



**Gloucestershire**



***Yearbook Issue 2***



## **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 about ten case referrals a month.

A blank Referral Form is attached – please photocopy as necessary. See also our website “[remapglos.org.uk](http://remapglos.org.uk)”

We look forward to being of service to you.

Charles Dobbin  
Vice Chairman

## REMAP Gloucestershire

### 2002 Case Referrals List

No. in Year	Category Description
20	Household and environmental fittings and controls
18	Leisure activities
16	Personal care: baths, showers, hygiene, etc
10	Personal toilet: toilets, commodes, bedpans, etc
8	Chairs including footstools, backrests, etc
7	Transport including accessories: cars, cycles, etc
7	Eating and drinking
6	Beds including accessories, mattresses, etc
6	Standing or walking help
6	Household: cleaning, cooking, laundry, etc
5	Manual wheelchairs and accessories
5	Hoists, lifts and lifting equipment
3	Communication help for visual and hearing impaired
2	Alarms, telephones and intercoms
2	Office and workplace help
2	Powered wheelchairs, scooters, buggies

123 total number of case referrals in 2002

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 0283** Hamilton Index 12

Shopper Box

### **Problem**

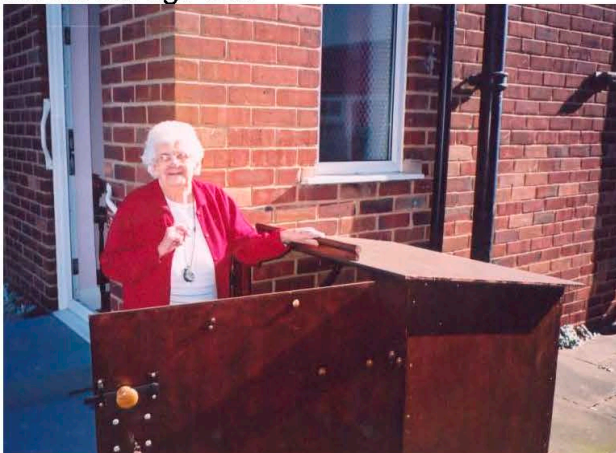
The elderly client suffered from severe osteo-arthritis and was becoming frail. She had a three wheeled shopper which she walked well with, but was observed almost unbalancing as she bent forward, pushing the shopper down her front door steps.

### **Solution**

A storage box was made from 9mm ply - approximately a one metre cube with a sloping roof. The door was secured with a mortice lock and prevented from swinging too far in the wind with a securing chain. A grab rail was made running along the front of the top, and a hook was placed inside the door for her walking stick. The whole was secured to the wall and ground using 150mm wallplug 10mm diameter screws

### **Benefit**

The client is now able to safely hold her front door grab rails as she descends her front door steps and easily remove and replace her shopper from the storage box.



## REMAP Gloucestershire Case 0298 Hamilton Index 22

Mouse Table

### Problem

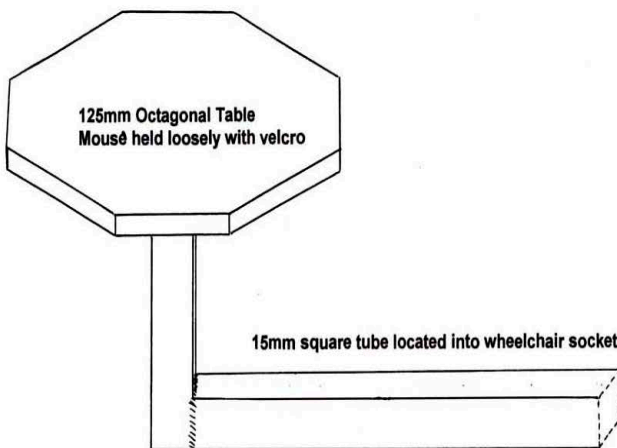
The client suffered from quadriplegia and was unable to operate his computer mouse when sat in his powered wheelchair and he has only limited movement in his left hand.

### Solution

A 125mm square table was constructed from 6mm ply, cut into an octagonal shape, and mounted on a 15mm steel extension which was then secured to the left armrest of his wheelchair. The mouse was attached by a length of velcro which allowed the roller ball to move over the octagonal table, and yet which would prevent the mouse from dropping to the floor.

### Benefit

The client now has the ability to use his computer as well as maintaining independence of wheelchair movement.



## **REMAP Gloucestershire Case 02109** Hamilton Index 11

Oven Door Handle

### **Problem**

The client had insufficient strength in her shoulders and fingers which prevented her from successfully gripping the high overhanging oven door ridge and pulling it forwards and downwards, because it needed her fingers cupped upwards.

### **Solution**

A standoff bar was manufactured and fitted to the high oven door which allowed her much better grip and pulling action because now her fingers were able to grip downwards over the bar.

### **Benefits**

The oven was now useable!



Drive Winch

**Problem**

The client was wheelchair bound and had a steep path to his front door, which exhausted his carer when pushing, both up and downhill.

**Solution**

The solution was to provide a hand winch which the carer could rotate - a motorised winch was tried, but found to be extremely slow and it was found impossible to change its gearbox so this was discarded.

**Benefits**

The clients carer is easier now.



Mobile Arm Support

**Problem**

The request came from Cheltenham General Hospital Occupational Therapy Department for clients who suffered from Lymphoedema (which produces a very heavy and swollen arm) and who needed arm support while walking.

**Solution**

A frame was made up to carry a ply trough with a hand grip at its end, so that the client was able to easily place their lower arm.

**Benefits**

The OT were happy that clients were well supported.



**Bed Stairs**

**Problem**

The client suffered from multiple sclerosis and climbed the stairs by levering herself backwards on her bottom, but was having great difficulty getting up into bed from her floor.

**Solution**

A set of steps with a large area top were manufactured, so that she could lever herself up into bed.

**Benefit**

The client could now get herself into bed without help.



## **REMAP Gloucestershire Case 9721    Hamilton Index 15**

### **Bathboard**

#### **Problem**

The client weighed 18 stone which was due to increase because of his medical condition, so a heavy duty bathboard was required. Some standard bathboards were tried, but would not fit, because of the narrow edge of the bath on the wall side, and the shower screen on the other.

#### **Solution**

A hardwood slatted bathboard was manufactured which was able to be easily lifted out of the bath when necessary, and could also be slid from one end to the other. The end pieces were made from 25mm ply, and the whole coated in yacht varnish.

#### **Benefits**

The client now enjoyed washing on a solid seat.



**Tennis Racquet Antislip****Problem**

The client was a wheelchair user who liked to play tennis and was training for paraplegic games, but found it impossible to prevent the racquet rotating when making a volley. The racquet had been bound to his gauntlet using medical tape, but when the racquet rotated, it had to be repositioned on the gauntlet and rewound with the tape, and thus took a lot of time out of the match.

**Solution**

Velcro was stitched to the inside face of the gauntlet, which was modified to suit his movement, and velcro also to the racquet handle. Once the racquet was placed in his hand at the correct angle and the gauntlet taped up, the angle did not change under any conditions.

**Benefits**

A much more competitive, and happier, tennis player.

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**Scissor Mount****Problem**

Scissors with a spring to keep them open are very useful for those with limited dexterity, but in this case the client could not hold the scissors either.

**Solution**

The lower arm of the scissors was edge mounted on a slotted broad hardwood using hidden steel screws. Some non-slip material was glued to the underside of the wooden block so that it would not slide around on her table.

**Benefit**

A light pressure on the upper scissor arm then cut-out the paper patterns and designs as required.

## **REMAP Gloucestershire Case 0207**    Hamilton Index 22

### Absorbing Paintbrush

#### **Problem**

Unable to hold small objects in his hands, the client had been introduced to painting by mouth through his new day care centre. He became extremely frustrated when saliva ran down the paintbrush handle smearing his work.

#### **Solution**

A block of florists "oasis" threaded onto the brush handle worked well. The block had to be no bigger than about 25mm square so that he had a clear view of his work.

#### **Benefit**

The solution was sufficient to give him over 20 minutes of trouble free painting time, when another block would have had to be fitted by his carer.

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## **REMAP Gloucestershire Case 0231**    Hamilton Index 22

### Paintbrush Rest

#### **Problem**

The same client as above, found that he needed to rest his mouth at frequent (about 5 minute) intervals, and so asked his art tutor to help him. This proved difficult in the busy class environment, and, frustratingly of course, he did not always get immediate attention.

#### **Solution**

A modern spring-loaded work-lamp was modified to carry a 100mm length of 35mm waste pipe. The pipe was blanked at the bottom with a plastic lid from the kitchen cupboard to make a brush holder.

#### **Benefit**

With the work-lamp and tube clipped onto his worktable, the client is now able to rest and pick-up his own brush, and thus restart painting, independent of any help.

## **REMAP Gloucestershire Case 02120** Hamilton Index 11

Cup positioner

### **Problem**

The client had suffered from polio for the last ten years and was partially sighted. She was having difficulty positioning her cup accurately underneath the spout of her pump action hot water dispenser leading to occasional spillage.

### **Solution**

A guide was constructed from lengths of wood secured onto 9mm ply which formed a table - the water dispenser was mounted on the table and its rotational position determined by the electrical push-in plug. The cup (of any size) has to be pushed (by feel as necessary) into a V formed from the 20mm square lengths of wood to locate it underneath the spout.

### **Benefits**

The client is now secure from spillage, and is thus much happier.



## REMAP Gloucestershire Case 0117    Hamilton Index 14

### Chemical Toilet Frame

#### **Problem**

The 82 year old client suffered with both knees locked into a standing position and he stood well over 6 feet high. He was able to move at the hip, but had arthritic deformed hands and needed help to both lower and raise himself from the normal WC.

#### **Solution**

The hospital had raised adjustable seat stools which were used by the client to check out how much seat tilt and handle height was required for the finished article. One inch 16 gauge tube (it could be gripped easily and stresses were low) was obtained and welded and powder painted to the desired dimensions to suit the Elsan chemical toilet seat and pan. A 40mm thick wooden armrest added to the right handle gave him better grip when getting up.

#### **Benefits**

The client was able to use the frame toilet much more easily than trying to use the low level WC at home and was very happy with the modifications.



## **REMAP Gloucestershire Case 0068** Hamilton Index 14

Special Transfer Board

### **Problem**

The client suffered from muscular dystrophy and had difficulty transferring to and from her wheelchair. The commercially available transfer board was unsuitable for her toilet because it was too long and the aperture did not fit.

### **Solution**

A special toilet seat was manufactured from 18mm ply and fitted with a plastic bridge which rose over the wheelchair tyre, to avoid snagging.

### **Benefits**

The client was now able to position her wheelchair and manipulate herself onto the toilet on her own.



## **REMAP Gloucestershire Case 0264** Hamilton Index 14

### Leg Support

#### **Problem**

The client had severe RA and had locked left hip knee and ankle, with a plate in her right knee. She was unable to sit on the toilet and was also unable to use a Cefendy Sani-Glide effectively. She needed her leg fully supported and needed to recline in order to use the toilet - the cistern had already been raised.

#### **Solution**

The Sani-Glide chair was adapted to suit, with long leg boards, secure footboards and reclining back.

#### **Benefit**

The client was now able to relieve herself comfortably.



## **REMAP Gloucestershire Case 0286** Hamilton Index 4

### Long Chair Handle

#### **Problem**

The client suffered arthritis to the extent that she could not move the handle that lifts the footrest on her chair.

#### **Solution**

A thick strip of aluminium was used to lengthen the handle and was bent to avoid impacting the armrest of her chair. The handle then was easy to move, and was pulled right back to lift the footrest, sliding her hand down the handle as it went.

#### **Benefits**

The client was now able to lift the chair footrest on her own.



## REMAP Gloucestershire Case 0218 Hamilton Index 22

### Garden Tool Shortening

#### **Problem**

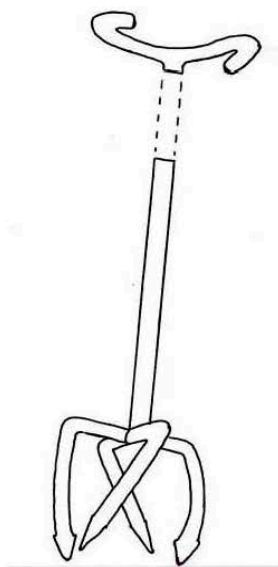
The client, who was very short in height, had purchased a standard fixed length garden digging tool and was having difficulty using it because it was too long.

#### **Solution**

The overall height of the tool was reduced by cutting a nine inch (225mm) length from the tubular steel frame. The upper handle was then re-welded in place and the complete assembly repainted.

#### **Benefits**

The client was very pleased because the garden could now be maintained without difficulty.



## REMAP Gloucestershire Case 0237 Hamilton Index 12

### Linking Two Window Handles

#### **Problem**

The client suffered from cerebral palsy and was also quite short. The tall windows in her house had two handles mounted one above the other, but the upper one was too high for the client to reach.

#### **Solution**

The two handles were joined by using small diameter aluminium tube - this was connected to a short horizontal (when closed) steel strip at each handle to provide the turning moment to drive the upper handle. The tube was kinked at its upper end so that it rotated cleanly around the bulk of the upper handle.

#### **Benefits**

The client was pleased with the outcome and enjoyed the refreshing fresh air of that summer.



## **REMAP Gloucestershire Case 0105** Hamilton Index 14

### Toilet Flush Handle

#### **Problem**

The client was unable to flush the toilet (and needed someone else to do it for her) because the flushing lever was too short and could not be operated by the client. An overhead pulley system had been installed, but she was very unsteady on her feet and could not operate this. A pedal system had been considered, but the client had insufficient leg strength to operate it.

#### **Solution**

The flush lever was replaced by a long beech wood handle turned on a lathe so that it had large grooves along its length to prevent hand slippage.

#### **Benefits**

The client was very pleased because the flush could now be used without difficulty, and thus regained her independence, and privacy too.

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## **REMAP Gloucestershire Case 0139** Hamilton Index 6

### Wheelchair Table

#### **Problem**

The client had no table attachment to his/her electric wheelchair and wanted something fully adjustable, and yet had to be easily removed when the client was in his/her specially adapted vehicle while still in the wheelchair.

#### **Solution**

A short tube formed the socket into which could be fitted the table leg. The socket was clamped to the existing wheelchair frame by two U bolts, which allowed for both up and down and fore and aft positioning. A wing nut was fitted to the socket which would clamp onto the table leg, and which, when slackened, allowed the table to be swung out of the way. The table could also be height adjusted by means of the wing nut secured leg.

#### **Benefits**

A successful modification, much appreciated by the client.

## **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 painting or materials from the scrap bin, please phone Charles Dobbin on 01452 527851.

**ENGINEERS** If you are an engineer or craftsman please join us - phone Jim Quinn on 01453 757898.

**OCCUPATIONAL THERAPISTS** If you are an OT and would like to attend a meeting, please phone Joan Erving on 01452 396568.