

GRIST

U.S. DEPARTMENT OF THE INTERIOR
Heritage Conservation and Recreation Service

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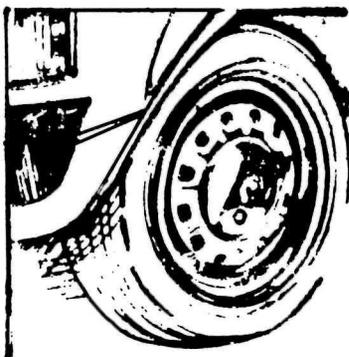
Volume 24/Number 3

Gas-Saving Facts

The following gas-saving tips, published as a public service by Curtis Chevrolet in Washington, DC, should be helpful to park and recreation areas that are trying to conserve energy during these times of soaring prices and dwindling supply.

Keep your tires properly inflated.

Correct tire pressure is a must for maximum mileage, yet it is often overlooked by drivers. Underinflation increases your tires' rolling resistance and, as a result, lowers your gas mileage. So check your tire pressure frequently.



Have wheels properly aligned.

Improper front-end wheel alignment also wastes gas by creating additional rolling resistance. Check your tires regularly for uneven wear, which usually indicates poor alignment.

Drive at a moderate speed. One of the easiest ways to conserve gasoline is to stay within the prescribed speed limits. Excessive speed wastes fuel. For example, most cars will lose about 20 percent in gas mileage driving at 70 miles (112 km) per hour rather than the legal highway speed limit of 55 miles

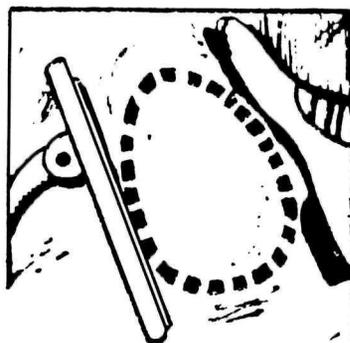
(88 km) per hour. So slow down . . . and save.



Slow down in the wind. Driving in cross- and head-winds also results in fuel economy loss. To offset some of its effects, slow down when driving under these conditions.

An imaginary egg can save gas.

Imagine that there is an egg between your foot and the accelerator pedal. This will help you to accelerate smoothly and avoid gas-guzzling jackrabbit starts.



Angry drivers waste gas. Driving when you're upset or angry usually causes you to accelerate and brake harder and faster, which results in lower gas mileage. So calm down before you drive.

Keep your car in tune. Always look for changes in your car's usual behavior. If

it suddenly becomes hard to start, loses power, hesitates, idles roughly, or stalls, chances are you are losing mileage. An untuned car can be a gas waster.

Pace your driving. Be aware of traffic situations developing ahead of you, so you react efficiently and safely. For example, anticipating stops in advance allows you to slow down gradually—an excellent gas-saving practice. Also, traffic lights usually are timed according to prescribed speed limits. So driving at the correct speed may allow you to "make" all the green lights which saves gas and reduces engine and tire wear too.



Maintain a steady speed. Once you've reached your desired speed, keep it constant. Frequent acceleration and braking reduce your car's efficiency.

Avoid prolonged idling. Whenever you expect to wait more than a minute or two, turn off your engine. Restarting will use less gas than idling. It's also more efficient to let your car warm up by driving it slowly than by letting it run in your driveway. Remember: An idling car gets zero miles per gallon!

(continued on p. 19)

Recycling

GRIST

A publication of the Park Practice Program The Park Practice Program is a cooperative effort of the Heritage Conservation and Recreation Service and the National Recreation and Park Association.

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The Park Practice Program began in 1956 as the result of an agreement between the National Conference of State Parks and the National Park Service, with NPS serving as the primary sponsor until 1979. The program includes: *Trends*, a quarterly publication on topics of general interest in park and recreation management and programming; *Grist*, a bi-monthly publication on practical solutions to everyday problems in park and recreation operations; and *Design*, a quarterly compendium of plans for park and recreation structures which demonstrate quality design and intelligent use of materials.

Membership in the Park Practice Program includes a subscription to all three publications and selected back issues in vinyl binders with indices and all publications for the calendar year.

The initial membership is \$80; annual renewal is \$20. A separate subscription to *Grist* is \$15 initially, and \$7.50 on renewal. Subscription applications and fees, and membership inquiries should be sent *only* to: National Recreation and Park Association, 1601 N. Kent Street, Arlington, Va. 22209.

The information presented in any of the publications of the Park Practice Program does not reflect an endorsement by the agencies sponsoring the program or the editors.

Articles, suggestions, ideas and comments are invited and should be sent to the Park Practice Program, U.S. Department of the Interior, Heritage Conservation and Recreation Service, Division of Park and Recreation Technical Services, Washington, D.C. 20243.

FOR SAFETY'S SAKE

All ideas and suggestions shared in the pages of *GRIST* are presented as guidelines, not final working blueprints. Be sure to check any device or plan you want to adapt for compliance with national, state and local safety codes.



Recycle Old Golf Carts Into Handy Litter Carts

When a new litter control program was started by the Mendocino County (CA) Department of Parks and Beaches, Lead Worker Dave Mathews soon discovered the need for an easy way to collect litter along roadways.

He went to a small junk yard and bought up all the old golf carts available. From these he built several carts to be used by litter control workers.

Basically, the cart has a loop through which a plastic bag is placed, attached

to the cart by a large piece of rubber cut from innertubes. A wire mesh basket holds aluminum and other recyclable materials separate from the rest of the trash. A small platform was welded to fit below the plastic bag to prevent it from tearing as it is filled.

All fabrication was inhouse, using simple welding techniques, and cost was kept to a minimum. Mathews has found that far more trash can be collected with a lot less strain using this cart.

Our thanks to Director Arthur Kramer for sharing Mr. Mathews' idea with *GRIST* readers.

Energy Saving

Help Save Energy— Plant a Tree

It may be more energy-wise to plant a tree than to add a few inches of insulation, claims a director of the American Society of Home Inspectors in a recent *Conservation News*. The National Wildlife Federation publication reported that studies in the northeastern United States have found that strategically locating shade trees can cut home heating costs \$12 to \$106 a year, and cooling costs as much as \$50.

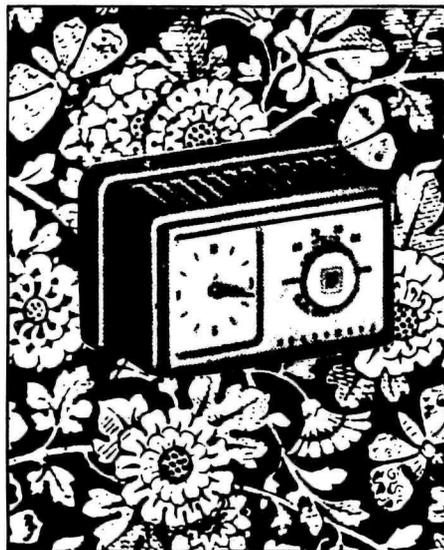
Siting a large-leaved deciduous tree on the south-southwestern side of your



home can equal a half ton (.45 t) of air conditioning capacity, allowing you to get by with a smaller cooling system and less operating time. Plant evergreens on the north side of your property for effective windbreaks. While species with year-round foliage help out with cooling-summer shade, they also block solar gain during the winter.

Obviously, park and recreation buildings would enjoy similar energy-saving benefits through properly sited trees. So do your part to cut America's energy use; save money; and get beauty, shade, and increased property value—plant a tree!

Set Back Your Thermostats When Park Buildings Are Not In Use

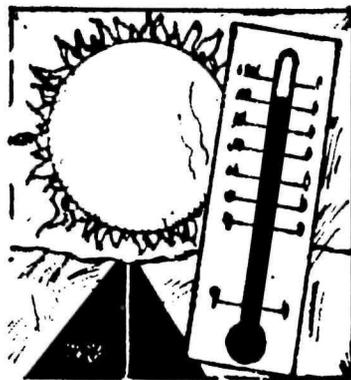


Peter R. Amodei, air conditioning equipment mechanic at Independence National Historical Park (PA), reminds us of an old and obvious way to cut energy use, but one that apparently has not been implemented yet in many park and recreation facilities. Install thermostats with timers in all of your buildings. Instead of keeping the temperature constant in these facilities, set the "night back" thermostat to a lower temperature during the night and other times the buildings are not being used.

Gas-Saving Facts (continued from p. 17)

On hot days, park in shaded areas.

When you get back in your car, it won't be as hot. As a result, you may not need to use your air conditioner as much, or at all. When your car is already hot, open your windows first to let out the hot air, then turn on your air conditioner.



Follow this procedure when starting a cold engine. Press your gas pedal to the floor once before starting your engine. This will engage the automatic choke and should be sufficient to start your engine. If your car requires excessive pumping before starting, it could be a sign that your choke needs adjusting.

An efficient cornering technique. Slow down. Whenever you turn on urban

and suburban streets, rolling resistance increases. As a result, gas consumption also increases. By backing off the accelerator a bit, you'll save gas by reducing the negative effects of curves and turns.

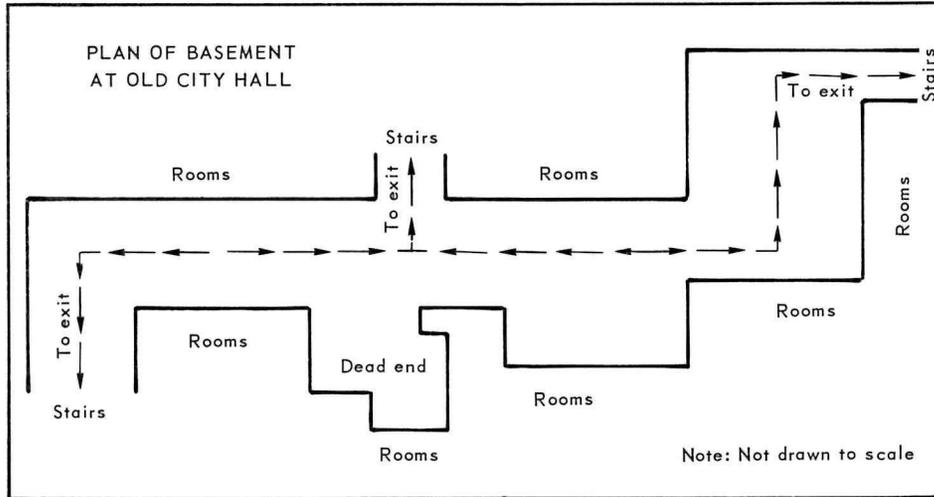
Use your radio to save gas. Many radio stations give daily reports on traffic conditions during rush hours. Make it a point to listen to them so you can avoid long, gas-wasting jam ups and hassles by taking an alternate route.

Team up. Car-pooling is one of the best ways to cut down on your gas consumption. If you share the ride with just one person, you could save up to 50 percent or more on your gas bills!



Safety

Paint a Floor Line to Basement Exits



This fire safety measure, suggested by Constantine J. Dillon, park technician at Independence National Historical Park (PA), could be adapted to almost any building with long or confusing corridors.

Under Independence Square, between Old City Hall and Independence Hall, there is a tunnel filled with equipment, storage rooms, and various offices. The layout is quite confusing and exits are very difficult to find, especially in the

dark or if one is unfamiliar with the area.

In the case of fire, Mr. Dillon realized, it would be almost impossible for people to find the exits, crawling along the floor of the smoke-filled corridor. Mr. Dillon proposed painting a line or series of arrows on the floor, directing people to the basement exits. For greater visibility, the lines should be painted with luminescent paint.

This simple precautionary measure might save many lives in the event of fire.

Grid Maps for Patrols and Crew Activities

A large-scale map of the immediate area often can increase the safety and efficiency of personnel involved in such park activities as search and rescue, fire suppression, VIP security, and special patrols.

Keith R. Langdon, park technician at Shenandoah National Park (VA), suggests a way of making such maps available to all field team and crew members. First, acquire several grid coordinate transparencies, approximately 8" x 10" (20-25 cm), with letters on one margin, numbers on the other, and thin grid lines. Lay the transparencies over selected portions of a United States Geological Survey topographical map (or any other). Then xerox as many copies as needed.

The grid coordinates allow personnel to report accurate locations to supervisors, even if they are from another park or agency and unfamiliar with the area. By using the grid coordinates exclusively to note locations, a high degree of security is possible for such events as VIP visits or poaching patrols/stakeouts, where radio traffic may be monitored. During large fires or search and rescue operations, each grid square can be used to estimate area covered.

The transparencies also can be labelled with a felt tip pen to identify important points, then erased with an alcohol solution, preventing permanent defacement of reference maps.

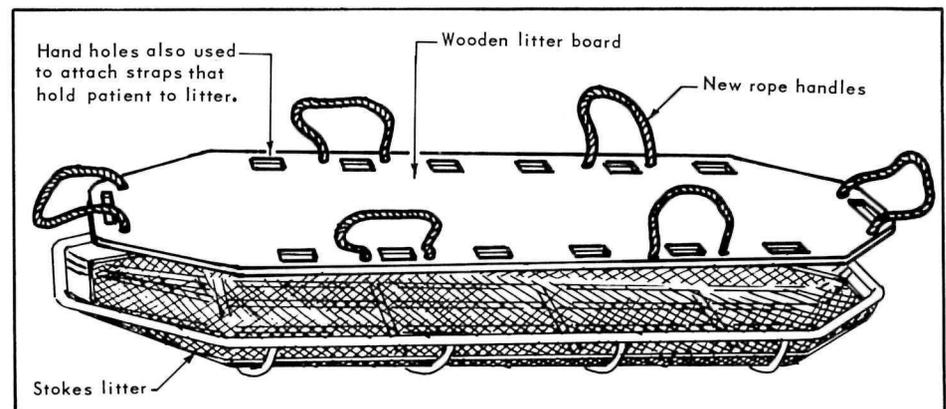
Modified Handles for Stokes Litter Backboard

To help prevent further injury to accident victims, Norman Trout, park technician at Shenandoah National Park (VA), devised this simple modification to the backboard used in a stokes litter.

Wooden backboards frequently are used to support victims suffering back or neck injuries. When such accidents occur in the backcountry, this backboard must fit into the stokes litter for transport over rough terrain. Handles for lifting and carrying generally are cut out of the sides of the backboard. This makes it difficult to lower the backboard and patient into the stokes litter smoothly because the rescue workers' fingers get pinched and caught under the board.

Trout solved this problem by constructing a new backboard. Instead of cutting handles into the sides of the

board he drilled holes along the sides and threaded nylon rope through the holes, making rope handles. The rope handles allow the patient to be lowered smoothly into the stokes litter and help protect the rescue workers' fingers.



Emergency Warning Banner

Park and recreation workers should be aware of LifeSaver, a new 9-foot (2.7m) square emergency warning banner.

LifeSaver contains the internationally-recognized directional arrow pattern, brilliantly emblazoned on the Tyvek banner in federally approved Day-Glo Fluorescent Blaze Orange, outlined in black and highly reflective Cataphote Silver-Alert ink. These elements cover



Microscopic spheres give true focused light rays that return directly to the source.

the ultra-violet light spectrum (natural light) as well as the red light spectrum of headlights and other man-made lighting. Thus, LifeSaver is visible day and night in any weather, for long distances.

The LifeSaver attaches to the rear of any disabled vehicle or convenient object in seconds. It alerts onrushing traffic, giving clear, instant direction, avoiding a disastrous accident. It also aids search and rescue and is extremely effective in disaster and traffic management.

When not in use, the reusable banner folds into a tidy, resealable plastic packet for convenient storage in a glove compartment or trunk. LifeSaver fits vehicles of all sizes and requires no batteries, electrical hook-ups, or pyrotechnics.

The Federal Occupational Safety and Health Administration (OSHA) has recognized LifeSaver as "the single most outstanding contribution in the field of safety," calling it a "simple, inexpensive, safe and reliable product which is a significant contribution in the prevention of rear-end collisions."

Inexpensive and reusable for years, the reflective emergency LifeSaver can give your park and recreation vehicles increased road hazard protection. For more detailed information and price, contact the Government Sales Division of LifeSaver Industries, Inc., 2000 Connecticut Avenue, NW, Washington, DC 20008 or phone (202) 265-0246.



Use the banner on a truck, . . .



a station wagon, . . .



a mobile home, . . .



or an auto.

Library of Congress Selects Park Book for Prototype Voice-Indexed Cassette

The Library of Congress has selected a National Park Service publication—*Access National Parks: A Guide for Handicapped Visitors*—as its first voice-indexed cassette presentation.

Immediately upon its publication in 1978, the book was selected by the Library of Congress for production in both braille and talking-book editions by the Library's National Library Services for the Blind and Physically Handicapped (NLS/BPH). The historic tape is the talking-book edition of the publication which details accessible facilities, services, and programs in all parks and monuments within the National Park System.

The "Access" tape will be a prototype for voice-indexed cassettes and will be used to test reader reaction concerning ease of use, spacing from index word to explanation, and other possible difficulties.

Voice indexing uses words, in this

case the names of parks, to help readers locate specific information. Index words are audible when the cassette is played in a fast-forward mode. The reader then stops the tape and resumes play at regular speed to hear the full entry under that heading.

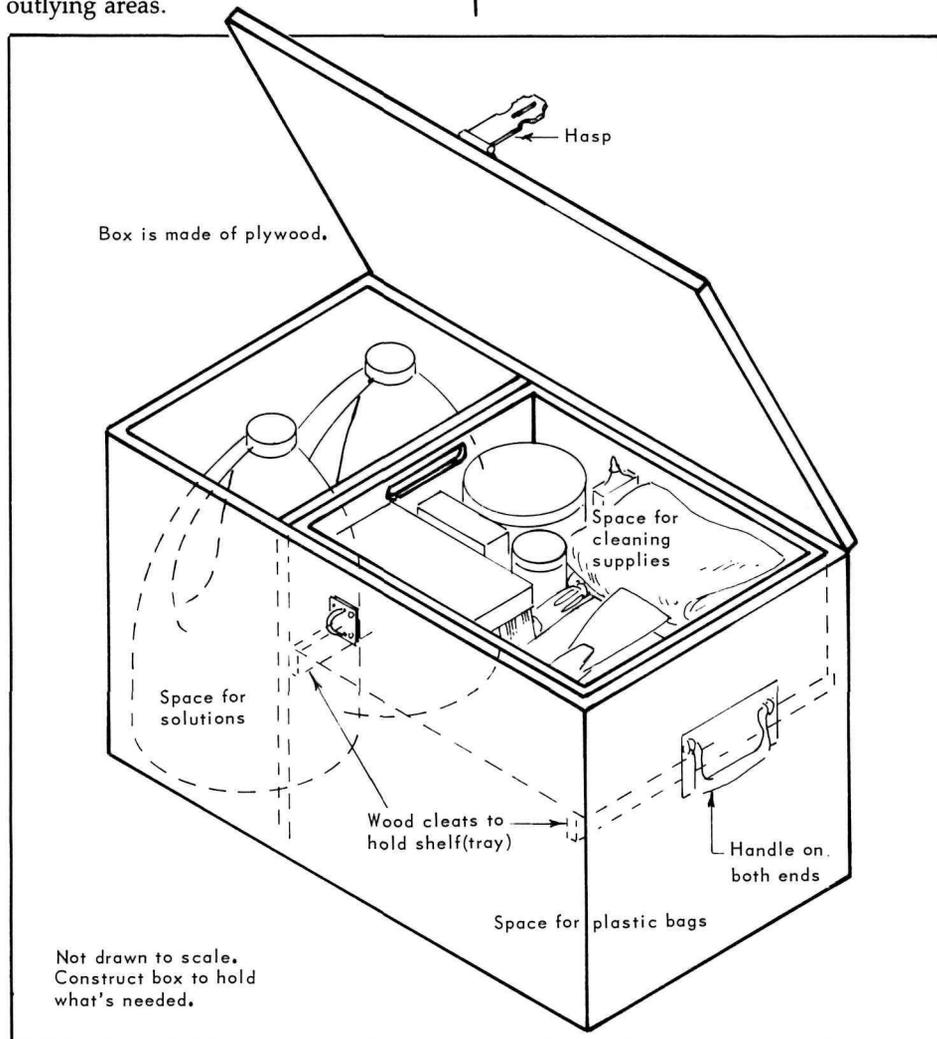
NLS/BPH has developed an automatic machine for producing indexed cassettes that is fast, efficient, and cost effective. The machine rapidly blends two tapes that are narrated individually. One tape contains the text and a tone indicating when index words are required. The other tape contains the index words. The machine eliminates tones and superimposes index words over the text from twelve to twenty-six times the text speed. Record-speed variation compensates for the variation of speed from the beginning to the end of a tape in fast-forward mode. The result is a normally pitched voice in all parts of the indexing.

Maintenance

Cleaning Supplies Storage Box

Mary Jo Danaher, a laborer at Death Valley National Monument (CA, NV), shares a good idea for facilitating the maintenance of restrooms and privies in outlying areas.

Ms. Danaher suggests building this storage box for cleaning supplies, and mounting it onto a truck near the cab. Complete with shelf, handles, and hinged top, the box keeps supplies neat and orderly, protects them, and makes them easier to transport.



Durable Toilet Partitions

D.A. MacEachern, superintendent of Point Pelee National Park in Ontario, Canada, highly recommends a new type of material—Solid Laminated Plastic with Formica Finish—comes in a variety of colors, polished or suede, and can take an extensive amount of punishment and abuse without being marred or cracked.

The park had found that the old standard metal partitions structurally were unable to withstand much abuse without leaving permanent disfigurements. After a few years, they also had a tendency to rust, particularly in unheated buildings. When Visitor Services requested replacements, the General Works division suggested the new material. Now, after a year's service and frequent use, MacEachern reports, the new partitions look as good as they did the day they were installed.

Continues on next page →

Information Needed on Water Recreation Fees

Resources for the Future, a nonprofit research organization, asks the aid of *GRIST* readers in obtaining information needed for a study of water pollution control benefits. The organization's goal is to produce believable benefit estimates for use in national policy making. To achieve this goal it needs to discover what people *actually pay* at fee fisheries, commercial beaches, canoe liveries, and private campgrounds on water.

The first need is to locate a large number of such places. If you work for one, know of one, or use one, please send its name and address or phone number to Clifford S. Russell, Resources for the Future, 1755 Massachusetts Avenue, NW, Washington, DC 20036. Any additional material, such as brochures, will be welcome.

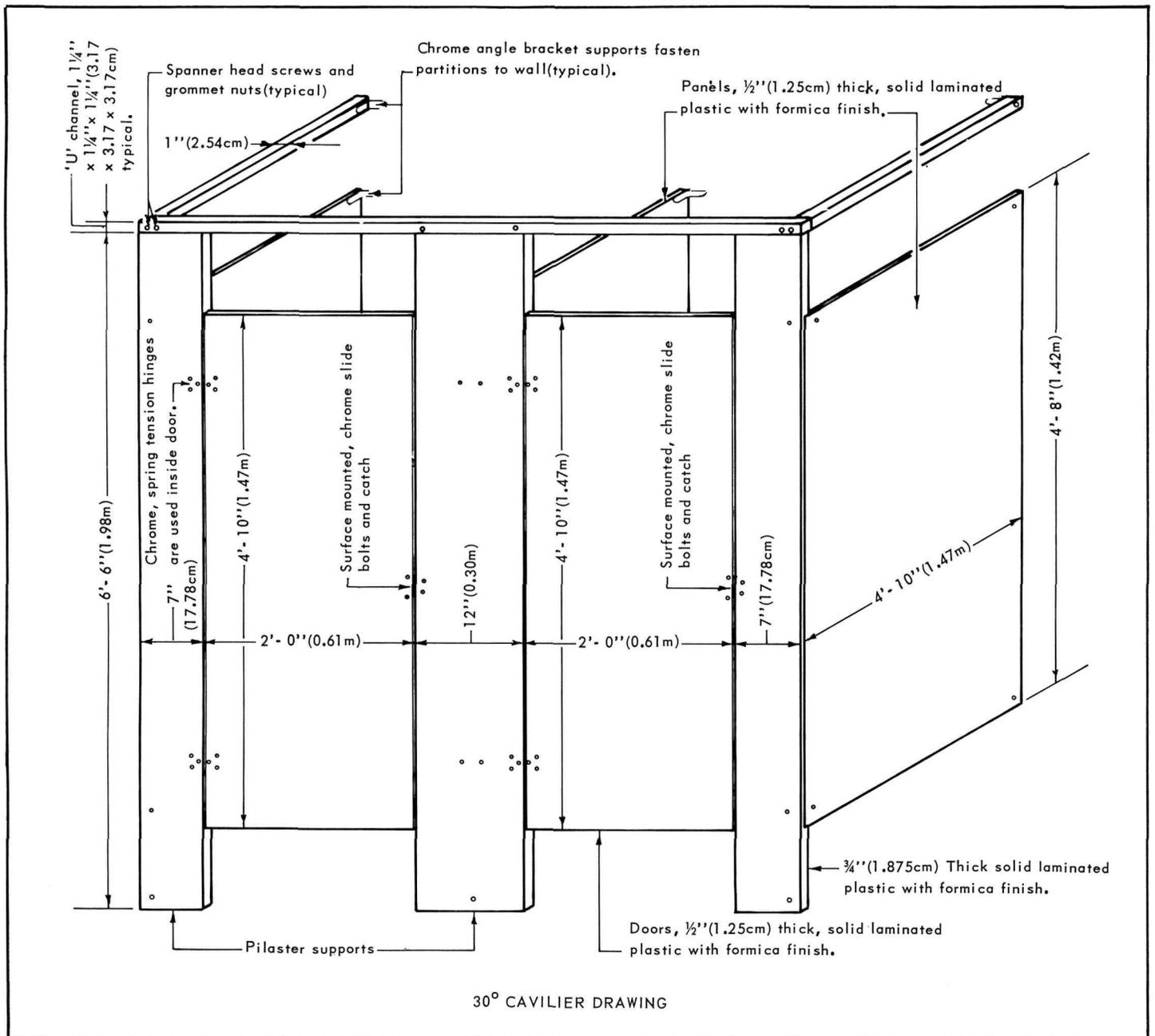
Pop-Top Stacker

Don Black, retired chief interpreter at Joshua Tree National Monument (CA), invented a handy little device which other park and recreation areas might find useful. He modified a coat hanger into a "pop top" stacker. With this clever device a person can pick up hundreds of unsightly pop tops and avoid ending up with an aching back.

At Joshua Tree, mild rivalries

developed among interpreters on roving patrol to see who could pick up the most tops.

Through use of this simple invention, visitor contacts soared. The idea caught on and campgrounds miraculously grew cleaner. One boy even returns each year to ceremoniously present his accumulated pop tops to the interpreter who introduced the idea to him.



The laminated plastic material has a clean, modern, appealing appearance that MacEachern feels helps deter vandalism.

Use of this material does entail higher labor and material costs initially. Material cost per square foot (.09 m²) is \$4.72 of 1/2" (1.25 cm) sheets and \$5.71 for 3/4" (1.875 cm) sheets; the additional labor cost is due to cutting and fitting. However, the initial installation cost is more than offset by less maintenance and vandalism.

The following special tools and tips are helpful when working with the solid laminated material:

1. Carbide tip general purpose Simonds blade, or its equivalent, for cutting sheets to size.

2. Carbide tip #3 flue drills should be used at a slow drill speed.

3. Holes should be planned and drilled prior to installation.

The workers found that if the material wasn't lying flat, it had a tendency to shatter to a minor degree at the opposite side of the hole being drilled.

Overall, MacEachern feels the advantages far outweigh the disadvantages, and urges other park and recreation areas to consider this new material, available from Cyanamid of Canada Ltd., in Montreal.

Storage and Training

Brochure Rack with Posted Map



Thomas Chalmers, equipment operator at Ole Bull State Park (PA), shares another useful idea with *GRIST*.

Modifying a standard brochure rack design, Chalmers left out a portion in the center large enough to contain a posted road map for visitor orientation. The cubicles then were made to fit each size brochure the park used.

Chalmers' design can be adapted to any situation, making more or less brochure space as needed. The enclosed map can be either a highway or park area map mounted under plexiglass.

Training Seasonal Employees

The training of seasonal park employees poses problems for many managers. The care and use of park equipment such as lawnmowers, chain saws, tractors, electric meters, axes, welders, even hammers must be thoroughly explained.

Thomas L Gregory, assistant superintendent at Seashore State Park in Virginia Beach (VA), shares one method of instruction that has worked for him.

Each seasonal employee must pick a tool and present a training session on that tool. The employee "instructor" is provided with any operating manuals or written material available on his or her

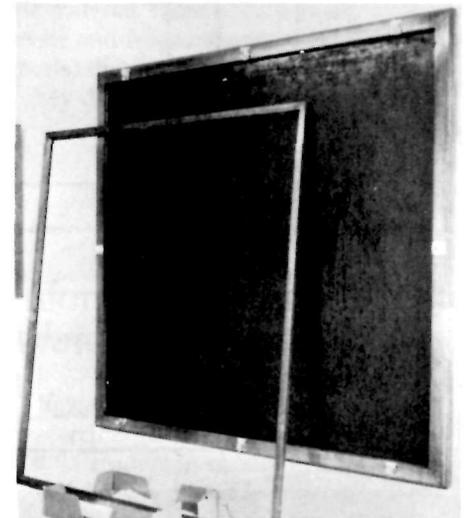
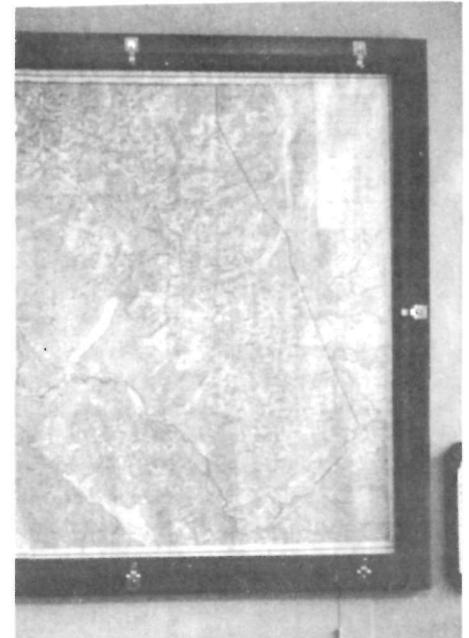
Reusable Frames For Office Maps

On the wall of just about every ranger or maintenance office, at least one large map of the park or recreation area can be found. Such maps are indispensable in planning and directing the management of the park. Usually these maps are thumb tacked or taped to the wall. When they must be replaced or moved, the tacks and/or tape leave ugly scars which must be plastered or painted. If a map must be moved for any reason, it is almost impossible to prevent some damage to it.

To remedy this problem, Lyle Strand, a carpenter at Glacier National Park (MT), suggests protecting both the maps and the office walls by using reusable frames. Strand's device is essentially a frame within a frame. The inner frame holds the map in place within the outer frame. Storm window clips mounted on the outer frame keep tension on the inner frame and map. To provide a smooth, stable backing, $\frac{1}{8}$ " (.3125 cm) masonite is used.

These frames can be built in about one hour. Approximately \$8 worth of materials are needed for a 24" \times 36" (50 \times 90 cm) map; \$10 for one measuring 38" \times 42" (95 \times 105 cm).

Using the frames prevents damage to the maps (topographical maps of Glacier National Park, for example, cost \$2 each) and to the walls. In addition, the framed maps enhance office appearance.



topic and is assisted by permanent employees, when necessary, in preparing the session.

These sessions are held once a week. They last about half an hour and are attended by all available employees. Every session stresses safety to a certain extent—what safety equipment to use, the purpose and limitations of the tool, and proper care and maintenance of it, etc.

Through these sessions, employees have learned to use tools more efficiently and safely. The condition of the equipment also has been improved noticeably.

Photo by John Roderick, Jr.

