Toomey j
Vocational Rehabilitation • Wheelchairs 1966
The TOOMY & GAZETTE is published once a year by a staff of severely disabled and their non-disabled volunteering friends. It is incorporated as a non-profit, tax-deductible organization under the name of Iron Lung Polios & Multiple Sclerosis, 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. MULTIPLEGS 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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NEW Legislation...NEW Potential

Tremendous rehabilitation potential opened to the severely disabled with the enactment of the 1965 Amendments to the Vocational Rehabilitation Act.

For all our disabled readers, we express our special gratitude to Miss Mary E. Switzer, Commissioner of Vocational Rehabilitation, whose dedicated efforts implemented the passage of this constructive legislation.

One of the most significant provisions of the Act is that a State rehabilitation agency can provide services before vocational rehabilitation potential is determined.

Another change of fundamental significance is the elimination of the Federal requirement that an individual's financial need be determined before certain services are provided.

The new law includes support for special projects to expand the numbers of the disabled vocationally rehabilitated and for special State agency projects to develop innovative efforts to meet the needs of the severely disabled.

The Amendments also include management services and supervision of small businesses operated by the disabled.

In addition to direct services to the disabled, the Act is designed to improve and expand rehabilitation facilities and to provide training services and training allowances.

We suggest that you study the bill (P.L. 89-333) carefully. You can secure a summary and a helpful pamphlet, "For the Disabled: Help Through Vocational Rehabilitation," from: REHABILITATION RECORD, Vocational Rehabilitation Administration, Washington, D.C. 20201.

We urge you to analyze the vocational rehabilitation experiences of other severely disabled in the following pages and to take a new and buoyant look at your own potential.

Consult or reconult with your local rehabilitation agency to determine what services you may need provided. These services may include: medical or surgical treatment; braces or assistive devices; tuition for college, training school, or home study; costs of board, room, and transportation during training; equipment and licenses; and the specialized guidance of a trained counselor to help you to live to capacity.
The 1965 Amendments to the Vocational Rehabilitation Act reflect the views and needs of practically every element of the rehabilitation effort in the United States today. Thus, it is not simply a change in a Federal law or in the Federal-State program of vocational rehabilitation. Rather, the new act is a rallying point for voluntary and public agencies, rehabilitation centers, workshops, universities, and all who are concerned with constructive programs for disabled people.

I hope that our "rehabilitation community" will make full use of the new provisions of law within this spirit of common effort.

The Federal-State program is certain to grow markedly in the next few years—in the volume of services it renders to sharply increased numbers of disabled people, in the quality and effectiveness of its work, in its special skills in dealing with various handicapping conditions, in the development and use of facilities and workshops, and in carrying out its responsibilities for leadership and assistance to all rehabilitation programs. It is vital that the numbers of disabled people reached and rehabilitated by the State agencies be expanded promptly; this the Congress fully expects of us, for this was certainly one of its central objectives in passing the 1965 amendments.

But the Administration and the Congress listened to, and legislated for, voluntary organizations and institutions as well. They not only fashioned legislation which will provide more financial assistance in a variety of ways to public and private programs; they did it with the clear intention of using these new authorities in law to bring public and voluntary agencies closer together on behalf of the disabled person who needs the help of both.

Those of us who worked with this legislation during the past year will always be deeply grateful to the many leaders in public and private programs and institutions who conceived most of the elements of this legislation, who presented testimony and an impressive array of facts and experience before congressional committees, and who maintained an unflagging interest until the legislation was signed into law.

It now becomes our mutual responsibility to go from legislative action to programing. We must do this without delay, for the Congress will be reviewing the results of this legislation in a very short time. It will expect, and we must furnish, a record of outstanding achievement, particularly within the next 3 years. Problems of expanded staffing, organization of new programs, establishment of new relationships—these and many other things must be worked out with skill and dispatch.

Ahead of us lie days of tremendous potential—times when rehabilitation work for the disabled will be coming fully of age in the United States. I hope every person in rehabilitation today shares my sense of excitement as we move into this fascinating and challenging new stage of development.
For many years rehabilitation workers have looked with despair at the severely disabled. Their need for rehabilitation was obvious, but their handicaps were so forbidding that they tended to squelch even the boldest hopes. Some believed the severely handicapped were hopeless, while others thought something could be done, but they weren't quite sure what. To answer this question, and to test the belief of possibility, the California Division of Vocational Rehabilitation launched a program in 1955 to rehabilitate a group of severely disabled persons. With the help of federal funds, a broad, liberal, exploratory study was set up.

"Man's venture into the darkness of the unknown often is preceded by the glimmer of a light which may only exist as an idea."

These are the words that introduce the report on the California study. They are pertinent words, for the problems and possibilities of rehabilitating the drastically handicapped have long been enveloped in the darkness of ignorance. It was into this darkness that the counselors participating in the program penetrated the light of their hope and ideas, shining them on the most challenging cases. Free rein was given their imagination, and the results were inspiring, living tributes to their creativity.

Each of the counselors was assigned to a different rehabilitation center, with assisting medical and para-medical personnel. They worked with 254 persons with severe disabilities between the ages of 16 and 44. Vocational goals were not specific or limited, but a vast spectrum considered and evaluated. If one idea didn't work, another was tried. There were few restrictions on imagination, services, or expenditures.

The results were astounding. Of this heretofore "hopeless" group, 100 were rehabilitated. This definition included those who became capable home-makers or simply partially self-supporting. On the study follow-up 12 to 18 months after the cases had been closed as rehabilitated, the average earnings of the clients were $81 weekly. The maximum pay was $220 a week, and the minimum $5. Fifty-six per cent of those contacted had been promoted within eighteen months.

There were other interesting conclusions from the study. For instance, the most important attribute of the severely handicapped client in achieving rehabilitation is motivation. Not adjustment, acceptance of paralysis, or emotional maturity as popularly theorized, but the client's willingness to use his remaining capabilities to accomplish something.

The most important quality for the counselor was the ability to see things not as they were but as they could be. This imaginative vision is also essential in the client. It is especially beneficial in determining what mechanical devices might make the client more productive.
and independent. If the counselor or client can define a problem and set up specifications for the solution, even a handyman or local mechanic can build the needed item. It was found that mechanical assistive devices make it possible for many to perform competitive tasks.

It was also concluded that the attractiveness of equipment and assistive devices was important. If the client refused to wear or use an ugly, bulky brace or device, it would be of little benefit. This confirmed what the severely disabled had known all along, that we persist in being human with all the accompanying vanities and foibles of that state.

Assistive and adaptive devices frequently decide the success or failure of rehabilitation. One typical difficult problem in modification of devices was the vocational need of one man to use a tape recorder simultaneously with a telephone. Both instruments had to be operated with knee movements because the client's upper extremities were completely paralyzed. When a satisfactory setup was established, this man was prepared to handle a magazine subscription agency.

This particular problem, and many more, were solved through the imaginative mind of Mr. A. G. Garris, one of the counselors on the project. Mr. Garris's interest in the severely disabled is profound and sincere, and he has extended a generous offer to help any GAZETTE readers who have mechanical assistive problems. He states that he can usually give help to enable the handicapped person to tackle the problem in a way that will give desired results. Stressing that he is not an electronic expert, he requests that any letters seeking mechanical assistive help contain as much information as possible. He suggests reading the letter to an intelligent listener and then incorporating the listener's questions in the letter. Address: Mr. A. G. Garris, Dept. of Rehabilitation, 107 South Broadway, Los Angeles, California 90012.

Mr. Garris also reveals that there are 150 copies of this report, which he will send free to any severely disabled reader requesting one. Send requests to the above address. You will find many ideas and much information about the rehabilitation of the severely handicapped in this report.

Not surprisingly, analysis of clients' jobs shows a preponderance of activities that can be performed individually. The list of jobs handled by the severely disabled is impressive. It includes psychologist, teacher, librarian, manicurist, sewing machine operator, telephone dispatcher, television technician, bookkeeper, and many more. These actual results prove the potential and employability of the drastically disabled.

On the average, it takes about 29 months to rehabilitate a severely disabled client. It is expensive in time and money. The costs for the first two years of the project were $284,295.76. At times complete families were involved in the impact of a client's illness, requiring the coordination of many social agencies and special services. Marriage failures caused repercussions in all areas, postponing the beginning of the rehabilitation process.
Home environment is exceedingly important in the rehabilitation of the severely disabled. The home that is well-equipped to care for the client promises to continue as a stable, functioning unit. Neglect in considering those who care for the client can destroy the best vocational plans.

Another optimistic finding of the study was that every client benefited in some way from the rehabilitative efforts. The 145 who did not achieve employment gained in self-care, better home care, or greater and happier self-acceptance.

The method of rehabilitating the severely disabled was made evident in the study. Needed was proximity to a metropolitan area where a complete evaluation could be made by a team of experts and where there would be available specialized rehabilitation facilities, training, and job opportunities; well-functioning home environment; adequate self-care; a rehabilitation goal based on established work tolerance; suitable training; and modification of the work area and types of duties performed. Shorter hours of work are often necessary. Maintenance medical care may be required. Rehabilitation services must be brought to the client. All the principles of selective placement need to be applied when rehabilitation services are completed. Energy needed for vocational employment must be conserved by making home care as efficient as possible. And then, anything is possible!

One of the case studies in the report is a typical example of rehabilitation success. A woman almost totally paralyzed by arthritis required constant attendance for feeding, personal care, and transferring back and forth from bed to chair. Among her limited assets was a gregarious, pleasant personality, and it was decided this could best be utilized with a telephone answering service.

The rehabilitation agency arranged for a ten-line key cabinet with toggle switches instead of plugs to be installed by the phone company. The cabinet was placed on a hospital-type over-bed table, to be operated from her wheelchair during the day, and from her electric Gatch-type bed at night. She could raise herself by using a specially built switch to handle night calls. The agency arranged a zoning change, helped her obtain a business license, provided answering service tutoring, and invited various organizations to contribute services and money.

The result was that this woman eventually cleared a profit of $1500 a month with her telephone answering service. Total expenditure was $3,242.72. Total return to the community was estimated at $85,000 in gross earnings.

The successes and innovations described in this report were derived from one study into rehabilitation of the severely disabled. Another federal grant has been requested by the same agency for a planning program to expand upon the findings of this study. It is now felt that it has not been only the formidable cost of serving the severely disabled that has allowed them to be overlooked, but the lack of knowing how to serve them. As indicated by the 1965 Amendments to the Vocational Rehabilitation Act, these obstacles have been recognized and are thus on the way to being overcome. The first filters of light are opening the darkness. The beam of rehabilitation has expanded to include all handicapped persons, and to this development we say, "Welcome!"
There is a potential area for job opportunities in transcribing stenotype. We have all seen, either on TV or in the movies, shorthand reporters taking down verbatim the testimony of a witness at a trial, or a speech at a meeting or convention. The reporters use a little machine that translates the words into a stenographic code of phonetic symbols.

The phonetic symbols recorded on the rolls of paper provide a record of the testimony; usually the reporter in his "spare time" translates these symbols back into words by speaking to a dictaphone or other recording instrument, so that they can be typed by a competent secretary.

But the "spare time" is often very spare, and much more precious and that's where I come in. A friend who sells stenographic and dictating machines thought it was a perfect opportunity for someone who is severely disabled to be able to provide this "translating" service. He contacted the local Bureau of Vocational Rehabilitation and they are giving me the necessary assistance.

I would be the first to do this in the home. I feel that it is very important, therefore, to emphasize that, although I am being trained by a firm of stenotype and shorthand reporters, it does not necessarily guarantee my employment. As in any field, being the trail blazer is not always easy. It is difficult to say what road-blocks I will run into, but the potentiality in this field will make the effort of studying a new "language" well worth it.
HOME-BASED BOOKKEEPING SERVICES

by Charles Lyser
(respo) California

Disabled Seekers of work UNITE! Get your pens and columnar pads! You have nothing to lose but your Social Security Disability! Yes, having a bookkeeping services business even in your home can be most remunerative and satisfying. However, in this day of payroll taxes, excise taxes, sales taxes, depreciation changes, etc., etc., it is essential to have at least a minimum of bookkeeping training and accounting theory as well as some understanding of the income tax structure.

To the initiated 'debts and credits,' 'balance sheets,' and 'income statements' can be hopelessly confusing, but if accounting theory is understood at an early stage all of the work will be accomplished with little difficulty. To illustrate: there was once an office headed by a man who had won his position through sheer grit plus hard work. As the years went by a good part of the office force had noticed that when their boss was deeply involved in a perplexing situation, he would invariably open the left desk drawer, glance at something contained

"... State Rehab. renders liberal assistance to qualified disabled individuals by paying for tuition and equipment. When I expressed amusement at this some 10 years ago I was informed that once I was a successful businessman my income tax payments would pay back the government with interest. . . . "
therein and then come forth with a decision unhesitatingly. One day when the boss was on vacation, his assistant decided that he must have a look in the drawer. There neatly printed in the boss's hand were the words, "DEBITS ARE ON SIDE NEXT TO WALL."

Following are the suggestions and information gleaned from 8 years of experience:

- Enroll and complete a reliable correspondence course in accounting. State Rehab. renders liberal assistance to qualified disabled individuals by paying for tuition and equipment. When I expressed amazement at this some 10 years ago I was informed that once I was a successful business man my income tax payments would pay back the government with interest and I am beginning to believe it.

- Next after being trained in theory for your work you should plan an office in the den or extra room and then have a little pow-wow with the City Fathers or Planning Commission and obtain permission to carry on a business in your home. The Commission was most co-operative.

- Unless you have a good "Leg Man" you will find it advantageous to obtain a permit from your postmaster allowing you to print special self-addressed envelopes, postage being paid by you on receipt. Thus you can carry on a bookkeeping service by mail. I have serviced one account for 7 years and have never met the clients.

- Minimum equipment should consist of a good adding machine or calculator, a typewriter (the electrics are superb for a disabled person with weak fingers), filing cabinet, and miscellaneous supplies such as clips, stapler, journals, ledgers, etc., etc.

- You are now ready to get to work and earn money, but from now on you will have many discouraging moments. Clients are hard to come by. You might have business cards printed, but do not give yourself the title of "accountant" as here in California there are only two classes of accountants, C.P.A.'s and P.A.'s. Passing the C.P.A. examination and having acquired experience in the field are requisites for this title, while P.A.'s hold their titles owing to their passing less stringent examinations during the war years; no new P.A. licenses are being issued. Another excellent way to get started is to contact another person engaged in bookkeeping services and ask if you might assist him during busy periods or even relieve him of some of his poorly paying accounts.

- Don't forget that there is a tremendous difference in theory and practice and nothing can beat good old actual experience.

Except during the hectic times of tax season, I would be delighted to help others with their bookkeeping ventures and I could supply many practical ideas.

I'm at 717 Liberty St., El Cerrito, Calif. 94532

Reprinted from THE SPOKESMAN, October 1965
Respo RE-REHABILITATED To Fulltime Career

by Elizabeth M. Morgan, R.N.
(respo) Illinois

IN THE AUTUMN OF 1957, just five years after contracting polio, I entered the Respiratory Center at the University of Illinois Research and Educational Hospitals at the Medical Center in Chicago to be "Rehabilitated."

AT THAT TIME I was using the rocking bed about eight to ten hours a night and had enough reserve strength to be up in the wheelchair only on rather rare occasions. My day rocking varied with my state of health and was steadily increasing as I was not being properly ventilated. Since I had become convinced that there really wasn't anything more that could be done to improve my condition, I have always said that I was "shanghaied" into the Center by an overzealous Nursing Supervisor and a Director of Nursing who felt that, as an R.N., I should be doing something more constructive than just rocking.

IMMEDIATE ALTERATIONS IN THE INCLINATION of my rocking bed vastly changed my degree of ventilation and resulted in my making rapid progress. I began extending my free time and building up tolerance to being out of bed. If I remember correctly, my vital capacity at the time I came to the Center was about six hundred. Fortunately, it be-
gan to improve slowly and a couple of years ago we found it to be one thousand. A few weeks after admission, I was given a motorized wheelchair, and the Rehabilitation Team began the serious business of preparing me psychologically and physically to return to work. Solving the details involved in being up all day in the wheelchair was a complicated and time-consuming project. Primary factors in extending my day sufficiently to make work possible were: the use of the positive pressure blower for day time respiratory aid when needed, the use of ball-bearing reacher and feeder to increase function and to add support which, coupled with good positioning in the chair, minimized fatigue, and learning to recline and rest comfortably in the wheelchair at specific intervals during the day.

By the end of the second month in the Center, I was employed two hours a day as the Editorial Assistant to the Director of Nursing. My working time was increased gradually, and at the end of six months I was employed full time. I continued in this position until the spring of 1961 when I accepted the position of Coordinator of Hospital Volunteer Services. At that time I inherited a small air conditioned office of my own and a secretary.

When I was accepted for full time employment, the question of where and how I was to live reared its ugly head. After much searching, a room was found on the first floor of the Nurses' Residence which is located about one half block from the hospital entrance, so I could easily travel across the courtyard in my motorized chair thus eliminating transportation problems. I was most fortunate that the Hospital was willing to rewire the room, install a special phone and my air conditioner and make all adjustments necessary for providing safe and comfortable living accommodations for me. I rented the room at the standard rate paid by nurses living in the Residence and taking meals in the Hospital Cafeteria. The most pressing problem remaining for me was to hire morning and evening attendants and to make plans for the Respiratory Center Staff to provide any care I might need during the rest of the day.

During the past eight years I have gradually increased the time I am out of bed and have worked out an activity schedule which allows me to engage in a maximum degree of activity over a maximum period of time. My attendant arrives about 6:30 AM and I arrive at work at 9:00 AM, Monday through Friday. Between 11:30 and 1:00 PM I eat lunch and then recline in the wheelchair using the positive pressure blower. I am in the office again from one until five. If work requires it, I return to the office following dinner and work until 6:30 or 7:00 PM. On weekends I am not out of my bed until about ten or eleven in the morning, so I do not rest during the day which minimizes my demands on hospital services during the busy weekend period.

I have been most fortunate in finding employment in an institution which has been willing to make time adjustments and living arrangements which have allowed me to remain independent and productive.
The AVAKIAN Story

by James W. Hooper
(C.P.) Ohio

Millions of people are born each year without any problems. But, some, either during or in those few crucial seconds after birth, for any number of reasons, suffer brain damage. Some of these have what we call cerebral palsy, which deprives the victim, in varying degrees, of the ability to control his limbs. In most cases, the C.P. has normal intelligence. Once in a while there comes along a C.P. with above average intelligence that is very near genius. This is the story of just such a man.

In Tabriz, Iran, around the year 1923, a baby boy was born to the Avakian family. And they named him Emik. At birth Emik was a blue baby. And thus, in his case at least, it was a lack of oxygen that caused the trouble, destroying centers in the brain controlling voluntary movement. The first sign of trouble came when he failed to crawl at the proper time. Sitting came late. And speech, when it came, was, as he says "deliberate and difficult to understand."

In 1929, the Avakians began an emigration to the U.S. On the way, they sought the advice of the best medical men of those cities that their journey led them through, Paris, Berlin, and even Moscow. A Professor Bezalsky saw Emik in Berlin, recommending he stay in Germany at his sanatorium for the physically handicapped, and so, for several years, he did so. Meanwhile, the rest of the family settled in New York.

When Emik left Iran, he knew only the Armenian lan-
guage. And in 1935, when he rejoined his family, he spoke German only. But he soon learned English with the help of his parents and sister Jema. He went through the first six grades in two years under Dr. Earl Karlsen at the Neurological Institute located in New York. Dr. Karlsen was also an athetoid C.P. Moving to Evanston, Illinois, Emik attended Sabin Elementary School where he finished his elementary education. Sabin had a special class for the physically handicapped. The Avakians moved to Chicago so that he could go to Spaulding High School for crippled children. Here, the students are treated as normal humans with an ability to learn. If there is something they cannot do, there are attendants. But this is a high school and the students are expected to learn. On graduating from Spaulding, Mr. Avakian found Eureka College, Eureka, Illinois, a small liberal arts college, where he earned a combined Bachelor's degree in mathematics and physics. As was said before, this is a small college, and did not have elaborate laboratory equipment. And what they didn't have they designed and built themselves. This, he feels, helped him learn more.

When he graduated from Eureka, Mr. Avakian discovered a new concept in a branch of science then called "cybernetics," dealing with the study of, as he puts it, "the mechanisms of control and the common principles involved in the processes of accomplishing these controls." The simple act of a person picking up a glass and taking a drink, as far as control is concerned, surpasses anything a computer can do. But this act and that of guiding a rocket to the moon have principles common to both.

In the last decade, two new branches of scientific inquiry have evolved from cybernetics. These are: "information theory" and "goal-seeking machines." And this is the general area in which Mr. Avakian is working. Information theory has to do with the kind of information needed in controlling complex mechanisms and the best use of that information, whether the mechanism is a hand lifting a drink or a computer-directed rocket going into its correct orbit. Goal-seeking machines use information in purposeful work. The brain uses learned behavioral patterns in telling that arm to bring the cup slowly to the lips. Goal-seeking machines use information which, either they gather themselves, or a human operator feeds into them.

Of course, we are a long way from understanding the communication networks between the brain, where the order to pick up the drink of water originates, and the many muscles brought into action by these commands.

In a voluntary action, smoothness of movement depends on opposing pairs of muscles. The degree of smoothness is called "tone." The smoother the movement, the more tone. To bend an elbow, one muscle tenses while its opposite number relaxes but offers the right degree of resistance to control the speed and to stop the movement at precisely the right spot. This is accomplished by what the engineers call "negative feedback." An analogy of this would be the thermostat on the home furnace. As it is turned up in the morning to 72 degrees the furnace comes on. And, as the temperature rises, the fuel intake to the furnace is reduced. This reduction in fuel as the desired setting is neared involves negative feedback.

Mr. Avakian, as a result of his work, thinks of his damaged nervous system in terms of information theory and the design and understanding of goal-seeking machines.
The damage to Mr. Avakian's brain occurred in the very center of the skull, destroying nerve centers called "caudate nuclei." Being very sensitive to the lack of oxygen, these centers are quickly disabled, causing a condition known as Athetosis. As we tune our TV sets to a very weak station, the picture is snowy and almost non-existent. The snow is what is known as background noise which is always present, but which a stronger signal would drown out. Considering these caudate nuclei as TV stations, for a moment, the fewer centers active, the weaker the signal; and, by comparison, the stronger the background noise. This makes it difficult to receive orders from these nerve centers. The movements of an athetoid appear as spontaneous and aimless motions of the limbs that increase when he attempts voluntary movement. As the communications engineer would say, "the transmission of the signal "causes noise" in the communication channel." If this noise could be reduced, it would be easier to get the orders through. One way to do this is to destroy parts of certain caudate nuclei. This is complicated by the location of these centers in the middle of the skull and it is necessary to get to them without damaging intervening tissues.

Mr. Avakian has patented an apparatus using a laser (a device that produces a concentrated and very powerful beam of light) accurately aimed by a computer. The computer would also control the exact amount of power required to reach the desired nerve center. It should be emphasized that this is in the experimental stages, and not available anywhere as yet.

Mr. Avakian envisions that the same computer could be used by several hospitals and could be used for different purposes, thus reducing the cost. One interesting use that could be made of such a computer is as a voice for those who cannot talk. Not only would it make a sound but it would be programmed to use words, phrases and even whole sentences characteristic of that person! And several such persons could use the same computer at the same time. Such a computer would be used, where necessary, to receive and analyze physiological data, such as respiration, blood pressure and the like. All these functions would be carried out via telephone lines possibly up to 100 miles from the recipients of the services.

After receiving his Bachelor's degree at Eureka, Mr. Avakian went to Columbia University for his Master's degree, specializing in applied mathematics with a minor in physics. Now he is a supervisory engineer at the Bunker-Ramo Corp., Stamford, Connecticut. (Formerly known as Teleregister Corp.)

He is co-inventor of a machine to verify signatures which have been electronically scrambled, and printed in a bank depositor's passbook. The teller puts the passbook in a decoder and thus verifies the signature. He is also inventor of a unique digital data-to-voice conversion system for announcing stock quotations.

He was named Handicapped American of the year 1961 and in April 1963 the Shah of Iran conferred on him the Crown Medal, the highest honor of the land of his birth.

An especially talented man? Yes and fortunate too. But we all can and must contribute what we can to society. And we all have something that we can do, no matter how small it may seem to us.
HOSPITALIZED RESPOS:
COMPUTER PROGRAMMERS

TIME MAGAZINE'S cover story a few months back concerned the new science of computers, or "cybernetics." And no one, we feel sure, read the story with greater interest than a group of seven respiratory polios in Edmonton's University Hospital. For cybernetics, to them, offers a very real hope of useful and gainful employment.

HOW IT CAME ABOUT that they are now trained, despite the severity of their disabilities, to function as computer programmers is a real lesson in cooperation, and an inspiration to all who have had a hand.

Amateur radio op Hugh Hicklin was the first to recognize the possibility that his fellow hams at the University Hospital - Gary McPherson, Clayton May, Arnie Stebner and Marion Chomik - might be trained in computer work. Programmers have the job, so to speak, of translating the problems into language which computers can understand, and to do this they need agile minds and a certain ease in handling figures. His friends had both, though there would be problems to resolve because they had little or no use of their hands.

So he passed on his idea to Dr. Frank Haley, an anaesthetist at the University Hospital, and the boys' ham radio mentor. The doctor relayed the idea to Pierre Gariepy at Canadian Paraplegic Association who latched on immediately.

Pierre's call was to Dr. Don Scott, head of University's Department of Computing Science and an old friend of CPA. Dr. Scott was enthusiastic right off the bat. He confirmed the shortage of trained programmers and agreed that as long as the wheels in the boys' heads were intact there was no reason why they couldn't be trained. He promised his fullest support.

Just a few days later, if any proof were needed as to his good intentions, he had assigned to the project Mrs. Wanda Payne, one of his best assistants and she had arranged a three-session-a-week course of instruction. The University paid for her time and also provided all materials, including use of the computer.

Seven students answered the call; to the original four were added Henri Baril, Bill Karhaus, and Bob Johnston.

THE FIRST PROBLEM of how the two who have no use of their hands would be able to cope was resolved by pairing them up with two others who can write. Thus, Clayton and Bill were paired, as were Henri and Bob.

If it seems almost an exaggeration now to say that everything went from then on almost without a hitch, it really is true. Not that it was easy, because this is a very demanding course, and it requires a lot of headwork and more than a little perseverance. But everyone persisted and at the end of four months, thanks to an understanding teacher and the boys' own determination, plus
LEFT: Gary MacPherson, left, casts an admiring glance at the man most responsible for the respiratory polio computer programming project, Dr. D. B. Scott, Director of the University of Alberta’s Department of Computing Sciences. Henri Baril, right, reflects his pleasure at being one of the 7 who have qualified as programmers.

ABOVE: Gary and Henri check over the details of their latest assignment with their devoted instructor, Mrs. Wanda Payne.
the spirit of cooperation which animates all their activities, they had come through with flying colours.

By this time, Spring had sprung and Summer was in the offing, so the whole project was hung on the wall. The biggest question was still unanswered: could the knowledge and training which the boys had acquired be turned to their useful and commercial advantage? The whole idea had been to provide them with an opportunity for gainful employment, and until they proved that they could cope with the tough demands of computer programming in a regular setting, then all they had was knowledge but no chance to use it.

The opportunity came when the Alberta Provincial Laboratory decided to set up its operation on a computer basis, and the Department of Computing Sciences decided to put the boys to the test. They have done so well that the people who run the program through the machine are hard pressed to keep up with the material that has been relayed to them. This contract has not yet been completed, but enough has been done to satisfy everyone that the boys can handle the job.

WHERE DO THEY GO FROM HERE? Well, they believe enough in the future to have set themselves up as a company, called "Canadian Programmers." In time, they may be able to get enough jobs to work full-time, but for now, they can only expect to get what the Department of Computing Sciences can refer to them and this may be a pretty irregular basis. They hope to continue their training, so they can add at least one other programming language to the one they now know.

In a sense, what the boys have accomplished is a breakthrough that may open doors for others as seriously disabled. You have to hedge a bit, because the situation here may have been unique and it might not be possible to duplicate the circumstances elsewhere.

Two main reasons may be put forward for the success here. The first is that the group of boys, while in a hospital, were also in effect on a university campus. This made it possible to set up a training program, with the use of university personnel and equipment.

The second reason, and perhaps the most important, is that the Director of the Department of Computing Sciences, Dr. Scott, was such an enthusiast from the beginning. No sales talk was needed to solicit his support. He was convinced at once that the project was feasible and should be pursued. When he flashed the green light, the facilities of his whole department were made available. Only because of his wholehearted support was it possible for a teacher of Mrs. Payne's qualifications to be assigned to the project. She brought to her task, besides her skill in imparting the necessary knowledge, warmth and understanding and a genuine affection for her charges.

FINALLY, YOU CAN'T FORGET THE BOYS THEMSELVES. Ultimately, the project had to fail or succeed on their ability to learn. That they made it, and convincingly, is a tribute to their determination. They want to succeed on their own so much that they can taste it. As computer programmers, they have a chance to make their taste buds salivate regularly.

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A PHYSICIST-PROGRAMMER

by Elmer C. Bartels, (C4-5 quad) Massachusetts

As a result of an injury in December 1960, I became a C4-5 quadriplegic. After a year of hospitalization and subsequent marriage I returned to college to finish the last semester of my senior year (Colby) and continued on for two more years in graduate school to attain a Master's in Physics (Tufts).

My transportation problem was solved by having a fellow student take me to classes and notes were obtained by placing a carbon paper beneath a fellow student's, and my wife wrote my exams for me. The fact that I needed to use only one building at graduate school made attendance at classes easy.

Upon completion of graduate school, I began looking for employment and concurrently bought an electric powered wheelchair and had cock-up hand splints made for use in operating typewriter, key punch, and teletype, which are the machines used by the programmer.

With the fortunate placement of my resume at Massachusetts Institute of Technology by the J.O.B. counselor I became employed as a physicist-programmer which involves programming theoretical nuclear physics problems for the high-speed computers. The main tools of my trade are my splints and typewriter with which I do all my writing and computation. My transportation to work is solved in that a fellow from Bedford who also works at M.I.T. drives me to work in my VW bus.

I have had more than two years programming experience, part of that time as a graduate student and a year and a half at M.I.T. My experience has been with IBM equipment, the 1620, 7090-94, 7040-44 and time-sharing, programming in FORTRAN II and IV and in machine languages. I have also had significant experience with time-sharing which may be valuable in some situations and for some problems, but in any case, its potentialities are far from realized in the academic or business worlds. In the main, time-sharing brings an expensive and versatile machine to the user who could not otherwise afford or get to a large data processing installation.

As far as using an IBM 1050 in the home is concerned, it is being done by staff from M.I.T. on a regular basis and there is no reason that a disabled person could not take advantage of this technology as long as he could get the training and subsequent work to make the venture financially worthwhile. However, I would like to add that in the programming field the association with others doing the same type of work is a valuable asset and home employment should be tried only when all else fails.

The programming field is a wide open one for the able as well as the disabled and offers a rewarding career from the personal satisfaction standpoint as well as the financial aspect, but just as all blind persons should not be telephone operators, all disabled should not be programmers for it takes a certain ability to take a problem and analyze it and convert it into a working program.
On or about the end of August 1965, I started an "experiment in learning" through the use of an IBM 1050, printer keyboard.

The Education Research Department of International Business Machines located in Poughkeepsie, New York, supplied the equipment and instructors associated with the project.

The experiment really began a short time before August. The Education Research Department asked if I would be interested in taking a few technical courses and in doing a small amount of computer programming. Of course, I was very interested and willing to attempt anything the Department wanted to try, and thus the experiment began.

The local telephone company installed a separate telephone line and a device called a "data-phone" in my room. The 1050, printer keyboard, better known as a terminal, was then connected to the data-phone. Normally, the terminal can be connected, via telephone lines, to almost any computer, but in this instance, an IBM computer in Poughkeepsie was used to start the experiment.

The terminal is really nothing more than a glorified typewriter. When it is connected to a properly programmed computer, it can receive instructional or other types of information as well as send appropriate answers or other data. If the computer is set up to teach, say a math course, it first types information or questions on the terminal and then waits for some sort of response from the student. The student, upon receiving and studying the information, simply types a response (usually the answer to a question). The computer then checks to see if the response (answer) is correct or incorrect. If the answer is correct, the computer will continue with the course, but if the answer is not correct, it usually types suggestions or other information to help the student make a correct response.

One of the big advantages with this type of teaching, is that the student is able to work at his own speed. Also, the services of a teacher are not usually needed, because in this instance, the computer program is really the teacher or instructor.

The main point I want to make at this time, and in fact, the main reason for the experiment was to see how much I would be able to learn without receiving the usual training given to an individual interested in this field.

The first thing I tried in the experiment was taking a course somewhat like the math course I mentioned earlier.
I found that learning via the terminal and the computer is a whole new experience. First, I was able to work as fast or as slow as I wished without being bothered by a strict time limit. Next, the way in which the machine operated and the attention it commands was very interesting as well as very fascinating. I don't ever remember getting bored or losing interest in the course simply because the method of training was always fresh and to my liking. I am quite sure, however, that I would have lost interest in the courses if the subject matter were not presented correctly, if it were boring, or if I were not able to grasp the meaning of the subject matter.

I was able to take four courses using the terminal. One of the courses, I was not able to complete because it was much too technical and beyond my range of knowledge. In any case, considering I had very little prior knowledge in the areas covered by the courses, and considering the method in which I was taught the material, I feel that I learned as much and probably more by using this method over the usual teacher-student method, and I feel I learned much faster.

After doing as much as possible on the four courses, I started simple computer programming. In order to do this, a computer in New York City was used. This machine was equipped to handle "Quiktran," instructional information which is much easier to write than the usual complicated computer instructions. Quiktran enables a programmer to use a (+) for addition, a (-) for subtraction, a (*) for multiplication, and a (/) for division. These four instructions, along with other information concerning printing formats, are really all an individual need know to begin simple programming.

As before, I was supplied only with information concerning the procedures to use in order to correctly operate the terminal and material explaining the Quiktran programming instructions and operations. I was, however, able to use a few pre-tested programs, which gave me a little practice on the terminal. In a short time, I wrote and executed a few of my own programs, and in doing so, I learned most of the steps required in this type of programming. Needless to say, I felt very pleased when my programs worked and very unhappy when they did not. I am by no means an "expert" in this field, but I was able to compose and execute actual programs within only a few hours after I heard the word "Quiktran."

As you probably remember, I said that I started the experiment by taking courses via the terminal. I am now, however, in the process of writing a course of my own. Since there is no course available explaining how to write a course, I have had an expert on this subject helping me, and I have been supplied with reading material on this subject. This man has written a few courses and is showing me what instructions are used and what procedures are followed in order to write a worthwhile and interesting course. My only regret, is that I do not have enough knowledge in a subject to create a course based on my own material. I am roughly following the format in a book that has already been written by some-
the 1050, printer keyboard, better known as a terminal, is in the center of my desk. The data-phone is on its left and the rest of the data-phone is on the shelf below. The box in the lower right holds the transistors, diodes, etc."

Left: "... I found that learning via the terminal and the computer is a whole new experience....
I don't even remember getting bored or losing interest in the course simply because the method of training was always fresh and to my liking."

Right: "... I am not copying this material, but I am using the main ideas presented by the author. I am enjoying writing the course, but I think I will really feel I have accomplished something when someone takes my course and gives me their comments and opinions.

The type of training I have taken over the past four months would be of great value for people like myself. Physically handicapped individuals could learn in their own homes and possibly earn a good living using the terminal as I have described. Also, people who are already employed as programmers could continue their work, if only a few hours a day, despite injuries, long-time illnesses, or other reasons that might keep them at home.

At this time, however, I want to state that this experiment is just an "experiment." I am still involved in the project and it will probably go on for a few more months. There are no definite plans for any wider use of the experiment at this time. There is still a great deal more to do and there is a great deal more that has to be learned before anything concrete can be attempted."
I was born "out in the sticks" in the eastern Appalachian region of Kentucky in 1936. I was the oldest of five children, four boys, one gal. I spent my first seven years on a small hill farm. For a year, we moved to the County seat, Frenchburg (pop. 350), where my father worked for his brother at a sawmill job. Then, my family moved to a rented farm and I attended a one-room school where I completed the eighth grade.

In 1950, at the age of 13, I contracted polio and I spent 28 days in an iron lung and was hospitalized for 10 months. I was sent home, paralyzed from the neck down, with the expectation that I would "vegetate." Until 1957, I did just that.

Then the March of Dimes gave me the opportunity to go to the Georgia Warm Springs Foundation and a new world opened up there. With a motorized wheelchair, feeders, braces and other equipment, I developed a new outlook on life. Despair was replaced by hope. However, then GWSF had one lack. It was a treatment center, not a rehabilitation school, and I was ready for work. (Now the state of Georgia operates a rehabilitation center on land adjoining GWSF and the two centers cooperate to provide a complete rehabilitation service.)

After four months at Warm Springs the doctors sent me home and contacted the Kentucky Rehabilitation Bureau with the hope that they could find a rehab school to train me in a "productive occupation." Rehab schools for quads were then, as now, not easy to find. During the years of searching, I took several correspondence courses in creative and newspaper writing from the Writers Digest and the Newspaper Institute of America. I was most fortunate, too, to have a retired teacher who volunteered to tutor me in English, American history, math, algebra, current events, business letter writing and spelling.
Finally, in 1963, an opening was found at the Woodrow Wilson Rehabilitation Center (WWRC) in Fishersville, Virginia, and I went there under the sponsorship of the Kentucky Bureau of Rehabilitation Services.


Also I had therapy during this time. Too, I was fitted for and obtained a new E&J electric power drive wheelchair, new handsplints, and ball bearing feeders.

While there I also had an opportunity to participate in many worthwhile extracurricular activities: I was elected treasurer of the Student Body Association; was chairman of our graduation dance and of the first annual Street Carnival and Chicken Barbecue; was selected Honor Man to represent the student body on WWRC's annual open house day. Then, on graduation day, I was given the greatest honor any student can receive at WWRC. I was the recipient of the first Frank O. Birdsall Award for "outstanding scholarship and citizenship."

WWRC is a former VA hospital which the State of Virginia purchased for $1 from the Federal Government in 1947. The old buildings are not "scenic," but the whole Center is undergoing a massive rebuilding job and in a few years it will be the most modern in the world. The first new structure on the program was a large, modern men's dorm. Quads like myself, who need nursing care, stay in the 50-bed infirmary.

The Center is composed of about 30 schools, including business, watch repair, drafting, radio and TV repair, general mechanics, food service, nursing aide, etc. The average daily enrollment is 350.

Applications for admission are processed and submitted by the District Supervisor, Virginia Division of Rehabilitation (or the counselor who is his counterpart in another state). To be considered for admission, a disabled person must have a reasonably good prognosis for benefiting from Center services and some means (or sponsorship) for defraying costs. For instance, my Kentucky Rehabilitation Bureau sent me for vocational evaluation and then followed the WWRC recommendation that I stay for training.

PRODUCTIVE OCCUPATION

After graduation, I moved into the local Presbyterian mission hospital, The Jane Cook Hospital, in Frenchburg. I was a "living in" staff member, helping the hospital secretary with general office work. Then, in early October 1964, came a very challenging opportunity. Dr. D. L. Greaves, who was the medical director of Jane Cook and the County's only doctor, was also the principal stockholder of the MENIFEE COUNTY JOURNAL. He agreed to let me try out with the paper. The JOURNAL, a weekly and the County's only newspaper, was editorless at the time. There was, and still is, much to learn and many problems to be ironed out. But, after a trial period, Dr. Greaves appointed me Editor and Manager effective January 1, 1965.
LOVE and MARRIAGE

During my stay at the Jane Cook Hospital, an attractive young staff member began to hold much of my attention. A native of Slippery Rock, Pennsylvania, Anna Mae Mackey, a 21-year old Licensed Practical Nurse, had been a member of the staff less than a year when I moved in. At the time I wouldn't have admitted my growing fondness for her, but in my heart there was no doubt. That summer and fall we enjoyed many pleasant outings and scenic drives together, at first with friends, and then alone. Soon I knew that my attraction to her was growing into something deep and lasting and it was obvious that the feeling was mutual.

It was early September when we became secretly engaged. Marriage, however, seemed a long way off until my appointment as editor of the JOURNAL.

1965 began for us with a flurry of activity and a multitude of decisions to make about our wedding, our work, and a place to live.

Before we would journey down the aisle of the United Presbyterian Church of Frenchburg, the wheel of our '59 Ford, "Jitney," would make many turns as we searched for a mobile home in which to live, a new printer for the JOURNAL, and, of course, many pleasure trips and evenings together in addition to the work trips. Finally, after thorough shopping and a bank note secured with the help of friends, we became the owners of a 1965 12' x 46' white and turquoise Champion mobile home.

After weeks of searching for a place to park our home near the office, our problem was solved when the good people of the Frenchburg First Church of God granted us the rent-free use of a site in back of their church, which is located across from the JOURNAL office.

Then came a race with the calendar as we endeavored to have our home set up and ready to move into, and our wedding plans all finalized by April 8. But with the help of family and friends, water and sewer systems were installed; gas and electricity hooked up; a 150' boardwalk from street walk to trailer was built; Anna Mae completed her wedding gown, veil, and attendant's dress; and by 2 a.m. the day of the wedding she finished icing the cake.

If the preparations were nerve-racking and suspenseful, the wedding went as smoothly and as beautifully as we had hoped. The open church wedding began with the congregation participating in a short devotional which was followed by a double-ring ceremony. After a simple reception in the basement of the church, we departed amid a shower of rice for Jenny Wiley State Park where we enjoyed a brief but happy honeymoon.
MY COCKEYED CAREER

by Dave Ingerson, (C.P.) Oregon

DID YOU EVER THINK IT TOOK A COLLEGE DEGREE AND A LAW DEGREE TO BE A GOOD TELEVISION MONITOR? Or have you ever heard of a television monitor who was too busy to watch television? Of course, the answer to both questions, logically, should be a loud, emphatic "NO"; and, up until about two and a half years ago, this would have been my answer, too. But, then, I was placed in contact with Mr. Robt. A. Damers, of the Lynch Transcription Service, through the good offices of the TOOMEY J's own "Vertical" Editor, Genial Gini Laurie; and my "cock-eyed" career began.

To briefly fill the readers in on what happened to me the first three decades of my life, I was born with Cerebral Palsy, birth injury, which left me with very little coordination, bound to a wheelchair for life, and seriously impaired in speech. I attended a special grade school for physically handicapped children provided by the school system in my home town, Portland, Ore., and proceeded to take my high school work with a home teacher, also furnished by the Portland Public Schools, because steps and transportation problems barred my attending the neighborhood high school.

As happens to most maturing young men, my first conscious consideration of how I was going to satisfy my financial requirements, in adult life, came during either my junior or senior year in high. My teachers and parents had already begun nudging me towards a career in journalism; because they thought they recognized a reasonable bent in that direction and reasoned that I could even write from home, therefore would be the least hampered by my physical limitations. However, my "independence of youth" set in, and decided that "just being a writer" did not hold enough challenge for me, would be too "normal" for a handicapped, and--most of all--did not seem to fit the image I had of myself. For some inexplicable reason, in my mind, the legal profession embodied everything that journalism lacked; so I determined, during my senior year in high, to become a lawyer, regardless of my physical and speaking impediments.

So, upon graduation from high school and a year's intensive speech therapy—which actually bore little fruit—I enrolled at the newly opened Portland State College, a state supported college in downtown Portland. As was my talent, much against my course counselor's better judgment, I signed up for the full 15 hours, in--you guessed it----Pre-law.

Portland State was made to order for me because it was 5 blocks from my father's restaurant; so I had a ready-made chauffer to drive me to and from classes, morning and night. Also, the school was right on the city bus line for home; so, with permission of the faculty, my mother came down whenever I had an exam to type it, because I was too slow on the keyboard myself.

It was during my Freshman year at P.S.C. that I first met a Division of Vocational Rehabilitation counselor and learned what a marvelous assistance D.V.R. could be to any handicapped seeking to fit himself to be self supporting. My grade school principal had heard that I was attending college that year and turned my name into the Portland D.V.R. office, as a friendly gesture. Normally, the handicapped, or his family, applies; but we actually didn't
FULL-TIME EDITOR

We came home to a lot of work, but it is work we enjoy doing together and I am glad that Anna Mae decided to work at the JOURNAL with me rather than at the hospital. A few days before our marriage, a much more favorable contract was established with a new printer. The new printer necessitated a standard 8-page weekly rather than the previous 4-6 pages. The additional pages meant that we could now carry much additional news, editorial matter, and advertising - and this meant much more work.

I do most of the typing, all bookkeeping, selling ads, correspondence, layout, general management, etc. Anna Mae does headline making, paste up, takes the paper to the printer (a 150-mile round trip), and the circulation work. My cousin helps on Saturdays and my folks, as volunteers, help address, bundle, and wrap for mailing.

A week after our marriage another new adventure began. I started a five-minute five day a week local newscast over WMST, an area radio station. I do it live over the office telephone. My program has been going almost a year with the same sponsors. I like radio and someday would like to expand. My magazine subscription business has been growing steadily and recently received a big boost with a $225 sale to the local Job Corps Camp.

Because so many people have helped me along my way, I would like to mention that in October I received a Certificate of Merit for my contribution (by example) from the Governor's Commission on Employ the Handicapped.

EQUIPMENT

We have two Hoyer lifts, the Kartop and the new light Travel Lift for use inside the trailer. I use the Georgia Warm Springs type ball bearing feeders for just about everything. My wheelchair lapboard is built like a box, with a lid and a convenient storage space. The Sparr Telephone Arm, a gooseneck receiver-holder, is an invaluable aid. Our bed is the standard trailer model which we raised with Sears' leg extenders so it would be easier for Anna Mae to do my dressing and bathing. Our chief unsolved problem is a standing table that would fit into our limited space. Perhaps some TGL readers might have a solution.

HOBBIES AND SPECIAL INTERESTS

Anna Mae loves to sew and cook. She makes many of her own clothes and has made some of my shirts. She plays the piano and enjoys music and singing. Now we have a small portable piano in our trailer which she brought from her home. We both enjoy travelling, reading, and chess. We are both active members of our Presbyterian Church. Also, we have one other special interest. We recently "adopted" a ten year old son in Hong Kong through the Christian Children's Fund, Inc. His name is Cheong Hon Chow.

We both like our work. We are determined to make it our career, although sometime we hope that Anna Mae can spend more time as a housewife and less time as my office girl Friday, Saturday, Sunday, Monday, Tuesday, Wednesday, Thursday.
know what D.V.R. could do, so didn't bother.

Mr. Wipple, my assigned Rehab counselor and coincidentally a University of Oregon law graduate, listened patiently, though somewhat incredulously, to my plan of becoming an attorney and, then, tried his best to talk me into journalism. However, when he saw that I couldn't be swayed in my avowed course, he slowly shook his head, said "see what I can do," and left. In due time, Mr. Wipple happily informed me D.V.R. would underwrite the remaining 7 of my 8 year Pre-law and Law course.

A few years later, Wipple confided to me: "I personally didn't see how you were going to make Law; but you were so cock-sure that I thought you must know how you were; and that was good enough for me." He added that Vocational Rehab never backs a client in a project unless "the client really is sold on it and wants to do it."

For the rest of my college and law school days, I paid strict attention to holding my grades up as high as possible because, not only would high grades be vital to my landing a job after school, they were part of the package that D.V.R. insisted upon for its continuing help. In this high grade endeavor, by the grace of God, I was quite successful, finishing first in my class of 72 in college (Maxima Cum Laude) and solidly in the upper third of my class in law school.

Due to two consecutive years of illness, first of my mother and then of me, right at bar examination time, I didn't pass the state bar and fully realize my ambition of being a practicing attorney. Although, I do still have plans, in the back of my mind, of reviewing and passing the exam someday.

The years 1960-63 will always live in my memory as the most frustrating years of my life because they were the years when I was fresh from a college and law education, combing the job market in vain for work. Certainly, everyone whom I asked was impressed with my academic record, sympathized with my wanting a job, and wished me all the luck in the world in finding one somewhere else. I was really at low ebb the fall of 1963, when Gini--with whom I had been corresponding for about a year--wrote to ask if I knew any handicapped in Portland who would like to join some of the other Transcription Service. An Oregon law graduate, listened patiently, though somewhat incredulously, to my plan of becoming an attorney and, then, tried his level best to talk me into journalism. However, when he saw that I couldn't be swayed in my avowed course, he slowly shook his head, said "see what I can do," and left. In due time, Mr. Wipple happily informed me D.V.R. would underwrite the remaining 7 of my 8 year Pre-law and Law course.

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Due to two consecutive years of illness, first of my mother and then of me, right at bar examination time, I didn't pass the state bar and fully realize my ambition of being a practicing attorney. Although, I do still have plans, in the back of my mind, of reviewing and passing the exam someday.

The years 1960-63 will always live in my memory as the most frustrating years of my life because they were the years when I was fresh from a college and law education, combing the job market in vain for work. Certainly, everyone whom I asked was impressed with my academic record, sympathized with my wanting a job, and wished me all the luck in the world in finding one somewhere else. I was really at low ebb the fall of 1963, when Gini--with whom I had been corresponding for about a year--wrote to ask if I knew any handicapped in Portland who would like to join some of the other Transcription Service. An Oregon law graduate, listened patiently, though somewhat incredulously, to my plan of becoming an attorney and, then, tried his level best to talk me into journalism. However, when he saw that I couldn't be swayed in my avowed course, he slowly shook his head, said "see what I can do," and left. In due time, Mr. Wipple happily informed me D.V.R. would underwrite the remaining 7 of my 8 year Pre-law and Law course.

A few years later, Wipple confided to me: "I personally didn't see how you were going to make Law; but you were so cock-sure that I thought you must know how you were; and that was good enough for me." He added that Vocational Rehab never backs a client in a project unless "the client really is sold on it and wants to do it."

For the rest of my college and law school days, I paid strict attention to holding my grades up as high as possible because, not only would high grades be vital to my landing a job after school, they were part of the package that D.V.R. insisted upon for its continuing help. In this high grade endeavor, by the grace of God, I was quite successful, finishing first in my class of 72 in college (Maxima Cum Laude) and solidly in the upper third of my class
eral occasions; and, under this arrange-
ment, too, there's no need for long, ted-
ious hours of TV watching.

For the first year and a half, I hand-
dled only one order every month or six
weeks and earned very little money. How-
ever, in March '65, Mr. Damers asked me
to find and supervise handicapped mon-
tors in Seattle and Spokane, Wash., which
I did for the next two months, getting a
couple kinescopes out of these cities.
Then, in May '65, he asked me to super-
vise the entire western third of the
U.S., from the Rockies to Hawaii; he
has a disabled girl in the same capaci-
try in the Midwest.

Each raise in responsibility has en-
tailed a proportionate increase in paid
time, hence income. Moreover, as time
passes and the West develops, there's
a good probability that I may be put-
ning nearly full time at this typewrit-
er or beside my phone helper, chasing
a commercial from Seattle, Wash. to Al-
buquerque, New Mexico or from Los Ang-el-
es to Great Falls, Mont. Hence, the
paradox, the TV monitor who is too busy
to watch television; as it is, I rarely
have time to turn my TV set on, even
for pleasure.

However, as I mentioned above, Mr.
Dammers has not only been an employer to
me, but a friend as well. Last spring,
he advised me to buy my own tape recor-
der so he could buy tapes from me in-
stead of the recording company, thereby
increasing my income. This I've done
and am learning. Then came the day he
learned that I was interested in start-
ing my own advertising agency to aug-
ment the income I'm getting from him,
but needed money for special camera e-
quipped for the new venture. He ad-
vised me to apply for an equipment
grant from D.V.R.; and, when I was re-
luctant, he turned my name in to the
Washington, D.C. office of the agency.

Within a couple weeks, I had a call
from the director of the Portland of-
ice of D.V.R. wanting to come out and
discuss the equipment grant his superi-
ors in Washington had said I wanted.
After examining my ability to "parti-
pate" (pay a token amount on the pur-
chase or buy supplies for the proposed
business), scrutinizing my physical a-
bility (including a complete physical
examination) to do the work, and look-
ing at my success possibilities in ad-
vertising, my new Rehab counselor has
my application for an equipment grant
in "channels" being processed.

So, there you have my "cockeyed ca-
reer," thus far. From law student to
non-watching TV monitor to budding ad-
vertising man, it has been a circuitous
one; but it has been one heck of a lot
of fun.

ED: Western would-be monitors, Dave's
address: 4624 SE 48th, Portland, Ore.

A SUGGESTION ON VRA ASSISTANCE "I have just graduated from the U. of Nebraska,
majoring in Speech and Hearing Therapy. I plan to do graduate work in the field
of Audiology and Deaf Education...My involvement is that of the upper extremi-
ties (polio '59). I have lost the use of my left hand and have limited use
of my right...I drive a 1962 Ford Galaxie 500 equipped with Cameron Enns' Foot
Controlled Steering...Because of the VRA I have been able to go on to college
and get my degree, without them this would not have been possible...They paid
for tuition plus $50 monthly partial maintenance...One of the major difficul-
ties I have found with the VRA assistance is to know or to find out what they
will and will not assist a disabled person with. For example, I 'begged and
borrowed' money for the foot controlled steering. Not until after I made the
purchase did I find out that the VRA would have paid for the installation. A
suggestion I might make would be for those receiving VRA assistance, they
should make sure they know where they stand with the VRA and what is available."

Marvin Pekny, Route 1, Box 108, Clarkson, Nebraska 68829
The hour is quite late. The night became "official" several hours ago when promptly at ten o'clock the attendants rushed into each room and politely yet firmly enforced the curfew. "All inmates are to be in bed and the lights turned off by ten o'clock!" It is the rule and must be obeyed. The lights closed their eyes and the radios and television sets fell silent. It was the time for sleeping. Unfortunately the night is for me a time for study and contemplation; I simply don't like to sleep. So I do the only thing any honorable man would do.

Eventually morning brings the sunshine and with it comes the day's unchanging routine. At six-thirty the attendants rouse us grumbling from our slumber (or meditation) and with their assistance we

dress, drag ourselves out of bed, and set about this strange business of getting rehabilitated. After rising and grooping about for my glasses awhile, I try in vain to rearrange the unruly mop of hair that anchors my equally scrambled brains and, then, with a speed that would make a tortoise gasp, I race to the cafeteria.

Eventually morning brings the sunshine and with it comes the day's unchanging routine. At six-thirty the attendants rouse us grumbling from our slumber (or meditation) and with their assistance we
At eight-thirty our working day "officially" commences (in a Rehab Center "officially" is an oft used word). For me it starts in the Pre-Vocational Department. As its name implies, this department was designed to assist the handicapped individual preparing himself for earning a living. This is done, first, by testing his mental, emotional, and physical aptitude in order to determine for what sort of profession or trade he is best suited. Then the department undertakes to train or retrain the individual in the basic skills of that particular trade or profession. I discovered, much to my delight, that my aptitudes and my chosen profession were not entirely incompatible. Although the Pre-Vocational Department is neither staffed nor equipped to provide formal art training, it does possess a superb Ceramics Department where I spend much of my time.

My lunch hour begins at eleven-thirty and I make full use of it. Eating is one phase of life in which I need absolutely no rehabilitation of any sort.

The simpler joys of life, however, must be supplemented by other equally important activities and in some of these a quad needs a great deal of help. For this reason I find my Activities of Daily Living classes so important. There for an hour a day I practice the practical aspects of self care. Dressing, undressing, grooming, getting into and out of bed and my wheelchair are things I must do for the rest of my life. If I am to maintain my independence as an individual I have to learn to do them and do them well. When I entered the Rehab Center just over six months ago I could barely shave and brush my teeth and considered myself something of a "quad extraordinaire." Big Deal!! After my first ADL sessions, my self-satisfaction was rudely and magnificently shattered. "Boy," said I to me, "what have you been doing for the past six years?"

I have since learned to do things that I had never believed a C5-6 quad could do. Each day I learn more. Where is the limit?

After every rigorous session in ADL I drag myself up a long, bleak, and perpetually uphill corridor toward the gymnasium. Most of us have encountered Physical Therapy in some form or another. For me P.T. means an hour and a half of delightfully stimulating, wholly exhausting exercise while strapped to a tilt-table at the ungodly angle of eighty-five degrees. To this is added for recreation, of course, a pair of fifteen pound dumbbells which have the nasty habit of gaining weight at the impossible rate of a pound every three and a half minutes.

Alas, I find ceramics somewhat more fragile than painting.
Honest!

Don't let my words fool you, my therapists with their particular brand of mayhem have added twenty pounds of something other than fat to my altogether too prominent skeleton in the past four months!

For an hour after my first P.T. session I am in the competent hands of an occupational therapist who works patiently to restore movement to my most uncooperative fingers. The Occupational Therapy Department has its own little collection of exercises and craft projects designed to improve the strength and coordination of the hands, arms, and shoulders. I might mention, for example, the "Galley" which is a roughened plank upon which, with a weighted sanding block, I "row." It isn't really a bad exercise at all, but it does get a bit frustrating to row so much and get nowhere. One of the most enjoyable craft projects I have undertaken in O.T. has been the making of a mosaic from tiny pieces of ceramic tiles. These I smashed unmercifully with an almost morbid sense of satisfaction.

The emotional release is indescribable!

By the time I leave Occupational Therapy for my second session in P.T. I am too tired to even be aware of my fatigue. Somehow for another hour I manage to wallow through a few more exercises on the gymnasium floor.

At four-thirty I undergo a strange transformation. With a fantastic burst of energy I charge again toward the cafeteria. The working day has ended and, by the time my belly is amply filled, the evening has descended. My time is, for awhile at least, my own. You may be sure I squander it most judiciously.

The week is but a repetition of the day. It passes with little variation. The routine is broken only by the weekends and by the knowledge that with each day will come new skills, increased strength, greater self-confidence, and, most important, hope. Now, in the night, I consider the days that have passed and the things that are to come and I am happy.
Sue Smith's winning entry in TjC's 1965 MONEY-MAKING JOBS BY PHONE CONTEST

(1) Operate answering service for doctors or salesmen. (2) Sell Christmas cards, greeting cards, stationery, wedding invitations, address labels, favors, etc. (3) Make appointments for salesmen. (4) Take orders for businesses of advertised products. (5) Sell advertising for programs, etc. (6) Take "trouble" calls for utility companies. (7) Make appointments for insurance representatives. (8) Run baby sitting service. (9) Be correspondent for newspaper. (10) For clubs, civic organizations, and churches:
   (a) Schedule and plan programs. (b) Call to remind members of meetings. (c) Sell tickets for card parties, dinners, etc. (d) Sell raffle tickets. (e) Plan and arrange fund raising events. (f) Take orders for homemade bakery goods. (g) Do typing at home, taking dictation over the phone. (h) Make TV and advertisers' surveys. (i) Call to get out votes in political campaigns. (j) Check on "skip" accounts for collection agencies. (k) Sell magazine subscriptions. (l) Plan tours for students and organizations. (m) Solicit orders for floral shops before holidays. (n) Take appointments for beauty shops. (o) Run a "Wake-Up" phone service. (p) Make pre-interviews for school registrars, etc. (q) For individual stores, investigate applicants for jobs and check on credit references. (r) Arrange for wedding receptions. (s) Prepare genealogy trees of local families. (t) Do research work for newspaper reporters. (u) Solicit customers for dressmakers. (v) Organize a nurses registry. (w) Make arrangements for "pet sitting." (x) For conventions, reunions, and county fairs, plan and arrange events and make room reservations for out of town visitors. (y) Check alumni addresses for reunions. (z) Run collection agency for small businesses. (aa) Make appointments for photographers. (bb) Run a rental agency. (cc) Operate a travel agency. (dd) For dentists, oculists, etc., remind of appointments due. (ee) For teachers, grade test papers. (ff) Arrange parties for children, plan games, etc. (gg) Sell cosmetics, candy, etc. (hh) Do public relations work for businesses.

DIALING DOLLARS

by Sue Smith
(polio quad) West Virginia

Was I ever surprised and pleased when I received the $10 check for winning the "$5-making jobs by phone" contest!

This may sound a bit exaggerated, but I have tried all the jobs except two. Let me say this: each and every project is money-making, it just boils down to the fact that you have to accept that it usually depends on how much time you are willing to give.

Naturally, on certain jobs, you can't predetermine your income; you have to work cheaper in order to make people even consider using you.

In selling things, you make about 1/2 the price of the item; but I, personally, lean toward "services." In that way, you can earn more if you want to work.

Me, I have to keep busy! I have been a quadriplegic polio for 26 years. For the past 11 years I have worked from my bed and, because I recently got a pinched nerve, I am now in traction, but anyway I can work. I work 24 hours a day, 7 days a week, but if I am not doing several things, I am restless.
The first step for anyone interested in starting an answering service is to call the sales representative of the phone company and have him come out and discuss prices of equipment and extensions. Then, decide what hours you can work--then go after your customers.

About the customers, I wrote letters to doctors, electricians, plumbers, contractors, the power and gas companies, and anyone I thought of who might not have someone in their office full time or needed their phone answered at night.

I charge $10 a month minimum for 100 calls and 10¢ a call for all additional calls (this includes calls coming in and any made out for the customer). The customers pay for their own extensions. I use two key set phones, each of which has five lines. The cost is small and it is so much easier for me since I have very little use of my right hand and none of my left.

Secretarial work is piecework-priced: 1¢ a direct mail address; 25¢ a letter; 5¢ a carbon; 20¢ for identical copies.

To give an idea of the variety of my phone jobs, here's a resume of what I have worked on since last June:

- Take all calls for the Power Company (my first customer) from 10 pm on Friday until 8 am on Monday. I give out work assignments, keep overtime records, etc., for the entire district. All the work clears through me.
- Take calls for a plumber, two electrical companies, a building contractor, and an amusement company.
- Call all Kiwanis and Rotary members each week, then make reservations for their meetings. Do the same monthly for the retail merchants.
- Sell advertising by phone for programs, calendars, etc.
- Work for an employment agency from Texas which is hiring and training people.
- Work on "skip" accounts for a collection agency, tracing people who had not paid their bills.
- Helped find rooms for boys coming in to play a tournament football game.
- Helped find people to man refreshment stands at the band festival and to man the Salvation Army kettles.
- Run a secretarial service for people who come in and out, such as salesmen.
- Take orders from ads placed from out of town firms in our local paper.
- Fill out income tax forms (I took an accounting course).

There is just no end to the possibilities if you want to work.

I was a newspaper reporter for nine years for an out of town paper. I love to write!

Year before last, I started and ran a Mental Health Education Program for a year and I am now ready to open a kindergarten for the retarded, which I've planned and promoted for the past year. One of the fund raising projects was a "record hop" which netted $160. I am in the process of compiling a cookbook to raise more funds (and I would like to have recipes from TG-ers). So if anyone doesn't want to earn money, he can still keep busy and help his fellow man.

I just finished my second book on local history and hope to make $1,000 profit on it (for myself).

I was very fortunate and honored to be named in this year's "Outstanding Young Women of America," and I received an honorable mention and sold a painting at the Kenny International Art Exhibit.

Patience is all that it really takes to get a phone answering business started. In a town larger than ours (6,746), and a more prosperous one, it could be made into a lucrative business. I shall be glad to help any other readers work out any problems they may have--if I can--and if I can find the time. My address is: Box 375, Williamson, West Virginia, 25661.
Telephone answering service....

A COMMUNITY PROJECT

by Jackie Bost
(respo) North Carolina

When I graduated from high school in 1964, I was faced with the problem of what to do next. There were few employment opportunities for me since I only have the use of my left leg. I had my bout with polio back in 1954, spent many months in a lung at Vanderbilt, then came home to my parents' farm. I was tutored at home and graduated with my own class.

I have a very useful left foot. I can write with it, work my ham radio, turn newspaper pages, hold a fishing rod, and dial a phone.

Last summer, Mr. W. B. Eudy, a member of the Jaycees (Junior Chamber of Commerce) suggested that I could put that foot to work and operate a telephone answering service if I had all the proper equipment. This would take money and a lot of work and planning to get the equipment installed and put the service into operation.

The Jaycees joined with Rev. Jernigan of the Lutheran Church to finance the project by holding a "Pig In A Poke" sale on Labor Day. Letters were sent to about 2,000 people asking for packages to be auctioned. The 600 packages that were sold were sent by famous people from all over the world. To name a few, Bobby Kennedy, Strom Thurmond, Sandra Dee, Bing Crosby, David Brinkley, Jimmy Durante, Barry Goldwater, J. Edgar Hoover, Lawrence Welk, John Wayne, Joan Crawford, Jack Nicklaus, Al Hirt, Rep. James T. Broyhill, and Gov. George Romney. The auction was quite successful and raised about $5,000, part to be used for my equipment and the rest for a playground for my town of Mount Pleasant.

As of the first of January 1966, my phone service was actually started. I have a wall phone at the foot of my bed and a receiver arm at the head. I flip the switch and dial with my toe and write the messages on a clipboard. I have eight subscribers and hope to add more in the future.

ED: Additional potential uses of an answering service, gathered from other readers' experiences: ambulance services, real estate agents, attorneys, undertakers, fire and police departments, summer resorts, bottled gas dealers, ministers, artificial breeding services.
TEACHING: A CAREER FOR QUADS

I have come a long way since I became a quad in 1943, when I was 19. I am very lucky! I have an enjoyable occupation working with children whom I love. I have a very charming wife and we have a delightful adopted daughter and a home of our own built for my convenience.

I have been teaching school steadily since 1958. Each year since then, I have paid back more to the government in taxes than the State Vocational Rehab paid for my college tuition.

I think that teaching offers great possibilities for the severely handicapped. I would like to hear from other quads who are planning to attend college. Perhaps I can help with a few little problems. (My address: 4418 Knoop Ave., Eugene, Oregon 97402.)

"My fifth grade room. I love this group. My students perform many tasks for me. It stimulates their interest and makes them feel needed."

"I always train most of my students to set up and operate film strip projectors, movie projectors, tape recorders, and such equipment."

"My attach case stores my supplies and lunch, functions as a lunch tray, work surface, and "truck rack" for books when I raid the library."

"I hold a pointer between my hands. I can write on the blackboard with a "chalk chuck" which fits into one of my special holders."

"To eliminate pressure sore I change my position every few minutes, regularly throwing my feet up on a chair for a good stretch."
My Family

I met my wife while going to college; she was a student nurse at a hospital half way between the fraternity house and the campus. We were married in 1953 while I was in the Navy. Cathy was born in 1954 in the Naval Hospital, Pensacola, Florida. David was born in 1955 in the Navy Hospital, Portsmouth, Virginia. Greg was a civilian baby in 1956.

The children now are in the 4th, 5th, and 6th grades in St. Patrick's school in Watervliet. Cathy is an outstanding student, spending most of her time out of school reading and helping at home. She also has a normal girl's activities and recently received a trophy for being a cheer leader on a local Pop Warner football team, which won the championship. Dave is a good student, active in Cub Scouts and busy being a boy. His brother, Greg, is similarly occupied but can easily be recognized by his constant chattering as distinguished from his more reserved brother.

Liz, my wife, is busy as mother and home-maker. I come home regularly on weekends and this takes a large part of her time. She is also involved in Cub Scouts and several other activities into which mothers seem to be trapped. She is thinking about returning to work as a nurse, part-time.

The most amazing and satisfying thing about my family, in my estimation, is that I still play a very integral part in my family. Considering that the oldest child was three when I got polio and that I have been away nearly half the time since then, this always surprises me. I am treated as a normal Dad which is very nice and a great tribute to the wonderful way my wife has maintained the family unit during this difficult and unusual time.

nuCLEAR PHYSICIST...

Russian Translator and Tutor
My Work Efforts

I had the good fortune to have a good education before I got polio. I had a B.S. and was just two courses short of an M.S. in Physics at Rensselaer Polytechnic Institute when the bug bit. At the time I was employed as a nuclear physicist by the General Electric Company at Knolls Atomic Research Laboratory performing experimental research on advanced submarine reactors.

When I first returned home in 1959, after two years in hospitals and polio centers, I thought of ways to put my training to use. Since we were completely without aid my wife found caring for me, the home, and the children more than a full job and we never successfully investigated any of these job ideas.

The work load on my wife was so heavy that her health began to fail in 1962. I was admitted to the Albany Veterans Hospital for what we anticipated would be a short stay until she had her strength back. As it turned out, this was a much slower process than originally thought as she really was not resting and was still caring for her home and three young children.

We then took a long range look at the whole situation and decided the only feasible way for me to return home permanently would be for me to find a job in which I could earn enough to pay for an attendant. I am working on this at present.

Here is what has developed. In the fall of '62, I decided translating foreign science articles offered the best bet. There was an acute shortage of translators, particularly in Russian, who had a science background sufficient to handle this type of work. I started working with the educational therapist, Mrs. McKensie, on a general program to increase my work tolerance. I also occasionally assisted her in some of her teaching projects with other patients.

My desire to learn Russian became known to members of the Volunteer Service in the hospital. Through this arrangement, I was transferred to the chronic medicine section of the hospital. This was an excellent move as the ward philosophy, set up, and training were keyed to my needs.

In 1963 it was realized mine was a long range program and I was transferred to the chronic medicine section of the hospital. This was an excellent move as the ward philosophy, set up, and training were keyed to my needs.

Although the actual operation of my program was continued with volunteers and the educational therapist, the chronic medicine personnel arranged for working space and established my routine for maximum output. I currently use...
a respirator 14 hours a day and of the remaining time I spend 6 hours in a wheelchair. My general health is good aside from the paralysis. Physicians recommend a 30-hour work week. I use my left hand and my left arm with some support. I have a mouth device for turning pages which is adequate. I am able to use a dictaphone with ease. I can do a limited amount of typing with my electric typewriter.

In early '64, when I had mastered Russian, I contacted translating services with the help of the vocational counselor. With the help of other volunteers for typing services, New York State Rehabilitation for a tape recorder and dictionaries, and many other people for the many small things that come up, I have reached a point where I can produce several English abstracts of Russian articles each week.

The project I work on is connected with the government's program of abstracting and cataloging of all major foreign scientific work and storing it in a computer for ready reference. I put the abstract on tape (I use an IBM executive magnetic belt recorder) and a secretary types it up in my presence.

Problems are: the work is not regular, I require other people's help, and the pay is relatively low. I enjoy it greatly and hope it will lead to better things, but I could not recommend it as a program for everyone.

I also do some tutoring. This started with helping friends and by word of mouth. It grew to the present level of four high school and two college students. I have tutored in all the sciences and maths at the high school level and also Latin. I have also tutored freshman college math and eventually I hope to concentrate my attention in this field. There are approximately eight colleges in this immediate area so there should be enough students.

I like this work best and find it takes no outside help. The disadvantages are: it is hard to be assured of a steady supply of students and the hours they wish to come--after school and before supper--permit only a limited load.

I am exploring the possibilities of using the telephone for tutoring. This program would be sponsored by the New York State Education Department and I would be paid by the State.

I am now seeing if there is a market for my services in correcting papers. I have thought about contacting a correspondence school to see if I could handle some of their material.

None of these by themselves would give me the necessary income, but I am hoping a combination might. I must emphasize that I started with a good education, had fine professional help, outstanding cooperation and encouragement by the chronic medicine personnel and the help of many volunteers for long hours.

I should add that this all had an indirect consequence at least as valuable as the direct object hoped for. This fallout was a new attitude of mine toward life. I feel almost like a normal person, who operates differently because of a handicap. I enjoy meeting schedules, overcoming obstacles, learning new things, etc. I realize economically all the effort might not be warranted but I'll be eternally grateful it was made.
A plan aimed at bringing self-employment to quadriplegics and other severely disabled has been successfully developed over the last three years by the 3M Company working closely with the State rehabilitation agencies. The rapidly growing business network is called Community Business Services Associates (CBSA). The 3M Company provides four machines (infra-red process copier, dry photo process copier, overhead projector, and lighted display box) whose total cost is $1,995, training manuals covering every capability of the machines and suggestions for operating the business, plus in-the-home training of about 80 hours.

The State rehab agency selects capable handicapped persons from among their clients. Where appropriate, the agency pays for the machines as part of the cost of rehabilitation of the individual who is to take on the business. A client may pay for all or part of the unit if he is able to do so.

The program is directed toward small cities and towns and is currently in operation in more than 20 States. To assist in launching the business, the 3M representative and the vocational rehabilitation counselor meet with local business people, describe the enterprise, and seek the support of the local business men.

Each CBSA operator becomes an independent business man providing many kinds of services to his community, such as the following:

- Make copies of letters, documents, newspaper clippings, or laminate them in plastic.
- Send out monthly statements for small businesses.
- Make up and sell current mailing lists.
- Make color transparencies of newspaper ads for display in a lighted display box in the merchant's window.
- Provide a projector - and accompanying illustrated material prepared by the 3M Company - for meetings that train store clerks or waitresses or teach the operation of vacation Bible schools.

Many operators have branched out on their own and added other services and products. For instance, some are operating tax services and selling magazine subscriptions, Christmas cards, etc.

For more information, contact your own vocational rehabilitation counselor and write to: Mr. Hugh J. MacLeod, Visual Products, 3M Company, 2501 Hudson, St. Paul, Minnesota.
Many of the letters I have received from readers of the TjG are from paraplegics, quadriplegics and respos who want to go on with college education. This article is intended to pass on a few suggestions that will help you plan more wisely.

FIRST, be assured that if you really mean to work hard at it, do some initial research, letter writing, and personal investigation of your own, and if you have a good enough high school scholarship record to make you eligible for college entrance, you have numerous examples of "pioneer quads and respos" who have made good records in college in the face of their physical handicaps and many obstacles. Read the back issues of the TjG, particularly the Spring-Summer issue of 1962 and the Education Section of the previous issue of Spring 1965. If you are not willing or able to meet these preliminary requirements, you'd better not try to go to a college campus, since research, writing, the inquiring mind and evidence of previous scholarship are requirements of making a success of higher education anywhere and for any student. This does not mean that you can't continue your education in profitable and interesting home-study not aimed at college credit. There are numerous ways of doing this. Later I will write a little article about them, but let's stay with the campus-bound student here.

SECOND, IF YOU WANT A SCHOLARSHIP FOR TUITION, board and room, and other aspects of scholarship grants, you will have to compete for them as any other student has to do. Consult your local high school Principal and/or your State Department of Education about types of scholarships and student aids for which you might compete. Handicapped students should never assume that their handicap is necessarily a factor in scholarship competition.

THIRD, STUDY THE FACILITIES AND SERVICES of colleges and universities that are designed to help the handicapped student in carrying on his studies. The best help available to you to make this study is a monograph entitled Higher Education and Handicapped Students, edited by William V. Tucker, and available from TjG. This lists by states all the higher education institutions in the USA that appear in the College Blue Book and have more than 1000 students and which responded to the questionnaire. It lists for each one, according to its own report at the time of the study, the following: housing ramps, classroom ramps, library ramps, beveled curbs, reserved parking areas, modified toilet facilities, special counselors, vocational rehabilitation service visits, adaptive physical education, and numbers of wheelchair and blind students. After reading this monograph, select two or three that seem to meet your needs and write to "The
Registrar" for a catalogue and ask to whom you should write regarding the institution's program and facilities for handicapped students. Then write to the latter for any detail not covered in the monograph described above.

FOURTH, many of you will be able to get along fairly well by yourself. Others will need to make careful investigation of the possibilities of student-attendant services. My best advice is that if this is an important factor, do everything you can to get the arrangements made definitely before you go to the campus. Few colleges make special dormitory or housing arrangements for the handicapped. Few of them arrange to employ students as attendants. Even if you have the money to employ a student assistant, you may find that some institutions have trouble in recruiting the kind of person you need. When you write to the institution about this be sure to be specific about the exact duties you expect from the assistant, the amount of time and times of the day you need the assistance and any other information that would be useful in recruitment. Some of the institutions or possible attendants may be worried about their responsibility to you, legally, and suggest that you sign a waiver. Be very reluctant to sign a waiver; or, at least, consult a friendly lawyer in your community before doing so. Some have advised that you should not absolve a person from negligence, and, as long as a person exercises reasonable care, that is all that is asked of him and he cannot be held liable for anything that happens while he is exercising reasonable care. After all, this is generally the requirement that employees or assistants you have in your own home are charged with.

IF YOU NEED FINANCIAL ASSISTANCE FOR ATTENDANTS, inquire from the institution with which you are planning to study whether it is operating under the College-Work-Study Program of the Economic Opportunity Act of 1964 and whether your needs for student assistance could be financed, or partially financed, within the limitations of this program. Also write your own State Office of Vocational Rehabilitation, in your State Capitol, and ask them whether you can secure financial assistance for student assistance. Both of these agencies have limitations, but you may be able to come within them. You also might try your local Service Clubs, such as Rotary, Lions, Kiwanis, Altrusia, etc. Very often, if they understand the situation, they will get back of an occasional need of this kind.

FINALLY, DON'T GET DISCOURAGED with a few set-backs; you're used to them and you're after a good thing here. Do all you can for yourself along the lines I've suggested. When you've done that and there are still road-blocks, write me (care of TJG) and we will try to do what we can to go on from there. Much of this effort of higher educational institutions to make better provisions for physically handicapped students is new to many of them. Many innovations and break-throughs are occurring, and the picture is changing slowly but favorably. Every effort you make along this line helps define their (the institution's) task and problems. So, even in the trying, you can help.
University was always a "must" even before I was disabled by polio during an epidemic we had here in 1957. Psychology had long interested me before I decided to make a career of it.

It was unfortunate that I contracted polio shortly before my school days were to be over, for when I was able to start picking up the threads of the matriculation syllabus some three years later in Salisbury, Rhodesia, I found that I had got right out of swing with academic work. It was a battle to cope with work which looks so simple now!

I left Cape Town, my home town, for Salisbury two years after my admittance to the Isolation Hospital. After a brief session of two weeks in an Iron Lung, my time was divided between physiotherapy and sleeping. Sleep was a welcome release from what was then for me an unacceptable situation (almost total paralysis). The idea behind my trip up North was to move from a hospital to a hostel and to attend the Red Cross Polio Clinic every day for further treatment. Although I did not realise it at the time, what could be done for me by way of physiotherapy had already been done. Today I feed myself, read and write with my right arm.

About the time I turned 21, I obtained a job as an Invoice Clerk in a large sized firm. This kept me busy until I came back to Cape Town to commence studies for a B.A. degree at the University of Cape Town.

Salisbury is a beautiful city with its long avenues of flowering trees, huge gardens and several parks. As always with small cities, (only 120,000 people) the tempo of life is slow and peaceful. Everyone walks about very casually – no-one need hurry – and no-one ever does! Quite different to the teeming, bristling city of Johannesburg!

I spent my second year of university life in Johannesburg – there because I wanted to have one last crack at intensive physiotherapy to establish whether or not there was still room for improvement. There was not, but Johannesburg was an interesting experience. I carried on with my degree courses and met a large number of interesting people, including Ian Bompas, a TjG Horizontal Foreign Correspondent, who has recently moved to Durban.

That year (1964) my African attendant Girivas returned home to his Reserve in Rhodesia to marry and start a family – an event of considerable significance to him – as by this means he was recognised by his Tribe as being truly a man with all the social prestige and improved status which accompanies it!

In January 1965 I visited Rhodesia to fetch Girivas in time for the commencement of the academic year. The circumstances under which I found him make a good story. After driving through the "Bush" with an African guide for miles on end, we eventually arrived at the little kraal of half-a-dozen huts. Girivas had hurt his eye and
was receiving treatment for it from the local witchdoctor who, incidentally, was making a reasonably good job of it! Before bringing Girivas away with me, I paid his "bill" for the treatment; the witchdoctor was most impressed by the ready availability of cash, and after lengthy discussion it evolved that I would be further required to pay (dearly) for having a special spell cast over Girivas' wife's hut to protect her from all manner of evil!

I am entirely dependent upon my attendant to get me around and about and generally take care of me. Perhaps the greatest boon about living here is the availability of relatively cheap African labour. Girivas stays with me wherever I choose to live and takes me wherever I wish to go. University with its hundreds of steps would certainly have been out of the question were it not for my attendant. I have travelled many thousands of miles around the country with him. Together, as a team, we are free and independent.

We have a very small portable transmitter and receiver with which to contact each other when separated; he can thus leave me to attend lectures and be free to go where he pleases until I need him again.

Much of my spare time is given over to promoting and organising our local paraplegic games; part of this work is to produce "The Chairman" - an alternate monthly newsletter/magazine, and make an occasional "after-dinner" speech. It is very interesting and often great fun. Otherwise I enjoy playing bridge, going to operas, ballet, concerts and plays; also parties, braai's (barbecues), swimming and boating, dating and swilling down much cold beer in these hot summer months.

The future looks good. I plan to obtain a Master's degree in Clinical Psychology, after which I may well continue study with a view to eventually specialising in Vocational Guidance.

I would like to make a trip to the States to enrol at one of the Universities for a graduate course in Psychology. (Perhaps some of the TjG readers could put me wise as to a suitable campus.) In the meantime, I would like to correspond with other "TjG-ers." My address: Corner Cottage, Union Road, Milnerton, Cape Town, S. Africa.
In July 1961 I contracted polio. After having spent three months in an iron lung I was able to breathe on my own during the day. For sleeping purposes I am still dependent on respiratory aid.

In 1963, after learning to sit up in a wheelchair with the aid of a leather and steel corset and to write legibly, I felt like continuing my education. During the next years some teachers came into the children's hospital, the place where I am still living, and tutored me in the main subjects. In July 1965 I was lucky enough to pass the final exams of the secondary school with a good average.

It had always been my plan to attend a university after secondary school. But after polio this seemed impossible. Because of the great age of German universities they contain many architectural barriers to wheelchairs. The buildings, which are dispersed over the city area, are narrow with small, overcrowded rooms.

Now it is time to tell of the key figure in my post polio life, Mrs. Vollmar, manager of the "Pfennigparade E.V.," an organisation for the aid of polio victims. Mrs. Vollmar, the most unusual and charming person you have ever seen, had encouraged me to continue my secondary school. She had the idea that in the U.S.A. there might be better chances for me to attend a university especially adapted to the needs of the disabled.

During this time of hope and setbacks, Mrs. Joseph S. (Cini) Laurie, managing editor of Toomey j Gazette, was happy with me when I reported success and encouraged me, gave me new ideas, and some more addresses when I told her about disappointments.

During the last year, I contacted the following schools: University of Illinois, Southern Illinois University, University of Missouri, University of California (Los Angeles), University of California (Berkeley), City College of New York, and Hofstra University.

Hofstra and the City College of New York replied that they had no residence...
halls for me. The U. of Missouri rejected my application for admission because I was not self-sufficient—I have only use of both hands and the right arm below the shoulder. The U. of Illinois, which seems to have the best facilities for wheelchair students in the world, also handles mostly independent students. Although it has a program for a few non-self-sufficient students, this is still in the pilot study stage.

Southern Illinois U. admits the more severely handicapped student, but makes his admission dependent on his already having secured an attendant.

I turned to California where the climate is said to be favorable for respos. At Berkeley, there are two Toomey readers living in the university's infirmary and doing well despite the hilly campus.

In September 1965, Mrs. Vollmar visited, on her trip through the U.S.A., the U. of Illinois and U.C.L.A. At U. of Illinois, she was informed that they could not take me because of my kidney troubles, on account of their lack of surgical facilities. At U.C.L.A. she was told that my polio disabilities would constitute no obstacle to my academic admission if I could work out arrangements for my housing and attendant.

In California, Mrs. Vollmar also met Toomey reader, Mr. Ralph Dosch of Long Beach, of whom she had heard through Ralph's pen pal in Munich, Toomey reader Miss Ingrid Leitner. On my inquiry for a university I asked many Toomey readers for information and they helped me in every way possible and encouraged me a great deal. I would like to take this opportunity to thank them all. I found out that Toomey readers stick together like a crew.

As soon as Ralph heard of my plans to attend U.C.L.A., he started doing everything possible as to getting information, contacting firms and organisations, visiting places and meeting persons. My final arrangements are: the first few months I will attend English courses as an auditor and will live in a nearby Convalescent Hospital (Beverly West Hospital, 1516 Sawtelle Blvd., Los Angeles 25, Cal.). In the summer session I will start regular study and will live in a Residence Hall, if possible, or find a suitable apartment and live with one or two attendants.

Without Ralph's and his mother's help it would have taken me much longer to find such accommodations in Los Angeles. Since I know that I will have a real friend there, I am even more happy about the thought of going to L.A.

Soon after I had begun my correspondence I realized that, using a rocking bed, it would be difficult to get a room. So I looked around for a less bulky respirator. First I tried out a Thompson pneumobelt which Toomey reader Mr. Charles Froelicher, European Thompson representaive, lent me. After it turned out that I could not sleep with the aid of the pneumobelt, I tried a chest-abdomen cuirass. After original difficulties I am now used to it. I also found out that my chances of getting admitted by a school would be better if my medical report did not contain "kidney troubles." Since my iron lung period I had had a big kidney stone which always caused troubles. After examinations and considerations, the surgeons finally took the right kidney out in December 1965.

But all endeavors would have been in vain if Mrs. Vollmar had not solved the main problem—the finances. Because I am a war orphan the Bavarian Government is sponsoring me. But to convince the authorities that there was no way for me to attend a German university and to interest them in financing my study in the U.S.A. was Mrs. Vollmar's work. This was in the summer of 1965. Then, in February 1966, the officers of the Bavarian Government—all are nice people—were ready to sign the necessary papers.

After getting the visa and making all preparations, I am today (March 25, 1966), three days before my take off, the happiest man in the world.

I would be happy if these lines would be of some value to other respos who are looking for a suitable school or if they could even encourage others to start the Odyssey from university to university applying for admission.
The following excerpts from our local newspaper summarize the bare bones of my life:

"The forthcoming Cenne Exhibition will arrive from a very successful showing in Toronto, on May 25 (1965) at the Tom Thomson Art Gallery. This is a one-man show, although in this case the artist is a young woman, wife of Dr. I. Cenne, local dentist.

"Gunde Ga Aria Cenne was born in 1933 in Riga, Latvia. In 1948 she came to Canada and settled in Montreal, Quebec, attending Montreal High School for Girls and graduating with a scholarship. She then entered the teaching profession rather than entering the art field because she had been advised that this was the more 'practical' thing to do. Continuing her education, she graduated from Sir George Williams University with a B.A. in Fine Arts. After studying under such people as Jacques deTonnacour, Ghatta Caiserman, Oron Wheeler (Sculpture), and Arthur Lissmer, she was awarded the Board of Governors' Gold Medal for 'Creative expression in fine Arts,' in 1955. She taught for the Montreal Protestant School Board for eight years in her capacity as Secondary School Art Specialist, painting and exhibiting as time permitted and becoming a member of the 'Independent Artists' Association of Montreal.'"
Three years ago a car accident left me with the use of my head, two weak arms (no finger movement), and an ordinary wheelchair (junior, to avoid distress in other people's homes, as well as easier to handle myself).

What have I done since that dreary day three years ago? Almost two of these were spent in hospitals, The Toronto General, Lyndhurst Lodge, and finally, thank goodness, Highland View, Cleveland, Ohio, where for the first time I got some real physiotherapy. An orthosis (a hand brace utilizing the wrist flexors to give grip and pinch) was ready within a week, and I was learning how to put it on, take it off myself, and how to use it. For the first time in all this eternity I was able to pick up a paint brush in a close-to-normal way. This was a great thing (before this I had attempted to paint with the brush strapped to my wrist).

Housework hadn't even occurred to me until I was introduced to the facilities in the experimental kitchens by my occupational therapist. Now, though I tire easily, I manage to do a fair share of housework. We have reproduced in our new home many of the ideas of kitchen planning I learned at Highland View. The kitchen counters are lowered; there is leg room under the sink and the countertop stove; there are pull-out shelves and things slide or open easily so that I am able to operate everything myself.

Plastic dishes are used for preparing and serving. On a spike-board I can cut most things, though it all takes time. My built-in oven opens sideways (which certainly cuts down on burned fingers). I have a front-loading dishwasher and washer and dryer.

I do have a reliable housekeeper, who arrives about 9 a.m. and stays until midafternoon, depending on what's to be done. Saturdays I cope with all things myself (sometimes with the help of my seven year old son, Peter), as Ivar, my better half, usually has to look into people's mouths. One thing I now know I cannot do, is to make beds, unless I wish to land in one myself.

As for gadgets—the orthosis (I normally wear only the right one) is all I need. I am a reckless soul—born under the Taurus sign—and have managed to mutilate this little miracle a few times, attempting to do things beyond its capacity. Luckily, hubby possesses some knowledge in an allied field, namely orthodontics, and he has been pretty good at repairs.

Now the painting—I have always, as far back as I can remember, been swinging the brush. After graduating, I did exhibit now and then, but being attached to a dental school undergraduate, I did not have the time I needed or wanted for my painting.

Since my accident I am more able to concentrate on my painting because I no longer hold an out-of-the-home job nor even teach privately at home. I believe that I have grown, aged a good deal, and my painting seems to reflect this. I have so much more to say with greater audacity than before. My technique has changed and keeps on changing, but it has no connection whatever with my use of the orthosis. There is no denying that to execute a painting, especially a large one, involves a good deal of physical energy; you cannot as easily go back and forth to observe its progress as before. At times it is difficult to reach. At times I approach a painting from all possible angles, including working upside down, if the finished product is clearly outlined in my imagination.

I keep my wheelchair condition concealed, whenever I am not present or the public has only seen my photograph, for I wish to keep my work and my physical condition as two separate entities. I am a painter in my own right, and my physical condition has nothing to do with it. It has always been an integral part of my life, and my present physical difficulties are not the public's business, nor do they determine the merit of my efforts.

ED: Gundega's outstanding talent was recognized by a one-man show at the Ligot Dunis Art Gallery, Manhattan, N. Y., in March 1966. Exhibited were 33 of her exciting and unconventional works.
Association of Mouth and Foot Painting Artists

by Peter Nelson Spencer, England

"I can't even draw a straight line, and I have both hands." This remark is often heard when pictures painted by members of the International Association of Mouth and Foot Painting Artists are being discussed at one of their exhibits.

The sentiment behind such a remark is quite sincere and is meant as a compliment to the artists concerned, but how much more they appreciate hearing—and they do hear—such comments as "What a fine piece of painting!" or "This picture shows great understanding." But nothing pleases them more than having a painting selected for an open exhibition, the judges not knowing that it was painted with the brushes held between the teeth or the toes.

Who are these artists, and what is their Association?

It was founded in 1956 by Erich Stegmann, a German artist and sculptor, who is the president of the Association. Like many of the present members, his arms were paralysed by polio—when he was just three years old. He went to school at the usual age, using his teeth to hold the pencil to write and the brush to paint. He continued his education at a College of Art, after which he painted and painted and painted.

His pictures sold and he became very well known—not because of the way in which he painted, but because his work was of a very high artistic standard. With similarly handicapped artists, who put their work before their disability, the Association was formed. From its small beginnings with just a few members in Europe, there are now nearly 100 members and student members in such far away countries as South Africa, New Zealand, Australia, Canada, U.S.A. and Japan.

Behind every artist is a story—a story of "human interest" as the newspapers say—and each one would tell of the handicap that had been overcome and a new world opened by being able to be creative. The biographies of many of these artists, with their photographs and colour reproductions of their paintings, have been told in the book, "God's Second Door." There have been two volumes and a third is being readied.

These mouth and foot painting artists are continuing and developing their artistic work with the strength of the Association behind them. This strength
Peter Nelson Spencer lost one arm and the use of the other in an aircraft accident while serving with the R.A.F. (Below) Relaxing with his wife, June, an actress and singer, and their children, Jill and Robin. Right: Putting a final touch on his portrait of "Winnie."

depends on the number of artists, the quality of their work, the sale of original paintings at exhibitions and the sale of reproductions of their paintings and designs in the form of greetings and Christmas cards, calendars, and other prints suitable for framing.

The Association has a Scholarship Scheme for beginners whose work has not yet reached the high standard required.
Arrangements are usually made for these Student Members to attend a local Art School, or if this is not possible because of the disability, an art teacher will visit him or her at home or in hospital. During this time the student receives a generous allowance to cover the cost of artists' materials and tuition fees. When the work has reached the required standard (and this is decided by an Independent Panel of Artists), the student becomes a full Member, with voting rights.

His work is reproduced for sale. He receives a regular monthly salary and, in most cases, an annual bonus. He is earning his living and is reasonably free from financial worry. He can truly describe himself as an artist, and, above all, he knows the satisfaction of being creative. He has gained "self-respect."

And so our Association grows, continually looking for—and finding—new artists and potential artists in many countries throughout the world.

Would-be members, seeking information, should write to one of the following:

1. Association of Handicapped Artists, 1735 Rand Bldg., Buffalo, N.Y.
2. Rehandart Canada Ltd., Suite 107, 160 Bay St., Toronto 1, Ont.
First of all I was born in Dunedin on the 26th October 1929 and spent my early years in Craigellachie Central Otago where my father worked on the railway. At the age of 6 my father died suddenly, and my mother and brother and two sisters came to live at Broad Bay on the Otago Peninsula, not far from the City of Dunedin, and with the exception of a few months just after my hospitalisation when we moved to the City for me to have treatment, we have lived there ever since (Box 3013, Forbury, Dunedin).

My Primary schooling was completed at Broad Bay and my Secondary schooling was at King Edward Technical College, Dunedin, which was limited to only one term when I contracted Polio in May 1943 at the age of 12.

I spent my 13th birthday in hospital and two months later was discharged.

During my childhood I developed a love of the sea and boats, and used to spend my weekends messing about with boats and fishing on the Otago harbour with friends. After my discharge from hospital minus the use of both arms, these same friends helped considerably in my rehabilitation by taking me with them as though I were no different. This helped more than they will ever know, as it developed my sense of balance to a remarkable degree.

Today 20 years later I can leap about in a pitching boat as sure-footed as a mountain goat.

For the last 7 years I have been a licensed Speed Boat racing driver, and drive in competition regularly in my own foot controlled Speed Boat, "Gadabout II."

It was this interest in boating that was responsible for my being asked if I would write for a local newspaper, and not long after I accepted a part-time job as Power Boat Correspondent for a National Boating Magazine also. To clarify this, I have to hark back to 1950 when the Dunedin branch of the New Zealand Crippled Children's Society purchased for me a set of Distaff Mechanical Arms, which not only enabled me to feed myself, but also use a typewriter, hence my ability to write. Today I'm in a position to employ a secretary, but I still type with them occasionally. I enjoy my meals much better when feeding myself, and I use them daily.

I'm still working in a part-time capacity for both of these Organisations. I enjoy this work and my job with the Magazine has grown to the stage where I am now covering approximately half of the country. This gives me a chance to travel quite a lot during the summer.
Approximately 4 years ago I was appointed Publicity Officer to the South Island Speedboat Association.

Although my interest now is mostly connected with Power Boating, I have for many years been associated with Yachting, also having owned a couple of Yachts, one in partnership with my brother, and have held office in various positions including President or Commodore in several Clubs; and am at present Secretary of the Yacht Club at Broad Bay, and also President of a Class Association.

"I specialize in New Zealand scenery."

Occupational Therapy was responsible for my taking up painting by holding the brush clenched between my teeth. I had been painting from 1946 until 1960, the latter part of this time supplementing my invalid pension with the sale of my work. Then in 1960 I was invited to submit work to the Mouth & Foot Painting Artists Association, and a few months later received a scholarship from them. For the last 5 years I have been fully employed by the Association, but still find time for my writing.

It was the added financial security which enabled me 3 years ago to purchase a "Holden" Hydromatic station wagon for which I designed my own foot controls. I travel all over the South Island to Regattas and Art Exhibitions. On these trips I get ideas for my paintings in which I specialize in New Zealand scenery.

For relaxation I turn my attention to Ballroom dancing in which I have been interested for a number of years. Although never having been taught, I'm reasonably proficient, and have never had much difficulty in acquiring partners. I also enjoy a good movie and, when the occasion warrants, enjoy a drink with the boys.

Over the years I have had many girl friends and a few romances but none very serious until last year. Then I met a very nice girl and have recently become engaged to her and we're planning to marry later this year. So now my future is looking brighter than ever, with prospects of a home, a good job, wife, and family.

INTERNATIONAL ART SHOW
by DISABLED ARTISTS

The Kenny Rehabilitation Institute Auxiliary sponsors an annual show in October. Chairman of the show is Margaret Anderson, a respo.

The 1965 show exhibited the works of more than 100 artists from 20 different countries. About $1700 worth of paintings were sold.

Deadline for entry in this year's show is September 1, 1966.

The categories include: (1) mouth, foot, and forehead artists; and (2) those with disabled hands or arms. Entrants may submit: watercolors, oils, or other media.

Proceeds from the sales of paintings go the artists (after a 10% deduction to cover expenses).

For further details and entry forms, write to: Mrs. Paul D. Anderson, 432 Lafayette Ave., Excelsior, Minnesota 55331.
THINK ABOUT WHAT YOU’RE DOING

by Mickie McGraw (respo) Ohio

...Artist Mickie McGraw (polio '53) is one of the first and most valued editors of the GAZETTE. Editor of the Market Place, she designed the cover of this issue and illustrated several of the articles.

In June of this year I graduated from the Cleveland Institute of Art and am now looking forward to a job at Cleveland Metropolitan General Hospital. The opportunity to actually attend classes was exciting, yet a little frightening, since all of my junior and senior high school education had been accomplished via tutors. In fact, at the time, if I considered too long the immensity of what I proposed to do, slight apprehension verged on near panic - the problems involved seemed innumerable and impossible! But they weren't and the total experience has been vastly rewarding both professionally and personally.

My own thoughts on these past six years are just now gaining some form - perhaps a few may be of interest to someone going in a similar direction.

By the end of high school I had decided to become an artist (if it is possible to "become" such an amorphic entity) and had also decided to attend the C.I.A. As stated here this seems terribly simple and uninvolved and yet I really believe these initial decisions are among the most important, since your confidence in them more or less dictates another's confidence in you and thus the ultimate success of your endeavor. Since my formal art education had been sadly lacking, I attended the Institute part time for one year to prepare a portfolio which would gain me full-time acceptance by the school and in turn full tuition aid from the Bureau of Vocational Rehabilitation from which organization I received much support and to whom I am most grateful. I did not carry anything resembling a full load this first year, so I introduced gently to those problems which somehow eventually, and almost gently, disappeared!

Telescopied into quick succession: I gained acceptance by the school...my case passed the exceptions committee of the B.V.R. and I was awarded full tuition for a four year diploma program...I learned the Munsell Color System...I found transportation to and from school...I learned distal cues and Focillon's theory and Van Gogh's brush stroke...I successfully oriented myself to the school's lavatory facilities...I went from figure drawing to fashion drawing, from photography to typography...I received a motorized wheelchair which really increased my independence...I went on a "toadstool" to the school's Masked Ball and a Greyhound bus to a Pittsburgh art show...I majored in Graphic Design and won a fifth year scholarship through which I was able to participate in an exciting new student program providing art services to welfare organizations of Cleveland; I graduated with a Bachelor of Fine Arts degree in Graphic Design and a minor in Printmaking.

A friend at school had a personal formula for creating order out of chaos and he frequently used it at times of mass confusion and frustration. The more I think about it, the more I realize the wisdom of his words: Think about what you're doing - and do it! 

@ 55
ATTENTION: COOKING QUADS AND RESPOPS!!
Editor Bobby Cory Good (see page 92) is now gathering the cooking experiences of others with limited use of hands and arms. The material will be published in the next TjG. As an added inducement for sharing your ideas, Bobby is collecting a packet of free booklets on the subject which TjG will send to you. Write to Bobby at 1026 Masonic, San Francisco, Cal. 94417.

NEXT ISSUE: QUAD LADIES' HOME JOURNAL...Attendants...Careers...Cooking...Fashions...Hobbies...Homemaking. Send in your stories, ideas, and photographs.

BACK ISSUES OF TjG: Free to disabled, $1 each to non-disabled. (1) QUADS ON QUADRANGLES... (2) COMMUNICATIONS... (3) HOUSING... (4) QUADS INTERNATIONAL ... (5) TRAVEL AND MEDICAL ENGINEERING.

PLANNING KITCHENS FOR HANDICAPPED HOME-MAKERS (Rehab Monograph XXVII) Publications Unit, Institute of Physical Medicine and Rehabilitation, 400 E. 34th St., New York, N.Y. 10016. $2. Exciting!

FREE SELF-HELP DEVICES BOOKLETS: Though both of these excellent publications were developed for specific disabilities (the first for stroke patients and the second for cerebral-palsied), they are both bulging with ideas for all severely disabled.
I. "Do It Yourself Again," American Heart Association, 44 East 23rd St., New York, N.Y. 10010.

"TECHNICAL AIDS AND PROBLEMS OF DAILY LIVING FOR THE HANDICAPPED." (Problèmes de la vie quotidienne des handicapés.) A comprehensive presentation in both French and English. $1. International Society for Rehabilitation of the Disabled, 219 E. 44th St., New York, N.Y. 10017

SPECIALY DESIGNED CLOTHING FOR DISABLED:
Men...Leinenweber, Inc., 7 W. Madison St., Chicago, Illinois 60602. Free mail-order measuring kit.
Women...Vocational Guidance and Rehabilitation Services, 2239 E. 55th St., Cleveland, Ohio 44103. Free catalog.

TRAVELING RESPOPS: Let us know your itinerary and we'll send names & addresses of other respos en route who would have "amateur experts" on equipment or lend a rocking bed during the day.


CALIFORNIA DISABLED: Join the Western Disabled Alliance. It offers a golden opportunity to think and work together. Dues and quarterly publication: 7. Send check to: Millie Kalish, 4060 Burchholter Ave., Oakland, California 94605.

LONDON (UPI) - A man and his disabled wife were fined $44.80 Wednesday for riding together in a motorized, one-seat wheelchair.

Double Trouble

HOMEBOUND BOOK SERVICE...Free lending library by mail of books about the physically handicapped. All books listed in the free catalog may be borrowed for 4 weeks. Box 354, Fair Lawn, N.J. 07410.
CONGRATULATIONS TO THE CONTEST WINNERS!!!

1. "Describe the handicapped person who most inspired or encouraged you after you became disabled." - $50 each, Don Kraatz (Illinois) and Bob Nelson (California); $25 each, Raj Gopal Menon (India) and Pamela McCarthy (Australia).

2. "Largest number of money-making jobs that could be done by telephone." - $10, Sue Smith (West Virginia). See page 34.

UNIVERSAL FAVORITE DISHES OF FAMOUS PEOPLE$. \$2.50 per copy. Handy-Cap Horizons Club, 3250 E. Loretta Dr., Indianapolis, Ind. 46227. Sale of their celebrity cookbook will help this group of disabled earn their way on an Hawaiian tour.

CONGRATULATIONS!!!.....Elmer C. Bartels, physicist-programmer (page 20) was named one of the Ten Outstanding Young Men of Greater Boston for 1966 by the Boston Junior Chamber of Commerce.

HUZZAHS to Vladimír Kwapil, paraplegic, who donated a magnificent Czechoslovakian cut glass cup to be awarded annually to TJG's Hall of Fame Quad. (See pages 60 & 92.) The '65 recipient was artist and composer, Emanuel Leplin.

STAMP COLLECTORS: Editor Ruth Davis has all the interesting stamps TJG receives. 7173 W. 130 St., Cleveland, Ohio 44130.

TASMANIAN COLLECTOR....Mary Guy (polio quad) desires tiny shells for shellcraft which she creates with mouth-operated tweezers. She would also like to exchange small dolls dressed in national costumes. Postage paid. Address: 125 Dervent Park Rd., Moonah, Hobart, Tasmania, Australia.

THE GREEN BOOK"...A directory of physically handicapped people in Chicago and vicinity who carry on a business or service in their own home, etc. Revised edition, 1962. C. J. Lampus, 1418 N. 35th Ave., Melrose Park, Ill. 60160. 25c.

DISABLED VETS.....Have you checked on the April '65 increase in your benefits?

WHENCE THE NAME, "TOOMEY & GAZETTE?" It was named in memory of the late Dr. J. Toomey, director of Toomey Pavilion, Cleveland's former Respirator Care and Rehabilitation Center. At the suggestion of his successor, Dr. R. Eiben, T&G was started in 1958 by hospital volunteers and responoids patients as a mimeographed newsletter to share the at-home progress and activities of "toomey Alumni."

AMERICAN LIBRARY ASSOCIATION BULLETIN.... Oct. 1964 featured library services for the disabled. The 30-page reprint is 30c from ALA, 50 E. Huron St., Chicago, Illinois 60611.

NATIONAL SOCIETY FOR CRIPPLED CHILDREN AND ADULTS, INC....2023 West Ogden Ave., Chicago, Ill. 60612. Free bibliographies on subjects of interest to handicapped.

IMPORTING AMERICAN-MADE RESPIRATORS TO BRITAIN? Respirators and other equipment may be duty free if you check with the Board of Customs and Excise far in advance of importation.
THE NATIONAL STAR NEWSLETTER, devoted to the interests and welfare of the physically handicapped is printed 6 times a year. A free sample copy will be sent on request. Please enclose 10c for postage to: Katherine Kreuser, Ed., 6219 N. Naper Ave., Chicago, Ill. 60631 Price: $1.50 yr.

"SPASTICS NEWS"...Published monthly by The Spastics Society, 12 Park Crescent, London W1. Price per year: 11s. (From the U.S. send $2 to cover postage.) An invaluable publication for all C.P.'s.

COPH BULLETIN...has been revitalized!!!!! Quarterly...1403 Yale Place, Minneapolis, Minn. 55403. $1.50 per year. (Official publication of the National Congress of Organizations of the Physically Handicapped, Inc.)

MULTIPLE SCLEROSIS NEWS.....10 Stratford Rd., London, W.8, England. Annual subscription: 2s. 6d. (From U.S. send 50c.)

THE MUSCULAR DYSTROPHY GROUP. Quarterly. 26 Borough High St., London, S.E.1, U.K.


FEDERATION OF THE HANDICAPPED, INC. 211 West 14th St., New York, N.Y. 10011. Phone: Chelsea 2-9050. Service is free. Vocational counseling, on-the-job training, and job placement. Industrial homework for the homebound. Recreation programs.

If you live in New York City, you should buy the excellent guide they publish for only $1.50. It is titled; "Resources for the Orthopedically Disabled in New York City."

ENGLISH ORGANIZATIONS SERVING HANDICAPPED


II. D.I.G. (Disabled Income Group) is contacting disabled persons in England to work together to secure State pensions for all disabled persons. Write: "Relief House," Busbridge Lane, Godalming, Surrey, England.

J.O.B., INC. (JUST ONE BREAK) is a non-profit placement agency for disabled men and women. The service is free. Applicants must be able to work a full forty hour week outside their own homes. There are offices in several Eastern cities and Canada. For complete information: write the New York City office: 717 First Ave., New York, N.Y. 10017.
MICHIGAN WHEELCHAIR GAMES
Stefan Florescu (C 6-7 quad) urges other quads, including C 4-5's, to sign up now for the 3rd annual event on May 14-15, 1967.
Write: 1466 Lafayette, Lincoln Park, Michigan 48146. . . He is the first quad to complete the Red Cross fifty mile "Swim for Fitness" program.

"NAVIGATION UNLIMITED IN INDIANAPOLIS"
Free of charge from Marion County Muscular Dystrophy Foundation, 615 N. Alabama St., Indianapolis, Indiana 46204.


DIRECTORY OF CAMPS FOR THE HANDICAPPED
American Camping Assoc., Bradford Woods, Martinsville, Indiana 46151. 60c.


HOME STUDY...University of Chicago discontinued its home study department in 1963. The University of Wisconsin assumed most of its courses. Send for free copy of the Wisconsin correspondence instruction bulletin listing hundreds of courses: Mrs. Mary Hunt, Advisor to Students, University of Wisconsin Extension Division, 432 North Lake St., Madison, Wis. 53706.

SPECIAL EDUCATION DIRECTORY...Under a grant from the U.S. Office of Education, Human Resources is compiling information relating to adapting curricula, equipment, and building facilities for use by physically disabled children. Please send suggestions and information to: Martin A. Feldman, Human Resources, Albertson, L.I., New York 11507.

DIRECTORY OF CATHOLIC SPECIAL FACILITIES AND PROGRAMS IN THE UNITED STATES FOR HANDICAPPED CHILDREN AND ADULTS...$4.

Send for T'G's HOUSING QUESTIONNAIRE!!!!
Let your housing needs be known!! Only the disabled know what the disabled really want and need!!! Let's think together!!!

VILLAGE TOWNSHIP HALL
CHAGRIN FALLS, OHIO

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

DISABLED HUMOR..."I am trying to make a compilation of patient humor. Will you send me accounts of your humorous experiences with the understanding that it is permissible to publish these, with or without your name as so desired." Ed Rosenwasser (respo) 1714 So. Alameda, Corpus Christi, Texas, U.S.A. 78404.

ADDRESS all mail to:
T'G
Box 149
Chagrin Falls,
Ohio 44022

CHAGRIN FALLS...
Origin? Long before the Revolutionary War, the Indians settled by the rushing falls and named their village "Shaggin" which meant clear water.
In the northwest corner of the United States there is a busy place known as the Seattle Handicapped Center. Here the physically disabled join in social and creative activities, make friends, and exercise their talents in constructive work. Directing this bustling and happy social junction is the charming Ida Daly, a woman of great warmth, ingenuity, and efficiency. She has used these attributes generously and productively in service to the physically handicapped, and the GAZETTE proudly welcomes her to its Hall of Fame.

Adapting to the gradually increasing restraints of muscular dystrophy since early childhood, Ida has succeeded in living a full and productive 65 years. She is so alive and energetic that everyone who knows her forgets that she is almost totally paralyzed. One Center member, Betty Marion, says, "Those of us who see Ida running the Handicapped Center, zinging around in her electric wheelchair and managing a hundred things at once with her trick telephone, soon forget that she is a quadriplegic with very limited use of her arms and no strength or movement in her hands..."

Ida wisely takes advantage of all the mechanical help she can get. With the use of her electric wheelchair, Hoyer lift, special telephone dialed by elbow, special dictating machine, and an electric typewriter operated by mouthstick, Ida sees that about 175 events a year, involving at one time or another hundreds of people, run smoothly. An indication of just how efficiently the Handicapped Center is managed is its complete self-support, free of financial assistance from any local, state, or federal agency. Main support comes from sale of the GOOD SAMARITAN, monthly publication of the Seattle Handicapped Club, and the advertising it carries. Ida contributes a Center Report column for each issue.

The story of Ida must necessarily include that of
the Handicapped Center, which she has directed since its opening in 1957. Ida's late husband, Frank, also was instrumental in establishing and generating the Center. Its two buildings on city-owned land were given to members of the Seattle Handicapped Club as a place to meet, conduct classes, have social gatherings, and engage in supervised recreation. The Daly energy and enthusiasm permeate the Center and account in great part for its success. An observation of the late Maurine Germond, for many years editor of the GOOD SAMARITAN, describes Ida's influence: "I know that many members, teachers, helpers and visitors have felt the warm personality of the Center, created by the resident director, Ida Daly."

Besides being director Ida is one of the three members of the Board of Trustees that does the financial planning and dream-realizing of the Center. Through its efficient board form of government the Center can take the quick, decisive action that is proving invaluable in planning for its new residence units. Having already gained the approval of the Federal Housing and Home Finance Agency for a loan of $2,228,793 to build 150 units to house the physically disabled, the Center is now busy raising the necessary matching funds. Ida is also a member of the Residence Home Committee.

Though these activities are time-consuming, Ida has a few hours left over to serve on the Muscular Dystrophy Board and the Washington State Recreation Society's Section on Ill and Handicapped. These were probably some of the services considered when Ida was chosen as Washington State's Handicapped American of 1965.

Ida speaks Spanish, has taken art courses, attended evening classes, and completed 3½ years of college. Her experiences in getting an education introduced her to the architectural barriers encountered when the physically handicapped try to go to school, and she is now a vociferous crusader in eliminating such obstacles. As she is usually successful in her crusades, some new building specifications can be expected from the Washington legislature in the future.

Despite her extensive paralysis, Ida is far from being "home-bound." In 1960 she took a month's cross-country automobile tour with one handicapped and one able-bodied friend. They stopped at 22 different motels and hotels, and visited everything from Abilities, Inc. in New York to Mark Twain's home in Missouri. In 1965 she broadened her already wide horizons and flew to five countries in Western Europe as a representative of this country's People to People Program. One of a party of 13, she compared the facilities and opportunities for the disabled in Denmark, Switzerland, England, Holland, and France with those in this country. She came away with some ideas, and left a few—a fair and mutually enlightening exchange.

We couldn't have had a better representative of the severely disabled, and we salute your pioneering ventures, Ida. We are proud to have you in our Quad Hall of Fame. ☺

ED: Bulletin Board (page 57) describes Ida's exciting award from TjG's Czchoslovakian correspondent!!
U.S.A. HOUSING FOR THE HANDICAPPED

IN OPERATION

A new building, geared to wheelchair living, was opened in 1964. The main building contains 34 rooms, available for single or double occupancy. Room, board, and laundry cost $125 for single occupancy, $85 for double per month. Nursing care is based on the amount needed, the maximum being $50 a month. There is a complete bathroom between every two rooms. One and two bedroom apartments are located in an adjoining building. These are bought outright for $5,000 to $7,000. Utilities cost about $40 monthly. The apartment reverts to the League when the owner dies.

Most of the residents work in the gift shop or the work shop. In selecting residents, preference is given to those who are able to take part in the work program. All types of disabilities are represented. For brochures, write: Mr. C. E. Pederson, Box 218, Walworth, Wis.

WASHINGTON CHRISTIAN LEAGUE

CALIFORNIA MOTEL "66"

This motel, bypassed by a freeway, has gradually evolved into a home for 30 handicapped people. The owners are a retired couple who set the "family" tone of the group, taking night duty calls, and planning meals, entertainments, etc. A private room, air-conditioned, with TV, bath, phone, maid service, laundry, and board costs $150 per month. Ages range from 21 to 65. Assorted disabilities.

There is a heated swimming pool and a large patio. Residents are encouraged to work and to take courses at the nearby junior college. Write: Mr. W. Manor, 1400 N. Mt. Vernon Avenue, San Bernardino, California 92405.

New York. Miss Lillian FREEDOM GARDENS Petock (muscular dystrophy) founded and directs a home in Westchester County. Her handicapped residents prove her theory that severely disabled who need daily care need not be institutionalized, but can live normally by sharing the cost of attendants. Typical of the "family" atmosphere there is their 1965 Christmas party. Lillian's father, Andrew, holds the turkey. Next to him is Peter Preston (nerve disorder). In the front row, Alex Bernstein (C.P.), Sandra Smith (C.P.), and Lillian. Behind Sandra is her father, Freeman, of Cleveland, Ohio.

Apartments and rooms are available. Rates are based on the amount of care required. Complete attendant care costs about $280 a month.

Currently, a campaign is under way to raise $75,000 to build more modern facilities which would satisfy the placement requirements of state welfare.


UNDER CONSTRUCTION

GROSSE POINTE METROPOLITAN HOUSING AUTHORITY APARTMENT COMPLEX

Ground was broken on January 14, 1966 for a housing project that will be the first of its kind in the U.S. There will be 164 apartments, 1 to 4 rooms, half for the elderly, half for the handicapped.
All apartments will have special adaptations planned by Dr. Rusk's Institute. There will be beauty and barber shops, community room, snack bar, therapy room, small chapel, social worker's and doctor's rooms, and under-cover parking. The complex will be two connecting 8-story buildings, adjacent to the new Goodwill building, and connected to it by a bridge over the street. The income limitations will be those standard for Public Housing.

The original promoter of the idea, Betty Carey, a polio quad, helped Mayor John Potter of Toledo turn those first clouds.

Betty and her husband, Jerry, a polio para, have worked on the project since 1960 when they heard of the Danish housing experiment. The project was brought about by a Citizen's Advisory Committee, Congressman Lud Ashley, the Toledo Housing Authority, and Dr. Robert Weaver.

Write: Mr. McClinton Nunn, Director, Toledo Metropolitan Housing Authority, 400 Nebraska Ave., Toledo, Ohio 43602.

PLANS

The Federal
SEATTLE HANDICAPPED CENTER
RESIDENCE AND WORKSHOP
Home Finance
Agency has
approved a loan to the Seattle Housing Authority to construct a seven-story 150-unit housing building for handicapped at a cost of about $2.5 million. The apartment-type building will have 25 two-bedroom and 125 one-bedroom units, renting for an average of $48.

Overall plans involve a $4.5 million complex of buildings, including the $1 million expansion of the Center and the sheltered workshop of the Lighthouse for the Blind, Inc.

For details, write to Mrs. Ida Daly, director of the Center and TJC's current "Quad Hall of Fame" selection (see Page 60), 2525 S. Hill Street, Seattle, Washington 98144.

Connecticut. A group of hospitalized young adults have been working since 1955 to establish a residential community. To date, they have purchased 23 acres near Farmington and are starting towards their future home by constructing shelters and a picnic area.

They are planning a community-home for 30 to 60 able-minded disabled, a central residence, ranch style homes for families, gift shop, auditorium, pool.

Meanwhile, the Memorial Hospital is developing a dynamic New Horizons Wing. The future residents are working from their hospital rooms by telephone, running a variety store, and "Quad-Abilities, Inc.," which handles sub-contract work. Write: New Horizons, Inc., New Britain, Connecticut.

Members of several Presbyterian churches in Hous-
ton have formed a non-profit organization to build a center for the care, rehabilitation, and recreation of elderly retired and young disabled. Five acres of land have been purchased. Plans call for 120 apartments and a nursing care unit for 50.

Details: Presbyterian Service Center, Box 14397, Houston, Texas 77021.

As of April 1966, DARE RESIDENTIAL ENTERPRISES started ac-
tion to erect the first unit in Chicago. Planned is a 100-apartment building with shops.
and work opportunities for use of its residents and other disabled persons.
DARE's co-sponsor, Community Renewal Foundation, a non-profit group which has built a number of low-rental facilities, was in the process of applying for a $2 million Federal loan.
DARE was applying for a $16,667 Federal grant to canvas the Lincoln Park-Lake View area to obtain data on residents who are disabled by physical and age disabilities and are in need of such a facility.

Long-range plans of DARE call for 35 units in Chicago and suburbs, housing 3500 disabled persons and serving an additional 7000 residents. In a preliminary survey of 6000 disabled, between 400 and 500 indicated a need.

Contact DARE's dynamic president, Mr. C. J. Lampos, for details: 2145 North Bissell st., Chicago, Illinois 60614.

A 21-story apartment for elderly and handicapped was scheduled to be started April 1966, with completion in 2 years. Estimate: $3.9 million.

Handicapped with incomes of $1,500 a year or less and assets of $2,500 will be eligible for the building, but must have a healthy elderly person with them. There will be one-bedroom apartments for two persons and studios for single persons. Maximum rent is expected to be $39 a month, but will vary according to income.

A 152-unit apartment for the disabled and elderly was announced in October 1965 by a group led by Mr. R. M. Thompson, father of a cerebral palsied daughter. It was hoped that, under the new housing laws, it could be financed through the Community Finance Administration of the Housing and Home Finance Agency. Efficiency and one-bedroom apartments are planned.

For details, write to Mr. Thompson; 4341 NE 71 St., Portland, Ore. 97218.

A project to build 40 apartments, geared to wheelchair living, is being made of the disabled from ages of birth through 55.

Mr. Robert E. Ayers, Principal Investigator, stated he "would be pleased to receive any expressions of need or information which would be helpful to the study." Therefore, we urge our New York readers to inform Mr. Ayers (84 Holland Ave., Albany, N.Y. 12208) of their need for housing, now or in the future.

The purpose of this NEW YORK STATE GOVERNOR'S COUNCIL on rehabilitation is to study the nature and extent of the problems of severely physically handicapped non-retarded children and young adults and the development of a plan for long term residential and other facilities and services for their care. The study extends from May 1, 1965 through September 30, 1966.

With the cooperation of the State Health Department, the Regional Health Offices, Voluntary Health Agencies and other organized groups a survey is being made of the disabled from ages of birth through 55.

Mr. Ayers invites you to write to him about the nature and extent of the problems of severely physically handicapped non-retarded children and young adults.

Therefore, we urge our New York readers to inform Mr. Ayers of their need for housing, now or in the future.
U.S.A. PLANS

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH STUDY

S.B. 934, effective September 17, 1965, authorized $550,000 for a four-year study to determine the extent of the needs of severely handicapped people of normal mentality for residential care.

Two areas were selected: Sacramento County and the Long Beach area. In Sacramento a social worker has been hired to work with the handicapped, to determine their needs, what is available, and what new services must be developed.

It is estimated there are currently 20,000 severely handicapped who would qualify under this program. The services would include medical evaluations, attendant care in the home, and residential care in appropriate facilities.

Flora - New Vistas for the Dependent Handicapped

This project, launched by the late David Gorshel, is moving forward under the leadership of Sol Zitter, a polio. The Miami Housing Authority has promised its cooperation if the support of public and private health and welfare agencies can be secured. The group is now in the process of coordinating the efforts of the various agencies and conducting a survey of interested disabled in Dade County. For details, write to Sol at 1336 - 13th Terrace, Miami Beach, Fla. 33139.

The Philadelphia Health and Welfare Council surveyed about 1500 of their clients in October 1965, through an Ad Hoc Committee on Housing. 231 were interested in housing. The American Society for the Physically Handicapped is continuing the survey and is compiling a "Housing Newsletter." Write to its energetic president, Joan E. Lambert, 5905 Cedar Ave., Philadelphia, Pa. 19143.

MINNESOTA SOCIETY FOR CRIPPLED CHILDREN AND ADULTS STUDY SURVEY

Rev. Robert Lovering, polio para, is making a study for the Society to determine what a residence center should be, how much it would cost, and the number of potential residents. Write: 2004 Lyndale Ave. S., Minneapolis, Minn. 55403.

Elsie D. Helsel, United Cerebral Palsy Associates, Inc. is finding the national problem of long term care. Monthly bulletins, "Where the Action is in Long-Term Care," are available free from the U.C.P., 321 W. 44th St., New York, N.Y. 10036.

OHIO - MARKET FEASIBILITY STUDY BEING CONDUCTED BY A GRANT FROM URBAN AMERICA

Urban America, Inc., which is supported by the Ford Foundation, provides technical assistance and professional counsel to non-profit sponsors of housing for the "disadvantaged." In April 1966, Urban America made a small initial grant to Iron Lung Polios & Multiplegics, Inc. to conduct a survey to determine the number of disabled needing specialized housing.
I have all alone studied English and I like to experiment with my knowledge. I try to kill time with my hobbies; especially during the colds of winter I am living tightly in my "dig." I stay in my brother's farmhouse. The country here in the "backwoods" is very flat and there are no big lakes or mountains.

Some of the best ways to make out through the long and boring winters are shortwave listening, tape correspondence, and studying the English language.

As I am a "man of one idea," so usually one of them is on at a time. If it seems, for instance, that the conditions are good in the amateur bands, I may listen to various bands for all the time I spend in the wheelchair (GMT 0800 - 1600). There is always a new station every now and then, so the QSL and DXCC-log are growing up slowly but surely. (For TjG hams: if you get a QSL-card OH 6-851, be sure to answer!) When I get a better receiver than the one I have right now (Lafayette HE-30) I hope there will be more stations coming up beyond the ocean.

Talking about tape recorders, you might have a look at the picture with me and my Tandberg tape recorder; I am probably just listening to a page from Aimo Matikainen, a 27 year old full time respo, who is my first and most regular tape friend. The Tandberg is a very good recorder. I have developed the use of the "stop" knob almost to an art: recording can be made word by word, without a
slightest click between them. This is good for slow talkers of English, practising in-a-one-word-in-a-minute way.

I should like to find tape correspondence friends outside Europe (Americas, Australia, New Zealand, etc.). My address is: Keisari, JALASJÄRVI, Finland. I have two tape recorders, 4-tracks and 2-tracks, 3 3/4 and 1 7/8 i.p.s. The 3" magnetic tape reels are very practical sound letters to my new TjG friends. I have very zealous tape discussions with respo Jerry Elfstrand of Minnesota. His wife speaks Finnish and they have been very kind to me.

Respo news: the respos are undergoing a mass moving from hospitals to homes. A few years ago only the most courageous of the 50 respos in Finland could even think about it, but now! This is because the respos in home nursing are paid a daily allowance which, at the moment, equals the salary of three or four nurses. However, the government would still pay all the hospitalizing expenses, organize yearly two vacations of ten days at home, also transportation to matches, shopping, etc.

I bought a used 1/4 track stereo recorder for about $100 and for the second amplifier, which stereo requires, we use the phono jack outlet on our older style radio. This is one way to get into stereo without a big expensive outfit. Stereo music on tape is just terrific. And you can get this from other club members recorded on your own tape.

I have had several tape exchanges with Larry Duhamel of Universal Tape Net. He is the head of a small club and he also has a library of pre-recorded music, especially on stereo. He will make up recordings of stereo, for example, a 7" reel recorded two sides, for $3.50. This is reasonable if you consider he gives you many assorted numbers on a tape.

I have a few ideas that may help beginning tapers. For instance, many of the 3" empty movie film "reels" will fit on tape recorders. These are usually thrown away by the people who take home movies. You may buy larger reels of tape and make up smaller (3") reels for mailing. It costs only 4c to mail a tape (3rd class), actually cheaper than a letter. Also, if you join a club, you can buy "used" tape for a few pennies. I would welcome tapes from TjG-ers. My address is: Annandale, Minnesota.
If you wish your name added to our list of tape correspondents, send us the following information on a postcard: (1) name, (2) address, (3) kind of recorder, speed & number of tracks, (4) subjects on which you want to tape, (5) approximate age, and (6) languages spoken.

Mary W. Angel, 8 Gansevoort St., Bath, N.Y. Webcor Compact Deluxe, 3 3/4 & 7 1/2 i.p.s. - dual track. Polio para. General subjects--people especially--interests, opinions, shortwave listening, music listening. Late 20's. Likes to tape to ages 22 to 40. English only.


Edward D. Dunkeson, 421 S. Russell St., Odessa, Mo. Respo. Interested in clubless tape correspondence.

Mary Jane Faull, 603 S. Throckmorton, Sherman, Texas. Voice of Music - Model 730 - 2 tracks. 3 3/4, 7 1/8, & 7 1/2. Respo. General interests and people in general, polio and rehabilitation, music listening. Late 20's. Likes to tape to ages 22 to 40. English only.


A. C. Mathews, Jr. (Tony), 1452 East 40 St., Savannah, Ga. Respo.

Ken McDonald, 39 Naples Ave., Burnley, Lancs., England. Paraplegic. 3 3/4 i.p.s. Has a tape library available on loan: travel tours of Mexico, Isle of Arran, Australia, Italy, Lisbon; practice Morse; excerpts from Paul Bates' book "Horizontal Man," and music of any kind supplied on request if possible - but no weirdies please!


Kathy Schmidt, RR2, Box 967C, West Chicago, Ill. 60185. Respo.


Robert E. Tanton, Jr., 719 Dusy St., Dothan, Ala. 36301. 3 3/4, 7 1/2. Traumatic quad. Early 20's. Collects stamps, knives, guns, books, rare photographs; an aviation and history buff. Plans to be a commercial artist.

Nancy Westman, 6390 S.W. 69 St., South Miami, Fla. 33143. Craig model TR 403 - 2 speed, 2 track. 1 7/8, 3 3/4. Polio para. Desires to tape with anyone willing to teach her more about taping, and with anyone in or near Fairfield, Iowa. Way over 41! English only.

IRISH TAPE TALK...Free travel programs and sound magazine. Primarily for Irish blind and disabled wherever they may be, but of interest to all English-speaking people. Recorded at 3 3/4 i.p.s. on 5" spools, but can be supplied on smaller spools recorded at 1 7/8 i.p.s. In Great Britain, write to: Mr. Robin Barclay, 69 Barrow Rd., Streatham, London, S.W. 16. In U.S.: Miss Esther Hansen, 3839 Rodman St., N.W., Washington D.C. 20016

FREE MEMBERSHIPS TO THE DISABLED:
Universal Tape Network Headquarters, Mr. Larry Dunham, Box 90, Main Street, R.F.D. #1, East Douglas, Mass.

International Tape Fellowship, Mr. Fred Rimmer, 21, Mount Pleasant, Sutton In Ashfield, Nottingham, England.
KEYS TO AIRWAVE ADVENTURES
Written and illustrated by Chas. Kram Jr. W5TFZ (recco)
Route 1, Shiner, Texas 77984

An Automatic Keyer for Morse Code
From what I have read in certain past TQG articles* it seems that the Morse code requirement for amateur radio is definitely not an insurmountable obstacle for the handicapped - even if it means keying the rig with one's fingers one dit at a time. But there is a better and more pleasant way. Here at W5TFZ I have been using an automatic keyer which generates properly timed and spaced code by the Q50ful, and it has a knob that adjusts the speed all the way from too slow to too fast.

In the past ten years I have tried three different circuits from QST. In my opinion the best is the P00-Key Jr., built from a design developed by John T. Livingston K2POO (222 Washington Ave., Avon-by-the-Sea, New Jersey). It requires only one relay, has a safely grounded key lever, and is free of interaction between speed, weight, and ratio adjustments. It can be built for less than you would pay for an average mechanical bug.

For detailed information, write to: QST, Newington, Conn., for a free copy of "QST Electronic Key Bibliography."* 

INTERNATIONAL HANDICAPPERS' NET
Membership open to all who are handicapped. If you are a licensed Radio Amateur, write: Lt. Comdr. Ray E. Meyers W6MLZ, Box "R", San Gabriel, California and give him your calls and the extent of your handicap.

RADIO AMATEUR INVALID & BEDFAST CLUB

"As National Coordinator for Ham Radio for Paralyzed Veterans of America, I am compiling a 'callbook' of the handicapped who are currently in radio, either ham, CBing, or SWLing. On a QSL card, please send me your call, QTH (address, etc.), bands or channels usually monitored."

Joseph W. Blanton
KCG008 W6NJYJ4
112 Prince St.
Alexandria,
Virginia 22314

The Man in the Iron Lung
By: Leonard Hawkins with Milton Lomask

One of the first, and most famous, respiratory polios to live night and day for many years in an iron lung was Frederick B. Snite, Jr. This story of his life is told by the man who was Fred's friend and attendant for 17 years, roles that well qualify Leonard Hawkins to delineate this personal portrait of his employer.

Fred was in China on a world tour when his body collapsed to the nerveblings of polio. The year was 1936, when Fred was 25 years old, and when there were only 222 iron lungs in the world. The respirator in Peiping that saved Fred's life was the only one in the entire Orient, and the eighth ever made. This was a providential bit of good fortune in what seemed a fortune-blessed life of this young man with good looks, wealth, and a happy family.

After first rebelling at his confinement in the iron lung, Fred gradually realizes and accepts it as a permanent condition of his life. A trip to Lourdes, the spring of healing miracles in France, completes his spiritual transformation from resignation to serenity. It is there that he received what he had sought, if not healing then strength not to despair at his fate. Before becoming paralyzed Fred had had strong faith in his Catholic religion, and this faith deepens during its severest test.

Fred crossed the ocean in his iron lung three times, once on returning home from China after a year's recuperation from the acute effects of polio, and on his journey to and from Lourdes. These were the longest trips Fred took, but not the only ones. He went everywhere, to the race tracks, bridge tournaments, movies, motels, restaurants, and friends' homes, each place to be viewed from a horizontal position. The only chestpiece available at that time was a bulky device constructed of 24-gauge steel, with a heavy rubber apron around the waist and sponge rubber encircling and sealing the piece. It weighed nine and a half pounds and was usually operated by the iron lung bellows. Fred's was one of the first chest respirators, upon which refinements produced the present light, plastic chestpieces and portable motors.

The chestpiece, by having a board attached to its back, was also used to walk Fred. A walker was created by connecting a frame with rollers to the board on the chestpiece. Having been advised to get on his feet to help his bones retain their calcium, Fred could stand in the ingenious walker for peri-
ods up to half an hour.

Before his chestpiece had been invented, Fred had been in the big lung for two years. With his new freedom his mental scope widened and included the possibility of marriage. His choice to share his life was Teresa Larkin, a girl he had met through his sister. Teresa and Fred were married in August of 1939, a union that created three daughters.

Because there are many misconceptions about various diseases, the public reacted with predictable astonishment to the news of Fred's marriage. To quiet and educate this reaction, Fred's doctor gave a statement to the press explaining away the belief that polio completely incapacitated. A polio victim's capacity for sexual enjoyment continues as before his disease.

Unluckily, even now most people have not fully grasped this fact, and marriages involving handicapped people still bring gasps and disapproval.

Fred lived for 18 years with artificial breathing. For many years he could stay in the chestpiece for periods up to five hours, but gradually his time out of the big lung brought him only fatigue. His life was devoted to his family and religion, and flavored by his enjoyment of bridge playing and horse racing. He had a good, full life, not keeping it secluded from fear of being a public oddity nor of the calamities that are part of complete dependence on mechanical equipment and electric power. In living to the fullest and most joyous, Fred Snite inspired many people and pioneered many actions.

HORIZONTAL MAN
by: Paul Bates with John Pellow


In the same year that Fred Snite died, 1954, a 20 year old English army officer picked up the challenge of respiratory polio in the jungles of Malaya. The reactions, changes, and development of Paul Bates' life after polio consigned him to a permanently horizontal position are shared in a book written by the Press officer of the Polio Research Fund. It is a story similar to that of Fred Snite, but different by its subject, viewpoint, and position in time.

Paul's initiation into polio was more harrowing than the usual. While it is perilous being in an iron lung anywhere it is decidedly riskier in an Asian village where the electrical power is continually failing. Further, not only was six foot four inch Paul too big to comfortably fit into the only available iron lung, he did not receive adequate ventilation once inside it.

Fortunately for him, and the others who were to be influenced by his life, two nearby servicemen who had designed a positive pressure machine heard of his distress. The army rushed them from Kuala Lumpur to the village where Paul was struggling against 100 degree heat and lack of air. Cutting an opening into his trachea, they introduced the tube that would carry air directly into his lungs. Paul continues to use this method of breathing.

There is not much that Paul Bates fears. He is one of the severely disabled group who really lives rather than just vegetates. Once having contem-
plated suicide, Paul decided instead to live, to the greatest extent his mind and mobile head, mouth, and two fingers would allow. An example of the extent was Paul's participation in an England to France air race, when he was wildly jiggled over the cobbled streets of Paris in the attempt to set a speed record. This feat is regarded with high admiration by one who nears hysteria when her car goes over even a small stone for fear it might interrupt the working of her respirator.

It was while in France that Paul made an observation of Fred Snite's attendant, that the French treat the physically handicapped as men and women, not cripples to be pitied. Paul comments, "The French have a very different kind of attitude altogether, accepting you as a man and by their very acceptance making you more of one."

Paul is a very independent man. He utilizes all the benefits of the electronic age, an advantage over his predecessors in polio of the '30s and '40s. Living in his own home that he himself designed, he operates a ham radio and keeps in touch with people many miles distant, manipulates a typewriter, and controls electrical devices such as lights, radio, and coffee pot with a micro-switch. For a year he travelled as a demonstrator for the special bed which alters Paul's view of the world from horizontal to vertical. The bed can be adjusted to resemble a wheelchair.

His initiative also benefits other handicapped people. Spurred by one of his letters, IBM now makes their rejuvenated typewriters available to the disabled at an international discount with low-cost service and repair. He advertises the unfair treatment by the Ministry of Pensions to severely disabled veterans in not allowing them the free motor vehicle available to less handicapped veterans. It is through such efforts on the part of the severely handicapped that barriers against them are lowered and eliminated.

Paul Bates has confirmed in this book that he is not invalid, but a lively intelligent force who can control and mold his life even from a horizontal position.

QUADRIPLEGIA POTPOURRI

UNDERSTANDING PARAPLEGIA

PARAPLEGIA AND YOU
Published by California Paralyzed Veterans Assoc. VA Hospital, Long Beach, California. Att: Ray Hinkle, Secy. 51.

Before the Potpourri is served, we will have an appetizer of acclaim. GAZETTE honors go to respo Richard Chaput on his selection as one of the Outstanding Young Men of 1965 by the United States Junior Chamber of Commerce. The Jaycees couldn't have displayed better judgment! Last year our readers became familiar with Richard when the GAZETTE reviewed his autobiography, NOT TO DOUBT. Now the whole country has been introduced to him, and we couldn't be happier or prouder. On hearing of the selection that placed him in the ranks with astronauts and scientists, Richard said, "I tell you, the Jaycees must be pretty hard up when they have to bring them in on stretchers."

That's not desperation, Richard; just good taste.
Having a certain set of quad handicaps, I humbly assumed that this same set was shared by all quads, only minus the respirator. Well, it seems I was wrong. Four books and booklets have taught me that my problems are not the same as those of the spinal injury paraplegic and quadriplegic.

It is specifically about those with spinal injury that these books are written, although the terms paraplegic and quadriplegic usually refer to any with two or more handicapped extremities, no matter what the cause, whether disease (multiple sclerosis, polio, muscular dystrophy, etc.) or trauma (sports or auto accident, surgery, etc.). In the interests of accuracy therefore, we shall include the clarifying word "Traumatic" before each reference to a paraplegic (back injury) or quadriplegic (neck injury) in the following reviews. However, not only should those to whom the books personally pertain read them, but everyone, for simple comprehension of just what an injured spinal cord means.

What these books mean to traumatic paraplegics and quads is expressed by one of them: "All of us just swear, 60° ðπ, when we think back a few years and remember how nice things might have been if we could have had a few of these books to read. No one ever really explained what was going on, or what to expect, or where to get things, etc. So, for all those who don't really know what's going on, these books are for you.

Strictly by accident I read them in the correct order, from general to more specialized to ultra-technical. The general treatment, UNDERSTANDING PARAPLEGIA, was written by the Deputy Director of the famous National Spinal Injuries Centre at Stoke Mandeville Hospital in England. This book does not explore too deeply into the workings of the nervous system and how spinal cord injury affects it, but does cover the subject broadly, touching lightly on everything from sex to where and how to buy a wheelchair. For these two areas, there are 3 1/2 pages devoted to sex, informing mainly of the remarkable fact that each case is different, and 11 pages on wheelchairs.

As this is the only one of the books that even attempts to explain sexual function after a cord injury, a rather important concern of most people, the following paragraph is offered as a public service. This concise information was given by Dr. Leon Lewis in REHABILITATION:* "The male paraplegic may have erections and sometimes priapism. Frequently, however, erections are brief. Usually, orgasm occurs, but diminished sensation limits satisfaction. Male paraplegics usually are sterile, because ejaculation generally occurs into the bladder. Female paraplegics are capable of childbearing."

The polio quad differs from the spinal injury quad in that he is sexually normal, not having lost his nerves of sensation. This lack of sensation is the cause of another of the para- and quadriplegic's most serious problems—pressure sores. One of the more valuable chapters in this book discusses decubitus ulcers, their prevention and treatment. When a person cannot feel when something is pressing off the flow of circulation in a certain area, he does not move instinctively to relieve the pressure. The tissues then break down from loss of oxygen and a sore results. These sores can defeat the most promising rehabilitation and even necessitate amputation or bone removal.

Next I read PRIMER FOR PARAPLEGICS AND QUADRIPLEGICS, a booklet by New York's noted Institute for Physical Medicine and Rehabilitation. This is my kind of book. It simply and completely explains nerve function and treatment of its impairment. I now know how serious a C-2 injury is. Before reading this I had no idea what C-5, T-9 (D-9) or L-4 meant. Nor did I realize
spinal injury quads could not sweat below their injury, making hot weather much more threatening to their health than to mine, a respo (respiratory polio quadriplegic).

I learned how lucky are the polio paralyzed to have bladder and bowel control, relieving them of the special catheter and Crede care of paraplegics. Crede was a new word to me, meaning the downward and inward pressure applied to facilitate bowel and bladder elimination. These are problems not experienced when one wears a chestpiece with its continual pressure. This is an invaluable book for bladder and catheter care.

The PRIMER also counsels on how paraplegics can become more independent and what agencies and services can best assist toward that end. This publication goes from vital point to vital point along the whole line from onset of paralysis to social and vocational rehabilitation. You must read it.

Then, for those who might wish to probe a little more deeply into nervous system function, there is the helpful anthology published by the California Paralyzed Veterans Association, PARAPLEGIA AND YOU. And make no mistake, the assumption is that all paralyzed veterans are men and it is to that sex that the book is directed. I became a little indignant while reading it until I checked the publisher, and only then did I become slightly pacified.

This is a collection of technical articles written by research physicians. Here you will find such tidbits as the most common operations for paroxysmal hypertension, how to categorize the neurogenic bladder, and an extensive explanation of the contradictory nervous systems that control micturition. If you feel like concentrating, the book is quite interesting. For instance, did you know that in spinal cord operations on animals anatomical regeneration has been achieved, but not functional regeneration? With rats, however, 44 out of 1750 showed functional regeneration to an almost normal extent. This suggests that if the spinal cord of a rat can be successfully repaired, so can that of a human, although pessimistic researchers predict a good many decades will pass before the gap between rat and human is closed (excluding those individuals we all have in mind). This book is an excellent guide to body understanding.

After the physical consequences of spinal cord injury have been digested the fourth book, THE DIVE THAT CHANGED MY LIFE, awaits to describe their impact on the mind and soul.

Wajih Aziz Sim'an was a 20 year old student at American University in Beirut, Lebanon, when his neck was broken in a diving accident. His autobiography reveals it was fortunate that he was a student, for that circumstance gave him access to the University Hospital where the treatment was not nearly so lethal as in the alternative hospital. Unfortunately, Wajih suffered many medical blunders. His tales of being scalded with boiling herb water, severely burned by an irrigation solution, and scratched and infected by a metallic catheter will make you forever wary of Arab doctors. Incidentally, herb vapor is their favorite cure for paralysis.

The loneliness of being left out is known to most quads, but life in a small
village would seem to intensify it. Wajih confides his sorrow at finding few lasting friends and also his absorption with his pain and catheter complications. Six years pass before he begins to write or before he is soothed by religious faith. It is a hard, sad story without humor or diversion from pain and despair.

After two non-miraculous visits to Father Sharbel's tomb, shrine of healing, and a strange visitation by a healing saint that he chooses to escape, Wajih finally reconciles himself to immobility. It is then that he begins his Christian studies with the help of Baptist friends. At the same time that these studies culminate into a strong religious belief, Wajih makes his first efforts to write. This dual development resulted in his main occupation of Christian writing. He has written three books and many articles for Arabic publications.

Many handicapped people are quasi-grateful for their affliction and a few can cogently express just why they have such a seemingly absurd regard. Wajih is one of these. Raised as a Roman Catholic, he accepted his religion without comprehending its implications. Rational awareness enters during his college philosophy classes and he transfers his belief to a logically functioning universe without an afterlife, in which man's mind was the sole guide. Because he was sincere in his new faith, he reasoned that only a drastic act could change his rationally and deliberately chosen course. And drastic paralysis does. He turns to Christ and finds new meaning for his life.

There is much monotony, pain, frustration, tragedy, and discontent in this book, all the ingredients that make up the early essence of physical paralysis and Wajih has depicted them with unique accuracy.


This useful publication has had such wide distribution through the Paralyzed Veterans of America that the majority of U.S. paraplegics have a copy. Certainly it should be included in every collection of informative booklets about wheelchair living.

SPECIAL NOTE: All those who have been frustrated in their efforts to buy Peter Marshall's novel about wheelchair lovers, RAGING MOON, can now obtain it from Bobbs-Merrill Co., Inc., 3 W. 57 St., New York, N. Y. 10019. A book too good to miss.
I got polio at the end of 1958 in Kenya. Fortunately for me I lived just outside Nairobi which has a very good hospital for acute polio cases. It was five months before the R.A.F. was able to fly me back to England. I went straight to a hospital in Oxford which is considered to be one of the best centres for polio in this country. It soon became clear that I would have to keep my trachy and remain permanently on a respirator. After a year and a half in hospital, I went to live at home in a house we had bought in the country near Oxford.

From the moment I got home it became apparent that the breathing machines and other equipment that had seemed so ideal in hospital were quite unsuitable at home. The large respirators and suckers (aspirators) cluttered up the limited space and made any movement from room to room a tremendous performance. I was fortunate in having living nearby, a gifted Doctor of Physics with his own workshops in his garden, where he employs half a dozen engineers to manufacture his own successful inventions. It took a year to persuade him that he could really be of help to me, but once he had made up his mind we never
ENGLISH RESPO WHEELCHAIR

All working parts for breathing and sucking are hidden by cloth panels. A dozen of these chairs are available on loan to other respos. With the aid of a tail lift, Robin Cavendish's wife easily loads him into their Dormobile.
looked back in developing equipment for ordinary life outside hospital.

One thing was needed more than anything else. A really comfortable chair which was both strong and manoeuvrable, as small as possible and yet containing inside it all the equipment required for breathing and sucking. The first chair that we used was an aircraft chair mounted on wheels with the breathing apparatus in a metal container hooked on the back. We found after a year's use that this had many disadvantages as the chair was not sufficiently adjustable, it was not very easy to push as the balance was bad, and there was no built-in sucker. After searching in vain for a more suitable ready-made chair it was decided that the workshop would build a chair to our own specification with all the machinery needed concealed within it.

The chair consisted of a tubular steel frame mounted on two large pneumatic wheels at the back, and two swivelling castors at the front, and the back of the chair was adjustable easily through 40 degrees. The seat, detachable arms and back were fully upholstered with polyether foam mounted on Pirelli webbing and covered with fitted removable covers of special hard wearing material. The machinery was fitted onto two metal trays (which could be pulled out for ease of maintenance) fixed under the chair. The breathing machine could be run off battery, mains (electric power system) or manually. The battery would drive the machine for 12 hours and there was a battery charger that would automatically switch on when the machine was plugged into the electricity and switch itself off when the battery was fully charged. There was an automatic switchover from mains to battery and vice versa to ensure that the machine would never stop unless it was switched off. There was a sucker that would work whether the machine was running off mains or the battery and a built-in alarm system. A voltage regulator was fitted to enable the machine to work off different voltages. Small lights on a control panel indicated that all the machinery was in proper working order.

The chair was specifically designed so that it could be loaded through the rear doors of a standard van, and the machinery in the chair was designed to run and charge off the van.

The first chair that we made was the design you see pictured here. This chair was made with a grant received from the Polio Research Fund, but we found the chair still had a few minor shortcomings. We then obtained a larger grant from a Charitable Trust to manufacture a dozen chairs incorporating further modifications to the original chair. These chairs are on a permanent loan to anybody in this country who felt they would benefit from having one.

From my own point of view, my chair has revolutionised my life. Not only does it make it much easier to look after me at home, but I am now very mobile and we have been able with the greatest of ease to travel extensively in England and on the continent of Europe. Thanks to this chair, it is now no problem to stay with friends or in a hotel, visit restaurants, shops, cinemas and theatres, without attracting many stares from curious passers-by.

The price of making the chairs here worked out at about £500 each. Anyone requiring further details could write to me and I would be delighted to tell them anything they want to know. My address is: Furlongs, Drayton St., Leonard, Oxford. My phone: Stadhampton 386. Θ

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**Public Notices:**

An observant Tijg reader, Gertrude Steinman, of Dorchester, Mass., found this in the

NEW YORK TIMES, April 8, 1966. "The non-profit foundation, TECHNICAL AIDS FOR THE HANDICAPPED, which produces and places, free of charge, electric, curb climbing, indoor-outdoor wheelchairs at seriously handicapped persons' disposal, wants contact with American citizens, who want to build up a sister organization.... For information, write to Dr. Per Udden, Medical Officer, Kalarne Hospital, Kalarne, Sweden."
The chair is easily manoeuvrable indoors or out. It is pushed by the bar attached to the back and the handles are used to lift the back over a curb. The foot-rest may be extended or pushed fully back. The back may be adjusted to reclining or upright by turning a knob.

Pump, electronics box, humidifier, bellows and volt meter, sucker pump motor and bottles. Complete unit is mounted on a removable tray and secured by 3 screws.

The sucker in use. The polythene positive pressure tube is held in place by two webbing bands around the chest and middle. Shown also is the magnetic valve.

Sucking unit is mounted on right side of chair to be accessible to the driver. When not in use the flap conceals it.
THE RUGG CHAIR

The Rugg Chair is literally the answer to the quad’s prayer (no poetic pun intended here at all). Without doubt this is the most brilliant, the most sensible, and the most functional innovation in wheelchair engineering in this enlightened age of the needs of the handicapped.

Actually, the commercial name of the Chair is "The Independence — A Reclining Wheel Chair;" but it is more popularly known by the name of one of its inventors, Donald Rugg.

Nonetheless, the title "The Independence" is certainly apropos of the Chair’s purpose. For, away back in 1957, Don Rugg and his non-handicapped friend, William (Bill) Orr, co-inventor, began nurturing ideas for the design of a particular kind of wheelchair that would afford Don both independent mobility and sitting tolerance. (Don is a traumatic quad with C-5 injury; and his sensitive skin is subject to decubitus ulcers in even short sitting periods.)

In 1957, in an old garage in Englewood, Colorado, Don and Bill began piecing together the first Rugg Chair. It was not completed until 1960, a crude, makeshift, but absolutely functional device. Possibility was no longer a dream! Reality became Don Rugg sitting in a chair he could propel and steer at the touch of a single switch, that he could recline and relieve sitting pressure, also at the touch of a switch.

Since construction of that first rough model, the Chair...
The switchbox (under Don's right hand) on the newer models now moves back and forth with the seat and the chair arms. This facilitates operation of switches by individuals with limited reach.

has been modified slightly, beautified considerably, and sophisticated so that any Rugg Chair owner can definitely be proud of its appearance, but more especially, highly pleased with its capabilities of function -- and result.

The steering mechanism of the Chair is essentially like that of any other power-driven chair of its kind, a single joy-stick action. Merely push the joy-stick in the desired direction and voila!

Two switches (easily controlled) operate the reclining back of the Chair; one, up -- one, down. The action is smooth, gentle, yet not so slow as to be nerve-jangling to the user. And the headrest, acting in concert with the back, and its own piston rod, comes into position as the user needs it to support the head. When the user sits erect in his Chair, the headrest drops back out of sight behind the Chair. No high-back problems when loading into the new vans, etc., much in use these days.

The steering element (the turning wheels themselves) is in the rear of the Chair, the back wheels doing the guiding. Though there is no particular advantage in this system, neither is there any disadvantage in it. Rear-wheel steering was merely necessitated by the many operating and powering devices built-in underneath the chair seat.

Removable armrests are a feature of the Chair. And the arms and switch-control move back and forth with the seat for greater convenience. Special switches, placed wherever necessary, may be obtained by individuals whose reach or other physical capabilities are so limited as to require these special modifications. The switch-control is normally mounted beside the right or left armrest.

But the sheer genius of the Rugg Chair is in the movable seat. As the Chair reclines, and the back and footrests are raised or lowered, the seat rolls backward or forward, making it possible for the user to, as Don does, recline many, many times daily, without losing so much as a fraction of an inch in sitting position. Consequently, there's no slipping and sliding down into the Chair, or the necessity of being yanked up bodily from time to time, repositioned. So cleverly designed is the Rugg Chair that Don and other users can recline, relieve pressure, as many as one hundred or more times daily, without changing the body position in the seat of the chair itself.

The main purpose of the Chair itself is to relieve sitting pressures, the formation of decubitus ulcers, especially on the buttocks. This, of course, comes of being able to recline oneself at will, unaided. There are other uses,
to be sure. Respiratory polios who breathe better in the reclining position than in the erect sitting position are able to rest themselves from time to time. Body functions are doubtless aided by this kind of constant changing of position.

However, as the inventors have stated clearly, the Rugg Chair is not a cure in itself, but it does offer the user the opportunity of complete sitting independence and mobility, at home, at work, etc. Day home care of the quad is virtually eliminated for Rugg Chair owners and their families, friends. There's no necessity of getting into and out of bed often to relieve sitting pressures. Pressure is relieved right in the Chair.

Don sits 16 hours daily now, works full time, has not had a bad or serious pressure sore since he began using his own invention. Nor has he had to be hospitalized for healing of these decubitus ulcers, as he had to be many times prior to using the Chair.

Don had just graduated from the University of Denver, in fact had received his B.S. degree in Engineering only four days before his 1954 automobile accident. In 1956 he started college-level studies again, working toward his Masters degree, and receiving it in 1958. The two and three-hour classes were enough to cause his skin to break down.

Now he works a full day, five days a week. And in addition to this he is taking night courses at the University of Denver, this time earning his Ph.D. in Electrical Engineering. Although he must have help getting to and from his job, college, in his Chevy Greenbriar van, he is totally independent as to his sitting, moving about, at home and at his work.

Since 1958, Don has been research engineer at the Denver Research Institute, Electromagnetic Propagation Division. He has received the Handicap of the Year Award of the State of Colorado. And on two occasions he has been the recipient of the Presidential Citations, at the national honors level.

And, as it is with most successful men, there is a woman's influence behind Don's many successes. His wife, Melba, charming, witty, has been helpmate and unfathomable source of encouragement, assuming the kind of quiet greatness that Milton observed in these words: "They also serve who only stand and wait."

(The Rugg Chair is currently being manufactured by the Falcon Research Development Company of Denver. The cost of the Chair is about $2500 but every effort is being made to reduce this figure through faster, better production methods. Rehabilitation Departments and other agencies have recognized the soundness and merit of the Rugg Chair, and are purchasing them presently for vocational trainees as well as employed handicaps.)

For further information about the Rugg Chair, write to Donald Rugg or William Orr, 1457 South Birch Street, Denver, Colorado.

The Department of Veterans Affairs built this chair for Bert Hudson, respo. It was constructed on a standard E & J undercarriage, with special seat and reclining mechanism controlled by one finger with microswitches. Bert's address: Pearson Polio Pavilion, 700 W. 57th Ave., Vancouver 14, B.C., Canada.
PUSHUPS
by John Hassler
(Traumatic quad) California

If you are a quadriplegic, with limited use of your arms; if you would like to be able to sit up all day without fear of breaking down from sitting pressure; if you would like to be able to position yourself in your chair; and if at the same time you would be doing these things, you would like to be exercising and strengthening your arm and shoulder muscles — then you are reading the right page.

I invented and Mr. Stewart Johnston built what we call "the pushup." The name describes the function of the apparatus. Actually, they are apparatus — one goes on each chair arm. Their function is to hold the quad's arm as he leans forward. Leaning forward is the most effective way of pushing up — it enables the quad to use most of his muscles for the lift, and at the same time, it gives him added leverage. Pushing up, of course, relieves sitting pressure.

If you are afraid of falling forward and also have had the frustrating experience of sitting in one position, unable to have someone set you comfortably, then you are in luck. With these "pushups," you can catch yourself if you fall forward, and you can position yourself perfectly.

If you are interested, you can write the Johnston Orthopedic Company, 2585 Shattuck Avenue, Berkeley, California. But before you write, you should know that your chair arms must be raised in accordance with your height. Everest & Jennings will build a chair arm to any specified height, but the adjustable chair arm is just as effective.

One other point concerning the "pushups:" wheelchairs are not built to carry excess weight, i.e. when you lean forward, naturally, much of your weight is transferred to the chair arm and the "pushups." The screws will break with repeated use. If you weigh under 150 pounds, it probably will happen about once a year. I weigh 170 pounds, and I used to break these screws about once every three months. To avoid this, I have one-quarter inch chrome case hardened bolts holding the arm rests. I can guarantee that this type of bolt will not break. It will not even bend.

I was the first to use the "pushups." but many quads in the San Francisco Bay area use them now. With use, no pressure problems occur from sitting, and most of the quads whom I know who use the "pushups" stay up about twelve or more hours per day.

I have been using the "pushups" since 1958. I remember that they were difficult to use because I was not strong, but it did not take long to develop the correct muscles. Most quads resulting from cord injury will have all the muscles necessary.

It has been recommended that a quad push up at least one minute every fifteen minutes. Of course, this is impossible. I have yet to see any quad who could stay up one minute, four times an hour, every hour for twelve hours. I have gotten along fine on a fifteen-second pushup, four times an hour. Sometimes, when I am very busy, I forget to push up for an hour or two, but then I make it a point to do many pushups in a row, ten or twelve fifteen-second pushups. Either way, I have had no pressure problems. I know one fellow who never does more than a five-second pushup, but makes it a point to reposition himself quite often. This method has proven effective for him. Either method, or a combination of the two, is effective in preventing pressure sores caused by sitting, and both methods are made possible for you through use of the "pushup" arms.
WHEELCHAIR LORE

Thinking about a new wheelchair???
INVESTIGATE BEFORE YOU INVEST!!!!

Before you do anything about a wheelchair, you should read the very informative "Report on a Conference for Wheelchair Manufacturers."

This appeared in the Spring 1965 (BPR 10-3) issue of the BULLETIN OF PROSTHETICS RESEARCH. It can be purchased for only 70c from the Supt. of Documents, U.S. Govt. Printing Office, Washington, D.C. 20402.

This issue should be in every physical therapist's library and be studied by every wheelchair purchaser. It is excellent!!!

Among the interesting references listed in the above is the article, "Evaluation and Selection of Wheelchairs" by Beth H. Fowles, Ph.D., one of the participants in the conference. A free reprint may be obtained from Dr. Fowles, Highland View Hospital, 3901 Ireland Drive, Cleveland, Ohio 44122.

SOME U.S. CATALOGS:
Send for them all. They're free.

- AMERICAN WHEELCHAIR CO. 5500 Muddy Creek Rd., Cincinnati, Ohio 45238. Of special interest, two of their accessories: adjustable headrest and reclining bars.

- COLSON CORPORATION 540 N. Michigan Ave., Chicago, Ill. 60611. Note the retractable arm rests on the reclining back models.

- EVEREST & JENNINGS, INC. 1803 Pontius Ave., Los Angeles, Cal. 90025. A very comprehensive line. All their chairs come in three widths: 18", 16", and 13". If you're narrow enough in the sitting department to fit in the 16", you'll glide through doorways with greater ease. Their "Owner's Manual" is a valuable guide to wheelchair expertise, including transferring, etc.

- NELSON-LEE CHAIRS, INC. 11334 Blue Ridge Blvd., Kansas City, Mo. 64134. Their motorized chair is about $600; with an elevating seat, about $800.

Before you sign on the dotted line, consult with the nearest of the following three disabled who carry complete lines of U.S. wheelchairs: KENDELL ENTERPRISES, 2714 Holly Ave., Arcadia, Calif. 91007. REHAB AIDS, Box 612, Miami, Fla. 33142. TRUJILLO INDUSTRIES, Box 217, San Clemente, Calif. 92672.

MORE FASCINATING MATERIAL FOR YOUR WHEELCHAIR LIBRARY:

"Wheelchairs" by Kirsten Vang Lauridsen and Thilde Lund. 1964. COMMUNICATIONS, the publication of the Testing Institute of the Danish National Association for Infantile Paralysis. Free, from: Landsforeningen Mod Børnemannelse, Tuborgvej 5, Hellerup, Denmark.

"Bibliography: A Source List of Wheel Chair Data" by Donald Lloyd McKinley. May 1965. Price $2. RFD #2, Box 26, Wayland, N.Y. 14572. This imaginative and comprehensive bibliography was compiled by Mr. McKinley as a graduate research project at Syracuse University.

"Evolution of the Wheel Chair" by Tali Alborz Conine and Elizabeth Fuchs. JOUR. AMER. PHYSICAL THERAPY ASSOC. Oct. 1965. This little history of carrying and wheeling is illustrated with enchanting sketches by Noriko Shimizu of Tokyo. Unfortunately, reprints are not available. If you cannot borrow a copy, we'll photocopy ours for you.
FOREIGN SPORTS MODELS

- ENGLISH E & J

- CARRY CHAIR
  Made to fit on a wheelchair seat, it can be carried by two persons, using the handles, either side by side or fore and aft, and placed in a taxi, plane, boat, etc. Price: 5 guineas (about $15). Scottish National Institute for the War Blinded, Linburn, Wilkieston, By Kirknewton, Midlothian, Scotland.

- INDIAN ROADSTER
  TijG's good friend, Raj Gopal Menon, is now wheeling around his village in Kerala, thanks to a U.S. responder who donated the monies for the chair. Mrs. Kamala Nimbkar of Bombay handled the exchange into rupees and selected the model.

- IRISH TWO PIECE
  Only 20" wide, this sturdy little para chair will go into a telephone kiosk or revolving doors. It does not fold; instead, its parts, chassis and seat, are held together by an instantly removable rod. Brochures. Potter Invalid Appliances, Ltd., Love Lane East, Lower Mount St., Dublin.

- ENGLISH COMPACT
  A gentle "to and fro" movement of the hand levers moves chair forwards or backwards and turns it within its own length. Retractable footboard. Weight: 45 lbs. Enamelled chassis, $98, plus $15 f.t. to Atlantic port, and about 15% duty. (Send for catalog.) Richards Son & Allwin Ltd., Great Bridge, Tipton, Staffs., England.

- ENGLISH BANTAMS
  The English wheelchairs are losing weight. Here are two new models for paras or non-reclining quads. Brochures available. MARK II (left) weighs 28 lbs. Arms are removable, but can be locked in position so chair can be lifted by armrests. It has a parcel shelf and detachable driving wheels. Newton Wheelchairs, Blackberry Lane, Halesowen, Birmingham. VESSA STANDARD weighs 36 lbs. Vessa Ltd. Queen Mary's Hospital, Roehampton, London, S.W.15.

- ENGLISH UNIVERSAL
  The "Rull" is made by Amesbury Surgical Appliances, Ltd., South Mill Rd., Amesbury, Wilts. Also, they have a catalog of special chairs for spastics.

- ENGLISH TOURING CHAIR
  The basic model of this "TUKAWAY" weighs only 18 lbs. and costs under $50. Extra accessories: arm rests, leg rests, sun canopy, head rest, carrier handles, table tray, solid seat. Special chairs for spastics. (Send for brochure.) Dawson Millbourn & Co. Tor Park Rd., Torquay, Devon.

- SECURA STANDARD
  Weighs 36 lbs. Vessa Ltd. Queen Mary's Hospital, Roehampton, London, S.W.15.

- ENGLISH TO传统
  Their new EXGLISH TOURISG CHAIR.

- EXGLISH TO传统
  The basic model of this "TUKAWAY" weighs only 18 lbs. and costs under $50. Extra accessories: arm rests, leg rests, sun canopy, head rest, carrier handles, table tray, solid seat. Special chairs for spastics. (Send for brochure.) Dawson Millbourn & Co. Tor Park Rd., Torquay, Devon.
**CONVERTIBLES**

- **CHAIR-COT** - Can be locked in any position from horizontal to vertical. Small wheels: $360. Large: $380. For brochures: Mr. Lloyd J. Oye, American Iatro-Dynamics Corp., 1009 W. Arbor Vitae St., Inglewood, California

- **CHAIR-COT-LOADER** - This versatile vehicle is typical of the many transferring variations that have been developed by ambulance supply companies. This one is $325 from Ferno-Washington, Inc., Greenfield, Ohio 45123. Do send for their catalog! You will find many new traveling ideas: Stretcher Chairs... Hydraulic Cots... A Tailgate Plate for $10 that covers the space between the floor and the tailgate to eliminate that drop in the gulch... Floor Fasteners and Wheel Cups to ensure non-rolling en route... Cot-sized bedding...

- **CHAIR-LIFT** - Battery-operated. Fibre glass body. 3-speed forward or reverse from a creep to 5-mile speed. Special models and attachments available. $675. Lectro-Lift Mfg. Inc., Roseau, Minn. 56751

- **CHAIR-COMMODE-LIFT** - Send for the intriguing brochures! Still in the development stage, it is priced $675, unmotorized. Some features: built-in head rest, foldaway table, reclining back, detachable arm rests. Lincoln Carriage Corp., Box 426, Tempe, Arizona. 85282

- **ENGLISH BED-CHAIR** - Paul Bates, respo (see page 71), is a salesman and enthusiastic user of the Egeron Bed-Chair which is self-adjustable, by remote control, to a complete range of positions. Write to: Tower Hill, Horsham, Sussex, England.

CLIMBERS

- **DANISH ESCALATOR CHAIR**
  Electric-powered, it climbs the steepest stairs safely. When fitted with two main wheels, it rides on the level easily.
  Hartmann Engineering Ltd., Sigurdsgade 41, Copenhagen K, Denmark.

- **GERMAN STAIR-CLIMBER**
  Der Meyra Uni-Treppefahren is manufactured by Wilhelm Meyer, 4973 Vlotho A. D. Weser, Deutschland. (Send for fascinating catalog.)

- **STAIR-CLIMBING WHEELCHAIR CARRIER**
  Designed by J. C. Warren, polio, when he was a student at the College of Idaho. Operated safely up and down six flights to classes and on steps of 45". 30" wide, 50" long, weighed 260 lbs. Powered by electricity, controlled by flip switches. Wheelchair quickly and easily locked on.

- **CANADIAN STAIR-CLIMBER**
  Winner of the U.S. contest, it is not yet in production. Battery-operated, it will sell for $700 to $1200. Weight: 65 lbs. plus 21 lb. removable battery.
  Hale & Assoc. Ltd., 10 Front St. S., Port Credit, Ontario.

- **U.S. HAND-DRIVEN STAIR-CLIMBERS**
  Two inventors have developed lightweight, functioning stair-climbers in their spare time and hope to interest manufacturers in producing them. For details, write: Mr. Fritz A. Deutsch, 25801 Lake Shore Blvd., Euclid, Ohio 44132 and Mr. Rod Zamotin, 259 Nahkoda Dr., Miami Springs, Florida 33166.

- **ENGLISH STAIR CHAIRS**
  Both are lightweight and strong, constructed of bent ash. Useful on winding stairs, they can be wheeled on their four wheels. (Both companies have attractive catalogs.) Left: Also available, a streamlined tubular steel model. Carters Ltd., 65 Wigmore St., London W.1., Orthopedic Equipment Co., Bourbon, Ind. 46504, and E & J in Los Angeles. Right: Bencraft Ltd., Bencraft Works, Edward St., Birmingham 1, England.

- **IBEX STAIR-CLIMBER**
  Laboratory tested, not yet in production. Standard model is hand operated on the level, powered for climbing, etc., using electric motor and battery. Weight 85 lbs. Will climb and descend stairs; negotiate curbs; self-load into a car; aid in opening doors; fold partially while occupied to negotiate narrow doorways; recline for napping; self-power over rough ground. Price: $895. James B. Bamberg, Flight Components, 2035 Calumet St., Clearwater, Florida 33755. (Mr. Bamberg has a manuscript of about 2500 words titled, “Design and Economic Factors in Climbing Wheelchairs,” which puts the whole subject into perspective.)
READERS' IDEA

WHEELCHAIR ELEVATOR PLANS
VINCE LA MIELLE (East City Limits on M-142, Bad Axe, Mich. 48413), polio quad, has designed and built many low-cost elevators for use between floors. (See TFG, Spring-Summer 1963, page 43). Because of health complications, he is no longer able to supervise their construction. Therefore, he has crystallized his experience into detailed plans and instructions in a package of 19 pages for which the fee is $25. This includes the plans of two types of elevators and suggested variations. As a preliminary, send $1 for a description of the plans and a selection of elevator pictures showing the different possibilities. If you want to build a good elevator for about $250, that $1 will be a good investment.

RAMP RAILS FOR VW MICROBUS
PAUL HESS (28 Grove Ave., Latham, N.Y.) Two 30" long sections of aluminum "U" channels, 4" wide with 1" high sides. A lip was welded on one end which fits into two slots cut in the floor of the WV. The separation between the channels is equal to the width between the wheels of the wheelchair. Each channel weighs only 4-1/2 lbs. They can be used on another wagon or stairs without difficulty. Cost: about $15.

MOUTHSTICKS
T&G Spring 1964 (page 76) illustrated 22 stick variations by readers. CHARLOT ROSENBERG (1734 Wildwood Rd. NE, Atlanta, Ga. 30306) studied them and turned her inventive mind to several "picker-upper" ideas which she will share. HERB SCHULDT, JR. (319 Morton St., Batavia, Ill. 60510), a C.P., has a work shop in which he has been making more new types to readers' specifications. A Texas resident, CHARLES KRAM, JR., uses a wooden dowel with the biting half of a baby's rubber nipple taped on the mouth end.

PORTABLE ROCKING BEDS
HARRY WATTS (Pearson Polio Pavilion, 700 W. 57th Ave., Vancouver 14, B.C.) travelled over 2000 miles last summer, using a chest respirator with batteries in the car and sleeping on his portable rocking bed at night. The bed, made of aluminum, can be dismantled and loaded into a cart-pole carrier in minutes.

DICK ASHLEY (15 W. Belvedere Ave., Baltimore, Md. (21210) travels in style in his Dodge Camper, rocking away happily while his driver fights the traffic.

DAVID YOUNG (Pearson Polio Pavilion, 700 W. 57th Ave., Vancouver 14, B.C.) has sent to T&G the plans for his bed, which is similar to Harry's. You're welcome to borrow them. Photos of David's bed were on page 75 of the Spring '64 T&G.
About two dozen respo readers have requested from TGG the blueprints and instructions of the fibre glass lung that Dr. Coffilk designed for Soelene Heley in Australia, and which was featured in the Spring-Summer 1963 issue. William King (Rt. #1, 1680 Newlove Rd., South Charleston, Ohio 45368), respo, has volunteered to contact all of these experimenters and summarize their experiences. When the material is at hand, TGG will duplicate it for distribution. If you have any details to add, send them to William. If you would like the blueprints and instructions or the summary, write to TGG. And, will all inventors of inexpensive portable respirators of any type please send TGG the particulars so they can be shared?

MRS. MAURICE ZWEIGLE (908 CRESCENT DR., MIDLAND, MICHIGAN 48640), A RESPONDEE, REPORTS ON HER UNIQUE AND INEXPENSIVE TYPEWRITER: "I WANTED A TYPEWRITER I COULD DRIVE UP TO AND USE WITHOUT A LOT OF SETTING UP TIME. A NEIGHBOR WHO IS A HAM RADIO FAN SAID THAT HE WOULD LIKE TO TRY, WITH TWO OF HIS FRIENDS HE MADE OVER A RECONDITIONED MODEL 15 TYPEPAGE PRINTER THAT BELL TELEPHONE HAS AVAILABLE FOR "HAM" AND INVALIDS FOR ABOUT THIRTY DOLLARS. A VERY COMPLICATED WIRING SYSTEM WAS ADDED AND A SET OF SEVEN RELAY SWITCHES WERE PUT ON A BOARD IN A PATTERN THAT I COULD REACH WITH THE FINGERS OF MY RIGHT HAND. THIS SET OF SEVEN "KEYS" THEN BECAME MY REMOTE CONTROL KEYBOARD ON THE END OF A TEN FOOT CORD SO I SHOULD BE ABLE TO TAKE THE BOARD TO BED WITH ME WHEN I AM MORE PROFICIENT. THE SEVEN KEYS CONSIST OF THE FIVE CODE KEYS USED BY RADIO AND TYPEPAGE PLUS A KEY WHICH PRINTS THE LETTER SET UP ON THE FIVE. THE SEVENTH IS AN EPSASE KEY WHICH ALLOWS ME TO CHANGE THE CODE SET UP IF I REALIZE I HAVE HIT A WRONG KEY (BEFORE IT IS PRINTED). IT IS A LITTLE SLOW IN THAT UP TO SIX BUTTONS MAY HAVE TO BE TOUCHED IN ORDER TO PRINT ONE LETTER. HOWEVER I CAN DO ABOUT 15 TO 20 WORDS A MINUTE FOR AN HOUR BEFORE MY HAND TIRES. THE THING COMPLETE WITH THREE ROLLS OF PAPER WAS LESS THAN $50. IF SOMEONE WOULD LIKE TO DUPLICATE THIS MACHINE THEY WILL FIND THE DETAILS IN "CQ MAGAZINE," JUNE 1966, PAGES 61-64. FOR MORE INFORMATION, CONTACT ME OR MR. LARRY ADAMS BY MAIL (9 DENNIS COURT, MIDLAND, MICHIGAN) OR BY RADIO (K8SQG).

DR. G. N. PATTISON (Springfield Lawn, The Park, Cheltenham, Glos., England). Two metal sheet plates mounted on three-ply wood. On these, two page keepers held by magnetic attraction. These are pegs of wood in which are inserted old clock springs to prevent pages from flicking back. Upper page keepers move from side to side to suit the book's width. Upper keepers are moved by breaking the magnetic attraction so that a book of any height can be used. A book is held by the vertical rod that slips through its spine. A magazine is held by the spring loaded wire. Once mounted, a book can be inclined at any desired tilt. The holder was invented by Mr. Rex Walwyn and the drawings were made by Mr. Metherral of Cheltenham.
TONGUE SWITCH

Celeste Thompson, California respo, who describes here her proficiency in using her tongue-controlled switches.

MY "GOLDEN ARM" was made at Rancho Los Amigos Hospital, where I spent 4 months for the fitting and training.

NOW IT IS MINE TO USE AT HOME. It takes less than five minutes to set up and weighs only eight pounds. It is set up when I first get into my chair and I leave it on all day until I retire.

I can feed myself, turn on make-up, turn pages, type, even scratch the top of my head. I can hold letters and newspapers. I can pick up anything within reach, up to five pounds. I can salt my food; turn on and off light switches; lift and replace a telephone receiver. I could operate a TV remote control or a push button tape recorder. I can make moves in chess or checkers and throw dice and play cards.

THE POWER FOR THE ELECTRIC ARM is derived from two 6-volt batteries in my wheelchair, which also supply the power to drive the chair and run a Thompson Bantam for my pneumobelt.

At first, I didn't think I would get too much use of the motorized wheelchair at home. The doctor told me I did not know what I was talking about--and he was absolutely RIGHT!

AT FIRST, TONGUE CONTROL DID NOT APPEAL to me, but I was anxious to use the arm to start a business, so I tried it. (The idea for the business, incidentally, was inspired by T/G's article on calling the elderly.) I soon realized the control was not distasteful and it was exciting to control the arm and the chair since I had no other muscles.

MY ARM'S SEVEN MOTIONS: shoulder--up, down, sideways; elbow--extend and flex; wrist--extend and flex; forearm--rotate; whole arm--rotate; fingers--pinch.

THE PEOPLE RESPONSIBLE FOR THE ARM have my deepest gratitude: Dr. Vernon Nickel, Medical Director at Rancho, Andrew Karshak and Jim Allen, the engineers, Peter Call, machinist, and Ray Cardinas, electrician; also Lois Barber and many others in the Occupational Therapy and Orthotics Departments. Last, but far from least, the Vocational Rehabilitation Administration Grant R.D. 1461, which financed the investigation of externally powered orthotic devices by Rancho's Attending Staff Association.
SIGHT SWITCH

To solve the problem of the astronaut in space who finds his arms pinned uselessly by g force, the National Aeronautics and Space Administration has developed a "Sight Switch" which has exciting possibilities for quadriplegics.

The device presently used for experimentation has a cylinder mounted on the earpiece of eyeglass frames. It consists of a tiny cylinder containing an infrared light source, amplifier, sensitivity control, and infrared sensor. (Two separate circuits can be controlled by using two "Sight Switches," one for each eye.) Wires, as inconspicuous as a hearing aid, lead to a small battery pack and the control relay.

The "Sight Switch" is operated simply by looking at it. The basis of operation is the fact that the iris of the human eye is an excellent absorber (and therefore non-reflector) of infrared energy. The iris will absorb up to 80% of the infrared energy that strikes it, even in a dark room, and is unaffected by normal blinking.

In a demonstration, a standard motorized wheelchair was modified for operation by the "Sight Switch." It was completely controlled by moving the eyes to the right or left, thus directing it forward, backward, or turning it in any direction.

Other fascinating possibilities: it could operate a mechanical page turner, switch room lights off and on, adjust room temperature, change the volume and channel of radio and television; raise and lower a bed; signal a nurse; operate a word board or electric typewriter by the "Possum" grid system; switch an iron lung from house current to battery or motor-generator standby equipment.

PATENT STATUS: NASA encourages the immediate commercial use of this invention. Inquiries about obtaining rights for its commercial use may be made to NASA, Code AGF, Washington, D.C. 20546.

ADDITIONAL INFORMATION concerning this innovation may be secured from:
Technology Utilization Officer
Marshall Space Flight Center
Huntsville, Alabama 35812
Reference: B65-10078
This includes a detailed technical report (revised April 1965) and, on loan, a short 16 mm film in color, with sound.

FLORIDA...Frieda Hutchins...when she and her husband, Bill, moved south they left a big gap in the vertical staff of T&G on which she had been working since 1959. If any horizontals live near, contact them at: 918 New York Ave., Edgewater, Fla. 32032.

CZECHOSLOVAKIA...Vladimir Kvapl...A paraplegic since a cord injury in 1956, he studied radio engineering and now fits electric switches at his home. He is an avid motorist and a prolific correspondent. His generosity is typified by his donation of the exciting cut glass cup to T&G's Hall of Fame Quad (see Bulletin Board and page 60).

Bobby Cory of Glencoe, Illinois, and Thomas Lee Good met through correspondence and were married on July 17, 1965. A respo, she was one of T&G's first horizontal corresponding editors. Their address: 1026 Masonic, San Francisco, California 94117.

FRANCE...Michel Le Saux...In September of 1965, 35 handicapped (including seven requiring respiratory aid), spent two weeks in Rome, Florence, and Assissi. The journey had been planned for three years by l'Abbe Fallot, chaplain of Hôpital Poincare. Fifty attendants, including the hospital electrician, accompanied the group. Highlight of Michel's trip was the moment captured here when he received the blessing of Pope Paul VI. (Photo: Fallot)

GERMANY...Jurgen Erbsleben...He and his wife, Ursel, proudly introduce the charming addition to their family, their daughter, Nieke.

BRUCE Love of New York City demonstrated his hat-operated wheelchair to Vice President Humphrey at the '66 meeting of the President's Committee on Employment of the Handicapped. The inventor, Don Selvyn, accompanied him to Washington, D.C.

AFRICA...Ian Bonpas...After living in a respiratory ward for 10 years in Kenya, Ian moved with his parents down to Johannesburg (where this photo was taken with his nephew) and then to their new home in Durban.
Toomey REUNION...1965

The annual gathering of the Toomey "clan" - horizontal and vertical - and their families and friends is held at Nini and Joe Laurie's home, which is the TJS office. The '65 meeting in September was highlighted by exciting guests: Dr. and Mrs. Sandiford from England, Mrs. Kamala Minkar from India, Mrs. Charlot Rosenberg from Georgia, and Mr. Tom Aaron from Michigan. (Photos by T. Warren Evans, Roy C. Meyers, Dr. Sandiford et al.)

L-R, foreground - Jim Hooper, Brooke Owens (holding her niece) and Mickie McGraw. Alas, Brooke has moved with her family to Delaware.

Susan Armbrecht (on cart); Mrs. Kamala V. Minkar of Bombay, India, editor of The Journal of Rehabilitation in Asia (in the sari); Cindy Close and Debbie Pettibone (L. seated).

The Blaine Harts (left) and Tom Aaron, director of the N.F. Respirator Equipment Pool in Ann Arbor, Michigan.


Dr. and Mrs. H.B.C. Sandiford of Portsmouth, England

Charlot Rosenberg

Sue Williams and Dr. Bill

Beth H. Fowles, Ph.D.

Mickie McGraw (R. front) presented a "friendship" jade tree from the staff to the Lauries - Joe (at her right) and Gini (seated on lawn).
SUBSTITUTE FOR SENATE BILL NO. 1381.
PUBLIC ACT NO. 328

AN ACT CONCERNING AID TO VICTIMS OF QUADRIPLEGIA AND TOTALLY PHYSICALLY INCAPACITATED PERSONS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

SECTION 1. (a) Any Connecticut resident who is a victim of quadriplegia or otherwise totally physically incapacitated may apply to the commissioner of health for care in a state, or state-aided hospital, a chronic or convalescent home, or for housekeeping or nursing care in his own home. The commissioner of health shall procure care for such victim, after application, in an appropriate institution having available facilities or in his own home. All fees and expenses incurred for his care while a patient in such state or state-aided hospital or chronic or convalescent nursing home shall be paid for by the commissioner, on authorization of said commissioner, at rates provided by law for such facilities. The rate to be paid for such care shall be negotiated by the commissioner of health, paid either through a local, nonprofit nursing association or the local director of health. (b) The maximum rate to be charged by the state for the institution care provided under subsection (a) of this section shall be the same as provided by law for care in state humane institutions. The same persons and estates as are legally liable for support of patients in state humane institutions shall be liable for support of persons cared for under this section in institutions, in accordance with ability to pay, and the commissioner of health shall make the determination of such ability, shall bill for and shall collect for care of such patients in the same manner, and under the same procedures, terms and conditions as are authorized under the law governing cases of patients in state humane institutions, provided, in determining the exemption after sixteen years, credit shall be given for each year and major fraction thereof any person has been hospitalized or cared for in a nursing home as a victim of quadriplegia or total physical incapacity prior to inclusion under this program. The welfare commissioner is authorized to act as the agent of the commissioner of health in investigating the financial circumstances of the liable persons. (c) The commissioner of health may procure care for any victim of quadriplegia or otherwise totally physically incapacitated person who is no longer in need of active hospital treatment in a state hospital or state-aided hospital, in a licensed chronic or convalescent home or housekeeping or nursing care in his own home; provided such person shall, despite such transfer, remain subject to the medical supervision of said commissioner, who may, if medically indicated, order and provide for the return of such patient to such hospital. (d) The rates to be paid to licensed chronic and convalescent nursing homes, for room, board and services to the persons victims of quadriplegia or otherwise totally physically incapacitated persons aided by the state under this section, shall be determined in accordance with section 17-314 of the 1963 supplement to the general statutes. (e) The provisions of this section shall not apply to persons who are receiving or eligible to receive Connecticut state or local welfare assistance, or shall they apply to persons whose primary needs are being met or can best be met by admission as a patient, to one of the Connecticut state humane institutions; nor shall they apply to persons who, through their own finances, or finances of legally liable relatives or third parties, can receive adequate and essential care without causing sufficient financial strain to warrant assistance from state funds.

Sec. 2. Section 19-22a of the 1963 supplement to the general statutes is repealed.

Sec. 3. This act shall take effect July 1, 1965.

Certified as correct by

______________________________
Legislative Commissioner.

______________________________
Clerk of the Senate.

______________________________
Clerk of the House.

Approved_____________________, 1965.

______________________________
Governor.
VACATION OR LIVE IN MEXICO...Specialize in care of the handicapped...Services include room, board, nursing care, etc...For details write: William E. Coe...Circunvalacion Norte 78...Las Fuentes, Guadalajara...Jalisco, Mexico.

- SPECIALIZED TOURS FOR THE HANDICAPPED including medical care as well as travel accommodations, etc...To Hawaii, Europe, Mexico and soon around the world...Write Evergreen Travel Service...Security Bank Bldg...Box 583...Lynwood, Washington 98036.

- JOHN'S TRANSPORTATION SERVICE...Specializing in wheelchair passengers...Theatre, race track, picnics, ball park, museums...Reasonable rates...New York and Long Island...RA 6-3311.

- OFFICE SUPPLIES...Equipment and printed material...Greater Cleveland area only...Contact after 11 AM: Ruth Heckler...469-1520.

- TYING Done...Envelopes and billheads...Peggy Ovitt...422 May Ave...Titusville, Pa. 16354.

- INCOME TAX RETURNS BY MAIL...Bookkeeping Also...For details write: Norm Peterson and Don Jensen...1318 Tennessee St...Vallejo, California 94594.

- GENES MIMEO SERVICE...Manuscript and general typing...Complete lettershop service...Highest quality duplicating...766 St. Johns Ave...Lima, Ohio 45804.

BY AND FOR QUADS!!!

- WHEELCHAIR HOUSE PLANS FOR SALE...Extensive research by young architect...Beautiful, well equipped home...Willing to discuss fee and make suitable provisions to accommodate buyer...Lee Ayers...Box 222...Greentown...Indiana 46936.

- BUSINESS OPPORTUNITIES...Directory of Home Industries...Market For Crafts...Crafts Bulletin...Both $1.00...Also magazines...Write: R. J. Dobbs...P. O. 49...Bowerville, Minnesota 56438.

- INSPIRATIONAL POETRY...Gospel Echoes...Four different books...50 cents each, three for $1.25 to cover printing costs...Dick Miller...Ward 23...VA Hospital...East Blvd...Cleveland, Ohio 44106.

- BOOK: "The Key To A Successful Business"...Highly recommended...$3.20...Also the "Home-A-Minute-Kit" to help you decide before building or remodeling...$3.95...Jeffrey Nash...P.O. Box 897...Traverse City, Michigan 49684.

- NATIONAL STAR NEWSLETTER written by and for physically handicapped adults...News of persons, organization activities and general information...$1.00 a year...Write: 6219 N. Naper Ave...Chicago, Illinois 60631.

- INSPIRATIONAL BOOK..."A Key To A Happy Heart"...Wonderful story of Chet and Elmir Stein...$4.95 postpaid.

- SECRET PEN PAL CLUB...Write about yourself, hobbies, age, etc...Send stamped, self-addressed envelope to Joyce Walker...20304 Dresden...Detroit, Michigan 48205.
CONTINUED

EQUIPMENT, NEW - FOR SALE!!!

■ FOR SALE...Singleseat golf cart, battery powered, left hand controls, 20 mile range...incl. shipping $300. Arthur Atello...1309 Camino Real...Roswell, N.M. 88201.
■ THOMPSON RESPIRATION PRODUCTS...Agent in Europe...Free catalogues...Charles Froelicher...Steinhofhalde 18...Lucerne, Switzerland.
■ KENDALL ENTERPRISES...Complete line, including elevating toilet seat...Free brochures...2714 Holly Ave...Arcadia, California 91007.
■ SWITCH-O-MATIC...Control appliances via microswitch...Models from $119 to $239...Write for brochure...Down-East Electronics...93 Depot Rd...Falmouth, Maine 04105.
■ KEN MC RIGHT SUPPLIES...Air cushions, hospital supplies, personal articles...3178 N. Iroquois...Tulsa, Okla. 74106.
■ REHAB AIDS...Complete line of self-help aids...Catalog 50c...Free to TjG readers...Box 612...Miami, Fla. 33144.
■ OUTDOOR WHEELCHAIR ELEVATOR...Free brochure...John Toos...Box 49...Broussard, Louisiana 70508.
■ TRUJILLO INDUSTRIES...Everything for quads: From wheelchairs to prosthetics...Free brochures...P.O. Box 217...San Clemente, California 92672.

EQUIPMENT, USED - FOR SALE AND WANTED!!!

■ FOR SALE...Rock whirlpool...Like new: used only five times...Will discount 30% of original price...Duane Harmon...623 Illinois Ave., S.W...Huron, South Dakota 57350.
■ FOR SALE...E & J chrome walker...Adjustable crutch attachments and seat...Good condition...$30...WANTED...Used Kar-Top Lift...Must be reasonable...Mrs. Florence Kearns...5100 98th Ave...N. Pinellas Park, Fla. 33783.
■ FOR SALE...Starr Invalid Lifter...Top condition...Pinion and Rach mechanical movement...Narrows for doorways...$95...Vince La Mie...Bad Axe, Mich. 48413.
■ WANTED...Used lift for rocking bed...LaVonne Neustein...5244 Miller Ave...Gary, Indiana 46403.

CREATIVE QUADS- CARDS, NOTES, PAINTINGS!!!

■ Ann Adams...Write for brochure...3731 Coronado Rd...Jacksonville, Florida 32217.
■ Lynn Fishman...Hand painted greeting cards made to order...25 and 35c each...138-25 Jewel Ave...Flushing, New York 11367.
■ Grace Notes...Charcoal sketched notepaper and cards...Box 389...Valley City, North Dakota 58072.
■ Originals by Irene...Pencil drawn cards, notes and stationery...8415 Luxor St...Downey, California 90241.
■ Betty Gene Pittman...Gift notepaper $1 dozen...667 J Ave...Coronado, California 92118.
■ Jimmy Rodolph...Notepaper and cards...60 Eastern Ave...Woburn, Massachusetts 01803.
■ Country School Classics...by Jean Ryan...Notepaper 50c profit per box...Rt. 2...Dundee, Illinois 60118.
■ Nyla Thompson...24 postcards $1...1711 Crown Dr...Austin, Texas 78745.
■ Jim Wood...Mouth sketched cards, notes, paintings...1011 South Cochran...Charlotte, Michigan 48813.
BUY AND SELL!!!

- ADDRESS LABELS...1000 for $1...Four lines in black on white...Marion Sumrak...2501 N. Meade Ave...Chicago, Illinois 60639.
- RUBBER STAMP...One to five lines - 75c to $2.00...Address labels - 1000 for $1...Jewel Cole...9-1/2 W. Mountain St...Fayetteville, Arkansas 72701.
- FRUITS, CANDY AND MAGAZINES...Write for prices and order blanks: Chris Ford and Friends...Creative Rehabilitation...Rt. 2...Box 310...Sebring, Florida 33870.
- WEDDING INVITATIONS AND ATTENDANT GIFTS...Also Avon and Stanley Products...Discounts...Jo Ann Goodin...19602 Helen Ave...Detroit, Michigan 48234.
- HARTS SPECIALTIES...Advertising, imprints, novelties, cards, magazines...Blaine Hart...Fairview Rd...R.D. #3, Salem, Ohio 44460.
- POUCHES by Louelen...Of durable white duck...Rarely used on wheelchairs, walkers, crutches - $1.50 to $6.95...Brochure on request...James Hoppe...102 James St...Jackson Center, Ohio 43334.
- MOSAIC TILES Made And For Sale...Martin Lascher...199-23 21st Ave...Whitestone, Long Island, N.Y. 11357.
- BIRTHSTONES And Spiritual Birth Certificates...$1 plus 10c postage...Doris Perry...5330 Harper...Chicago, Illinois 60615.
- WANTED: Betty Crocker coupon from all General Mills products...Michael Bonk...24 Hood St...Brownsville, Pa. 15417.
- MAGAZINES...Don Crain Magazine Subscription and Service Agency...Frenchburg, Kentucky 40322. MAGAZINES...Ed Rosenmauser Magazine Subscription Agency...1714 So. Alameda...Corpus Christi, Texas 78404. MAGAZINES...Agents wanted...Walter Sawyer...Box 90...Austinville...R.D. #1...Troy, Pa. 16947...MAGAZINES...For any hobby...M. R. Wylie...815 11th St., N.W....Puyallup, Wash. 98371.

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IRON LUNG POLIOMYELITICS, INC.
YEAR ENDED DECEMBER 31, 1965

STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS

Receipts:
Gifts:
  General fund $14,673.12
  Dr. Fern memorial fund 1,195.00
  A horizontal editor's salary fund 450.00
  Prize money fund 300.00
  Part-time attendant fund 150.00
  Interest income 71.02
  $16,839.14

Disbursements:
Salaries:
  General fund $2,717.76
  A horizontal editor's salary fund 450.00
  Part-time attendant fund 150.00
  Printing and mailing supplies 3,250.74
  Office equipment and service:
    General fund $916.43
    Office equipment fund 54.99
    Postage 626.45
    Office supplies 554.20
    Books and periodicals 256.63
    Prizes - prize money fund 180.00
    Payroll taxes 87.00
    Insurance 73.74
    Dues 20.00
  $9,337.94

Receipts in excess of disbursement
Fund balances 1-1-65 $7,501.20
Fund balances 12-31-65 $10,421.30

STATEMENT OF ASSETS AND LIABILITIES ON A CASH BASIS

Assets:
Cash: $5,457.31
  Demand
  Savings 5,071.02 $10,528.33
Deposit - Workmen's compensation 5.00 $10,533.33

Liabilities:
Payroll taxes withheld $112.03
Funds:
  General $8,906.08
  Dr. Fern memorial 1,345.22
  Prize money 170.00 $10,421.30

To help us with a tax-deductible contribution, make check to:
IRON LUNG POLIOMYELITICS, INC.
Box 148, Chagrin Falls, Ohio 44022

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 another year, purchase equipment, and defray a portion of the printing costs.

1966
- The Burden Foundation, Louisiana $300.00
- The Dinsmore Foundation, New York 250.00
- The O'Neill Brothers Foundation, Ohio 200.00
- The Elizabeth M. & William C. Truehaft Foundation, Ohio 100.00
- The Cleveland Foundation, Ohio 500.00

And, deeply touched by the thoughtful generosity of the late Dr. Samuel S. Fern's bequest of $1,000.00.

We thank our 315 generous friends, listed below and opposite, for their gifts, received from April 9, 1965, to April 15, 1966, which helped pay for the printing and mailing of this issue:

- AUSTRALIA
  - Mary Loggie
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Audited by Richard E. Joliat, C.P.A.
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May we suggest, instead of flowers to funeral services, a donation to Iron Lung Polio & Muscular Dystrophy Inc. We will acknowledge such gifts with appropriate letters to the bereaved.

And we can send happy-type letters for anniversaries, birthdays, etc.