

---

# DEMAND

---

 Design & Manufacture for Disability

ANNUAL REPORT 1990



# DEMAND

**Principal Patron**  
The Earl of Snowdon GCVO, RDI

**Patrons**  
The Viscount Ingleby  
The Rt. Hon. Alfred Morris MP  
Miss Esther Rantzen OBE  
The Lord Renton PC, KBE, QC

**Project Development Committee**  
Michael Warr, Chairman  
Nigel Alington  
David Smith  
Brian Boothby, Research Director (CLP)  
Alan Spindler, Lecturer (CLP)  
Brian Greathead, Chief Executive  
Maurice Shannon, Design Manager

**Hon. Medical Advisers**  
Dr. Peter Mills, FRCP  
Dr. Michael Swash, FRCP

**Design & Manufacture for Disability**  
Registered under the Charities Act 1960 No. 280618

Three Cedars  
Napsbury Hospital  
Shenley Lane, London Colney  
Herts AL2 1AA

Telephone: (0727) 825506  
Fax: (0727) 823926

Dear Reader

Following the re-location of the Charity in 1989 from Leman Street, E1, to our magnificent new premises at Three Cedars within Napsbury Hospital, I am delighted to report that throughout 1990 DEMAND was able significantly to increase the amount of work undertaken for the relief of suffering of children and adults with severe physical disabilities.

During the year we were pleased to welcome several distinguished visitors as well as many of our loyal friends and supporters to see the extensive range of projects being carried out. An Open Day was held on 6 April for the visit of The Rt. Hon. Nicholas Scott MP, Minister for Social Security and the Disabled. Lord Snowdon visited us on 27 September and spent an interesting and very constructive day reviewing designs and projects. Our Tenth Anniversary was celebrated at an Open Day held on 3 December which was attended by Miss Esther Rantzen. This was a memorable occasion attended by nearly 100 of DEMAND's sponsors and friends.

During the year Bernard North and Maxwell Caplin retired as Trustees. We thank them for their wise counsel and advice since our foundation in 1980. Lord Swinfen also retired as a Trustee and we thank him for his contribution. We were pleased to announce the appointments of Lady Hermione Grimston, Baroness Darcy de Knayth and David Smith as Trustees and Nigel Alington as Deputy Chairman.

Finally, I would like to thank our many friends who have, in 1990, so generously given support in cash or kind and to extend to them a warm invitation to visit DEMAND to see, at first hand, the work we undertake on behalf of disabled people.

Yours sincerely

John Metcalfe

**Trustees** John Metcalfe, Chairman, Nigel Alington, Deputy Chairman, Andrew Cussins, Hon. Treasurer, Baroness Darcy de Knayth, Lady Hermione Grimston, Peter Metcalfe, David Smith, Michael Warr.



cheque for £2,000 from the London Hospital Clubs Union presented on behalf of the Union by Paul Smith, Fundraising Officer at DEMAND, who himself is disabled and who originally received the cheque at a reception given by the London Hospital. Esther Rantzen was particularly interested in the development of the BP Neurological Chair which she discussed with some of the medical specialists attending the function who are involved in the testing and evaluation of the chair.

## The Tenth Anniversary of DEMAND

An Open Day was held at DEMAND, Three Cedars, on Monday, 3 December to celebrate the 10th anniversary of the foundation of DEMAND by Lady Renton and a group of friends and with the support of the London College of Furniture. Esther Rantzen, an original Patron of DEMAND, was guest of honour. She was welcomed by Lord Renton, Patron, and by Nigel Alington, Deputy Chairman, after which she toured the exhibition hall, design studio and workshops and expressed great interest in the projects being undertaken. Nearly 100 sponsors, friends and supporters as well as members of Napsbury Hospital staff were welcomed by Lord Renton who said that a large amount of the capital needed to develop DEMAND was obtained from a television appeal presented by Esther Rantzen in 1982.

Esther Rantzen then unveiled a commemorative plaque to mark the occasion. Later she received cheques on behalf of DEMAND from Lady Hermione Grimston representing the Ministering Children's League as well as cheques from the BP Group of Companies, the London Hospital Clubs Union and three anonymous donors. Esther Rantzen also agreed to present an appeal on behalf of DEMAND to be shown on Independent Television on Sunday, 10 February 1991.

The photograph shows Esther Rantzen receiving a

## Visit of Lord Snowdon to DEMAND

Lord Snowdon, Principal Patron of DEMAND, visited the Charity on Thursday, 27 September. He was welcomed by Lord Renton, Patron, and Michael Warr, Trustee and Chairman of the Project Development Committee. Lord Snowdon was shown around the exhibition of DEMAND's products and the studios and workshops. He was particularly interested in the Wolfson Stroke Chair and the BP Neurological Chair currently being designed by DEMAND, and he spoke at length to David Smith, Trustee, about the needs of people suffering from Multiple Sclerosis.

Lord Snowdon himself has designed several products for disabled people including the Squirrel power chair which features 4-wheel drive and the ability to function outdoors and even on rough ground. Lord Snowdon talked to members of staff about this work and was introduced to students of the Design Research for Disability course at the City of London Polytechnic, who demonstrated the projects they are currently undertaking on their degree course. Later Lord Snowdon met members of staff of Napsbury Hospital who help DEMAND with their work.



Lord Snowdon subsequently arranged for Mr Jeremy Fry, of Chair Power Products, to visit DEMAND on Friday, 26 October to give technical advice on a number of issues raised during his visit. The photograph shows Lord Snowdon accompanied by David Smith, Maurice Shannon, Lord Renton, Michael Warr, Brian Greathead, and Jan Bergman, Director of Napsbury Hospital.





## The BP Neurological Chair

Nearly a quarter of a million people in the UK alone suffer from Parkinson's Disease, Muscular Sclerosis, Huntington's Chorea and Alzheimer's Disease. Demand's investigations revealed that existing seating for the relief of the postural difficulties which sufferers endure is often inadequate and frequently relies on makeshift support.

The Neurological Chair Project was to design a chair which can be easily adjusted to meet individual needs and which gives good postural support to the neck, shoulders, back, pelvis and legs. Stage One of the project is now complete and several chairs have undergone extensive trials in hospitals and other institutions. Ideas and options resulting from many meetings with medical specialists and consultants have been incorporated into the design of the chair. All the adjustable parts were designed to enable ongoing refinements during the development of the prototypes.

Two versions of the BP Neurological Chair are being developed. The Institutional Chair for use in hospitals and the Domestic Chair for use by individuals in their homes.

Design features of the Institutional Chair are:

- the seat height and depth are adjustable;
- the seat rake is adjustable;
- the back has a reclining mechanism;
- the split back feature facilitates easy patient transfer;
- the adjustable wings provide head, shoulder and trunk support;
- the arm rests and side fills are fully upholstered and can be lowered to the level of the seat cushion to assist patient transfer;
- the arm rests have a 'memory adjuster' which enables them to return to a pre-set height;
- the foot and leg rest is telescopic to provide full support;
- the head-rest is fully adjustable;
- the optional lap strap is padded for patient comfort and security;
- the four castors have independent locking with easy release.

The Domestic Chair will be tailored to the needs of individual clients by using the Institutional Chair to measure and record their needs and only the features needed by the client will be built into their chair. These customised chairs can range from simple pre-set configurations to more complex mechanisms all within the same baseframe. By providing only the features required for use by an individual client the cost of producing a domestic chair will be greatly reduced.

This important product for the relief of suffering will soon be marketed as the BP Neurological Chair in recognition of the substantial donations made by the Company for the development of the Chair.

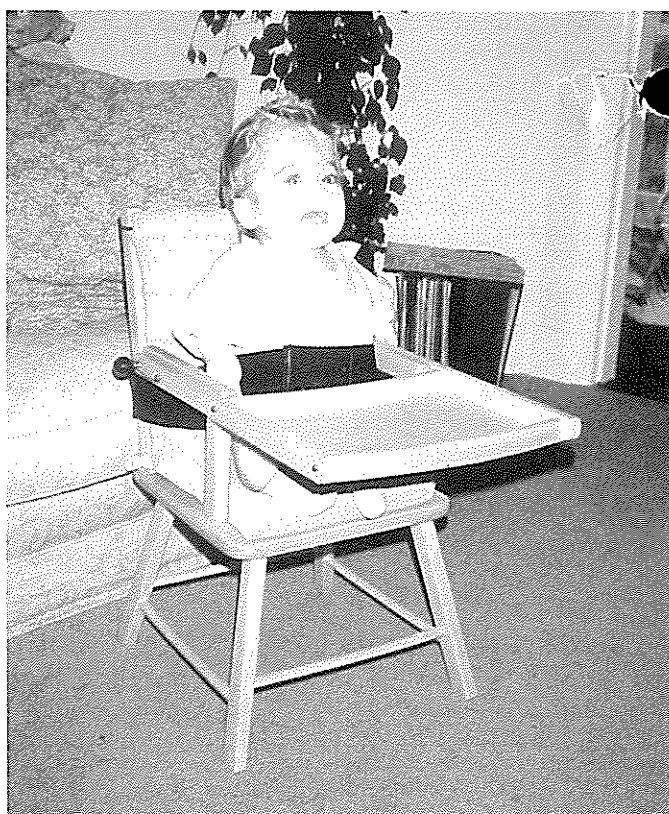
The photograph shows Esther Rantzen discussing the Chair with designer Maurice Shannon.

## A Chair for Baby Dominic

DEMAND was asked by the Opportunity Class within the Mandeville School, St Albans, to make a customised chair for Dominic who is two years old. He suffers from a Brittle Bone Disease and so his arms and legs have little growth and are now disproportionate to his body size, due to the large number of fractures which he has suffered.

The brief was to modify Dominic's chair so that he can sit comfortably and reduce the risk of him inflicting fractures upon himself. A special seat and back cushion with a wide cotton velcro strap was designed to give him additional safety and support. Also the activity tray fitted to the chair was brought closer so that it is within the range of his small arms. Dominic will continue to have need of DEMAND's specialised skills throughout his life.

Dominic is also seen on the front cover with his mother and Esther Rantzen, Patron of DEMAND and will appear on an Independent Television appeal to be presented by Esther Rantzen on behalf of DEMAND on Sunday, 10 February 1991.

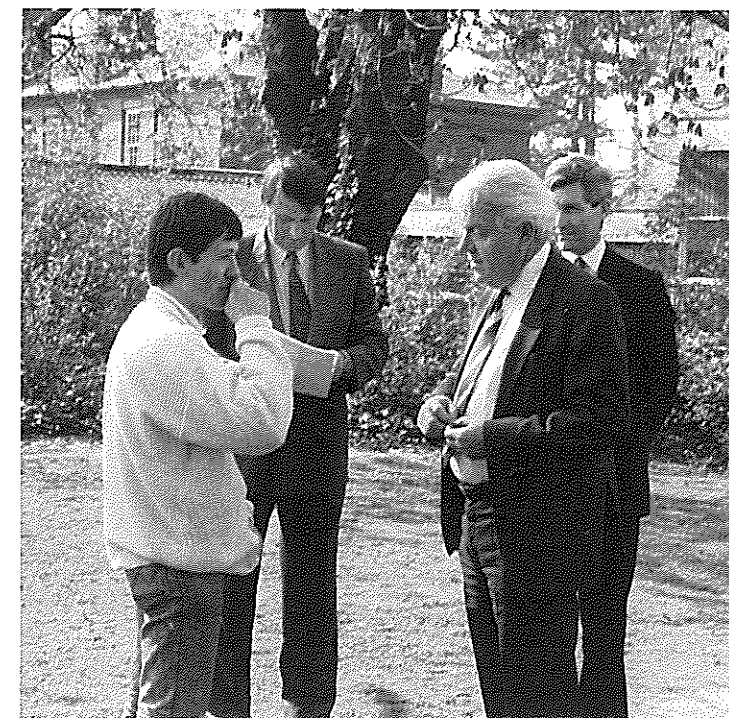


## Ministerial Visit to DEMAND

The Right Honourable Nicholas Scott, the Minister of State for Social Security and the Disabled, visited DEMAND on Friday, 6 April 1990. The Minister was welcomed by Lord Renton, Patron, and Nigel Alington, Deputy Chairman, and then toured the exhibition hall, design studios and workshops. Later the Minister talked to guests and members of staff about the Charity's work and expressed particular interest in the BP Neurological Chair designed by DEMAND for people suffering from neurological diseases.

In his speech he praised the close working relationship which has been established between Napsbury Hospital and DEMAND for the benefit of the disabled. The Minister also expressed his gratitude to companies who donate towards the relief of disability and spoke of his pleasure in accepting cheques on behalf of DEMAND from Marks & Spencer plc, BP Group of Companies, Nationwide Anglia plc, and other anonymous donors.

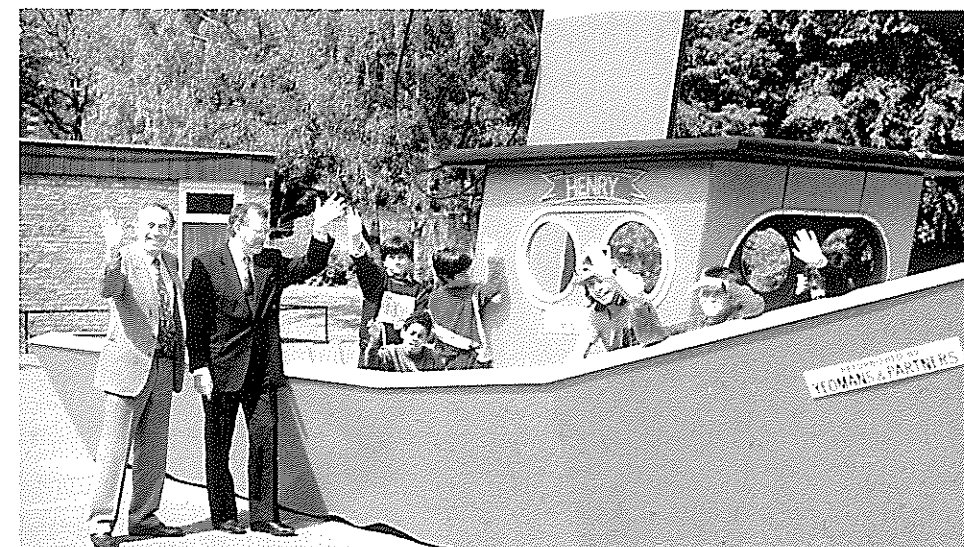
Later the Minister was introduced to Mr John Carter, regional chairman of the Barnet Health Authority and Mr Jan Bergman, director of Napsbury Hospital and taken on a tour of the Brain Injury Rehabilitation Unit of the hospital. The photograph shows the Minister talking to Kelvin Scott, who recently joined DEMAND.



## Refurbishment of 'Henry' – Playship for Disabled Children

The Franklin Delano Roosevelt School at Swiss Cottage, Hampstead is for physically handicapped children aged 5 - 11 suffering from disorders with varying degrees of severity, and more than half of the children use wheelchairs. Several years ago DEMAND built for the children 'Henry' a tugboat especially designed for use in their playground to provide learning through play activities. 'Henry' has a low stern with seats and a high bow. It is 26 ft long and has a beam of 14 ft and can accommodate up to twenty children in wheelchairs. The funnel is made from metal tubing attached to the cabin and has simulated smoke billowing from it.

'Henry' has been very popular over the years and extensively used, and so was in urgent need of refurbishment. DEMAND approached Yeomans & Partners Ltd who most generously agreed to help. They repaired and restored worn parts and woodwork and then repainted 'Henry' in a bright new blue, red and yellow livery. The photograph shows the relaunch of 'Henry' on Tuesday, 22 May 1990 by Mr Jeffrey Soloway, Director of Yeomans. Also in the photograph is Michael Warr, Trustee of DEMAND, as well as disabled children from Franklin Delano Roosevelt School who show their delight with the shiny new 'Henry'.





## A Reclining Chair and Workstation for Anne

DEMAND designed and built a reclining chair and workstation for Anne who wrote the following letter of thanks.

"I would like to convey some of my delight in furniture designed for me by DEMAND to help me cope with my disabling condition. I suffer from chronic and extremely painful arthritis of the spine which has, in recent years, made work impossible for me since I cannot sit at a desk or type; even working from home became impossible. DEMAND designer, Maurice Shannon, discussed my needs in great detail with me, drew up plans, measured me up, and eventually effected a miracle precisely to my requirements which also looks very attractive and achieves the impossible – a complete work station in a tiny room with living space to spare.

I have to sit in a firmly supported semi-reclining position with my feet raised and head supported and must face the monitor of the computer – any slight angle would cause immediate spine pain. The workstation therefore has a sliding platform which brings the monitor over the chair directly in front of me yet is carefully balanced to support this weight and fits in compactly with the chair which I can recline to any angle head and foot depending on the pain level in my back. All the adjustments require minimal effort on my part which is crucial since I can neither lift, pull, nor bend, and the brakes on the feet of the furniture ensure its and my stability.

This equipment feels good, looks good and does me good, giving constant support and enabling me to work at a VDU monitor for prolonged sessions which had become impossible. It is like having a new limb and certainly a new lease of life which seemed depressingly limited when I could no longer type or write or operate anything. The whole unit is functional and hi-tech fashionable and has been sensitively created to blend in with the room in red and black but most of all it is a great friend and I do recommend most strongly the imagination and skill of DEMAND designer Maurice Shannon.

Yours sincerely

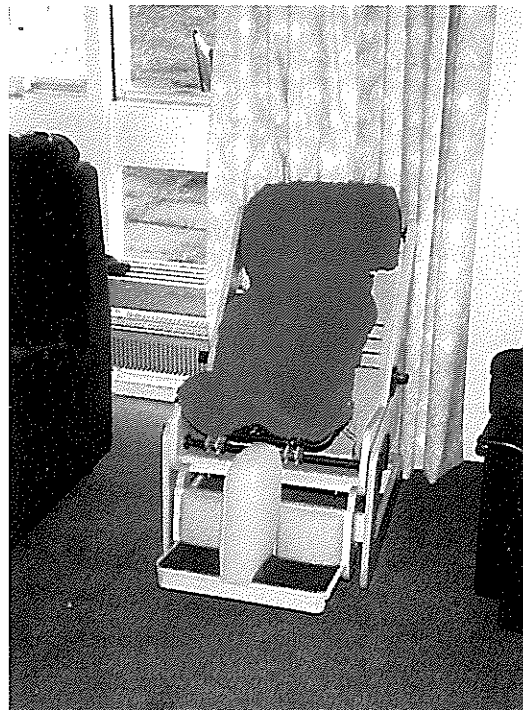
Anne"



## A Matrix Seat for Dorothy

Dorothy suffers from Cerebral Palsy and scoliosis. In 1986 DEMAND designed and made for her a chair using a series of customised shaped cushions to give her comfortable support. Later modifications were made including the addition of a detachable tray and an extending footrest, and a pommel.

Because Dorothy's condition continued to change, and the cushions could no longer give her the necessary support, DEMAND fitted a 'matrix' seating system. The matrix frame was designed to interface with the existing chair frame. The matrix shell is fully upholstered and provides Dorothy with good comfortable support.



## A Straddle Seat for Children with Cerebral Palsy

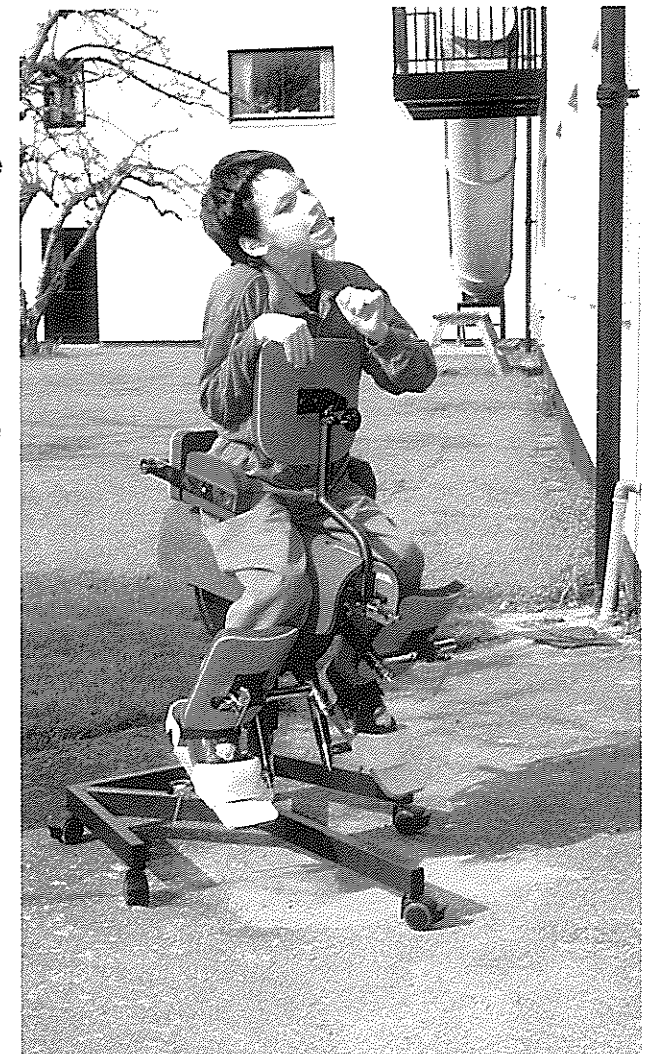
Straddle/Tilt seating can help children with poor postural control achieve a more stable, balanced and upright posture, particularly children with Cerebral Palsy. When using the seat the child is able to participate in a range of therapeutic activities and is able to enjoy improved social interaction. Use of the seat may also produce some lasting improvement in balance and posture and inhibit the onset of permanent deformities.

Following extensive research and test rig trials DEMAND produced three prototypes, which are currently being evaluated. The main features of the Straddle Seat are:

- it has back, chest, knee, foot and side supports, with a wide range of independent adjustment to fit different sizes of children and accommodate variations in position;
- the supports can be raised, lowered and tilted as a group with the child in place to achieve the optimum functional position;
- the compact design and the use of folding supports facilitates easy access;
- the adjustments are accessible and easy to use;
- the adjustment tool is removable to prevent interference with the pre-set positions;
- can be used as an 'activity seat' in conjunction with most tables and work surfaces.

The Straddle Seat has been assessed by David Scrutton, of the Newcomen Paediatric Centre at Guy's Hospital, who is an authority on the seating needs of children with postural difficulties. It has also been tested by children suffering from Cerebral Palsy at Meldreth Manor Special School, Herts. WRK Manufacturing, Wisbech, are assessing and costing the prototypes with a view to manufacture of the Straddle Seat which may be called the Nationwide Anglia Straddle Seat in recognition of the substantial donation made by the company for its development.

The Straddle Seat will be featured in DEMAND's appeal to be presented by Esther Rantzen on Independent Television on Sunday, 10 February and the photograph shows Ben of Meldreth Manor School using the seat.



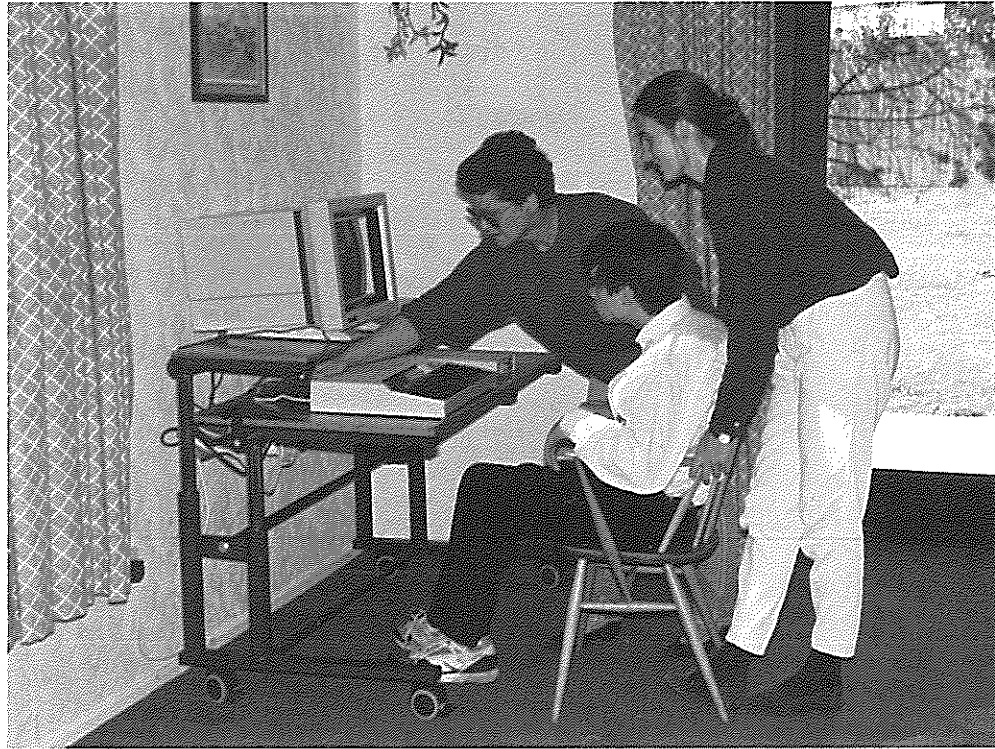
## A Walking Frame for John

John suffers from Schizophrenia and Spastic Paraparesis and is a patient of the Napsbury Mental Hospital. Because of his lack of mobility he is overweight and this has caused his gait to widen. John's physiotherapist tried to get him to walk using standard walking frames but this was unsuccessful because the frames were too narrow or too flexible. John also feels insecure when using standard frames and this increases his schizophrenic problems.

DEMAND designed and built for John a large strong frame with a pulpit padded top with two hand grips. John is now able to support his body weight using his forearms as well as his hands, and his walking has much improved.





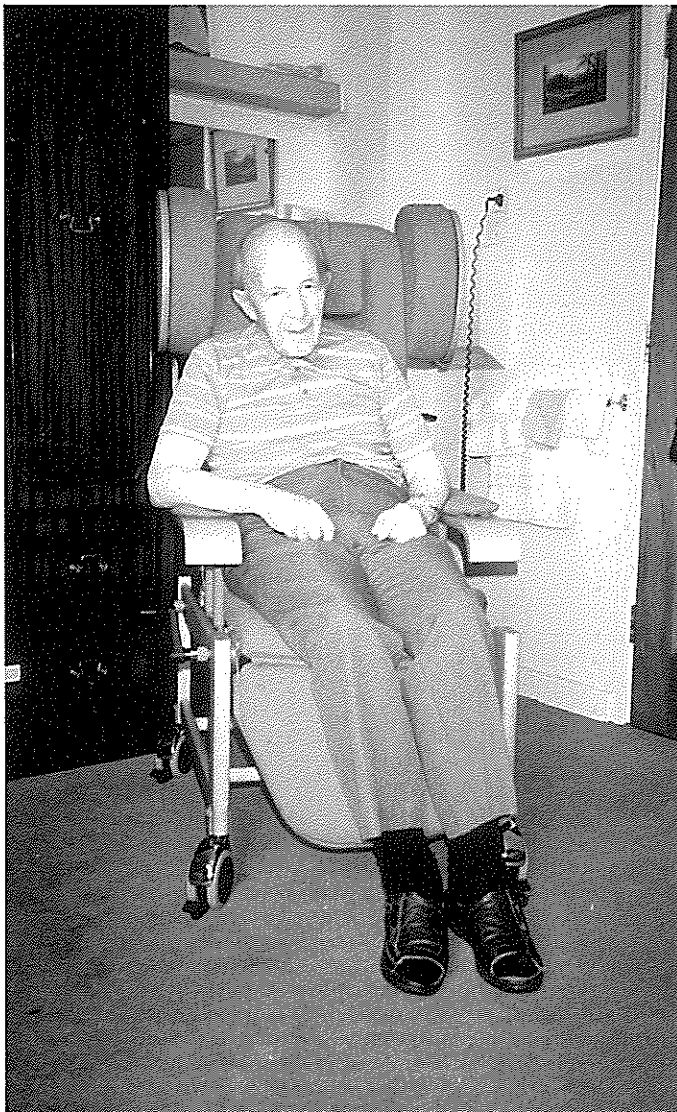


## A Workstation for a Childrens Unit

Ricky and Damion, both 16, and Phillip, 13, are mentally and physically handicapped and attend a special Childrens Care Unit in Banbury. The boys were donated a computer to help them overcome their learning difficulties and DEMAND provided a workstation designed for use by disabled children.

The workstation has an adjustable table and an adjustable computer console shelf. The table is cantilevered to enable easy wheelchair access and is raised and lowered from either end by a removable handle. The workstation will easily pass through any standard door. The unit moves on four braked anti-static castors for ease of movement on carpet. Used in conjunction with

individual height adjustment the 'tilt' allows paperwork or keyboards to be strategically positioned in a good working position. The tilt also features an important pull-out panel. Many people in wheelchairs, particularly people in powered chairs, are unable to get close to their keyboard because of the armrests and switch control on their chairs. The pull-out panel is dimensioned to come between the armrests of wheelchairs.

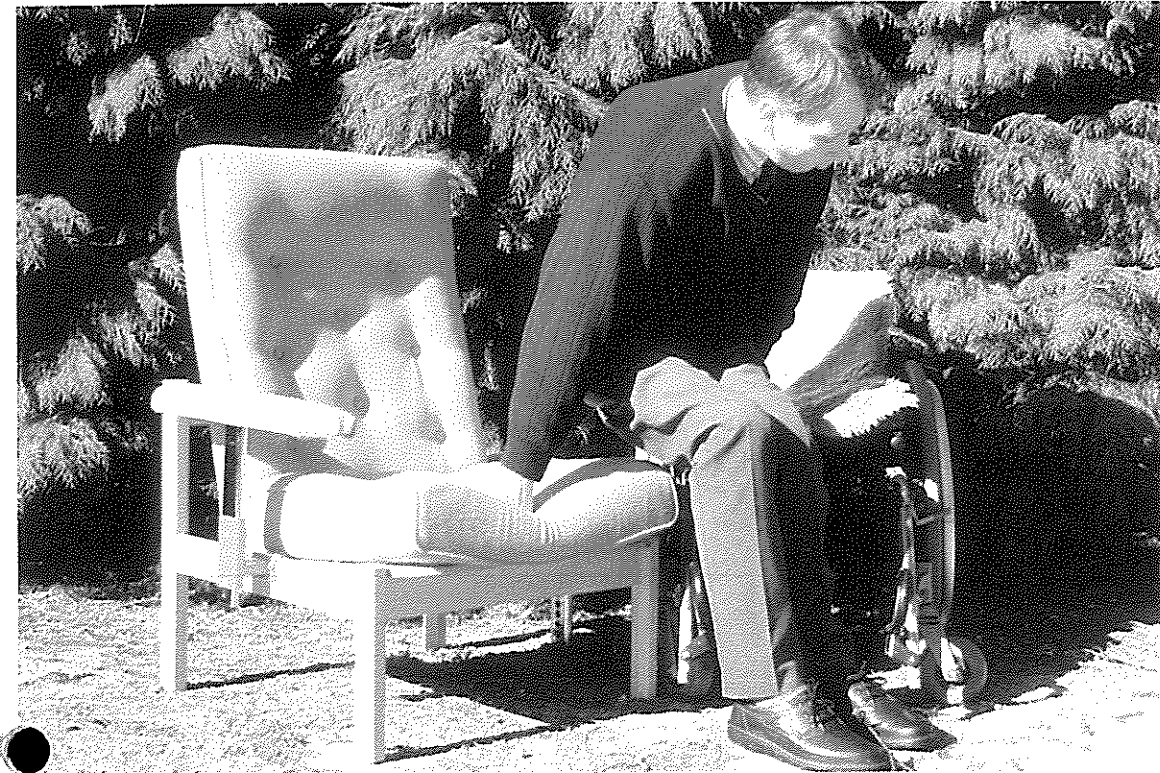


## A Reclining Chair for the Rev. John

Rev. John suffers from Parkinson's disease and the after-effects of a stroke. He experienced great difficulty in achieving a comfortable sitting position as he had a tendency to slump towards the left in a standard chair.

DEMAND designed and built for the Rev. John a personalised, adjustable, reclining chair which gives good support and enables him to sit in a more correct postural position when sitting upright or reclining. The chair is designed to enable him to get in and out of the chair more easily. The leg support folds away and rests at an angle underneath the chair allowing him to place his feet on the ground to assist in a supported standing transfer. The back of the chair is fitted with wing supports to help prevent sideways slumping. The chair needs to be mobile and is fitted with four castors. The arms provide comfort and support and are fitted with side fills which prevent John's arms slipping down between the arm rests and the base cushion. The cushions are constructed with strategic areas of soft foam to help relieve pressure on the buttocks and thighs as indicated by the test rig profile. The recliners on the back and leg frames can be adjusted by a substantial handle which requires very little effort from the operator.

The colour of the upholstery was selected by the client to harmonise with the existing furniture and colour scheme in his lounge.



## A Chair Modification for Richard

Richard, 35, suffers from advanced Muscular Dystrophy and experiences great difficulty in transferring from his wheelchair to his lounge chair. Indeed, it was taking up to seven minutes to do so.

DEMAND modified Richard's existing chair so that the arms depress to the same level as the seat cushion. The arm rests have a 'memory adjuster' which enables them to return to a pre-set height after Richard has transferred sideways to the chair. Also the spring base of the chair was replaced by a solid base and the cushioning improved, which also assists sideways transfer without loss of comfort. Finally the metal frame of the adjustable arms were sprayed to match the upholstery of the chair.

Richard is now able to transfer himself from his wheelchair to his lounge chair in just over a minute compared with the exhausting task of taking about seven minutes to transfer before the modification.

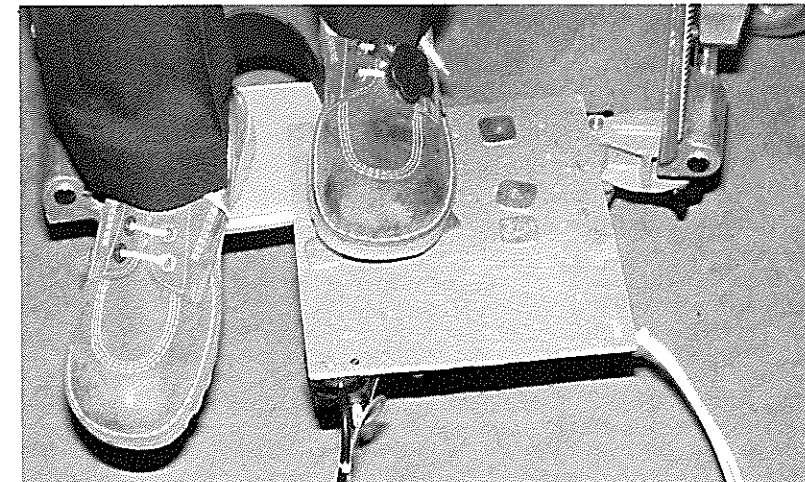
## A Computer Control Box for Jamie

Jamie is 18 and suffers from severe Cerebral Palsy. Although he cannot speak, he is of average intelligence and is currently studying at the Hammersmith and West London College. His course is intended for people who are mentally impaired and Jamie feels very frustrated at being placed in this category and is strongly motivated to progress to a mainstream course. To achieve this ambition he was told that he must increase the speed of his communications through his talking computer and computer produced texts.

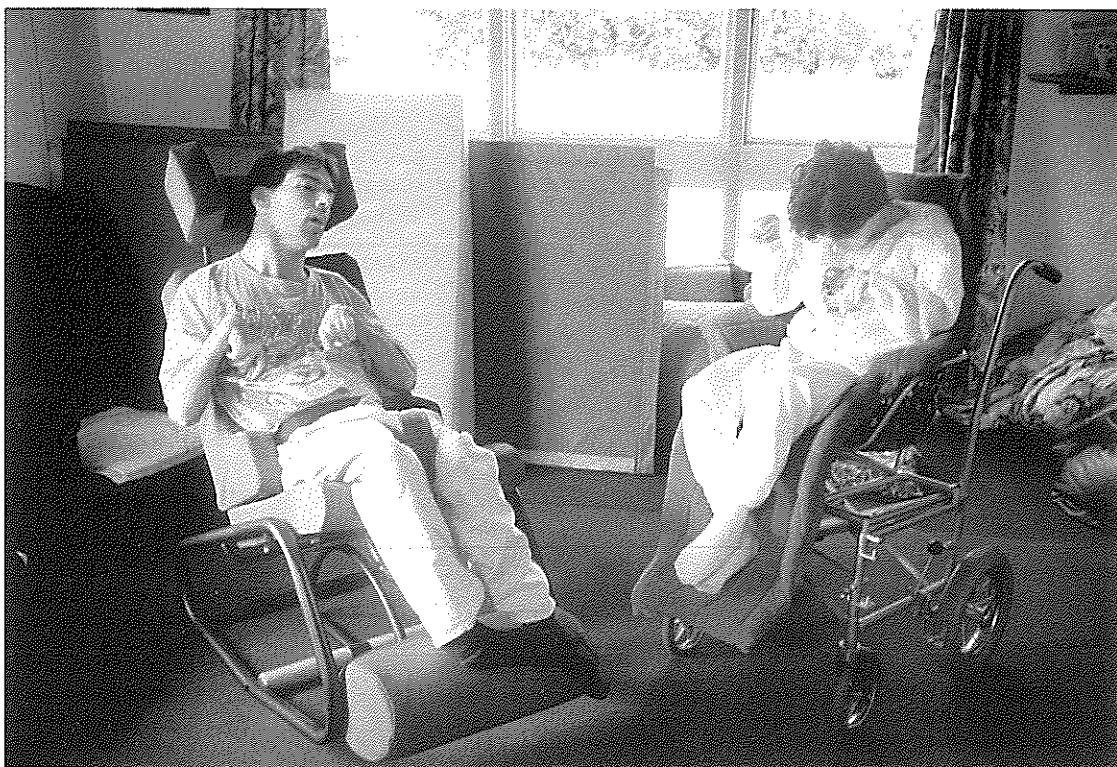
Jamie previously had made for him a foot operated switch system which is his only means of operating his computer. The switch consisted of a plate with electrical contacts mounted on to it, and an air actuator connected to an air pressure switch was strapped to his left foot. Characters are selected by touching combinations of the electrical contacts on the plate. Because it was crudely made and difficult to mount accurately Jamie could not use it effectively and DEMAND was asked to refine the design.

A design solution was needed quickly because of Jamie's academic timetable and to avoid any negative effect upon his motivation. Testing revealed that the original position of the contacts were unsuitable as they took Jamie to the limits of his range of movement. The contacts were rearranged and moved closer together and so were easier and more comfortable to use. A thin plastic control box was made with the electrical contacts mounted on the lid and was permanently bolted to the foot plate. The shape of the control box enables the wheelchair foot plate to be fully folded. The air pressure switch is mounted on a cranked bracket to reduce the possibility of obstruction and damage.

The redesigned switch system is much more ergonomically efficient and has greatly improved Jamie's ability to operate his computer thus enabling him to effectively demonstrate his full academic capabilities.





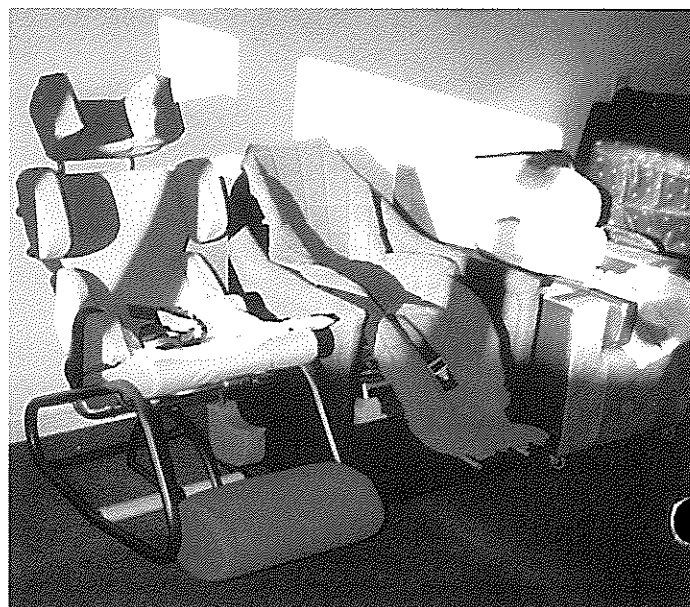


### Special Chairs for Sarah and David

Sarah and David are residents at a school for the mentally handicapped. David is extremely spastic, quadriplegic with severe extensor spasms and is blind. Although he has no scoliosis he does suffer from hip rotation. He has a chair which supports him with straps but he needed a chair which would improve his posture and give him greater comfort.

DEMAND designed and made for David a reclining chair which will relieve a lot of the pressure points caused by sitting up all day, also the cushion is shaped to help reduce the frequency of spasm. The chair has good side supports and aommel which is removable or can be swung to the side. Because of David's severe spasms a hip strap is provided. The chair has a headrest to provide greater comfort.

Sarah is also severely spastic and quadriplegic and suffers from scoliosis. DEMAND designed and made for her a 'matrix' shell specially shaped to give her close support. The matrix shell is fitted into a seat frame enabling Sarah to sit comfortably in the lounge or can be easily transferred into her wheelchair.

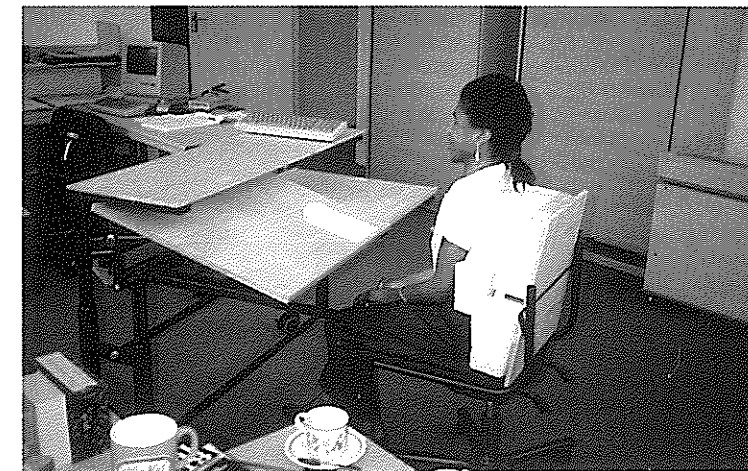


### A Chair Modification for Olive

Olive is a 65-year-old lady suffering from severe arthritis of the arms, legs, hip and spine. She has limited use of her legs and moves about very slowly using a walking frame. Every movement creates extreme pain. She lives alone but is attended daily by her home help, she uses a commercially produced motorised tilting chair which although assists her to get in and out of the chair has limited comfort and is too wide. She has problems with the hard upholstery and the lack of side support.

DEMAND was asked to assess Olive's seat positioning and it was decided to make modifications to her motorised tilting chair. A special seat cushion was made allowing her to sit on very soft foam being supported by an outer harder foam. The arm-rests were redesigned to incorporate wide padded side fills giving side support to her hips and an increase in soft padded surfaces to give a soft, supporting arm-rest.

The new upholstery was matched to the original and Olive now has a chair that will give her years of proper support as she strives for an independent life.



### An Office Chair for Jacinth

Jacinth, who is 22, suffers from kyphosis and scoliosis and has a serious hip deformity. She works in the Disability Unit of Hackney Town Hall but cannot use the standard office chair because of her disabilities. DEMAND designed and made a special office chair for her with a specially shaped back cushion which supports her spine deformity.

Jacinth said that when she used the chair she could feel her back being fully supported for the first time and this is allowing her to breathe more easily. The chair has enabled Jacinth to work much more efficiently.

The photographs show Jacinth sitting in the test rig which was used to determine her specific seating requirements and the finished chair which was specially upholstered to harmonise with the other office furniture.

### A Customised Desk Top for Teresa

Teresa works for the Neighbourhood Centre, Tower Hamlets. She suffers from arthritis and uses a special chair to provide her with correct support but has problems using her desk due to her sitting position.

DEMAND was asked to assist with the design work and to carry out the manufacture of a desk top unit that would provide Teresa with an angled desk top surface coupled with storage spaces all correctly positioned to allow easy access.

The unit was finished with a natural semi-matt lacquer allowing it to blend with her office environment. Teresa now has a customised desk top workstation ergonomically correct for her working position.

### DEMAND acknowledges the assistance given by:

Herbert Pepper & Rudland, accountants  
Venner Shipley, patent attorneys  
Kingsley Napley, solicitors  
Our medical advisors  
The Disability Advisory Service

#### Staff Associates

Brian Greathead, Chief Executive  
Paul Smith, Finance and Fundraising Officer

Maurice Shannon, Design Manager  
Beryl Cresswell, Administration Secretary  
Brian McGirr, Designer  
Graham Dawkins, Designer/Craftsman  
David Gold, Craftsman  
Frank Flanagan, Craftsman  
Kelvin Scott, Craftsman

## The London College of Furniture and DEMAND

The London College of Furniture, where DEMAND was started ten years ago, is now fully merged with the City of London Polytechnic. The College is the major part of a new faculty known as the Sir John Cass Faculty of Arts, Design and Manufacture. It is reassuring that this postgraduate course Design Research for Disability, which is supported by DEMAND continues to flourish within this new faculty. Indeed, in 1990, graduating students were able to participate for the first time in the Degree Awarding Ceremony held at the Barbican Centre in London. Also significant is the fact that the Polytechnic for the first time awarded its Master of Arts Degrees to students in Design Research for Disability.

This course is the only one of its kind in this country and is believed to be unique in the world. It caters for students from varying backgrounds including Design, Therapy, Engineering, Education and offers an opportunity for students to work in depth on problems for disabled people. It is aimed at bringing about knowledge, greater understanding and well worked out solutions that will cause artifacts to be developed and marketed. It also enhances therapy through the use of well designed aids and products. During 1990 a number of projects were tackled producing articles described by the accompanying photographs.

The enthusiasm generated by the students and college staff working together is always lively. 1990 was no exception. Academic deadlines have to be met and presentations made to external examiners, yet members of the course still find time to extend their design experience. For example, Alison Marshall in her second year of the course attended an international workshop held at the Bauhaus in Dessau, Germany. The purpose of the fourteen day workshop and seminar was to gather expertise world-wide designing rehabilitation equipment for disabled children. We are pleased that Alison was selected to represent the United Kingdom at this event which took place in September 1990. Alison has reported on the value of sharing design information on this international scale. We feel our contribution was significant in that Alison has been invited to return to Germany as a consultant on play therapy for children. DEMAND supported Alison with financial assistance during her course at the college. The rewards will now accrue to disabled people during Alison's professional career.

We are also pleased that Oliver Paish was awarded a distinction in his Masters degree submission. This was for his project work and supporting research. The design he developed, which allows computer access to people with arm and hand tremor has been thoroughly tested at the National Hospital for Nervous Diseases and is now ready for production. It is always reassuring that students who attend this course give so much time to advance their professional qualifications in spite of the fact that they have to take on additional paid work to meet the high expenses of studying in London. The course team and students are grateful for DEMAND's continuing support.

Postgraduate Diploma Awards were made to: Roderic Adams, Robert Carr, Allen Hind, Gavin Jenkins.

Masters Degrees were awarded to: Alison Marshall, Oliver Paish, Susan Randle, Gitte Rinds.

### Council for National Academic Awards Design Research for Disability at the London College of Furniture



Some disabled children have problems of body imaging. Susan Randle carefully researched this syndrome then designed and produced a special doll for use by therapists and teachers. The doll can be separated into parts and has been found in field trials to be a valuable therapeutic aid.

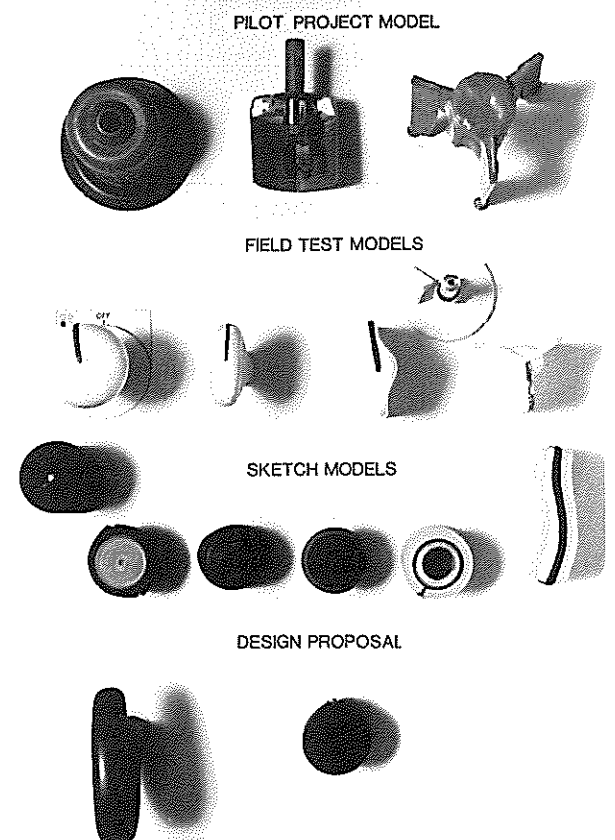


Left:

Some disabilities cause lack of control in hands and arms. Oliver Paish researched these problems and developed a device which can be attached to a computer mouse. By using viscous damping the device effectively reduces 'intention tremor' thus allowing the user to communicate via the computer.

Right:

Some elderly people and arthritic sufferers find using cooker control knobs extremely difficult. Gitte Rinds, an occupational therapist, studied the problems and designed a universal handle which can be applied to standard control knobs.



Above and right:

Alison Marshall has developed a series of soft animal toys and a folding soft landscape. This allows creative and therapeutic play for children with problems of integration.





# DEMAND

Design and Manufacture for Disability

## Income and Expenditure Account for the year ended 31 December 1990

	£	1990	£	1989	£
<b>INCOME</b>					
Donations		201,002		132,463	
DoH Grant		9,250		6,750	
Untaxed Interest		19,049		19,679	
Taxed Interest		—		52	
Royalties		13,317		11,422	
Income Tax recoverable		2,837		3,429	
		<u>245,455</u>		<u>173,795</u>	
<b>Paddy Renton Fund</b>					
Donations and covenants	500		2,338		
Income Tax recoverable	167		612		
	<u>667</u>		<u>2,950</u>		
Less: Expenses	—		7,195		
	<u>667</u>		<u>(4,245)</u>		
<i>Per Balance Sheet</i>					
<b>EXPENDITURE</b>					
Student support		4,487		11,306	
Staff costs		118,394		93,780	
Manpower Services Commission Community Project		1,084		180	
Professional fees		11,904		7,631	
Workshop and design expenses		42,319		43,161	
Administration expenses		10,411		9,806	
Depreciation and Amortization		25,161		5,465	
Loss on investment		—		4	
		<u>213,760</u>		<u>171,333</u>	
<b>SURPLUS</b>		<u>31,695</u>		<u>2,462</u>	

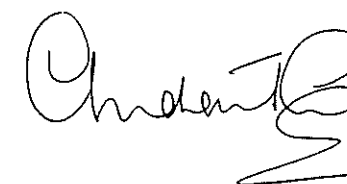
# DEMAND

Design and Manufacture for Disability

## Balance Sheet 31 December 1990

	£	1990	£	1989	£
<b>FIXED ASSETS (net of depreciation)</b>					
Leasehold Property alterations		31,606		41,084	
Tools and equipment		56,878		30,548	
		<u>88,484</u>		<u>71,632</u>	
<b>CURRENT ASSETS</b>					
Debtors and prepayments	13,182		10,524		
Cash and bank balances	158,194		149,997		
	<u>171,376</u>		<u>160,521</u>		
<b>CURRENT LIABILITIES</b>					
Creditors	45,696		50,351		
		<u>125,680</u>		<u>110,170</u>	
		<u>214,164</u>		<u>181,802</u>	
Represented by:					
<b>GENERAL FUND</b>					
Balance brought forward		159,868		157,406	
Surplus for the year		31,695		2,462	
		<u>191,563</u>		<u>159,868</u>	
<b>PADDY RENTON FUND</b>					
Balance brought forward	21,934		26,179		
Surplus/(Deficit) for the year	667		(4,245)		
	<u>22,601</u>		<u>21,934</u>		
	<u>214,164</u>		<u>181,802</u>		

Hon. Treasurer/Trustee  
A. Cussins



### 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 the affairs of DEMAND at 31, December 1990 and of the income and expenditure for year ended on that date.

2 South Audley Street  
Mayfair, London W1Y 6AJ

HERBERT PEPPER & RUDLAND  
Chartered Accountants



## Principal Donors to DEMAND and the Paddy Renton Fund in 1990

Anonymous  
BP Group of Companies  
The Baring Foundation  
BBC Children in Need Appeal  
British Telecom  
The Clover Trust  
Department of Health  
DoH Grant 89/90  
Dr Edwards' & Bishop King's Fulham Charity  
Drapers' Charitable Fund  
Esme Fairburn Charitable Trust  
Glaxo (1972) Charity Trust  
Goldsmiths' Company  
The Hedley Foundation  
The James Weir Foundation  
The Joseph Rank (1942) Trust  
Lazard Brothers & Co. Limited

The London Hospital Clubs Union  
Manny Cussins Foundation  
Marks & Spencer plc  
The Ministering Children's League  
The Mount Trust  
National Westminster Bank PLC  
Nationwide Anglia Building Society  
NFC plc  
The Paul Balint Charitable Trust  
The Peacock Trust  
The Percy Bilton Charity  
The Peter Birse Charitable Trust  
Lord Renton  
Sir William Coxen Trust Fund  
Williams Lea Group Limited  
The Wolfson Foundation  
The Worshipful Company of Grocers

## Other Donors to DEMAND and the Paddy Renton Fund in 1990

Anonymous  
Alexander Howden Group Limited  
The Anthony Hornby Charitable Trust  
Arthur Morphy Memorial Trust  
Aurora plc  
Bank of Scotland  
Barclays Bank plc  
The Benham Charitable Settlement  
BET Public Limited Company  
The Brand Trust  
British Tissues Limited  
Brixton Estate plc  
The C & A Charitable Trust  
Cazenove & Co  
Charles S French Charitable Trust  
Cornwall Parker plc  
Courage Limited  
Coutts Charitable Trust  
The D'Oyly Carte Charitable Trust  
DMG Roper Charitable Trust  
The David Laing Foundation  
Delta PLC  
Disability Advisory Service  
Dixon & Roe Ltd  
The Dorothy Askew Trust  
Douglas Heath Eves Charitable Trust  
Dr D F Strongitharm  
Edgar E Lawley Foundation  
The Edward & Dorothy Cadbury Trust  
The Eleanor Hamilton Educational & Charitable Trust  
The Enid Blyton Trust for Children  
The Ernest Kleinwort Charitable Trust  
First National Finance Corporation plc  
The Fitton Trust  
Freddie Smith Trust  
Friends of DEMAND  
Gerrard & National Holdings PLC  
The Gilbert and Eileen Edgar Foundation  
The Glynwed Charitable Trust  
The Grand Charity  
Greycoat PLC  
Hammersmith Society of Friends  
Helene Sebba Charitable Trust  
The Hubert Blake Charitable Trust  
The Ian Askew Charitable Trust  
The Ian Karten Charitable Trust  
IBM United Kingdom Limited  
Imperial Chemical Industries PLC  
Iron Trades Insurance Group

The J G Fogel Charitable Trust  
Jardine Insurance Services Limited  
Johnson & Firth Brown plc  
Kleinwort Benson Charitable Trust  
Kuoni Travel Limited  
Ladbroke Group PLC  
Laporte plc  
Lilly Industries Limited  
Lloyds Charities Trust  
Lois West Russell Charitable Trust  
Lonrho PLC  
The Lord Ashdown Charitable Settlement  
Lord De Ramsey  
Macro  
Mase Westpac Limited  
Matthews Wrightson Charity Trust  
Midland Bank PLC  
Miss Ahmed and Miss N Ahmed  
Miss Nora Tunney  
Mitsubishi Electric UK Limited  
Monk Construction Ltd  
Mr A Chenery  
Mr & Mrs B North  
Mr B Waters  
Mr V Mould  
The Nestle Charitable Trust  
News International plc  
Norcross plc  
Norwich Union Insurance Group  
P F Charitable Trust  
Paravicini-Dyer Charitable Trust  
Pearl Assurance PLC  
Peter Davis (Silks) Ltd  
Price Waterhouse  
Pyke Charity Trust  
The Rugby Football Union Charitable Fund  
Mr and the Hon. Mrs T Scott  
The SMB Charitable Trust  
Sir Edward Lewis Foundation  
The Sir Jules Thorn Charitable Trust  
The Sobell Foundation  
Standard Chartered Bank  
The Sydney Black Charitable Trust  
The Twenty-Seven Foundation  
Unilever PLC  
The Vandevell Foundation Limited  
W R Lee  
The Wolfe Family Charitable Trust  
Worshipful Society of Apothecaries