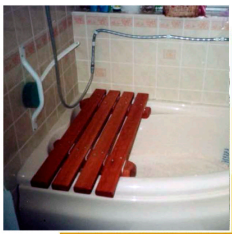
Remap

custom made equipment for
people with disabilities

Gloucestershire



Yearbook Issue 3

Welcome to REMAP Gloucestershire

REMAP is an independent charity and its Engineers design and manufacture one-off equipment (or modify existing equipment) to improve the quality of life of disabled individuals, when there is nothing otherwise commercially available. The service is provided free to the disabled client.

We are a group of friendly Engineers and Occupational Therapists (OT), who meet on the second Thursday of every month at 10am for a couple of hours, to discuss existing work and assess new cases. We encourage Engineers and OT to attend our meetings, but you will need to phone our Case Secretary, Joan Erving, at Gloucester Social Services on 01452 396568 to find out where we will be meeting in any particular month, because we like to occasionally visit OT home bases in other parts of Gloucestershire.

This Yearbook is intended to provide a glimpse of the work that we are actively involved in, with the purpose also of encouraging more work for the disabled. It is not possible to show everything that we do here, because we average eight or nine case referrals a month.

A blank Referral Form forms the centre page of this booklet – please photocopy as necessary.

We look forward to being of service to you.

Charles Dobbin
Vice Chairman

website “www.remapglos.org.uk”

REMAP Gloucestershire

Numbers	Case Description
16%	Personal care: baths, showers, hygiene, etc
12%	Personal toilet: toilets, commodes, bedpans, etc
13%	Household and environmental fittings and controls
11%	Leisure activities
8%	Beds including accessories, mattresses, etc
7%	Chairs including footstools, backrests, etc
5%	Eating and drinking
5%	Transport including accessories: cars, cycles, etc
5%	Standing or walking help
5%	Manual wheelchairs and accessories
4%	Household: cleaning, cooking, laundry, etc
3%	Hoists, lifts and lifting equipment
2%	Powered wheelchairs, scooters, buggies
2%	Alarms, telephones and intercoms
1%	Communication help for visual and hearing impaired
1%	Office and workplace help
1%	Children's equipment

Total number of cases:
average is about 90 a year, over last 3 years

Note that the category is as defined by the Hamilton Index.

The remaining pages of this Yearbook describe some of our cases in more detail.

REMAP Gloucestershire Case 0269 Hamilton Index 22

Communications Table

Problem

The client was unable to hold various communications devices and operate them at the same time, so help was requested to fix them to the wheelchair table.

Solution

A new table was designed which could be secured into the normal table fixing tubes on the wheelchair, but with angle brackets fitted onto the top at the near and far edges. The whole table could also be adjusted from side to side, and to a near or far position, and at a tilt if needed, by providing a number of adjusting holes in each side of the designed tubular support underneath the table.

Benefits

The client is now able to happily use any of the communication devices held by the new table.

REMAP Gloucestershire Case 0457 Hamilton Index 22

Keyboard Guide

Problem

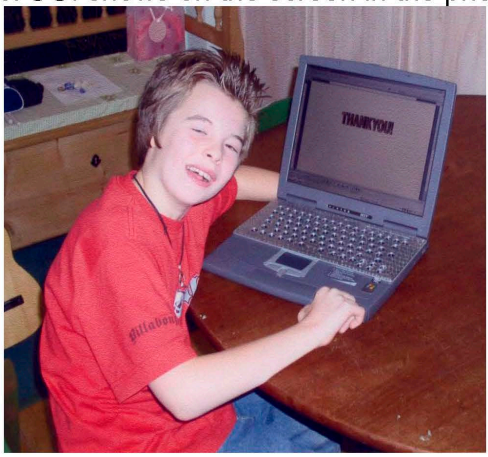
The clients fingers suffered from tremor and tended to touch two or more keys when using the laptop computer keyboard, and a shield was requested by his parents.

Solution

A plate of aluminium was machined with holes positioned at the location of every key on the keyboard and fixed to the laptop. A direct photocopy of the keyboard was made to dimension the hole positions. A plate of plastic would probably have broken between the keys since drilled hole separation was only about 2mm - so aluminium was chosen. A trial run was carried out and the holes were slightly increased in size to prevent finger jamming, and thus enable better contact. The keys could then be confidently pressed one at a time.

Benefits

The client how happily uses the keyboard far more effectively than before - THANKYOU! shows on the screen in the photo.



REMAP Gloucestershire Case 0445 Hamilton Index 15

Secured Shower Chair

Problem

The 35 year old client has a level access shower, but the shower chair has occasionally toppled over with him in it, and needed a carer to help him back up.

Solution

The solution was to fit a steel frame to the rear of the shower chair which was secured to the floor outside the shower. The 'upside-down-U-shape' portion of the frame is easily lifted out from both the outside floor section and the blocks on the back of the chair, since their protruding length provides the security - clamping is not required. The client now approaches the shower in his wheelchair, and levers himself onto the now-fixed shower chair.

Benefits

The client no longer topples over in the shower. He is also independent of any need for a carer to stand by, and thus maintains his modesty.

REMAP Gloucestershire Case 0444 Hamilton Index 11

Stable Carrying Tray

Problem

The client had difficulty with carrying the single-handed tray because of occasional arm jerkiness.

Solution

The solution was to suspend the tray from another handle affixed to the orginal by short lengths of chain. This was sufficient to isolate the clients jerkiness from the tray itself, whose inertia made it stable and safe.

Benefits

The client now happily carries the tray from kitchen to sitting room.

REMAP Gloucestershire Case 0403 Hamilton Index 11

Hot Ashes Removal

Problem

The elderly client was not steady on her feet and she was worried about removing the ashes from her coal fire.

Solution

The solution was to design and make a small frame which she could clip to her ashes tray with extra welded on brackets. The twelve inch height of the frame was limited by her ability to subsequently tip the ashes into her dustbin. The frame was made from lightweight aluminium tube and covered with a tennis racquet tape to provide cool and easy to grip handholds.

Benefits

The client felt much happier, since it gave her more confidence in lifting the hot ashes safely and without spillage onto her carpet. Later, she had oil heating installed, but we were happy to help in the meantime.

REMAP Gloucestershire Case 0401 Hamilton Index 15

Corner Bath Board

Problem

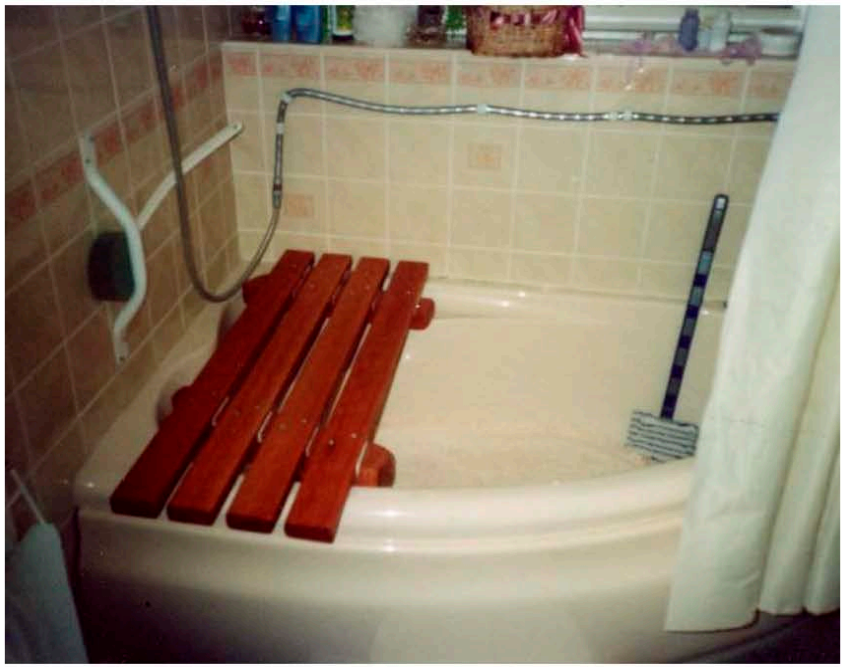
The commercially available swivel board had proved unstable in the clients corner bath.

Solution

A new board was built that was designed and made to fit the bath precisely. This fits well and has proved very stable, as required.

Benefits

The disabled client is now confident in the bath.



REMAP Gloucestershire Case 0354 Hamilton Index 4

Chair Raising Plinth

Problem

The 30 stone lady could not get herself out of the chair, because it was too low for her legs to lever herself up.

Solution

A plinth 750mm square was made from 18mm plywood. To ensure the chair would not slide off the plinth either backwards or sideways, 45mm timber was close fitted either side of the central rear leg, and positioned to maximize overhang of the chair at the front. A Vee of 45mm timber was close fitted between the two front legs, to ensure the chair would not move forwards off the plinth.

Benefits
The heavy lady can now lift herself out of the chair, and is thus independent of help.

REMAP Gloucestershire Case 0481 Hamilton Index 8

Special Stair-gate

Problem

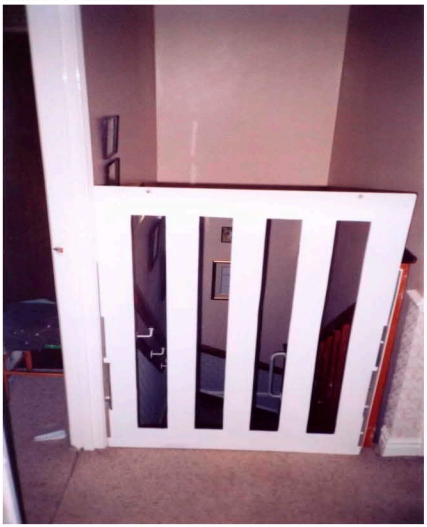
The 5 foot 9 inch (1.75m) client was unsteady on his feet and suffered jerky and involuntary movements. A tall (to chest level) stair-gate was requested that would prevent him toppling down the stairs when moving from his bedroom to the bathroom at night.

Solution

The gate was made 4 foot tall from 3/8 inch thick plywood and aluminium channel. It was lightened by cutting lengths with the result shown in the photo. There was no satisfactory place to attach hinges, so aluminium channel was secured to both walls of the house, and which had cut-outs every 8 inches. The gate was lifted and dropped 8 inches into position, the channel thus securing the stair-gate all the way to the top. Rubber buffers were attached to the top of the stair-gate so that the wallpaper was not damaged when the gate was stowed away.

Benefits

The clients mother now sleeps soundly since her son is no longer able to fall down the stairs.



REMAP Gloucestershire Case 0474 Hamilton Index 15

Lowered Shower Chair

Problem

The clients legs dangled when sitting on the shower chair, and she was thus unable to manouvre the chair on her own, needing her carer to spend time setting her into position in the shower.

Solution

The chair was satisfactorily lowered by 5cm by replacing the large castors (one shown placed alongside the chair in the photo) by the smaller ones shown.

Benefits

The chair can now be moved by the client alone, and is happily independent.

REMAP Gloucestershire Case 0362 Hamilton Index 7

Raised Chair Arms

Problem

The client could not raise himself from his wheelchair because the chair arms were too low and thus he could not obtain a balance on his legs to lever himself up. He was a draughtsman and had designed his own fitting.

Solution

The soft arms were raised by 5cm using aluminium blocks machined to suit the tubes of the wheelchair arms and frame.

Benefits

The client is now able to transfer himself from his wheelchair to any other seat, and was pleased with the result.

REMAP Gloucestershire Case 0372 Hamilton Index 21

Child's Steerable Trolley

Problem

The young boy had difficulty with sitting, standing and walking, and would like a steerable trolley to help and to enjoy.

Solution

A trolley was manufactured from steel tube with small wheels and a large padded cushion which the boy could rest his chest upon. It was made steerable at the front for fun, and everyone's enjoyment.

Benefits

The boy is now able to move himself around much more independently of his parents, resulting in a better time for learning and exploration. Beep! Beep!

REMAP Gloucestershire Case 0418 Hamilton Index 8

Designer Crutch Feet

Problem

The client had purchased some new gas-filled crutches, but they jarred when walking, causing pain in her arms and wrist. There was also a wet floor walking problem around the swimming pool.

Solution

The solution was to reduce the jarring by providing a spring loaded end as shown in the photo, but with a gimbal in the ferrule so that the rubber feet were always securely flat on the floor, especially necessary around the swimming pool, during all phases of crutch movement (without the gimbal the crutch feet only contacted around the periphery during normal walking, and were thus very prone to wet slip).

Benefits

A happy client, both problems cured.

REMAP Gloucestershire Case 0419 Hamilton Index 6

Wheelchair Protectors

Problem

The client wanted to stop the "sharp" parts of her electric wheelchair knocking chips out of her valuable antique furniture.

Solution

The problem with the joystick controlled electric wheelchair is that it instantaneously goes where the front castors are pointing, rather than following the joystick/differential electric control of the driving wheels, and this resulted in poor control in tight spaces. It was decided that the best solution would be to fit wood protection over all the "sharp" parts of the wheelchair, as shown in the photo.

Benefits

The solution has proved to be entirely satisfactory.

REMAP Gloucestershire Case 0450 Hamilton Index 22

Embroidery Frame

Problem

The client wanted to embroider, but found this difficult because she could not hold the frame securely while sitting in her wheelchair, and the fabric could not be effectively spread across the wheelchair's small table.

Solution

The solution was to provide wide soft-padded arms to her wheelchair, and across the front, onto which could be clamped the large table she needed to spread the work, and onto which could be secured a new frame with grips to hold the fabric. The frame could be adjusted for both fore and aft and sideways position, and slope.

Benefits

The client is now effective at her embroidery work-station.

REMAP Gloucestershire Case 0454 Hamilton Index 8

Standing Frame

Problem

The problem was that the client needed physiotherapy and thus had to stand upright for twice a day for thirty minutes each time. He had no facilties when working away from the office or out of the country, so requested an air-transportable support if possible.

Solution

The solution was to provide a steel frame that could support the clients weight at elbow level, and which had a sponge covered cross member to prevent forward collapse of his knees. The frame had a bottom tray on which the client would stand, and which prevented toppling over. The frame was easily collapsed into/rebuilt from a transportable package.

Benefits

The frame successfully allowed the client to exercise away from home, as requested.

REMAP Gloucestershire Case 0310 Hamilton Index 14

Face Wipe

Problem

The client suffered a runny nose and wanted something to help, since he was not able to lift his own hands.

Solution

The solution was to design and make a frame to fix to his wheelchair, to which a wipe could be clamped conveniently in front of, but not obstructing, his face.

Benefits

The client felt much better, thankyou.

REMAP Gloucestershire Case 0505 Hamilton Index 22

Bike Handlebar Grip

Problem

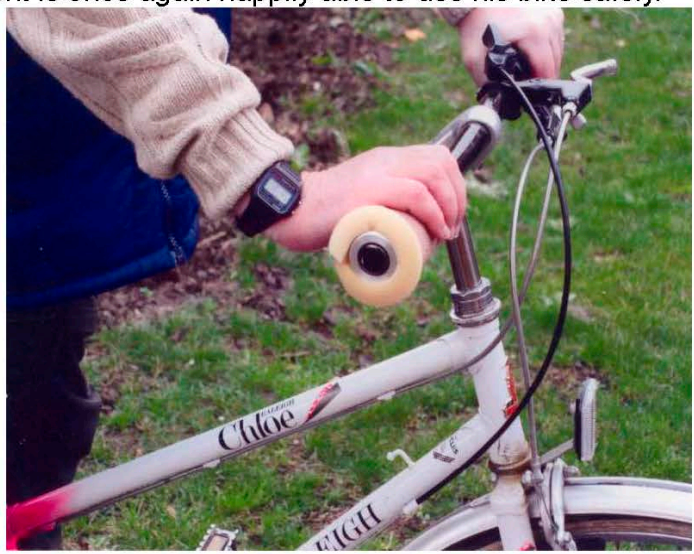
The client was no longer able to use his right hand to grip the standard size handlebar securely, and needed a much larger diameter.

Solution

An aluminium bar was bored to the handlebar diameter, and then grub-screwed to the handlebar. A sponge foam layer was stuck to the aluminium with double sided tape, thus providing a secure grip. Over that was wound Profore #4 from Smith & Nephew which was self adhesive and which provided the non-slip surface the client would grip. This overall diameter had been predetermined by finding which spray cans in the garage were most easily and best gripped!

Benefits

The client is once again happily able to use his bike safely.



REMAP Gloucestershire

To flourish, the Panel needs

CASES Please photocopy the Referral Form in the centre of this Yearbook, and use that, or phone Joan Erving on 01452 396568

DONATIONS The service is free to the client, and we therefore need Donations. Please support us if you can - phone Ron Crumpler on 01453 756825

MATERIAL If your Company could support us with metal coatings, or materials from the scrap bin, please phone Charles Dobbin on 01452 527851

ENGINEERS If you are an Engineer or Craftsman/woman and would like to join us, please phone Charles Dobbin on 01452 527851

OCCUPATIONAL THERAPISTS If you are an OT and would like to attend a meeting, please phone Joan Erving on 01452 396568 or email joan@remapglos.org.uk

WEBSITE www.remapglos.org.uk