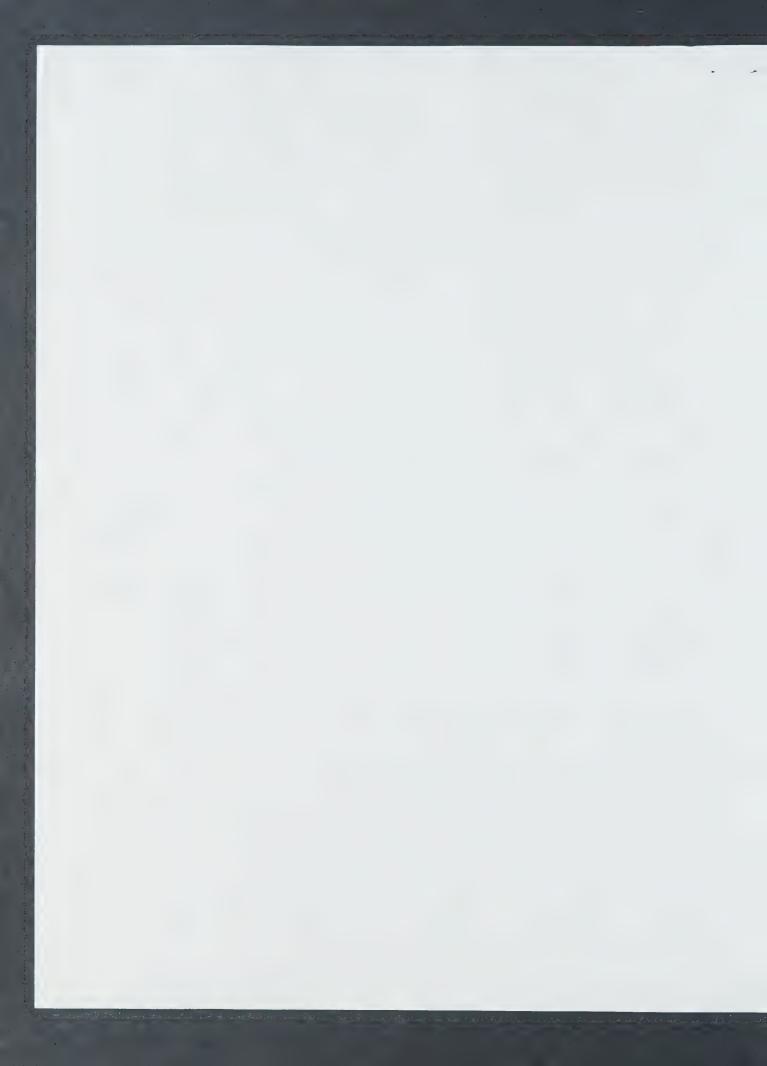
Professor Kirk passed away last year, but his very able associate, Anna Loisidou, moved with the collection to Poole. As you will see from the enclosed, the name of the collection is now the Sigma-Aldrich Library of Rare Chemicals.

All good wishes.

Sincerely,

Enclosure

c: Dr. C. Broomfield, Sigma Poole Mr. Robert Wandler, Aldrich U.S.A.





SCHOOL OF BIOLOGICAL SCIENCES

Department of Animal and Plant Sciences

Direct line Tel (0742) 824316

PO Box 601 The University of Sheffield Sheffield S10 2UQ, U.K. Tel: (0742) 768555, Ext. Telex: 547216 UGSHEF G Fax: (0742) 760159

3 February, 1993

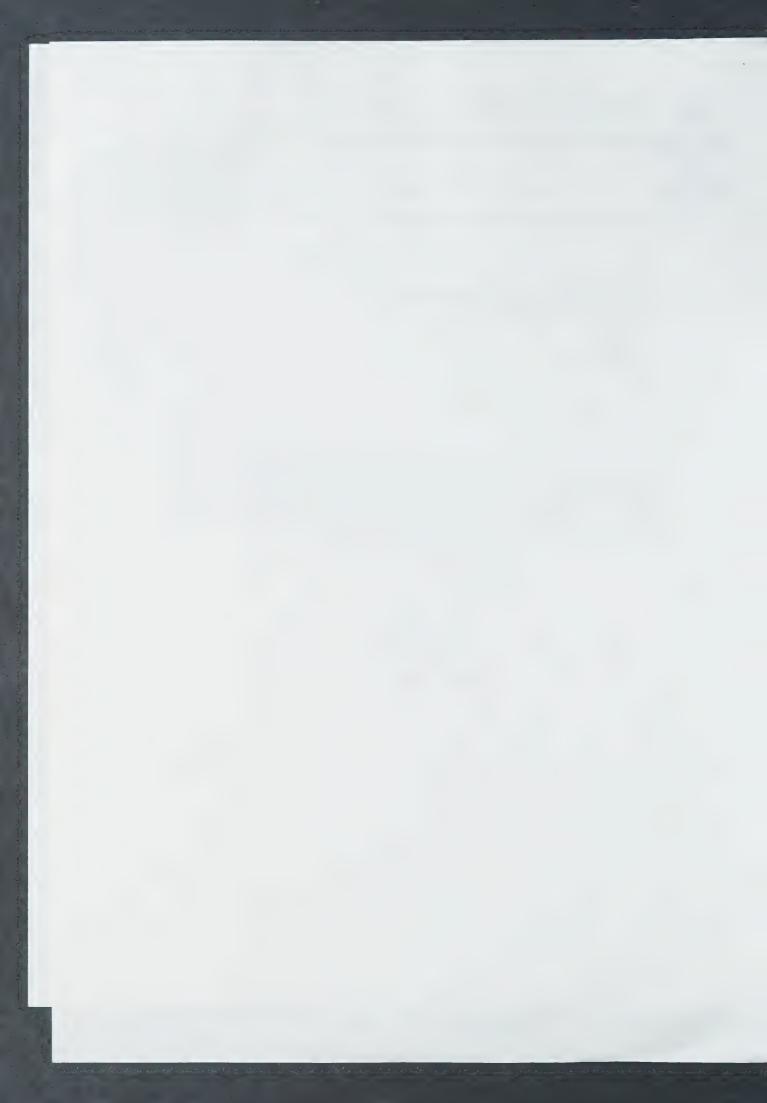
Dr. Alfred Bader The Alfred Bader Library of Rare Chemicals The Aldrich Chemical Company PO Box 355 Milwaukee Wisconsin 53201 USA

Dear Dr. Bader,

I have, during the last few years, had occasion to use samples from the MRC Reference Collection for help in identifying unusual steroids in fish. I understand from Prof. Kirk that you have agreed to take over this collection, and I would be grateful if you could let me have details of the procedure for requesting samples, in particular the charges involved. If you have an up-to-date list of the Collection I would be grateful if you could send me a copy.

Yours sincerely

David E. Kime



5 Seaford Court, 220 Great Portland Street. 0409 London W1N 5HH. ET Tel: 071-387 6067 Wed. Maro 1 pm Fax: 071-383 3470 - 281 353 Feb 25 Dear Dr. Bader, Regents Vale Thank your very much. tor your letter of Feb 12 and He art-fields you enclassed. de pring much hepe me con theset when you are a set in horden

your Sincevely En under Alerum

Telephone: Brighton (0273) 602793 4 DITCHLING ROAD BRIGHTON, EAST SUSSEX BN1 4SF ENGLAND

1 March 1993

Dear Alfred

How pleasant it was to receive your letter of February 10, with the interesting enclosures.

I enclose the clipping from our local newspaper which prompted my original letter. There was an element of luck in my seeing it at all. The Argus is published in two editions daily, miaday and evening: fortunately that day I got the midday edition - the story was not carried in the later one.

I too eventually reached the dizzy rank of school prefect at East Hove - I've still got the badge! No glowing reference from the Headmaster, though.

I look forward to receiving a call from you next time you are this side of the 'pond', when we can get together to reminisce on the old days, and set the world to rights.

Best Wishes

iony

PS Dear old Dimbles' advice about washing behind the ears was largely wasted on me, as my wile will testify. However, his periodic tirades against the lewa and 'ungentlemaniy' practice of putting hands into trouser pockets, did make an impression. I've found it beneficial over the years when it's been my turn to buy a round of arinks.





TORAH ACADEMY SCHOOL

31 New Church Road Hove BN3 4AD Tel. (0273) 28675

DR. A. BADER ASTOR HOTEL SUITE 622 924 EAST JUNEAU AVENUE MILWAUKEE 53202

9th March, 1993 15th Adar, 5753

Dear Dr. Bader,

I hope that this letter finds you in good health.

Naturally I was saddened to hear of your negative experience in Brighton. However I wish to inform that we do indeed teach our pupils the importance of hospitality to strangers.

I am not sure whether I am in a position to apologize on behalf of the community, but it is my sincere wish and hope that next you find yourself in this part of the world, I will be able to "undo" some of that wrong and show you what real hospitality is all about.

Wishing you well.

Yours sincerely,

(Rabbi Efune

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March 15, 1993

Mrs. Sarah Orkin 7 Blackstone Road London NW2 6DA England

Dear Sarah,

How dumb of me not to sign the check--I am getting as forgetful as a professor!

I have given so many talks in London and will give another one at the Spiro Institute on July 4, as well as one on each visit to the Jewish community in Bexhill. Enough is enough.

Fond regards,

Enclosure



March 29, 1993

Mrs. Helen David Flat 8, Bell View 20 Brackley Road Beckenham, Kent BR3 1RQ England

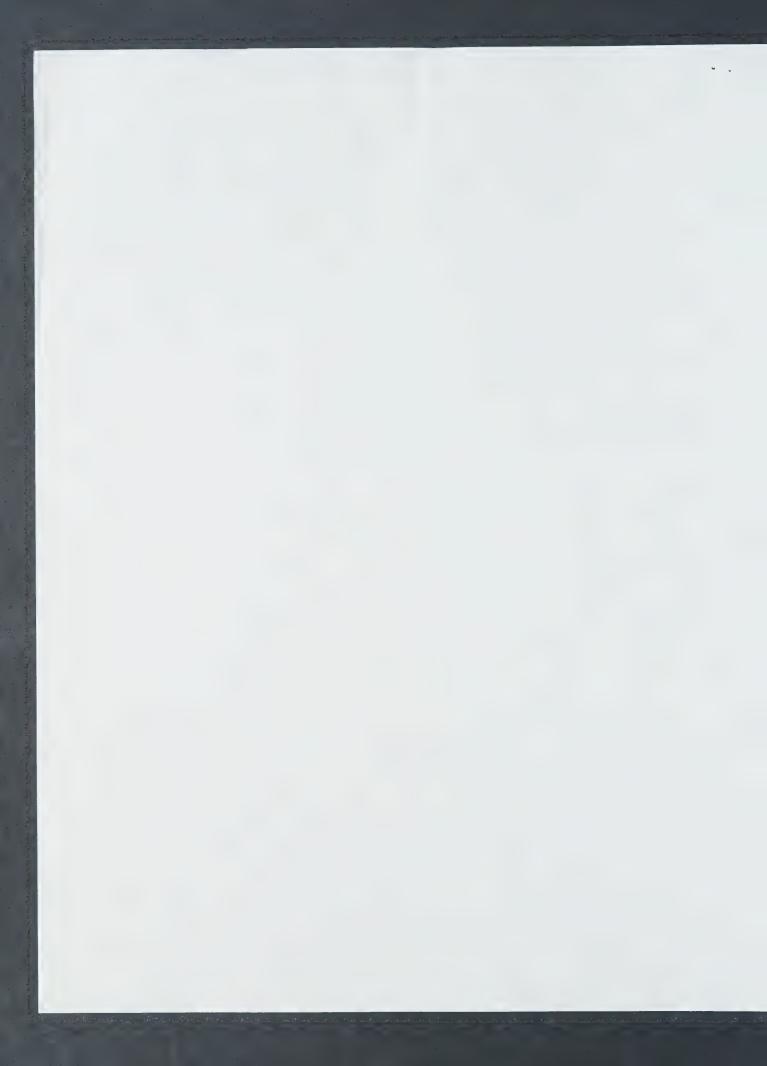
Dear Mrs. David:

In response to your letter of March 9th, my wife and I have been wracking our brains, trying to think of some way to help your son, but just cannot think of any.

It isn't just that we do not know your son nor his capabilities, but libraries in the United States are pretty much obliged to look for Americans for employment openings.

All good wishes.

Sincerely,



Flat 8 Bell View 20 Brackley Road BECKENHAM Kent BR3 1RQ England

9 March 1993

Dear Dr Bader

I have seen your name mentioned in the JEWISH CHRONICLE.

My son, Austin, who will be 26 in April, working as a Library Assistant in the University of London, has been trying for some time to obtain a Green Card which will enable him to seek legal employment in the United States. Unfortunately, so far, he has been unsuccessful in obtaining a card.

I am writing to you in the hope that you might be able to help him in obtaining a Green Card, ie perhaps via employment or refer him to someone else.

I do hope that you don't think it too audacious of me to write to you, but I thought that as you appear to be such a kindly person you would be willing to help a Jewish young man to achieve his goal.

I await your reply, for which I thank you, and wish you a very happy Pesach.

Yours sincerely

1/2

Helen David (Mrs)





DR. ALFRED BADER

March 30, 1993

ESTABLISHED 1961

Mr. Edgar Samuel Flat 4, Garden Court 63 Holden Road London N12 7DG England

Dear Edgar:

Thank you so much for your delightfully informative letter of March 25th.

I remember your father, Wilfred Samuel, with particular pleasure, and would certainly like to spend an evening with you.

We will be in England for just a very few days in May, but much longer from the end of June to the end of July, and I will touch base with you when we return to England from the continent in June.

Best wishes,

By Appointment Only ASTOR HOTEL SUITE 622 924 EAST JUNEAU AVENUF MILWAUKEE WISCONSIN USA 53202 TEL 414 277-0730 FAX 414 277-0709



Flat 4. Garden Court 63 Holden Road London, N12 7DG Tel: 081-445 1327

25 March 1993

Dr Alfred Bader 2961 North Sheppard Avenue Milwaukee Wisconsin 53211 USA

Dear Alfred,

I saw a news item in the Jewish Chronicle about your purchase of Herstmonceaux Castle for Queen's University, which led me to wonder if you were the Alfred Bader, whom I knew in Montreal, when we met at Martin Wolff's home in 1943-5. I called Sarah Orkin, who told me that you are and that you will be staying with her next May. I would very much like to meet you again and exchange reminiscences. Perhaps you would care to have lunch or dinner with me at the Reform Club, when you come to London.

Briefly my own biography, since we last met fifty years ago, is as follows: I qualified as an optometrist in 1950, and worked as such for twenty-five years, until I got thoroughly bored with it. In 1974, I took a BA in history at the University of London, followed by an MPhil in Economic history, with a thesis on the 17th century diamond trade. My parents, whom you knew in Montreal, died some years ago. I wrote a biography of my father, (Lieut-Commander Wilfred S. Samuel RNVR) and his career as an industrialist and as a naval intelligence officer for the centenary of his birth, which I can send you if it is of interest. Like my father I am very interested in the history of the Jewish community in Britain and especially in the Sephardi community. For the last eight years I have been Director and Curator of the Jewish Museum in London, which my father founded sixty years ago. I have also been President of the Jewish Historical Society of England.

I married in 1956, and after a happy marriage of 31 years my wife died in 1987. I have a son and a daughter, who are now both married and have children of their own. My daughter lives on a religious Kibbutz in Israel and her eldest son will be Bar Mitsyah in 1994. My son and his family live in London.

I hope that we can meet again.

Yours sincerely

Edgar Samuel





DR. ALFRED BADER

March 31, 1993

ESTABLISHED 1961

Mrs. Celia Scott Fosters Middle Lane Rushlake Green East Sussex TN21 9QL England

Dear Mrs. Scott:

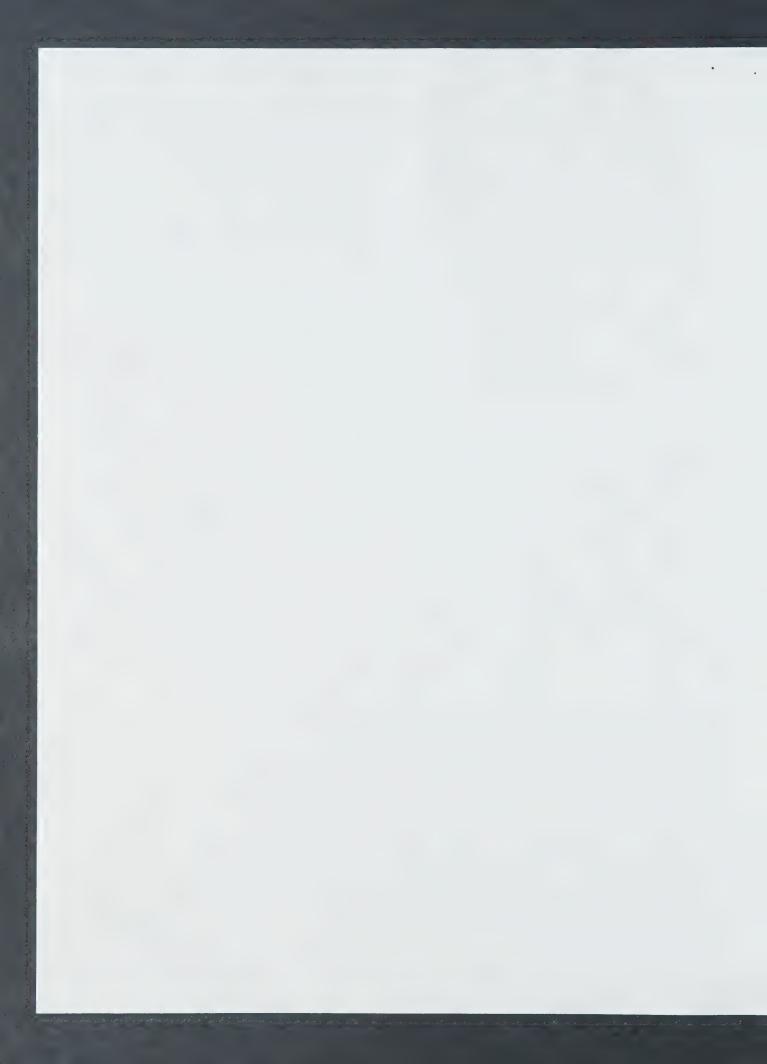
Isabel and I enjoyed your thoughtful letter of January 28th, received only this week, more than we can tell you.

It would give us great pleasure if we could meet you personally during our next stay in Bexhill. In May we will be there for a few days only, but again from the end of June to July 26th. Our telephone number is 0424 222 223.

Best regards.

Sincerely,

By Appointment Only ASTOR HOTEL SUITE 622 924 EAST JUNEAU AVENUE MILWAUKEE WISCONSIN USA 53202 TEL 414 277-0730 Fax 414 277-0709



ca Principal Juit

as from: Fostes Middle Lone Rushlake Green East Sussex Thr21 9 QL Janney 28 1993

Dear Dr and Ma Bader,

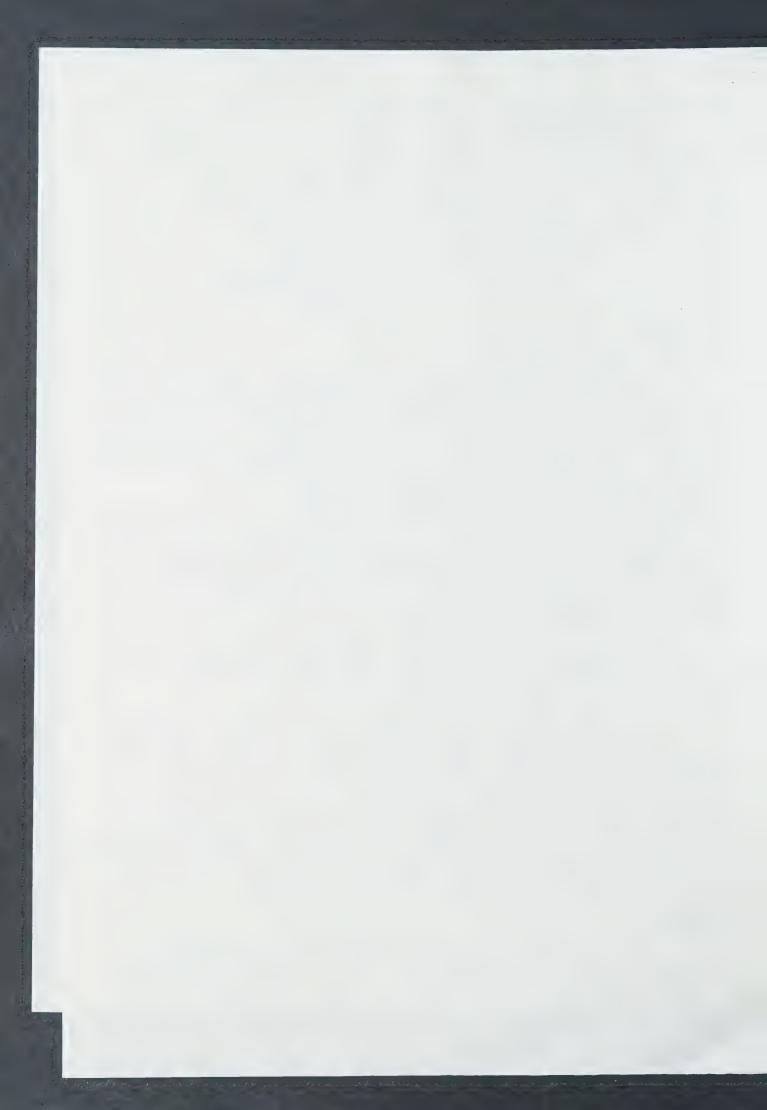
I am writing not only for myself but on behalf of many others who have all expressed their relief and gratitide that you have so generously give a very large sum of money so that Queen's University in Kingston Onterio may purchase Hestmonceux Castle and run it as a international centre.

For more than four years there have been great concern and incertainty about the future of the Castle which, together inthe its beautiful Setting, we think is insurpassed onymber. We all feared the prospect and results of a commercial development.

Herstmonceux Castle reeded a knight in shining amar to ride out and save it and here are delighted that it should be you with your special local connections.

Queens University may not be as well known in Sussex as it ought to be but that can soon be remedied. I think you will find that there are many people around who know hill find that there are many people around who know Canada well or here relatives there, as we do. We are well awar of the voy high standing of Queen's University form our awar of the voy high standing of Queen's University form our time in Montreal where my husband was the UK Consul-General time in Montreal where my husband was the UK Consul-General following on fun Jaspe Cross who was kidnepped with Monsieur Lapste.

This comes into many thanks from immorable people for your great genesosity. We are confident that you will always erjoy "your" Castle for you will be able to walk in the beautiful grounds and have no usorries ubout having to dust all those rooms! Your Sincerely Celia Scott.









DR. ALFRED BADER

April 8, 1993

ESTABLISHED 1961

FAX 011 44 71 383 3478

Ms. Geraldine Norman 5 Seaford Court 220 Great Portland Street London W1N 5HH England

Dear Ms. Norman:

In response to your fax of April 7th, meeting in May might be difficult, and the end of June or July much easier. My schedule in May is as follows:

May 14th through 17th - I will be in Cambridge, Massachusetts where I have many appointments, and Harvard University Chemistry Department is hosting an Alfred Bader Day on May 17th.

Isabel and I arrive at Gatwick on Friday, May 21st, will spend the 22nd at our home in Bexhill, and will then travel by train from Bexhill to Durham where I am to speak on May 24th. Then, I have various lectures in Edinburgh and Glasgow that week, and we will probably return to Bexhill on Saturday the 29th.

On Tuesday, June 1st, we fly to Frankfurt and return on Tuesday, June 22nd.

Thus, if time is of the essence, we could meet in London either late morning of Sunday, June 23rd, or possibly in the afternoon of the 29th.

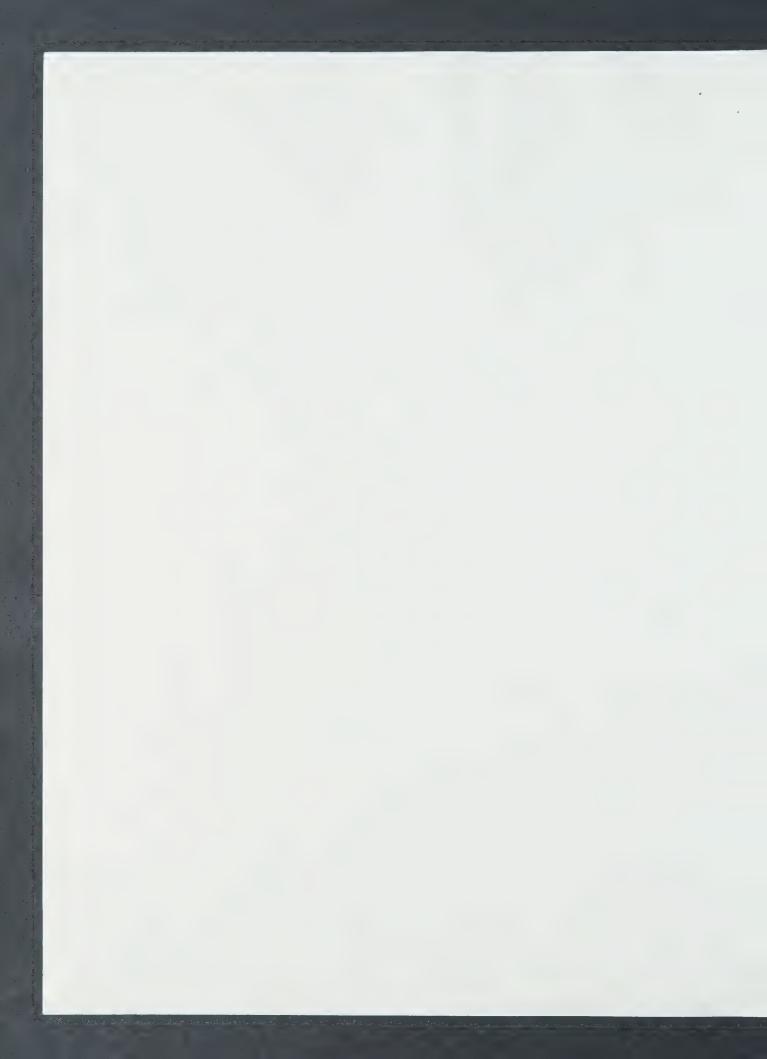
My schedule from June 24th to July 1st is quite free. On Sunday, June 4th I have been invited to speak on "The Adventures of a Chemist Collector" at the Spiro Institute in Hampstead, probably that afternoon.

I much look forward to meeting you at your convenience.

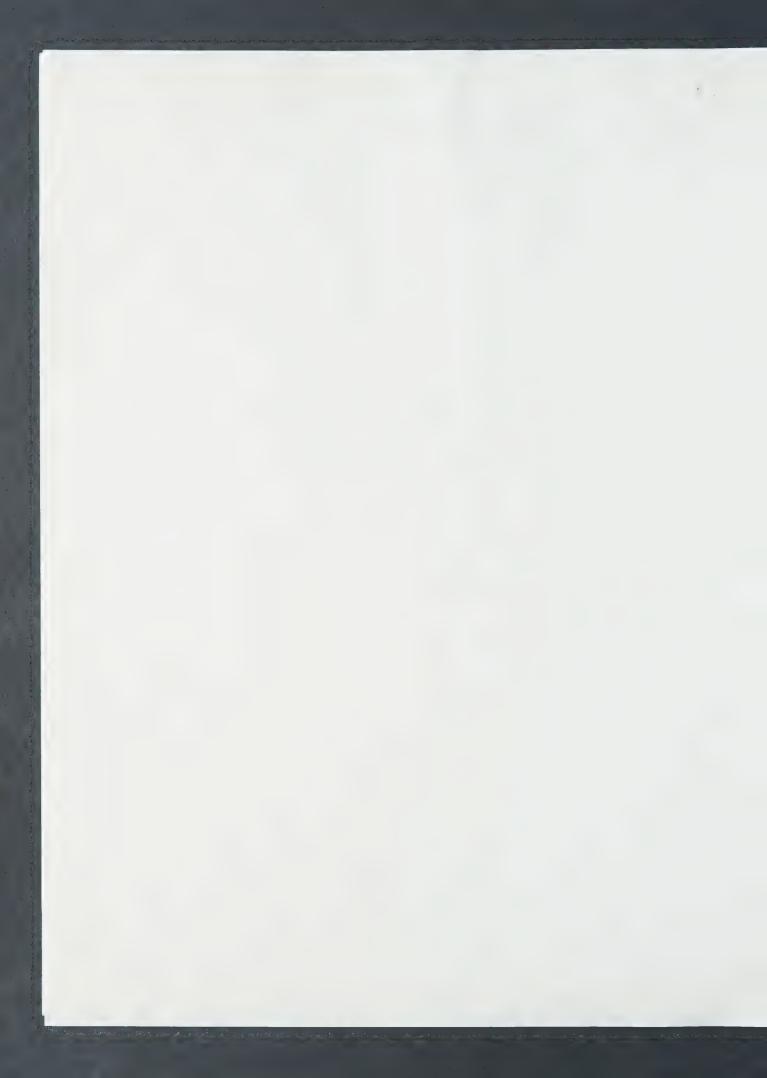
Sincerely,

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By Appointment Only ASTOR HOTEL SUITE 622 924 EAST JUNEAU AVENUL MILWAUKEE WISCONSIN USA 53202



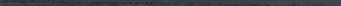






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DR. ALFRED BADER

April 16, 1993

ESTABLISHED 1961

Via Fax 011 44 71 383 3470

Tel. 71 387 (auto)

Ms. Geraldine Norman 5 Seaford Court 220 Great Portland Street London W1N 5HH, England

Dear Ms. Norman:

Thank you so much for your fax of April 14th received on my return from a speaking tour.

I am sorry that my previous fax contained a mistake suggesting a meeting in London on June 23rd, when it fact I meant May 23rd.

Isabel and I plan to leave Bexhill by train mid-morning on Sunday, May 23rd, arriving in London around noon, and then catch a train in London to arrive in Durham late that afternoon. Hence, if you feel that an earlier meeting would be helpful to you, we could visit with you early that Sunday afternoon.

Alternately, we could meet after our return from the continent on June 23rd. My calendar for the week of June 28th is pretty much open.

In any case, I will telephone you shortly after our arrival in England on May 21st to discuss the best time for our meeting.

Best regards.

Sincerely,

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By Appointment Only ASTOR HOTEL SUITE 622 924 EAST JUNEAU AVENUE MILWAUKEE WISCONSIN USA 53202 TEL 414 277-0730 FAX 414 277-0709



198 Iffley Road Oxford OX4 1SD

Dr. A. Bader Aldrich Chemical Co., Inc. 1001 West Saint Paul Avenue Milwaukee, Wisconsin 53233

26 April 1993

Dear Dr. Bader:

I am familiar with your name through the department of Art History at Queen's University, as a student, and your generosity through the Agnes Etherington Art Centre where I worked as a docent during my time at Queen's.

I am writing to you in order to enquire about any scholarships for post graduate research that might be offered by Aldrich Chemical Co., Inc. or that you may know of and I might be eligible to apply for.

I have applied for the M.Litt. in the History of Art at the University of Oxford from the Diploma course here which I am presently enroled in. My proposed dissertation is a study into the patronage of Cosimo I de'Medici, Duke of Florence and to question the accepted definition of court art under this patronage; a continuation with my present research for the Diploma thesis.

I apologize for my forward approach and thank you for your kind consideration.

Yours sincerely, Rachel Shain

Rachel Shain

Dr. Alfred R. Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

May 11, 1993

Miss Rachel Shain 198 Iffley Road Oxford OX4 1SD England

Dear Miss Shain:

In response to your letter of April 26th, Aldrich will certainly not set up scholarships in art history, and I do not think I can do so at Oxford University.

However, the Art History Department at Queen's University will, I hope, have a Ph.D. program in place within the next year or two. When that happens, the university will have a fellowship fund set up by Isabel and me to send students working for a Ph.D. at Queen's to study abroad for a year or so. Thus, were you to get your Ph.D. at Queen's, you might be eligible for such a fellowship to study in Florence.

All good wishes.

Sincerely,

Dr. Alfred Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

April 27, 1993

Mr. Baram Technical Director Vanasyl Technology 32 Cavendish Road Sheffield S11 9BH England

Dear Mr. Baram:

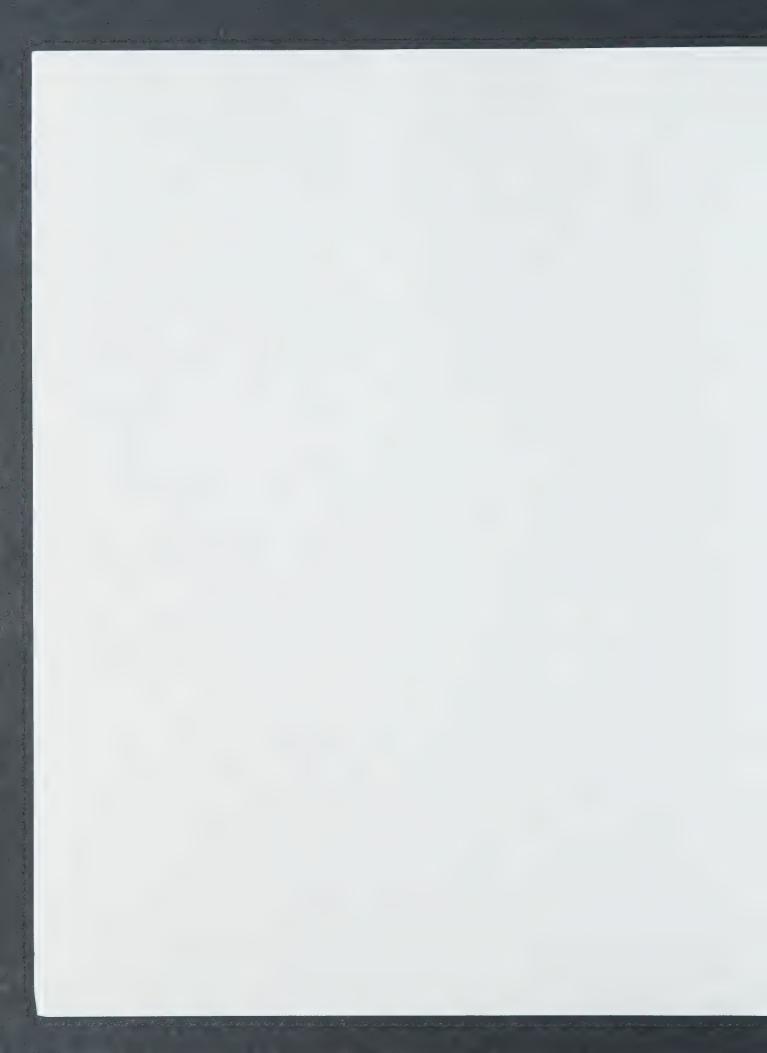
I must tell you that I wish that you had never given Rabbi Farro my name and address. He came here totally uninvited and found it very difficult to accept "no" from my son and me.

It appears that a number of Canadian and British foundations promised sums for a very lavish addition to a center for Jewish studies, originally bought very modestly, and the foundations then defaulted.

I have also thought about your query whether Marvin Klitsner and I might be interested in investing in Vanasyl Technology, and on consideration I have decided against it.

Best wishes.

Sincerely,



19 Homewood Road St Albans Hertfordshire AL1 4BG Telephone (0727) 57621

Dr R Gordon Booth Consultant to Booth & Smith Associates Food-related projects and problems

Dr Alfred Bader 2961 North Shepard Ave MILWAUKEE 53211 USA

28 April 1993

Dear Dr Bader

I read with great interest your recent paper on Kekule and Loschmidt in 'Chemistry in Britain'. The correction of long held but incorrect views on past discoveries brings to mind one particular case where justice has not been done. Unfortunately I do not have precise dates but a very short library search should readily provide them.

In the late 20's or early 30's. Prof Harry Steenbock of Wisconsin University patented (in October) the production of Vitamin D by the irradiation (UV) of ergosterol. But the basis of this reaction had been pre-discovered and published in the New England Journal of Medicin the preceding June. (I personally met the physician of the New York Children's Hospital who made the discovery but did not patent it as it seemed to him to have been unethical to have done so.)

I have always felt that it was unjust that Steenbock should have been credited with this discovery and that the person who really was first should have been forgotten. It also raises questions about the lack of efficiency of staff at the US Patent Office who should certainly have seen the prior disclosure of the matter.

Another instance of this sort of thing is the attribution of the postulation of there being 'Accessory Food Factors' is always accorded to Gowland Hopkins and his 'Vitamins' but this had been postulated by a Polish Professor in 1908 who called them 'Vitamines'.

Yours sincerely

R Gordon Booth (Dr)

ş

Dr. Alfred R. Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

May 5, 5993

Dr. R. Gordon Booth 19 Homewood Road St. Albans Hertfordshire AL1 4BG England

Dear Dr. Booth:

Thank you for your thoughtful letter of April 28th.

I am certain that there are many examples of scientists claiming credit for the work of others, but probably few are quite as blatant as that between Kekulé and Loschmidt.

You may note in the May issue of <u>Chemistry in Britain</u> that not all historians of chemistry agreed with Professor Noe and me.

Best regards.

Sincerely,

MTM in talks with banks over reshape

By George Sivell

MTM, the chemicals group, is in talks with its banks over a restructuring and is calling a special meeting of shareholders for December 31. It has rolled over a standstill agreement with its banks, which was due to expire on January 4, until the end of March.

Yesterday's circular to shareholders is the latest in a series of blows. Richard Lines, former chairman and founder, resigned in March after two profits warnings in a week. In May, MTM reported a 1991 pre-tax loss of £20 million.

The shares plunged 16p yesterday to 15p, an all-time low. Shareholders' funds, stated at £15 million in the halfyear results published on September 9, have apparently all but been wiped out by interest payments, losses on anticipated disposals and the fall of the pound against the dollar. Debts, stated at £100 million at the half year, are understood to have risen to £120 million.

A fall in shareholders' funds, to less than half of the called-up share capital, requires a company to call a shareholders' meeting under section 142 of the Companies Act. MTM said it was also in breach of a borrowing limit set in its articles of association. These require shareholder approval to operate with borrowings of more than five times capital and reserves.

MTM said it had realised £5 million from disposals so far but that negotiations over sell-offs, which could bring in a further £15 million, "have been protracted and may have to be aborted if satisfactory



Lines: former chairman

terms cannot be achieved". The board said: "While progress has been made in rationalising the business and improving operational efficiency ... the benefits of these actions will not arise until 1993 and beyond. The company's performance during the final quarter of 1992 has been adversely affected by a number of factors, including the continuing requirement for management to spend significant time developing refinancing proposals.'

MTM has also put up for sale its headquarters on the North Yorkshire, Cleveland border. It is understood to be part of several disposals expected to bring in £2.5 million.

According to Directus in Edinburgh, eight MTM directors bought shares at 29p on September 14, including Ken Schofield, chief executive, who bought 331,000. David Swallow, the new chairman, is said to have bought 25,000 shares at 48p on June 5.

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DR. ALERED BADER

May 6, 1993

LATABLISHED (,')

Dr. Felix Posen 49 Wigmore Street London W1H 9LE England

Dear Dr. Posen:

Thank you so much for your letter of April 29th and for that beautiful book on Jewish silver in Russia.

I have been asked to lecture in Glasgow on May 27th and 28th.

We return from the continent to our home in Bexhill (telephone 0424 222 223) on June 22nd and will then be in Sussex, London and Cambridge until July 26th, and hope to have a chance to meet you late in June or July.

Clearly, you are a man who has helped a great many, and I would love to share your thinking about giving.

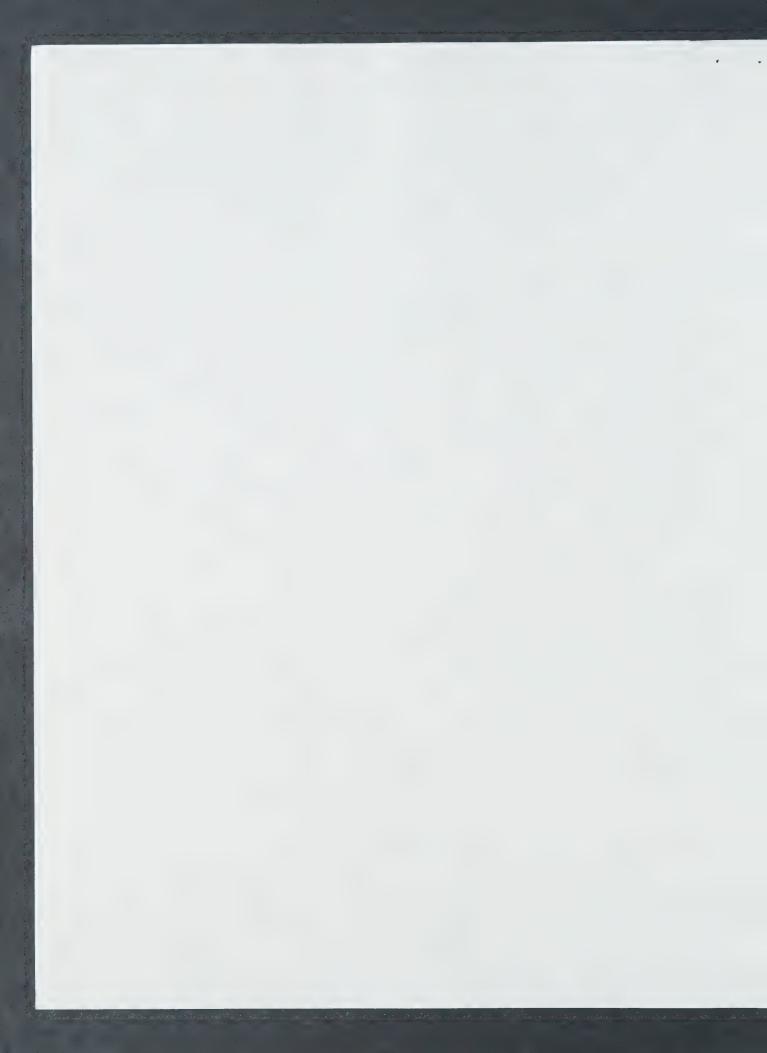
Since the gift of Herstmonceux to Queen's was announced, I have been absolutely inundated with requests for gifts from all sorts of people. A rabbi from Manchester even flew to Milwaukee, uninvited, to try to raise funds for a lavish building which had been built based on promises which have not been kept. My own philosophy is expressed in a letter just written by Isabel, copy enclosed. I really like to find opportunities for gifts myself, making sure that the gifts really make a difference. That will certainly be the case with Herstmonceux Castle.

Undoubtedly you also are swamped by requests, and I look forward to sharing your experiences.

Sincerely,

Enclosure

By Appointment Only ASTOR HOTEL SUITE 622 924 EAST JUNEAU AVENUE MILWAUKEE WISCONSIN USA 53202 TEL 414 277-0730 F4x 414 277-0709



FELIX POSEN

Dr Alfred Bader 2961 North Shepard Avenue Milwaukee Wisconsin 53211 USA

29th April 1993

. on the Madei

I enclose herewith a catalogue of a collection of silver Judaica which had been "buried" in Russia since about 1926 and is now displayed in the Kiev Museum.

You will see from the Dedication my motive in supporting this work. The collection is huge and the catalogues altogether number 8 or 10 volumes covering many other items of Judaica from that Museum.

Looking over your travel schedule as you wrote it to me on February 11th, it would seem that we should try to meet between May 25 and May 29 or, alternatively, in July. I shall be going to Israel and the United States May 30 through June 19 but will be in my country home May 28 and 29.

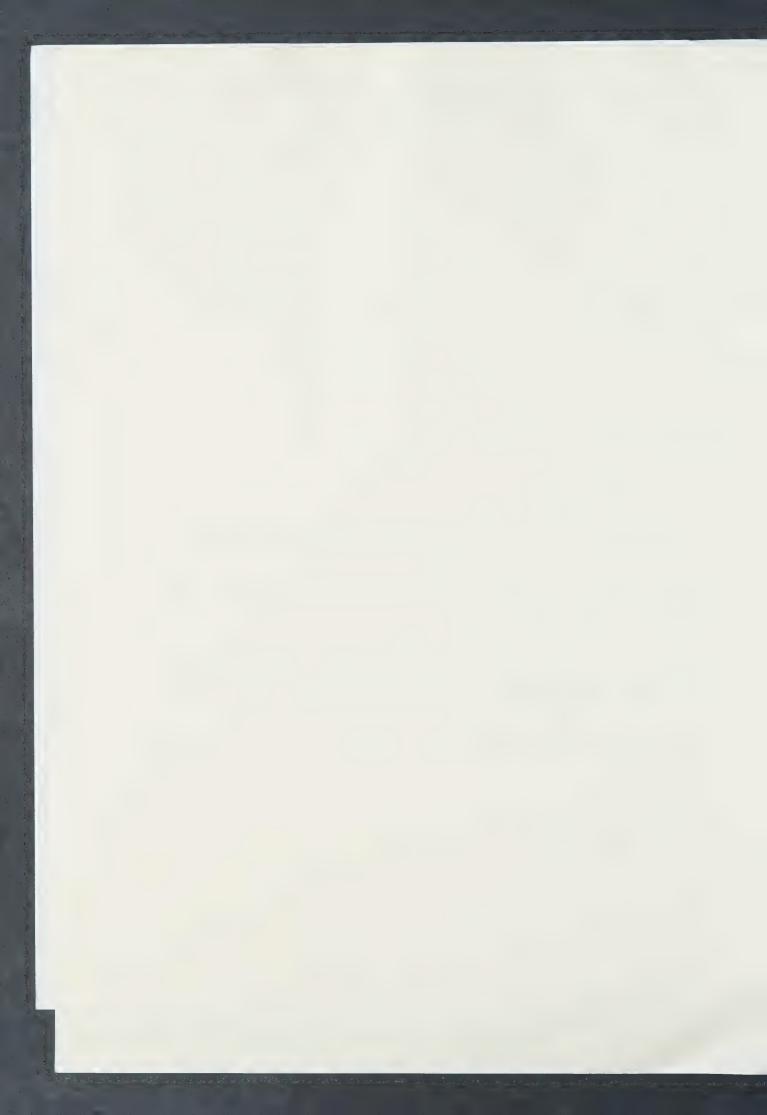
Please let me know what would be convenient for you.

Kind regards,

Sincerely,

elles : The

Enc:



Dr. Alfred R. Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

May 6, 1993

Dr. Keith Moore Assistant Curator of Western Manuscripts The Wellcome Institute for History of Medicine 183 Euston Road London NW1 2BE England

Dear Dr. Moore:

I much look forward to meeting you personally in July and will call well in advance to make an appointment.

I would very much appreciate a black and white photograph of the page as marked on the enclosed, as well as a 35 mm slide.

Please allow me to pick them up and pay for them when I see you.

Many thanks for your help.

Sincerely,

Enclosure



В'Н

Clifton House, 32 Cavendish Road, SHEFFIELD S11 9BH UK BY 1/21

Tel: (+44 742) 587 229 Fax:(+44 742) 500 239

12th May 1993

Dr. A. Bader, 2961 North Shepard Avenue, Milwaukee, Wisconsin 53211 USA.

<

Thank you for your letter of April 27, 1993 which I have just received.

As I'm sure you will understand it was not, and never would be, my intention to cause you any inconvenience, whether over matters of business or charity.

In the twenty years that I have known Rabbi Chaim Farro he has never failed to impress me with his honesty, loyalty and dedication to Jewish causes. Many members of the community in Manchester facilities that were not forthcoming locally, by the establishment of the Jewish Cultural Centre.

It has to be said, however, that his need to raise funds for the upkeep of the centre has given him plenty of scope to reveal the more unusual aspects of his personality, aspects that may not always show him in the best of lights. Indeed by stepping on toes he has (in my opinion) not infrequently done himself a disservice as there are now, unfortunately, some who would like to see the institution that he started fail. I think that this is a great pity as I too feel that the Centre provides a very necessary service.

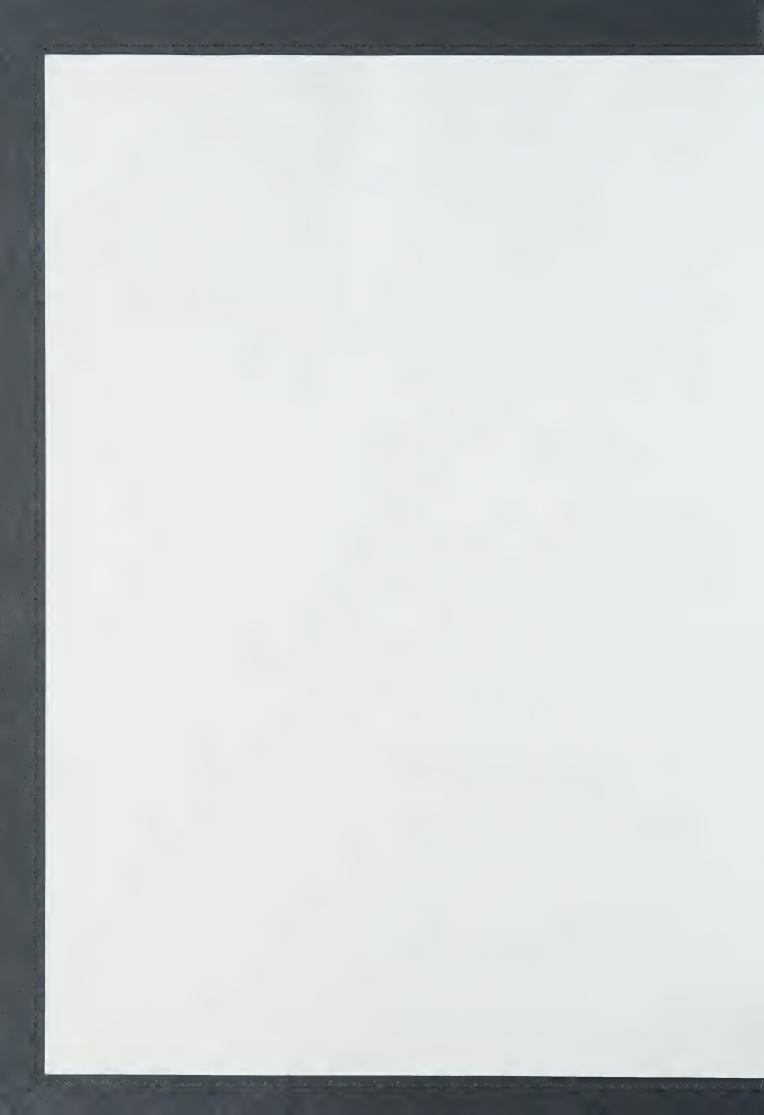
In any event I would like to apologise, on Rabbi Farro's behalf and my own, if you feel that your kindness has been abused.

May I also use this opportunity to wish you and your family 'Happy Shavous' since we are getting near the time of the receiving of our Holy Torah. I hope that in the same way that we all stood united at the foot of Mount Sinai, so we shall all very soon stand united outside our Holy Temple.

With best wishes and Happy Yom Tov

sincerely

D.Bann



Dr. Alfred R. Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

May 12, 1993

Mr. Peter Bratton Headmaster Hove Park School Nevill Road Hove, East Sussex BN3 7BN England

Dear Mr. Bratton:

In response to your letter of April 29th, I believe that what you are doing is very much worthwhile, but it seems to me that your efforts should be funded by graduates of your school.

All good wishes.

Sincerely,





Hove Park School Nevill Road Hove East Sussex BN3 7BN

Telephone (0273) 733576/730290 Fax (0273) 730091

Peter Bratton BSc Headmaster

Dr Alfred Bader, Suite 622, ASTOR HOTEL, 924 East Juneau Avenue, MILWAUKEE, Wisconsin, 53202 USA

29th April 1993

Dear Dr. Badu.

Some time ago I read an article about you in our local newspaper, the "Evening Argus", concerning your gift to Canada's Queen's University for the purchase of Herstmonceaux Castle. This is a very generous gesture and the University must be delighted with its acquisition of one of this Country's most valued buildings and sites of historical interest.

In the article it said that you are a former Hove schoolboy and that you grew up in Hove. I am Headmaster of Hove Park School, a comprehensive school for pupils aged 11-18 years. Part of our buildings are in what was the Hove County Grammar School for Girls you may remember the name since that school was established in 1935. We are currently mounting a unique fund-raising campaign, hoping to raise £100,000 from parents and sponsors in order to build a Sixth Form Centre for our older students. I have taken the liberty of enclosing a Brochure which gives details of our project in the hope that you might consider becoming a major sponsor. If you did feel this was worthy of your support on a large scale, I am sure my Governing Body would be pleased to pay tribute to you through the naming of part or even the whole of the building in your name. In this way your name will be remembered in Hove in a very tangible and meaningful way. I have enclosed for your attention also a copy of our general School Brochure which I hope you will find of some interest.

I hope you will not feel that my approach to you in this way is impertinent or intrusive, if so please accept my apologies. On the other hand you may feel this project, in a school not far from where you started your own education, is worthy of your support. I hope so.

Finally, I should be delighted to meet you and show you around our School if you would like to do so on the next occasion when you are at your home in Sussex.

With best wishes.

Yours sincerely,

Headmaster



Schools Curriculum Award



FELIX POSEN

Dr Alfred Bader Alfred Bader Fine Arts Astor Hotel Suite 622 924 East Juneau Avenue Milwaukee Wisconsin 53202 USA

12th May 1993

5 5 7

There also the total.

Thank you very much for your letter of May 6th. Please note I have now moved offices and I ask that, in the future, you please write to me as per the enclosed.

I can well imagine that you have, and will continue to be, inundated by all kinds of people from the UK. I will be only too happy to give you a 'tour d'horizon' regarding welfare, and particularly Jewish welfare, in the UK since, for more than fifteen years I was part of an advisory team to the Doron Foundation for their activities in the UK. I probably have as good a handle on, and information about, the charitable scene in this country, and particularly how little Anglo-Jewry does for its own home-grown charities. They are therefore starved of cash and continue to look for money overseas. One of the most aggressive organisations who will undoubtedly get to you quickly will be the Lubavitchers, a rather clever but, for my taste unpalatable, cultist sect.

I will call you after June 22nd and look forward to meeting you.

Kind regards,

Sincerely,



CHANGE OF ADDRESS

FELIX POSEN

I will be moving offices with effect from Monday May 10th 1993.

Therefore, until further notice the following addresses, telephone and fax numbers apply:

Mail should be sent to:	24 Kensington Gate London W8 5NA
Courier packages to:	MacMillan House 96 Kensington High Street London W8 4SG
Telephone:	(44 71) 937 7733
Fax:	(44 71) 584 0904

Otherwise my home numbers, as well as those at Crowhurst, remain the same.



DI. ALTHER A TADER

No fas



THE JEWISH MUSEUM

(Registered Museum 31. Registered Charity 281265) WOBURN HOUSE, TAVISTOCK SQUARE, LONDON WC1H 0EP Telephone 071-388 4525

5 July, 1993

Dr Alfred Bader C/o Dr & Mrs Philip Orkin 7 Blackstone Road LONDON NW2 6DA

Dear Alfred,

I am so glad to have met again for the first time since 1945/ Your lecture was great and most instructive.

We hold an Annual Reception in May or June for our subscribers, whose main feature is an illustrated lecture by a distinguished art historian. Past speakers include: Sir High Casson, Dr Christopher Brown, Dr Jennifer Montagu and John Ingamells to name but a few.

I am writing to invite you to be our guest speaker in 1994, which will be our first Annual Reception after our move to our new museum building. We usually attract an audience of about 100.

Yours sincerely,

clq :-

P.S. My memory of JJ and Irene Elkins is when they were 4 and 6, the same age as my grandchildren are now, as very bright and adventurous kinds.

They got hold of a bottle of talcum powder and had a great time recolouring our chocolate coloured spaniel white.



at 109 Keyes House Dolphin Square London Shriv BNA. 95 July 1993

Dear D^e and Ms Bader,

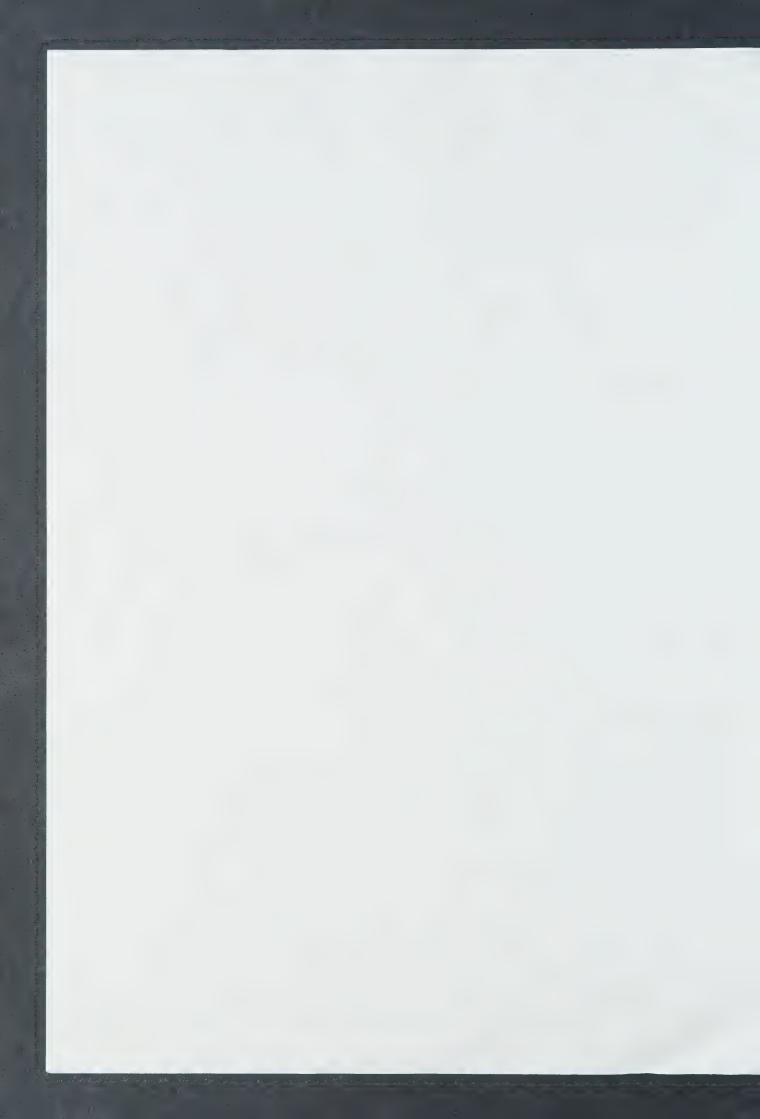
In March you very kindly replied to my letter in which I thanked you for your great and generous gestire is purchasing Herstmonceux Castle for Queen's University Atao it took ages to reach me as I am mostly in handon and my mail-sending-on-operation for Foster doesn't operate very swiftly if I am not around! In fact it was lodged under a pile of circulars, so I must apologise for not contacting you before.

By now you will be very busy with hadly a minute to spare so I could not possibly intrude at this late stage. But it would be lovely to meet you on another visit if you did have time.

In the meantime I hope that the sm nill shine this weekend for your duriner and the Jamboree. Everyone I have met is delighted to think that the Castle is in such good hands, and I am size you can count on lots of local support if it is needed, and also not just local but national. Even the Prime Minister has accepted some responsibility for the parlows state of many "Stately" homes because of Lloyds losses.

Celia Scot

hrith best wishes Yours sincerely



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If you have any queries over the move please contact us on our usual telephone number before the 9th July. However, you may rest assured that we will do our very best to ensure that services to our customers are not disrupted and operations will be running as previously from our new address.



FELIX POSEN

Dr Alfred Bader 52 Wickham Avenue Bexhill on Sea East Sussex TN39 3ER

20th July 1993

· · · · · · · · · ·

This is to acknowledge, with thanks, receipt of your letter of the 15th of July enclosing the various news releases concerning the wonderful work which is being done presently by the Helen Bader Foundation.

It is certainly a very impressive array of well-appointed and worthy projects which must all give you, and your family, a great sense of pleasure and pride.

I also look forward to eventually meeting your son Daniel.

Kind regards,

Sincerely,

24 Kensington Gate . London W8 5NA Tel: 071 584 0915 Fax: 071 581 0904



bc: Princ. D. Smith Mrs. J. Whistler Dr. Alfred R. Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

August 5, 1993

Mrs. Elizabeth Dacre 7 Tudor Close Dean Court Road Rottingdean Brighton BN2 9DF England

Dear Mrs. Dacre:

I so appreciate your thoughtful letter of July 11th.

It was an honor and a pleasure to meet you, and we would, of course, very much like to get to know your better. We are usually in Bexhill the second half of November and December, and then again in the summer. I will take the liberty of telephoning you when next we are in Bexhill to inquire whether we might visit you in Rottingdean.

Many thanks for your thoughtfulness.

Sincerely,



7, TUDOR CLOSE, DEAN COURT ROAD, ROTTINGDEAN, 11th July BRIGHTON, BN2 7DF Tel. (0273) 302444 MRS ELIZABETH DACRE M.B.E., T.D., JP 7 TUDOR CLOSE, DEAN COURT ROAD 1993 ROTTINGDEAN BRIGHTON BN2 7DF TEL: BRIGHTON 0273 302444 Keif Drift Backer, Hw can Surex and "Tustand thank 700 m Your Geninars and hash treat red Sirr of the Castin WE JUST Canno' Sot ment your space & last night, and your history and your backsound. Stoo have been Kiringh Ite realinges of WARS

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ALFRED BADER FINE ARTS

DR. ALFRED BADER

August 5, 1993

ESTABLISHED 1961

Miss Lucy A. Lazarony The American 114/115 West Street Farnham, Surrey GU9 7HL England

Dear Miss Lazarony:

You must have realized how much we enjoyed your visit to Bexhill. Now I have to thank you for your letter of July 29th and for the copy of your amusing and almost entirely correct article.

Sometime next January and February, Isabel and I plan to visit an excellent painter in Fort Lauderdale, and it would give us great pleasure if we could meet you again, then.

Best wishes,

By Appointment Only ASTOR HOTEL SUITE 622 924 EAST JUNEAU AVENUE MILWAUKEE WISCONSIN USA 53202 TEL 414 277-0730 FAX 414 277-0709



The American

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29 July 1993

Dr Alfred Bader 2961 N. Shepard Ave Milwaukee WI 53211 U.S.A.

Dear Dr Bader,

Enclosed is a copy of The American as promised. I really enjoyed meeting you and I hope to interview you again for a more substantial story in the future. I'm currently working as a freelance reporter for the Fort Lauderdale Sun Sentinel. I return to the States on September 1. My address in Florida is 3810 Satin Court, Delray Beach, FL 33445, telephone (407) 495-6400. Please contact me if you plan on heading south. I will be in touch.

Sincerely,

Rucy A Lagarony

Lucy A Lazarony.

enc.



Dr. Alfred R. Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

August 13, 1993

Dr. Chris Hewitt Aldrich Chemical Co. Ltd. The Old Brickyard New Road Gillingham, Dorset SP8 4JL England

Dear Chris:

Thank you for your fax of August 11th.

I am fine, working hard on my autobiography, dealing in paintings, and still trying to help chemists.

I am afraid that I have forgotten just where we obtained that almost 100 kilos of 1,3,5-trichloro-2,4-dinitrobenene, with 20% water. If I am not mistaken, that might be difficult to ship and we may have kept it because it was the starting material for the preparation of hexanitrosobenzene made for us by G & J. The trichloro compound was not a good seller, but hexanitrosobenzene was.

We first obtained the trichloro compound from Northrop in either South Carolina or North Carolina back in the 1960's, and the listed it as 10238-5. That was then discontinued because of poor sales, and recently transferred from the Library into the main catalog as 38542-5. Some time in between, however, we must have obtained that wet 100 kilos. If you could tell me which supplier label it bears, that might refresh my memory.

I very much hope that you will get the first half of Professor Battersby's collection, for the Library. That, as you know, is the more interesting half.

Best wishes,

c: Dr. A. W. Runquist



CATHERINE HOUSE, 76 GLOUCESTER PLACE, LONDON W1H 4DQ Tel: 071-487 3401 Fax: 071-487 4211

Nov Hill fice

18 August 1993

Dr Alfred Bader Alfred Bader Fine Arts Astor Hotel Suite 622 924 East Juneau Avenue Milwaukee Wisconsin USA 53202

Dear Alfred,

Thank you for your note of 5th August. I will carefully record your timetable and hopefully we will be in contact when you are next in England.

Hannah and I hope to be in America during the next few months and will make contact in any event.

With kindest regards.

Yours sincerely,

DAVID LEWIS

jh/76





ALFRED BADER FINE ARTS

DR. ALFRED BADER

established 1961 August 25, 1993

Ms. Geraldine Norman 5 Seaford Court 220 Great Portland Street London W1N 5HH, England

Dear Ms. Norman:

As you know, I very much enjoyed reading your article about me in <u>The Independent</u> on Sunday, July 18th.

A friend of mine has now loaned me a copy of the September issue of <u>Art & Antiques</u> with that same article; however, with serious errors. You correctly stated that I purchased the Rembrandt for £4.18 million on July 8, 1992, and sold it to the Rijksmuseum for \$10 million. When I purchased the sterling required just a year ago, it cost me \$8.21 million, so that the profit was approximately \$1.8 million. <u>Art & Antiques</u> is unfamiliar with currency fluctuations and state in their article that I purchased the painting for \$6.6 million, thus, by implication, alleging that my profit was approximately <u>twice</u> the actual profit. I hope that your Japanese associates will be familiar with currency fluctuations.

In the last couple of years, I have declined to talk to reporters from <u>Art & Antiques</u>, as each previous report about me as a collector contained serious factual errors, and here is just another example.

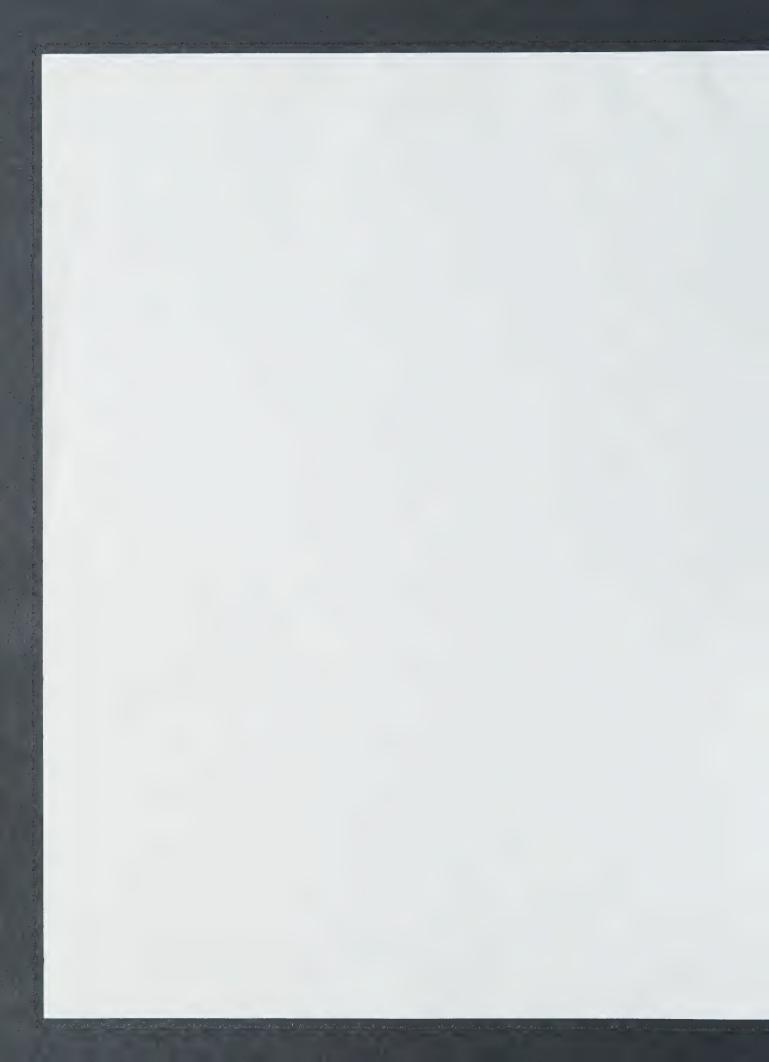
I find <u>Art & Antiques</u>' headline also quite hurtful. By now you know me well enough that I am as far from being a mogul as a person can be. This is as bad as the <u>London Jewish Chronicle</u> describing my purchase of Herstmonceux Castle and referring to me as a tycoon!

Isabel and I look forward to being in England for the sales in December, and it would be fun if we could get together. Best wishes.

Sincerely,

c: Art & Antiques

By Appointment Only ASTOR HOTEL SUITE 622 924 EAST JUNEAU AVENUE MILWAUKEE WISCONSIN USA 53202 TEL 414 277-0730 Fax 414 277-0709



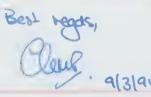


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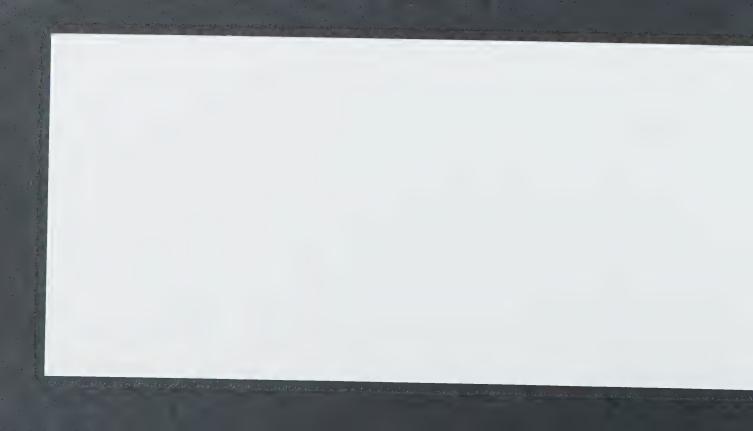
Mope you are well. I med to call you. Mike a Elisabelli Burton's telephone number is 0581 890590.



WITH COMPLIMENTS

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International Studies Centre Queen´s University Herstmonceux Castle Hailsham East Sussex BN27 1RP

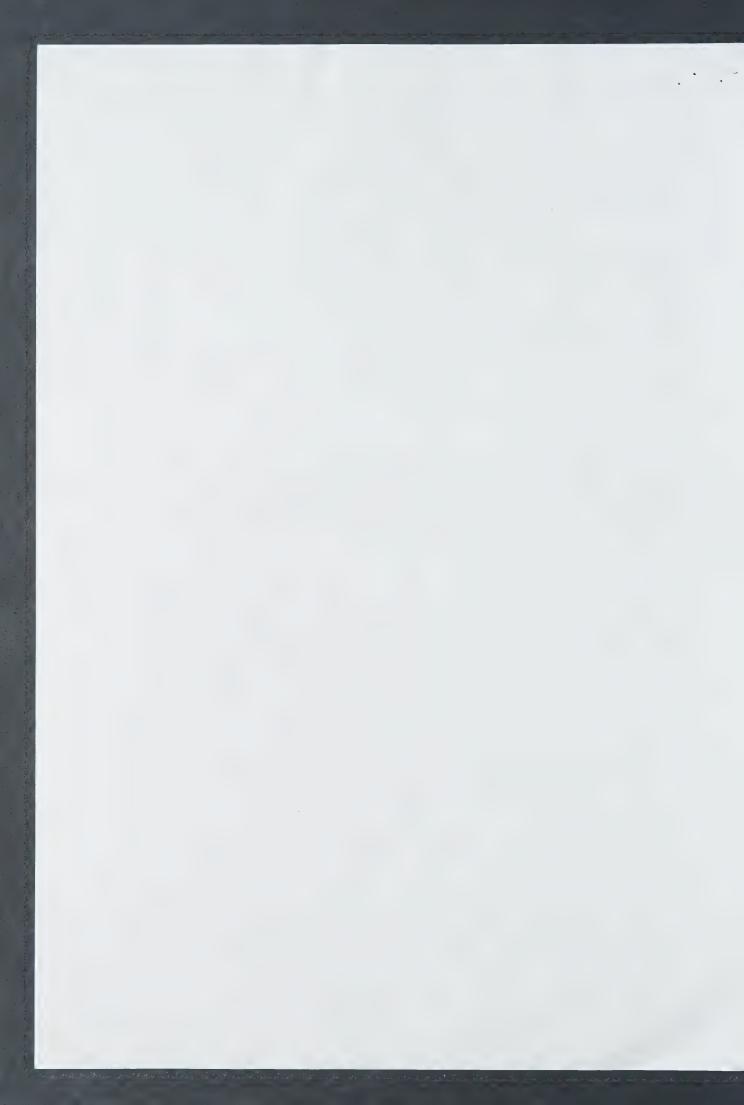
06 September 1993

Dear Dr. Bader,

As I have learned from the "Canada News," No. 76, June 1993, you have recently kindly donated sufficient funds to Queen's University to set up an International Study Centre at Herstmonceux Castle near my home town of Bexhill-on-Sea. Astonished by the coincidence of Bexhill, Canada and international research in both our lives, I have decided to seek your advice concerning the future of my own academic career.

I am a Modern Languages (French and German) graduate from the University of Manchester and have completed my Master's degree in German Literature at the University of Alberta. I wish to begin my Ph.D in German Literature at the U of A at Edmonton or the University of British Columbia at Vancouver in September 1994. Having the option I would like to return to a Canadian university to explore further my successful MA thesis. This dissertation investigates the very processes of writing from the perspective of reworking everyday phenomena into literature. I realize that taking my Ph.D in Canada will asssure me of access to up-to-date resources, practical teaching and research experience and invaluable supervision. I am in contact with Dr. Pausch, my former supervisor at the U of A, and Dr. Petersen at UBC, who are both experts in the field of my dissertation, namely Contemporary Theory. Canada's academic environment will provide me with ample opportunity to present papers on North America's prestigious circuit of learned conferences, such as the MLA and CAUTG, and thus offer me the opportunity to open up my work for further discussion and broaden my research.

Though both the U of A and UBC wish to offer me a place beginning autumn 1994, my problem is that I will find it exceptionally difficult to fund myself over the following five years. The Department of Germanic Languages in Edmonton does guarantee assistantships for upto



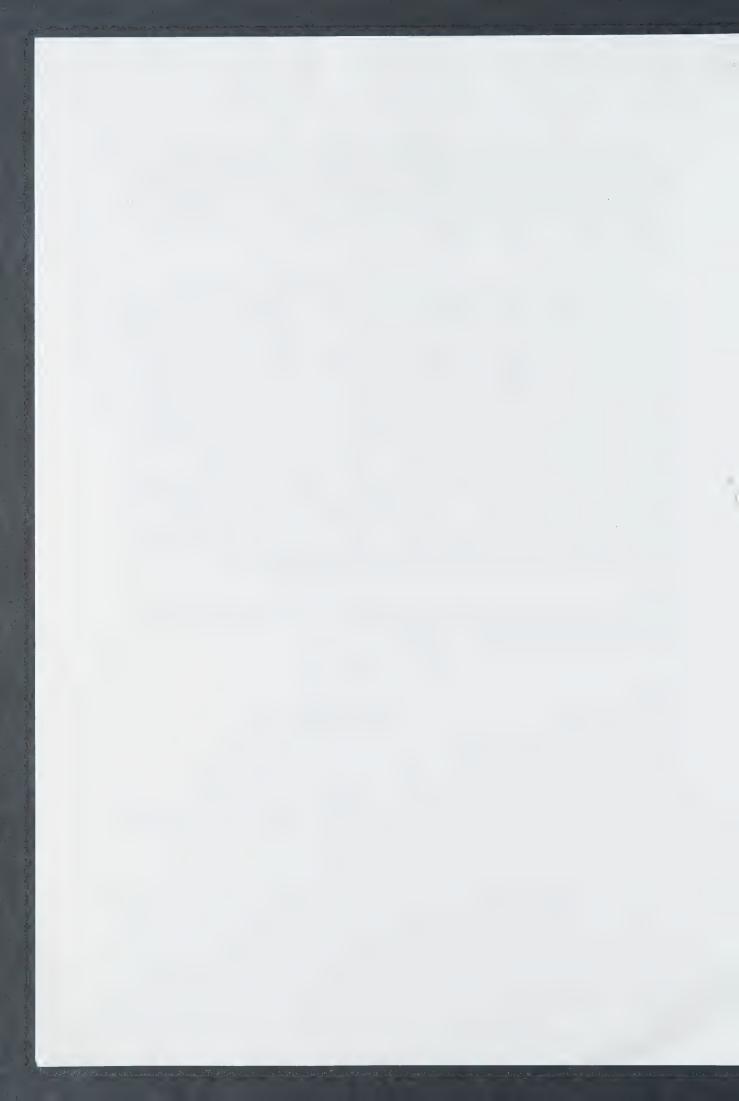
five years, however, the U of A insists on charging a 100% differential fee for foreign students such as myself. On the other hand, I know that UBC promises assistantships for four of the six terms of the first two years only. After that I would be "out in the cold" and would be unable to complete my research having no right to fund myself by working off campus as a Canadian student would do.

I have been busy over the last six months applying everywhere for scholarships - within Canada, the UK and Germany. Unfortunately, there are all too few institutions for a student such as I to apply to and I am now left with only two very tenuous chances: the Bexhill Trustees and the Commonwealth Scholarships Commission. I wonder if you would be able to assist me in any way, suggest any new lines of enquiry or even forward me any names and addresses of granting organisations which I might have overlooked. I have already exhausted possibilities such as the Canadian Memorial Foundation, the German Academic Exchange Service (DAAD), Goethe Institut, the Rotary Club, the UK Central Bureau of Educational Visits and Exchanges, among others. If you would be able to provide me with any advice or personal assistance leading me towards a new channel for funding and, therefore, eventually onto embarking upon a dedicated academic career, I would be truly grateful. Should you feel inclined to contact me, please do not hesitate writing to me at my home address in Bexhill. I shall be coming home for Christmas after spending the year in Cologne, Germany, consolidating my teaching abilities and improving my knowledge of German.

Sincerely hoping you do not find this letter too much of an audacity on my behalf or too great an imposition on your time and standing. Yours faithfully,

John L. Pleuss

JOHN L. PLEWS





ALFRED BADER FINE ARTS

DR. ALFRED BADER

September 14, 1993

ESTABLISHED 1961

Mr. John L. Plews 18 Larkhill Bexhill-on-Sea East Sussex TN40 1QZ England

Dear Mr. Plews:

Thank you for your letter of September 6th, made more interesting because my wife, Isabel Overton, told me that your brother, Mark Plews, was one of her students at Bexhill College.

Neither of us are knowledgeable about how to obtain funding in modern languages. If we had the choice between Edmonton and Vancouver, we would certainly choose the UBC even though it promises only four assistantships in the first six terms. If you are to be "out in the cold" it will be much more comfortable in Vancouver than in Edmonton.

Both schools are very good, and I think every good school will try very hard to help those graduate students who really do well.

Incidentally, Isabel and I will be in Bexhill from the middle of November until Christmas, and if you would like to chat over the problem personally, do call us at 222 223 and then visit with us.

All good wishes.

Sincerely,

By Appointment Only ASTOR HOTEL SUITE 622 924 EAST JUNEAU AVENUE MILWAUKEE WISCONSIN USA 53202 TEL 414 277-0730 FAX 414 277-0709



Dr. Alfred Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

September 15, 1993

Dr. James Jappy JRD Fluorochemicals Ltd. Unit 11, Mole Business Park Randalls Road Leatherhead, Surrey KT22 7BA England

Dear Jim:

Isabel and I will be back in England between the middle of November and just after Christmas and hope of have a chance to visit you again.

I talked to Al Runquist and Pat Trainor, purchasing people at Aldrich, earlier this month, and both told me how satisfied they are with you.

Best wishes.

Sincerely,





ALFRED BADER FINE ARTS

DR. ALFRED BADER

September 21, 1993

ESTABLISHED 1961

Dr. John Watson, FRCS Iddons Henley's Down, Catsfield Battle, East Sussex TN33 9BN England

Dear Dr. Watson:

Thank you so much for you gracious and most interesting letter of September 3rd.

First of all, allow me to disagree with one sentence in the second paragraph of your letter. You say that as you are not far off from becoming an octogenarian your future working life must necessarily be limited. Don't you know that Moses started his work shaping those Jews who had been slaves in Egypt into a people when he was 80?

We very much hope that there will be a fruitful collaboration between Queen's University, Professor Gregory's group, and Sussex University.

When I started working with my own company, Aldrich Chemical Company, in the early 1950's, I augmented my income by also teaching Hebrew, and Dr. Sydney Wynn's son, Bruce Wynn, then about 10, was one of my able students. I understand that he has done very well as an investment banker. Dr. Sydney Wynn's address is 500 West Bender Road, Glendale, Wisconsin 53217, and his home telephone number is 0101 414 962 4823.

Isabel and I look forward to being in our Bexhill home from November 12th until just after Christmas, and it would give us great pleasure if we could meet you personally.

All good wishes.

Sincerely,

By Appointment Only ANTOR HOTTL SUITE 622 924 EAST JUNEAU AVENUE MIEWAUKEE WISCONSIN USA 53202 TEL 414 277-0730 Fax 414 277-0709



Iddons, Henley's Down, Catsfield, Battle, E. Sussex, TN33 9BN Tele: No. Crowhurst 226

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Dr. Alfred R. Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

October 4, 1993

Dr. John Watson Iddons, Henley's Down Catsfield, Battle East Sussex TN33 9BN England

Dear Dr. Watson:

I am so happy to have your letter of September 27th, and we look forward to seeing you in November or December. Our address in Bexhill is 52 Wickham Avenue, telephone 222 223.

You are so correct in your appraisal of Jane Whistler's considerable gifts.

I have also just had a phone call from Dr. Wynn who is just leaving for Florida where he will stay until May. He greatly enjoyed receiving your letter, and I look forward to seeing him and his son next year.

All good wishes.

Sincerely,





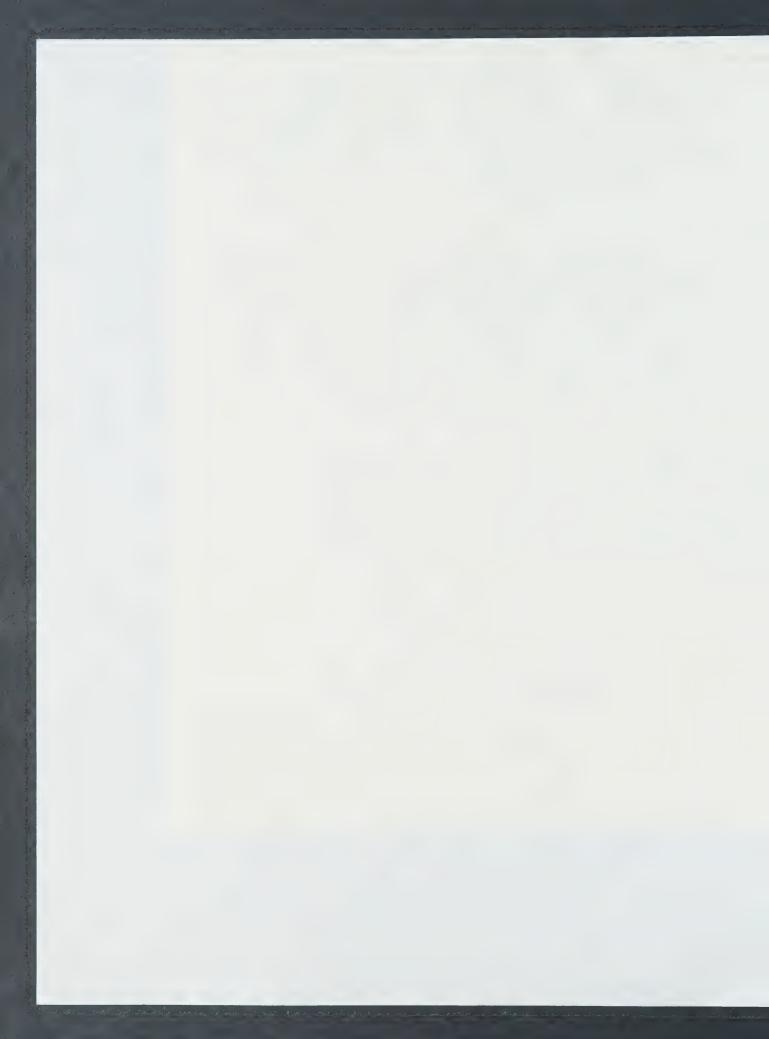
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Dr. Alfred R. Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

October 18, 1993

Mr. F. Roland Moore 26 Culcheth Hall Drive Culcheth, Warrington Cheshire WA3 4PT England

Dear Roland:

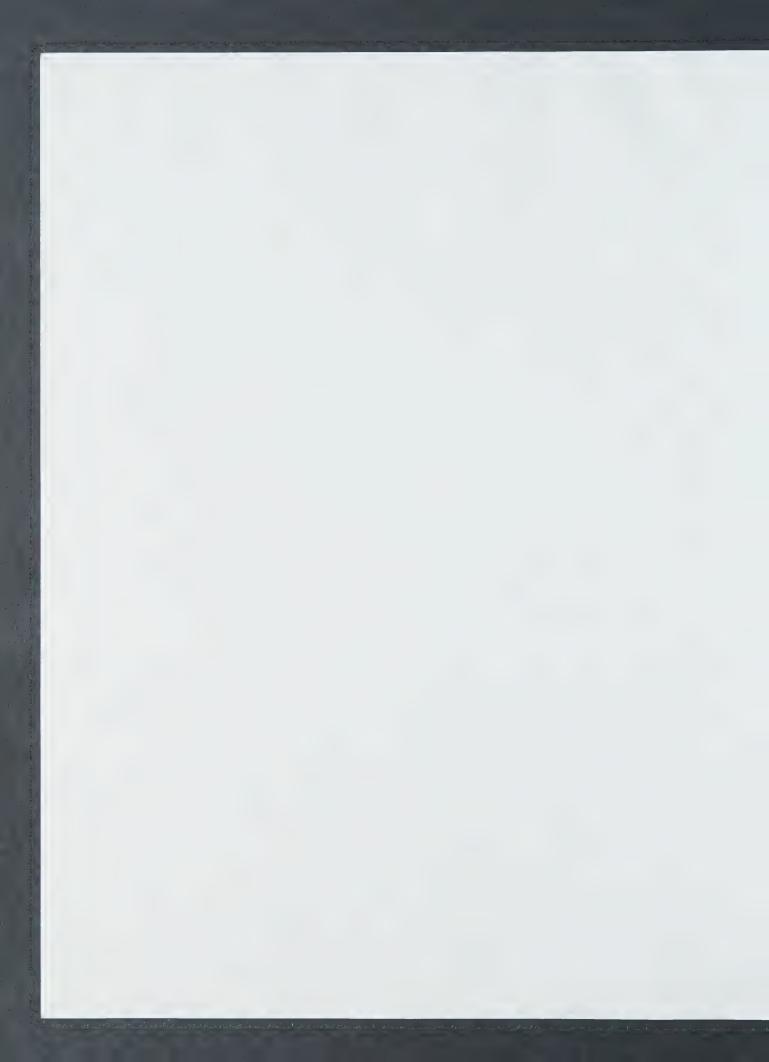
I am just working on my autobiography and enclose the story about our dealings with Coalite. Could you please look this over and let me know if there are some important matters I have left out or if I have made some mistakes. Also, could you please let me know in which year Herbert Bondy died.

I will be in England from the middle of November to December 26th, and I would appreciate a note to our English home, 52 Wickham Avenue, Bexhill-on-Sea, East Sussex TN39 3ER. Please also send me your telephone number so that I can call you.

Best wishes.

As always,

Enclosure



Dr. Alfred R. Bader 2961 North Shepard Avenue Milwaukee, Wisconsin 53211

October 18, 1993

Dr. James Jappy JRD Fluorochemicals Ltd. Mole Business Park, Unit 11 Randalls Road Leatherhead, Surrey KT22 7BA England

Dear Jim:

I am working on my autobiography and enclose my reference to your work. Could you please look this over and let me know whether it is correct. Please don't reply, but let me discuss it with you when I see you in November or December.

Best wishes.

As always,

Enclosure



soon in London,

*** * * *

with all best wishes and hoping to see you

without any further comment there,

This cutting comes to you from The Independent Business section

22 October 1993 Dear Alfred,

International: +4471 262 8930 ISR: INTERDISCIPLINARY SCIENCE REVIEWS National: 071-262 8930 With the compliments of Dr Anthony R Michaelis EDITOR London NW8 9RA **Private Address** 12 Hall Road See juside + Flat 1 Spectrum House Hillview Gardens International: + 4481 203 5171 London NW4 2JQ Telex 28303 National: 081-203 5171 FAX: 081-203 1027 Editorial Offices

INTERDISCIPLINARY SCIENCE REVIEWS

ISR

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Private Address Flat 1 12 Hall Road London NW8 9PD 07I 262 8930 International +4471

17 July 1993

Dr Alfred Bader 52 Wickham Avenue Bexhill-on-Sea East Sussex

Dear Alfred,

First of all sincere thanks for the many, most interesting documents which you so kindly sent me. I too am most delighted that Stefanie brought us together, much good will come of it, I am sure.

However interesting the Loschmidt story, I feel that you have already given wide enough publicity to it in the chemical literature, so that I feel the very limited pages of my Journal should be devoted to something new. With regard to your personal tragedy of having to leave the Board of Aldrich-Sigma, I can only offer you my sincere sympathy and hope that the steps you are planning to take will give you the satisfaction you so thoroughly deserve.

I see from the illustration in <u>Nature</u> 'Circular arguments' that you are conversant with 'Reflections on Symmetry' by Heilbronner and Dunitz. I have a copy of the book in front of me awaiting a reviewer and would be very honoured if you could make this review your first contribution to I S R.

Please reply to this invitation to me C/O Hotel Hess, 6390 Engelberg, Switzerland where Stefanie and I will be from 22 July to 11 August. I shall have the book sent to you in the USA on my return from holidays.

I am looking forward to our next meeting ! Yours ever,

Jutho my DR ANTHONY MICHAELIS Editor

Published by THE INSTITUTE OF MATERIALS 1 Carlton House Terrace London SW15DB England Registered with Charity No. 269275 at boy - any - M Boy Frank a second An tanàna - M Gardiga B 1° K

Telephone: (0424)214288.

23, Normandale, Bexhill-on-Sea, East Sussex. TN39 3LU.

23 October 1993.

Dr. & Mrs. A. Bader, 2961 North Shepard, Milwaukee, Wisconsin. 53211.

Dear Isabel and Alfred,

I heard this week that Queens have signed the formal agreement for the acquisition of Herstmonceux Castle and grounds. It is, indeed, good news. My friends and I are delighted to know that this historic and dignified building and the surrounding gardens and parkland are to be in safe hands for the future. We are all deeply indebted to you for facilitating this achievement.

I understand that some progress is also being made in the scheme to make use of the telescope domes. This is a worthy project, and we look forward to a successful conclusion.

I shall be very happy to see you when you next visit Bexhill, Yours sincerely,

Humphry H. Smith.



56 Regal Way Kenton Middx HA3 0RY

3rd November, 1993

Dr Alfred Bader 2961 North Shepard Avenue Milwaukee Wisconsin 53211 USA

Dear Dr Bader,

Whilst clearing out some old copies of Chemistry in Britain, I have just come across your address in the February 1993 edition.

I seem to recall from past issues of Aldrachimica Acta that you are an expert in Dutch painting and, in particular, a collector of paintings with alchemy as the subject. You may be able to help me to learn more about a painting that has been in my family for a number of years.

The painting is quite a small portrait (39 x 29 cm), in a relatively heavy ornate frame, of an old monk (?) seated at a desk reading a large book. Whilst the subject is regarded by my family as being an alchemist or an apothecary, the evidence for this is questionable, relying on what may or may not be a pestle and mortar on the desk.

It was purchased by a wealthy uncle, now deceased, in Amsterdam (?) (there is an Amsterdam label on the back), possibly in the fifties. The signature is difficult to decypher completely but is clearly Dutch. From my limited knowledge, I would guess the painting to be 18th or 19th century.

The signature appears to be Willem van Nieuwenhoven although I am not positive about the last five letters. I have been unable to find any trace of this artist in a range of books on Dutch art history, from which I can deduce is that he is not well known. I am certain that the signature is <u>not</u> that of Willem van Nieuwenlandt, whose 17th century etchings I have come across.

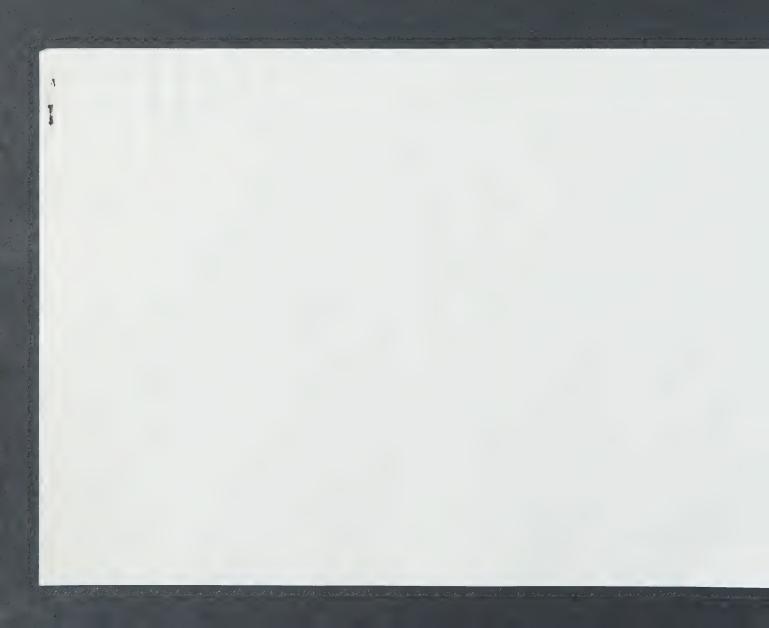
There is a reluctance in the family to start contacting auction houses or major art galleries. I therefore wondered if you could possibly throw some light on this artist.

Yours sincerely,

Dr Jeff Levison



10.238-5 Norferyp, Carolina 38542-5 1967



56 Regal Way Kenton Middx HA3 ORY

19th November, 1993

Dr Alfred Bader 52 Wickham Avenue Bexhill-on-Sea East Sussex TN39 3ER

Dear Dr Bader,

Thank you for your kind letter of 17th November. I was truly delighted to receive such a prompt reply to my original letter.

It is a remarkable co-incidence that, the day after I posted my letter to you, I received my November copy of Chemistry in Britain, which contains an article about yourself.

You may be interested to know that I have links with both Kingston, Ontario and Bexhill-on-Sea. Firstly, my older brother is a professor at Queens. The second link is more tenous; during the mid-1980s, while I was honorary treasurer of the London Board of Jewish Religious Education, we used to hire a school in Bexhill during the Christmas and summer holidays and run Jewish youth and family education residential schemes there.

Returning to Dutch art, the raison d'etre of this correspondence, my own research has borne some promising fruit. On page 161 of his book "17th Century Flemish painting", Erik Lasen describes a certain Van Dyck painting as being close to one by the Houston, Gaspard Charles van Nieuwenhoven. Perhaps my Willem and Gaspard were related.

I do not have a photograph of the painting. I shall endeavour to obtain one in the near future and send it to you for comment.

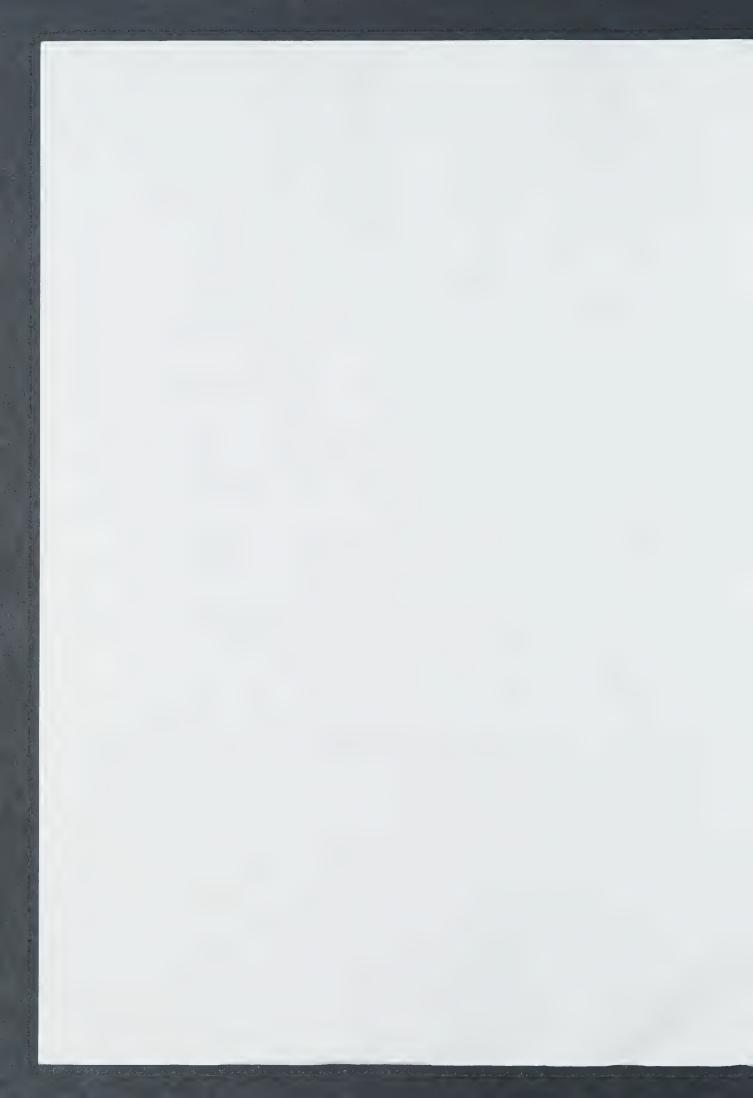
With kindest regards,

Yours sincerely,

· Jeff he

Dr Jeff Levison

Lyne of A. 15.



Levi II.

26 Culcheth Hall Drive Culcheth Warrington WA3 4PI Cheshire

Tel No : 0925 76 6138

Dr Alfred Bader 52 Wickham Avenue Bexhill-on-Sea East Sussex IN39 3ER

20th November 1993

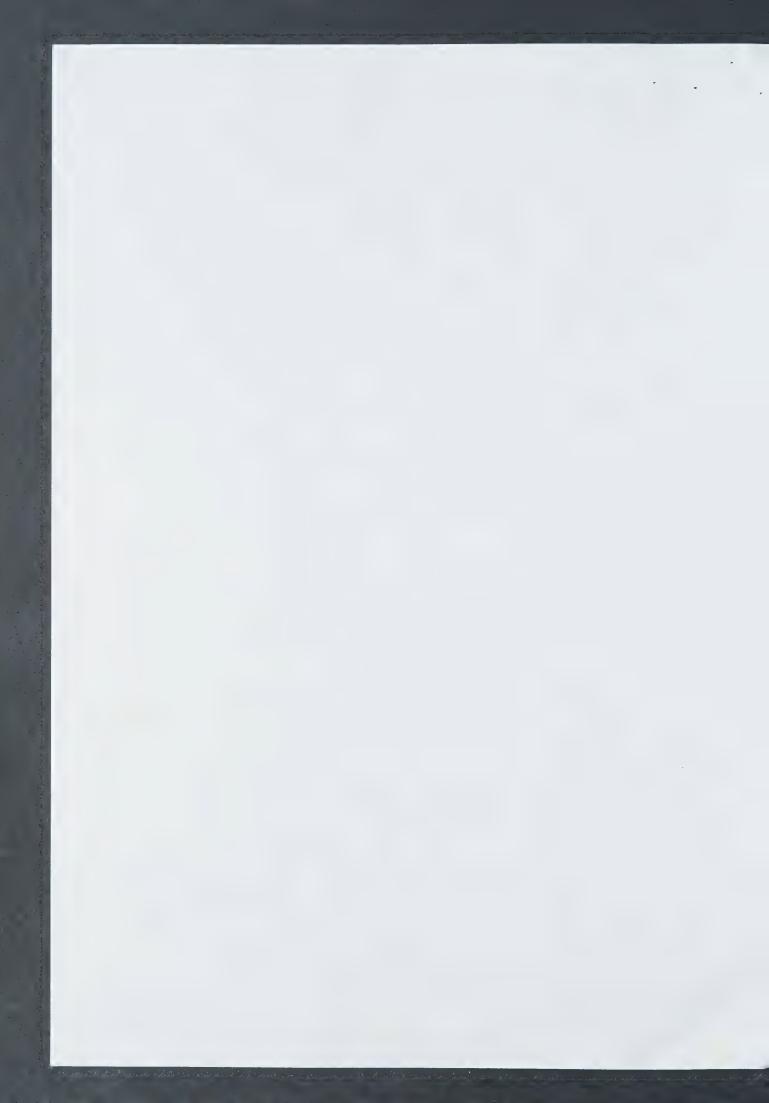
Dear Alfred

I was delighted to hear from you again and to note that your new (literary) career is progressing well!

I have looked over the pages you sent, which bring back some happy memories, and offer the following comments :

- 1. (p.17, line ll). The carbonisation process did not employ vacuum; the coal was heated at about 640°C under atmospheric pressure (Francis Waring would turn in his grave if you got his beloved Coalite process wrong!).
- 2. (p.19, para. 2). 2-MR was not isolated from the oil distillate, but from the aqueous liquor condensate. The phenols were extracted using butyl acetate and this was the source of all the dihydric phenols. After stripping the solvent, the mixture was fractionally distilled to yield, successively, monohydric phenols, catechol + 3-methylcatechol, 4-methylcatechol, 2-methylresorcinol, 'resorcinol fraction'. 2-MR was recovered by crystallisation of the fourth fraction.
- 3. (p.23, para. 2). Bob Marshall would perhaps be better referred to as 'director' rather than 'vice president'. (That RM was 'asked to leave the company' is a very polite way of describing my departure from Coalite!)
- 4. (p.24, line 3). The new laboratories were erected long before Herbert's death. In fact, he master-minded their design and fought for the money to pay for them. We moved in on 5th February, 1962 my son's first birthday! I don't think that they were ever called the Herbert Bondy Laboratories, but we certainly fitted a brass plate in the foyer in his honour, when he retired.

With regard to the date of Herbert's death, I find, to my surprise, that I have no definitive record. I have looked through my old diaries and can only find the initials HFB pencilled in on Saturday, 29th April, 1972. It was certainly a Saturday when I had the shock of a phone call at home and, coupled with other entries at about that time, it leads me to think that I made a temporary note with the intention of writing an appropriate comment later.



I have telephoned the Superintendent Registrar of Chesterfield to see if he could help, but, since Herbert died (and was buried) abroad, there was no record in the Register of Deaths.

I enclose a photocopy of an obituary from the Coalite house magazine, which my wife had retained, but no specific date is given. However, 'nearly thirty years' with Coalite, starting in 1943, again points to 1972. Taking all the circumstantial evidence together, I am confident that your stated date is correct.

Whilst thinking back to the early days at Coalite, I am reminded of many things, but will mention only two. I seem to recall that our principal customer for 2-MR once developed a rather eccentric habit: instead of the customary fibre-board keg, he wanted the product packed in a Chinese vase (or was it the other way round?)

Also, do you remember 'Coalite X'? A foul-smelling crystalline material, it excited considerable interest, until someone finally identified it as a compound (odourless) which could be readily synthesised.

Finally, I think you may be interested in the enclosed booklet, particularly for the photograph in the centre pages. This must have been published just after Herbert's death. (I would appreciate its return in due course).

On a personal note, I am sorry to say that my work with MTM came to an abrupt end a few months ago, when most of the company was purchased by BTP. These people felt that they had no need for an in-house Hazard Evaluation Laboratory (which I think I mentioned to you in a previous letter). However, I am doing some independent consultancy now and am guite enjoying it.

with best wishes,

Yours sincerely,

Roland.



Death of Dr. Bondy

The sudden death of Dr. H. F. Bondy while on holiday in Spain ended an association with the Company which had lasted nearly thirty years. He was 69.

Dr. Bondy joined Coalite in 1943, as Director of Research and in the next two d e c a d e s h is energy and enthusiasm enabled full

commercial development of the

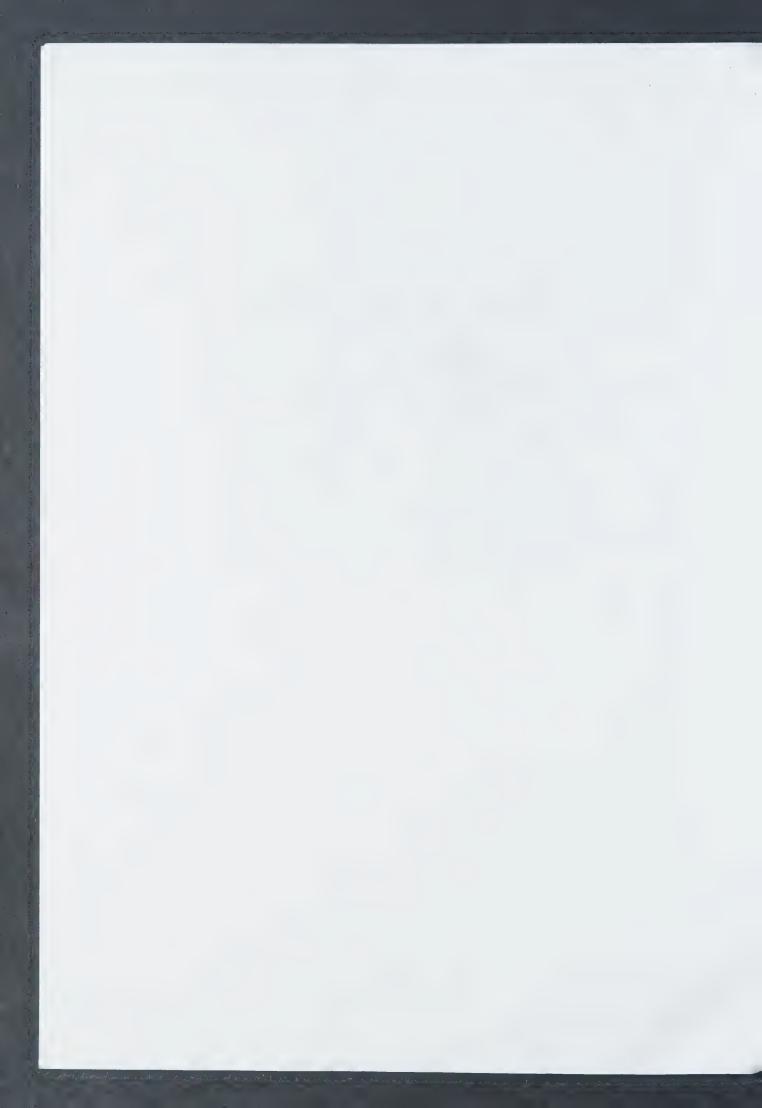
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low temperature tar products to Dr. H. F. Bondy take place.

This was, in effect, a second career for Dr. Bondy, who had suffered from the rise of the Nazi party in Germany, losing his position in 1933 as Lecturer in Chemistry at Freiburg University. He spent some time after that in France at the Paris University, followed by a period in Holland where he entered industry and was associated with the development of the product now sold under the name 'Nivea' cream.

At the outbreak of the war, he came to Britain, and joined Coalite in the middle of the war. He was very much at home in England and became naturalised as soon as it was possible to do so. At 65, he retired as Director of Research, but remained as Chemical Consultant to Coalite until his death.

Dr. Bondy leaves a widow and one son. It is characteristic of his modesty that although he became Emeritus Professor of Freiburg University, he never in fact adopted the title and the award was known only to a close circle of friends.



PATENT SPECIFICATION

NO DRAWINGS

Inventors: HERBERT FREDERICK BONDY and FREDERICK ROLAND MOORE

992,630

No. 34732/67.



Date of filing Complete Specification Sept. 7, 1961. Application Date Oct. 12, 1960. (Divided out of No. 992629). Complete Specification Published May 19, 1965. (c) Crown Copyright 1965.

Index at acceptance: -C2 C(3A13B2A4, 3A13B2G)

Int. Cl.:--C 07 c

COMPLETE SPECIFICATION

Process for the Production of Meta-alkylphenols

We, COALITE AND CHEMICAL PRODUCTS LIMITED, a British Company of Bolsover, Chesterfield, Derbyshire, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method

5 by which it is to be performed, to be particularly described in and by the following statement:

The invention relates to a process for 10 the production of meta-alkylphenols.

According to the invention, a para-alkylphenol, particularly para-tert-butyl-phenol, is converted, at least in part, into the meta-isomer by heating the para-isomer in the

- 15 presence of a catalyst comprising an activated bleaching earth and an inorganic acid, preferably concentrated sulphuric acid. The isomerisation may, for example, be carried out
- The term "activated bleaching earth" as used in the present Specification denotes a clay or earth, such as montmorillonite, the decolourising or bleaching properties of which 25
- have been enhanced by treatment with a mineral acid.

The activated bleaching earth is preferably an activated fuller's earth and that sold under the Registered Trade Mark "Fulcat" (formerly "Fulmont") has been found to be

30 suitable.

The invention is illustrated in the following Example.

EXAMPLE

75 grams (0.5 mole) of para-tert-butyl-phenol were mixed with 3.75 grams of an 35 activated fuller's earth sold under the name "Fulcat 23" and 0.25 gram of 98% sulphuric acid, and the mixture was stirred at 180° C for 3 hours. After cooling neutralising and 40 filtering, the mixture was subjected to fractional distillation. 11 grams of phenol were recovered, and 50 grams of a mixture consisting of 30% of meta-tert-butyl-phenol and 70% of para-tert-butylphenol. WHAT WE CLAIM IS:-

45

55

65

1. A process for converting a para-alkylphenol at least in part into a meta-alkyl-phenol, which comprises heating the paraalkyl phenol in the presence of a catalyst 50 comprising an activated bleaching earth (as nereinbefore defined) and an inorganic acid.

2. A process according to claim 1, in which the inorganic acid is concentrated sulphuric acid.

3. A process according to claim 1 or claim 2, in which the earth is an activated fullers earth.

4. A process according to any one of claims 1 to 3, in which the reaction is 60 carried out at a temperature in the range 175°—185° C.

5. A process according to any one of claims 1 to 4, in which the para-alkylphenol is para-tert.butylphenol.

6. A process for the isomerisation of a para-alkylphenol, substantially as hereinbefore described with reference to the Example.

7. A meta-alkylphenol whenever prepared by the process claimed in any one of the 70 preceding claims.

> EDWARD EVANS & CO., 53-64 Chancery Lane, London, W.C.2, Agents for the Applicants.

Leamington Spa: Printed for Her Majesty's Stationery Office by the Courier Press.—1965. Published at The Patent Office, 25, Southampton Buildings, London, W.C.2, from which copies may be obtained.

[Price 4s. 6d.]



PATENT SPECIFICATION

NO DRAWINGS

Inventors: HERBERT FREDERICK BONDY and FREDERICK ROLAND MOORE

992,629



Date of filing Complete Specification Sept. 7, 1961.

Application Date Oct. 12, 1960.

No. 35017/60.

Complete Specification Published May 19, 1965.

C Crown Copyright 1965.

Index at acceptance: -C2 C(3A13B2A4, 3A13B2G)

Int. Cl.:--C 07 c

COMPLETE SPECIFICATION

Alkyl Phenols

We COALITE AND CHEMICAL PRODUCTS LIMITED, of Bolsover, Chesterfield Derbyshire, England, a British Company. do hereby declare the invention, for which we pray that 5 a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the follow-

ing statement : --The invention relates to a process for the 10 meta-alkylation of a phenol.

The alkylation of phenol by the Friedel-Crafts reaction is well known. In this reac-tion, a phenol is treated with an alkylating agent, for example, an alkyl halide, an alcohol

15 or an olefin, and the reaction is catalysed by one or more of a large number of catalysts, for example, aluminiumchloride, ferric chloride, zinc chloride, boron trifluoride, sulphuric acid, phosphoric acid, hydrogen fluoride, cation exchange resin and activated 20

bleaching earth. In the reaction, alkylation occurs in the positions ortho and para to the phenolic

hydroxyl group, a little of the meta isomer 25 being formed in some cases. Electronic theory explains these practical observations by stating that the hydroxyl group in the benzene ring is ortho-para-directing towards

electrophilic reagents. It is an object of the invention to provide 30 a process which, in a reaction of the kind hereinbefore described, yields a reaction product which contains a greater proportion of the meta isomer.

According to the invention, a process for the 35 meta-alkylation of a phenol having an unsubstituted meta position comprises reacting the phenol in a single stage with an alkylating agent in the presence of a catalyst comprising

40 an activated bleaching earth and an inorganic acid, preferably concentrated sulphuric acid, the reaction being carried out at an elevated

[Price 4s. 6d.]

temperature such that alkylation occurs in the meta position with the production of an alkylated product containing not less than 50% of the meta isomer. The process is 45 advantageously effected at a temperature in the range 170° —200° C., preferably at a temperature in the range 175° —185° C. The term "alkylation" is to be understood

50 as including the introduction of a cycloalkyl group into the nucleus of the phenol.

The term "activated bleaching earth" as used in the present Specification denotes a clay or earth, such as a montmorillonite, the 55 decolourising or bleaching properties of which have been enhanced by treatment with a mineral acid. The activated bleaching earth is preferably an activated fuller's earth and that sold under the Registered Trade Mark "Fulcat" (formerly "Fulmont") has been 60 found to be very suitable.

The alkylating agent employed preferably contains not more than 6 carbon atoms in the molecule. The process is particularly 65 suitable for introducing the tertiary butyl group. Thus, for example, by reacting phenol with isobutylene, di-isobutylene or tertiary butyl alcohol in the presence of the catalyst at a temperature in the range 180°-185° C., 70 a mixture of meta- and para-tert-butyl phenols is obtained, which may contain as much as 50-70% of the meta isomer. The invention is not however limited to the introduction of the tert-butyl group; other alkyl groups par-75 ticularly sec.- and tert-alkyl groups as well as cycloalkyl groups may be introduced into the nucleus.

The reaction product generally comprises a mixture of the meta- and para-alkylated iso-80 mers. Separation of the mixture of metaand para-alkyl phenol, particularly meta- and para-butyl phenols, such as meta- and paratert-butyl phenols, may be effected by convert-

ing the phenols into their alkali metal salts and subjecting the solution of the alkali metal salts to fractional crystallisation. Thus, for example, the mixture is dissolved in caustic soda, the alkaline solution is cooled to precipitate the alkali metal salt of one of the

isomers, the alkali metal salt precipitated is separated, the alkaline mother liquor is acidified, the phenols are extracted from the acidified mother liquor with an organic solvent,

- the extract is distilled to remove the solvent and the solvent-free extract is cooled to yield a precipitate rich in one of the isomers.
- Thus, for example, 240 grams of a mixture containing 65% meta- and 35% para-tertbutyl phenol were dissolved in 1,000 grams of 10% caustic soda, cooled to 0° C. and the crystalline sodium salt filtered off. On acidification, this salt yielded 85 grams of
- 20 crude para-tert-butyl phenol. Acidification of the alkaline mother liquor followed by ether extraction and distillation of the extracted phenols gave 330 grams of a mixture containing 85% meta and 15% para-tert-butyl
 25 phenol. This crystallised at 20° C. and
- 25 phenol. This crystallised at 20° C. and centrifuging yielded 140 grams of crystalline meta-*tert*-butyl phenol. The mother liquor from this separation contained approximately 65% meta and 35% para-*tert*-butyl phenol,
- 30 and was recycled to a subsequent separation. The invention is illustrated in the following Examples.

Example 1

A mixture of 94 grams (1 mole) of phenol, 5 grams of activated fuller's earth sold under the name "Fulcat 23", and 0.33 gram of 98% sulphuric acid was placed in a reaction flack fitted with a mechanical stirrer, thermometer pocket, dip tube and reflux condenser.

- 40 The temperature was raised to 180° C, and held at that level, with stirring, whilst 37 grams (0.66 mole) of isobutylene were added over a period of three hours. The mixture was stirred for a further one hour at 180°
- 15 C., cooled to 80° C., and a solution of 0.4 gram sodium carbonate in a little water was added. After thorough agitation, the fuller's earth was filtered off, and the reaction product fractionally distilled under vacuum. 30 grams
 50 of unreacted phenol were recovered, followed
 - by 82 grams of a fraction containing, as determined by infra-red analysis, 65% of meta*tert*-butyl-phenol and 35% of para-*tert*-butyl phenol.
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Example 2

A mixture of 94 grams (1 mole) of phenol, 5 grams of "Fulcat 23" and 0.33 grams of 90% phoephoric acid was placed in the reaction vessel described in Example 1. The

60 temperature was held at 180° C. with stirring, and 37 grams (0.33 mole) of isobutylene was added over a period of three hours. The mixture was stirred for a further one hour at 180° C., cooled, neutralised and filtered.
65 Fractional distillation of the reaction mixture

yielded 32 grams of phenol, and 73 grams of a mixture containing equal parts of metaand para-*tert*-butyl phenols.

Example 3

A mixture of 94 grams (1 mole) of phenol, grams of "Fulcat 23" and 0.33 grams of 70 98% sulphuric acid was placed in the reaction vessel described in Example 1. The temperature was held at 180° C. with stirring, and 37 grams (0.33 mole) of diisobutylene was 75 run in over a period of thirty minutes. After further heating at 180° C. for six hours, the reaction mixture was cooled, neutralised and filtered. Fractional distillation led to the recovery of 50 grams of phenol and 45 grams 80 of a fraction containing 66% meta-tert-butyl phenol and 34% para-tert-butyl phenol. 20 grams of a higher boiling fraction containing some ocryl-phenols was also obtained.

EXAMPLE 4

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The reaction vessel used in the previous Examples was modified by fitting a water trap below the reflux condenser. A mixture of 94 grams (1 mole) of phenol, 5 grams of "Fulcat 23" and 0.33 grams of 98% sul-90 phuric acid was changed to the flask and held at 180° C., with stirring, during the addition of 49 grams (0.66 mole) of tert-butyl-alcohol over a period of 30 minutes. After further heating for one hour at 180° C. the reaction 95 mixture was cooled, neutralised and filtered. The liquid collected in the trap (consisting of water and phenol) was returned to the crude reaction product, which was then dehydrated. Fractional distillation yielded 46 grams of 100 phenol, and 66 grams of a fraction containing 60% of meta-tert-butyl phenol and 40% of para-tert-buryl phenol.

EXAMPLE 5

The preparation given in Example 4 was 105 repeated, adding 40 grams (0.66 mole) of isopropyl alcohol instead of *tert*-butyl alcohol. Fractional distillation of the reaction product led to the recovery of 35 grams of unreacted phenol, 5 grams of ortho-isopropyl-phenol, 110 38 grams of a fraction containing 63% of meta-isopropyl-phenol and 37% of paraisopropyl-phenol, and some higher boiling alkyl phenols.

Example 6

The preparation given in Example 4 was repeated, adding 49 grams (0.66 mole) of sec.butyl alcohol instead of *tert*-butyl alcohol. Fractional distillation of the reaction product gave 41 grams of phenol, 17 grams of orthosec.-butyl phenol and 35 grams of a fraction containing equal parts of meta- and para-sec.butyl phenols.

Example 7

The preparation described in Example 3 18 was repeated, adding 55 grams (0.66 mole)

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of cyclohexene instead of di-isobutylene. Fractional distillation of the crude product gave 27 grams of phenol, and 55 grams of a fraction containing 70% of meta-cyclohexyl-phenol and 30% of para-cyclo-hexyl-phenol.

WHAT WE CLAIM IS: ---

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 A process for the meta-alkylation of a phenol having an unsubstituted meta position, which comprises reacting the phenol in a
 single stage with an alkylating agent in the

- 10 single stage with an alkylating agent in the presence of a catalyst comprising an activated bleaching earth and an inorganic acid, the reaction being carried out at an elevated temperature such that alkylation occurs in the
- 15 meta position with the production of an alkylated product containing not less than 50% of the meta isomer.

 A process according to claim 1, in which the inorganic acid is concentrated sulphuric
 acid.

3. A process according to claim 1 or claim 2, in which the earth is an activated fullers earth.

A process according to any one of the
 preceding claims, in which the alkylating agent contains not more than 6 carbon atoms in the molecule.

5. A process according to any one of the preceding claims, in which the alkylating agent contains a secondary or tertiary carbon atom. 30

6. A process according to any one of the preceding claims, in which the reaction is carried out at a temperature in the range 175° —185° C.

7. A process according to any one of the 35 preceding claims, in which the phenol is phenol itself.

8. A process according to any one of the preceding claims, in which a fraction rich in meta-alkyl phenol is separated from the pro-40 duct by fractional crystallisation.

9. A process for the production of a metaalkyl phenol, substantially as hereinbefore described with reference to any one of the Examples.

10. A meta-alkyl phenol whenever prepared by the process claimed in any one of the preceding claims.

11. meta-*tert*-Butyl phenol whenever prepared by the process claimed in any one of 50 claims 1 to 9.

EDWARD EVANS & CO.,

53-64 Chancery Lane, London, W.C.2. Agents for the Applicants

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3



PATENT SPECIFICATION

NO DRAWINGS

Inventors: HERBERT FREDERICK BONDY, GEOFFREY MICHAEL BOFFY and FREDERICK ROLAND MOORE

1.061775



Date of filing Complete Specification March 25, 1965. Application Date: April 1, 1964. Complete Specification Published: March 15, 1967. C Crown Copyright 1967.

No. 13491/64.

Index at acceptance: ---C2 C(3A13B2A4, 3A13B2E, 3A13B2G)

Int. Cl.:--C 07 c 39/06

COMPLETE SPECIFICATION

Dialkyl Phenols

We, COALITE AND CHEMICAL PRODUCTS LIMITED, a British Company, of Bolsover, Chesterfield, Derbyshire, do hereby declare the invention, for which we pray that a patent 5 may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement : -

The invention relates to a process for the 10 production of dialkylphenols, particularly but not exclusively 3,5-dialkyl phenols.

According to the invention, a process for the production of a dialkyl phenol comprises reacting phenol or a monoalkyl phenol with

15 an alkylating agent as hereinafter defined at a temperature not less than 140° C in the presence of a catalyst comprising an activated bleaching earth and a strong acid (as hereinafter defined). Two alkyl groups are introduced into phenol but only one is introduced 20

when the feedstock is a monoalkyl phenol.

With phenol itself or with a meta-alkylphenol, the process according to the invention gives a 3,5-dialkyl-phenol. If the phenolic reactant is an ortho- or para-alkyl phenol in which the substituent group is a tertiary alkyl group, then rearrangement will occur in addi-

tion to alkylation and a product containing 3,5-dialkyl phenol will be obtained. Thus 30 a product containing 3,5-di-tert.butyl-phenol can be obtained from ortho-tert.butyl-phenol and from para-tert.butyl-phenol upon alkylation with an appropriate alkylating agent, for example, diisobutylene. Rearrangement is

35 less likely when the substituent group in the ortho- or para-alkyl-phenol is a secondary alkyl group and is unlikely when the substituent group is a primary alkyl group. Thus with a para-alkyl-phenol in which the 40 substituent group is a primary alkyl group,

[Price 4s. 6d.]

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the dialkyl phenol obtained is, steric conditions permitting, a 3,4-dialkyl-phenol.

The term "alkylating agent" is to be understood as including agents effective to introduce cycloalkyl groups into the nucleus as well as agents effective to introduce openchain alkyl groups; the preferred alkylating agents are olefins, olefin dimers and alkanols.

The term "activated bleaching earth" 50 denotes a clay or earth, such as montmorillonite, the decolourising or bleaching properties of which have been enhanced by treatment with a mineral acid. The preferred activated bleaching earth is an activated fuller's earth 55 and that sold under the Registered Trade Mark "Fulcat" has been found to be particularly suitable.

The strong acid employed as a constituent of the catalyst may be any acid which is effective to catalyse the alkylation of phenols. 60 The preferred acids are inorganic acids, particularly concentrated sulphuric acid. Other relatively strong inorganic acids may be used, for example 90% phosphoric acid. The amount of acid in the catalyst is preferably 65 appreciably less than the amount of bleach-ing earth. Thus, for example, the catalyst may consist of 5-15% by weight of the concentrated inorganic acid and 85-95% by weight of the bleaching earth.

The process is advantageously carried out at a temperature in the range 140°-200° C, preferably at a temperature in the range of 155° — 175° C.

The alkylating agent employed may, for 75 example, be an olefin, olefin dimer or an alkanol. The alkylating agent preferably contains not more than 8 carbon atoms in the molecule, for example, isopropyl alcohol, sec. butyl alcohol, isobutylene and cyclohexene. The process is particularly suitable for the

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the alkyl groups are secondary or tertiary groups, for example 3,5-di-tertiary-butyl phenol. Suitable alkylating agents for use in the production of the di-tertiary butyl phenol are isobutylene, diisobutylene and tertiarybutyl alcohol.

When the alkylating agent is a monomer, for example isobutylene or tert.butyl alcohol,

the monomeric alkylating agent is preferably employed in an amount of from 1 to 2 mols per mol of phenol and from 0.5 to 1.0 mol per mol of monoalkylphenol. When an olefin dimer such as diisobutylene is used as the

15 alkylating agent, it reacts as the monomer and from 0.5 to 1.0 mol of the dimer is used per mol of phenol and from 0.25 to 0.5 mol per mol of monoalkyl phenol.

For the production of 3,5-di-tert-butyl phenol it is preferred to add the alkylating 20 agent slowly to the phenolic reactant while the reaction mixture is maintained at a temperature in the range 155°-180° C., the mixture being thereafter maintained for a period

25 at a temperature in the range 175°-200° C. When preparing the same product from a mono-tert-butyl phenol these preferred temperature ranges are modified to 155°-175° C. and 175°-190° C.

30 The invention is illustrated in the following examples.

EXAMPLE 1

2,456 grams of a mixture of meta- and para-tertiary-butyl phenols (containing 73% 35 of the meta isomer) were placed in a reac-

tion flask together with 119 grams of fuller's earth sold under the name "Fulcat 23" and 11.9 grams of concentrated sulphuric acid (98%). The mixture was heated at 160-170° C and 669 grams of di-isobutylene were 40

added below the surface of the liquid over a period of two hours.

When addition was complete, the reaction mixture was maintained at 160-170° C for 45 three hours, allowed to cool, neutralised and filtered.

Fractional distillation of the reaction mixture gave 1,080 grams of a mixture of metaand para-tertiary-butyl-phenols containing

70% of the meta-isomer, and 890 grams of 50 a fraction rich in 3,5-di-tertiary-butyl-phenol. Recrystallisation of the latter fraction from petroleum ether gave 615 grams of 3,5-ditertiary-butyl-phenol (melting point, 91° C.).

EXAMPLE 2

470 grams of phenol were placed in a reaction flask together with 50 grams of "Fulcat 23" and 5.0 grams of concentrated sulphuric acid (98%). The mixture was heated to $160-170^{\circ}$ C and while within that 60 temperature range 420 grams of di-isobutylene were added to it over a period of one hour. The reaction mixture was then maintained

production of 3,5-dialkyl phenols in which at 160-170° for a further three hours, allowed to cool, neutralised and filtered. Frac- 6 tional distillation of the mixture gave 310 grams of a mixture of meta- and paratertiary-butyl-phenols containing 70% of the metal isomer and 175 grams of a fraction rich in 3,5-di-tertiary-butyl-phenol.

Recrystallisation of the latter fraction from petroleum ether gave 125 grams of 3,5-ditertiary-butyl-phenol.

EXAMPLE 3

432 gms. (4 moles) of ortho-cresol were stirred with 20 gms of "Fulcat 23" and 1.33 gms of concentrated sulphuric acid at 170-175° C and 148 gms of di-isobutylene were added over a period of $1\frac{1}{2}$ hours. The temperature was raised to 198° C and maintained at this value for 3 hours. After cooling, neutralising and filtering, the reaction product was fractionally distilled. 188 gms of ortho-crescl were recovered followed by a small intermediate fraction. The main fraction was then collected and found to consist of 65% of 2-methyl-5-tertiary-butylphenol and 35% of 2-methyl-4-tertiary-butylphenol.

EXAMPLE 4

432 gms of meta-cresol were reacted with 148 gms of di-isobutylene as described in Example 3. Fractional distillation of the product yielded 313 gms of meta-cresol, a small intermediate fraction, and a main fraction I which proved to be 3-methyl-5-tertiary-butylphenol (melting point 45°C).

EXAMPLE 5

600 grams (4 mols) of meta-tert-butylphenol were stirred with 40 grams of "Fulcat | 23" and 4 grams of concentrated sulphuric acid at 160-170° C and 224 grams of diisobutylene were added over a period of $1\frac{1}{2}$ hours. The temperature was raised to 180-185° C and maintained at this value for m 3 hours. After cooling, neutralising and filtering, the reaction product was fractionally distilled. The first fraction consisted mainly of unreacted meta-tert-butyl-phenol together with a little para-tert-butyl-phenol formed by rearrangement; the main fraction (250 gms.) contained 90% of 3,5-di-tert-butyl-phenol. Recrystallisation of the main fraction from petroleum ether gave 3,5-di-tert-butyl-phenol of m.pt. 92° C.

EXAMPLE 6

600 grams (4 moles) of meta-tert-butylphenol were stirred with 40 grams of "Fulcat" and 4 grams of \$6% phos-phoric acid at 160-170° C and 224 grams [of di-isobutylene were added over a period of $1\frac{1}{2}$ hours. The temperature was raised to 180-185° C and maintained at that level for 3 hours. After cooling, neutralising and filtering, the reaction product was fractionally distilled. The first fraction consisted

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mainly of unreacted meta-tert-butyl-phenol together with a little para-tert-butyl-phenol formed by rearrangement; the main fraction (236 grams) contained 90% of 3,5-di-tert-

5 butyl-phenol. Recrystallisation of the main fraction from petroleum ether gave 3,5-di-tert-butyl-phenol of m.pt. 92° C.

EXAMPLE 7

- 470 grams of phenol, 50 grams of "Fulcat 10 23" and 5 grams of concentrated sulphuric acid were placed in a reaction flask fitted with a device for distilling off water formed during the reaction. The reactions were stirred at $160-170^{\circ}$ C and 600 grams of isopropyl
- 15 alcohol were added over a period of 3 hours, with concomitant removal of water. When the addition was complete, the reaction temperature was increased and maintained at 180-185° C for 3 hours. After cooling,
- 20 neutralising and filtering, the product was fractionally distilled. Small fractions of unreacted phenol, meta- and para-isopropylphenols, and 2,4- and 2,5-di-isopropyl-phenols were collected followed by 283 grams of a
- 25 fraction containing 91% of 3,5-di-isopropylphenol. Recrystallisation of the latter fraction from petroleum ether yielded 3,5-di-isopropyl-phenol of melting point 52° C.

EXAMPLE 8

- 30 432 grams of para-cresol were mixed with 20 grams of "Fulcat 23" and 1.33 grams of concentrated sulphuric acid in a reaction flask fitted with a device for distilling off water during the course of the reaction. The reac-
- 35 tion mixture was stirred at 170-175° C and 240 grams of isopropyl alcohol were added over a period of $1\frac{1}{2}$ hours. At the end of this time the temperature was raised to 198-200° C and maintained for 3 hours. After
- 40 cooling, neutralising and filtering the product was fractionally distilled.

The first fraction collected was unreacted para-cresol followed by an intermediate fraction rich in 2-isopropyl-4-methyl-phenol. The 45 main fraction which followed was carefully

recrystallised from petroleum ether to give 3-isopropyl-4-methyl-phenol of melting point 39° C.

Example 9

- 600 grams of para-tert-butyl-phenol were 50 stirred with 40 grams of "Fulcat 23" and 4 grams of concentrated sulphuric acid at 160-170° C and 224 grams of di-isobutylene were added over a period of $1\frac{1}{2}$ hours. The
- 55 temperature was raised to 180-185° C and maintained at that level for 9 hours. After cooling, neutralising and filtering, the reaction product was fractionally distilled. The first fratcion was a mixture of unreacted para-tert-butyl-phenol together with some
- 60 meta-tert-butyl-phenol formed by rearrangement, followed by 172 grams of a fraction containing 92% of 3,5-di-tert-butyl-phenol.

EXAMPLE 10

600 grams of ortho-tert-butyl-phenol were stirred with 40 grams of "Fulcat 23" and 4 grams of concentrated sulphuric acid at 160-170° C and 224 grams of di-isobutylene were added over a period of $1\frac{1}{2}$ hours. The temperature was raised to $180-185^{\circ}$ C and 70 maintained at this value for 3 hours. After cooling, neutralising and filtering, the reaction product was fractionally distilled. The first fraction was a mixture of meta- and 75 para-tert-butyl-phenols followed by 130 grams of a fraction containing 90% of 3,5-di-tertbutyl-phenol.

Having regard to the provisions of Section 9 of the Patents Act, attention is directed to the claims of our British Patent No. 992,629.

WHAT WE CLAIM IS:-

1. A process for the production of a dialkyl phenol, which comprises reacting phenol with an alkylating agent as hereinbefore defined at a temperature not less than 140° C to 85 introduce two alkyl groups into the nucleus in the presence of a catalyst comprising an activated bleaching earth and a strong acid (as hereinbefore defined).

2. A process for the production of a di-90 alkyl phenol, which comprises reacting a monoalkyl phenol with an alkylating agent as hereinbefore defined at a temperature not less than 140° C in the presence of a catalyst comprising an activated bleaching earth and a 95 strong acid (as hereinbefore defined).

3. A process for the production of a 3,5dialkyl phenol, which comprises reacting (1) phenol or (2) a 3-alkyl phenol or (3) a 4tertiary alkyl phenol or (4) a 3-alkyl-4-ter-100 tiary alkyl phenol or (5) a 2-tertiary alkyl phenol with an alkylating agent as hereinbefore defined at a temperature of not less than 140° C in the presence of a catalyst comprising an activated bleaching earth and a strong acid (as hereinbefore defined).

4. A process according to any one of the preceding claims, in which the temperature is not above 200° C.

5. A process according to any one of the 110 preceding claims, in which the temperature is is in the range 155°-200° C

6. A process according to any one of the preceding claims, in which the temperature in the range 155°---175° C.

7. A process according to any one of the preceding claims, in which the alkylating agent is an olefin or an alkanol.

8. A process according to any one of the preceding claims, in which the alkylating 120 agent contains not more than 8 carbon atoms in the molecule.

9. A process according to any one of the preceding claims, in which the alkylating agent contains a secondary or tertiary carbon 125 atom.

10. A process according to claim 9, in

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which the alkylating agent is tert.butyl alcohol. 11. A process according to any one of claims 1 to 8, in which the alkylating agent is isobutylene.

12. A process according to any one of claims 1 to 8, in which the alkylating agent is diisobutylene.

13. A process according to claim 9, in which the alkylating agent is isopropyl alcohol orsect. butyl alcohol.

14. A process according to any one of the preceding claims, in which the activated bleaching earth in the catalyst is activated fuller's earth.

15 15. A process according to any one of the preceding claims, in which the strong acid is a concentrated inorganic acid.

16. A process according to claim 15, in which the concentrated inorganic acid is sul-20 phuric acid or phosphoric acid.

17. A process according to any one of the preceding claims, in which the catalyst contains 5-15% by wt. of concentrated inorganic acid.

18. A process according to any one of the preceding claims, in which the phenolic reactant is phenol and the alkylating agent is a monomer and in which from 1 to 2 moles of the monomeric alkylating agent are used
per mol of phenol.

19. A process according to any one of claims 1 to 17, in which the phenolic reactant is phenol and the alkylating agent is diisobutylene and in which from 0.5 to 1.0 mol
35 diisobutylene are used per mol of phenol.

20. A process according to any one of claims 1 to 17, in which the phenolic reactant is a monoalkyl phenol and the alkylating agent

is a monomer and in which from 0.5 to 40 1.0 mol of monomeric alkylating agent are used per mol of the mono-alkyl phenol.

21. A process according to any one of claims 1 to 17, in which the phenolic reactant is a mono-alkyl phenol and the alkylating agent is diisobutylene and in which from 0.25 to 0.5 mol of diisobutylene are used per mol of the monoalkyl phenol.

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22. A process for the production of 3,5di-tert.butyl phenol, which comprises reacting (1) phenol or (2) a mono-tert.butyl phenol at a temperature of not less than 155° C with tert.butyl alcohol, isobutylene or diisobutylene in the presence of a catalyst comprising an activated bleaching earth and a strong acid (as hereinbefore defined). 55

23. A process according to claim 22, in which the alkylating agent is added slowly to the phenolic reactant whilst the reaction mixture is maintained at a temperature in the range $155-180^{\circ}$ C, the mixture being thereafter maintained for a period at a temperature in the range $175-200^{\circ}$ C.

24. A process according to claim 23, in which the phenolic reactant is a monotertiary butyl phenol and the reaction mix- 65 ture is maintained at a temperature in the range $155-175^{\circ}$ C during the addition of the alkylating agent and thereafter at a temperature in the range $175^{\circ}-190^{\circ}$ C.

25. A process for the production of a dialkyl 70 phenol, substantially as hereinbefore described with reference to any one of the Examples.

26. A dialkyl phenol whenever produced by the process claimed in any one of the preceding claims.

27. 3,5-di-tert.butyl-phenol whenever produced by the process claimed in any one of claims 1 to 25.

EDWARD EVANS & CO., 53-64, Chancery Lane, London, W.C.2, Agents for the Applicants.

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4

F.R. Moore B.Sc., C.Chem., F.R.S.C.

Consulting Chemist

26 Culcheth Hall Drive, Culcheth, Warrington, WA3 4PT. Tel: 0925 766138

21st. December 1993

Dear alfred, sa Juda strateg att for reifer an bacalant andy alt no benucul studiog stiload los ao becoege senon i tedest at that time - it was the academic approach, no basedde should sure i some of all adde I trenitedet sid i the bena doe fo scottandery Geoff Boffy's name is weladed on the third potent no show Juangalacele sit fo anos bib at amonad the filst plant. - strager dreeser ble yen fo reiges scal & you lo fo shalls quick - nearly of raifs experimental work. He first are, dated angust 1960 has flast landig fited that - aten for whatab scap as becother & instruge all . _ notion fitude it the plane was from Bowman et al, JACS, 1957, 79, 87: to to to to to the theory De te tore tore row tructory you 'y fininger hereaded. De boog knednes set fo stared. guillen besur you have for suitewash out go be gast PTO

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Best sides for Christmal and the New Year, Successly,

Blue Wings 21 Tiny Meadows South Petherwin Launceston Cornwall Pl15 7JD Te10566773756 3 December 1993

Dear Dr Bader,

or may I say Alfred. I greatly enjoyed your visit the last week. Thank you for sending on the photostat. I have now had time to digest it slowly and carefully. I must confess I was somewhat overawed meeting someone who actually owned a Rembrandt and loved it for its own self. There were so many questions I should have asked you about his work, for instance do you decry his religious paintings as so many do?

Thank you very much for the splendid prints which I shall have framed so that I too, may wake up and look at a Rembrandt.

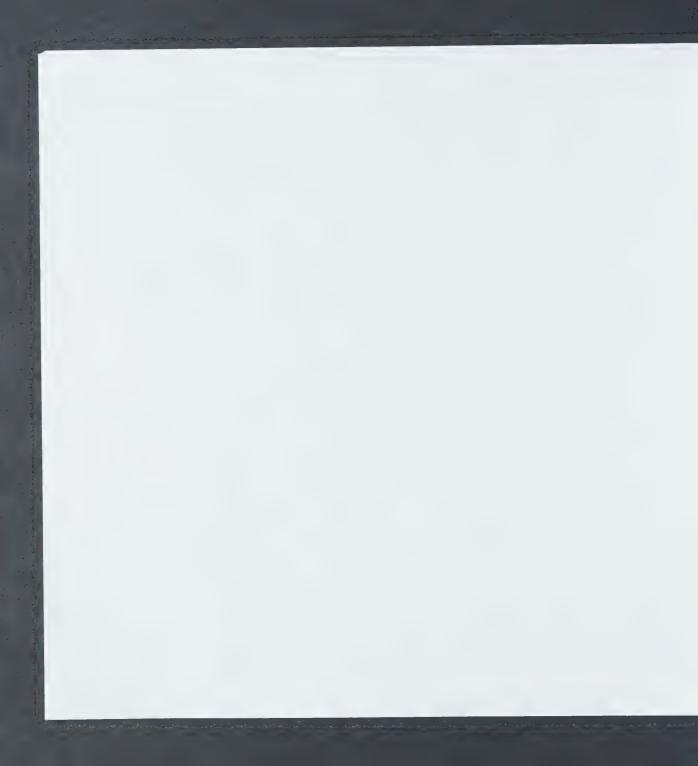
I shall take myself severely to task and stop using plywood forthwith. I shall also order some plastic bags.

What more can I say, it was a real thrill meeting you and your wife.

My best wishes to you both. Yours sincerely

Richard Treleaven Dul Tulen

Ps I will restrict my new pictures to 18x28" or less if you prefer more manageable paintings



This Warnen TEL-0424 030226 IDDONS, HENLEY'S DOWN, CATSFIELD, BATTLE, E. SUSSEX, TN33 9BN 6 the Decsenber 1993 Dear Dr. Bader, Vary many thanks for giving me the opportunity of reading the included extract from your autobio graphy, which I much enjayed reading & return In Gory that on my thying wint on herewith. huday I didn't have the opportunity to box at the plethor of paintings in your livinge room - may to same time in the future. W is a pleasure to have the previlege of meeting you have always pet admiration to those who have trimphed in their carriers for those who have trimphed in life when in spite of difficulties carly in life when the odds ceem to heavily stacked against them. pore pour to que ellow! all food wisher, John.



7" December 1993



H. D. LYON ANTIQUARIAN BOOKSELLER 18 SELWOOD TERRACE LONDON SW7 3QG

TELEPHONE 071-373 2709

Dear DE Bader, Ilen, Much Ciyage meeting you last Saturday at Edward Faridary's house, and talking with Jour wife and yourself. I should be most interested to see the Sir Joshna Freynolds Collection of -pamphlets Which you mentioned. As It hattens, I have an appointment h Bexhill at & pm on faturday December 18. I could, therefore, Come to your horse at about 7 prom that day, if that been convenient-for you Alternatives, you might prefa to call on me in London, at

he alore actions, Wind is in South Hensington, adjacent to Caston Carters, or to li sit me at The Oli Raton, Dalligton (tol. no. 830.279), where I plan to be at the weak - end. Lisking forward to hearing from you, Jours Sinceres 100/02

26 Culcheth Hall Drive Culcheth Warrington wA3 4PT Cheshire

Tel No : 0925 76 6138

Dr Alfred Bader 52 Wickham Avenue Bexhill-on-Sea East Sussex TN39 3ER

13th December 1993

Dear Alfred

It was a pleasure to talk on the phone and to reminisce a little. Thank you also for explaining the 40-year-old 'riddle of the Chinese vase'!

I was always pleased to introduce new products to you, mainly resulting from my work on alkylation of phenols, for inclusion in the ever-expanding Aldrich catalogue. Some of the first were the alkyl-catechols and I recall that, around 1960, you built up one of these, 3-isopropylcatechol, into a small tonnage business (for Pittsburgh Plate Glass, I think).

The other area which excited some interest was my discovery of conditions leading to meta-alkylation of phenols*, rather than the usual ortho and para. As you said, this was treated with some scepticism at the time, but we built a plant based on this technology to make commercial quantities of 3,5-di-t-butylphenol. It was used as starting-material for a new insecticide developed by the Boots Company, which unfortunately failed in the final field trials in Australia.

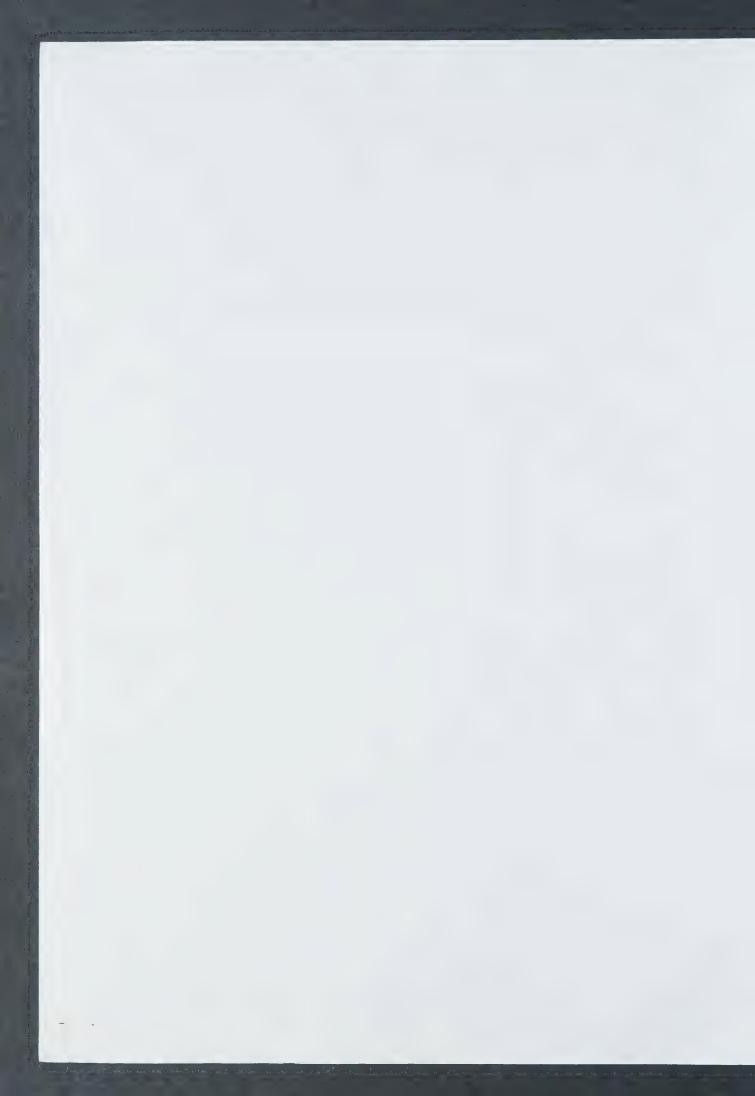
On a more personal note, I wonder if you heard of the sudden death of Ken Payne. The news came as quite a shock to me; we got on well together over a period of nearly 15 years.

My wife and I send our best wishes for Christmas and the New Year.

Yours sincerely,

Roland .

* Brit.Pats. 992,629 992,630 1,061,775



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THE PIER

22 December 1993

Dr & Mrs Alfred Bader 52 Wickham Avenue Bexhill-on-Sea East Sussex TN39 3ER

Dear Dr and Mrs Bader

Thank you so much for the interview. I foolishly forgot to ask you to sign release forms, which I now enclose. I also enclose a stamped addressed envelope for their return.

Thank you once again.

Yours sincerely

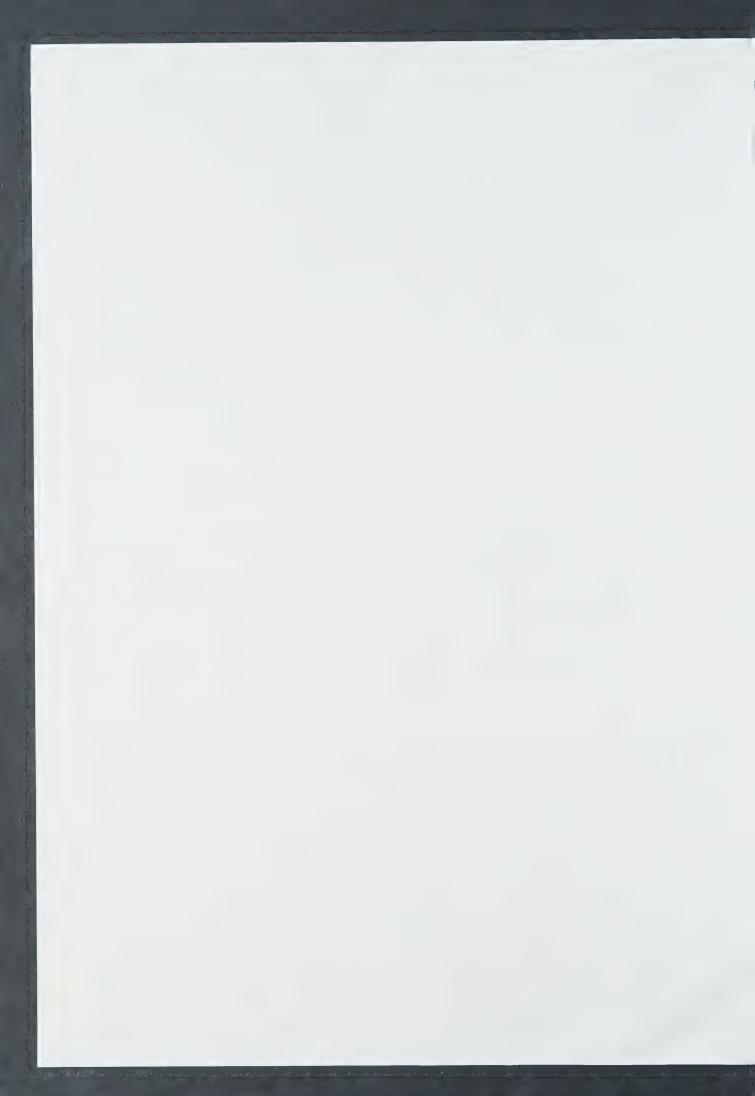
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STEPHEN PHILLIPS Series Editor - THE PIER

Encs.

I here we meet next in Millwauhee!

ANTELOPE SOUTH LTD, 3 FITZROY SQUARE, LONDON WIP 5AU





ALFRED BADER FINE ARTS

DR. ALFRED BADER

December 27, 1993

ESTABLISHED 1961

Ms. Joan Pate The Chestnuts 25, Roke Road Kenley Surrey CR8 5DZ England

Dear Ms. Pate:

Thank you so much for your thoughtful letter of December 19th and the Pentland Press book list.

I have little doubt that the Pentland Press does a good job publishing books and has a lot of experience with autobiographies, but I worry that distribution on both sides of the Atlantic would present a really problem.

Many thanks for your help.

Sincerely,

By Appointment Only ASTOR HOTEL SUITE 622 924 EAST JUNEAU AVENUE MILWAUKEE WISCONSIN USA 53202 TEL 414 277-0730 FAX 414 277-0709



The Chestnuts 25, Roke Road Kenley Surrey CR8 5DZ Tel. 081-660 1596

19th December 1993

Dear Dr. Bader,

At the request of Ralph Emanuel I enclose herewith the Spring/Summer 1993 Book List and a strip from the letter heading of THE PENTLAND PRESS LTD. I am negotiating with them on behalf of my friend - Else Wendel - in connection with the re-publishing of her book "Hausfrau at War" which was commissioned by Odhams in 1956.

PENTLAND are geared to Memoirs, Autobiography and Biography and are most helpful and delightful to work with. My contacts have been with the Managing Editor, Mrs. Jill-Cole in Durham, and we shall be entrusting them with the promotion of Hausfrau at War both here, in Germany and possibly elsewhere. I do not know of their contacts in U.S.A., but I can heartily recommend their in-depth assessment of work submitted to them.

Please do not hesitate to contact me if I can be of any help.

With best wishes,

Yours sincerely,

van fare. J. Pate

Dr. Alfred Bader, 52 Wickham Avenue, BEXHILL-ON-SEA, Sussex.

Ven horn

Drug leads begin to penetrate Alzheimer gloom

In 1963, Alfred Bader of Aldrich Chemicals was visiting potential suppliers of interesting fine chemicals when Siegfried Pickholz of Ward Blenkinsop offered him what he thought was an exciting compound. 'Siegfried explained that he didn't know what it was good for, but he felt that it could well be important in enzyme and brain chemistry', Bader recalls. The compound was 9-amino-1,2,3,4-tetrahydroacridine hydrochloride hydrate, first reported in 1931, THA, as it became known, languished in the Aldrich catalogue, selling no more than a few hundred grams a year. Then a medical researcher in California, W. K. Summers, decided that acridines might be important in Alzheimer's disease (AD) and began trawling the catalogues. Aldrich supplied small quantities of each acridine it listed. Bader remembers that Summers came back for 100 grams of THA, then a kilo, then larger quantities for use in a new drug application.

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THA, the acridine with no obvious use, is now known as tacrine and recently became the first drug licensed for treating AD.

Alzheimer's disease was described in 1907 by the German neurologist Alois Alzheimer. Usually the first symptoms are problems with memory, followed by a decline in reasoning ability and, later, reduced use of speech. These effects may be accompanied by behavioural disorders such as aggressive outbursts or restless wandering. The deterioration is irreversible and eventually leads to death. The effects on sufferers are devastating—they become unable to help themselves, and the strain on carers (often family members) is severe.

Once considered rare, AD is now recognised as a major medical problem. Partly this increase has been due to better diagnosis, but AD is predominantly a disease of the elderly and as healthier populations live longer so geriatric disorders become more prominent. A few years ago estimates of AD incidence were as high as 10 per cent of over-65s and maybe 50 per cent of over-80s More recently these have been scaled down to 5 per cent and 20 per cent respectively for all dementias, of which AD represents per-haps 70 per cent.

This wide variation in estimates arises from a number of factors. A range of other conditions, including alcohol abuse, thyroid disorders and side-effects of drug therapy (particularly in elderly patients taking several different treatments) can give rise to dementia or dementia-like symptoms Cumulative damage from a number of minor strokes is the second biggest cause of dementias after AD. True AD can only be diagnosed unequivocably by *post mortem* examination of the brain.

The social and economic cost of the disease is enormous: total numbers of sufferers are about $500\,000$ in the UK, $400\,000$ in

Salters recognise excellence in teaching

Dr Anne Hubbard of Reigate Sixth Form College has won the inaugural Salters' prize for chemistry teachers, worth $\pm 10\,000$. The Salters' Company, one of the City of London livery

companies, was founded in 1394 and it established the new prize to celebrate its 600th anniversary. The company re-established links with the salt trade 75 years ago when it recognised the impor-Anne Hubbara

ago when it recognised the importance of salt as a raw material for the chemical industry and founded the Salters' Institute of Industrial Chemistry, which promotes chemical education.

The new annual prize is awarded to the primary or secondary school teacher in the UK who is judged to have made the greatest contribution to the teaching of chemical sciences during the previous year. This year's judging panel was chaired by Lord Porter and included Dr Tom Inch, secretary general of the RSC and Philip Evans, headmaster of Bedford School. The awards were presented last month at Salters' Hall by Lord Porter at a ceremony attended by Baroness Blatch, junior minister for education.

The judges were looking for teachers who demonstrated outstanding ability to teach chemistry successfully, to inspire and motivate not only pupils but also parents and fellow teachers, and show a personal enthusiasm for the subject and embrace a lively innovative approach. The shortlisted entrants progressed to the final round of judging, which involved lesson observation and an interview. In addition to Dr Hubbard, Derek Denby (John Leggott College, Scunthorpe) and Neil Heeley (Greenhead Sixth Form College, Huddersfield) received Salters' medals for joint second place. A

Anne Hubbard and Lord Porter

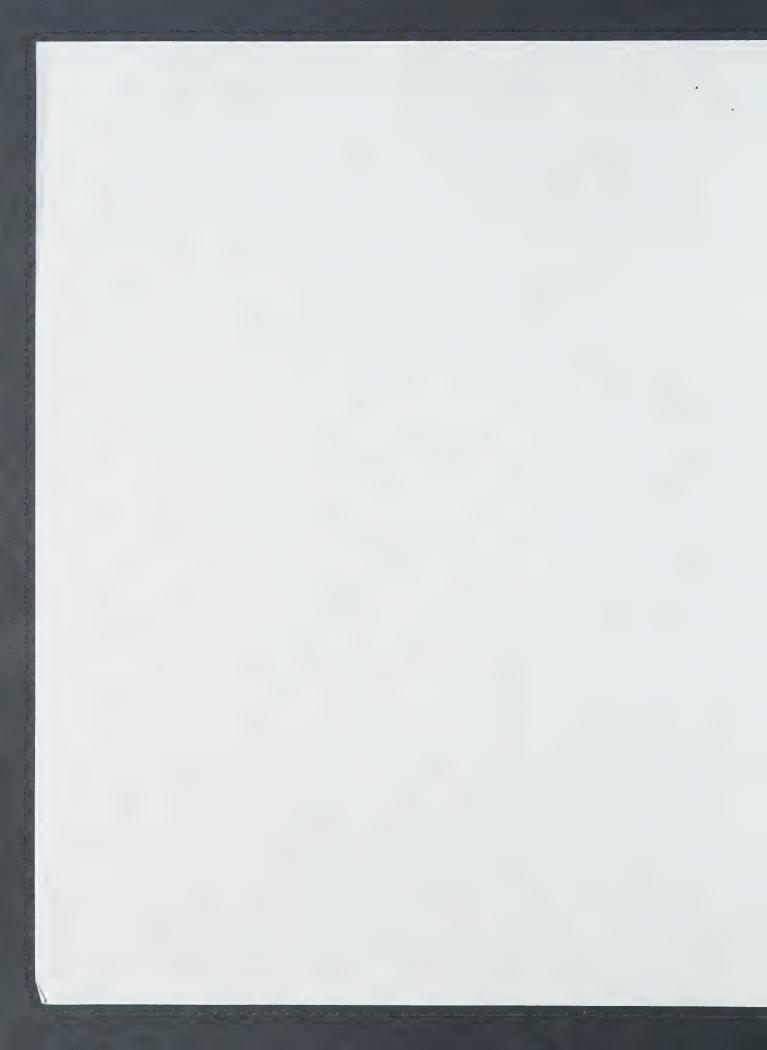


medals for joint second place. A special award, funded jointly by the Royal Society of Chemistry and the American Chemical Society, will allow four of the six finalists to travel to the US to attend the chemical education symposium at the American Chemical Society spring meeting.

The other finalists were Dr Janet Wyatt (High March School, Beaconsfield)—one of only two entrants who were teaching in primary schools—Gordon Woods (Monmouth School) and Colin Chambers (Bolton School). Anne Hubbard is the current chairperson of the RSC's Downland Section, while Colin Chambers began the RSC's industry study tours for teachers. Hubbard, Chambers and Woods are all previous recipients of the Royal Society of Chemistry chemical education award.

In future years the Salters' prizes will be awarded in November. Details of the scheme are available from Dorothy Atkinson at the Salters' Institute of Industrial Chemistry, Salters' Hall, 4 Fore Street, London EC2Y 5DE.

CHEMINTRY IN BRITAIN MARCH 1991



Tradename	Drug	Company	Phase
Alcar	acetyl-l-carnitine	Sigma-Tau	III
Aviva	linopirdine ^a	DuPont Merck	ÎĤ
BC-PS	phosphatidylserine	Fidia	II
Dero	bespirdine	Hoechst-Roussel	Î
	(cholinesterase inhibitor)	Marion Merrell Dow	II
CI-979	(chonnesterase minortor)	Warner-Lambert	II
ENS-163		Sandoz	11
ENS-713		Sandoz	I
LN3-/15	(inverse CADA seemist)h		II
	(inverse GABA agonist) ^b	Marion Merrell Dow	11
	lazabemide	Hoffmann-La Roche	
	levacecamine	Hoffmann-La Roche	III
LY246078		Eli Lilly	II
	(MAO-B inhibitor) ^c	Marion Merrell Dow	11
Mentane	velnacrine maleate	Hoechst-Roussel	III
Nimotop	nimodipine	Miles	IH
	ondansetron ^a	Glaxo	111
	sabeluzole	Janssen	11
Synapton	physostigmine salicylate	Forest	111
Source: PMA 10	292 607007		

Source: PMA 1993 survey.

a: Cognition enhancer b: Antidepressant c: Also Parkinson's disease

France and 4 million in the US. Continuous long-term care by family or professional carers is extremely expensive: one estimate suggests that if AD onset could be delayed by five years the economic benefit to the US alone would be a staggering \$47,000m (over $\pounds 30,000m$) pa.

What goes wrong?

Post mortem examination of brain tissue from an AD sufferer shows several abnormalities. There is a general loss of brain mass: plaques of amyloid protein have formed; and nerve fibre tangles associated with tau protein can be found. Both plaques and tangles are normal in elderly brains: what distinguishes AD is their high density. Biochemically, AD sufferers show deficiency in the enzyme choline acetyltransferase, which is required for acetylcholine synthesis. The deficiency is proportional to the number of plaques and tangles. Acetylcholine is the main chemical messenger in the brain involved in memory. There can be changes in other chemical messengers, such as noradrenaline, gamma-amino butyric acid (GABA) and somatostatin.

During the 1980s a great deal of attention focused on aluminium, which some researchers reported from the cores of plaques. By analogy with a form of dementia associated with aluminium toxicity in dialysis patients, they proposed aluminium as a causative agent for AD. However, the relationship between aluminium or aluminosilicate cores and AD remained unclear. Was it causal or a symptom—was the amyloid protein simply trapping Al?

Some epidemiological studies seemed to show a link between Al in water supplies and AD incidence. Other published research seemed to show that administering desferrioxamine (an Al chelator) to AD patients retarded the progression of the disease.

However, all the Al results were inconclusive and not all analysts could find Al in plaques. In late 1992 researchers at Oxford University's Scanning Proton Microprobe Unit declared that Al could not be found in untreated brain material from AD sufferers. They suggested that the aluminosilicate findings were due to dust contamination.

Though the jury is still out on the Al link, attention has now focused on the role of the proteins. The plaques in AD brains build up from a beta-amyloid protein, which is released by cells as a normal breakdown fragment from amyloid precursor protein (APP). People with Down's syndrome also produce abnormally large amounts of APP; the APP gene turns out to be on the same chromosome (21) that is associated with Down's syndrome. Damage to chromosome 21 can cause both Down's syndrome and early-onset AD. Researchers have now confirmed that families who show a hereditary form of early-onset AD carry mutations in and around the APP gene.

Another ubiquitous protein is apolipoprotein E (ApoE), which plays a role in transporting cholesterol around the body. Normally this is in the forms ApoE2 or ApoE3, but some people instead carry the gene for ApoE4. If both parents carry the ApoE4 variant, those children who inherit two copies of it are eight times more likely than normal to develop AD later in life.

The connection between ApoE and AD is as yet unclear. Allen Roses and Warren Strittmatter of Duke University, North Carolina, US, who published the ApoE4 link last year, recently put forward the hypothesis that it is not ApoE4 that predisposes to AD, but that ApoE2 and ApoE3 are nerve-protecting agents. They showed that ApoE3 binds tightly to beta amyloid, while ApoE4 does not. Last November they controversially extended their hypothesis: they found that ApoE3 also binds tightly to tau proteins. They suggested that tau without apolipoprotein protection is more easily phosphorylated and prone to form tangles.

Multiple causes

So there could be two forms of genetic predisposition to AD: mutation to the APP gene on chromosome 21 in early-onset disease, and paired ApoE4 genes on chromosome 19 in the late-onset form. But what about the great majority of AD cases where there are no obvious hereditary factors involved?

A strange disease found among inhabitants of the Pacific island of Guam has provided some insights into AD, Parkinson's dementia complex (PDC), and another neurodegenerative disease, amyotrophic lateral sclerosis (ALS). Geochemists probed the island's soil to see if high Al levels were to blame, but in 1987 Peter Spencer of Albert Einstein Medical College, New York, US, announced that massive doses of amino acids from seeds native to Guam caused something akin to ALS-PDC in monkeys by overstimulating and destroying nerve cells.

Spencer's work led to a rush of research to find similar 'excitotoxins' that might

account for AD. However, the search has so far drawn a blank; meanwhile ALS-PDC is dying out on Guam, presumably because western foods have driven local seeds from the islanders' diet.

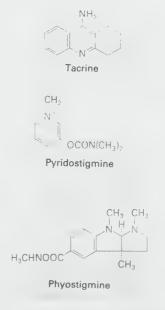
Another hypothesis gaining support is that AD may in fact be an inflammatory condition akin to rheumatoid arthritis. Joe Rogers of the Sun Health Research Institute, Arizona, US, and Pat McGeer of the University of British Columbia, Canada, last year released results of an apparently promising clinical trial treating AD patients with indomethacin—a simple non-steroidal antiinflammatory drug (NSAID) related to aspirin. The connection, they believe, is that aggregated beta-amyloid can activate part of the immune system, starting a cascade that kills damaged cells.

Following leads

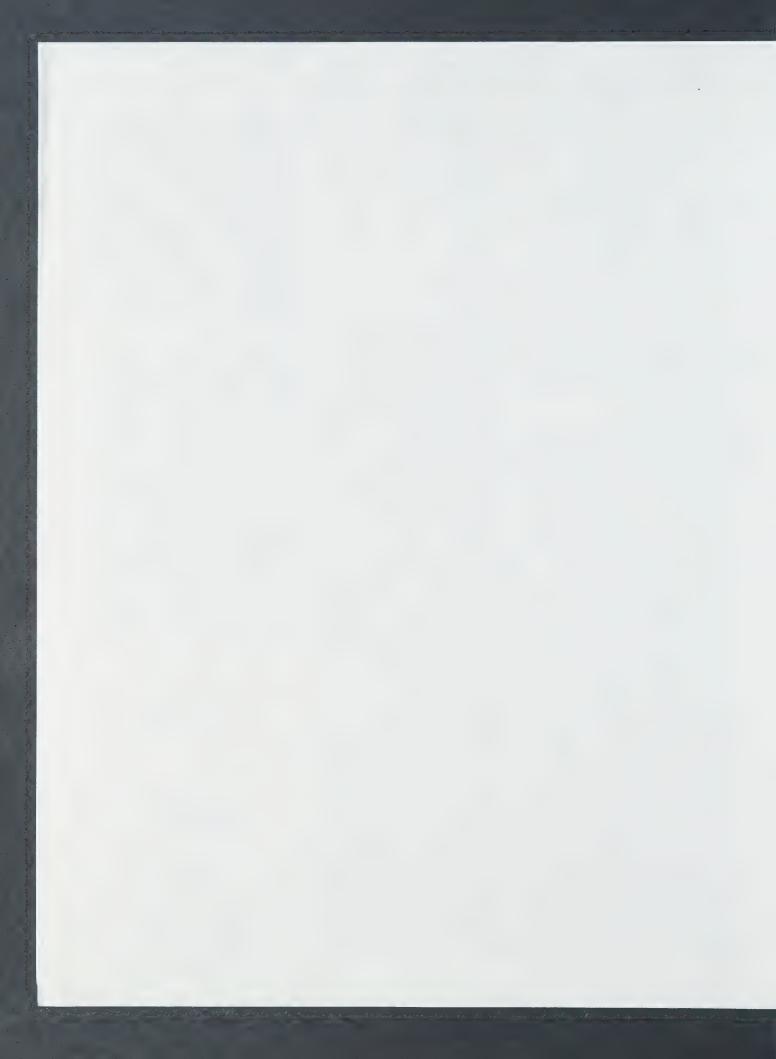
Even without a full understanding of causation and biochemistry, there are sufficient targets for pharmaceutical researchers to aim at for developing palliative treatments. One obvious strategy is to try to maintain the brain's acetylcholine levels. The approach adopted by several companies is to inhibit the enzyme acetycholinesterase (AChE), which breaks down acetylcholine. Tacrine is one such cholinesterase inhibitor.

Summers published his tacrine findings in 1986, seeming to show significant improvements in AD patients taking the drugs. Although later clinical trials have been variable (emphasising the suspicion that AD is actually a clutch of different diseases), tacrine showed sufficient promise for Warner-Lambert to proceed with a full drug application. This was turned down by the US Federal Drug Administration (FDA) in 1991, but after further trials it was finally approved last September. The UK Committee on Safety of Medicines has yet to grant a licence for tacrine.

By the end of 1993 tacrine (marketed as Cognex) had already become Warner-Lambert's best performing drug, with sales



CHEMISTRY IN BRITAIN MARCH 1994



The leprosy link

In support of their theory that AD is an inflammatory disease, Rogers and McGeer have pointed to a fascinating link with leprosy. Japanese leprosy patients show a markedly reduced incidence of AD, and the drug of choice for their treatment, dapsone, is also a powerful anti-inflammatory.

of \$27m (£18m) in its first three months. Warner-Lambert recently announced that despite cutbacks in the company it would focus resources behind Cognex and similar drugs as key growth products. Cognex could become a blockbuster, but a shortlived one because so many other promising drugs are on their way (*see* Table).

Only after tacrine had been launched did researchers find out how it works. Joel Sussman, Michal Havel and Israel Silman of the Weizmann Institute in Israel found from X-ray diffraction data that the drug binds directly to the active site of AChE, which lies in a deep cleft in the enzyme. This cleft is lined with aromatic groups and tacrine binds to two specific aromatics, one of which alters the enzyme's conformation to accommodate the drug. The results have been confirmed by photoaffinity labelling carried out by Maurice Goeldner and Christian Hirth of Louis Pasteur University, Strasbourg, France.

Although tacrine blocks AChE's binding site very accurately, the Weizmann researchers hope that their structural work will allow chemists to design better compounds. One drawback of tacrine is that it can produce increased levels of aminotransferase, a sign of liver toxicity. This is reversible if the patient is taken off the drug. In addition, 10-20 per cent of patients cannot tolerate the drug, suffering nausea and loss of appetite. Another problem with drugs like tacrine is that the effect diminishes with time, and after a year or two the relentless decline of AD continues.

In a December 1993 report, Alzheimer's disease III—a worldwide market study of new and existing products, Technology Marketing Group of New Haven, Connecticut, US, identified 142 companies and 365 other organisations working on AD treatments or underlying research. The biennial survey by the US Pharmaceutical Manufacturers' Association (PMA) listed 19 drugs (including tacrine) from 13 companies in clinical trials in the US last year (see Table). The most advanced of these are, like tacrine, cholinesterase inhibitors. Hoechst-Roussel's Mentane (velnacrine maleate) could be the next on the market. This is simply a hydroxymetabolite of tacrine and has similar effects and side-effects.

AChE is also the target of organophosphorus nerve gases, and a great deal of work has been carried out in military research institutes on compounds that would bind reversibly to AChE to protect it from these agents. The UK's Chemical and Biological Defence Establishment adopted the carbamate pyridostigmine for this task. The related physostigmine is now in phase III clinical trials as a possible treatment for AD. However, as long ago as 1991 Hoechst researchers said that physostigmine had undesirable side-effects — slow heartbeat and low blood pressure — and a short duration of action. They have produced HP290, a physostigmine analogue with an altered carbamate moiety, and claim that this is longerlasting and has 25 times greater selectivity for the brain.

Hoechst also has a second generation drug up its sleeve, besipirdine. This protects the chemical messenger norepinephrine as well as acetylcholine. Joseph Klein of Hoechst notes that many antidepressants enhance norepinephrine but antagonise acetylcholine, so giving AD patients antidepressants may worsen their condition. Besipirdine has the dual ability to act as an antidepressant and an acetylcholine enhancer.

Elf-Sanofi has also been working on drugs derived from antidepressants, in conjunction with Louis Pasteur University. The researchers took a commonly available antidepressant, minaprine S, which has been shown to be very safe and to have 'wonderful' bioavailability, according to Camille Wermuth of Louis Pasteur. It penetrates the blood-brain barrier and has slight activity as an acetylcholine mimic. The researchers aimed to conserve the safety and bioavailability while boosting the cholinergic activity. By using classical structure-activity relationships combined with computer-aided design, they succeeded in enhancing this property 5660-fold and the candidate (3-(N-(2-diethylamino - 2-methylpropyl)-6-phenyl-5-propyl-pyridazinamine) passed its phase I clinical trials without problem. It entered phase II trials in AD patients in France last vear.

Other leads

After blocking AChE to prevent acetylcholine being destroyed, and stimulating or mimicking acetylcholine, a third mode of action being considered by the industry is to prevent nerve damage in the first place. Nerve growth factor (NGF) is an obvious target. NGF binds to nerves in the brain, but there is a second receptor on the nerve membrane that seems to remove excess NGF for recycling. Researchers at Warner-Lambert are testing that hypothesis in an attempt to find a control mechanism.

Drug leads can come from unexpected observations. Smokers seem to have a reduced susceptibility to AD and Parkinson-

The HRT link

Last year, US researchers reported that women undergoing hormone replacement therapy (HRT) were 40 per cent less likely to develop AD. One theory they tested is that oestrogen protects brain cells involved in learning and memory. Administering the related hormone progesterone after serious head injury is known to reduce cell death and learning impairment. These findings may help to explain why the normal incidence of AD is higher among women than men -more than can be explained by the simple fact that women generally live longer. Female AD susceptibility might be an effect of post-menopausal loss of oestrogen.

The smoking link

Dutch researchers have found that smoking can delay the onset of hereditary AD by about five years. The link is likely to be found in stimulating the colinergic nicotinic receptors in the brain and hence controlling the acetylcholine deficiency. Though the risks of smoking clearly rule it out as an ethical therapy, nicotine patches might prove useful. Gemma Jones of the Institute of Psychiatry in London is reported to have found that injecting nicotine under the skin improved the 'attention and information processing' ability of AD patients, but not their short-term memories. Researchers at Abbott Labs in the US are working on a substituted series of nicotine analogues, some of which show 'enhanced cognitive function' in animals.

ism, while a study on Californian women taking hormone replacement therapy showed that they too have a lower incidence of AD (*see* Boxes).

The flood of research on amyloid and APP should soon begin to identify further targets for drug therapy. Newly published research by protein crystallographers at Birkbeck College, London, including Steve Wood and Tom Blundell, working in conjunction with Mark Pepys at the Royal Postgraduate Medical School, London, has revealed the detailed structure of a human serum amyloid P (SAP) component for the first time (Nature, 1994, 367, 338). SAP is resistant to enzymes that break down proteins and a coating of this component appears to protect nerve fibrils. To attack abnormal amyloid deposits any drug must get past the SAP sheath. Developing a drug that could displace SAP from amyloid concentrations might allow the body to destroy the plaques.

One of the most productive areas for drug companies in recent years has been to target 5HT (serotonin) receptors, which has led to drugs for ulcers and migraine amongst others. The discovery of 5HT₃ receptors in regions of the brain associated with mood, emotion and memory has opened up the prospect of 5HT₃ antagonists as cognition enhancers or 'smart drugs'. These have mainly been aimed at age-associated memory impairment, but several are being looked at in connection with AD. Glaxo's ondansetron and DuPont Merck's Aviva (linopirdine) are in phase III trials.

But despite all these leads and research expenditure, at present the medical world only has one authorised drug, tacrine, and that only in the US so far. Alfred Bader has kept a close eye on the drug's development since the days when Summers requested it from the Aldrich catalogue. His family has a deep interest in AD—his first wife founded the Helen Bader Foundation in their home city of Milwaukee to support AD sufferers. Last year, on a trip to the UK, Bader made a point of visiting Siegfried Pickholz's widow, to tell her how her husband's chance conversation 30 years ago has led to hope for millions of elderly people today.

Richard Stevenson



FILE JRD BNFL Fluorochemicals

In the past two years British Nuclear Fuels (BNFL) has spent around £2m acquiring three specialist organofluorine companies to create BNFL Fluorochemicals (BNFL-FC). It has bought: Fluorochem, an independent and profitable supplier of organofluorine chemicals based at Glossop, Derbyshire; Yarsley, a subsidiary of Shell; and Flutec, formerly owned by Rhône-Poulenc.

Flutec is best known as a trade name for perfluorocarbon liquids, compounds which have some rather remarkable uses. But it is also the solvent used by electronics manufacturers to clean components, such as printed circuit boards.

Nevertheless, it has more exotic uses in medical care, for example in saving the lives of babies who are born so prematurely they cannot breathe. They can be saved by pumping perfluorocarbon liquids through their lungs. These solvents will absorb several times their volume of oxygen gas and so keep the baby alive. Flutec is also used in blood substitutes, to store donor organs, and in cancer diagnosis.

Success in the pharmaceutical and healthcare industries may ensure that BNFL's gamble pays off. BNFL-FC's manager, Dr Gerry May, describes the new company as a 'major niche player in the fluorochemical world', adding that turnover already exceeds £5m pa. The company has invested in a new manufacturing plant at its site at Springfields, near Preston, which will come on stream next year. Meanwhile, the company is importing fluorochemicals from Russia.

But why is state-owned BNFL investing in this area? The simple answer is the need to find new uses for its fluorine gas, less of which is now required because of the closure of older nuclear power stations. To supply these with uranium metal meant the production of uranium hexafluoride, and to make this BNFL became a major fluorine producer back in the 1950s.

According to Dr May, BNFL-FC intends to become a supplier of fluorine gas which it will sell diluted with nitrogen gas. There is already a market for F_2/N_3 for treating polythene containers. The gas fluorinates the polymer

surface making it impervious to organic liquids. Some cars already have fluorinated polyethylene fuel tanks, which can withstand a crash without rupturing. The new company's fluoro-

chemicals, which are already an important part of our lives, are set to be a major growth area in the next century. The carrot of some remarkable success stories dangles before BNFL. The best known is that of polyleterafluoroethylene), which for 30 years has been better known as Dupont's Teflon, the anti-stick coating on kitchenware, and as Goretex, the all-weather wear. More recently, there have been the new organofluorine antibiotics from Japan, the fluoroquinolones, which already have worldwide sales of \$1000m.

Creating a new chemical company is not without its problems. In theory BNFL-FC has the resources of the state behind it but even this may not always get it what it wants: *ie* good chemists. When it bought Yarsley from Shell it got a rather empty shell. Some of its key personnel went off and set up their own company.

Former Yarsley employees, Jim Jappy, Bob Tidswell and Dinesh Patel formed JRD Fluorochemicals, operating from a new factory in Leatherhead, Surrey. They produce a range of speciality fluorochemicals for pharmaceutical companies. 'Turnover has risen to £250 000 after only 18 months', says Jappy. 'Our skill is in identifying new fluorochemicals for which there will be demand. We now have 200 products in stock and are adding to the list each week'. They even supply BNFL-FC.

Can BNFL-FC really become a major player in the mature UK fluorochemicals industry? Undoubtedly BNFL-FC has the capacity to make fluorine, and it rightly assumes that fluorochemicals are going to be a growth area in the next century. It is adopting a positive attitude towards research and is already collaborating with academics who specialise in fluorine chemistry, mainly at Durham University. BNFL-FC may even have pockets deep enough to turn itself into a world-class company. Then, no doubt, it will be time to sell it to Sid. John Emsley



Dressing up for the opening of the new GMP training unit.

New GMP training unit

A new good manufacturing practice (GMP) training unit was recently opened at the University of Brighton by Til Medinger, president of the Association of the British Pharmaceutical Industry and planning manager of Zeneca.

The £180 000 project was funded by the university's pharmaceutical faculty with the aid of a 26 per cent grant from the Wolfson Foundation (which provides grants for education with a link to industry) and supported by equipment from Boehringer Ingelheim and Malvern.

The clean room is designed to

Nobel Pharma

Akzo Nobel is to sell its pharma-

ceutical active ingredient subsidiary, Nobel Pharma, to Cam-

brex, the US speciality and fine

of Nobel Chemicals in Sweden, Profarmaco Nobel in Italy and

sales companies in Germany, the

UK and the US, manufactures

bulk active ingredients for pharmaceutical products and fine chemicals. Its 1993 turnover was

\$90m and the total number of

strategy to concentrate on those businesses where it believes it

has or can achieve and maintain

The sale reflects Akzo Nobel's

personnel involved is 500.

world leadership positions.

Nobel Pharma, which consists

chemical company, for \$130m.

sale

modern clean room design concepts and disciplines. Up to six students and two tutors will be able to work within the carefully controlled parameters of temperature, humidity, pressure differentials and particle counts, that are necessary for the manufacture of medicines. The unit will be used mainly

give students the experience of

for training purposes, for undergraduate and postgraduate students and for specialised short courses in GMP procedures for the pharmaceutical industry and other areas of pharmacy.

market and sell unbranded generic drugs worldwide.

The new joint venture, headquartered in Parsippany, US, will work to expand the two companies' international presence in the competitive generics market outside the US. Steve Thornton, president of the new company, commented that 'the formation of this entity paves the way toward strengthening each company's position in the increasingly competitive international multisource arena'.

Heir apparent appointed

.

Sir Sydney Lipworth has been named as successor to Sir Denys Henderson, chairman of Zeneca, and has taken up a post as nonexecutive director of the bioscience company. Lipworth will go on to succeed Henderson when he retires in May next year.

Lipworth, a South African by birth and a barrister by training, was deputy chairman of the National Westminster Bank, director of Carlton Communications and chairman of the Financial Reporting Council until he took up this appointment in October. Previously he was a cofounder of Allied Dunbar.

ICI Explosives to cut jobs

ICI has recently warned of an unspecified number of job losses at its Ardeer explosive plant in Strathclyde, Scotland, which employs about 750 people. The cuts, which are to take place over the next few years, are part of the group's plans to restructure its UK explosive division (which has been declining for some years) and to 'create a smaller and more effective organisation with business teams focused on develop-CHEMISTRY IN BRITAIN NOVEMBER 1994

rope.' ICI blamed the cuts on the widespread closure of coal mines in the UK. Most of ICI Explosives' profits

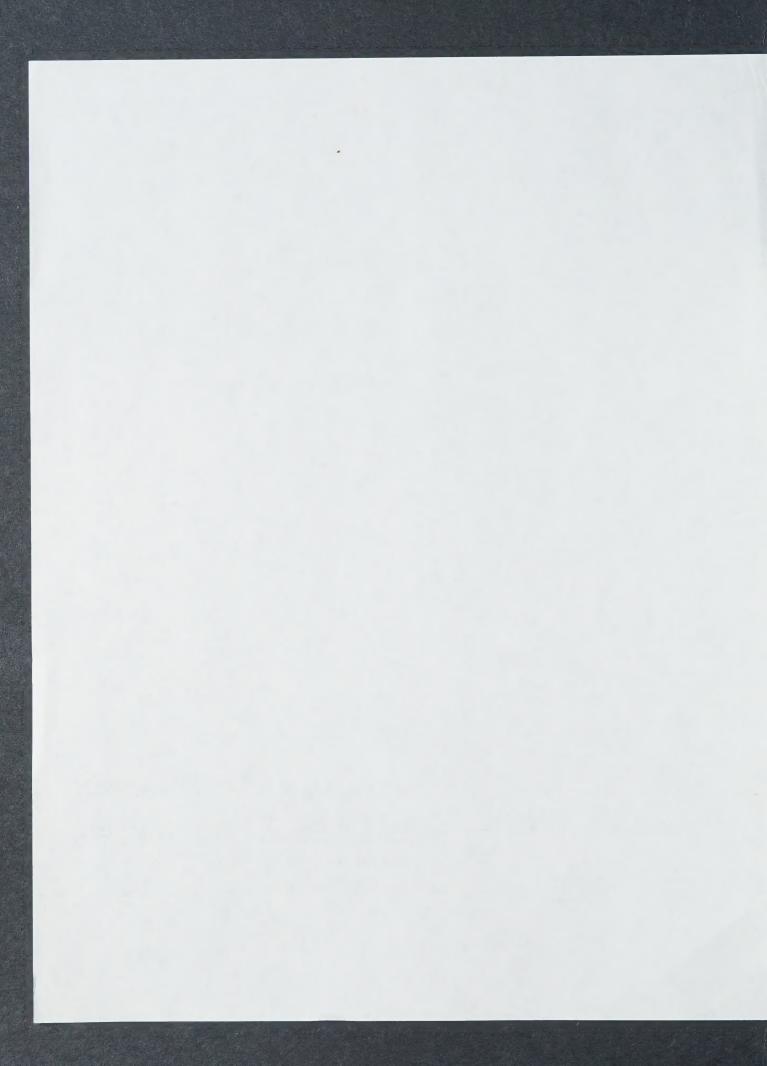
ing a broader business in Eu-

come from overseas, and it employs only 900 people in the UK.

The explosive company will be split into three new business units, ICI Explosives Europe, Aerospace and Automotive Products Europe and Ardeer Operating Services.

Bayer moves into generics

Miles, a subsidiary of the German pharmaceutical company Bayer, has bought a 28.3 per cent stake in the US generic drug specialist, Schein Pharmaceutical, for \$310m. Following the acquisition, the two companies launched a joint international organisation to







Telephone 071 772 7725

9 Idol Lane

Idol Lane is an ancient cobbled City street. It is short but very narrow. We are on the bend opposite St. Dunstan-in-the-East church. Pedestrian access to our building is simplest for the last few yards. Should you wish to do so you can also gain access to us via the reception desk at the Group's main St Mary at Hill complex

London Underground

Bank, Monument, Tower Hill

B.R.

London Bridge, Cannon Street, Fenchurch Street

Riverbus

Old Billingsgate Riverbus stop

Taxi

Common mistakes - St. Mary Axe instead of St. Mary at Hill, Cheapside instead of Eastcheap.

Car

No vehicle access to Idol Lane. One way down St. Mary at Hill from Eastcheap.

Parking

Limited pre-arranged parking in St. Mary at Hill forecourt. Meters: St. Mary at Hill, Eastcheap, Great Tower Street

Plane

City Airport Thereafter we recommend a taxi, Time approx 20 minutes.

Gatwick Airport Thereafter by rail to London Bridge or Victoria and then tube to Monument via District Line. Time approx 45 minutes.

Heathrow Airport Thereafter tube to Monument via Piccadilly and District Lines. Time approx 60 minutes.