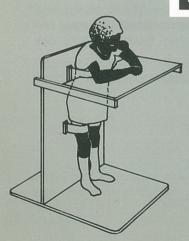
# DEMAND

Design & Manufacture for Disability





ANNUAL REPORT 1986

**DEMAND** 

Principal Patron
The Earl of Snowdon GCVO, RDI

The Viscount Ingleby
The Baroness Lane-Fox OBE
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Brian McKee, Project Manager

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#### **Design & Manufacture for Disability**

Registered under the Charities Act 1960 No. 280618

99 Leman Street London E1 8EY

Telephone: 01-488 9869/9860

Dem Render

This letter is addressed to all of you who are interested in DEMAND, whether our own workshop members, London College of Furniture staff, students, voluntary helpers, donors or beneficiaries.

Our tremendous achievements in 1986 were overshadowed by the untimely death from cancer at the age of 62 of our Chairman, The Lady Renton. Paddy, as she was known to her family and friends, was a founder and the first Chairman of DEMAND and an inspiration to all who worked with her. An appreciation with special reference to her work for DEMAND is on the page opposite this letter.

In other respects 1986 has been our most successful year to date. The impact of Robert Sawyer, as full-time General Manager, has been dramatic. The whole organisation has been pulled together on a thoroughly professional basis. Fundraising has been streamlined, the involvement of Government agencies increased and, most important, the end products multiplied with a rise in royalty income. This in turn has enhanced the contributions of our workshop and design staff. Of course it goes without saying that we continue to enjoy the closest co-operation and friendship at all levels within the London College of Furniture.

1987 promises to be year of further development. It will also see a change of address and an involvement in an interesting experiment affecting, initially, two charities combining to share some administrative resources, whilst retaining their separate identities. The Docklands Settlements is a mature charity, originally established to meet the needs of people living and working in the Docklands area. Today, especially in London, the picture has changed. The docks are being redeveloped, and the dockers, seafarers and their families are gone. The Settlements have a large community centre on the Isle of Dogs, which DEMAND will share. This will offer more space for our increasing workload, at a proportionate reduction in rental.

A month before she died, Paddy visited the Isle of Dogs site and expressed enthusiasm for the project. I am sure that her enthusiasm will prove to be abundantly justified.

Your encerely Detaile

Trustees Maxwell Caplin OBE, FRCP, Andrew Cussins, John Metcalfe, Bernard North DFC, AFC, Morris Serlin.



# Paddy Renton and DEMAND

Paddy Renton, and her husband David, were involved in the problems of the disabled from early in their married life. Their youngest daughter was severely handicapped from birth, physically and mentally, and now lives at Ravenswood. David became Chairman of Mencap, of which he is now President. Together they visited Mencap branches all over the UK. They both became very much aware of the problems of the disabled.

At the end of 1978 Paddy heard that the London College of Furniture was engaged, unofficially, on a programme for the design and making of seating and postural support, amongst other aids for the disabled. At the invitation of Brian Boothby, Principal Lecturer in Design she visited the College to receive a chair that had been made for her daughter, and asked if there was anything she could do to help the programme. Alan Saunders and Bernard North, Principal and Vice-Principal of the College, told her of the existence of a fund established by a committee of staff under Sir Henry Peto, Chairman of the Governors, and of plans to extend the work and establish a unique post-graduate course to train designers and para-medics in the problems of designing aids for the disabled.

Paddy jumped at the opportunity of helping an innovative charity in the relief of the disabled and she made it very much her own baby. She referred to it later as her fourth child and she devoted all the drive, enthusiasm and dedication that a mother would to her youngest offspring.

With David's invaluable support and wise counsel, DEMAND (Design and Manufacture for the Disabled) was registered as a charity, in record time, at the end of 1980, with the twin objectives of promoting the design and making of equipment for disability, with associated research and funding bursaries to support students taking the London College of Furniture Postgraduate Diploma Course.

Dr. Max Caplin, one of DEMAND's Trustees, summed up Paddy's contribution in his tribute after her death: "Paddy became DEMAND's first Chairman in 1980. She had great skill as a fund raiser, but it was her inspired leadership, her engaging enthusiasm and her unswerving dedication to the welfare of disabled people which resulted in this remarkable development of DEMAND's work and influence."

After her death a special fund was inaugurated in her memory. This fund has now reached the £10,000 mark and it has been decided to devote the money to the production of "one-off" pieces of equipment for indivduals, which was an aspect of our work dearest to her heart.

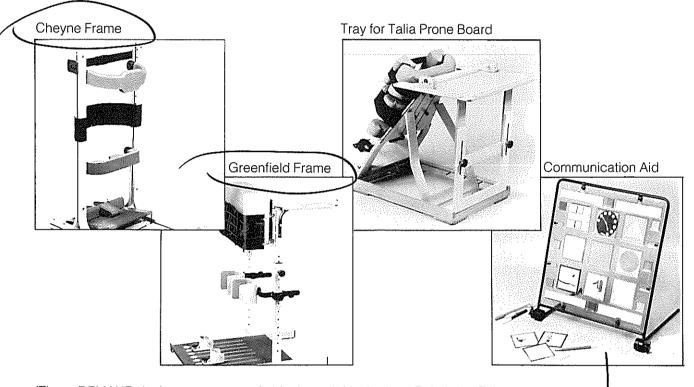
We, who worked with her in the workshop and the offices and in the college, have a great affection and respect for Paddy. This will continue to inspire us in the exciting years ahead.

### **Workshop & Studio**

During 1986 time and resources have been devoted to eighteen projects, practical support has been given to an outstanding cohort of pastgraduate students, and a proposal has been developed for the establishment of a seating clinic for the severely disabled.

We were most fortunate in being allowed by the MSC to retain the services of John Badcock and Frank Flanagan for a further year, and we are hoping to be able to retain Frank until at least 1988. Sadly, we said goodbye to David Gold in July, after three years of service, but have been fortunate in recruiting Maurice Shannon to strengthen both design and workshop. Maurice gained his first degree in Ulster, and an MA in furniture design in Glasgow. He has spent some time working as designer prototype maker with one of the leading furniture design and retailing groups in the UK.

Last year we set ourselves the target of putting a further five prototypes into production with outside manufacturers by the end of 1986. In fact we achieved three of our intended five, and an additional product, the development of a tray for the Talia Prone Board.



(These DEMAND designs are now available through Nottingham Rehab Ltd Tel 0602-234251)

A summary of our intended schedule and actual achievements appears below.

	1985	1986	1987	1988	1989	1990	
Talia Prone Board	0						
Greenfield Standing Frame		0					
Domestic Wheelchair				X			
Adjustable Table	x (postponed, now 1987)						
Frame for Matrix Chair	X						
Seating for CVA Patients	X						
Richard Chair	x (in abeyance)						
Communication Aid		0					
Cheyne Standing Frame		0					
Sofabed for DF				X			
Child Measurement Aid	X						
Table for Prone Board		0					
Adult Prone Board				X			
Key Turner	X						

0 = in manufacture x = intended manufacture

On the next two pages we have illustrated seven of the eighteen projects to which we have devoted time and resources, during 1986.



Bubble

#### Development of seating for CVA (Stroke) Patients.

1986 has seen the development of this project into something approaching it's final form. Utilising data gathered with test-rigs at three London Hospitals. Diane Hobley designed and supervised the building of a first prototype.

This embodies the principles of a theurapeutic system in a structure that whilst highly adjustable in every dimension is aimed a non-threatening appearance. Our manufacturers Camp Limited are now co-operating in the construction of a further and final batch of prototypes and the product will be launched in August 1987. We were all massively encouraged by the decision of the Wolfson Foundation in April, to fund the remaining two thirds of the expense involved in the project. Achieving successful manufacture in August will offer hospitals and nursing homes throughout the country the opportunity to seat patients consistently in a posture that promotes maximum recovery.

Design: Diane Hobley Made by: AB Hobley Ltd, & Eric Barnes

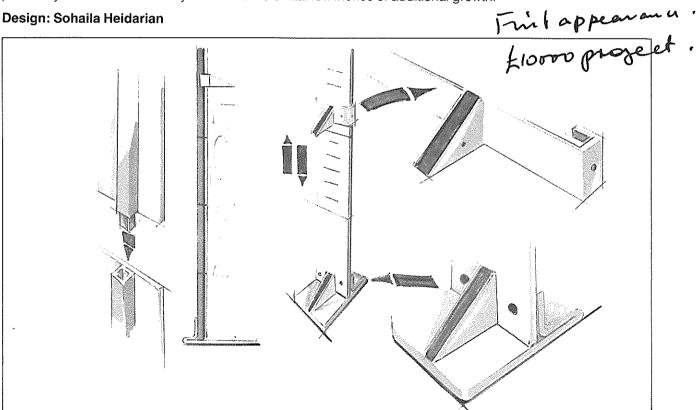
Funded by BP, Pilgrim Trust, Peter Minet, King Edwards Hospital Fund for London, Chest heart and Stroke Association and The Wolfson Founda-



#### **Child Measurement Aid**

The Child Growth Foundation, has requested our assistance in designing, prototyping and manufacturing a portable, durable and highly accurate measuring device for use by nurses in schools. Accurate measurement of children on school entry and at regular intervals thereafter has not been obligatory since 1953, predominantly because of the lack of a suitable measuring device. Early detection of an abnormal pattern of growth offers the possibility of treatment that may offer the child a vital few inches of additional growth.

Design: Sohaila Heidarian

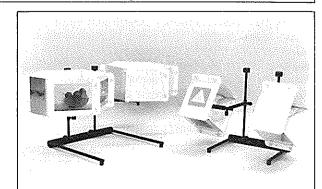


### **Communication Toy**

This is based on the development of an idea from Cheyne Centre in West Wickham. Cerebral palsied children have been using this device to acquire picture and symbol language whilst encouraging handeve co-ordination. The toy rotates on either a horizontal or vertical axis. Two four sided and two six sided toys have been made for testing. Further development is envisaged.

Design: Sohaila Heidarian Made by: Eric Barnes & Frank Flanagan

Funded by Marks & Spencers & British Telecom





#### Sofabed for DF

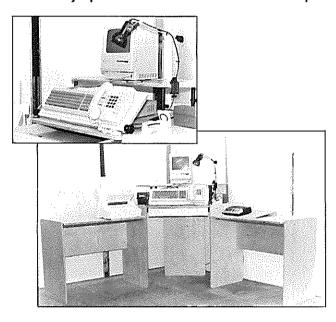
This is a specialised sofabed for a client suffering from multiple sclerosis. The project was completed in October, and discussions are in progress to determine the potential for manufacture. Conventional sofabeds are too low and to soft to provide adequate support. The DEMAND Sofabed is high and firm with a tubular stove enamelled metal frame. The conversion to a bed requires only the lightest touch and a range of movement within the abilities of many people with disabilities.

Design: Maurice Shannon Made by: Maurice Shannon & Eric Barnes

#### Workstation for Dr B

Although "one – off," the route taken on this project, to provide a workstation for a quadriplegic doctor, incorporates simple principles of design and construction that will allow the workshop team to reproduce the system varying only the essential dimensions to meet the needs of other clients.

Design: Maurice Shannon Made by: Maurice Shannon & Eric Barnes Funded by Special Trustees of the London Hospital





#### Chair for D

A special chair made for a young lady with cerebral palsy and severe scoliosis. The chair enabled the team to experiment successfully with shaped cushions and to develop a low cost reclinable frame.

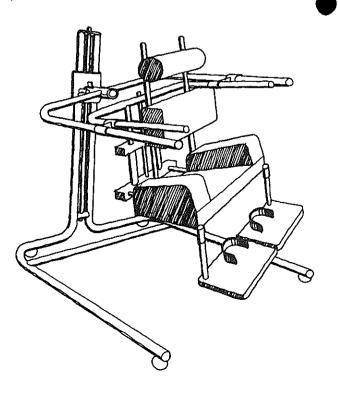
Design: Brian McKee Made by: workshop members

#### Feliz Exercise Chair

This unusual chair represents a test chair developed on the basis of an idea from Cheyne Centre in West Wickham. It enables a seat to swing about two axes gimbal fashion. It can be adjusted for size, weight and position of centre of gravity relative to pivots. The chair will give experience of movement to Downs Syndrome babies. This will test a hypothesis that the safe experience of a range of movement, can be offered by a piece of mobile equipment. Experience of postural movement is important to the achievement of the maximum range of postural control by the young handicapped. This piece of work is aimed at babies of nine months onwards.

Design: Brian McKee & Eric Barnes Made by: Frank Flanagan & Jutta Tanner (CNAA Student) Funded by Marks & Spencer and The Sir William Coxen Fund





#### **Proposal to Establishing a Seating Clinic**

This development can be seen as a logical 'next step' based on the experience in seating gained by workshop members over the last three years. We are seeking guidance from the experience of other seating clinics in the UK and USA. A fundamental part of the DEMAND philosophy is to combine function with the appearance of the product, and our own team is dominated by furniture designers for whom the overall feel of a prototype is an integral part of the project. Over the last few months a series of discussions have taken place with groups from ten treatment and research/service centres, as well as the Disabled Living Foundation. These consultations were aimed at establishing the broad areas of need which the DEMAND clinic will address. The service will focus on static seating, rather than seating for wheelchairs, as this is our area of particular expertise.

As a result of the discussions, experienced researcher/designers are to be commissioned to carry out immediate designs for rapid prototyping. The areas of greatest need for adaptive seating offering varying degrees of support are for: children under four years of age.

adolescents, 12-18 years of age. adults, 19 years and upwards.

In addition to the above there is still a requirement for chairs for the most severe types of neurological problems, where sigificant deformity exists or is likely to develop. Such individuals require shell type chairs contoured to their unique needs.

By mid-1987 we aim to have completed first prototypes of each of the above, and by the end of the year to have provided seating for a number of clients on a trial basis. No outright sponsor has yet emerged for this very innovative venture and we would appreciate discussions with interested parties.

#### **Other Workshop Activities**

1986 has also seen progress made on a number of other minor and major projects. Work has continued on the Domestic Wheelchair, (featured in last year's Annual Report). The brake is being modified, and discussions with manufacturers indicate the possibility of using the wooden curves and modular cushions for manufacture of domestic seating for the able bodied with a wheelchair option. This would substantially reduce the cost to the disabled user. Additional seat clamps to fit Canadian canoes have been designed and built for Brian McKee's canoe seats, and we are hoping to arrange for manufacture and distribution through a reputable supplier. We are currently engaged in the manufacture of a small batch of Adjustable Tables for a special school in the City, and aim to have this product in full manufacture by the end of 1987.

The workshop members have also completed number of redesigns and adaptations on projects ranging from the development of a reclining base for a chair that was built a year ago to making a horizontal leg support for an elderly patient with a broken leg. Work is progressing on a specialised reclining chair for a tall lady with a particularly unusual spinal problem. A walking aid trolley was built for domestic use for a frail lady in South London, and a headrest for another lady with degenerative changes in the cervical spine provide examples of typical "one-offs". A specially adapted Greenfield Standing Frame has been constructed and sent out to a client in South-West London. This is now in production through Nottingham Rehab, which means that this is the last of a very successful design that we shall have to build on a "one-off" basis.

DEMAND also made a small grant to enable an ex-CNAA course student, Rasoul Nobary, to build three tubular saddle chairs as additions to a commercial chair, the Joncare 'Trip-Trap'. These chairs have gone to young clients associated with the Bobath Centre in North-West London.



## Design of Equipment for Disability CNAA Postgraduate Diploma Course at the London College of Furniture

1986 was a particularly successful year for staff and students. Early in the year two members of the course, Helen Clark and Rasoul Nobary had designs accepted for 'NEW FOR OLD DESIGN' an exhibition of products to help older people which was held at the Boiler House, Victoria and Albert Museum.

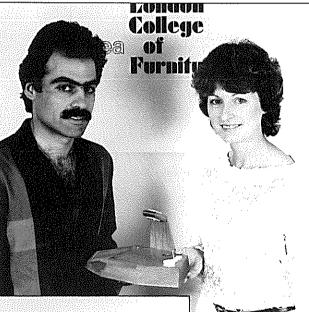
At this year's MELCHETT AWARD (for socially Aware Design) students from the course swept the board with 1st 2nd and 3rd prizes. This is a national competition open to practising professionals as well as students. The winners had their work displayed to the public at the Design Centre.

James Holmes-Siedle received first prize for an innovative bed heater particularly suitable for the elderly and the disabled.

Catherine O'Neill, who won 2nd prize, showed a range of play equipment to help speech therapists. Catherine who earlier won a travelling award from The Worshipful Company of Furniture Makers, has recently completed a study tour of North America and is writing a full report on the disability scene investigated there.

Rena Moore and Vivien Young won 3rd prize for their interlocking play mats with textured surfaces designed for therapeutic use with sight deficient babies. Rena and Vivien also won the coveted Royal Society of Arts DESIGN MEDIC AWARD for their research. This resulted in an invitation from Professor Heinz Wolf to develop the mats at the Biological Engineering Unit at Brunel University for production by Nottingham Rehab.

The course is now becoming very well known. The Course Director Brian Boothby and graduates, many of whom hold senior professional posts, are often invited to make presentations at universities and research centres concerned with disability. These successes have encouraged the College to prepare a part time mode of attendance for the course, which will commence in September 1987.





## **Management Report**

**Premises:** One of the important decisions taken in the Autumn of 1985 was to seek more spacious and more appropriate premises for DEMAND. Suitable sites needed to provides three or four times the area available in Leman Street. One of the problems facing DEMAND is the necessity of remaining in the central London area because of our strong links with the College and the acute needs of a large inner city population. Although many of our products and prototypes are distributed nationally our local links have established us as a source of assistance dor many disabled Londoners.

Apart from the problem of finding a suitable physical environment in which to work, there are a number of other difficulties that it was felt a move might resolve:

- \*Containing any consequent rise in the managerial and administrative overhead.
- \*Achieving temporal security, at low cost, without committing funds to freehold premises.
- \*Access to skilled consultancy advice.

During 1986 discussions have been taking place between DEMAND, the London Docklands Development Corporation and The Docklands Settlements, the latter being a long established charity with a number of sites in the docklands area. Initial discussions, centred on the sharing of premises, have expanded to include participation in a federation of voluntary groups concerned with the disadvantaged and disabled. An outline agreement between the two organisations provides for the sharing of some management services.

**Management Team:** As a consequence of the need to streamline the DEMAND management to allow rapid decision making and frequent reporting by workshop members, a major reorganisation of the committee structure took place in June.

**Communications:** It is now important to increase our range of contacts, particularly within the para-medical professions who are the indirect source of the bulk of our requests.

This is an area in which our efforts are beginning to bear fruit. During the year DEMAND has appeared in a number of medical and para-medical publications and in the London papers. (Brian McKee appeared on ITN's Thames News programme with the Domestic Wheelchair.) Attending the Spastic Society conference in Cambridge, allowed two workshop members to meet with a number of rehabilitation engineers and other groups with similar concerns to DEMAND. It has also been agreed that new feature coverage should be sought on each project as it is completed, and there are some fifteen publications that will be carrying news items over the next two or three months.

#### Staff Associates at 31st December 1986

Robert Sawyer, General Manager Brian McKee, Project Manager Eric Barnes, Workshop Manager Sohaila Heidarian, Designer Diane Hobley, Designer Maurice Shannon, Designer/Craftsman John Badcock, Craftsman (MSC) Frank Flanagan, Craftsman (MSC) Joan Carr, Finance Officer Ann Hooper, Secretary Julie Blaney, Admin Clerk (MSC) Simon Wilkinson, Driver Handyman (MSC)

# Design and Manufacture for Disability

#### **Income and Expenditure Account**

for the year ended 31 December 1986

	1 <b>986</b> £	£	<b>1985</b> £	£
INCOME	4-	~	~	~
Donations Manpower Services Commission DHSS Grant Fund raising events Untaxed interest Taxed interest Royalties Income tax recoverable		104,539 15,818 10,000 1,247 10,795 75 3,270 1,302		79,360 7,386 - 388 11,999 74 505 424
		147,046		100,136
Paddy Renton Fund: Donations and covenants Income tax recoverable	9,350 659			
Per Balance Sheet	10,009		_	
EXPENDITURE Scholarships Fees Subsistence allowance  Staff costs Consultancy fees Manpower Services Community Project Prototypes and materials Fund raising expenses Research expenses Workshop expenses Administration expenses Audit fee Irene Mould Prize Award Depreciation		15,187 3,743 18,930 61,029 - 15,348 2,010 1,194 1,513 20,863 4,926 460 100 5,123		8,097 3,637 11,734 44,550 15,000 7,291 4,625 - 4,353 12,323 3,841 - 100 12,478
EXCESS INCOME (EXPENDITURE)		131,496 15,550		116,295 (16,159)
Allocated to — Workshop Capital Fund — General Fund		15,000 550 15,500		(16,159) (16,159)

Note: The fixed assets are being written off over their expected useful lifes at the following rates: Leasehold property Over the period of the lease

Tools and equipment At 10% per annum on cost Motor vehicle At 20% per annum on cost

### **Notes: Income and Expenditure Account**

DHSS Grant - Is a section 64 grant to support the central office costs of organisations during a critical period of expansion.

Royalties - Represents the proceeds of the manufacture and marketing of the Talia Prone Board by Nottingham Rehab Ltd.

Staff Costs - The rise reflects the impact of the expansion programme that is taking place, and this trend will continue in 1987 and 1988.

Prototypes and materials, Research expenses & Workshop expenses - Taken as a group design and production expenditure has risen by some £3085 in 1986. The wider variations in the individual totals reflect a change in bookeeping to allow an effective review of expenditure by project.

Administration expenses - The rise reflects the service agreements for the three Apple computers, supporting hardware, and increase in cost of maintaining the vehicle.

Depreciation - Reduced as no leashold asset depreciated in 1986.

# **Design and Manufacture for Disability**

**Balance Sheet** 

31 December 1986

	•	1986	£	1985 £
FIXED ASSETS (Net of depreciation)	£	£	I.	£
Leasehold property		25,429		_ 20,129
Tools and equipment Motor vehicles		3,357		5,036
		28,786		25,165
QUOTED INVESTMENT - At cost		1,004		1,004
CURRENT ASSETS	4.044		3,246	
Debtors and prepayments Cash and bank balances	150,154		120,434	
	154,198		123,680	
CURRENT LIABILITIES				
Advance receipts			3,000	
Creditors	18,277		6,698	
	18,299		9,698	
		135,921		113,982
		165,711		140,151
Represented by:				
GENERAL FUND		140,152		156,310
Balance brought forward Excess income (expenditure) for the year		550		(16,159)
		140,702		140,151
WORKSHOP CAPITAL FUND		15,000		ALIGN
PADDY RENTON FUND		10,009		<del>-</del>
	500 1000 1000 1000 1000	165,711		140,151
	V6.3 ( )	***************************************		

HON TREASURER/TRUSTEE

#### REPORT OF THE AUDITORS TO THE TRUSTEES OF DEMAND

We have examined the annexed balance sheet and income and expenditure account which have been prepared under the historical cost convention. In our opinion, the accounts give a true and fair view of the state of affairs of Demand at 31 December 1986 and of the income and expenditure for the year ended on that date.

33 St James's Street, London SW1A 1HX 25 February 1987 HERBERT PEPPER & RUDLAND Chartered Accountants

#### **Notes: Balance Sheet**

Leasehold Property - There is no figure shown here. The previous lease expired during 1986, and an agreement for a new lease has only just been completed (Jan '87)

Creditors - This sum represents the sum due in back rent on completion of the lease, and student fees due for payment in 1986 but not invoiced until January 1987.

General Fund - Represents a working capital reserve allowing commencement of projects in advance of suitable sponsors being found.

Workshop Capital Fund - The programme of expansion requires additional machinery for design and manufacturing purposes. Some fifteen thousand pounds was collected for this purpose during 1986. A further twenty thousand pounds will be needed during the next eighteen months.

### **DEMAND Principal Donors in 1986**

Anonymous British Telecom **BUPA** Chest Heart and Stroke Ass Cooper Charitable Trust Sir William Coxen Trust Fund D.H.S.S. Esmee Fairbairn Charitable Trust The Gatsby Charitable Trust

The Worshipful Company of Goldsmiths King Edwards Hospital Fund for London The Mercers Company The Ministering Childrens League The Peacock Trust Sir Samuel Scott of Yews Trust Harold Smith Charitable Trust The Tudor Trust The Wolfson Foundation

#### The Following Individuals and Organisations Contributed to DEMAND in 1986

Anonymous

Babcock International plc

Barclays Bank plc

Lord Barnby's Foundation Bass Charitable Trust

The Benham Charitable Settlement

B.E.T. plc

Sydney Black Charitable Trust

Blue Circle Industries plc

British Gas Corporation

British Sugar plc

British Tissues Ltd

Brixton Estate Charitable Trust

Cazenove & Co

The Joseph Collier Charitable Trust

The Lady Colquhoun

Cripplegate Foundation

Miss M.E. Evans

Douglas Heath Eves Charitable Trust

C.S. French Charitable Trust Garrard, The Crown Jewellers

The Gibbins Trust

The Gilchrist Educational Trust

The Grocers Trust Company

Hammersmith Society of Friends

Mrs G. Hartwig

Hoover Trust Fund

Imperial Group plc

Jephcott Charitable Trust

Kleinwort Benson Limited

Ladbroke Group plc

Beatrice Laing Trust

David Laing Foundation

Bryan Lancasters Trust

James Latham plc London Law Trust

Edgar E. Lawley Foundation

Mr & Mrs W.R. Lee

Sir Edwards Lewis Foundation

Lloyds Bank plc

Lloyds and Lloyds Brokers

Macfarlanes

Miss Marsh Charitable Trust

MEPC plc

The members of

Middlesex County Rugby Football Union

Midland Bank plc

Rt Hon Lord Molson PC

F.V. Mould Esq.

National Westminster Bank PLC

Nestlé Charitable Trust

.Paraig O'Brien

P.F. Charitable Trust

Pilot Club

Pyke Charity Trust

Rayne Foundation

Reed International

Lois West Russell Charitable Trust

Sacred heart Junior School

Standard Chartered Bank plc

Shell UK Limited

Freddie Smith Trust

W.H. Smith & Son Ltd

Sternberg Charitable Fund

The Thomson Organisation

Unilever plc

The Worshipful Company of Vintners

Borg-Warner Ltd

### Principal donors to the Paddy Renton Fund in 1986

**Anonymous** 

Abbots Ripton and Woodwalton Church Account

Abbots Ripton Parish Council

Parish Church of All Saints Huntingdon

R.T. Cole

Andrew Cussins

Sir Patrick and Lady Hamilton

Hungtingdonson Conservative Club

The Viscount Ingleby

Paraig O'Brien

The Hon Mrs Caroline Parr

The Peacock Trust

Nancy Powell

Ann Rehan

The Lord Renton

Mr and the Hon Mrs Tim Scott

Helene Serba Charitable Trust

Mrs I Smallwood

The Freddie Smith Trust

The Earl of Verulam