



Gloucestershire



Yearbook Issue 4



Welcome to REMAP Gloucestershire

Operating out of their own workshops, REMAP's volunteers design and make practical equipment to address problems faced by many disabled people for whom no commercial product is available. The service is provided free to the disabled client.

In Gloucestershire, we are a group of friendly Engineers and Occupational Therapists (OTs), 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 OTs to attend our meetings, but you will need to phone our Case Secretary, Joan Erving, at Gloucester Social Services on 01452 426405 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.

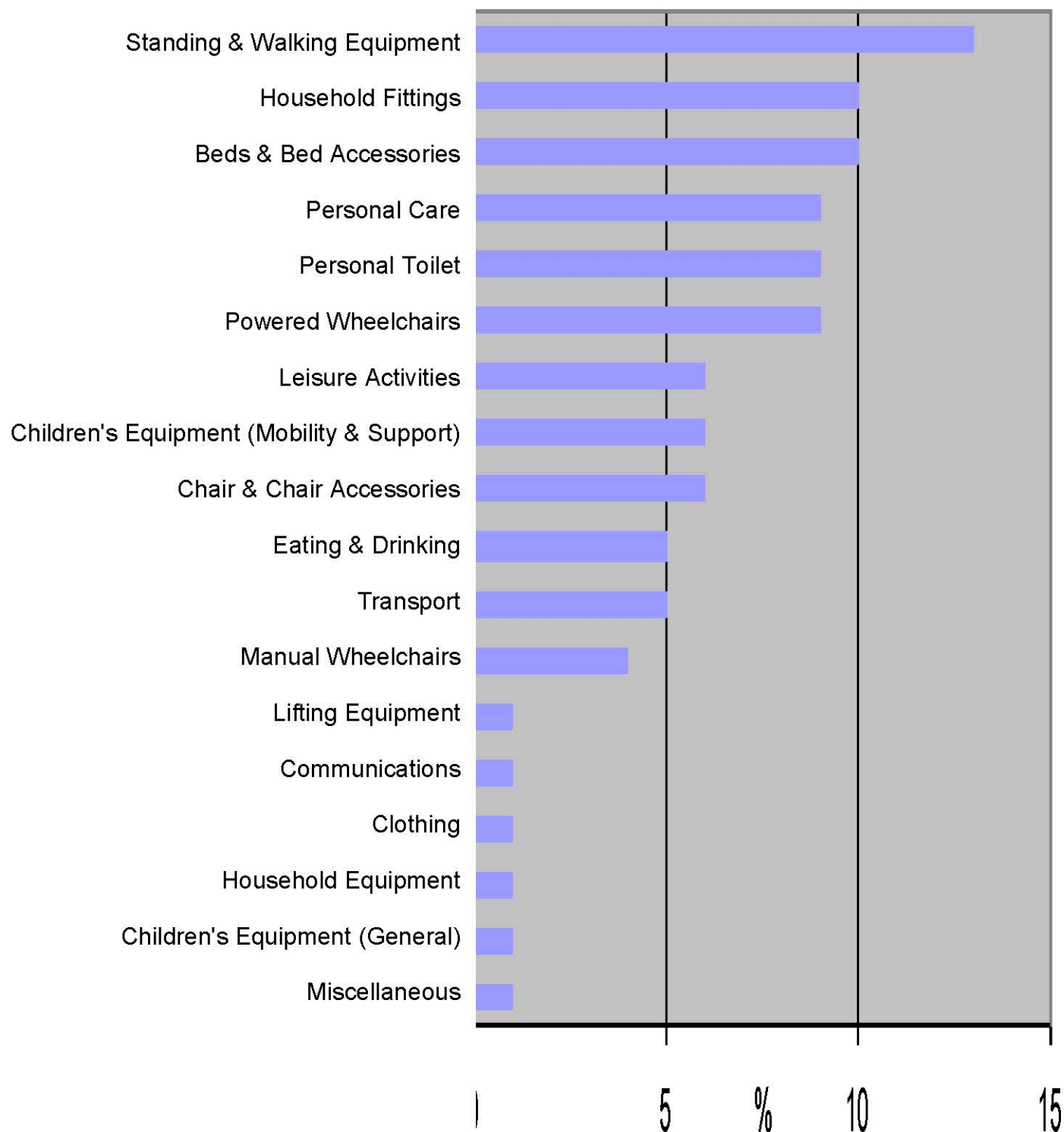
A blank Referral Form is in the centre page of this booklet – please photocopy as necessary.

We look forward to being of service to you.

Charles Dobbin
Vice Chairman

REMAP Gloucestershire

Variety of cases



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

Hotplate Saucepan Holder

Problem

The client was able to use only his right hand, and had difficulty while stirring the pot or saucepan, because it tended to slide off the hotplate.

Solution

A steel strip frame was made that encircled the pots he used but stood just above the hotplates themselves, and which prevented the saucepans or pots sliding off the hotplate. The high temperature painted frame was held in place by 8mm dia steel rod bent as necessary and fitted with heat-shrink sleeving thus to spring grip the hotplate base without damage to the base itself.

Benefits

The client said it was brilliant!



Horse Mounting platform

Problem

The client had been advised by her Physiotherapist, that horse riding would be beneficial for her multiple sclerosis problems, but she needed a platform to mount her horse, which was to be transportable so she could go to rides elsewhere.

Solution

The solution was to make a thirty inch high platform, two foot by three foot, with a handrail, and using one inch square 16 gauge steel tube. Wheels were mounted on the backside so that the handrail could be used to haul the platform up the slope of a horse lorry. Supports to prevent the whole platform from toppling over if the client fell against the handrail were also added - and were simply hinged to be stowable for easy transport. To minimise weight, the steps were made separate.

Benefits

The client is now able to mount and dismount in safety using the handrail provided, and has expressed herself very happy with the result.



Removable handrail

Problem

The elderly lady felt insecure whilst crossing her small landing from her bedroom to her bathroom.

Solution

A bar was fitted that could be raised or lowered as required, and could be used as a hand-rail whilst in the down position.

Benefits

The Client felt secure whilst on her landing and had a hand-rail which prevented her falling down the stairs.



Squeezy Mop Wringing Aid

Problem

The client had to use one hand to support herself when standing, so was unable to wring out her squeezy mop. The requirement was especially important as she had a dog, and the floor required frequent washing and took a long time to dry, during which time it was very slippery and dangerous.

Solution

A holder was made for the squeezy mop comprising a tool clamp and a hook mounted on wooden blocks, with the whole device mounted on the wall. The mop can be put into the holder which holds it in position whilst it is wrung out using one hand.

Benefits

The client can now dry her floor after washing it thus making her environment much safer.



Hot drinks dispenser

Problem

The client used a pot-pump for dispensing coffee but this had to be held by carers to prevent tipping whenever she used it.

Solution

A wooden support for the pot pump held the pot securely and was clamped to the edge of the table

Benefits

The client was able to dispense coffee for herself and her friends without assistance from anyone.



Dog's Feeding Bowl

Problem

The client was unable to reach down to her dog's feeding bowl for either cleaning it or replenishing it with food.

Solution

The problem was solved simply by attaching a long handle to the bowl so that she could pick it up without having to bend.

Benefits

The client can now clean or fill the dog's bowl without discomfort.



Speech synthesiser

Problem

The client, who had been blinded during his military service in Northern Ireland, had become used to attending bingo with his wife, but was unable to take part because he could not see the bingo card though he could hear the numbers of the caller.

Solution

A small voice box was made, containing a micro controller which latches the 2 BCD signals. It also contained an SP03 speech synthesizer module pre-programmed with the digits 0 through 9 : it is fed with each digit in turn by the micro controller. And a push-button non-latched switch on the top of the Voice Box allows the number to be repeated, when required. The current required by the speech box is small, so it takes its 5Vdc supply from the Bingo Box via the D connector. The operation of the Bingo Box is unaffected, whether the Voice Box is connected or not.

Benefits

The client is now happily involved and continues to accompany his wife to Bingo Club evenings with much enthusiasm.



Swim Launcher

Problem

The client suffered from Multiple Sclerosis and described herself as, 'a real water baby before MS took hold'. She wanted a wheeled trolley to carry her from a car park, across a pebble or sandy beach, into the sea.

Solution

The design was based on the client's ideas for a 'Rickshaw' style trolley utilising a 'T' bar frame of mild steel rectangular section, braced from the crossbar to the tail of the 'T' by mild steel angle iron. Low pressure ABS rimmed tyres were mounted on the cross bar with a third tyre on a castoring action axle at the front. The seat, seat frame, foot board, 3 tyres and castor assembly were all demountable for storage in an estate car or caravan.

Benefits

The benefits are best described by using a quotation from the client's letter following commissioning of the equipment:

'My husband had no trouble pulling it across the sand. He took me into the water. I got off and swam away! It felt fantastic. When too tired to swim I sat in the Aqua Mobile on the edge of the sea and let the waves break over me – magic!'
(Quotes by kind permission of the client)



Gel Liner Applicator

Problem

The client, a tetraplegic, needed to fit gel liners to his limbs to enable the fitting of prosthetic limbs. This was usually done with help from his wife or carer. He dearly wanted to be able to carry out this task without assistance. His difficulty, particularly in the case of the left leg, amputated below the knee, was that he could not reach down far enough to ever contemplate fitting the gel liner over the extremities of his limb.

Solution

A device was built comprising a set of four vanes, each with a roller attached at the end and pivoted on individual hinges on a wooden base. The vanes were oriented around a circle, about 6 inches diameter, and configured such that each hinge allowed its vane to pivot from the centre of the circle radially outwards.

With the wooden base sitting on a horizontal plane and the vanes vertical, the gel liner was placed over the vanes so that the locating pin hung downwards in the centre of the assembly and the gel liner material draped over the rollers. On the top, the liner material formed a 'bowl', with the location pin hanging down beneath this 'bowl'.

To don the liner the client placed his stump in the 'bowl' and pushed downwards so that the gel liner rolled over the rollers and flipped over on to his limb. (Picture shows application using a model of the client's limb.)

Benefits

The client is able to independently fit his gel liner and prosthetic limb.



Wheelchair Armrest/Guide**Problem**

Due to involuntary movement, the client's left arm interfered with her car steering wheel when driving. Straps on the wheelchair arm were not appropriate or suitable.

Solution

Two narrow sections of square section rainwater down-pipe were slotted to slide onto the wheelchair arm. Attached to these, sited on the top side of the wheelchair arm a 'forearm length' of square section guttering was cut and shaped with a hot-air gun to be a snug fit around the client's forearm. It was all edged with split electrical cable insulation and lined with soft, washable material for client comfort.

Benefits

The left arm position was controlled. The client is a much more confident driver.



Walking Trolley Aid

Problem

An elderly lady used a trolley to help support her when walking in her house. She needed higher support for her arms to enable her to straighten her back when walking and to provide a more comfortable posture.

Solution

A standard trolley was modified by welding armrests on the top of the trolley at the correct height. Plastic guttering was used to provide comfortable support for her forearms and a handgrip was incorporated for greater stability.

Benefits

The client found the new trolley a great help in keeping her more upright when walking and the supports for her forearms were very comfortable and provided a good sense of stability.



Stowage for Wheelchair Tray

Problem

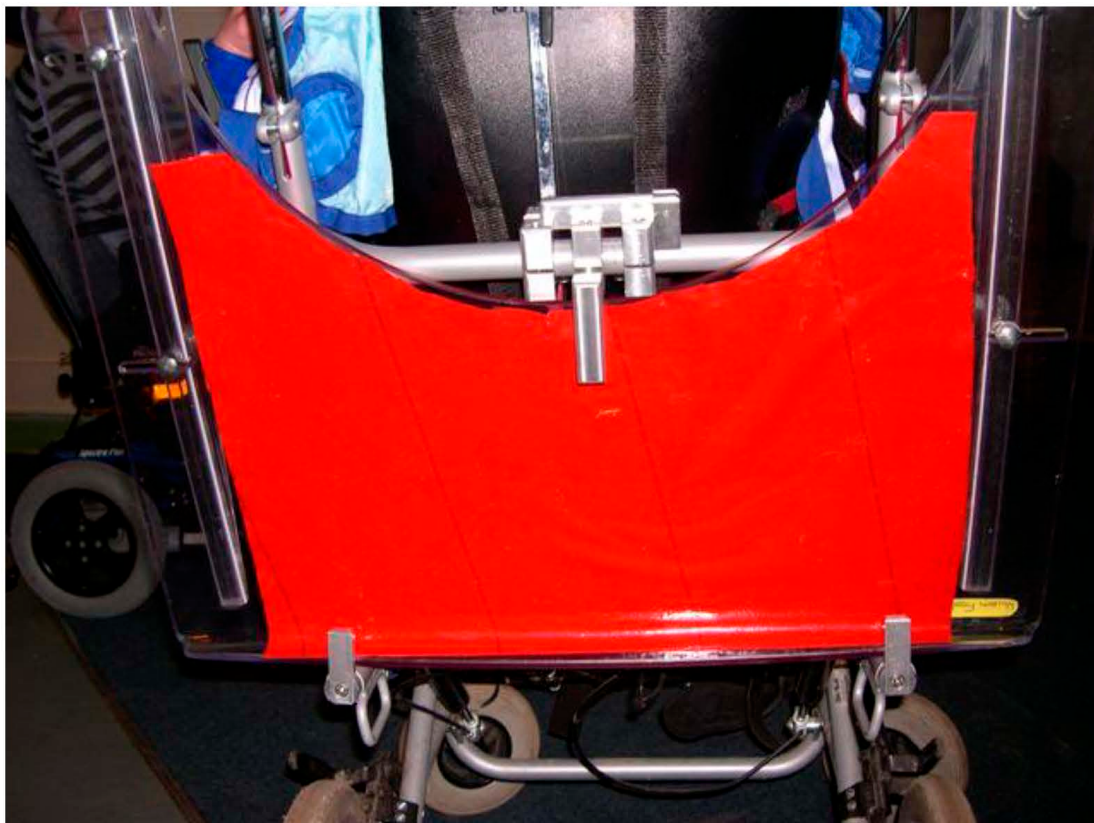
The client's wheelchair tray was often mislaid when he was transported from his home to the Day Centre. His carers had asked if a means of keeping the two together could be devised.

Solution

At the back of the wheelchair, two supports were fitted at the bottom to take the weight of the tray. Near the top, a catch was fitted to hold the tray in place.

Benefits

The client can now travel between home and Day Centre without losing the tray.



Looped Cutlery

Problem

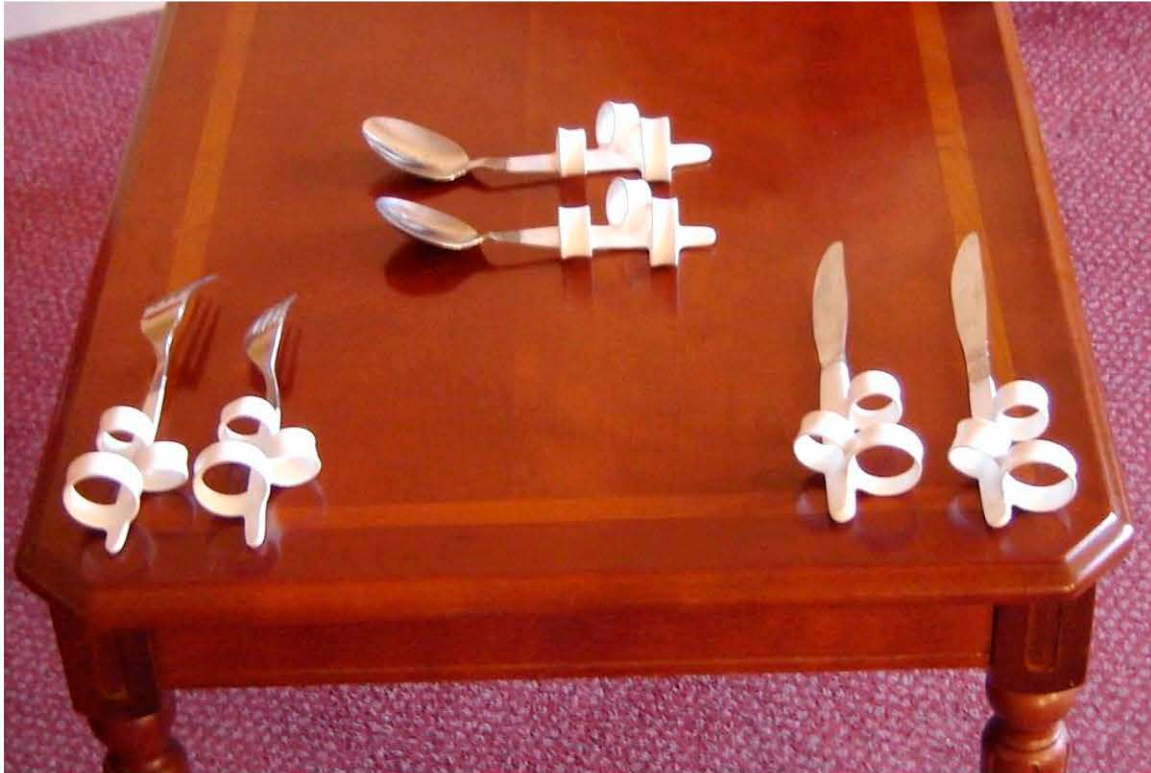
The client was unable to grip cutlery normally, so help was requested.

Solution

The solution was to add loops to two sets of cutlery through which, with help, he could slide his fingers. The loops were made from copper tube, and silver soldered to the cutlery. The cutlery was then plastic coated to provide a pleasing and washable surface. The index finger was slid through the big loop into the following small one and the thumb inserted in the offset loop.

Benefits

The client is now able to feed himself.



Jar and Bottle Opening Aid

Problem

A tetraplegic client was unable to open bottles and jars and was therefore unable to satisfy his wishes for meals without assistance from someone else. Most commercial devices for opening bottles and jars assume that the user has limited grip. In this case the problem was not grip but the inability to turn the bottle cap when gripped.

Solution

A small turntable that could support the jar or bottle was fitted with a piece of Dycem to provide high friction between the jar and the turntable. The client gripped the jar lid and, by pushing some 'spokes' on the turntable, was able to rotate the jar beneath the lid and thus unscrew the lid from the jar.

Benefits

This enabled him to open items for his meals without calling on the assistance of someone else. So, if he suddenly fancied a pickled onion, he could have one!



Camera Holder**Problem**

The client had suffered spinal injuries and was unable to lift even the smallest weight. He wanted to use a camera so requested a device to hold the camera in position for shooting whilst being able to move it out of the way when not in use.

Solution

A flexible pipe (rather like a desk-lamp support) was attached to the frame of the client's wheelchair. The camera was fitted to the end of the flexible pipe. The client was able to position the camera in the required position for shooting and the device then held the camera in that position. When not in use the pipe could be bent to allow the camera to rest in the lap of the client.

Benefits

The client was able to use a camera from his wheelchair and the assembly was easily removable when not required.



Aid for getting in and out of car**Problem**

The client had difficulty supporting herself while getting in and out of the car. She needed something to hold on to to provide stability.

Solution

The pillar of the door locking mechanism was utilised to support a horizontal bar that acted as a rigid grab-rail. The client was able to fit the bar securely to the door frame of the car, use it to support her weight whilst transferring from the seat to a standing position. Once completed the bar could be easily removed and stored in the car. When returning to the car, the client could again fit the bar and use it to help her to safely get into the car seat.

Benefits

She is now able to get in and out of the car easily and safely. The bar is completely removable when the operation is complete.



Raise toilet/shower chair**Problem**

The client, a wheelchair user and leg amputee could not return home from residential care because her shower chair would not fit over the toilet because the toilet had been raised to suit another resident.

Solution

Two extension pieces were machined from aluminium, and the seat of the chair was raised by approximately 3 inches by extending the frame at the back, and fitting blocks under the front of the seat. The arms were also raised on a temporary basis but this was found to be unnecessary as the client used the chair without the arms, so permanent extensions were not produced.

Benefits

The client was able to return home as she could now use the toilet.



REMAP Gloucestershire

To flourish the Panel needs:

- CASES:** Please photocopy the Referral Form in the centre of this Yearbook, **or** visit our website at [www. remapglos.org.uk](http://www.remapglos.org.uk), to download a copy,
or
phone Joan Erving on 01452 426405
- DONATIONS:** The service is free to the client and therefore donations are much appreciated. Please support us if you can – phone Ron Crumpler on 01453 756825
- MATERIAL:** If your Company could support us with engineering materials, metal, plywood, etc. please phone Charles Dobbin on 01452 527851
- ENGINEERS:** If you are an engineer or craftsman 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 426405 or e-mail joan.erving@gloucestershire.gov.uk
- PUBLICITY:** If you are a member of an organisation that would like to hear more about REMAP and what we do, please phone John Fox on 01451 861432 to arrange a presentation.
- WEBSITE:** www.remapglos.org.uk

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