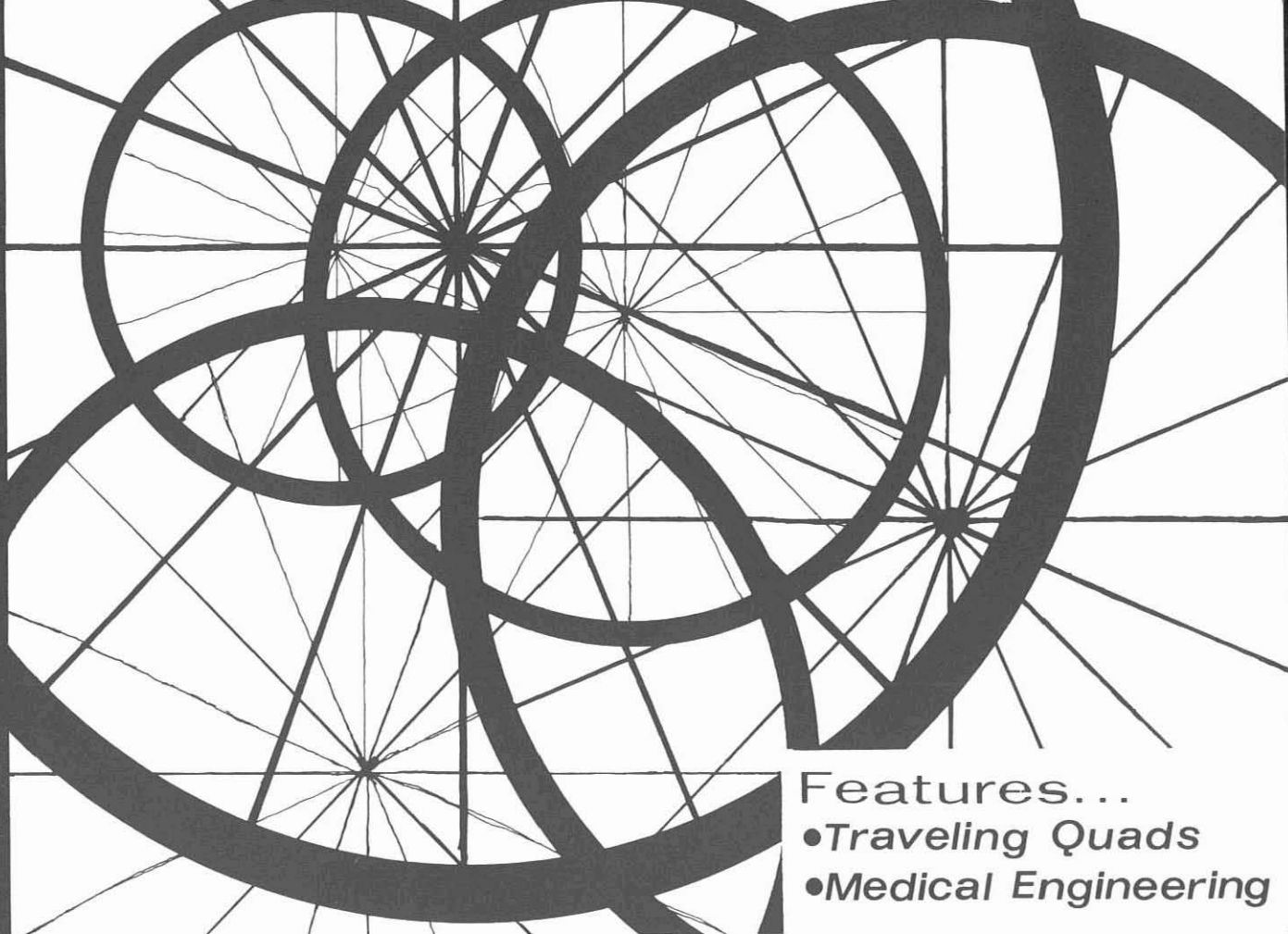


# Toomey j GAZETTE

• SPRING 1965 •



Features...

- *Traveling Quads*
- *Medical Engineering*



Vol. VIII, No. 1 Spring, 1965  
 Editorial Office: Box 149, Chagrin Falls, Ohio, U.S.A.

The TOOMEY j GAZETTE is published once or twice a year by a volunteer staff of severely disabled (Horizontalists) and their non-disabled friends (Verticals). It is a non-profit, tax-deductible organization incorporated as Iron Lung Polios & Multiplegics, Inc.

FREE to respos, other quads and all severely disabled.

QUADS are quadriplegics (or tetraplegics) -- those whose four limbs are paralyzed or useless because of disease or injury. RESPOS are respiratory polios -- quads who require mechanical breathing aids, such as iron lungs, etc. MULTIPLEGICS include all who have two or more paralyzed or useless limbs because of injury or cerebral palsy, rheumatoid arthritis, muscular dystrophy, multiple sclerosis, etc.

\$1 minimum donation delicately suggested to non-disabled

TjG AIM: To reach, to inform, and to dignify all respiratory polios, and all other severely disabled young adults, throughout the world.

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# Toomey J GAZETTE



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## QUAD HALL of FAME

### Emanuel Leplin

by Donna McGwinn  
(respo) Ohio

Celebrity in the worlds of both music and art

**T**he TOOMEY j GAZETTE bursts its pages with pride over the genius and accomplishments of one of its respo readers, Emanuel Leplin, celebrity in the worlds of both music and art.

**E**manuel became a victim of respiratory polio in 1954 as he was rapidly ascending the heights of musical success. For fifteen years he had been violist, violinist, and assistant conductor of the San Francisco Symphony and San Francisco Opera Orchestra, as well as conductor of the San Jose Junior Symphony. He had studied violin with Georges Enesco, composition with Darius Milhaud and Roger Sessions, and conducting with Pierre Monteux, and had won many prizes in the field of music. Commissions were awarded him by the Fresno Philharmonic Association and the San Francisco Symphony.

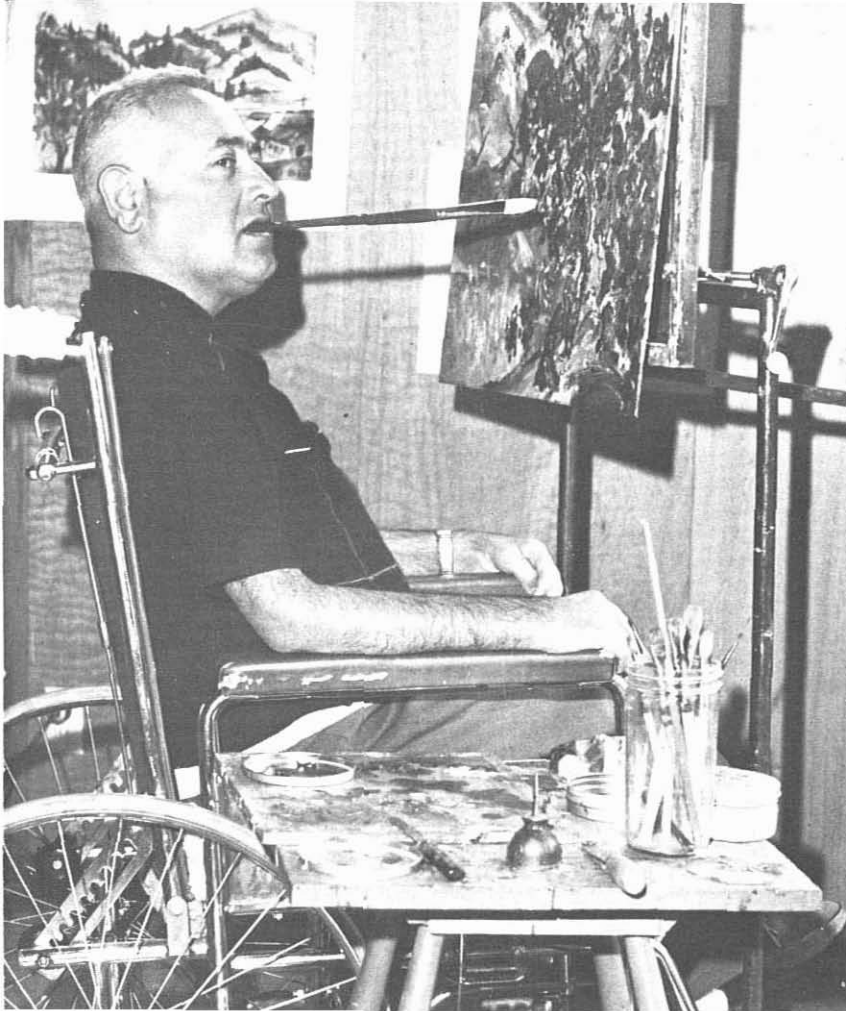
It might have seemed his illustrious, promising career would be ended when Emanuel became completely paralyzed except for muscles of his neck, wrist, and three fingers. But such a tragedy was not to be. Fortunately for music and art lovers, Emanuel's determination and will continued to channel his magnificent

creativity into works in those cultural categories.

**T**his year, Emanuel was honored for his most impressive musical accomplishment since he became handicapped. The World Premiere of the composition on which he had worked four years, *Music for Festive Services*, was held February 21, 1965, at Temple Beth El in San Mateo, California. The work was commissioned by the members of Temple Beth El in 1961, and was performed in celebration of its tenth anniversary. It was set for Rabbi, Cantor, Choir, Organ, English Horn, and Oboe.

This was not Emanuel Leplin's only honor. In conjunction with the Premiere, an exhibit of 25 of Emanuel's paintings officially opened the new library at Temple Beth El. His paintings reflect the same verve and intensity of his musical creations, and have been displayed in three one-man shows. He was one of the most prominent contributors to TjC's First International Handicapped Artists Exhibit in Chagrin Falls in 1960.

**E**manuel paints by holding a brush in his



mouth, while his breathing is facilitated by the Multilung abdominal respirator. He prefers vivid colors for his post-impressionistic works. He thinks that "...an object should be depicted --but it should not be photographic. I have the feeling that a painting, regardless of the style, should give the viewer the essence, the feeling which the painter derives from it." Those who have seen Leplin's work will assure you of the "feeling" of the paintings.

**E**manuel's genius surged around his handicaps in other notable works. In 1959 he completed two tone poems and paintings entitled *Landscapes* and *Skyscrapers*, expressing the same ideas in both painting and music. How did the critics view this composite effort?

Alfred Frankenstein in the San Francisco Chronicle, wrote, "Serenity, clarity, richness of color, and strength of substance were the key note in *Landscapes*, and *Skyscrapers* added great excitement of rhythm, a grand gesture, a sense of the epical and the monumental."

The same concert brought these comments from another critic: "Leplin has developed into a composer of stature and substance. This was amply demonstrated last night when Enrique Jorda and the San Francisco Symphony played his *Landscapes* and *Skyscrapers*, a pair of pieces which demanded some concentration from the listener but which abundantly rewarded that small effort."



*Cantor Herbert Epstein and Composer Emanuel Leplin discuss the World Premiere of the composition on which Emanuel had worked for four years, Music for Festive Services.*

Opinion of Alexander Fried in the San Francisco Examiner: "Both works have craftsmanship and musical ideas that build into a large, consistent form. Their idiom is freely modern. They combine direct expressive impact with an overtone of broader vision."

Obviously the musically-knowledgeable critics are impressed with Emanuel Leplin. And what does the man who conducted the premiere of Leplin's *Symphony No. 1*, Enrique Jorda, think? Jorda says, "I am highly impressed with Mr. Leplin's first symphony. It is a very powerful work in that the themes are full of symphonic content. The whole structure of the symphony is splendidly put together."

These are marvelous tributes to Leplin's genius by musical experts. To that professional praise, the GAZETTE wishes to add its own acclaim to a respo of whom it is proud in more ways than one. The readers and staff of this magazine know how indescribably difficult it is to produce even a short letter with only a few muscles, let alone a symphony and full-scale choral composition, and so we extend a double amount of awe, respect, and honor to Emanuel Leplin.

This remarkable man will share the joy of acclaim with his wonderful family. The love of his wife, Anita, sustains and inspires him, and the progress of his sons, Jarrett and Sheldon, both college students, gives him great pride. Ω



Dr. Margaret Agerholm  
TJG sketch (Bob Tanton)

*Dr. Agerholm delivered the principal address at the Annual Conference of the Cheshire Homes Foundation at Manchester, England, in July, 1964. The major portion of this magnificently perceptive address is reprinted here with the permission of the author, the CHESHIRE SMILE, and the British Council for Rehabilitation of the Disabled.*

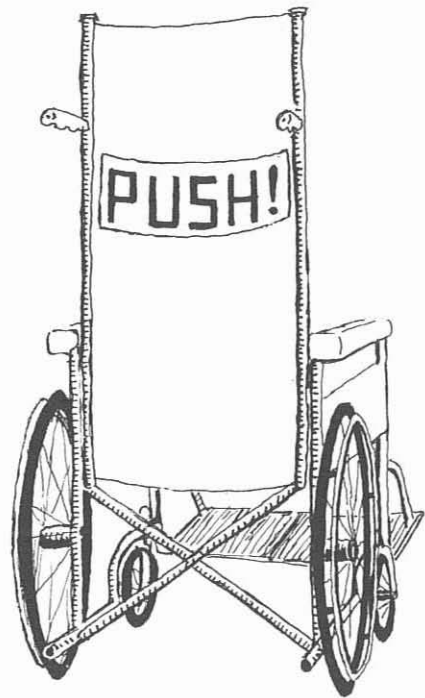
## HELPING THE DISABLED TO LIVE TO CAPACITY

by: **Dr Margaret Agerholm,**  
M.A., B.M., B.Ch. Oxon.

**F**irst, I should like to say that I feel this is a great honour and compliment to be asked to speak at your Annual Meeting. I very much appreciate being asked to come, as I have, with many other people, a tremendous admiration for your Foundation, and for what it is trying to do to help the sick and disabled members of the community. Particularly, I admire how it manages, unlike a number of other organisations, to stick to its original ideals, while at the same time showing great flexibility in their expression, and continual expansion. I, myself, have a great fear of "enlargement" in human affairs: its dangers have obviously been recognised, and so avoided, by this Foundation.

**I** have been in the rehabilitation field for thirteen years, and I am very aware of how much harder our work, and the lot of the disabled people with whom we have been concerned, would have been if your Foundation had not been there to answer our often quite desperate appeals for help. From Oxford must have come some of the loudest protests when the suggestion was made last year that there were already enough Cheshire Homes, and that the demand for your work was now satisfied! In fact, I believe that there is still an enormous undiscovered need of which we still know far too little. This need is like an iceberg--most of it out of sight.

*Continued*



I should like to use my time, first, by telling you briefly how I personally came into the rehabilitation field at all, because I think it explains the particular bias our work at Oxford developed over the years: then I would like to analyse, or rather classify, the "disabled," since I feel their great diversity necessitates some classification, before one can proceed to discussion of their needs and problems; finally, I should like to discuss the subject you have set me--viz. how to help the disabled to live to capacity.

I have to admit that I did not come into this field of rehabilitation with any set purpose, or any glowing ideal of helping the disabled live a fuller life. I was simply pushed into it by the disabled themselves, who found me in a useful position to serve their own ends, namely, doing "research" on poliomyelitis in an orthopaedic hospital. At that time, the severe epidemics of poliomyelitis, which had reached this country in 1947, had led to a tenfold increase in the number of new cases occurring every year. We were faced with an appalling accumulation of severely disabled, but still alert and enterprising, people, for whose problems standard rehabilitation practice was not always adequate. The higher age incidence and associated greater severity of the disease and the higher survival rate obtained by newer

and more successful methods of treatment in the acute stage, combined to make the rehabilitation problems of its victims more difficult of solution.

Many of these people had total paralysis of all four limbs as well as total paralysis of their respiratory muscles, and were therefore both helpless and dependent on breathing machines, which could themselves present difficult problems. But they came from some of the most active and resourceful sections of the population; young adults, often with young families dependent on them; they included sportsmen and pioneers of all kinds who had been attacked by the virus far from this country, particularly in Africa, and the Near, Middle and Far East, where they were soldiering, flying, sailing, engineering, mining and growing vast crops of tobacco, coffee and tea.

These were not the sort of people to take anything lying down, let alone lie down for the rest of their lives. They drove themselves mercilessly, and they drove their relatives, their nurses, their physiotherapists and their occupational therapists; they drove their doctors too. They would not consider dying, though they had very little left with which to keep alive; they would not stay in hospital; they would not take any form of "second-best;" they would not



take "no" for an answer from anyone. They would live, and they would leave hospital; they would take their respirators with them, if they could not live without them; above all, they would retain their right to choose their own risks, and, within their new limits, they would continue to live their lives to capacity. Indeed, many seemed determined to live fuller lives than they had thought of living before.

In the face of this enthusiasm we had no choice. The best rehabilitation ideas were usually theirs, and they worked out in incontrovertible detail their own practical solutions to their own practical problems. We had only to say "yes," to write letters asking for--sometimes insisting on--facilities for them, and to learn to manipulate the many permissive powers of the Welfare State--as they are intended to be manipulated--to the maximum advantage of its citizens.

In the end, of course, we became as enthusiastic as the patients who had so remorselessly impelled us, and were prepared to accept, with them, risks which were of their own carefully considered choosing. Indeed, I am convinced, as they are, that the mere fact of disability--that a person is disabled--does not give us the right to deprive him of his right to decide for himself what

risks and hardships are acceptable, and so continue to determine his own fate like his able-bodied fellows. If a severely disabled person does not want to live in a hospital, which is a safe but to him unacceptable background to life, but prefers to live more happily, though to some extent more dangerously, outside, then I believe that, if the immediate practical difficulties can be overcome, it is our duty to respect his wish and help him to take the course with the greater risk, which he feels offers the greater chance of happiness. Current medical and social practice tends to pay too much attention to mortality rates, and too little to the important but less easily measured "quality" of the life we help to prolong.

I should like to quote the story of a delightful Scot, a tobacco planter in Nigeria, who was totally paralysed by poliomyelitis in 1955 and spent nearly three years in our hospital. Throughout that time he was constantly planning how to restart his life outside, although with total paralysis of trunk and limbs and permanent dependence on a respirator, the difficulties and dangers would be much greater than if he stayed in hospital. Eventually he succeeded; he stole one of our best staff nurses to become his wife, and his firm bought him a bungalow in a village 10 miles away. Although he had not been out of

hospital since his transfer from Nigeria, his rejection of my suggestion of a ward-wedding was characteristically humorous and wholly crushing, and, sure enough, he had a church wedding (no second best for him and his wife) on the way home. When, after two years living happily at home, he died in his sleep, he left a spiritual vacuum not only in his immediate family, but amongst a wide circle of friends in and beyond the village in which they had settled. No one could doubt the "quality" of the life they had gained outside hospital had justified the risks he and his wife had taken to achieve it.

It was people like this who helped us to develop principles and standards of rehabilitation which have, I hope, helped us to help others since. But, in saying this, I must add that not all people can, or need, be as spiritually unconquerable as they; in some, through no fault of their own, the body may be a good deal stronger, and the spirit a good deal weaker. Nevertheless, the principles and standards we learnt remain as useful guides in the field of rehabilitation of the severely disabled.

This brings me, logically, to the second part of my talk, the "diversity" of the disabled. Most of you would, I believe, agree that too often the "dis-

Continued

abled" are talked about as if they are one group or type of people, whereas they are, of course, as diverse as the rest of the community, having only one feature in common, physical disability, which itself can take many diverse forms. They differ in the kind, and degree, of their disability; in age; in education; in social background; and in their virtues and vices. Indeed, a more diverse group can hardly be quoted. Some classification would therefore seem essential to avoid that shadowy figure, ageless, faceless and without physical or social characteristics, who otherwise haunts discussions on the welfare of "the disabled."

I am going to offer two classifications of the physically disabled which I find useful in my own work, both in analysing the problems of the individual, and in planning more general solutions to more general problems. These two classifications are not alternative, but complementary, and in my view are the minimum equipment with which one can work in this field. The first classification is of *types of disabled person* (which, as you will see, is really a combination of type of disability and type of person); it contains five categories which I denote by numbers 1-5:

Classification by Type of Disabled Person

1. *The young adult* who, having had an able-bodied upbringing, becomes disabled in a finite way. His condition will not deteriorate; he knows his disability, and can build up his life around it. Examples are teenagers and young adults who are disabled by poliomyelitis, or injuries to their spinal cord.

2. *The person disabled from birth or early childhood*, who has never known an able-bodied life, and has probably had "special" schooling (often, in the past, inadequate, but nowadays considerably improved). Examples of this group are children born with defects of their limbs or spinal cord, spastics and children affected early by rheumatic and related conditions. Members of this group often have great "hidden potential," and blossom wonderfully in a favourable environment.

3. *The person disabled in middle or old age*, who has less adaptability and incentive to adjust to his new disability. This group contains the hemiplegic, the rheumatoid, and a variety of degenerative and post-operative disabilities. They often reject anything but the simplest rehabilitation, feeling--often rightly--that they may not or do not wish to live much longer, and resenting their own poor performance in the rehabilitation tasks they are set. Such people are often best offered only strict-

ly utilitarian disabled-living rehabilitation to restore a measure of their independence and so their self-respect, while recognising their lesser resilience and tolerance of the fatigue from which so many of them suffer.

4. *Persons disabled by a progressive disability at any age*. Cases of disseminated sclerosis, and some muscular dystrophy and syringomyelia cases predominate in this group. Like the previous group, they sometimes suffer from too great rehabilitation enthusiasm. An essential preliminary is psychological adjustment, with acceptance, without resignation, of their disorder. This is of course not always easy. They should always be rehabilitated ahead of their disability, for it is unkind to teach them techniques and skills which they can only just manage to perform, since only too soon they will fail in these too as their disease progresses. Instead, they should be encouraged to do not what is difficult but what is easiest. Good arms are often better used in enjoying wheelchair independence while it is still easy enough to be a pleasure, instead of struggling to support their weight on crutches until in the end the arms are too weak even to give wheelchair freedom. We must always avoid rehabilitation for its own sake, but be prepared to look ahead in any programme to decide from the disabled's

own point of view whether, when he looks back, he will regard the efforts we recommended as having been worth-while or merely a tiresome distraction, and perhaps a waste of the time and effort which to him were too precious to waste in this way.

5. *A miscellaneous group (inevitably) of diverse disorders affecting the individuals at any age. In this group come people who have two or more lesser disorders not normally associated, and each of which interferes with the management of the other, though either could have been managed alone: also, those who, in spite of considerable disability, have for years lived successfully in a suitable environment provided by family and employment, and who only face a serious threat to their independence when age reduces their effort tolerance, or the environment itself breaks down.*

This classification has not dealt with severity of disability at all, and therefore it is necessary to have a second classification based on severity, as tested by impairment of independence. Again, there are five categories which I denote by letters A-E:

Classification by Degree of Disability (assessed by independence)

A. *People with severe disorders without severe disability, who in fact hardly*

*belong in the classification at all. Examples are people with one totally paralysed or amputated upper limb, or people with lower limb amputations fitted with satisfactory appliances. Their disorder is obviously considerable, but their disability is minimal; they retain their independence and considerable mobility, have still a wide choice of employment, and are precluded only from sports and more active employments.*

B. *People with considerable restriction on their activities, without actual loss of independence.* Examples are ambulant people with deformity and paralysis, wearing braces and calipers, and people with severe cardiac lesions. Such people find life slow and tiring; but they are independent, can earn their living, run their homes and take part in social life. Their biggest disability is, perhaps, the danger that some inter-current disease or a fall with a fracture and consequent immobilisation may increase it just enough to tip the balance against complete independence, and pass them into groups C or D.

C. *People who are so severely disabled that they retain their independence only in the right environment, in which they may be wholly independent, earn a wage, and run their home. In this group are the wheelchair users with useful upper limbs. Their wheels demand special*

*architecture at home and at work, and special transport facilities in between. Their architectural needs are of one-level living in the home and at work, with doors, passages, toilet and kitchen facilities of sufficient width for wheelchair manipulation. Their transport needs are met in this country by the Ministry of Health's powered tricycles and car modifications. With such architectural and transport facilities the disabled in this group are wholly independent: without them they must fall into groups D and E. One of the most rewarding exercises in the rehabilitation field is to help a disabled person to secure these facilities and so recover his independence, and dispense with our help.*

D. *People who are so severely disabled as to be "intermittently dependent" on the help of others.* People in this group usually have bilateral upper limb defects either alone, or combined with trunk and lower limb disorders; people with amputations, or severe congenital limb defects or deformities of the upper limbs; rheumatoid cases; polio; people with high spinal cord lesions, and muscular dystrophy cases. All these fall into this group because of their need for help with any of the following activities--getting on and off bed, toilet or chair; dressing, washing and bathing; eating and drinking; writing,

*Continued*

reading, drawing, etc.: using switches, cooking and cleaning the house. The lack of, at least, one good upper limb encroaches on the personal independence of even the most determined disabled person, while those with lesser upper limb disabilities may still require help with the housework and shopping. The "intermittence" of their independence puts these people into a borderline position. Many, in fact, manage to live for years, even for decades, by themselves, in their own rooms or flats, because a daughter or another relative, supplemented perhaps by neighbours, comes in to help for short periods at regular intervals through the day. Only when this minimum, but often very personal, help fails, does the disability become a social liability, and the individual finds himself compelled by it to enter an institution, whose full facilities he neither needs nor wants.

*E. People who are wholly dependent on others for most or all their daily living activities and perhaps for some nursing care, too.* In this group are those who cannot move their limbs because of severe stiffness or paralysis, and those whose locomotor disabilities are complicated by problems of incontinence, colostomies, tracheostomies etc., or who are wholly or partly dependent on respirators. For these people, too, it is surprising how much independence

can be regained by the provision of the most suitable equipment (including the recent "control boxes," which enable them to control any number of electrical devices through one movement only), and by good "time and motion" study of their routine care. A former land agent I know, who is totally paralysed by poliomyelitis and dependent on a respirator, likes to have three or four hours without interruption, so that he can get on with his writing on an electric typewriter with a mouth-stick, leaving his attendant free for other duties in the house.

I have now offered two different but complementary classifications of the "disabled"--by type of disabled person, and by degree of disability as assessed by loss of independence. I hope they may prove useful as a shorthand guide to this large and diverse group of people. It is now time I passed to the real subject of this talk--"Helping the disabled to live to capacity." But still one more preliminary remark is needed. I am concerned only with those who wish for "capacity living." Some people will undoubtedly prefer to be left alone to enjoy their own thoughts without visible activity, and their choice should be respected. Inactivity and contemplation are highly respected virtues in some civilisations!

There are, I believe, two basic essentials for successful "capacity living." 1, Streamlining daily living and all "care" activities so that these take up the minimum time and effort; 2, A social background as private and as flexible as possible in order to ensure maximum individual choice of activity, and its distribution through the day.

Daily living activities and general care of the disabled are streamlined by improving the techniques and equipment used. The attendants of the disabled, nurses, physiotherapists, occupational therapists etc. have an important duty to keep up-to-date with disabled living techniques. Quite simple techniques, requiring little or no equipment, can often restore some independence, e.g. for getting on and off a bed or for feeding.

In the matter of equipment, we have, I hope, now passed the stage when the mention of equipment inevitably elicited head-shaking and murmurs of "expense," with stories of unsuitable "gadgets." The expense of a piece of equipment can be assessed, not by finding its price, but by considering whether it will pay its way financially, e.g. by reducing staff requirements, which are one of the major overhead expenses in the care of the sick and disabled. I can think of equipment which costs several hundred pounds but which, by reducing the de-

mands on staff, will have already paid its way after only a few months.

Finally, the background against which disabled people can best carry on their lives must be considered, for if it is uncongenial, full capacity will certainly not be attained. The severely disabled need primarily two conditions, both of which your Cheshire Foundation offers--security and care. But we know that in accepting these, however gratefully, in a residential community, they only too often feel they are giving up two other conditions which they also value highly--privacy and integration with the able-bodied community.

In the context of privacy, one can only say that the mental wear and tear of permanent life in an institution can probably only be fully appreciated by those who have experienced it with all the disadvantages of physical dependence preventing even brief physical escape. So many people have expressed this to me that I feel bound to voice it here, even though I am well aware that there are good practical--usually financial--reasons for the loss of privacy. The need to get away from the crowd sometimes; not to eat every meal in company, even not to eat every meal; to read, write, paint, etc. without interruption, and to be able to leave books, papers, etc. undisturbed and un-

scrutinised until one's return--the need, in fact, for privacy--is a recurring theme when the disabled discuss their own views on institutional care, and would seem to merit serious consideration in future planning. I certainly believe that one communal meal a day is enough for any group of people living permanently together!

In the context of integration with the able-bodied community, I should like to state my own belief that the able-bodied need their disabled fellows as much as the disabled need them, and that no community that removes from its midst, and then largely ignores, its disabled, elderly and orphaned members, can successfully thrive. This belief was strengthened recently by the depressing series of articles on "Loneliness" published by the "Observer" about a year ago. In it, disabilities of the able-bodied, without family or friendship commitments, were vividly described, and the need for their integration into the community stressed. Provision of accommodation for such able-bodied folk without dependents and disabled folk without independence under the same roof might solve the problems for both groups and so restore greater health to the community as a whole.

In fact, such a solution has in a way been tried--with considerable success--

in Copenhagen, where a special block of single and family units, with special facilities for the disabled, was built to accommodate disabled and able individuals or families, in the proportion of one disabled to two able tenants. Both the able, and all the disabled who can, go out to employment as from any other block of flats, but in addition there are special facilities for those who require communal social life within the building, and "room service," canteen and personal attendance on an "intermittent" basis as required. In this way, security, care, privacy and integration with the community are obtained for the disabled, while the "lonely," taking single room accommodation, will soon get drawn into the community by its social activities, and so acquire their integration and correct their own equally distressing and real disability--lack of family and dependents with whom to take their recreation when they return from their day's work.

My suggested solution may not be the right one, but I do believe that we shall be on the right track if we aim to add privacy and integration with the community to the other conditions which the Cheshire Foundation Homes already offer to the disabled.      Ω

Dr. Agerholm's address: Banstead Rehabilitation Centre, Banstead Place, Banstead, Surrey, England.



*Dave and Grace Sandness and their two adopted Korean daughters, four people with love to give who got together in a way that other handicapped, childless parents might wish to imitate. Their address: 3506 7th Ave. North, Grand Forks, North Dakota.*

## *Want to Build a Family ?*

*By Donna McGwinn  
(respo) Ohio*

Jennifer Joy finally arrived! and the Sandness family has one more member.

The growth of this family makes a warm and unique story that will interest other potential parents whose physical handicaps might make it difficult to adopt children through state agencies. These two enchanting little girls were adopted by Grace and Dave Sandness through the Harry Holt Adoption Agency. Grace has been a respo since 1950. She met her husband through ham radio and they were married in 1958. Dave is staff psychologist in the Rehabilitation Unit of the University of North Dakota Medical School, and he is now completing work on his doctorate degree.

The Holt Agency is operated in Korea by an American couple who themselves adopted eight Korean-American war orphans. Grace and Dave made application through this agency in December, 1962. Their home was then investigated by an independent home study agency, and they submitted the required letters of recommendation, pictures, etc., and completed many legal papers.

Cynthia Lee, their first child, was adopted in the Korean courts, with the understanding that after six months she would be re-adopted in United States courts. The U.S. Immigration Service supplied Cynthia's visa, and she flew to her new parents on May 5.

There were of course language difficulties, but these and all other adjustments were handled through the language of love. Love, by the way, seems to be the main criterion of the Holt Agency for prospective parents.

A year and a half later, Cynthia had a little sister, Jennifer, who also found her way into the Sandness family via the Holt Agency. This happy, even-tempered little girl found it much easier to adjust with the assistance of her experienced, affectionate older sister.

An interesting fact of this delightful story of the growth of a family, is that both of the Sandness girls have physical handicaps. There are a number of such children listed in the Holt Agency, but unless parents request them, they are not given out for adoption.

The Sandnesses live a normal, exceptionally happy family life. Four people with love to give all got together in a way that other handicapped, childless parents might wish to imitate. Ω



*Two little Koreans happily transplanted to North Dakota: Cynthia, who will be "seben" in May, and Jennifer, 4, her new little sister.*

## ...SUMMER WEDDING

by Donna McGwin  
(respo) Ohio



It was a perfect, warm and sunny day in the late summer of 1964. The beautiful old church in East Claridon, Ohio was filled to standing room as 300 people waited to witness the wedding ceremony between Carol Kneebusch McIntyre and Richard Vaccariello. I do not think mine was the only throat that had a lump in it as this beautiful bride was escorted down the aisle by her brother, Carl. The admiration was not only for her beauty, but for her many accomplishments.

Carol became a respiratory polio in 1953. While gaining her independence from the iron lung and learning to use one arm and hand, Carol's hospital time was also used to complete high school, and she graduated 4th in a class of 317. Still almost totally paralyzed, she went on to Baldwin-Wallace College, where she majored in speech therapy. After graduating from B-W, she married and gave birth to a daughter, Maureen.

Her education continued and Carol obtained her master's degree from Ohio University. She then utilized her training

by working with aphasic children at the Akron Hearing and Speech Center. Carol's first marriage ended during this period, and she made the decision to begin her doctorate study. Scholarships were obtained and she made arrangements to enter the University of Denver.

Richard had been a family friend for two years when he asked Carol to become his wife. He is a fine, high humored, articulate man, a perfect mate for Carol, who possesses the same attributes.

The reception was held in the church, and the happy couple collected hundreds of best wishes to carry with them to Denver.

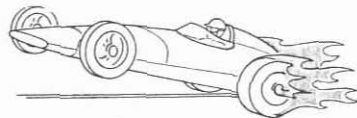
Richard is now working for an automotive firm, while Carol works nearer the goal of a Ph.D. Last reports had Carol earning an A average, as Richard and Maureen gallivanted around Denver attending such events as an ice cream social at the church. Carol's mother lives nearby and helps the Vaccariello family. A splendid family started on that summer day, and continues to live happily ever after.     Ω



**S**LOT RACING is quickly becoming the latest indoor sports craze. Recently in England a twenty-four hour Grande Prix was held. Teams, consisting of five members, raced nonstop for twenty-four gruelling hours. Racing clubs and tracks for competition are appearing all over the United States and England.

The big "thing" that attracts most enthusiasts is the designing and building of cars. Hundreds of motors, gears, bodies, chassis, and axles can be assembled to make untold numbers of automobiles. Designing one's own track layout or configuration, adding realistic scenery, and, of course, the fun and excitement of competition are other reasons for its growing popularity.

Basically, slot racing consists of the cars, the track, the power supply, and the means for controlling the cars. Since most of us aren't able to design our own cars or build our own track, let us concern ourselves with the pre-made or "for the family to assemble" kits. In these kits come all the necessary items to begin racing: a certain amount of track, two cars, a power pack, and controls for each car. These complete kits cost from \$20 on up and they can be ordered by mail from Sears & Roebuck, Montgomery Ward, and many other places. The best idea is to purchase the basic kit and then add more cars, track and accessories as you wish.



## SLOT RACING

by Ron Perry  
(C4-5 quad) New York

The most popular scales or gauges for cars and track are 1/24, 1/25, 1/32, and 1/87 or HO, of the actual size. The 1/24, 1/25, and 1/32 scales have cars that are 5" to 7" long with track in the appropriate sizes. The 1/87 or HO scale cars are 2" to 2½" long and again with track in appropriate size. Track can be purchased in individual sections in any scale: HO for example, comes in 9", 7", 6" and 5" straights and 12", 9" and 6" corners of 45° and 90°. Prices for individual cars and track sections range from \$2.50 to \$10 for cars and 59¢ to \$3 for track.

Of course, the big "thing" for us is controlling the cars. One suggestion for those who can use their feet, is to disconnect the original control and at-

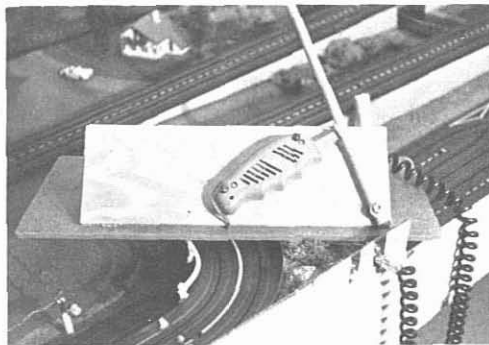
tach a sewing machine foot pedal in its place. Many normal people are doing this because it feels like real racing. For those who can use their arms I suggest the method I use (see picture #4). I am sure, however, that with all the controls available everyone who really wants to can arrange something workable.

Now the question arises as to where am I going to put this maze of track, wires, cars, and controls. Usually the track is permanently mounted on 1/4" or 1/2" thick plywood sheets. The best idea, if possible, is to add legs to the plywood and make a table-like arrangement. The popular table sizes are 4' x 4' or 4' x 8'. Anything bigger, unless you have extra room, becomes impossible simply because of its size.

One word of suggestion, I think, is now due. The larger scales, that is, 1/24, 1/25, and 1/32, do not permit a large amount of track in a small area, say 4' x 8': HO or 1/87, on the other hand, does. Also, HO cars are lighter and easier to handle and the cost of HO cars, tracks, controls, and accessories is less compared to the larger scales.

There is a very good, monthly magazine devoted entirely to slot racing. It gives the latest information about new products and it keeps up with the slot racing world and all of its followers. The magazine's name is MODEL CAR & TRACK; its editor is Spencer Murray. The publisher is Delta Magazine, Inc., 171 South Barrington Pl., West Los Angeles 49, California. The annual subscription rates are \$5 for the U.S. and possessions and \$6 for Canada and foreign countries.

There are many other aspects of slot racing that I have not covered, such as special track sections, table construction, layout lighting, drag racing, wiring techniques, maintenance of cars and track, lap counters and timers, racing rules, etc. So, if anyone would like information on these things or is just plain interested in slot racing, why not contact me at RD #1, Glen Ave., Fishkill, N.Y.     Ω



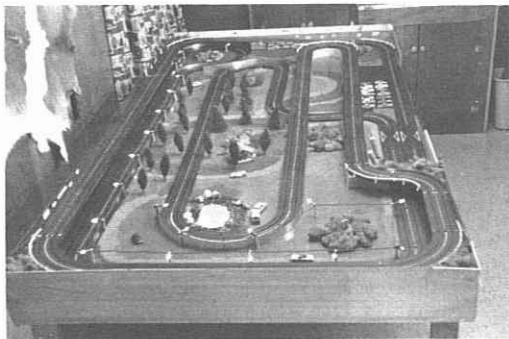
#1

*#1-This is the control I use. The base is 1/4" masonite. At roughly 45° to the base is another 1/4" piece in which the control is mounted. It is a standard Atlas control with holes drilled in it for mounting. The stick on the right enables me to push down on the control for more or less electricity, thus more or less speed on the car. This whole thing is connected to telephone cable and then to the power pack. #2-Guess who? no, it's not Stirling Moss, just me about to go off the track. Usually I keep the control on my lap, but this made a better picture.*



#2

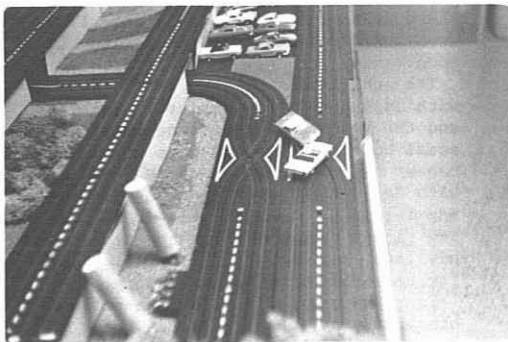
#3-This is the complete layout. The table is 4' x 8' which takes up a considerable amount of space in my 10' x 24' room. There is more than 72' of track laid out on the table. Two cars can be raced at the same time, one in each slot, two slots per track. #4-Just thought I would watch Dad about to go off the track which he did. #5-Well even Stirling Moss crashed once in awhile. As you can see, those crossover sections are murder. The cars can be raced in the same direction, for example, one coming toward you, and the other going away from you. This is accomplished by the dowel covered toggle switches on the left of the picture. One switch controls which direction one car will go and the other switch controls which direction the other car will go. Pretty fancy, Huh!! The control switch for turning off or on the power pack can be seen in picture #4. It is located by the arrow. We have a dowel cover for it, but it is so long we took it off for the picture. Sorry I did it now.



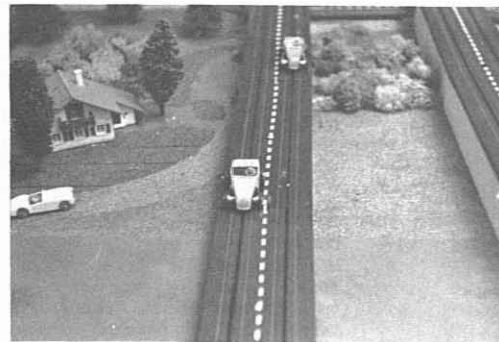
#3.



#4



#5



#6

# GAZETTE



## BOOKSHELF

### About the Reviewer . . .



DONNA MCGWINN

*Miss McGwinn has been a respo since 1953. She studied the art of writing by a correspondence course from the University of Chicago and has had articles and stories published in national magazines.*

NOT TO DOUBT  
by: Richard Chaput

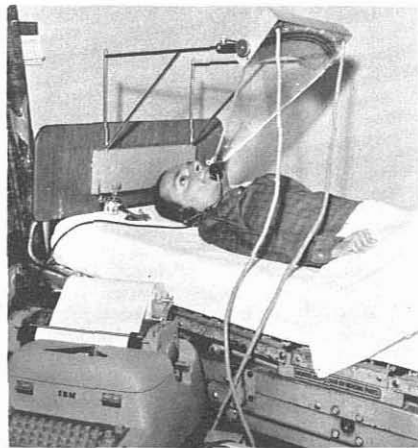
1964. 130 pg. Pageant Press, Inc., 101 Fifth Ave., New York, N.Y. 10003. \$2.75

**T**HE spiritual search for meaning is often born of suffering, pain, and loneliness, and is always a unique experience. Every person finds his own way to accept life, but some work harder than others in the effort. Such a person is Richard Chaput.

This book is the autobiography of Richard's life since his body was captured and immobilized by polio. Fortunately, his spirit was not also paralyzed, but grew livelier, striking out in wonder, question, and rebellion at the stilling of its physical home. Each phase of spiritual growth is described, from childhood to adolescence to manhood.

The childhood period is concerned with adjusting to complete paralysis and the terrors of iron lung and impersonal hospital life with its never-permanent relationships. Richard's contact with God during this time is the praying inspired by sound religious training rather than an honest questioning of his fate. At this time he still hopes for restoration of a normal body.

Four years of hospital life persuade him that that institution is to be his permanent home. Proof of his spirit during these years was his direction of mischievous plots. A favorite prank was



*Richard Chaput, a gifted writer, uses a tongue-operated "slave" typewriter.*

to place a cup of chocolate milk over the door, with a string tied from cup handle to doorknob, and then call for the nurse.

But Richard's hospital years end along with his childhood, and adolescence is experienced in a nursing home. The teen years are painful for everyone, but incredibly more so when endured in an environment permeated with the discouragement of senility. Besides dismal surroundings, there is the bitterness of envy when Richard's brother and others are dating and having fun, a left-out feeling well known by all young paralytics. During this time of futile yearning, Richard clings ever more tightly to the hope of being cured.

Gradually, however, he learns to accept his condition of total paralysis and partial dependence on the iron lung. But never is the acceptance more difficult than when he feels love. There is no agony comparable to that of loving without the joy of physical expression. Richard's cry at that torment was, "How could God give a man such a great gift of love with no possibility of sharing it?" It is an agonizing frustration suffered by all who are physically paralyzed.

To help him through his two hells of love are a therapist, Sister John, and the chaplain who was professor of theology at a nearby college. Both people who had chosen lives of celibacy, they were able to share their own personal philosophies of acceptance.

Throughout the book, Richard tells of others he meets and from whom he learns more about life. He realizes that despair is known not by himself alone, but by every other living being. There are some people who, when they begin to understand and accept life, no longer tiptoe through it miserable with fear and doubt, but lift their heads and march with bold, vigorous tread. This is Richard's accomplishment. He observes, "No matter how disadvantageous you may consider your situation, the wonder of living can be experienced."

Richard begins to write, and how gifted he is can be evidenced by this book. He participates in a club for the handicapped, there to demonstrate another talent--singing. He goes tobogganing,

plane and speedboat riding, and to the racetracks. His friendships are broadened through tape correspondence.

This is not a book of joyous discovery. It is a hard, struggling journey, and although Richard Chaput concludes, "After many years of frustrating search I have finally grasped the meaning of life, of love and of sacrifice," the reader knows the author's spiritual search and trials will continue. Richard himself knows it, for the title of the book comes from the last sentence, "Please, God, help me not to doubt."

#### THE RAGING MOON

by: Peter Marshall

1964. 223 pg. Hutchinson & Co., 178-202 Great Portland St., London, W1. 21s. From U.S., send check for \$3.25

**T**HIS is a love story.

And it's about time somebody wrote a good, realistic love story about wheelchair lovers. They do love and make love, you know. Peter Marshall, bless him, reminds the disabled, of which he is one, that they are men and women, and therefore rightly responsive to and deserving of the glorious surges and gratifications of love and sex. If any reader has succumbed to the unfortunately too prevalent belief that physically handicapped people should not indulge in the sensuous pleasures of life, let him be joyously revived by this book.

The title is inspired by a Dylan Thom-



Photograph by SHEFFIELD TELEGRAPH

Peter Marshall—"has created a poetic, realistic story of wheelchair lovers."

as poem wherein that poet declares for whom he writes, "Not for the proud man apart from the raging moon....but for the lovers, their arms round the grief of the ages." Thomas's people are susceptible to the night pull of the moon in their blood, and the two main characters in this book are definitely susceptible and eager.

The reader is allowed to share the normal lives of Bruce and Annette before they are disabled. Bruce is from lower-class England, a passionate, perceptive young man who seizes life without fear or illusion, all the while setting it down in the words that are so necessary to a writer, which Bruce is. Annette is an intelligent, restless girl from the better English suburbs, who plans to be a doctor. In Annette's

*Continued*

first year and bringing it up to \$5000 yearly. After their daughter, Lorie, was born, they moved to their own home. They became active in a nearby church, in which softball and basketball teams were formed with Roger as coach.

Church activity is a main part of the Winter's life, which is happy and full. Roger says, "I didn't like polio when it upset my nice neat world, and I'm still not free from its physical effects on me. Yet I am no longer handicapped, for my wheelchair has become a pulpit and my life has found joy and usefulness because Jesus has set me free. For me, this was a pretty important 'point after touchdown'."

A good book of spiritual doors being opened after physical ones have closed.

THE MAN WHO HAD EVERYTHING

by: Donald M. Murray

1964. 320 pg. *New American Library*, 507 Madison Ave., New York 10022. \$4.95

**T**HIS book makes quite an impact. And that would considerably understate its effect.

It is almost too incisive a look into a man's soul to be bearable.

Brad Hastings is the man who has everything, the best background, the best education, the best wife, home, and social position. He is virile, charming, and vigorous, a man who excels in athletics, strength, and sex appeal. So perfect is he that his wife, Bets, some-

times resents him and attempts to aggravate him into anger, a reaction that would prove him to be only as human as everyone else. Her envy is shared by a friend of Brad's, Dr. Irving Frank, who continually marvels at his acceptance by a man who has all the things he himself has always wanted.

Then the perfection and envy are shattered. Brad's neck is broken by a backsliding car he has just helped to lift out of the mud. Within seconds he is no longer the man who has everything, but a helpless quadriplegic. Most of the readers of this magazine will find the rest of the story familiar reading from personal experience, but perhaps they never knew exactly how they felt until they read this description of the feelings and attitude of a severely handicapped person.

Gustave Flaubert believed that the remote, objective position is the best from which to write of any human condition. Donald Murray's book verifies that belief. Mr. Murray has never been physically handicapped, having instead acquired his knowledge by childhood exposure to a handicapped relative. Yet so sensitive, so understanding, so empathetic, and so true is his depiction of the horizontal, immobile position that one can only marvel at the author's total immersion into the body of another human being. There is all the despair, the indignity, the frustration, the apathy, the cruelty, the abandonment, the hurt, the hatred, the bitterness, and then, yes, even the

hope, of all who have permanently lost the use of some part of their body. Every detail and emotion is carved in cold, unsoftened language.

This book is icy with irony. Dr. Frank, Brad's envious friend, now has everything that Brad wants. He has health, that marvelous physical independence, and through his role as friend and doctor, he also has Brad's wife. The man who had everything now has nothing. Brad no longer has the perfect body with whose feats and beauty people were invariably impressed, nor with which to earn the money that brought all the people and possessions he had valued such a short time before. And Bets now has a quadriplegic to care for instead of a perfect husband to join in active living, and forever the inescapable knowledge of her own unfaithfulness. Mr. Murray spares no one. Sentimentality and false nobility lend no sweet illusion to this book. As stated before, the book is icy, not refreshingly so, but uncomfortably, penetratingly icy.

One of the most meaningful relationships of Brad's hospital stay is that with a man dying of cancer, Casey. There should be, and there probably is, one such powerful influence in every physically afflicted person's life. Never has a story character been so alive as Casey. You will gripe with him, agonize with him, and triumph in his final victory. Casey alone would make the book worthwhile.

It is a magnificent teardrop of life. An absolute must for every TjG reader. Ω

## SOCIAL SECURITY

A summary of the laws relating to disability benefits and the experiences of two severely disabled readers who earned their credits after being disabled.

### S U M M A R Y

*A self employed person carrying on a trade or business from which his net income for any taxable year is at least \$400.00 may become insured under Social Security - and upon application may possibly be eligible for disability benefits once he has acquired a sufficient number of quarters of coverage (20 of 40 quarters) credited to his Social Security account. In general, disability means the inability to engage in any substantial gainful activity by reason of any physical impairment which can be expected to be of long continued and indefinite duration.*

*Net earnings for the taxable year must be reported on Form 1040, U. S. Individual Income Tax Return. And, if the minimum of \$400.00 has been earned in prior years but not reported and paid, the earnings record may be corrected on the basis of a request made at any time up to three years, three months and fifteen days after the year in which this self employment income was derived.*

*Self employed persons should get in touch with the nearest Social Security office. Delay could cause loss of benefits.*

\* \* \* \* \*

A CHANGE IN SOCIAL SECURITY -- In October, 1964, President Johnson signed into law (P.L. 88-650) Social Security amendments, one of which removes a restriction on the retroactivity of applications for disability insurance benefits. Previously, disabled workers who did not apply for disability insurance benefits until after June 30, 1962, were ineligible for more than 18 months of retroactive benefits, or were eligible for only reduced amounts. Severely disabled workers who worked under Social Security for at least five (5) out of the ten (10) years before they became disabled, but who have not yet applied for Social Security disability insurance benefits, should get in touch with the nearest Social Security office.

### TWO SEVERELY DISABLED READERS WHO EARNED THEIR CREDITS AFTER BEING DISABLED

I now get \$67 a month from the credits accrued since coming home from the hospital. During these 7 years I made abstracts for Western Reserve University and the American Society for Metals. They took the Social Security out of my pay before they sent it to me... Last fall I wrote to the Social Security office. They sent an application blank, which I filled out and returned. A few weeks later a fellow came around, filled out some more forms and asked permission for my doctor to give them a medical history. That was all there was to it... Some years my wages had come to more than \$1,200 and the fellow said if it had not been for the fact that I had to do the work in a sort of sheltered workshop situation in which I required someone to assist me, the wages might have disqualified me as being able to do substantial gainful work. Of course, since I am a respo, I often spent most of my wages to hire someone to help me with my work..... The fellow from the Social Security office told me that I could continue to work as long as I didn't make wages higher than those I had been making... I shall be glad to answer any questions other readers may have... Albert Holloway, Rte 1, Hanoverton, Ohio.

If I had known that a handicapped person can earn Social Security credits, I could have been drawing payments for the past year or more, for I have been earning over \$400 for the past 5 years. It makes me a bit angry to realize how often I wrote to our Social Security office only to get the same run-around. Finally, a friend went for me and one dear woman there listened to all the facts and was amazed that I had not done it sooner... First I listed my writing and painting earnings for the past years. Then my expenses. I filled out income tax forms 1040 for the past years... I paid the back 3 years plus '64--the amount for each year was from \$19 to \$22. I will pay for '65 in January 1966 and then apply. They will check out my record--ask my doctor to fill out a form (I am a polio quad)--and it should be only a few weeks until my checks start coming. It all seems simple once you catch on!

Jane Comstock, the Comstock Lode, Sparks, Oklahoma 74869.

Ω

# HOME EMPLOYMENT...how to get it...how to keep it!

by A Vertical Businessman

**Y**ou can definitely obtain home employment if you have the grit and determination to go after it. Other TjG articles have dealt with various forms of work that can be done profitably from the home. Your own imagination and knowledge of your talents can supply many more. Here we'll discuss various tips that might help you obtain such employment and be successful in it.

**F**irst let's take the letter of application. If you can type it, by all means do so. Avoid small, easily misplaced note - sheets about 4x5" and try to use business-like 8x10:. If you type, write or have the letter written, put your best foot forward by all means. Through the neatness, punctuation and grammar in this letter, your prospective employer will get his first look at you. Be sure you present an orderly, well-groomed appearance.

In formulating the letter, do as the song says and "accentuate the positive, eliminate the negative". Avoid saying you can't do this or that, and merely make plain statements of fact about what you can do. The man reading the letter is only interested in your ability to type, not that you type with a mouthstick; he wants to know you can accomplish certain results by phone, not in learning how you manage to phone or who will phone for you. There is nothing dishonest in this approach.

You are selling your services in your letter, and no salesman of any commodity stresses the negative aspects of his product, whether it be cars, houses, soaps or frozen foods.

**A**nother means of initial contact is the letter of inquiry you may receive from a prospective employer asking if you would be interested in some manner of employment. Now of course there are some unscrupulous characters sending out this type of letter. And of course some of you have been burnt unpleasantly in the past in just this manner. But don't let this fact prejudice you against the multitude of honest businessmen who may be able to use your special talents. If you feel you must be especially cautious because of past experiences, grant the new prospect the old American concept of being innocent until proven guilty and avoid any element of distrust seeping into your communications. Nothing can repel an honest offer more quickly or effectively. By not over-extending yourself initially, you cannot suffer any severe damage. And it is better that you should be taken advantage of in slight degree a number of times than rebuff one particular offer that may be just right for you through supercaution.

When you perform work, especially for a new employer, and a check doesn't arrive immediately on time, merely send

a polite reminder. Avoid any inference that this is another instance of skulduggery. In all probability, the matter has just been laid aside in the multitude of details every business encounters daily. If the polite note doesn't bring results, a second note a little sterner in tone would be in order. If you still don't obtain payment, it's time to start getting tough.

**O**nce you land a job, be prompt and reliable and above all, be brief. Restrict your communications to essentials. Most businessmen operate under a crushing work load. Keep your words to a minimum furnishing all necessary information in a crisp, clear manner, but omitting all excess verbiage.

**A**bove all, have confidence in yourself and the fact that you can do many jobs as well as if not better than anyone else. If it were generally recognized what fine heads most quads and respos have and the greater degree of conscientious application they command, their services would be more actively sought after. Until that time, realize you have a valuable commodity, your time and services, and there is a great demand for this commodity. Locate that demand and sell your services. Again as the song says, "You can do it if you try". Following the above tips should make success come faster and easier. Ω



## What's New In Housing for Disabled in the U.S.A. ?

PUBLIC LAW 88-560 HOUSING ACT OF 1964

"The Housing Act of 1964, signed by President Johnson in September, is potentially one of the most significant bills enacted by the 88th Congress in behalf of disabled people," wrote Miss Mary E. Switzer, Commissioner of Vocational Rehabilitation, in *Rehabilitation Record*, Sept-Oct. 1964, pages 37-40. We enthusiastically recommend this excellent article to all who are planning housing for the disabled.

The following excerpts illustrate the clarity and breadth of Miss Switzer's approach to this housing problem:

"The bill represents the bare bones of a program. It is the job of the HHFA and its component agencies and local housing authorities to administer the legislation so as to carry out the letter and intent of the Congress. The Housing Administrator already has sought information and guidance from many agencies which deal with the handicapped and are familiar with other types of housing, such as that for disabled veterans.

"As these discussions proceed, we in VRA shall reflect our best experience to those who are responsible for admin-

istrating the program. We shall urge, for example, that the authority in the law be considered a mandate to provide to the handicapped the advantages of all special housing for the aged, housing for the low-income group, and all other types of housing for which the new law provides eligibility, without requiring or forbidding them to utilize this or that type of public housing.

"We believe that the handicapped family or individual can and will choose, within his means and way of life, the best housing for himself and his family. We are against 'colonies' of the handicapped except in experiments to test the validity of such a housing arrangement. We are in favor of experimentation under this legislation. The Congress and concerned individuals looking to the future want to know how different housing plans and groupings will work. This can be accomplished by well planned experimentation that will winnow out the good from the bad.

"We have not reached a conclusion about the percentage of units that should be set aside in ordinary public housing for the exclusive use of handicapped individuals or families. We think it should not exceed 10 or 15 percent.

We do not know for sure that all or most of the handicapped want to live with groups similar to their own. But neither should we preclude this in a program that is experimental. So, too, should the needs and wishes of the locality, as well as the experience and objectives of the local sponsoring group, be taken into consideration.

"We see the advantage of permitting sponsors to incorporate supplemental facilities into multiunit housing. Such units as dining halls, community rooms, hobby workshops, and small health facilities are advantageous. Indeed, if properly planned and administered, they might well contribute to improved health and vocational rehabilitation for handicapped and elderly persons.

"We shall urge that the HHFA and local sponsoring agencies consider the handicapped and the definition of eligibility in such a way as to carry out the intent of the Congress to recognize the special plight of such persons and families. If a person or local group wants to get more information about the senior citizen and the handicapped housing programs, we suggest they write to: Sidney Spector, Assistant Administrator HHFA, Washington, D.C., 20410. In addition, information may be obtained from the HHFA and PHA regional offices and from the FHA field offices."

PUBLIC HOUSING

SEATTLE, WASHINGTON

In July, 1964, the Federal Housing and Home Finance Agency approved a loan of \$2,228,793 to the Seattle Housing Authority to construct 150 new living units for low-income handicapped persons.

This is the culmination of the plans of the Seattle Handicapped Club, which will be an integral part of the six- or seven-story apartment.

Additional information may be secured from Mr. Charles Ross, Executive Director, Seattle Housing Authority, 825 Yesler, Seattle, Washington 98104.

TOLEDO, OHIO

The Toledo Metropolitan Housing Authority secured approval of the Public Housing Administration for the construction of rental housing for low-income, elderly and physically handicapped persons. Tentative plans call for a nine-story medium high-rise with 150 units located in a downtown urban renewal area. The units will range from efficiency to two-bedroom apartments. There will also be a number of dormitory-type rooms to house single handicapped students attending the University and/or participating in various occupational rehabilitation and retraining programs. Completion is scheduled for March, 1966.

Additional information may be secured from Mr. Leon A. Pastalan, Director of Research, Toledo Metropolitan Housing Authority, 398-400 Nebraska Avenue, Toledo 2, Ohio.

PRIVATE: IN OPERATION

CHRISTIAN LEAGUE FOR THE HANDICAPPED in Wisconsin started with a small home in 1954. A new building was completed in 1964, and is now being occupied. This "Occupational Home" is planned for 100 disabled residents, including single and double rooms and apartments, as well as a work shop and gift shop. Rates are about \$125 per month. Residents are chosen by a committee. Funds were raised by pledges from its nationwide chapters. For brochures: Mr. C. E. Pederson, Box 218, Walworth, Wisconsin.

FREEDOM GARDENS FOR THE HANDICAPPED in New York is operated by the handicapped residents who sold used clothing and household goods to raise money for purchasing the land and cottages. Residents include a muscular dystrophy and several cerebral-palsied. There are quarters for about 20 disabled now ready. Rates are based on the amount of care required. Complete attendant care costs about \$280 per month. For brochure and application: Miss Lillian Petock, Freedom Gardens, Inc., Strawberry Rd., Lake Mohegan, New York.

PRIVATELY OWNED MOTEL in California is geared only to the less severely disabled who need a minimum of care. Rates per month: \$195 for private room and \$150 for a semiprivate, including meals and a heated swimming pool. Brochures: Mr. W. H. Manor, 1400 No. Mt. Vernon, San Bernardino, California.

PRIVATE: IN PLANNING

NEW HORIZONS, INC. in Connecticut was organized by a group of hospitalized severely disabled, led by a respo. They have been working since 1955 to raise money to establish a residential community. In 1964 they acquired a 23 acre site for \$55,000. They envision a center for 30 to 60 able-minded disabled, with a central residence, ranch style homes for families, gift shop, auditorium and pool. Residents would participate actively in the management. Emphasis would be on productive living. For information, write: New Horizons, Inc., New Britain, Connecticut.

INDOOR SPORTS' HOSPITALITY HOUSE - Over \$5,000 has been collected by the Indoor Sports Club, a national handicapped organization, towards a Home. Chairman: Mabel Neibes, 1034 Molino Ave., Long Beach 4, California.

UNITED CEREBRAL PALSY OF PENNSYLVANIA is exploring the possibility of a resident care facility for a small number of totally handicapped cerebral-palsied young adults. For information, write: Mr. Leslie D. Park, Executive Director, 1719 North Front Street, Harrisburg, Pennsylvania 17102.

MINNESOTA SOCIETY FOR CRIPPLED CHILDREN AND ADULTS has outlined tentative plans for a "Residential Vocational Activity Center." Residents would number about 40, have varied physical disabilities,

*Continued*

normal intelligence and emotional stability, and range in age from 18 to 45. Vocational, cultural, and recreational activities would be developed. For information, write: Mr. W. B. Schoenbohm, Executive Director, 2004 Lyndale Ave. South, Minneapolis, Minnesota 55405.

THREE AGENCIES IN LOS ANGELES COUNTY, SPASTIC CHILDREN'S FOUNDATION, CRIPPLED CHILDREN'S SOCIETY AND UNITED CEREBRAL PALSY ASSOCIATION, with the active participation of potential residents, are exploring the establishment of a residential facility for physically handicapped adults of normal mentality. Residents would be over 18 and so severely disabled that they require help with their daily living activities. Cottage-type facilities, with central dining, would provide care for 40 permanent and 8 emergency or vacation residents. Location would be in an urban community to utilize existing vocational, religious, educational, and recreational facilities. Potential residents stress three basic needs: need for privacy, need for independence, and need to be treated as an individual. For information, write: Mr. James I. Martin, Publicity Committee, 1441 West 87th Street Los Angeles, California 90047.

FRIENDSHIP CLUB, a social club for the handicapped, is planning to expand to a residential center. For information, write: Marilyn W. Woods, Natl. Pres., National Association of the Physically Handicapped, Inc., So. Merrimack, N.H.

FLORIDA HOTEL FOR INDEPENDENT DISABLED: The hotel in Miami for disabled dreamed of by Mr. Lavin failed to materialize. (See TjG, Spring 1964, page 18.)



*Bob McCormick, attendant Jimmy, and David Gorshel at Hialeah Race Track*

FLORIDA SELF-SUSTAINING VOCATIONAL ACTIVITY RESIDENCE CENTER FOR SEVERELY DISABLED PLANNED by a group of disabled led by David Gorshel, polio quad, Bob McCormick, traumatic quad, and Betty Hemphill, cerebral-palsied. Patterned along the lines of the Wisconsin Christian League for the Handicapped Home and the Connecticut New Horizons, it is being incorporated as "New Horizons of Miami for the Severely Disabled, Inc." They hope to keep the cost to around \$200 a month. If you are interested, write to: David E. Gorshel, 7516 Cutlass Ave., North Bay Village, Florida 33141.

OPEN DOORS FOR THE HANDICAPPED, a club for the disabled in Pittsburgh, is working towards housing in the downtown area for independent handicapped. For information, write: Miss Edna Anish, 1013 Brintell St., Pittsburgh, Pa. 15201

FLORIDA CO-OPERATIVE HOME is dreamed of by a group of severely disabled. They envision small units for single and married young alert adults of varied disabilities. For information, write: Mrs. Margaret Norris, V.A. Hospital, Ward 22 -I-N, Bay Pines, Florida 33504.

and TjG'S HOME for productive living by severely disabled which Susan Armbricht describes on the following pages.

o  
 o HOUSING FOR HOMELESS QUADS o  
 o TOOMEY j GAZETTE o  
 o spring-summer 1963 o  
 o This issue summarized existing o  
 o and planned facilities for resi- o  
 o dential care of the disabled o  
 o throughout the world. Now, thanks o  
 o to generous donations of printing o  
 o and paper, we have several o  
 o thousand reprints of this issue o  
 o to send free. Our only stipula- o  
 o tion is that those who request o  
 o copies will keep TjG informed of o  
 o additional homes - whether in o  
 o the existing or planning stage. o  
 o

## A HOME FOR PRODUCTIVE LIVING FOR THE SEVERELY DISABLED

by Susan Armbrecht  
(Respo) Ohio

I am one of a group of respos, quads, and other severely and permanently disabled young adults who has long been thinking and planning a home where we can live the rest of our lives productively. Donna McGwinn spoke for all of us when she wrote in the last TjG, *"Of the basic essentials, the one that troubles me most is a place to live, and I mean by living, to grow, to develop, to discover, to create."*

OUR PLANS FOR A HOME have been moving forward since September, 1964, when the Board of Trustees of our organization, Iron Lung Polios & Multiplegics, Inc., appointed a Housing Committee and an Executive Committee. Mrs. Harrison Hamann is chairman of the Housing Committee. The Executive Committee is composed of Mrs. Harold F. Banister, Charles A. Dilley, Mrs. Joseph S. Laurie, G. E. Tenney, Judge William K. Thomas, and A. Wilson Wood. Under their leadership we have all been working and thinking together to initiate a demonstration project here in North-eastern Ohio.

WE HAVE BEEN SEEKING THE ADVICE of many who are experienced in rehabilitation and in the operation of nursing homes(although, of course, we do not want

*Continued*



*SUSAN ARMBRECHT—"We visualize our home for productive living as one of many regional homes for the severely disabled."*

a nursing home type of home, we are studying comparable operation costs). We have all been corresponding with our disabled friends around the world - gathering individual hopes and experiences and the thoughts of groups that are also thinking of homes. We are especially grateful to the disabled residents of several Cheshire Homes in England who so generously recounted their reactions and suggestions.

OUR HOME WOULD BE KEPT SMALL to eliminate an institutional atmosphere, the ideal number of residents being about twenty with units for guests. We would hope to manage our own lives. Ideally, we want a large living-dining area, a patio, offices, work rooms, kitchen, laundry, and lots of storage space. To ensure maximum privacy, each resident would have his or her own bed-sitting room. Of course, a necessity of the home would be a fireplace and we dream of a swimming pool.

ONE OF OUR MAJOR INTENTIONS is not only to take care of our physical needs, but to provide an environment in which to develop our capacities. If given the necessary manual assistance, I know personally that I could be more productive and, eventually, more independent financially. With attendant, secretarial, and volunteer help, we would have the chance to become more useful to ourselves and to society than we could possibly be in hospitals or nursing homes.

OUR RESIDENTS MUST BE AMBITIOUS to utilize their talents and capabilities to the fullest. Some residents would continue their education by telephone, correspondence or attendance. All would work or study. Some would pursue their own careers as writers, tutors, accountants, mouthstick artists, etc. Others would work individually or as a group on various projects such as answering services, research, and the selling of Christmas cards, magazine subscriptions, household products, etc.

WE FEEL IT IS IMPORTANT that we are not isolated, that we become a part of community life. With neighbors and volunteers being interested, the feeling of alienation that physical differences necessarily force would be eliminated more quickly, and the worth, contributions, and desirability of the residents would be more easily and quickly proved.

WE VISUALIZE OUR HOME FOR PRODUCTIVE LIVING as one of many regional homes for the severely disabled. We know from your letters that many of you are apprehensively aware of your own present or future need for such a home. Each of you can help us all by filling out the Survey-Questionnaire on the opposite and following pages. Your answers can help present and future groups planning similar projects in your own area. Your answers can help TjG to act as your clearing house of information on the housing needs of the severely disabled. Ω

# SURVEY - QUESTIONNAIRE

## Housing for the Severely Handicapped

Purpose: to determine (1) the number needing housing, (2) the urgency of the need, and (3) the type of housing preferred.

NAME \_\_\_\_\_ ADDRESS \_\_\_\_\_

Phone Number \_\_\_\_\_

BORN: 19\_\_\_\_ DISABLED: 19\_\_\_\_

DISABILITY: \_\_\_\_\_  
(If cord injury, include C, T or L numbers)

EDUCATION: Pre-disability \_\_\_\_\_ Post-disability \_\_\_\_\_

FAMILY: With what family members are you now living? Indicate their approximate ages and their relationship to you. Would any members of your family want to live with you in a Home? If yes, circle their ages in your list below:

HOSPITAL? \_\_\_\_\_ NURSING HOME? \_\_\_\_\_ If you live in one now, what is the cost per day? \_\_\_\_\_  
How long have you lived there? \_\_\_\_\_ Who pays for it? \_\_\_\_\_

OCCUPATIONS: Pre-disability \_\_\_\_\_

Present occupation or plans \_\_\_\_\_

Occupation of Father \_\_\_\_\_ Mother \_\_\_\_\_ Spouse \_\_\_\_\_

*Continued*

PRESENT MONTHLY SUPPORT: Social Security \_\_\_\_\_ V.A. \_\_\_\_\_

County Welfare \_\_\_\_\_ Insurance \_\_\_\_\_ Parent's \_\_\_\_\_

Spouse's \_\_\_\_\_ Own Income \_\_\_\_\_ Other agency or source \_\_\_\_\_

ESTIMATED MONTHLY INCOME IF A RESIDENT IN A HOME \_\_\_\_\_

RESPIRATORY EQUIPMENT: List your respiratory aids schedule and your free time: \_\_\_\_\_

OTHER EQUIPMENT: What special equipment would you need? Consider, especially, what would have to be built in:  
\_\_\_\_\_

ATTENDANT CARE NEEDED: Can you dress yourself? \_\_\_\_\_ Feed yourself? \_\_\_\_\_

What else can you do? \_\_\_\_\_

How much attendant care do you need for dressing, bathrooming, undressing? Indicate the approximate number of hours: A.M. \_\_\_\_\_ P.M. \_\_\_\_\_

HOBBIES...INTERESTS...SKILLS...VOLUNTEER ACTIVITIES...FAVORITE PASTIMES...RECREATIONS.....

.....  
On a separate sheet, please indicate how urgent is your need for a home and add your comments criticisms, and ideas on your ideal Home. Then, summarize this need and your suggestions on the following lines:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Please mail to: TjG, Box 149, Chagrin Falls, Ohio.....All information confidential to TjG

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## TJG's NEW STAFF ARTIST: ROBERT E. TANTON, Jr.



Robert E. Tanton, Jr.  
(quad) 710 Dusy St.  
Dothan, Alabama 36301

TJG proudly introduces its talented new staff artist, Bob Tanton, of Alabama. Bob has been a quad since '59 (compressed fracture of 5th and 6th vertebrae). After being tutored at home, he attended his junior and senior years at high school and graduated in 1963. He has taken courses at the local branch of the University of Alabama and a correspondence course in English from the U. of A. He is now taking a correspondence course in commercial art from the Famous Artists School.

We have enjoyed many of his keen-witted letters and droll illustrations since he first wrote, "I am a quad of the neck-breaker tribe who would like to keep up with the activities of my rolling compatriots."

Bob generously designed the covers of this issue and his drawings appear on this page and on pages 34, 35, 36, 44, 54, and 66.

Here are some random excerpts from his letters: "I can use my arms and wrists fairly well and compensate for my paralyzed hands with a pencil holder and a modified spoon and fork....

I go everywhere I can at every opportunity and will attempt anything...I am the library's best patron, a member of the local Art League, and attend art classes weekly...My hobbies are many: I collect stamps, knives, guns, books, rare photographs, etc. I am an amateur aquarist, aviation and military history buff...My goals are as follows: While I fully intend to work towards a B.A. or B.F.A., my primary goal is to establish myself as a self-sustaining and financially able individual. I plan to make my living as a commercial artist/fine arts painter. I also think I would like to write and illustrate children's books."





# Frustrations of a Quadriplegic - - - Hospital Style

by Margaret Norris  
(respo) VA Hospital  
Bay Pines, Florida

Drawings by  
Robert E. Tanton, Jr.  
(C5-6 quad) 719 Dusy St.  
Dothan, Alabama



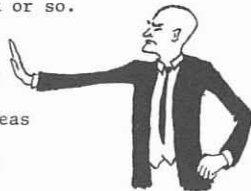
A HOSPITAL IS A WONDERFUL PLACE TO BE WHEN YOU ARE ILL. Doctors, nurses, aides, therapists and technicians--all are dedicated to their mission of helping you to get well and go home. WHAT IF YOU ARE NOT ILL BUT ONLY A QUADRIPLEGIC WHO HAS NO HOME and so must live in a hospital? As a quadriplegic, are your frustrations increased or decreased?

**GUILT FEELINGS . . .** The hospital is geared to the needs and care of the temporarily and acutely ill. You are well and healthy so you feel guilty about keeping a bed out of circulation and for bothering the nurses and doctors with your trivial complaints. You are ashamed to ask the nurses to make you comfortable when they are sick or tired. You want to get out of bed to take care of them.



**RULES and REGULATIONS . . .** Hospital pajamas come in two sizes--large and larger. After a few days of such glamorous attire, you begin to think and feel "sloppy". A lack of storage space and personal laundry facilities limit the use of your own comfortable clothing. Lights go on at six o'clock in the morning, no late sleeping even on Sundays. All lights, radios and TV sets must be off by ten o'clock in the evening, no late movies even on Saturdays. You must be ready and waiting when meals are served and take your medicine without questioning. Your time in therapy is definite and limited. You wouldn't mind these regulations if you were going home in a week or so.

**VOCATIONAL COUNSELLING . . .** You do not have the money required to live independently (attendant care would be your greatest expense). So, you ask for vocational counselling to help you explore the possibilities for earning money. Your ideas are labelled "unrealistic" even though you can cite numerous examples of financially independent quads. They live at home and can rely on family members to help in carrying on their enterprises.

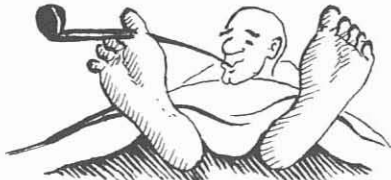




STORAGE SPACE . . . A nurse suggests: "Why don't you write? So you take a correspondence course in creative writing and lack space for the equipment you need. Your typewriter is inaccessible except for one hour a day, five days a week. Your typing is as slow as your hand writing. You have no room for a tape recorder for dictating. Your books are piled in a corner and the whole pile collapses when one book is removed, like the contents of Fibber McGee's closet. And you search for an hour for a paper you could locate in a minute if you had a file cabinet.

### SMOKING . . .

*In a hospital?  
My friends keep their  
lighted cigarettes  
away from me  
because the smoke  
irritates my throat  
and lungs. But most  
of the other patients  
smoke and so do visitors  
and smoke drifts into  
my corner from the hall.  
Sometimes I am tempted  
to take up smoking in  
self defense. But  
who would hold and  
light my cigar?*



INTERRUPTIONS . . . You need time to think and to write. Your mornings are broken up by the routine of temperature-taking, baths, lunch trays and other ward work. A volunteer would help with your work (writing) if you could ever find an hour simultaneously convenient to her, to you and the ward personnel. When you find that happy combination, then your volunteer can't spell, can't write fast or continuously interrupts your flow of thought with her conversation.

You try to do your writing during your limited time of sitting up. Again, you are interrupted by supper trays and bed time. But then no one takes your work seriously. Nurses say: "It's wonderful that you keep yourself busy--it helps to pass the time." I wonder if President Eisenhower encountered that attitude when he spent several weeks of 1954 in the hospital?

LIVING in a hospital has its advantages. For instance, you get good care, you see many different faces during the day and meet new and interesting people among patients and visitors. As you share the troubles of others your own seem less significant. Volunteers are friendly and helpful. Hospital life is almost pleasant--at times.

And best of all, you have no rent, no electric bill or taxes to pay nor household cares like menu planning or shopping. No one expects a quadriplegic to assume such responsibilities.

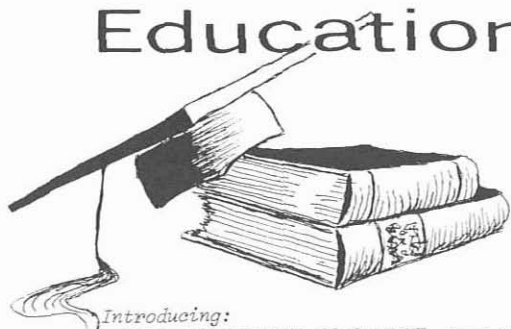
In a few more years you will develop *hospitalitis*--you will forget how to direct your own life. You will be afraid to leave the sheltered existence of the hospital.

Lights out!

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# Education



## Introducing:

TJG's EDUCATIONAL CONSULTANT, Paul L. Essert, Ph.D., of Teachers College, Columbia University.

Dr. Essert will be the "middle man" between our readers' ambitions to continue to learn and the institutions and organizations that can provide learning programs. Write to him (*care of TJG*) about your ambitions, limitations, and the efforts you have already made. He will try to help you find the educational resources.



"QUADS ON QUADRANGLES" - TJG's 1962 summary of higher education for the severely disabled is available free to all disabled who request it from: TJG, Box 149, Chagrin Falls, Ohio 44022.



UNIVERSITY OF MISSOURI is now prepared to accept severely handicapped students. Campus facilities have been extensively modified to accommodate wheelchairs. Busses with hydraulic lifts operate on a fixed schedule.

This program was supported in part by funds from the Vocational Rehabilitation Administration. Although any application will be accepted for consideration, preference will be given to applicants from Health, Education and Welfare Region VI. This region consists of the states of Missouri, Iowa, Minnesota, North Dakota, South Dakota, Nebraska and Kansas.

The university is not in a position to provide attendant or pusher services. The student must recruit these services as required. Residence hall arrangements for student attendants will be made.

All applicants are evaluated by the Special Admissions Committee. If they are tentatively acceptable, they are requested to arrive on campus for a personal interview, at which time the final decision as to admission is made.

For brochure and further information, write: Timothy Gust, Ph.D., Assistant Professor of Education, and Assistant Director Handicapped Student Program, 220 Parker Hall, University of Missouri, Columbia, Missouri.



HOFSTRA UNIVERSITY, Hempstead, Long Island, New York 11550, is embarking on a program for the higher education of the disabled. Modifications to rest rooms, parking lots, and other facilities, and the addition of wheelchair elevators will make Hofstra the first university in the East with campus and buildings readily accessible to the disabled.

Hofstra has 9,000 students. Some 40 are handicapped but the University has plans to accommodate many more.

Cooperating with this private university are Henry Viscardi, Jr., president of Abilities, Inc. and of the Human Resources Foundation, who is serving as special consultant, and the Vocational Rehabilitation Administration.



TWO ILLINOIS UNIVERSITIES have special facilities for the disabled: University of Southern Illinois in Carbondale and the University of Illinois in Urbana.



EDUCATION OF THE HANDICAPPED COLLEGE STUDENT. An excellent survey, including lists of colleges. Single copy 50¢ or, if you will send name and address of any educator whom you would like to receive this special issue, one will be sent free. REHABILITATION LITERATURE, 2023 W. Ogden Ave., Chicago 12, Ill.



HOME STUDY: For free list of accredited schools, write: *The National Home Study Council, 1601 18th St., N.W. Washington, D.C. 20009.*

"Guide to Correspondence Study" costs 25c from *National University Extension Assoc., c/o University of Minnesota, Minneapolis 14, Minnesota.*

Education by Telephone - write to: *Mr. J. A. Richards, 47-37 Austell Pl., Long Island City 1, N.Y.*

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VETERANS AND VETERANS' CHILDREN: The Junior GI Bill provides greatly liberalized benefits for the children of veterans. For information, write to the *Adjutant General, Department of the Army, Washington, D.C. Att: AGPNGO.* And send 25c with a long, self-addressed envelope to *Dr. Benjamin Fine, The Plain Dealer, 1801 Superior Ave N.E., Cleveland 44114, Ohio.* Ask for: "Where to Find College Help for Veterans."

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STUDENT AID FOR THE HANDICAPPED, .35¢...  
PART-TIME JOBS FOR THE HANDICAPPED, .35¢  
EDUCATIONAL RESOURCES FOR THE HANDICAPPED...35¢. The above reprints are available from *B'nai B'rith Vocational Service, 1640 Rhode Island Ave., N.W., Washington, D.C. 20036.*

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BULLETIN NO. 3: "MEETING THE COST OF COLLEGE," will be sent free. Write to: *Bro. F. Christopher, F.S.C., Director of Admissions, LaSalle College, Olney Ave. at 20th St., Philadelphia, Pennsylvania 19141.* This very informative booklet explains the financial arrangements that are available to students in practically all American institutions.

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"HOW TO GET MONEY FOR COLLEGE," written by Christian E. Burckel, has been appearing in many newspapers. If you would like the entire series, send \$1, with your name and address, and ask for "Reprints" of his syndicated articles which appeared in *The Plain Dealer* from Oct. 30, 1964 through Jan. 1965. Send to: *P.O. Box 311, Yonkers, N.Y. 10702.*

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STUDENT ASSISTANCE HANDBOOK - Guide to Financial Assistance for Education Beyond High School. This comprehensive guide costs 50¢.

"FINANCING A GRADUATE EDUCATION," by Richard C. McKee. (OE-55036). 15¢.

Order both from: *Supt. of Documents, U.S. Govt. Printing Office, Washington, D.C. 20402.*

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YOU BELONG  
AT THE TOP



IT'S MUCH NICER!  
GET THERE THROUGH  
A TRAINED CAREER

There is no doubt about it that advancing years constitute an added handicap and that a broken neck is more difficult to live with than a broken back. However, we also know that any man or woman who has achieved university graduation is almost invariably employed no matter how severely disabled and it matters not whether the education was obtained before or after the disability. High school graduation leads to employment in about 70 per cent of instances in the disabled, but public school employment is about 40 per cent. . . . Despite what I have said about education, we have mentally retarded paraplegics who are employed simply because they are willing to work and are steady in their work habits. We have average paraplegics who cannot read or write who are employed for the same reason." --From "*An Approach to the Problems of Physical Rehabilitation*," by *Dr. A. T. Jousse, in the Summer, 1963, issue of REHABILITATION IN CANADA.* Ω

## TWO QUADS on QUADRANGLES



Daily schedules and future plans of two severely disabled college students who typify the adaptability and determination of their fellow quads on quadrangles.

### I. ED ROBERTS, CALIFORNIA RESPO

**E**d Roberts, now a college senior, has been a respo since he was a sophomore in high school. He completed two years of his high school work by the Executone telephone set up between his home and school. As a senior, he attended some classes.

Then he went on to college. He chose the University of California in Berkeley which presented major difficulties because the campus was so hilly.

However, Dr. Henry B. Bruhn, director of the student health service at Berkeley, encouraged him. So did his late father, a diesel engineer with the Southern Pacific Company, and his mother, a part-time religious education director for the Unitarian Church.

*Propelled by brother Ron, respo Ed Roberts goes to classes.*

**H**is brother Ron, also a student at the University, gets him up in the morning, helps him eat breakfast and for the rest of the morning wheels him to and from classes scattered widely around campus.

After lunch they return to the University infirmary where Ed lives, and most of the afternoon is spent doing homework. He uses a mouthstick for page turning and to operate a tape recorder so he can keep audio notes and play them back at any time.

At 5:30 p.m., an orderly arrives to take care of him. The orderly feeds and bathes Ed, and remains near by through the night.

At 7:30 p.m. Ed goes into his iron lung for 12 hours.

#### Future Plans

**E**d Roberts' intent is not to stop when he finishes college, although his plans currently have not jelled. He is a "B" student, a political science major and will be graduated this June. Law school, he says, may follow. But, what then?

He may teach law in college, or he may practice.

But his face lights up as he says he "may seek public office, eventually. I would like to go into politics. But this is a dream. Perhaps it isn't too far from reality. All of us must have dreams. I think I know how people feel and what they need. If I'm in the legislature, perhaps I can help people with their problems"

*(Photos, and the original story from which the above was excerpted, courtesy of PARADE magazine.)*

*Continued*



*Homework in the horizontal: Ed flips the pages with his mouthstick. (Most other TjG mouthstickers have found that the rubber band placed across the pages is more efficient.) Below, he attends a political science lecture. Ed hopes eventually to enter politics.*





II. BOB HEHMAN  
Kentucky quad

Concerning my schooling, I have three more credit hours to go after this semester to get a B.S. in Biology. This might seem to be a strange major for someone who has lost the use of his hands, but I was in pre-med for three years before I broke my neck in 1961 in a diving accident, and so I thought I might be able to teach biology, thereby avoiding the task of starting over in some other field.

I am currently trying to persuade the state of Kentucky to send me to the University of Kentucky, but this requires quite a bit of money to solve the problem of an attendant. If this effort is not successful, I will try to remain here at Xavier University in another major. I now have a scholastic scholarship at Xavier and would hope to renew it. No matter what I take, I have my eye on teaching as a final goal. This choice seems to fit my need both from a standpoint of physical ability and desire. It would also enable me to associate more with people instead of spending my time alone with some type of home business.

#### Schedule of Average Week Day

7:00 - 7:30 My father dresses me, one of my brothers helps him get me out of bed, and I eat breakfast. I use a board that rests on the arms of the wheelchair for a table, and I have a special fork and spoon that straps to the hand and a wire glass holder. Other special equipment that I use in the morning: a comb with a round wooden handle that I tie to my hand with a leather strap; electric toothbrush that I can hold because of the closed fingers of my hand; cordless electric shaver (see photo at left).

7:30 - 8:00 My brother, who is a sophomore at Xavier University, puts me in our car and places the wheelchair in the trunk. We travel to Xavier University in Cincinnati, Ohio. At Xavier there is only one flight of steps that offers an obstacle to the wheelchair. My brother and two other students carry the chair up this flight in a matter of seconds. Once inside the building, I have no trouble getting to classes, for we have a key to the elevator. I have one other class in another building, but this building also has an elevator. Last semester I had some classes in a building on the third floor without an elevator. In this predicament, we used a convertible chair which had an aluminum frame with a canvas seat and back. I was strapped into this very light chair, and four fellows carried me up to the

class. Two other fellows followed with my wheelchair (73 lbs. alone).

8:30 - 1:00 I have different class hours on different days. I am carrying 12 credit hours. In class I take notes with the aid of my writing hook (it is simply an amputee hook attached to a curved piece of aluminum which I can slide on and off my hand in a matter of five seconds). I take notes on a 4" x 6" pad of paper, for this is small enough so that it does not get in the way of an open book. I also use the writing hook to turn pages.

1:00 - 1:30 Travel time back home.

1:30 - 2:00 Lunch.

2:00 - 6:00 First, I type out the notes that I took in class with my writing hook. This makes my set of notes much neater, more complete. If I have missed anything in class or could not keep up with the pace with my writing hook, I supplement the notes with the textbook. Secondly, I do any reading that is required if I finish with my notes before supper. I might add this remark about class work: I had thought about a tape recorder for class, but decided against one because it would have been one more item to carry and, since I have enough use of my arms to effectively use a writing instrument, it is much more convenient and efficient to use the writing device.

6:00 - 6:30 Supper.

6:30 - 11:30 I usually have enough



*"My writing device is an amputee hook attached to a curved piece of aluminum...I have my eye on teaching as a final goal."*

school work to keep me busy during these hours. If I have some free time, I usually watch television or listen to the radio or to stereo music. If Xavier is playing basketball during the week, I make it a point to attend the games.

11:30 - My father and brothers put me in bed. Care in the evening usually takes longer, for I have to have a back sore dressed and the catheter irrigated,



*"I type with two eraser pencils that I place between my fingers....The typewriter is low enough for comfort because it rests in a well."*

#### Self-help Gadgets

I use an electric typewriter, striking the keys with two pencils that I place between my fingers. The pencils are typewriter eraser pencils so that I can erase mistakes very easily without the aid of a further device. So I can type without anyone's assistance, for I can secure the paper and place it in the typewriter myself. The typewriter is on a special table. This table is high enough that I can roll the chair underneath it, but the typewriter is low enough for a comfortable typing position because of a well in which it rests. In effect, the typewriter is not much higher than my knees.

Other little gadgets are the levers and hooks that have been attached to the radio, TV, stereo, tape recorder, and telephone. A "popsickle stick" can be used for attachment to knobs. But a more lasting and durable method is to shape the levers and hooks with acrylic.

Acrylic is a powder that forms a clay-like substance when added to a chemical. It is called a self-curing plastic. It can be molded to any shape and hardens to a very tough plastic-like finish in about five minutes. It can be obtained at any dental supply house. The firm that puts this acrylic powder on the market is the Kerr Mfg. Co., Detroit 8, Michigan.

I have used acrylic for a U-shaped telephone hook and for levers on my microscope. It clings to virtually every surface and is also very light.

Two other gadgets which get limited use are my cardholder and my match-holder for lighting cigarettes. As far as propelling myself around the room to get to these gadgets, I use knobs that are fastened to the rim of the wheelchair wheels. □

ED: Just as we were going to press, we had a letter from Bob saying, "I will graduate in June Magna Cum Laude in Biology, and I will attend the University of Cincinnati Graduate School in the fall on a full scholarship."





THE BULLETIN BOARD

\$\$\$ PRIZES! Thanks to our same anonymous donor, we have another contest: "Describe the handicapped person who most inspired or encouraged you after you became disabled. If possible, be specific about the effects upon you induced by the admired person." Prizes will be evenly split between the contest winners and those to whom they pay tribute. First, \$100, Second, \$50.

\$10 PRIZE for the largest number of potential money-making jobs that could be done by telephone by homebound quads.

CALIFORNIA DISABLED: Join the Western Disabled Alliance. It offers a golden opportunity to think and work together. Dues and quarterly publication: \$2. Send check to: Jim Boothe, 336 Diablo Road, Danville, California 94526.

NEW NEW LOOK OF THIS ISSUE??? Aren't we even more all over gorgeous? First, we were given another electric typewriter. It's an I.B.M. Selectric which has many interchangeable balls of type. I (Gini Laurie) "had a ball" typing this issue with it. It will do this and this and this and this and even ÷√πΩϕψ†L√+ZM#\*6# Then, we have a great new volunteer, Bill Close, who made all the "printed-looking" titles with the new stick-on plastic type.

CONTEST ARTICLE (TjG, Spring 1964). The author, Jeanne Kipe, reports that 94 of our readers have been corresponding with her and are now contesting too. Good luck all!

CONGRATULATIONS TO THE WINNERS OF OUR LAST TWO CONTESTS!!

I. "FIRST EXCURSION INTO SOCIETY" - \$50, Don Thompson, (Indiana); \$25, Mary Ann Hamilton, (Colorado); \$15, Jimmy Aden, (Arizona); \$10 each to: Ruby Heine, (Nebraska); Jane Comstock, (Oklahoma); Hilary Ojuri, (Nigeria, Africa); Raj Gopal Menon, (S. Malabar, India); Marilyn Card, (California); and Peggy Westergaard, (British Columbia, Canada).

II. "WHAT TjG HAS DONE FOR ME" - \$15, John Williams, (Kansas); \$10, Jerry Elfstrand, (Minnesota); and \$5, Mary Guy, (Tasmania, Australia).

STAMP COLLECTORS: Editor Ruth Davis has all the interesting stamps TjG receives. If you want some of them, write to: 7173 West 130 St., Cleveland, Ohio 44130.

1965 INTERNATIONAL ART SHOW FOR DISABLED ARTISTS to be held at Kenny Rehabilitation Institute, Minneapolis, Minnesota in October 1965. For details, write to: Margaret Anderson, 432 Lafayette Ave., Excelsior, Minn. The 1964 show was a great success!!!

GADGET-MAKER. One of our cerebral-palsied readers has a small shop in which he enjoys working with wood, plastic and metal. He has offered to make gadgets for any of our readers. Herb Schuldt, Jr., 319 Morton St., Batavia, Illinois 60510.

??GOLDEN EARS WANTED?? "Even the most well adjusted of us has some things inside which 'bug' us. We do not want to tell our parents. We don't want to tell our friends some of our crazy wishes, plans, dreams, etc. If some of the TjG readers need to beef about something, want to get something off their chests, etc., or just want to ramble off some thoughts to someone, they could write to me: 'GOLDEN EARS,' Oakland, Minn."

PUBLICATIONS BY TRAUMATIC QUADS AND PARAS: We enthusiastically recommend: PARAPLEGIA NEWS, 935 Coastline Drive, Seal Beach, Calif. 90740. Editor, Bob Webb, will send a free sample copy. Published monthly. \$2.50 per year. THE CORD, 10s. \$1.75 from U.S. Quarterly. Hon. Treas., The Cord, Stoke Mandeville Hospital, Aylesbury, Bucks., England. THE CALIPER, \$1 per yr. 9s. from U.K. Canadian Paraplegic Assoc., 153 Lyndhurst Ave., Toronto 4, Ontario, Canada.

PUBLICATIONS ABOUT QUADS AND PARAS: All doctors, nurses and therapists who deal with paras and quads would be interested in the following publications: PARAPLEGIA, The Official Journal of the International Medical Society of Paraplegia. E. & S. Livingstone, Ltd., 15-16-17 Teviot Place, Edinburgh 1, Scotland. Price: \$12 per yr. Quarterly. MANUAL FOR THE CARE OF THE DISABLED, "Rehabilitation", by Hirschberg, Lewis, and Thomas. J. P. Lippincott Co., \$7.50.



RESPONAUT, Quarterly. By and about respos. Send a small donation for postage. Editor: Mrs. Doris Page, 11 Middle Close, Newbury, Berks., England.

ZPRAVODAJ - This is the title of a publication for disabled which we receive but cannot read because it is in Czechoslovakian. Can any of our readers help?

"HOLIDAYS FOR THE PHYSICALLY HANDICAPPED." Compiled each year by the British Red Cross Society, 14-15 Grosvenor Crescent, London, S.W.1, England. 3s. or 50¢ from the U.S.

DIRECTORY OF U.S. CAMPS FOR THE HANDICAPPED. Available for 50¢ from the National Society for Crippled Children and Adults, Inc. 2023 W. Ogden Ave., Chicago 12, Illinois.

REPORTS: We have some copies we can send you of: "Report on a Survey of Respiratory and Severe Post-Polios," by Dr. Nagi and "Specialized Placement of Quadriplegics and Other Severely Disabled," by the N.Y.U. Medical Center. Both free, of course.

FREE NEWS BULLETIN FOR USERS OF RESPIRATORY AIDS. Monthly ideas and helpful hints. Send name, address and type of respiratory equipment used to: Thompson Respiration Products Inc., P.O. Box 916, Boulder, Colo. 80301.

GUIDE TO WASHINGTON FOR THE HANDICAPPED has just been published. (Add to the list on page 75.) Order from: The D. C. Society for Crippled Children, 2800 13th St., N.W., Washington, D.C. 20009. Price: 25¢.

"WHERE TURNING WHEELS STOP." Ernest Sawyer, 2259 Raleigh Dr., Augusta, Ga., is updating this guide to wheelchair accommodations. You can help by sending your experiences.

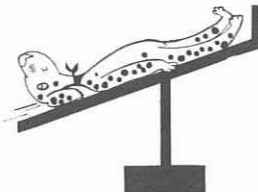
FILM ON REHABILITATION OF A QUADRIPLÉGIC. Made by Dr. Beth Fowles and Warren Strauss of Highland View Hospital in Cleveland. It is entitled, "Able to Live Again." For scheduling, write to: Everest & Jennings, Inc., 1803 Pontius Ave., Los Angeles 25, Calif.

TAILOR FOR WHEELCHAIR USERS: Send for free mail-order measuring kit. Leinenweber, Inc. 7 W. Madison St., Chicago, Illinois 60602.

HEALTH PAMPHLETS Excellent summaries of many health topics, such as, Multiple Sclerosis, Paraplegia, Muscular Dystrophy, Arthritis, Cerebral Palsy. 25¢ each. Free list of current titles. Public Affairs Committee, Inc., 22 E. 38th St., New York 16, N.Y.

??CHAGRIN FALLS?? The only village by this name in the world! It is pronounced the same way as one pronounces the verb "chagrin".

"SIMPLE SELF-HELP DEVICES TO MAKE FOR THE HANDICAPPED." A revised edition of this excellent booklet is available free to the handicapped (small charge to others): Mrs. Harold C. Rosenberg, Atlanta Cerebral Palsy Center, 1815 Ponce de Leon Ave. N.E., Atlanta, Ga. Though the devices were developed for the cerebral-palsied, many of them can be utilized by quads too.



??LIKE A RENT FREE VACATION? Respo wants to swap her home and rocking bed for several weeks with other respo and his family. Write to: "KYBO", c/o TjG, House Swap Dept.

??ARE YOU USING THE FACILITIES OFFERED BY YOUR PUBLIC LIBRARY?? There are many valuable services geared to the severely disabled. The American Library Association Bulletin of October 1964 had a special issue devoted to Hospital and Institution Library Services. Included therein was an article titled "Aids for Quads and Respos," by Gini Laurie, which summarized many of the reading aids presented in previous issues of TjG. Check in with your local library; call attention to this issue and find out what services are available to you.

SAC - Alan R. Logan (polio quad), Executive Director of the Society for Accessible Construction (SAC) has been named Chairman of the Florida Governor's Committee on Employment of the Handicapped. Alan has some interesting and helpful material if you want to work on the problem of eliminating architectural barriers in your immediate area. Box 7368, St. Petersburg, Florida 33734.

COLLECTIONS OF TEA TAGS AND RED CELLOPHANE RIBBONS OFF CIGARETTE PACKAGES ARE A HOAX. They have no value! They cannot be exchanged for wheelchairs or anything else!

CORRECTION TYPEWRITER RIBBON. 2-way ribbon that is 1/2 white so you can back space to correct mistakes. Fits manual or electric. \$2.98 plus postage, Dick Smith, 23373 Lilla Road., Hayward, California.

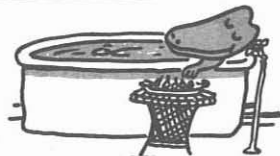
INVENTORS: Anyone inventing or manufacturing an item for the handicapped should contact: Mrs. Loretta Shalik, REHAB AIDS, Box 612, Miami, Florida 33144.

??BUYING A WHEELCHAIR?? Before you do, send for free reprint, "Evaluation and Selection of Wheelchairs." By Dr. Beth Fowles, Chief, Physical Therapy Dept., Highland View Hospital, 3901 Ireland Dr., Cleveland, Ohio. AND if you weigh less than 175 lbs. and can sit in a 16" x 18" seat, get a junior size.

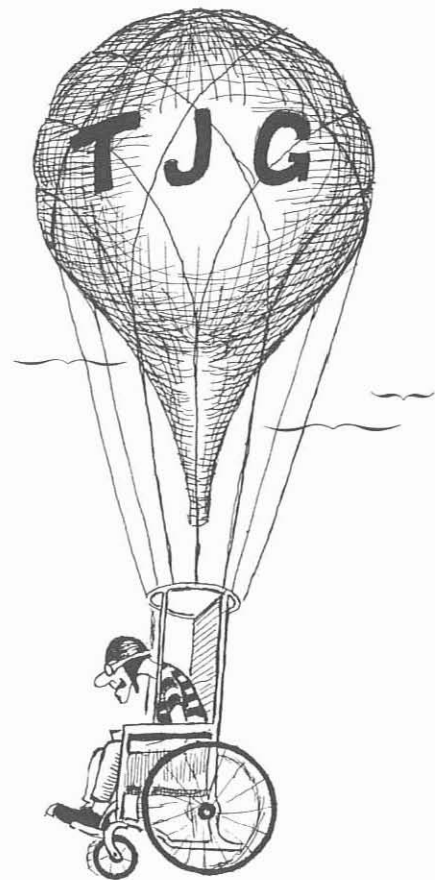
NEXT ISSUE: Wheelchairs, lifts and elevators, news from our foreign correspondents, and teaching as a career for quads. Send us your stories, ideas, and photographs.

...AND...a thought sent by Margaret Norris of Florida, Alas, the author is unknown.  
*"The Lord gave us two ends to use -  
One to think with, one to sit with.  
The winning of the war depends on  
which we choose -  
Heads we win, tails we lose."*

ADDRESS  
all mail to:  
TjG  
Box 149  
Chagrin Falls  
Ohio 44022



# TRAVELING QUADS



# World-Wide Wanderers



## BAHAMAS

....a few facts on our honeymoon trip to the Bahamas....We planned to fly from Miami to Andros Island, where my father-in-law lives, but found

that the airlines required an artificial breathing aid for the trip. We finally pieced together a Thompson positive pressure blower with 2 six volt dry cell batteries (wet cell batteries are not permitted on planes) to meet their requirements....In the meantime we had inquired about having our car with car-top hoist shipped over from Miami, and found that they had a small island hopping boat going over with a load of fertilizer. They agreed to take us along, so we dropped the airlines and took an overnight 18 hour cruise across the Gulf Stream. I spent part of the time skidding across the deck, but they were able to brace the chair with wooden blocks finally; the boat's electricity handled the respirator nicely (I only use it at night). We had friendly service from the five crew members and the trip cost \$10 apiece...Our cottage was on a secluded ocean beach, on

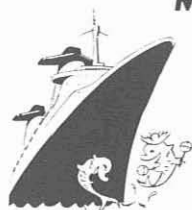
a little bay complete with old shipwreck....We used an electric generator to power the respirator at night, used the Hoyer lift with 2 sets of chains to get me from chair to air mattress which my wife then slid into the water and allowed us to beachcomb hand in hand...We spent three weeks exploring the island by car, visiting the native bars, etc. ....When our car was shipped back to the States, we flew to Nassau and I experienced no problems in a non-pressurized plane at about 1500-2000 feet. Two men carried me on and off...Spent three days in Nassau with no problems. Taxi drivers lifted me in and out gladly... We shopped on Bay Street from end to end....When we flew to Miami, one man carried me up the long stairway to the jet. We did not have to pay overweight for the respirator or chair. Miami International Airport has a special elevator truck for wheelchairs.....It must be said that my father-in-law helped us a great deal especially on Andros. We could have done it alone in Nassau with no trouble.

Jack Genskow

J-61-B Stadium Terrace, Champaign, Ill.

*Excerpts from the many enthusiastic and informative letters to TjG from traveling respos and quads. All of them have offered to furnish more detailed information to others who wish to follow in their wheelsteps.*

## MEDITERRANEAN CRUISE



.....It is nearly a year since my first cruise. Twenty days on Cunard's "R.M.S. MAURETANIA", round the Mediterranean, calling at Tangiers, Alexandra, Athens, Malta, Gibraltar and Lisbon...Before any plans were made for my journey, the Medical Superintendent for the Cunard company came to see me in Dover and discussed everything with my own doctor. All my equipment, type of bed I required, measurements of my wheelchair, vaccination, inoculation, drugs, sea-sickness, etc., etc., everything was carefully considered, and, when I eventually got on board, I realised how much unobtrusive thought had gone to the planning of my comfort..... Helping hands were always ready to lift my chair and the entire crew seemed to go out of their way to be friendly, helpful and kind. The medical staff helped whenever needed and made a point of visiting me several times a day...I shared a cabin with my nurse and there was a communicating door through to my parents' cabin. We both had private bathrooms....I am a quadriplegic polio, using a respirator at night only.I took three machines with me, (1)a Spirashell cuirass type, operated from the main electricity supply, (2) a Rotaventilator cuirass type, operated from a 12 - volt battery, (3) a "Beaverometer" positive

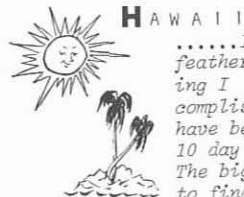
pressure machine, for emergency use.... The electric current on the ship is DC, so a special AC cable was run into my cabin.The engineers took a great interest in my machinery and were readily available at all times...During the day, I sit in an E&J reclining wheelchair, and it was just possible to squeeze it into the lifts....There are many ramps, combings, steps and gangways to be negotiated....It is vitally important to have good brakes when the sea is rough. ...Another very special arrangement was made for getting me ashore when the Mauretania was unable to tie up in port and the landing had to be made by launch. I was lifted in my chair into a launch on Main deck level.This was then swung out and lowered on the derricks into the sea, as they do when abandoning ship.What was unusual for a passenger, was to be returned to the ship by reversing the procedure! This could only be done in a calm sea.....Before we left England, the Headquarters of the Red Cross in London wrote to the Red Cross in each port that I was visiting, to ask if they could help me with suitable transport for sight-seeing. Apart from Tangiers, each country was most helpful and I was greeted by a deputation of charming people at every port. Hospitality was lavish and guides, who spoke excellent English, were ready at the main points of interest. Various forms of transport were produced, all of which proved successful. These in-



*Elizabeth Twistington-Higgins, former ballet star with the Sadler's Wells, now a well-known and successful artist.*

cluded a naval patrol car, driven by two naval M.P.'s in Gibraltar, ambulances in Athens and Malta, a convoy of cars in Alexandria, and "Grandfather's old Daimler" in Lisbon. I saw as much of each country as the other passengers, and in some instances a lot more.Everywhere we enjoyed the native dishes and wines....In Alexandria the Red Crescent presented me with an enormous bouquet and escorted me to Farouk's Palace...In Cairo I saw Montaza Palace beach....had tea with Said, an Egyptian artist...In Athens I was carried to the top of the Acropolis and round the Parthenon!

Elizabeth Twistington-Higgins  
Isolation Hospital, Tower Hamlets  
Dover, Kent, England



## HAWAII

.....I sit here with a feather in my cap, feeling I have really accomplished something. I have been on a fabulous 10 day tour to Hawaii!! The biggest problem was to find a rocking bed to use in Honolulu. After several unsuccessful attempts to arrange for one on my own, I decided to sign up with the Evergreen Travel Agency, which was organizing a tour for the handicapped, and leave all such problems to them.... We all met at the Seattle - Tacoma airport. There were 11 in the group: the tour leader, 2 R.N.'s, 1 aide, 3 wheelchair ladies, 2 partly wheelchair, and 2 mobile...Flying at high altitudes had no effect on my breathing. I flew United Airlines (45 minutes) Vancouver to Seattle; Pan American (5+ hours) at 35,000 ft. to Hawaii; and Canadian Pacific (5+ hours) at 37,000 ft. return to Vancouver....We were greeted in Honolulu with an orchid lei and a traditional Hawaiian kiss....My room at the Princess Kaiulani Hotel was lovely, the feature being a lanai (patio) which overlooked the swimming pool and the ocean.....We went on limousine tours of the island, saw plantations, volcanoes, and Pearl Harbor.....Went to dinner-shows, saw exotic native dances..I even bought a just-about-bikini and spent a few hours on the beach.....To keep up

the pace, I needed a rocking bed for a few nights. Our tour leader located one at the Queen's Hospital. We had to have the hotel's house doctor admit me.....I used the bed 2 nights - would go in about 9 pm and leave around 8 am..It was a glorious 10 days!!

Audrey Collicutt  
6749 Willingdon Ave., S. Burnaby,  
British Columbia, Canada



## USA

...For several years my family and I have toyed with the idea of a real vacation, but how can a quadriplegic who can't breathe expect any airline to accept him as a passenger?.... This year we decided to find out.I made round - trip reservations on TWA for a flight from Los Angeles to Dayton,Ohio, and then waited. In making the reservations, I carefully explained my condition and told them I could breathe with the aid of a multitung belt respirator that carried its own 24 volt power unit. ....Then followed a series of phone calls from TWA including contact with Rancho Los Amigos Hospital to review all details of the equipment and to secure written medical clearance.....Finally the answer came, "No."...The home office had not approved. It seems the airlines have an agreement among themselves not to carry any passenger who

may be odoriferous, unsightly or unpleasant and upsetting to other passengers.....This made my wife angry. She went to International Airport and observed the wheelchair passengers and promptly called TWA again to state that I looked as neat and dignified as any passenger even though I was in a wheelchair...Then came the explanation that TWA had misinterpreted their last message to us. That I could travel with the multitung and its battery would have to be examined by their engineers and travel in the cargo compartment, if acceptable to them....I was to "frog breathe" while on the trip..The multitung weighs 144 lbs. and would use up most of our baggage allowance. Rancho hoped that I could use the multitung to breathe on in order to set a precedent for other travelers....My wife made another trip to International, this time carrying my multitung,battery pack, and a Ventam respirator.The airline officials and engineers, after checking the construction of the batteries saw no objection to my flying as a normal passenger, using the multitung if desired. Wheelchair and multitung were to travel free. ....The round-trip was made easily and pleasantly....One thing I should point out to "would be" wheelchair travelers, is that my wheelchair, standard E & J model,was too wide at the axles to pass down the aisle of the 707 jet and that I had to be carried to my seat by sever-

Continued

al men. This was only so in Los Angeles where a special airline chair was not available. This chair was available in Dayton and I had no difficulty in entering or leaving the plane. In fact, no other passengers were allowed on until I was seated and my equipment was strapped to the deck. Overall flight time only 5 hours. Why don't you fly? "It's the only way to go."

Robert E. Meade  
8331 Haskell Ave., Sepulveda, Calif.



### MEXICO

....In May, 1964, my girlfriend and I took a trip to Guadalajara. I am a polio of '53 vintage....Although I need a respirator now only with a bronchial cold, I did have trouble breathing in Mexico City's 7,000 ft. altitude, but not in Guadalajara's 5,000...Gloria and I are both quads; she has fair use of only one arm; I can walk a little, and while one arm is pretty good, the other is pretty shot....We went down via Air France because none of the other airlines would touch us with a 10-foot pole since we could not get to the bathroom by ourselves....Everything worked out perfectly...The men at the airports lifted us on and off the planes in our wheelchairs...Our attendant was waiting at the airport in Mexico City for us.



*Paul, Florence, and Gloria at Kegan's Hacienda for quads in Guadalajara*

(Arrangements can also be made to have an attendant sent to the States to fly down with you)...We flew to Guadalajara the next morning. Our host, Larry Kegan, the owner of "Hacienda Las Fuentes," met us at the airport. Larry himself is a quad...Hacienda is a motel for handicapped and non-handicapped people. It is completely level, with tile floors. All the doors are wide and there are stall showers and shower chairs...There are single rooms or apartments and you may have an attendant sleep in an anteroom if you wish...Services include complete attendant care, laundry, maid, chauffeur (all we had to do was put in the gas), home-cooked meals, swimming pool and nursing care (if needed)..... All this for \$150 a month for quads. The attendants know how to handle people in wheelchairs. They will do anything for you, all you have to do is ask. They all speak and understand some English

and there was no problem in communication. The Mexican people are fabulous. They can't do enough for you. And Mexican food is delicious. The food at Hacienda is American style. We had steak, pork, chicken, etc...We went some place practically every day and the days we stayed home, we relaxed in the tropical air or enjoyed the pool. I recommend Mexico to all who want a trip to Paradise. I hope to return, perhaps to live, if I can learn Spanish and get a job...

Florence Krieger  
1936 E. Tremont Ave., Bronx, N.Y.



### MEXICO

lowly and stubbornly I completed the arrangements to borrow a rocking bed from a hospital in Guadalajara and have it installed at our motel...My cousin went on ahead and I flew down by myself...I have traveled on Eastern, United, American and Mexicana alone. I suggest that other readers should stick to their guns with the airlines....Our motel was actually a home turned into an inn with a few cooking apartments and a patio...floors are tile...It is close enough to wheel to classes at the Institute...markets...restaurants, movies, post office, etc...We visited the three places run by and for paraps or quads.....It would be necessary to be driven to the city from all of them....Ray's is the closest, in

+ + + + +  
 † THREE LOW COST PLACES FOR VACATIONS †  
 † OR YEAR-ROUND LIVING IN MEXICO WITH †  
 † COMPLETE CARE FOR QUADRIPLEGICS †  
 † Rates range from about \$100 to \$180 †  
 † per month and include meals, atten- †  
 † dant care, laundry, and chauffeur †  
 † service. Write to the following: †  
 † †  
 † (1) Lawrence Kegan, Calle San An- †  
 † tonio 67, Fracc. Las Fuentes, Guad- †  
 † alajara, Jal., Mexico. †  
 † (2) George E. Ray, Cubilete #147, †  
 † Col. Chapalita, Guadalajara, Mexico †  
 † (3) William Coe, Circunvalacion Sur †  
 † 62, Las Fuentes, Guadalajara, Jal., †  
 † Mexico. †  
 + + + + +

a pretty section of town.....large airy  
 rooms...only paras or semi-quads there.  
 Would take male respos if they brought  
 all the necessary equipment....Coe's is  
 farther out; no sidewalks, cobblestone  
 type streets....also men only there....  
 Kegan's is a motelish sort of place....  
 swimming pool, tile floors, sunny and  
 roomy apartments could accommodate a fa-  
 mily with 2 or 3 children.....My cousin  
 and I dreamed of renting one of the big  
 old homes in town and hiring a staff...  
 Living there is so cheap if you have a  
 regular income of U.S. dollars.....One  
 other thought; a borderline respo may  
 be able to get along without aid at us-  
 usual altitudes....but not in the higher  
 altitudes....

Barbara Cory  
 456 Greenwood Avenue, Glencoe, Illinois

## FLORIDA



....Since our Florida trip  
 was in part made possible  
 by information on TjG's Bul-  
 letin Board, I'm going to  
 try to report on it....The  
 notice about the free motel  
 accommodations for handicapped provided  
 by the May K. Houck Foundation (1896  
 Bahia Vista St., Sarasota, Fla.) advised  
 getting reservations early so I wrote  
 in October for an Easter trip....Easter  
 vacation finally arrived and we headed  
 for the sunny south. "We" is my wife,  
 Jay, myself, and about a ton of equip-  
 ment and luggage in our Volkswagen bus,  
 and on a shelf on the back bumper, a  
 little 110vAC generator powered by a  
 gasoline engine to make power for my  
 abdominal belt respirator. (It would  
 work on a 12vDC car system, but our old  
 VW was 6vDC which was no help).....  
 I wouldn't bother mentioning the gen-  
 erator except that its contrariness was  
 the cause of many crises and delays....  
 However, we finally reached Florida and  
 a long drive decorated with palm trees,  
 trees with beards of Spanish moss, cat-  
 tle farms, orange groves, and free or-  
 ange juice stands brought us safely to  
 Sarasota and our motel. We were pleased  
 to find ourselves in a large room with  
 a bath, gas heater and air conditioning.  
 ...We spent happy days sightseeing a-  
 round town, the yacht harbor, Lido Key,  
 ....checked the sightseeing boat but my  
 chair was too wide for the walkway...We  
 set our course for the Jungle Gardens..

At first glance the six steps appeared  
 another defeat. But the attendant took  
 us to the exit ramp so we toured among  
 the tropical plants, exotic birds, in-  
 cluding a black swan and a flamingo....  
 ...Next we visited the Ringling Circus  
 Museum...We went to Siesta Beach...our  
 first accomplishment was to get miser-  
 ably stuck up in soft sand. We were  
 rescued by a couple of Sarasota Samari-  
 tans, young men who, with the aid of a  
 couple of boards, helped us to depart  
 with a valuable lesson...We drove up to  
 St. Pete and Bay Pines V. A. Hospital  
 where we visited with Margaret Norris,  
 a wonderful respo with whom I had play-  
 ed chess by mail...We made more visits  
 to the beach and I cultivated a lovely  
 sunburn...This account wouldn't be com-  
 plete without some mention of fellow  
 guests at the motel. There were two oth-  
 er respos: Corkey McCorkle, there from  
 Michigan with her helper; and Lowell  
 Weissert with his helper and even more  
 equipment than I carted along....We did  
 enjoy our stay in Sarasota, and parti-  
 cularly the new acquaintances we made,  
 and we recommend the place most highly  
 for anyone who might be considering  
 that kind of vacation....P.S. Not many  
 months after we returned home we bought  
 a new VW with a special 12vDC system!!!  
 For the Monaghan, we installed a heavy  
 duty "Twist-Plug" socket & plug. It is  
 meant for household use,,but it works!  
 Robert J. Reynolds  
 2 Walnut Court, Dunbar, W.Va. 25064



## G E R M A N Y



My parents were born in Germany. My mother and I decided to plan a trip to Germany to visit relatives, whom I had never had the chance to meet.

....Of course being able to stay with these relatives on the trip would make the trip possible "expense-wise"....My doctor wrote to the American Airlines and the Lufthansa Airlines to assure them that it would be all right for me to make the trip.....The airlines insisted that I have an aide with me to lift me around.....I found a school teacher who wanted to go to Germany and offered to pay half his plane fare for his help.....I also had to sign a release not holding the airlines responsible should I get sick for any reason. They also insisted that I go first class so as to have enough room. We argued about the respirator until I pointed out that it was necessary for my life!.....I had my respirator rewired at a V. A. Hospital because in Germany I would have to use 220 volts-50 cycle.....They fixed it so that I could still use it on 110 volts - 60 cycle, and I could just flip a switch to change it back and forth....It is a good idea to start making your plans six months ahead of time because you have to explain your situation to the airlines very carefully many times.... The most work consists of preparing to go - shots, passports, etc.....It is

good to leave ample time for boarding the plane so as not to hold up the workings of the airline.....I restricted my drinking on the plane as it would be too difficult to get to the small lavatory they have...My wheelchair was put on with no added expense.....The flight from New York City to Frankfurt was about 8 hours. After we arrived, I was having so much fun meeting everyone that I didn't get an adaptor to try my machine till afternoon. I had my shell on in the wheelchair and was using it about three hours when we decided to go to bed.....Shortly after turning on my respirator, I smelled smoke and looked to see it coming from my respirator. I now discovered my motor burned up---The V.A. was wrong!.....The motor would not pull a load with the 50 cycle.....So, there I was feeling dead tired by now from all the traveling and excitement. We checked two German hospitals and a large Army hospital in Heidelberg, but there were no portables around. So, the only thing left was to take me to the Army hospital and put me in the tank respirator they had. It was a German make called "Drake", and the last patient they had was seven years ago. The collar on it wasn't quite right, and then we had some more fun getting my negative and positive adjusted right. But, I got settled at last.The next day we decided the best thing to do was to have the motor rewound for just 220-volts-50 cycle, and then just before I

was to leave for home, have it rewound again for 110 volts-60 cycle.....I got out of the hospital just in time to go to two birthday parties and to see a German color movie.....In the old sections of the city, cobble stones are still used and kept that way for historical reasons. After going over them in my wheelchair, I had to keep checking the nuts and screws on the chair as they kept vibrating loose. Everything is up one to three steps, so it is handy to have a couple of strong hands around for help...Then one week later, I went to Freiburg for four weeks and took a ride through Basel, Switzerland. I also took a number of rides through the Black Forest. Now back to Schriesheim.....From Schriesheim I went to the Zoo in Frankfurt that had the largest Sea elephant I have ever seen!..In the Stuttgart Zoo they had a chimpanzee trained to feed the seals.....The last night in Germany I again went into the tank respirator at the Army hospital because during the day my motor was being rewound...and, of course, the first thing I did when I got to my hotel room in New York was to put on my respirator .....It worked!!

Ralph Dosch

5670 Walton St., Long Beach, California

*ED: If any European - bound respo needs expert advice, consult Charles Froelicher, Steinfthalde 18, Luzern, Suisse. He is a respo and Thompson representative.*

## JAPAN 卍 HONG KONG



...San Francisco to Los Angeles to Honolulu to Tokyo to Osaka, Kobe, and Kyoto to Hong Kong and return..This is how I spent an interesting three weeks...The basic equipment for the trip was an overhauled wheelchair, portable Thompson breather with pneumobelt and extra hose for mouth positive, and commode chair. A good travel agent selected suitable hotels and arranged alternative transportation... Letters of introduction were valuable.. The most interesting aspects to me were the people and their customs, rather than the sights....The mechanics of the trip were fairly routine. My travel was by air with various airlines and in various planes and with various degrees of comfort, convenience and cooperation. The procedure is fairly standardized. I board the plane by forklift, if available. If not, and a wide ramp is used as stairway to the plane then several men carry me sitting in the chair, into the plane...If it is a narrow stairway, I prefer to be carried from the ground to my seat by one strong man. I usually sit in the aisle closest to the doorway. Although this may be the least comfortable seat on the plane, it is the easiest to get in and out of....Once we are under way I have the Captain radio ahead to destination to have assistance

*Jerome Sills — "The Governor of Tokyo wearing my gift (Honorary Fire Chief of Hayward Fire Department), while his Protocol Minister holds the book to be signed by visiting dignitaries. The man next to me is a client of my law firm who was in the Orient on business and whom I accompanied during the trip."*

available to separate the wheelchair from the baggage and to help in deplaning...The most gracious service was extended by Japan Airlines as a result of advance arrangements. They made weight allowances for my baggage because of the extra equipment...The first view of Tokyo at midnight was exciting..Customs clearance was simple....The service at the Palace Hotel was excellent...."Room boys" were handy to help out with my dressing and bathing when needed.....I had a letter of introduction to the Governor of Tokyo and had an interesting audience with him in his office..he was most gracious and we exchanged mementoes of the visit....We flew to Osaka, a large, bustling, industrial city - my favorite.....In a hotel in Kobe I first encountered the breathtaking oriental method of transporting me up stairs... Their method consisted of having three or four men grab the wheelchair with me in it and race up the stairs so fast I could feel the breeze. This method was repeated many times in various other places, but no one ever stumbled..Kyoto is the traditional tourist town...but I found it the least interesting..We went



to Hong Kong, via Air India, with a sari-clad hostess serving a rice curry meal.....In Hong Kong I hired a Chinese lady to be my "ama" or nurse-maid..... Hong Kong is very busy and tremendously crowded with refugees. The contrast between rich and poor is extreme. Few can afford a wheelchair....Quite naturally mine was a great object not only of curiosity but also of envy.....It is with people, rather than with places or things, that the most interesting experiences develop. For instance, an innocent haircut nearly developed into a crisis...From the torrent of discussion in Chinese I knew that I was the topic of intense conversation among those in the barber shop.....No one understood the nature of my condition and they probably assumed it was some form of paralysis accompanied by loss of sensation. One of the men kept eyeing me and edg-

*Continued*



"I was carried down the gangplank of this floating restaurant in Hong Kong."

ing up closer. Suddenly he reached out and grabbed my leg behind the knee and squeezed. Naturally, I hollered, "Ouch." For the first time he spoke directly to me, "Ah hah," he said, "you see I have discovered a hidden nerve, showing there is life in the legs. I know an old Chinese doctor, with a long, white beard, who can make you walk. He will give you a special Tiger-Baum medicine." Cautiously, I said, "Not right now." He kept after me. "What's the matter, don't you want to get cured?" I finally escaped by making an appointment for the next day, which somehow I neglected to keep.....Hong Kong is such a long distance away.....The ride home was very wearying, and the plane was full.....It is best to stay over for a day or two in Hawaii when stopping for customs inspection and rest before continuing....

Jerome Sills  
1872 Grove Way, Hayward, California

## CANADA



...have taken two trips the past two years with portable rocking bed and trailer to Calgary, Alberta, in 1962 and to Port Arthur, Ontario, in 1963 and encountered no difficulties. Trailer Parks equipped with electricity are not difficult to find and fortunately relatives are spaced at convenient intervals en route. I find that people are very helpful at all times and would recommend to any respo --get out and see the world. The problems are relatively few and the benefits are enormous....

Dora Dunne  
R.R. #1, Worthington, Ontario, Canada

## ENGLAND



.....Our happiest memories for 1963 are related to a three-week trip to England in October..These memories include the privilege of feeling the pulse of British life as we lived with our friends in Sutton Coldfield and participated in their daily life activities..We shipped our Kartop lifter over and our friends put it on their car.....We flew over on TWA jet (after not too many explanations because I am a trawmatic quad)... ..Our friends went everywhere with us so steps were no problem....really got to see lots more than we ever dreamed

possible. Actually our trips were mostly one-day affairs away from our friends' home.....We were in hotels only three nights....It all worked out wonderfully well....

Rev. Francis F. Fisher  
100 La Salle St., Apt 16A, N.Y. 10027

## LONDON ! ! ? ?

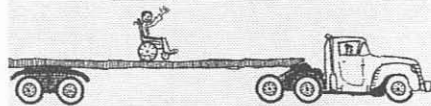


.....I would like to find a job in London starting next fall... and hope that some TjG readers can advise me on how to proceed ...First, let me tell you a bit about myself. I am 21 years old and will be graduated from Barnard College this June....I have been a respo since 1954...I'm fortunate enough to have made unusual progress...I use a rocking bed every night....I can walk, but am limited by my respiration problems..I can use my arms to some degree, but need much help with dressing bathing and hair-washing. My trunk is very weak and I wear a rather sturdy back brace.....In the summer of 1964 an unimaginable dream came true when I went to Europe for three months by myself!!! ..I spent three weeks in London and the rest of the time in a school in Germany ....Of course, innumerable arrangements had to be made, but the fact remains that I did do it!!!

Esther Katzen  
Barnard College, 3001 Broadway  
New York 10027 N.Y.



# N-WHEEL -CHAIR TRAVELERS



## BUCKET SEAT WHEELCHAIR

by Muriel Rosenberg  
(respo) California

**M**y husband, Seymour, and I have had devised a car seat wheelchair using the bucket seat of a car as a wheelchair seat which is detachably mounted on a modified wheelchair carriage. We chose the 1964 2-door hard top Mercury because it had the best combination of height and width of door opening, height of floor from ground and widest arc of door in opened position. It also had a comfortable bucket type seat which I could visualize as a wheelchair.

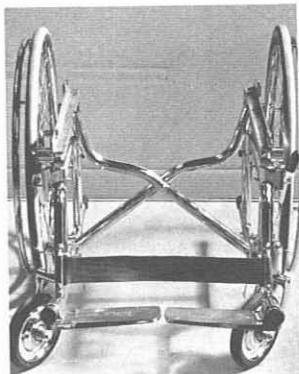
We had a collapsible wheelchair carriage made with shortened braces and smaller wheels. The bucket seat was removed and a pair of slides was mounted on a turntable. The bucket seat rides on the wheelchair carriage "on land" and, for "cruising," it is dislodged from the carriage to the slides by a locking device.

It is necessary to raise the car slightly to allow ample clearance for the transfer from carriage to slides. We have an electric jack built in so all I have to do is to push the switch after the car ignition is turned on. The jack comes down to the ground, raising the car.

Of course the cost was formidable, but now that the first experimental model has been made, costs should decrease. Any information as to the particular specifications will be gladly furnished. Contact Mr. Seymour Rosenberg, 3132 Corinth Avenue, Los Angeles 66, California. Ω



*"Seymour engages the slides to the bucket seat mounted on the carriage."*



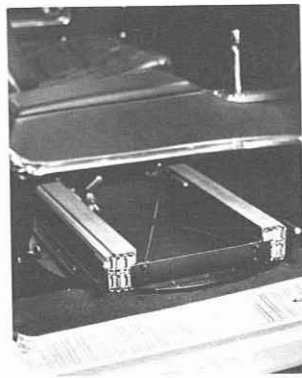
*Modified wheelchair carriage.*



*"Ready to go! My attendant and I scoot about the city on various chores and visits. We don't use it all the time as it is heavy and it is difficult to push up steep inclines. It is also slightly higher than my standard wheelchair, so it is impractical for restaurant dining. Mostly, we use it when my attendant takes me shopping, something we could not do before we had our 'wonder' chair."*



*"My push - button jack raises the car to allow clearance for the carriage."*



*Turntable, retracted slides.*

# SWEDISH CAR-BORNE WHEELCHAIR

by Bertil Åkerblom  
(respo) Fanörvägen 1,  
Enskede, Sweden

**M**y wife and I are demonstrating one of my technical contrivances.

The hind wheels have a mechanism to regulate distance between the wheels.

The seat may be lowered or raised by a lifting jack (same as one for a car).

The arms are detachable, with moveable arm rests to give reach at drawing and dinner table.

My wife drives and our daughter has plenty of space in the rear. We have journeyed to Denmark and Finland



## Folding Portable Ramp



This folding ramp was developed by Lenny Lovdahl, who is disabled by muscular dystrophy. He is president of Handicabs, International, a nationally franchised taxi service for the handicapped.

The first ramps he used on his VW cabs were carried on a rack built underneath. However, the snow spraying from the wheels made them inoperable in the winter, so Lenny developed this unique ramp.

It is made of heavy steel; extends to 5' long x 25" wide; serves 16" to 24" heights; and folds to store vertically in a space 36" high x 4". It has a single 3 bolt installation and is counterbalanced when mounted so that a woman can operate it easily. The disappearing stair well is coated with non-skid paint. It fits vans, busses and trucks.

For brochures, write: Handi-Ramp, Inc., 904 Countryside Highway, Mundelein, Illinois. They can be purchased from any Volkswagen, Chevrolet, Dodge or Ford dealer. Weight: 75 lbs. Price: \$149 FOB Mundelein, Illinois. ♪





## VW: A PORTABLE GENERATOR

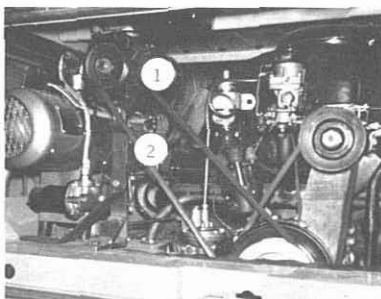
by Jan Ruehling  
(respo) 3019 William Harrison Dr  
Biloxi, Miss. 39531

**M**y father and a mechanic devised an ingenious electrical system that solved my power problems. This electrical system is all contained in the engine compartment, which is in the rear and under the baggage space. It is designed to operate the respirator only and is entirely separated from the system which runs the car starter, lights, etc.

I also use this setup for an emergency generator at home in case of power failure. Ω



*The piece hanging down the back of the chair is not a ground wire, it's a braid.*



(1) Generator which supplies power to the extra 12-volt battery.  
(2) Belt to drive generator.



*My chair is anchored by steel pins to the framework which is attached to the back seat.*

\* \* \* \* \*  
 \* THE PHYSICALLY DISABLED AND THEIR ENVIRON- \*  
 \* MENT - Reports of the International Society \*  
 \* for Rehabilitation of the Disabled confer- \*  
 \* ences in Stockholm in 1961. A wealth of in- \*  
 \* formation on the problems of the handicap- \*  
 \* ped, including the planning of homes, house- \*  
 \* keeping, and transportation. Order from: \*  
 \* ISRD, 219 East 44th Street, New York, New \*  
 \* York 10017. Price \$2.00 \*  
 \* \* \* \* \*

## Worm Type Bumper Lift and VW Ramp

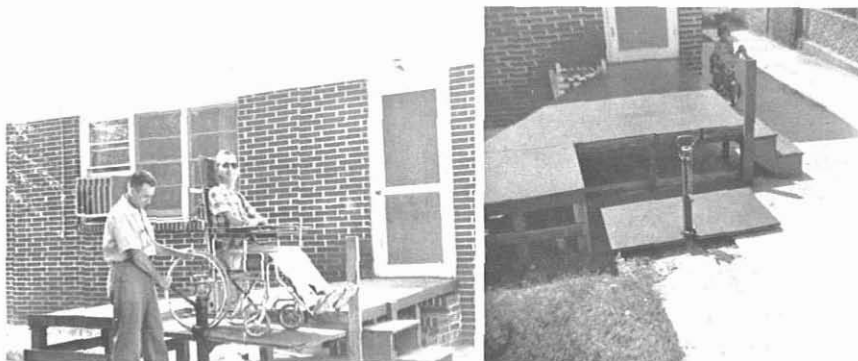
by A. C. "Tony" Mathews, Jr.  
(respo) 1452 East 40th Street  
Savannah, Georgia

**M**y VW ramp is of plywood, 66" x 40". A pair of tongues, each having a 2" bolt welded on the ends, extends 2" to hook into holes on the frame of the VW to prevent its slipping (1).

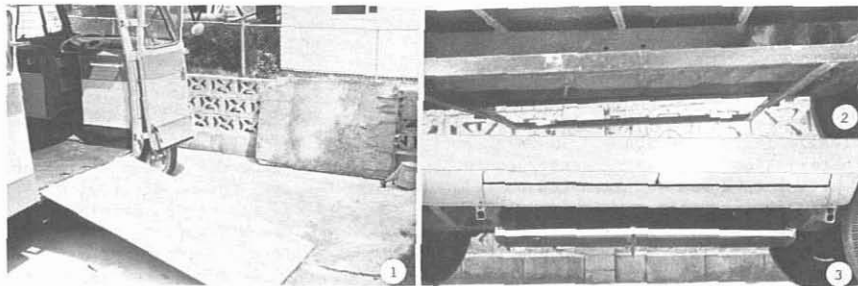
En route, the ramp is stored underneath\* An angle iron shelf was welded on the VW frame (2).

The fronting angle iron is upside down and the ramp is secured to it by a 5" pin which extends through the plywood and the angle iron (3).

\*ED: Impractical in snow. See page 57.



**T**he lift was accomplished by welding supporting rods on the forks of a worm type bumper jack and by bolting a 1/2" plywood platform onto this frame. With this I can be lowered to car level entrance or ground level. The permanent "sunning" ramp gives an ideal sitting view of the children playing in the yard as well as speaking distance to neighbors. Ω





### Hydraulic Tailgate

The tailgate operates hydraulically off the truck's electrical system by remote push-button control. The 54" platform folds up vertically inside the doors. In this particular installation, it was necessary to change the gas tank to a smaller size and to relocate it.

The lifting unit, weighing 200 lbs., was made and installed by The Stratton Equipment Co., 30525 Aurora Road, Solon, Ohio 44139. The unit can be installed by any good garage.



The Stratton Equipment Co. can also make a tailgate for use on a similar vehicle which can be raised 2' or 3' above the truck floor level for use as an elevator from porch level to truck floor.

(Photos: Courtesy of T. Warren Strauss of Highland View Hospital, Cleveland, Ohio) □

## ENGLISH RAMPING AND TAIL LIFT CARS



This hydraulic tail lift enables one attendant to load and unload several persons in wheelchairs single handed. Further particulars from: Chief Officer of Supplies, London County Council, 249 Merton Road, Wandsworth, London, S.W.18, England.

This Austin Sheerline will take two people in wheelchairs, plus a passenger on a small fold up seat behind the driver. The back of the car was cut away and folds to form a ramp.



The Ministry of Health had this invalid car made for Miss Norah Siddall, O.T. at Mexborough and Wath Hospitals. A twist of a key and a push of a button on the side of the car and the door, in two parts, opens automatically. By pushing another button inside the car, the door is closed. Ω

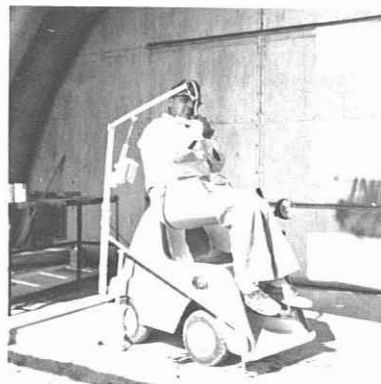


*Excerpted from THE CORD and EQUIPMENT FOR THE DISABLED*



## Electric

*REDDY-GO, the new electric wheelchair, has power to climb steep grades. Only 27" wide, it will pass through any average doorway.*



*With an electric hoist, the driver lifts himself on and off Reddy-Go.*

# Wheelchair Car

An exciting development in self-propulsion, for the able-bodied or the handicapped, is now available in the Reddy-Go electric car. This little automobile is powered by two large storage batteries which, when fully charged, will give up to 25 miles travel. It has six forward and six reverse speeds up to a safe maximum of 15 MPH.

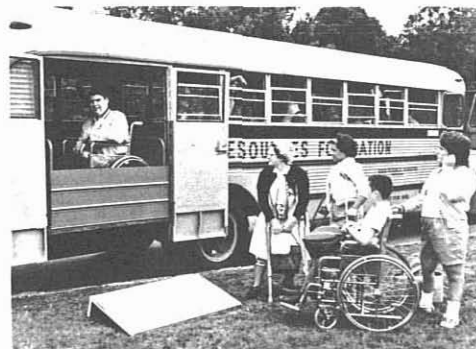
It has four balloon tires and four coil springs for comfort, traction and maneuverability and, with a differential giving equal drive to both rear wheels, it will go almost anywhere. The manufacturer says, "It can be operated on sidewalks, streets, in buildings, in offices, over carpeting, tile, marble, grass, pavement, snow and mud. It is sturdy enough to carry two people and powerful enough to climb any paved hill. It will pass through any average doorway and backs up and goes forward without any jerking."

The standard fibre glass body is available in three colors - red, blue or yellow. Special bodies and other attachments are available, such as an electric hoist which will raise or lower a person onto or off the machine, hand controls or foot controls, power steering, etc.

For transporting it, there is a trailer at nominal cost. The price of this unique little automobile is \$650.00 FOB factory. Most local banks will finance one at the same rate as an automobile.

For brochures and further information, write: Mr. Milton Hatfield, President, American Battery Car Inc., US 20 - IND.13, Middlebury, Indiana. Ω

BUSSES WITH HYDRAULIC LIFTS



Hank Viscardi, the founder and president of Abilities, Inc., the famed Long Island concern made up entirely of severely disabled people, has recently pioneered a school for children judged too handicapped to leave their homes. He designed this bus to take them on exciting expeditions.

Another spearheader in the education of the severely disabled, Professor Tim Nugent of the University of Illinois evolved similar busses for transporting wheelchair students around the campus. His busses had the seats removed and a hydraulic lift installed at the front door.

## DKW and Uplifted Dodge Sportsman.....

by Dana Stanton  
(respo) Colorado

*Photographs by the author*

**M**ike (Big Mike) Dennis, of Wheatridge, Colorado, has found that traveling is convenient and comfortable while sitting right in his wheelchair. There was one serious problem, however; in most bus - type (low-roofed) station wagons, he had to sit with head bowed, but irreverently so, because of the discomfort and vision obstruction involved. So he searched the Denver area high and low for a vehicle that would accommodate the taller variety of wheelchair rider.

The first of Mike's efforts to solve the headroom problem was the DKW, Model 3-6 Van Estate Car (Station Wagon), a German-made foreign-ambulance-appearing rig. Translated DKW means, "The Little Wonder." And it has certainly been that. With its famous 3-cylinder water-cooled engine, it passes gasoline stations by the dozen. Its front - wheel drive and four - speed synchronized transmission make it nearly unstopable in deep snow.

But what Mike likes best is the more-than-ample headroom inside the DKW, 61 inches. The wheelchair riders have a panoramic view out of all window areas. The ramp is hinged and folds up behind

the last chair to enter (the DKW will carry three chairs at once). Mike can motor his E&J power chair up the ramp. Though he has but partial use of his left arm and hand, he requires very little help getting in or out. The chairs are tied down to special anchors with heavy nylon straps.

For further information about the several DKW models, check the foreign car dealers in your telephone directory. Or, write: AUTO UNION G.M.B.H., Ersatzteile und Kundendienst, Ingolstadt.

**T**his unique Dodge Sportsman Station Wagon is Mike's second attempt to solve the headroom problem of the in-chair-type transportation vehicle.

He's the only man I know who bought a 1965 Dodge Sportsman, and without ever riding in it, or ever being inside it, had the body literally cut into pieces. With the encouragement of Pierce Dodge, Inc. of Littleton and the courage of the Woerber Auto Body Company of Denver, a jigsaw was used to cut the body along a plane just under the rear side win-



dows, then up and across the roof just behind the cab or driver area. This whole section was then raised eight inches, windows and all. The side-loading doors were extended eight inches. And a vista - vision windshield was installed in the forwardmost portion of the elevated section.

A folding ramp was built into the side - door opening, and again Mike was ready to ride in solid comfort, style, and convenience. But this time he would have enough horsepower, with the 8-cylinder engine, to ride up into the Rocky Mountains, the foothills of which are



Arthur Koch, being helped up the ramp by Ronald Sutliff, checks the DKW's 54" door height, and finds that even a lean six-footer doesn't get bumps on the noggin while entering the rig. Art is a total quad, yet he rides in solid comfort and safety with the nylon strap about his upper torso and chair. The cable (near the door and running diagonally from inside) is an adapted garage - door device, spring loaded to cause the ramp to lift and fold up at fingertip touch.

but a ten - minute drive from his home. (The DKW has only a three cylinder motor, and only 32 horsepower, so it has to be used only for town driving.)

Mike chewed nails to the quick for more than a month, while the Dodge was in the shop. Raising the roof--in this case--was a calculated risk. Mike took it. The body work alone was in the neighborhood of \$550. Now he can unleash a long sigh of relief; for the result was an attention - getting, stylish powerhouse, the only Model Dodge--with vista-vision body style--of its kind on the road today.     Ω



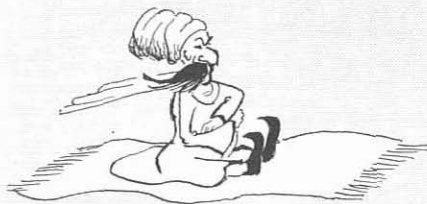
Ralph W. Davis, Shop Foreman for Woeber Body Co., sketches the ramp design for Mike. (Note that the side doors have not been extended yet. Also note the dark, 8" wide strip of sheet metal riveted below rear windows. This will be painted, and the rivets chrome trimmed.)



Mike is obviously pleased with the result of his "calculated risk" in raising the roof of his Dodge Sportsman 8". (Note the vista-vision windshield that is partially visible through the side-door window.) Besides being stylish, it is ideal for up to four in-wheelchair riders.



# QUAD DRIVERS



## An English Quad Driver

by Michael Beck  
(quad) Stoke Mandeville Hospital  
Aylesbury, Bucks.

Since becoming a quadriplegic eight years ago, I have always thought how satisfying it would be to drive a car again. With the introduction of automatic transmission to British cars, it seemed to me that this might in fact be possible. There appeared to be only one way to find out so I bought a Hillman "Easi-drive", converted it to hand-controls, found a brave man to accompany me, and set out to find a quiet road on which to experiment.

It was difficult at first, but after five months of hard practice I was able to pass the driving test.

As the car is fitted with automatic transmission only two hand-controls are needed, an accelerator and the brake. These should be installed by a reputable firm and, before having them fitted, it is advisable to sit in the driving seat to make sure they will be conveniently placed.

Most firms will insure disabled drivers and it pays to obtain several quotes. One method is to inform the dealer that you will buy his car so long as he gets you insured. This rarely fails and you

sometimes get very good terms.

The car can now be driven, but it may be found that several smaller conversions (hand-brake, ignition key, choke, indicators, dipper, etc.), are also needed. These can be done by a local garage and will vary in number according to the individual. The photographs on the facing page show some of the conversions to my car. Most of them are simple yet very effective.

The total cost of these conversions was £45. £25 to Reselco Ltd., and £20 for the rest. However, having passed the test this money can be reclaimed from the Ministry of Pensions. (Non-pensioners can claim from the Ministry of Health, I believe.)

So far as I can tell, the two most important muscles for controlling the car are triceps and wrist muscles. A grip, though very useful, is not absolutely necessary. I manage all right without one. In fact, any C.6, 7, or 8 with these two muscles should find that he can cope. I have no proof, but I think it would be too much for a higher lesion.

Steering is probably the hardest part to master but a pair of soft leather gloves or mitts will make the job very much easier. It will also be found that slouching down in the seat will give better balance as well as support for the shoulders and an arm-rest provides something to lean on, making the driving more comfortable.

Since taking the test last year four more quads here have passed, all of them driving bigger cars than mine. It goes to prove that quad drivers are here to stay.

It is a most satisfying experience motoring along on your own again and the feeling of independence more than compensates for the expense involved. It's certainly worth a try, you've got nothing to lose and everything to gain. Ω

### MEDICAL POSTSCRIPT

MICHAEL BECK and his fellow quadriplegics at Chaseley are to be congratulated on their initiative in training for, and passing their driving tests. Their success has paved the way for other quadriplegics but it must be realized that there will be a number who will not be capable of safely driving a car, even with an automatic gear-change. Michael Beck himself, has normal power in the biceps and extensors of the wrist and almost normal power in the triceps, which permits powerful extension of the arm. In addition, he has quite good power in the flexor of the wrist. Some quadriplegics have only a flexor of the elbow (biceps) and a

large number have that muscle, and an extensor of the wrist, but no triceps or wrist flexor and it is doubtful whether, with the type of hand-controls at present available, they could safely drive a car.

It is most important, both from the point of view of his own safety and that of the general public, that each prospective driver be assessed individually, and it may be that, with further development of hand-controls, even more seriously disabled quadriplegics may be able to qualify as drivers.

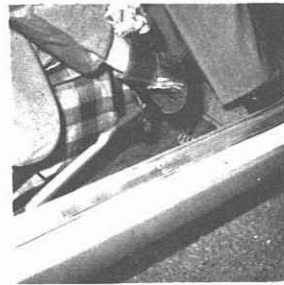
J. J. Walsh,

Stoke Mandeville Hospital.

Excerpted from *THE CORD*, Autumn 1962



The driving position with the gloved right hand operating the accelerator.



The parking brake is operated by a wide hook fastened to the wrist of the glove.



To enable the choke to be operated a lever is fixed to it as shown in the left of the photograph. On the right will be seen the extension fitted to the ignition key.



The foot brake is connected up to the white rod at the side of the driver. This is pushed forward to apply the brakes. The band over the knee prevents the leg from falling sideways and fouling the brake lever.

## An American Quad Driver

by Ken Schreiber  
(quad) Ransom, Kansas

After I became a quad in '55, I thought driving was impossible until a friend, who is also a quad, proved to me that I could. I have had my car for two years and I now have 34,000 miles on it. Sometimes I spend as much as 8 hours in my car selling insurance.

I live in a small community in Western Kansas. Of course, most of the communities are small out here, and I am pretty well known in several small towns. Unless you are from Western Kansas you have no idea how friendly and helpful people are out here. To give you an example, I can't stop my car along a main road within a radius of 20 miles for over a few minutes without someone stopping to see if I need help. I had a flat tire once and waited only ten minutes. Three other times I stopped to get a drink (I always carry a jug) and before I could get started someone had stopped to see if I needed help. So you can see, the community has been a big help.

First of all, I think I have about the minimum amount of muscle power to be able to drive. I have the muscle that pulls the wrist up in each arm and this is the only muscle in hands or arm. However, I do have good movement of my shoulders.

My injury was at C 5-6. I need an electric wheelchair. I can propel another chair, but very slowly. I use a Hoyer Kar-Top lift since I can't get in and out by myself. I have no triceps. I use elastic bands to feed myself. I have leg and arm spasms, and this is sometimes a problem. As a rule, I can tell when I am going to have a spasm and I get myself into a position where it doesn't have any effect on my driving other than my slowing up.

I have standard Hughes hand controls with an automatic shift, power brakes and steering. Other than this, I have a knob that I had made. This knob is like a truck knob and is about 4" long and about 3/8" or 1/2" in diameter. My fingers are curved, so I just slip my hand over the knob. The way my hands are, it's almost like I was using some muscles. When I'm driving down the road it's not necessary to use the knob. In operating the hand controls you have to push the hand control straight away. This I do with my shoulder since the door acts as a brace for my elbow.

I have a 1962 Fairlane 500 and this was a lucky purchase. I was lucky that I chose a smaller car because the door isn't so far away and, in pushing the brake, my elbow is against the door and I push with my shoulder. This takes the place of triceps in pushing the brake.

By now you are probably thinking that this is a precarious way to drive. After the way I explained it, I can readily see why. I do a great deal of driving and I feel safe. We have just about all type of roads around Ransom from dirt to super highways. Right here we don't have too much traffic, but I drive to Wichita every month--which is 200 miles--and Wichita traffic doesn't bother me. If a person can drive, traffic or the type of road isn't going to make much difference--except for mud, and I've driven in mud. I guess the longest drive I've made in one stretch was 400 miles and that was to Omaha, Nebraska--in 8 hours.

I didn't think I would ever be able to drive and I didn't think I would ever be able to drive very fast, but I drive the speed limit. It is amazing how fast you can adjust to this way of driving. Ω

# AIDS for Driving Quads

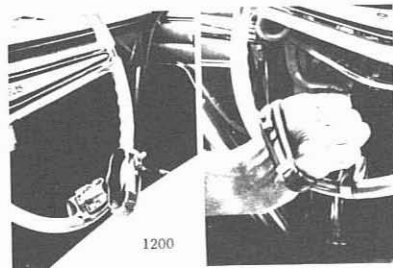
## WOLFE SELF-OPERATED AUTO LIFTER

This all purpose lift assists transfer back and forth from a wheelchair, an automobile, bed, or a bathtub. It is constructed of chrome-plated steel tubing. Power for the lift comes from the electric motor which is controlled by a spring-return switch within easy reach of the user. The lift can be installed and removed from a mounting post under the dashboard of standard makes and models of cars; and it can be mounted on either the passenger's or driver's side. It operates from the automotive electrical system, or with a power-pack transformer (optional accessory) when used inside the home. REHAB AIDS, Box 612, Miami, Florida 33144. \$334. FOB Whittier, Calif. (Catalog of other self-help aids and rehabilitation products: 50c)



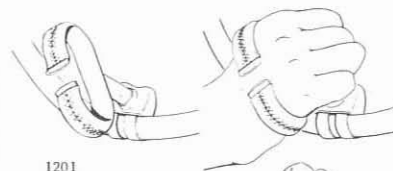
## 1200 QUADRIPLEGIC STEERING SPINNER

Clamps hand securely in horizontal position by simple hinge and latch mechanism. Hinged latch on top has spring-loaded catch to allow easy insertion and withdrawal of hand. Only slight pressure, applied with free hand or with chin, is required to open and close latch. Especially recommended for quadriplegics with limited wrist muscles whose fingers are normally curled and whose hand would slip out of other steering devices.....Each \$32.00



## 1201 QUADRIPLEGIC STEERING SPINNER

Partially-open top permits hand to be slipped in and out with little effort, yet holds hand snugly in horizontal position. Primarily used by quadriplegics whose fingers are normally straight, since normally-curved fingers prevent easy insertion and withdrawal of hand.....Each \$22.00



## 1202 QUADRIPLEGIC STEERING SPINNER

Holds hand in vertical position so that it can be inserted through open top. Hand slips easily into U-shaped spinner, regardless of whether fingers are normally curled or normally straight. Use of this spinner requires somewhat better wrist motion than is required with two preceding spinners. .... Each \$18.00



TRUJILLO INDUSTRIES, Box 217, San Clemente, California 92672, manufacturers these spinners and many other unique quad-type supplies and accessories. The founder of the firm, Ernest J. Trujillo, has over 15 years of driving experience as a C 5 -6 quad. Write for free brochures and inquire about any special equipment needs.

**N**ext to his wheelchair, the automobile is the greatest single device available to a quadriplegic in his efforts to achieve mobility and independence. It has provided many otherwise "shut-in" quadriplegics with the vital link to employment and active, useful lives.

But "using" an automobile presents more problems to the quadriplegic than to the paraplegic, and many diverse solutions to these problems have been devised by resourceful quadriplegic drivers. It is my intention in this article to outline some of the solutions as a guide and idea source for other handicapped drivers.

For our purposes here, we can divide the overall quadriplegic driving problem into three parts: (1) getting one's self in and out of the car, (2) getting the wheelchair in and out of the car, and (3) using adaptive driving equipment.

#### Getting in and out

When getting into a car from a wheelchair, there are basically two positions in which the chair can be placed. With stationary armrests, the patient approaches at an oblique angle, puts his feet in, then twists the chair to the perpendicular position ..... With detachable armrests, he positions the chair beside and parallel to the car.

Many patients find that the most difficult part of getting into a car is bridging the wide gap from the wheelchair to the car seat. Several possibilities should be considered, for each quadriplegic's disability varies in severity and other particulars. Therefore, the technique must be tailored to the individual.

At the Veterans Administration Hospital, West Roxbury, Mass., the Corrective Therapy Section of the Physical Medicine and Rehabilitation Service has developed a *transfer stool* to solve this problem. The stool snugly fills in the gap between the wheelchair and the car seat. Thus a quadriplegic with only a limited degree of "seated pushup ability" can safely slide into and out of the car.

#### Swinging quads

For quadriplegics with adequate strength, a device to assist swinging into the car is recommended. One of the California Paralyzed Veterans Association members has developed a gutter hook ..... It is simply a sturdy piece of metal, with a strap attached, bent to fit into the car gutter above the door. To use the gutter hook, a person slips his forearm through the strap, then lifts himself with his arm and shoulder muscles and swings into the car seat. A similar method is to install a hand grip (with strap attached) just inside the car door ..... This device is used in the same way as a gutter hook.

Still another approach is to extend a portable rod between the car roof gutter

## INDEPENDENT TRAVEL BY QUADRIPELGICS

and the top of the open door ..... This system is used by Paraplegic News Editor Bob Webb, who throws one arm well over the rod, lifting with his upper arm and shoulder as he pushes with his other arm.

Considerable practice and experimentation usually are necessary, especially in the placement of the feet, before a quadriplegic finds his own best system for getting in and out. Persistence is required, but success is well worth the effort.

(A device which may be of value to some wheelchair drivers is the *knee separator*..... Its purpose is to keep the knees spread when they have a tendency to scissor together. It also aids balance and stability.)

#### Getting the wheelchair in and out

A second major concern of many quadriplegics is getting the wheelchair into and out of the car unassisted. James Scully, another California Paralyzed Veterans Association member, utilizes a special device that he developed. It consists of a rod, with a strap for his wrist on one end, and metal bent in the shape of a hook on the other ..... Once he is in the car, he uses the rod to set the small wheels on the car floor. Next he slides over in the car seat, reaches behind the back of the seat, snags the wheelchair, and pulls it into the car.

In my own case, I employ two straps to help get the wheelchair into the car. First, I grasp the leather strap attached to the wheelchair and lift the small front

wheels onto the car floor..... Then I place a long webbing strap through the first strap. After sliding over and reaching behind the car seat, I put my wrist through the double loops of the web strap and pull the chair into the car.

To get a wheelchair out of the car, the reverse of the "getting-in" procedure is again used: first, seat forward, second, slide over and reach behind seat, and third, push chair out, holding onto a strap or thong to prevent the wheelchair from getting away.

Many wheelchair drivers who have a car with a depression or "well" in the back floor often have a wooden platform made to fill the well. Filling the depression in this way makes it much easier to get the chair in and out.

Finally, for those who can afford it, one of the lightweight wheelchairs now on the market may substantially ease the problem of getting the chair in and out of the car unassisted. These new chairs are about one-half the weight of the familiar tubular steel chairs.

#### Using adaptive equipment

In addition to the various automotive hand controls available for handicapped drivers, there are a number of special assistive devices used by quadriplegic drivers to help them maintain proper control of the steering wheel. One of these is of the *ball and socket type*..... The socket part consists of a brace for the hand with a metal socket attached to the palm of the brace. The socket is in three sections with a round metal spring to

allow for expansion and contraction. The socket fits over and grips a ball attached to the steering wheel. In this manner the driver can attach or detach himself from the steering wheel at will.

Another device is a hand brace with a hollow cylinder attached to the palm of the hand brace..... The hollow cylinder slides down over a solid spike attached to the steering wheel. This device also can be attached and detached at will.

A wrap-around device is used by some drivers. It consists of a thin piece of steel bent to fit or "wrap-around" the hand ..... This can be attached to the steering wheel and the hand slipped in and out.

For driving ease, as well as safety, power steering and power brakes should always be used when possible.

#### General problem

A general problem associated with driving is getting up and down curbs in a wheelchair. When there are people near, swallow your pride and ask for the slight assistance needed to boost you onto or off a curb. When assistance is scarce, try to park near an alley or driveway so you can roll onto the curb. As a last resort, wheel down the street until a motorist offers a helping hand.

This article covers the problems of disabled drivers in broad terms only. Since quadriplegics usually must or will make adaptations and improvements to meet their particular needs, this information is intended only as a starting point. You take it from here!

Ω

by Harold L. Stone, Jr., Chief,  
Educational Therapy, Veterans  
Administration Hospital,  
West Roxbury, Massachusetts

## English Car Conversion for Foot Control Driving



*Nigel Harvey, a works safety officer, who contracted polio in 1951 whilst serving in the Army, lost the use of his hands and arms. He toured the motor shows for years until he found this Renault R8 Automatic, and a Sussex firm who could make a foot "steering wheel" so that he could drive again.*

*Photo: EVENING NEWS & STAR, London*

*by Nigel C. Harvey  
(polio) Woodfield Road  
Ealing, Middlesex*

*Excerpted from THE CORD, B.P.F. BULLETIN  
and REHABILITATION (Journal of B.C.R.D.)*

**W**e are all pretty familiar with the various types of hand controls which can be fitted to cars to overcome disabilities affecting the legs, but how does one drive a car when one has full use of one's legs, but one's hands and arms are completely paralysed by Polio?

The new Renault R8 with automatic transmission might almost have been designed to solve this problem. The automatic gearbox with a rear engine provided an essential flat floor, and also made for lighter steering. The adaptation to foot steering was designed and constructed by Ruddspeed Limited, Arundel, Sussex, for approximately £250.

**S**teering is done entirely with the left foot fitted securely in a stirrup which is connected by a ball joint beneath the toe to a 9in. steel disc. The latter is coupled to the conventional steering column by a double roller chain and sprockets enclosed in a greased and sealed for life alloy casing. A friction pad is fitted beneath the heel of the stirrup providing a second point of contact with the disc, which makes for easy turning by ankle movement alone, and enables most bends on the open road to be negotiated without lifting the heel off the disc. For sharper corners the heel is raised and the disc rotated by the ball joint just like the ordinary steering wheel.

**T**he brake is controlled by the right foot. The modified parking brake is a vertical lever, between the front seats, operated by shoulder pressure and is of the spring-off type; a trigger for this is worked by the right heel.

The right foot controls the accelerator in the normal manner, and also operates most switches. These had to be positioned well apart to avoid accidental operation of the wrong switch, and the more one was used the nearer it was positioned to the right foot. Thus the sidelight switch is just in front of the driver's seat, where the windscreen washer and wiper controls are also located, whereas the headlight switch is on the wheel arch, and the dipper immediately above the accelerator. Electric window winders are fitted to give easy control of both windows.

**T**he right knee works the direction indicators, and also an ingenious sliding gate mechanism which facilitates selection of the push button gear controls.

A simple extension to the ignition key allows it to be rotated by the left knee.

The horn is mounted on the door pillar where it can be leant on rapidly when necessary.

A bracket on the door enables the door to be slammed with the foot, and a door catch is fitted along the lower edge.

**T**HE writer, for whom this conversion was undertaken, took delivery of the car only three days before passing the driving test. This in itself must give some indication of the ease with which this car can be driven. The left foot rests in a perfectly natural position; all controls come easily to the busy right foot. Round trips of over 400 miles have been completed in a day without fatigue. Parking in limited space proved easier than anticipated. Manoeuvring in London's traffic is no more difficult than it is for anyone else.

The car will always be made available for anyone to try out on private ground, so that others may discover whether they have the potential to drive with requisite control. Ω



*This photograph shows the steel shoe by which the car is steered. It will be seen that other controls have been converted to use by the right foot or knee.*



#### AMERICAN CAR CONVERSION TO FOOT CONTROLLED STEERING



An ingenious post polio developed and markets this device for foot controlled driving: Cameron Enns, 13637 South Madsen Avenue, Kingsburg, California.

The left foot rests in a kind of ski boot attachment which is fastened to a spinner on a circular plate. The plate is attached by sprocket and drive chain to the steering column. The plate turns with the merest pressure of the foot, and thus turns the steering wheel.

If other family members wish to drive the car, the plate may be fastened to the auxiliary mechanism with a large cotter key so that the boot is easily removed.

## Hydraulic Ramp and Dual Control Driving

by Jerome Sills (respo)

**T**HE car, which has made a world of difference in my life, was developed in two stages. The first stage was merely to provide transportation without getting in and out of the wheelchair even though someone else did the driving. This was 10 years ago at a time when VW busses or similar vehicles were not available for this purpose. The first stage was accomplished by removing the front seat and right hand floor area of a 1954 Ford and installing a turn-table and an elevator type ramp. These operate by a hydraulic system which gets its power from the battery.

**A**fter this phase was in operation for a number of years, a dual control driving system was installed on the right side. The steering is accomplished by a chain connection to the regular steering. The brake is a vacuum type that is controlled with one finger, so that the brake can remain on when the brake handle is released. The gas has another separate handle on the other side of the steering wheel so that I can have both hands on the steering wheel and still have control of gas and brake at the same time.

For details, write: Jerome Sills, Sills and Sills, Bank Building, 22572 Main St., Hayward, California 94541.     ◻



#### U.S.A. AND OTHER COUNTRIES

"Along the Wayside." (15c) Compiled by Indoor Sports Club, Inc. \*Edward H. Poth, 373 Walnut St., Pittsburgh 38, Pennsylvania.

"Directory of TravelLodges and Supplement." Supplement lists 43 motor hotels in 24 states with units specially designed for wheelchair use. \*Travelodge Corp., Box 308, El Cajon, Calif.

"Where Turning Wheels Stop." (10c) Compiled by Paralyzed Veterans of America. \*R. L. Webb, Ed., PARAPLEGIA NEWS, 935 Coastline Dr, Seal Beach, Cal.

"The Wheelchair Traveler." (\$2) \*Douglas Annand, 22480 Cass, Woodland Hills, California.

## GUIDE-BOOKS

#### WASHINGTON, D.C.

"Sites in Washington, D.C. with Facilities for the Handicapped." \*Hon. Torbert H. MacDonald, 1417 Longworth Bldg., Washington, D.C.

#### FLORIDA

"Guide to Sarasota for the Handicapped." \*Sarasota County Society for Crippled Children and Adults, 401 Braden Ave., Sarasota.

(Free motel for handicapped: \*Mr. Frank W. Mof-fett, May K. Houck Foundation, 1896 Bahia Vista St., Sarasota. Reservations required.)

"Wheelchair Directory of Greater Miami." \*Florida Paraplegic Association, 6440 S. W. 63rd Terrace, S. Miami 43.

#### ILLINOIS

"Guide to Chicago Loop for the Handicapped." \*Chicago Easter Seal Society, 116 S. Michigan, Chicago.

#### INDIANA

"A Guide for the Handicapped." \*The Junior League of Evansville, Inc., Evansville.

#### GEORGIA

"A Guide for the Handicapped to the Greater Albany Area." \*The Southwest Georgia Area Easter Seal Rehabilitation Area, 417 Fourth Avenue, Albany, 31705.

#### LOUISIANA

"A Guide to Facilities in Shreveport and Bossier City." \*Community Council Office, 1702 Irving Place, Shreveport.

#### MASSACHUSETTS

"Guide to Boston for the Handicapped." \*The Rehabilitation Council, 14 Somerset St., Boston.

"A Guide to Worcester for the Physically Disabled & Aging." \*The Easter Seal Society, 30 Highland Street, Worcester 8.

#### MICHIGAN

"Guide to Detroit for the Handicapped." \*Tau Beta Association, 51 West Warren Ave., Detroit 1.

"A Guide for the Handicapped to the Greater Lansing Area." \*Ingham County Society for Crippled Children and Adults, 714 S. Holmes St., Lansing.

#### NEW YORK

"A Handicapped Person's Guide to Rochester." \*Crippled Children's Society of Monroe County, Inc., 28 Euclid St., Rochester 14604.

#### NEW YORK CITY AND WORLD'S FAIR

"New York With Ease." (\$1.00) \*Association for Crippled Children and Adults of New York State, Inc., 239 Park Avenue South, New York City.

"Suggestions for the Greater Enjoyment of the New York World's Fair." (25c in coin and a legal-sized self-addressed envelope) \*COMEBACK, INC., 16 West 46th Street, New York City 10036.

"Pavilions Accessible to the Handicapped at the New York World's Fair, 1964-1965." \*The President's Committee on Employment of the Handicapped, Washington, D.C. 20210.

#### NORTH DAKOTA

"New Concepts in Travel." \*The Governor's Committee on Employment of the Handicapped, 207 Broadway, Box 568, Bismarck.

#### OHIO

"Greater Cincinnati Guidebook for the Handicapped." \*Public Health Federation, 2400 Reading Rd, Cincinnati 45202.

#### PENNSYLVANIA

"Guide to Philadelphia for the Handicapped." \*Philadelphia Society for Crippled Children and

## for Wheelchaired Travelers...

Adults, Lehigh Ave. at 18th St., Philadelphia 32.

"A Guide to Pittsburgh for the Handicapped." \*Open Doors for the Handicapped, 1013 Brintell Street, Pittsburgh 15201.

#### TEXAS

"Guide to Dallas for the Handicapped." \*The Professional Group of the Junior League of Dallas, Inc., Dallas.

"Stops for Wheelers." (Texas). \*Texas Rehabilitation Center, Gonzales Warm Springs Foundation, P.O. Box 58, Gonzales.

*\*Available from*

*Similar free guides to other cities are in the process of being published. For information, write: Ronald J. Junius, Field Representative, Architectural Barriers Project, National Society for Crippled Children and Adults, 2023 West Ogden Ave., Chicago, Illinois 60612. ♪*

**DDA**

All disabled drivers in  
The United Kingdom  
should join the Disabled

Drivers Association and receive their informative  
and entertaining magazine, THE MAGIC CARPET.

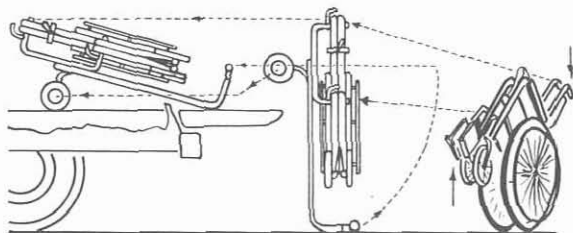
Disabled drivers all over the world will find it  
of interest. Membership, including subscription:  
10/ per annum. From U.S. , send a check for \$1.40  
plus a bit for postage.

The British School of Motoring gives special  
advice and training to disabled drivers. Send in-  
quiries to: The British School of Motoring Ltd.,  
21 Harrington Road, London, S.W.7.

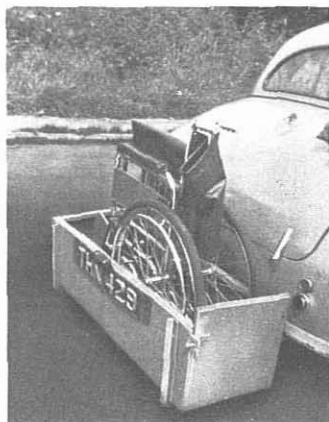


The pamphlet, VEHICLE  
CONTROLS FOR DISABLED  
PERSONS, summarizes

the mechanical controls available  
commercially in the U.S. for  
disabled drivers. Single copies  
will be sent free on request to:  
Mr. Earl Allgaier, Manager, Traffic  
Education Division, Traffic Engi-  
neering & Safety Dept., American  
Automobile Association, 1712 G  
Street, N.W. Washington, D.C. 20006.



**WHEELCHAIR LOADER.** Because of a unique combination of leverage and  
balance of weight the operator of this loader never lifts more than  
one-third the weight of the chair. The operator simply places the  
wheels of the loader on the tail gate, positions the wheelchair,  
then raises and rolls chair and loader into the vehicle. The loader  
is made of aluminum and weighs only 7 lbs. Loaders are made for  
both station wagons and sedan trunks. Price of the station wagon  
loader is \$32.50 FOB factory. Winfield Co. Inc., 3602 - 46th Ave.  
North, St. Petersburg, Florida 33714.



**AN ENGLISH WHEELCHAIR CARRIER.**  
This homemade box was firmly  
fixed at the back of the car  
with steel angle brackets. The  
side lets down to form a ramp.

ODDMENTS

for

Wheelchaired

Travelers



ENGLISH ASTRA VISOR affords maximum weather protection. It is easily attached or removed. The rear is opened for ventilation or conversation. Amesbury Surgical Appliances Ltd., Avonstoke House, Amesbury, Salisbury, Wiltshire.



ENGLISH WATERPROOF CAPE is warm and rainproof. Zimmer Orthopaedic Ltd. Zimmer House, 176/178 Brompton Road, London, S.W.3.

WHEELCHAIR NARROWERS. Homemade: A wire coat hanger around the pushing handles or a heavy belt tightened around the seat back. Commercial: The "Narro-matic" priced at \$39.50. Rehabilitation Equipment, Inc., 175 East 83rd St., New York City 28, N.Y.

PORTABLE CAR AND CHAIR RAMPS. \$129 each. REHAB AIDS, P.O. Box 612, Miami 44, Florida.

RUBBER WHEELCHAIR RIMS to help quads self-push. Tom Irvin, Box 1206, VA Hospital, Hines, Illinois.

SWEDISH SAFETY BELT is fastened diagonally across the body with a "Lyfe-Lok" buckle. The two halves are mounted respectively on door pillar and floor. Britax (London) Limited, Proctor Works, Byfleet, Surrey, England.



**VDK**  
DEUTSCHLAND

If you read German, you will be very interested in the excellent booklet, "Der Versehrte und sein Fahrzeug." ("The Invalid and his Vehicle") Send your request to: Herr Fritz Hörber, Leiter, Verband der Kriegsbeschädigten, Landesverband Bayern E.V. Deutschland.

Es wird Sie vielleicht ausserdem noch interessieren, daß ich mit der Durchführung der Sektion "Der Versehrte im Straßenverkehr" anlässlich der 1. Weit-Verkehrs-Ausstellung 1965, vom 25. Juni bis 3. Oktober 1965, in München betraut wurde.

German readers would also enjoy subscribing to: DER KÖRPERBEHINDERTE. Send DM 2,40 or \$1 (including postage to U.S.) to: Sozialhilfe für Querschnitts- und Kindergelähmte e.V., 7109 Krautheim/Jagst, Stuttgart 352 28, Deutschland.



SWIVEL DROP-BACK AIRCRAFT SEAT fitted in a car gives support and change of position. To make entry easier the seat swivels to face the door. It can be dropped back to semi-reclining and pushed back to give comfortable leg room. Available from: Wings Aircraft & Transport Components, 195 High St. West Wickham, Kent, England

NASH RAMBLER front seat also pushes back and, with a headrest, can be reclined similarly. May be purchased separately new or from a car wrecker.

# A Polyester Functional Orthosis

by Jane Jeffris, R.N.  
(respo) 4920 N. Leavitt, Chicago, Ill.

**I**N THE PAST SIX YEARS there has been a great deal of publicity on the McKibben CO<sub>2</sub> activator, or more commonly called the "artificial muscle," which is a method of applying external power to a functional hand or arm brace.

My brace for the artificial muscle differs from those made at Rancho Los Amigos and Warm Springs in that it is made from a polyester material, rather than the usual metal orthosis. It is a lightweight, cosmetic device which provides a three-jaw-chuck type of grasp for the totally paralyzed wrist and hand where no muscle power is present. (1) It was designed by Mr. Clark L. Sabine, O.T.R., who was my occupational therapist at Illinois Research & Education Hospital during my rehabilitation.

THIS TYPE OF BRACE IS EASY to put on and comfortable for an indefinite period of time. The usual length of time I wear my brace is eight hours daily. I use the CO<sub>2</sub> external power for such things as holding a spork (combination spoon and fork) to feed myself, painting and applying my own lipstick. Other activities, such as typing and page turning are accomplished by

taping a stick to the end of my brace, and without the use of external power since I have shoulder girdle muscles to use for these tasks. They are made much easier because of the compact way the brace is designed, as opposed to the T-bar which I originally used.

Electrically powered motors are being used as a source of external power, as well as carbon dioxide gas. There has been experimentation with transistors for power too, but to my knowledge, nothing substantial has come of it. The biggest problem here seems to be with weight.

OVER A PERIOD OF FIVE YEARS Warm Springs and Rancho Los Amigos have each fitted approximately 100 patients with the artificial muscle. It is sad to say that many of these patients don't use their muscles when they get back in the home environment. According to Dr. Robert L. Bennett, executive director, Georgia Warm Springs Foundation, he can classify only five patients as good and consistent users of the artificial muscle.

RIGHT HERE I WOULD LIKE TO INJECT MY OWN opinion as to why this happens. Although

in some cases there may be lack of motivation on the part of the individual, I believe that the usual cause is insufficient help at home. The most common question I've heard during periods of rehabilitation is, "Won't your husband and your children help you?" The answer is yes of course, but there is a limit to how much the family can do. For myself I know that without the help of my mother-in-law and daughter I would have given up using the artificial muscle long ago. Even though the muscle isn't unduly complicated most of the outside help I've had was incapable of understanding it.

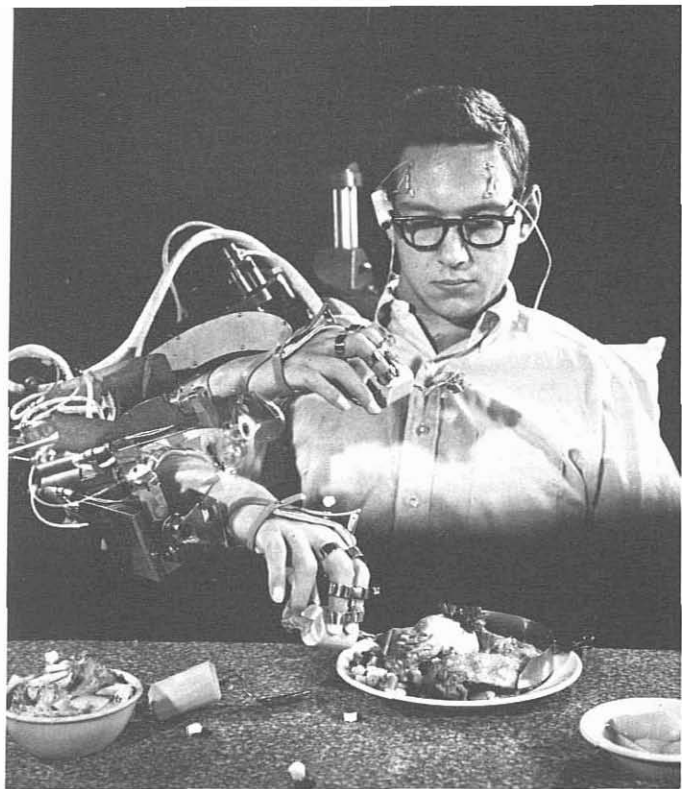
THE COST OF MAKING the artificial muscle remains rather high and when you take into consideration the number of patients who don't use them after they get home it is a great waste. It certainly has been a giant step forward for the paralyzed hand, but it is not the panacea it was first published to be. At the same time I wish every quadriplegic who needs an artificial muscle could have the success and satisfaction I've gotten from it.

THE KEY WORD IN ANY REHABILITATIVE DEVICE FOR HOME use is *simplicity*. If it requires the IQ for a Ph.D. in physics to apply and maintain then it's out of the question for the home set-up. So, to any of those inventive people to whom we are greatly indebted - *keep it practical!*

Footnote: (1) Sabine, Clark L. and others, The Polyester Functional Orthesis, BRACES TODAY, March 1962.      ♪

*Jane, a graduate of the Illinois Masonic School of Nursing, Chicago, contracted polio in 1952 while working in the obstetric department of the same hospital. One of her recent articles appeared in the AMERICAN JOURNAL OF NURSING, September 1964, titled "The Best Healing Device." She tells of her experiences as a respiratory quadriplegic having to undergo surgery in a general hospital. She gives suggestions on the nursing care of such patients as herself, emphasizing the value of good nursing - "the best healing device."*





*Ed Rozak, a quad, directs this Research Arm Aid through its eating pattern by aiming his infra-red spectacles and moving his eyebrows. While hospitalized at Highland View Hospital, Ed worked as "test pilot" for the scientific team that developed it.*

*Photos: T. Warren Strauss, Highland View Hospital*

## RESEARCH ARM AID

**A**n auspicious marriage of medicine and engineering brought forth this robot-like arm. Its creation shows what super research brains, with unlimited funds, could bring forth to solve one particular problem: achieve an artificial neural by-pass by activating a paralyzed muscle by amplified signals originating in a muscle connected to the brain.

This device is not for sale as the cost would be prohibitive even to Croesus. But it is hope-making for all present and future quads that the U.S. Vocational Rehabilitation Administration is supporting such patient-related research in universities throughout the country.

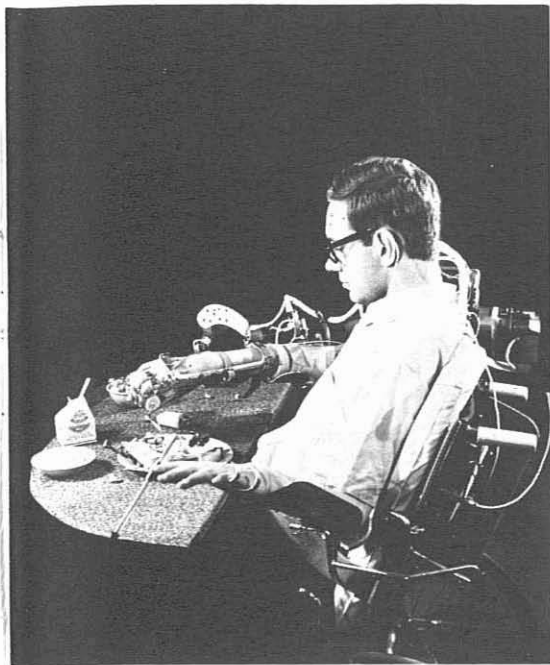
**T**his Research Arm Aid is the product of three years of intensive study by a group of scientists directed by Professor James B. Reswick, Engineering Design Center of Case Institute of Technology, and Dr. Charles Long, Highland View Hospital, in Cleveland, Ohio.

The "star performer" of the three-year study has been Ed Rozak, a patient at Highland View, who became a quadriplegic as the result of a diving accident.

**T**he Arm Aid consists of a splint, driven by carbon dioxide pressure, which Ed commands to move either as he chooses or in a series of pre-programmed motions which had been made by a normal arm in the process of eating, shaving, etc.

To start the eating process, for instance, Ed would direct a beam from the infra-red light source mounted on his spectacles to one of several photo cells mounted on his arm splint, selecting the one that had the pre-determined eating motions.

Then he would give further directions with his eyebrow movements which activate the switches glued to his forehead. Thus, by lowering his right eyebrow, he orders the splint into the forward command; blinking the right eyebrow moves it on to the next activity; raising both eyebrows stops the movements in an emergency. With this combination of lowering or raising one eyebrow, or looking doubly quizzical, Ed directs the Arm Aid through an entire meal in a half hour. □



*Electrodes and amplifiers pick up the bio-electric activity in Ed's shoulder muscle to activate his paralyzed finger muscles to obtain some use of the fingers in grasping, thus constituting an artificial neural by-pass.*

*POSTSCRIPT: Ed doesn't need to use this ingenious device any more as he found two lovely helping arms -- he married a beautiful nurse.*

Remember the contest in TjG, Fall-Winter 1962:  
WHAT WOULD YOU WANT A GROUP OF ELECTRONIC ENGINEERS TO INVENT FOR YOU, AS A QUAD, OR FOR THE GENERAL PARALYZED POPULATION?

Here are excerpts from some of the answers to this Aladdin's lamp question that we received from quads around the world:



‡‡‡  
"A voice-actuated or 'phonetic' typewriter."

‡‡‡  
"A micro switch operated back rest that could be steered down to level position and back up to 90° at will."

‡‡‡  
"A portable lifting device which could be attached to one's wheelchair to move one from the chair into an automobile; e.g. a superimposed hydraulic seat that would rise to car-seat level and then move forward to car seat."

‡‡‡  
"A very tiny nerve amplifier which could be used to boost the impulses traveling along a damaged motor nerve, thus giving more movement and power to the muscle which that nerve controls."

‡‡‡  
"A device that would enable me, a female quad, to open and empty my own urinal bag."

‡‡‡  
"A device that would turn me from left to right when I can't sleep because my legs get cramped and my hips ache."

‡‡‡  
"A machine that will transcribe the spoken word to paper."

‡‡‡  
"A little pushbutton pottie seat for wheelchairs. I could push this little button and my electronic seat would raise me straight up for 6 or 8 inches to make room for a urinal or bedpan. Two little arms would shove my knees apart. The little seat would pull me forward a little, and I could do this all important thing by myself."

‡‡‡  
"An entirely revolutionary new concept in mechanical breathing aids. One that would be very tiny, very lightweight - completely portable."

‡‡‡  
"An electronic pencil. Such a device could be strapped to the center of my forehead with a pencil like projection extending upward to a drawing board suspended overhead. Is it possible that an electric current, a ray of heat, a stream of particles or a magnetic field could operate from the end of such a pencil when held perhaps half an inch from the drawing board and produce a mark on it?"

‡‡‡  
"A battery driven seat adjuster for a wheelchair that would move your weight from side to side or forward/backward."



# A Toothborne Telegraph Transmitter for Paralytics . . . .

by M. Harach, D.D.S.\*  
and

C.R. Castaldi, D.D.S., M.S.D.\*\*

AS PART OF THEIR REHABILITATION program, many paralytics are being instructed in radio theory and telegraph communication. In Canada, those who pass a combined practical and theoretical examination are eligible to take out amateur or "HAM" radio operator licenses. Such individuals are able to spend many otherwise tedious hours enjoyably engaged in radio communication with other operators.

To date, the usual method of Morse Code transmission by quadriplegics has been to manipulate a conventional key by means of a tongue blade grasped between the teeth. This procedure can be seen in *Figure 1*. This method necessitates a certain amount of movement of

the head and neck, hence, where paralysis extends high cervically, transmission becomes increasingly difficult, if not impossible. One hazard of this method of transmission is that the stick may slip back into the throat resulting in possible asphyxia. Therefore there is a recognized need for a sending device which would be operated independently of the muscles innervated by spinal nerves and hence overcome the aforementioned difficulties.

This paper describes two variants of a device which has proven far superior to any other previously used. Basically, the transmitter apparatus consists of two custom made acrylic plastic rims which lock tightly to the upper and lower teeth. Attached to the lower rim is a micro-switch placed so that it may be activated by pressure for the upper rim.

In the design thought to be the most widely applicable of the two, the micro-switch (model #11SM 112-T) is borne on two metal struts projecting extraorally from the lower rim and is activated by a plexiglass plate extending from the upper rim. See *Figure 2*. The second de-

sign is suggested for patients with a pronounced protrusion of the upper teeth. The micro-switch used is of a smaller type, (model #1SX1-T) than that used in the previous design. It is incorporated into the plastic of the lower rim, in front of the lower front teeth and is activated by direct pressure from the plastic of the upper rim. See *Figure 3*.

## Physiological Considerations

Since the functioning of these devices requires muscular and skeletal activity, there are certain important physiological factors which must be considered. The first and most important is that the rims are constructed thin enough to fit within the "freeway space." This is the measured distance between the upper and lower teeth, from the relaxed jaw position to the tightly clenched position. The freeway space varies in individuals from one to five millimeters in the incisor region and about 1-2 millimeters in the molar region. If the combined occlusal thickness of the rims exceeds the freeway space transmitting will be very difficult and the jaw muscles will become very tired and sore.

The second consideration concerns the patient's method of swallowing. Since the switch is activated when the jaws are closed, the patient must be capable

\* Capt. M. Harach, Canadian Dental Corps., #14 Dental Company, Ft. Osborne Barracks, Winnipeg, Manitoba, Canada

\*\* C. R. Castaldi, D.D.S., M.S.D., Professor of Dentistry for Children, Faculty of Dentistry, University of Alberta, Edmonton, Alberta, Canada

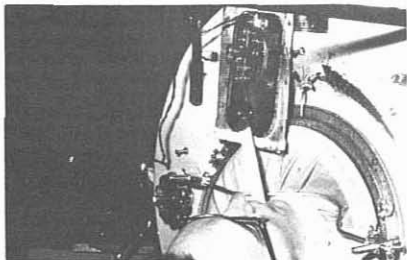


Fig 1. Patient in "iron lung" transmitting by means of a tongue blade and conventional key. The difficulty in gaining sending speed is readily apparent.

of swallowing without bringing the teeth into tight contact or the switch will be inadvertently activated. This presents little or no problem for those patients who must spend prolonged periods lying on their backs, since they seem to develop a jaw open swallowing pattern. This is probably due to the retracted position of the tongue which falls back because of gravity and also because of the development of Passavant's Cushion. Passavant's Cushion is an anatomical variant first described as occurring in cleft palate individuals. It is a muscular enlargement which manifests as a ridge projecting from the posterior and lateral border of the throat at the level of the free margin

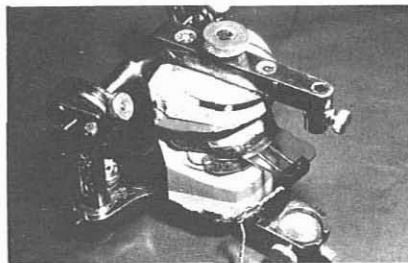


Fig 2. Sending appliance (with extra-oral key) mounted on dental articulator. See also Figures 4(a) and (b).

of the soft palate. It is caused by contraction of the palato-pharyngeal sphincter and assists in the above mentioned swallowing pattern, by perfecting the closure of the opening between the nose and mouth.

The last consideration is that the patient should have enough natural teeth to firmly anchor the appliance. As yet we have had no experience in making a transmitter for a patient with full dentures. Perhaps it could be accomplished by the use of auxiliary springs attached to the dentures.

#### Materials

The materials which are required to

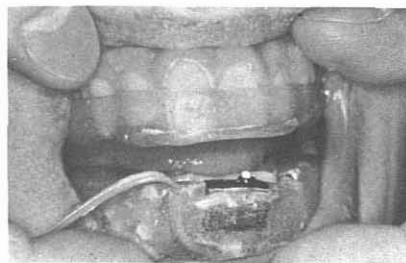


Fig 3. Micro-switch mounted intraorally. Connecting wire can be seen entering the plastic rim near the level of the incisors and running downward and laterally to the micro-switch.

build the transmitter, with the exception of the electrical components are readily available in most dental office laboratories and consist of the following:

1. Alginate impression material
2. Impression trays
3. Articulator
4. Mixing bowl and spatula
5. Self-curing acrylic resin; separating medium
6. Plexiglass, 1/16" thick and approximately 2-1/2 cm by 3-1/2 cm in size (obtainable from hobby shops or hardware stores)
7. .028 stainless steel wire
8. Wire bending pliers
9. Dental drill (bur) #8 round: two

*Continued*

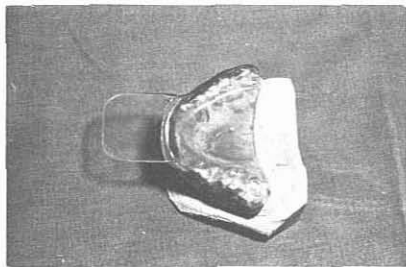


Fig 4(a). Self-curing acrylic rim with plexiglass extension mounted on plaster cast of upper jaw.

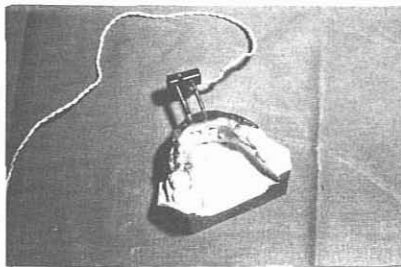


Fig 4(b). Self-curing mandibular acrylic rim with micro-switch mounted on dental bur extension. Wire clasps "hook" on to teeth for added stability.

discarded straight hand piece  
dental burs

10. Micro-switch, model #11SM 112-T or #ISX1-T (for use in the intra-oral design) obtainable from electronic supply house
11. Slip-in wedge

#### Miscellaneous Material

1. Dental stone
2. Soft dental wax and wax spatula
3. Plastercine
4. Vessel for curing acrylic (ordinary kitchen pressure cooker)
5. Finishing and polishing instruments and materials
6. Bunsen burner

#### Cost of Materials

The cost of the materials will probably be less than \$10.00. The major cost will be the time involved by dentist and technician in fabricating and fitting the appliances.

#### Method

##### Design #1

1. Alginate impressions are taken of both dental arches and stone casts are poured. With the aid of a wax bite the casts are mounted on an articulator.
2. Self-curing acrylic rims are made to fit the casts. See *Figures 4a and b*. The acrylic is moulded to a uniform thickness of 3-4mm except over the occlusal surface of

the teeth where the combined thickness of both rims should not be more than 2mm. Retention of the lower rim is enhanced by using wire clasps.

3. The existing mount holes in the micro-switch are enlarged with a #8 round bur. Two used straight hand piece bur shanks cut to desired length are forced into the holes.
4. The free ends of the bur shanks are secured into two holes prepared in the lower rim using self-curing acrylic. The switch is so positioned that the activator button is at the level of the occlusal plane.
5. The plexiglass contact plate is attached to the upper rim with self-curing acrylic.
6. The switch is connected to a transmitter using a "Wedge."
7. Since optimum voltage recommended for micro-switch circuit is 1.7 - 2 volts a relay must be used to hook into a high voltage transmitter.

##### Design #2

The switch model #1SX1-T is placed intraorally as in *Figure 2*. This is the design of choice since it facilitates stability of the dental rims. The switch is mounted labially to the mandibular incisors so that the activator button

projects slightly above the occlusal plane. It is imperative that a seal is established about the switch to eliminate moisture seepage and possible short circuit. As with design #1 a relay is used to provide a safe operating voltage.

#### Results

Patient A was able to transmit 12-13 words immediately after the appliance was placed. Within a short while he was transmitting 15-16 words a minute. He has now passed his Department of Transport communication examination, has taken out his "HAM" radio license and is presently in active communication with other operators.

Patient B has less extensive paralysis than patient A but with limited use of his hands a toothborne transmitter was made for him. He is presently learning the code and is making excellent progress. After six months his speed has increased from 4 to 10 words a minute and he will soon be taking his communication examination.

#### CONCLUSION

Improved telegraph communication is possible for patients with paralysis of the upper extremities by means of a toothborne transmitter. Several types of transmitters are described in detail.

Ω



*CODE PRACTISE IN WARD 67. Left to right: Gary McPherson, Clayton May, Arnie Stebner and Glen Learn code with instruction records.*

VE6RD are the hard-won call letters of these three respos - Gary, Clayton, and Arnie - who live in Edmonton's University Hospital. It was they who inspired Dr. Harach and Dr. Castaldi to devise the toothborne transmitter and to write this original article for TjG.

Gary was the first to latch on the idea of a ham radio station when he read the special feature on disabled hams in TjG's "Communication" issue (Fall-Winter 1962). His enthusiasm was so contagious that he involved his ward-mates, the hospital, and many generous individuals.

The approval of the hospital and of the Department of Transport was obtained. Pierre Gariepy, executive director of the Canadian Paraplegic Association, contacted the Northern Alberta Radio Club. They responded with equipment to get them started. Dr. Castaldi evolved their method of transmitting. Dr. Frank Haley, an anesthetist and enthusiastic ham, taught them practical radio theory and recruited others as instructors. Mr. Gariepy and Dr. Haley procured additional equipment: a receiver, a tape recorder, an antenna and a transmitter.

Their license was granted on April 17, 1964. Since then these three, who are known as the "Rinky Dinks" because of the RD in their call letters, have been industriously putting the bite on ham radio. Congratulations, VE6RD! Ω

from the foot of  
Jim Hooper, Jackson Center, Ohio

Dear TjG.....It was in the Communications issue of TjG that I saw a story about a Mr. Short, who devised a multi-controller for his wife. We wrote to Mr. Short at Avondale Engineering Co. Ltd., in England, describing my particular handicap, and asked if he would design a control unit to fit my problem. He did so. We took the plans to C. E. ("Chet") Brentlinger, who at that time was Equipment Superintendent of the Lima Telephone Co., since retired. And also we took the plans to Lester Clark and Robert Werff, both of IBM in Lima. They had to adapt the drawings to conform to U.S. equipment and nomenclature. And, in the process, they came up with a very interesting idea. It uses the same grid system as used in most multi-controllers BUT instead of one letter per square, it has four. I "dial" a certain square and the letter which is printed is determined by which switch is activated. Once we knew what was to be done, Dad and I helped arrange the letters on the chart. These three men charged VERY little. They said they wouldn't want to build another one, but they would advise any who inquired.

## FOOT-OPERATED "CODED" TYPEWRITER

by Imogene Prichard  
(respo) Ohio

Jim Hooper has a backlog of correspondence to catch up on. Thanks to the unique foot-operated electric typewriter devised by a team of three fine men and to Jim's persistence, Jim has made a big dent in it.

Mounted over the keyboard of a standard IBM electric typewriter is a remote control unit of solenoids and "plungers" - a solenoid and plunger for each key. When the solenoid over a particular key is activated the plunger goes down, striking the key. Sounds fairly simple, but behind this is an intricate coded system of wiring and electronic components, contained in the neat cabinet on which the typewriter rests. Operation of the typewriter is based on a coded signal and the solenoid equipment plus the "brain in the box."

Because Jim, cerebral-palsied from birth, is not able to use either hands or mouthstick, it was necessary to devise a means of utilizing his right foot. This was done by incorporating wood pedals, much like organ pedals, in the base of the cabinet to operate the typewriter. Before the typewriter was completed Jim spent considerable time "practicing" on the pedals of his mother's organ.

Functions of the 8 pedals are: On/off switch, Code 1, Code 2, Print 1, Print 2, Print 3, Print 4, and Release-cancel-reset. Four metal plates, which Jim can press with the toe of his shoe, are mounted in the cabinet base; these control an emergency bell, shift lock (capitals), space bar, and shift release (lower case). (See Figure #1)

A coded signal structure is the heart of the whole apparatus. Presently there are 58 codes, each code affording a choice of 4 letters, numbers or symbols. (More codes can be added, as the need arises.) (See Figure #2). Jim and his father planned the coded signal structure, arranging more frequently used letters so as to require the least possible footwork. Most characters are duplicated in different areas of the code structure, adding both convenience and speed. This looks complicated, but Jim memorized the entire structure in a short time.

The pedals are used to set up codes. The toe plates, however, work independently; i.e., they activate the solenoid-plungers directly instead of via coded signal.

To illustrate: To type his name, Jim, using his educated right foot, presses



(above) Jim Hooper's "educated right foot" operates his page turner and typewriter.

(below, from left) Jim's "team" - Lester Clark, C. E. Brentlinger, and Bob Werff - invented his typewriter.

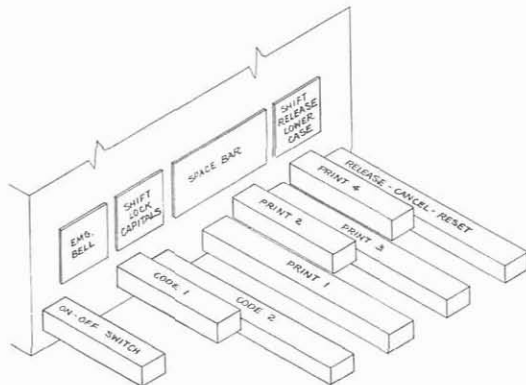


Fig 1. Foot pedals set up codes. Toe plates activate the solenoid-plungers directly.

W	E	E	D	TAB
	18		28	38
.	S	.	L	.
I	M	U	T	L
	17		27	37
J	A	O	B	A
D	I	E	:	T
	16		26	36
E	S	A	V	N

Fig 2. Code chart segment.

the switch pedal to turn on the typewriter; presses code 1 pedal to reach the first column (see Figure #2), then presses code 2 seven times to reach the 7th row--now he has set up code 17 which contains J, A, I, and M. He presses the shift lock toe plate to change to capitals, then presses print 1 to type "J". Pressing the shift release toe plate to return to lower case, he types "i" and "m" by pressing print 3 and print 4 pedals.

Using the pedals, Jim can set up a coded signal to turn on light or radio.

For the first time in his 37 years Jim is able to communicate firsthand with the written word. Jim is able to speak very

little and then with the greatest difficulty. Thus the ability to put words on paper gives Jim's keen intelligence an invaluable outlet.

At home Jim uses a small 4-caster chair without footrests that he propels with his right foot. On the floor in Jim's pleasant panelled "den" sits a ham radio receiver which he operates with his foot. (He cannot send but enjoys listening to calls.) With his foot he operates a remote control gadget that tunes the TV. Another article of equipment which adds much to Jim's measure of independence is a foot-operated electric page turner. (An avid reader, Jim is an electronics buff.) Ω

## A READING AID for the DISABLED

By G. N. Pattison, M.B.,  
B.S., D.O., D.O.M.S.  
(respo) England

Devices enabling disabled persons to read books are few, and in the author's personal experience, somewhat inefficient and expensive. The need for a simple and cheap device for the number of people who have paralysis of their arms due to poliomyelitis or other diseases of the central nervous system must be not inconsiderable, and if to these is added the number of people suffering from rheumatoid arthritis and other crippling diseases of the joints and muscles, then the total is significant.

The device illustrated in this article was suggested by the author and developed by Mr. Rex Walwin and Mr. Stephen, both of Cheltenham. In this case the apparatus works in conjunction with the ball bearing arm support (B.B.A.S.) provided by the Mary Marlborough Lodge, Nuffield Orthopaedic Centre, Oxford. The B.B.A.S. is a device, invented in America\*, for helping diplegics, both total and partial, primarily to feed themselves.

In essential it consists of a wheelchair to which is added a rod swivelled on ball bearings, working laterally. A

second angled bar, again swivelled on ball bearings, works laterally, and this is connected to the first rod. To the latter is added a trough support which pivots laterally, upwards and downwards. To this trough, upon which the patient's forearm rests or is strapped, is attached a spoon (not illustrated here), and by the patient translating movements along his arm from his shoulder girdle, he is able to manoeuvre a spoon into food and bring the spoon up to his mouth.

Another ingenious use of the B.B.A.S. is that a thimble is put upon the index or middle finger of the hand and by manoeuvring, the patient is able to turn over the page of a book provided it is placed on a stand. (Illustration).

Alternatively, the book page can be turned by a knitting needle held in the patient's mouth, or a specially designed mouthpiece. A similar device can be attached by a band to the forehead.

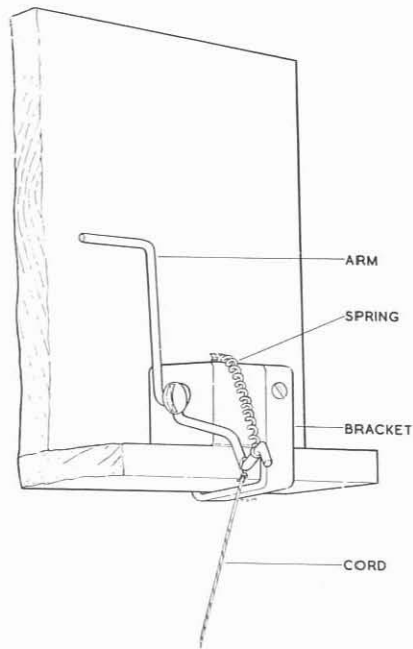
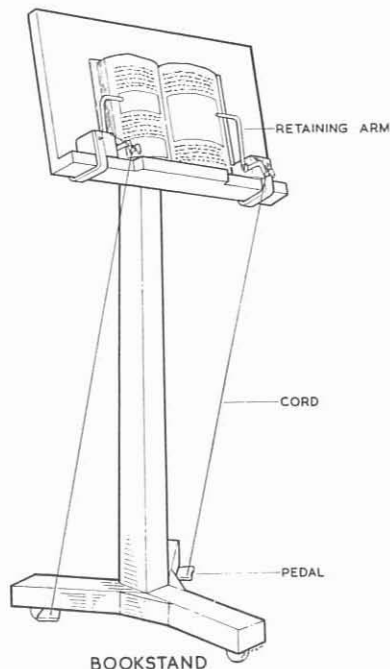
There is not much difficulty in turning over book pages with this apparatus but considerable difficulty arises in

that the pages of the book do not remain flat when turned over. This is particularly true with a new book or a book with stiff pages and stiff binding. A book with flimsy pages that has been well read presents little difficulty, as also does a magazine or periodical.

The device illustrated here enables the book pages to be held flat once they have been turned, by the manipulation of pedals which are attached to spring loaded clips. The apparatus then consists essentially of a stand on which the book is placed and the clips are then attached laterally to accommodate to the size of book being read. Practically any size of book with any degree of stiffness can be used in this device. This particular one, is not adjustable for height as it was tailor-made for the author's personal use and its efficiency is demonstrated by the fact that the author has no practical degree of voluntary movement of shoulder girdle, arm or forearm.

I wish to thank Mr. Walwin and Mr. Stephen for their help in developing this apparatus, and Dr. R. E. Bowers for the photographs.  $\Omega$

\*ED: Ball Bearing Feeder (Warm Springs type) is available from Rehabilitation Products, American Hospital Supply Corp. 2020 Ridge Ave., Evanston, Illinois.



Dr. G. N. Pattison, Ophthalmic Surgeon, became a respo in 1962. Since then he has started a lecture course for Opticians. His inventive mind has evolved many foot-operated devices. This book page turner, for instance, works in conjunction

with a ball-bearing support and rubber thimble. In addition, he has developed a radio, tape recorder, and a method of putting on and taking off his eye glasses. His address: Springfield Lawn, The Park, Cheltenham, Gloucestershire, England.



# DISTAFF APPLIANCE...

by Paul Driver  
(respo) England

The distaff is designed to enable persons with paralysed or amputated arms and fairly good legs to perform certain functions, principally typing and feeding. One normally uses one appliance on each leg, though it is possible to use one only.

The appliance consists of an upright tube which is mounted on a rubber foot by a ball joint and which is held to the leg by an adjustable spring clip behind the knee. A pedal at the lower end of the tube is connected to a hinged metal "arm" mounted on top by a rod passing through the centre of the tube.

The implements supplied with the distaff--two rubber-tipped typing "fingers," knife, fork, cupholder, and an ingenious and efficient floating spoon--can be attached to the end of the "arm" by a spring clip. The standard appliance is adjustable to suit any user.

Three basic movements are involved: (1) lifting the pedal (by the toe strap) and pressing down the pedal raises or lowers the "arm", (2) rotation of the foot inwards and outwards swings the "arm" towards and away from the body through an arc of 70° - 80°, (3) moving the leg inwards and outwards from the

hip (adduction and abduction) causes the arm to move across roughly parallel with the body through 15" - 18". One, therefore, needs fairly good (50% upwards) ankles, hip adductors and hip abductors. Quadriceps and knee flexors are not important.

The "arm" must be preset according to whether the appliance is to be used for typing or feeding; when I used distaffs for both I had a spare appliance for feeding, to avoid the nuisance of constantly changing the setting.

With the distaff it is possible to use either a manual or an electric typewriter. I used a manual for several years. Electric machines are easier. A low portable-type machine is preferable to a high standard machine since with the former it is easier to reach the controls on the carriage with the "fingers." I use a "Smith-Corona 200;" with this machine I can operate all the controls--set margin and tabulator, release the platten, turn the roller forwards or backwards, and also load envelopes or single sheets of paper (carbons are a problem) provided the paper is lying on the table beside the typewriter. My personal "best" was addressing 180 envelopes in 4½ hours, putting them in my-

self. I don't recommend this as a hobby, but it shows the possibilities.

Given good teeth, strong neck muscles, some trunk muscles and an electric typewriter, a quad may type as fast with a mouthstick as with two distaffs. Typing with only one distaff would be slow--I would recommend it to someone who could not get on with a mouthstick. An advantage of having two "fingers" -- one can use the shift key instead of the lock.

One needs to experiment a bit to find the best settings for the distaffs. Learning to type with them is simply a matter of practice.

The makers recommend sitting at the corner of a table to use the distaffs but I have found it quite possible to use them while sitting at the side of a table. One needs to find a table and chair of suitable height.

The makers intend two distaffs should be used for feeding--knife and fork or spoon and fork. One would have to be able to lean forwards to meet the spoon or fork coming up. I couldn't do this (weak neck muscles, no abdominals) and tried a variant using one distaff fitted with an "arm" about 8" longer than standard: using this I could reach my mouth with the end of the "arm" without leaning forward. The plate was placed on a table beside me. This would be helpful for anyone in a similar position, also, possibly for someone on permanent positive pressure respiration. I now feed with a "rocker feeder"--pos-

The Distaff appliance, invented in New Zealand, enables a person who is without arms or who has useless arms to use his lower limb for eating, smoking, typing, etc.

(Photos courtesy of The Nuffield Orthopaedic Centre, Oxford, England.)



sible because of moderate supination in one arm--the advantages, however, are marginal.

As the distaff costs around £NZ60--say \$170 U.S., it is well to borrow the appliance and try it out first. In England the appliance can be obtained through the National Health Service. Make enquiries to: Ministry of Labour, Ebury Bridge House, Ebury Bridge Road, London, S.W.1.

I shall be happy to answer any further questions. My address: The London Cheshire Home, 138, College Road, Upper Norwood, London, S.E. 19, England. Ω



Excerpts from a letter from R. G. Cox, General Secretary, Disabled Servicemen's Re-establishment League, Dolphin Bldg., 296 Lambton Quay, Wellington, New Zealand:

"In addition to feeding himself, the operator of the Distaff can also: (1) use a typewriter; (2) use a handkerchief or table napkin; (3) place a cigarette or cigar in his mouth, flick a petrol lighter and light the cigarette; (4) raise a cup of tea from the table, drink and replace the cup; (5) turn the pages of a book whilst reading and find any particular page wanted; (6) shave himself with an electric razor; (7) clean his teeth.

"The Distaff appliance was invented by an engineer, Mr. A. W. Taff, of Napier, New Zealand, who presented the machine to our League and we have the sole right of manufacture.

"Working drawings could be made 'free of charge' and also the right to manufacture it on a strictly non-profit basis.

"We believe that so long as benefit is being derived from this appliance its field of operation to the disabled should not be restricted.

"Blueprints of the Distaff have been sent to Mrs. G. S. Johnson, OTR, Senior Occupational Therapist, New York University Medical Center, Goldwater Memorial Hospital, Welfare Island, New York 17, N.Y., and I am sure they would make them available to you if you write to them." Ω

# Gated Inertially Matrixed Control System...

A GENIE IN A HAT FOR QUADRIPLÉGICS

**B**ecause of the propitious application of comprehensive rehabilitation services, Bruce Lowe, a hospitalized young polio quad, is now on his way to become a lawyer and a self-supporting citizen rather than a dependent welfare case.

This rehabilitation was effected by a team consisting of Dr. Michael M. Dasco, Professor-Director, Dr. Augusta Alba, Assistant Medical Director, and Gladys Johnson, O.T.R., N.Y.U. Dept. of Physical Medicine and Rehabilitation, Goldwater Memorial Hospital; the N.Y. State Division of Vocational Rehabilitation; and Mr. Donald Selwyn, Engineering Consultant - with the enthusiastic and intelligent cooperation of Bruce.

**T**he most dramatic of the devices

which the team has so far evolved is shown in the accompanying photographs. It is a unique general-purpose multi-function control system which enables Bruce to drive himself about in a motor driven wheelchair and to operate various appliances which he carries with him - in spite of the fact that his hands are completely immobile.

**T**he new system is termed a Gated Inertially Matrixed Control System or (GIMCS). It is inexpensive, portable, and practical and is capable of selectively controlling up to 16 channels.

The device is based on a revolutionary new concept in the design of assistive devices for the handicapped. This concept is similar to the "systems engineering" approach used for the development of complex weapons systems. Thus, instead of a multitude of separate assistive devices, all of the individual's immediate and future needs are tabulated and a single "integrated system" is developed using standard "building block" type components. The particular accessories which Bruce is now using may be changed at any time as his needs change. Thus the control system will not be obsolete in a short time, but will remain flexible and adaptable.

**T**he heart of the GIMCS system is a directional control unit which is worn on the head, concealed in a hat or an

eyeglass frame. A thin wire from the unit is plugged into a small logic box on the side of the wheelchair.

By nodding his head, Bruce has precise and instantaneous control of his wheelchair, including stop, start, forward, reverse, parking and turns; uphill, down-hill and even along circular paths. In addition, he can turn on the signal light in his hat when he wants to be recognized to speak in class. He also operates the tape recorder with which he records classroom notes, using the microphone in his lapel for his teachers' comments and his own vocal shorthand.

**U**nlike many other electronic devices for the handicapped, this is not a laboratory prototype. Bruce has been using it daily for almost a year. It is not costly to manufacture and similar systems can be ordered now. Mr. Selwyn, the inventor, estimated that it would retail at about five hundred dollars. He does not manufacture or sell equipment of any type. However, readers interested in procuring this control system may have his help in arranging for the equipment to be manufactured to special order. He also has a film showing Bruce operating the chair which he will loan to demonstrate this ingenious electronic system: Write: Mr. Donald Selwyn, Selwyn Research Laboratories, 13 Yale Way, Oakland, New Jersey, 07436



*Bruce Lowe, polio quad, reviews his college textbooks at Goldwater Memorial Hospital residence. The control system in his hat is his electronic "genie" with which he drives the wheelchair, honks the horn, flashes his signal light and operates the tape recorder (under the book). Note the microphone in his lapel and the old fashioned non-electronic mouthstick for page-turning.*



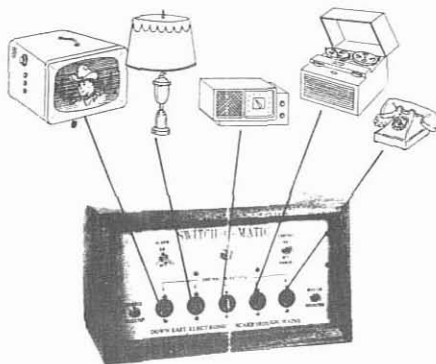
*The logic box mounted on the chair and the wire leading to it from the hat can be seen in this photograph. The batteries are standard equipment supplied with the wheelchair and power all the equipment for one day, from an over-night charge. Automatic safety features prevent unintended operation of the control system, as when using the mouthstick or sneezing.*

# ELECTRONIC MULTI- CONTROLLER



POSSUM, a mouth-operated pneumatic system, was developed in England. With a multiappliance system, combinations of puffs and sucks control devices such as fans, bells, lights, page turners, bed tilters, and heaters. Tuning a radio, dialing a telephone number, and type-writing require more elaborate methods. In these systems, the appliance is first commanded to turn on, and a code consisting of both long and short puffs is then used.

For further information, write to Mr. R. G. Maling of 34, Queen's Park, Aylesbury, Bucks., England.



SWITCH-O-MATIC was designed by Herbert Merrill, an electronics design engineer who is now a respo.

Model S-2 controls five appliances by microswitch and is priced at \$119.

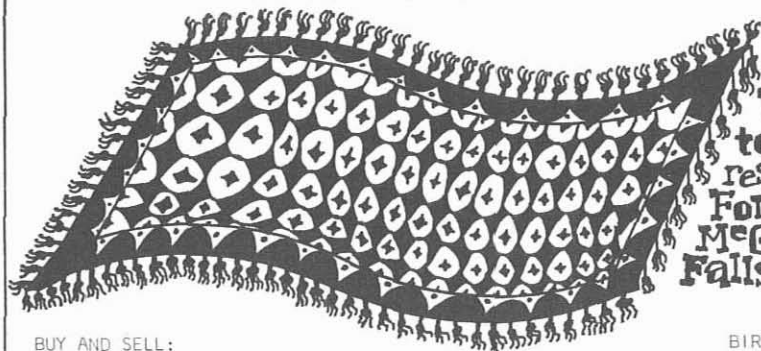
Model S-3, especially designed for quadriplegics, controls appliances, as well as TV channel selector, tape recorder motor, inter-com, volume of TV or radio, and built-in alarm. Provision is included for control of standard telephone, operator's headset or speaker-phone. Price \$239.

For free brochures and information about other custom designed electronic equipment: Down East Electronics Mfg. Co., 93 Depot Road, Falmouth, Maine.

BLOW-SIP CONTROLLER, an American - made device, sells for \$350. It consists of the Display Panel; Power Distribution Box (right foreground); and three Control Boxes. Included is the blow-sip breath controlled switch (center foreground). The Telephone Dialer and Answerer is extra, and sells for about \$150 and can be used with the Controller or as a separate device operated by a blow-sip switch. The Blow-Sip switch is \$27 when purchased separately. The Controller, with the three control boxes can control up to three 500 watt appliances. The Controller can control up to 99 different appliances with up to 25 being displayed. Each separately controlled



appliance or function requires its own control box (\$12 each). The device can also be operated by a microswitch actuated by a slight body motion. An Automatic Actuator will allow the control of a standard remote controlled TV set through the Controller and Blow-Sip Switch (\$45). Write: Mr. D. Greenberg, Energy Sources, Ltd., 16 Serpentine Lane, Old Bethpage, L.I., N.Y. 11804



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Year Ended December 31, 1964

Balance 1-1-64:			
Dr. Fern memorial fund	\$	80.00	
Office equipment fund		1,400.00	
Prize money fund		20.00	
General fund		<u>471.13</u>	\$1,971.13
Receipts - Gifts:			
Dr. Fern memorial fund	\$	94.10	
Part-time attendant fund		600.00	
Prize money fund		180.00	
General fund		<u>6,051.77</u>	<u>6,925.87</u>
			\$8,897.00

Disbursements:			
Printing		\$2,997.75	
Equipment - office equipment fund		1,345.01	
Salaries - part-time attendant fund		600.00	
Postage:			
Dr. Fern memorial fund	\$	23.88	
General fund		<u>537.29</u>	561.17
Books and periodicals		164.05	
Prizes - prize money fund		150.00	
Office supplies		123.92	
Incorporation charge		25.00	
Dues		<u>10.00</u>	<u>5,976.90</u>

Balance 12-31-64:			
Dr. Fern memorial fund	\$	150.22	
Office equipment fund		54.99	
Prize money fund		50.00	
General fund		<u>2,664.89</u>	<u>\$2,920.10</u>

Audited by Richard E. Joliat, C.P.A.

**Toomey J** is deeply appreciative of the grants secured from the foundations listed below. With these monies, we now have sufficient funds to employ a full-time staff secretary for two years and to defray a portion of this year's printing costs.

<u>1964</u>	The Burden Foundation, La.	\$	150.00
	The Cleveland Foundation, Ohio		1,414.80
	The Dinsmore Foundation, N.Y.		200.00
	The Harry K. Fox and Emma R. Fox Charitable Foundation, Ohio		1,000.00
	The Lerner Foundation, Calif.		100.00
<u>1965</u>	Fred B. Snite Foundation, Ill.		500.00
	The Louis D. Beaumont Foundation, Ohio		5,000.00
	Leonard C. Hanna, Jr. Final Fund, Ohio		5,000.00

**W**

e thank our 244 generous friends, listed below and opposite, for their gifts, received from April 8, 1964, to April 9, 1965, which helped pay for the printing and mailing of this issue:

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● SPRING 1965 ●

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