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## DALE POWERS AWARDED \$1,000

The highest Special Achievement Award given to an employee by the National Park Service over the past several years was presented to Dale Powers, Electronics Technician, in Everglades National Park. An award in the amount of \$1,000 was approved by Southeast Regional Director David D. Thompson, Jr., for Dale's expertise and initiative in saving the government over \$200,000. This savings occurred through

Dale's installation of an intricate radio communication network that connects Fort Jefferson National Monument, Everglades National Park, and Biscayne National Monument.

Superintendent Jack E. Stark presented the award check to Dale at a recent park squad meeting. Dale was asked to give a brief explanation of his radio system to the Superintendent's staff, prior to the award ceremony and with

no knowledge of the award. Following this explanation, the award was presented and Dale stood speechless. Surprised and stunned, Dale expressed his gratitude with a nervous voice and tear-filled eyes. As he gazed in disbelief at the amount printed on the check, he sat down shaking his head and saying, "I don't believe it".

The origin of this happy occasion goes back to early 1970 when the Park was faced with an unsatisfactory old radio system. It was leased and maintained by contract. Communication was poor within the Park and the equipment was in bad shape. It was then decided to replace the entire system and recommendations were requested from everyone in the Park. For convenience it was decided to use the smallest possible portable radio rather than the expensive and heavy pack sets used under the old system. It was further suggested that a radio link be tied to Fort Jefferson and Biscayne National Monuments. The contractor reviewed the Park's needs and reported that the Fort Jeff and Biscayne connection could not be made. He further quoted a price of \$250,000 to provide the portable radio operation within Everglades alone.

Nearly 19 million persons are handicapped in this country. Another 20 million are over 65 years of age. Both groups of citizens in common encounter obvious obstacles to their enjoyment and appreciation of public facilities the rest of us may take for granted. The enlightened administrator is finding ways to remove these obstacles. Representative of this approach are reports from three different sources—State of New York Office of Parks & Recreation, Denver Service Center of the National Park Service, and Mammoth Lakes Campground in the Inyo National Forest.

The New York State organization has been predicated by the principle that mobility for the handicapped or disabled often can be accommodated within existing facilities, or designed into new areas and structures. To that end, it has published a handbook of design standards. The booklet prescribes standards covering both access to public facilities

(Continued on p. 10)



## PLANNING PARK & RECREATION FACILITIES FOR THE BLIND & HANDICAPPED

Each year awareness of a priceless heritage, our natural environment, grows. Record-breaking numbers of citizens using our parks and recreation areas attest to that. But another, even more welcome awareness grows—the realization by many of us and by park administrators, in particular, that this heritage must somehow be made attainable to the nation's handicapped, including the blind.

This prohibitive cost led to the decision that the Park purchase outright the entire radio system and employ a radio electronics technician to design and maintain a new radio system. Electrician Worker Dale Powers was upgraded to an Electronics Technician and given the responsibility of developing this radio network.

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## GRIST

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### Note:

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## WINTER SAFETY TOO

Spreading sand on walks in winter can be an easy task if the walk is wide enough to allow a pickup truck to travel. However, many walks are too narrow for truck use and the sand must then be spread by hand using a shovel and bucket. To make the job easier, Edward E. Countreman, administrative officer at Jefferson National Expansion Memorial, St. Louis, Missouri, suggested that fertilizer spreaders be used to spread the sand.

Ed's suggestion was tried at JNEM during the winter of 1971-72. The only problem encountered was high snow on walks clogging the opening in the spreader and dampening the sand inside. However, on cleared walks this method works well and controls the amount of sand deposited. Ed received an incentive awards certificate for this idea and a "Thinker" tie tack.



## PLANNING . . .

*(Continued from p. 9)*

(including parking areas, walks and trails, ramps, doors, concession stands, and toilet facilities) and use of recreation areas such as swimming pools, picnic grounds, boat docks, beaches, game areas, fishing piers and auditorium/interpretive centers.

In setting forth design standards for toilet stalls, shower stalls, railings and other special equipment for the handicapped, the wheelchair was taken as the determining factor. Although special signs (incorporating an international symbol) have been devised to point out these special facilities, use by other persons is not precluded. The fact that the disabled population is only a small minority of park users suggests that facilities need not or should not be mutually exclusive—only that thought be taken at the outset to accommodate those less mobile in as nearly a normal fashion as possible.

A sensitive, yet down-to-earth practical report with dollar costs, giving criteria for laying out trails for the blind and handicapped, comes from the Park Service's Denver Service Center. It is authored by Lennon Hooper, with quotes from Donna Pastore, a blind braille specialist from the Library of Congress. She makes the point that the design of a nature trail for the blind can be im-

proved by drawing on the viewpoint of a school for the blind, or that of a blind person. For example, she explains that the blind person much prefers relying upon his own mobility and public transportation, rather than depending upon a sighted friend to take him for a walk in the country. Thus, a trail site in a small section of a park in an urban area (provided it were located away from distracting city noises) might be more suitable than the more remote one away from transportation.

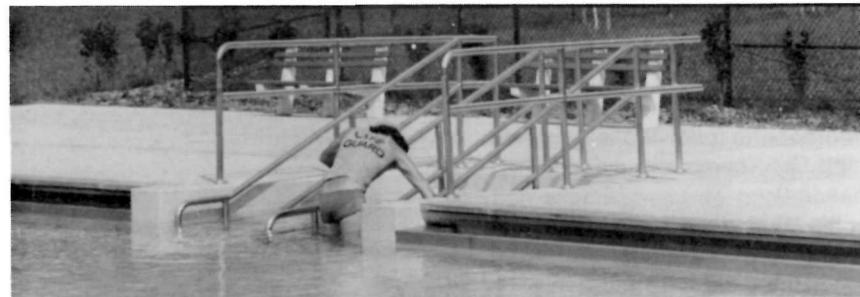
Further, Miss Pastore points out that any trail designed to accommodate the blind and handi-



capped (as well as other park visitors) should be simple in layout and non-tiring. Thus, 1500 feet is suggested as an outer limit, on a circular pattern, with easy gradients and hard surface, for easy maneuverability by those in wheelchairs and by the elderly and infirm. A personal guide should not be needed, but navigational or directional aids should be provided so the blind person can find his own way around the path.

Guide ropes, railings, log or rock curbs, kick rails—these are a few of the devices which assist the blind in negotiating the trail—but the guide rope is preferred, since it allows the person to walk at his own, leisurely rate. Braille signs placed at points of interest, explaining natural sounds, odors and objects to be encountered naturally, will enhance the blind person's enjoyment and satisfaction. The objective of the trail, its design, and the aids placed on it are those of any trail anywhere, for any park visitor—to assist the seeker in developing a growing knowledge and awareness of his heritage—his natural environment.

NPS author Hooper lists other criteria which should be considered in laying out trails for the handicapped, including walking limitations imposed by distance, non-level surfaces and by certain



surfaces and gradients not accessible to wheelchairs; limitations in hearing and seeing; limitations in the use of arms and hands in connection with doors and gates; and limitations in understanding information, directions and warnings.

Finally, he cites the approximate cost of constructing a 1,500-foot long trail, 6 feet wide, with asphaltic hard surface, and embodying these desirable criteria, including guide line with markers, braille signs, and trail symbols as being \$7,465.

From Mammoth Lakes Campground, in the U.S. Department of Agriculture's Inyo National Forest comes a planning booklet for a wide range of campground facilities, including trails designed with the handicapped in mind. In addition to sharing with other administrators the basic philosophy of being aware of the needs of the handicapped in the design and construction of park facilities, the Mammoth Lakes staffers, too,

accepted the dimensions and requirements of the wheelchair as a determining factor. Thus, their campground for the handicapped features paths 6 feet wide, to permit two wheelchairs to pass each other; picnic tables have the center seat cut out on both sides, so that two persons in wheelchairs can join the rest of the party; paved parking spaces are 12 feet wide, leaving ample room for the average auto (up to 6 1/2 feet wide) and a wheelchair alongside, for easy alighting without getting off the hard surface; and toilet facilities have ramps (or are at ground level) and doors providing at least 32 inches clearance.

Acknowledging that facilities can be integrated to accommodate both the handicapped and the non-handicapped, or constructed separately for use by only the handicapped (with family or friends), Mammoth Lakes elected to provide the latter because they found this was the only way to assure space during the heavy, in-season use period. Additionally, they found that raising funds for "the handicapped only" had a broader appeal than for integrated facilities.

The Mammoth Lakes publication describes the many facilities installed in their special campground for the handicapped, including parking areas, general campground design, tables, stoves, water faucets, toilet structures, and even a fishing float with handrails on both sides of the shore-to-float ramp, and all around the styrofoam-floated structure.



(Editor's note: Some of the facilities mentioned here are detailed in our DESIGN book and are discussed in the Jan/Feb/Mar, 1974 issue of TRENDS.)

## KEEP'EM MOWING

From "Lifeline", the Naval Safety Journal, the following is reprinted with no comment added---or needed!

It's that time of year again! Power lawn mowers are retrieved from their hidden nooks in storage areas, dusted off, and then put to use. Unfortunately, in too many cases, that cursory dusting off is about all the premowing attention these sometimes lethal loppers get.

It's amazing how apathetic Americans are towards power mowers. Even when a friend is seriously injured by the beast it doesn't seem to shake us up enough to be more careful.

Well, we're going to give it another go. Considering the number of accidents leading to serious or sometimes fatal injury, a list of power mower safety tips appears in order. Who knows, we might save a few toes, fingers, an eye, or maybe even a life. You have heard it all before, we know, but please bear with us.

We shouldn't have to argue our case. Ask the man who lost a foot last year. And the guy who started with two good hands, but lost three fingers to a whirling blade in



July. If this doesn't convince you, there's the man who lost his wife to a power mower blade that sailed 50 feet and through a plate glass window before striking her.

Try not listening to the couple who lost their 2-year-old girl when a piece of mower blade broke off,

## TABLES ARE MOVED BY THIS MOWER



From Larry VanderWall, park manager at Michigan's Ionia Recreation Area, comes an idea that is saving time in mowing picnic area grass. Larry has equipped a riding mower with a pusher/bumper device made up of steel angles and plate, the leading edge of the device extending an inch or

so beyond the mower's front wheels. With this pusher/bumper, the mower operator can move steel legged picnic tables out of the way for grass cutting, without having to dismount from the mower. Not only can the operator do a faster mowing job (about half an hour saved for a typical 16-table picnic area), he does it in greater safety--by eliminating the potential danger present when getting on and off the mower.

and was hurled 200 feet across the lawn striking her in the neck. You can also talk to the parents of another child who was struck in the heart by a small nail thrown by a rotary mower.

Maybe what happened in those lives can help to convince you.

- .. Check mower for worn and dangerous parts.
- .. Be sure blade does not extend below mower housing.
- .. Do not attempt to make adjustments or refuel while engine is running.
- .. Do not lift or tip mower over while engine is running.
- .. Do not leave mower unattended while engine is running.
- .. Thoroughly check area to be mowed—remove all foreign objects.
- .. Do not attempt to mow when grass is wet or slippery.
- .. Do not allow other persons in the mowing area.
- .. Do not allow children or other inexperienced persons to operate mower.
- .. Do not remove guards or attempt to unclog mower while in operation.
- .. Always push—never pull mower rearward toward feet.
- .. Wear good heavy shoes (preferably safety type) and eye protection while mowing.
- .. When removing or replacing blades or working on other parts of the mower, always disconnect the power (spark plug) wire.
- .. When your mowing job is over for the day, disconnect the spark plug wire and store away from the children's play area.

## ROTTEN LOGS . . . Let'em Lie

The following is reprinted with permission from Park Lites, official newsletter of South Carolina's Division of State Parks and Recreation. The author is the Division's Chief Naturalist, Bob Paffenfus.

People and trees have a lot in common. They both suffer and die from burns, drowning, malnutrition, diseases, infections and old age. Examples of this can be found at Cheraw where an ice storm injured and eventually killed many trees. Pine Bark Beetles have infected and killed hundreds of pines at Croft.\* Many oaks are threatened at Kings Mountain because people have literally been kicking the roots to death.

We remove dead trees in our main day use area. This is done for safety, but elsewhere we should let them stand until they fall and rot where they lie.\* The reason we prefer this is simple; a forest is more than trees. The trees are the building blocks, but a very complex web of life is woven around them. Squirrels, mice, birds, beetles, wildflowers, worms, fungi and mushrooms are all part of this web. A slowly enlarging hole in a dead tree may be occupied over a period of years, by a fungus, a beetle, a colony of ants, a woodpecker, a deer mouse, a squirrel, an owl and a raccoon. The dead roots, the loosening bark and the softening trunk also shelter or feed a host of other wood colonists. The roots gradually weaken until the dead snag crashes to the ground where the final act of the drama takes place.

As the tree lies on the ground, bacteria and thread-like fungi spread through cracks in the dead wood, eating some of it and softening the rest. There is little hint of the wealth of animal life in the trunk until you pull off a piece of

\*Pine Bark Beetle infested areas are the exception.



bark. Ants, centipedes, millipedes, spiders and beetles scurry away. Artistic patterns are made on the exposed wood by the engraver beetle, and red mites creep under shreds of bark. Soon, all the animals have disappeared and there is no visible sign of life.

Underneath the log you are likely to find sow bugs, slugs, snails, spiders, crickets and various beetles. There may be a salamander or two, a toad, a harmless snake, and a mouse's nest with a store of seeds. Living and dying, generation after generation of organisms convert the wood back into soil food and humus which a healthy forest must have.

## VANDAL-RESISTANT BASKETBALL NET

Van F. Anderson, superintendent of parks, and David Stone, supervisor of areas and facilities, Consolidated Recreation Commission in Morgantown, West Virginia, have foiled the vandals! Nets for basketball goals used to be fair game for the nuts who get pleasure out of destroying property. But no more.

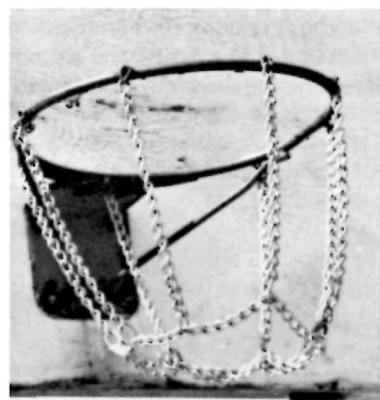
Anderson and Stone have replaced the usual lightweight cord nets on 6 basketball courts with one made of heavy duty chain, about the same weight as winter driving chains. They've welded 8 vertical strands, 10 inches long, around the hoop of each goal. To keep these strands from whipping up over the basket, to the bottom ends they welded another strand of chain slightly smaller in circumference than the hoop.

## STEPS – SO CHILDREN CAN SEE

"Children are park visitors, too, and deserve the same consideration which goes into planning of facilities for the big folks." Thus may have reasoned Park Guide John A. Daley of Colonial National Historical Park in Virginia. He noticed the children, standing tip-toe before dioramas in the visitor's center at both Jamestown Island and Yorktown Battlefield, straining to take it all in—and obviously missing much, and being denied much of the fun and satisfaction which awaits visitors at these places.

So, he suggested, let's construct simple stepped platforms of 2 x 4 and plywood, carpet them, and place one in front of each diorama. And presto—the children would now be included in the family's enjoyment and fulfillment.

This worthwhile idea has been adopted at Colonial—and Daley is award money richer-and well deserved!



Annual savings due to their new "nets" is about \$150—the cost of replacing 6 lightweight nets, including materials and labor. Total one-time cost for the 6 chain "nets" was only \$50, including welding. The chains were purchased at a local hardware store.

## SNAPPY SIGN HOLDER

R. B. Smith, conservation aide at Bonny Dam State Recreation Area in Colorado, has come up with a simple, yet effective way to set out signs temporarily, such as for control of traffic or change of traffic regulations for a short period.

On the back of, and slightly above the mid-point of the sign, two tarp hooks are bolted, with the open ends down, on about 6-inch centers. At the bottom edge, a 3rd hook is bolted, this one with



the open end facing up. Now, to place the sign, it is hooked (by the 2 upper hooks) over the edge of any large container (such as a trash barrel), the bottom being



secured by a tarp snugger anchored under the barrel and snapped over the sign's bottom hook.

Pretty snappy, yes?

## INFLATABLE SPLINTS FOR EMERGENCY FIRST AID

The use of inflatable, clear plastic splints as a standard component of Park Service first aid kits has been suggested by Fire Island National Seashore Clerk-Stenographer Margaret Ellen Glass. The splints would replace the wooden splints and gauze now commonly in use.

The splints, transparent devices, are actually a combination of bandaging and splinting, and are marketed as a proprietary product under the name of Jet Bandage-Splints. In use they are applied by opening the zipper, placing the injured member inside, and then closing the zipper. Next, the inflation valve is opened, with mouth exhalation into the

valve requiring only about 10 seconds for inflation of the device.

Advantages claimed for the inflatable splints include providing immediate control of venous bleeding, preventing injury edema, avoiding danger of tourni-

queting, suitability for emergency bandaging of burns, and constant observation and even X-ray of injuries.

Mrs. Glass, in her suggestion, further cites the advantages the inflatable splints offer in their small size (a variety in a package as small as 12 by 8 by 2 inches, weighing no more than 2 or 3 pounds), their price (comparable to or less than wooden splints), their transportability, and their reusability.

Models of the device are available for use on hands, arms, feet and legs. For further information, write Mine Safety Appliance Company, 201 North Braddock Avenue, Pittsburgh, Pa. 15221.

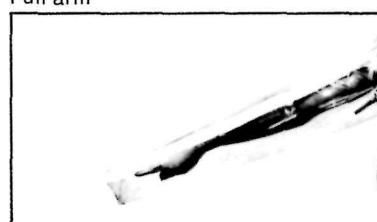
### Ordering information

- 04-38358 Jet Bandage-Splint, hand and wrist size
- 04-38391 Jet Bandage-Splint, half-arm size
- 04-38394 Jet Bandage-Splint, full-arm size
- 04-38392 Jet Bandage-Splint, foot and ankle size
- 04-38393 Jet Bandage-Splint, half-leg size
- 04-38395 Jet Bandage-Splint, full-leg size
- 04-38396 Jet 6 Pac Kit

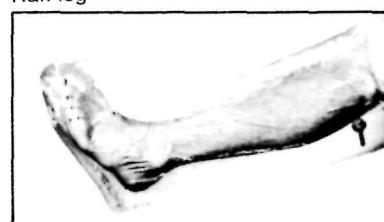
### Hand and wrist



Half arm



Foot and ankle



Full leg



## SIX INCHES FROM DEATH

1



The following incident, which could have been tragic, occurred this spring at Assateague Island National Seashore. Its recounting serves as a warning for anyone working under similar circumstances.

Foundation pilings for an old structure were being removed, using a truck and towline, the nylon towline being rigged to the piling by a two-foot length of 3/8-inch cold shot link and hook. (See pictures 1 and 2). When the truck started pulling, the towline stretched, one of the links broke, and, with a slingshot-like action, the taut line sent the hook flying like a projectile through the rear window of the truck's cab (picture 3), the hook striking and shattering the windshield before coming to rest on the dash (picture 4).

Six inches to the left and the operator could have been maimed or killed. The pictures speak for themselves. Their warning is ob-

4



2



vious. Everyday, NPS, state, county or municipal workers are doing similar jobs, towing or pulling with winch, tow chain, cable or snapline. Remember these pictures and these safety rules: (1) Check your equipment; (2) Locate your people safely; and (3) Use and wear the proper safety equipment.

Finally, ask yourself: (1) Is there a better/safer way? (2) How long since the condition of the line has been checked? and (3) Have I considered all the safety factors?

3



## MOVE TOWARD ENVIRONMENTAL QUALITY

In a continuing effort to save money and resources, the California Department of Parks and Recreation, which has been concerned with the ecology and environmental quality of the state for seventy years, is adopting a new measure to save water in park shower buildings.

Each shower head is being equipped with a flow-control valve that will deliver a maximum of two gallons of water a minute. The average shower head will deliver four times as much--about eight gallons a minute, and some shower heads will deliver as much as twelve gallons a minute.

Department spokesmen said that the greatest saving is in the energy required to heat the water, although the savings in water use and in sewage facilities required to dispose of the used water are also significant.

Another water-saving measure, which has been used in the State Park System for a number of years and will be used increasingly in the future, is opening of the shower buildings only as long as necessary for the camping public. The shower times are not on a rigid schedule but are adjusted to the particular needs of each park unit. The hours of shower availability are posted at each shower building.

In a further move to save resources and improve the beach environment, the Department of Parks and Recreation is modifying all future concession contracts to prohibit the sale of pull-top cans, no-return bottles, and plastic cups. The Department also is strongly encouraging all present concessionaires to eliminate the sale of such containers and to use biodegradable materials wherever feasible--such as paper soft-drink straws.

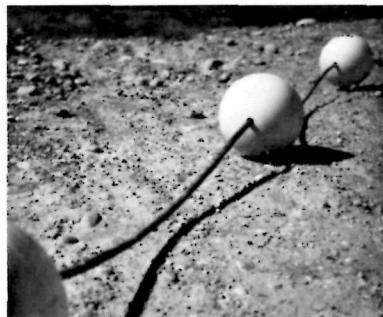
(Continued from p. 9)

## DALE POWERS

Working with the Service Center, Dale assembled a Plan of Action and on his own, started setting up a modern park electronic shop, upgrading the badly neglected existing radio equipment and acquiring additional equipment needed to provide the desired area-wide communication service. Within a few months he had personally installed a modern 375 watt repeater at the 945 foot level of a 1,140 foot commercial television tower. Many tests had to be performed and an antenna system redesigned to provide the coverage required.

Following the installation of this specialized repeater, Dale launched out on a scheme to replace a very expensive but unsatisfactory single side band radio link to Fort Jefferson with modern FM equipment. On a couple of occasions he came very close to succeeding, but it wasn't for several months and many disappointing tests, that he was able to establish this badly needed radio connection. It must be understood that this achievement was forecast by the equipment con-

At Sweitzer Lake State Recreation Area in Colorado old rubber hose enjoys a second life and



contributes to a more attractive, well defined swimming area. Senior Park Manager Everett Langford uses short lengths of old rubber hose to space apart on their connecting cable the buoys which mark off safe swimming areas at the lake. Material costs for the old, worn-out hose is literally nothing; and only a little extra time is required at the start of the season to cut the hose into short lengths and then thread them onto the cable between buoys, as the buoys are being set out.

tractor as impossible. Today, Fort Jefferson personnel can radio anywhere in Key West, Biscayne, or Everglades with a small portable radio, even while on boat patrol.

By June 1972, Dale Powers had single-handedly and with limited guidance from the Service Center, upgraded all of the Park's fixed stations, mobile units, and portable radios. His personal effort, contributions, and ingenuity had resulted in the establishment of a

highly reliable 9,000 square mile area-wide communication system for Everglades National Park, Biscayne National Monument, Fort Jefferson National Monument, and all areas in between. The total cost for this superb radio system, including Dale's salary, amounted to slightly under \$50,000. This outstanding job resulted in a savings of \$200,000, a reduced maintenance cost of approximately \$2,000 per year, greatly improved communication service.

## ANTI-LITTER CAMPAIGN IN TENNESSEE PARKS

"If litter is not your bag, try ours" is the message, big and bold, across the bottom of bags which the Tennessee Conservation Department furnishes to park visitors as part of its anti-litter campaign. Chief Naturalist John Page explains that while the program is directed principally at the youthful visitor, the ultimate targets for the message are parents and other adult visitors—that is the citizens of Tennessee, who are the true owners of the parks.

Here's how it works: the willing volunteer gets one of the big litter bags from the park superintendent or ranger. He or she then forages out into the park, picking up any litter in sight, and eventually filling the bag. Upon his return to

the office, after disposing of the bag of trash in an approved manner, the volunteer receives an award—a handsome certificate, signed by Governor Dunn, Commissioner Hinton, and Director of Parks Boswell, naming the volunteer "Honorary Park Naturalist".

The program is statewide, in all 27 parks. In addition to ridding the parks of litter, the campaign is expected to create a greater sense of pride and proprietorship among park users. And, as the task of keeping the parks free of litter is more and more assumed by the users (or reduced in scope through reduction of littering in the first place), more time will be freed for superintendents and rangers to perform their prime



duties—that of aiding and providing information to visitors, instead of picking up litter.