

GRIST

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Tips on Storing Artifacts

Of the three and one-half million artifacts and objects in the custody of the National Park Service, no more than one or two percent are on public display at any given time. Therefore, the greater part of our historic artifact resources are in storage at any particular moment. Similar situations probably exist in many state and regional parks.

These park study collections—all museum specimens not on display—constitute a valuable park resource. Their value can be expressed in terms of dollars, research potential, or as interpretive tools. As resources, study collections certainly merit the provision of adequate and proper space to secure their conservation and protection and to provide for their effective later use as tools to stimulate understanding and appreciation of cultural heritage.

Certain considerations must be given to selecting storage space for museum specimens. The following are tips provided by the National Park Service Division of Museum Services, located at Harpers Ferry (WV):

1. The space must be environmentally adequate. There should be a stable humidity and temperature. The exact level of humidity or temperature will depend on the geographic location of the collection. The most important consideration is that neither temperature nor humidity fluctuate greatly in any short period of time. Temperature must remain above freezing and below 80° Fahrenheit (37°C). Relative humidity should never exceed 70 percent.
2. Storage rooms should be physically secure. This means they should be isolated and lockable. Access to rooms containing the museum storage



Objects, over 100 years old, retrieved from the steamer Bertrand are being prepared for storage.

collection should be limited to people with responsibilities for the collection.

3. The room should have no other uses. A proper storage collection room is dedicated to that single purpose.
4. The space selected for the storage area should be adequate to accommodate the peculiar characteristics and quantity of each park collection. For instance, collections with a great deal of furniture require large amounts of space so the furniture can be properly stored without having pieces stacked on one another. Collections with large amounts of archeological material might be consolidated by proper use of standard specimen storage cabinets. Space allocated for the study collection should not be skimpy.

5. The available space should be planned by knowledgeable persons so that specialized storage equipment can be used to efficiently organize the space and provide the best protection for the objects being stored. Examples of such specialized equipment are rolling racks for hanging framed art prints or oil paintings, special cabinets for costumes and textiles, and special containers for storing historic paper.

A good storage space includes all of the criteria mentioned above. Working within these guidelines, museum directors can allocate the storage space that would be most convenient for staff members having to work with the collection and to the public which will ultimately use the study collection area.

Ingenuity

GRIST

A Publication of the Park Practice Program

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

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The Park Practice Program includes: *Trends*, a quarterly publication on topics of general interest in park and recreation management and programming; *Grist*, a bimonthly publication on practical solutions to everyday problems in park and recreation operations including energy conservation, cost reduction, safety, maintenance, and designs for small structures; *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 a library of back issues arranged in binders with indices and all publications for the remainder of the calendar year. The initial membership fee 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 North Kent Street, Arlington, VA 22209.

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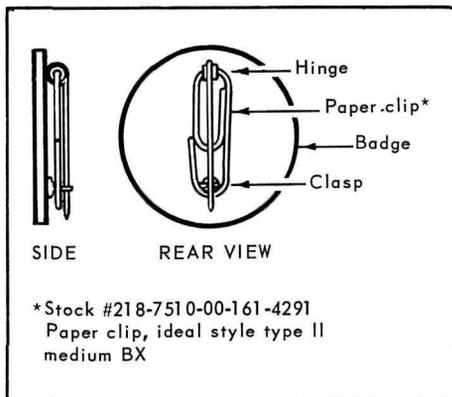
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FOR SAFETY'S SAKE

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.



Improvise a Badge Stick-Pin That Holds!

Robert L. Lloyd, labor foreman at Pine Grove Furnace State Park (PA), shares this idea for improving the stick-pins that hold on officer badges.

Most badge losses, Lloyd notes, are caused by the failure of the small hinge pin that holds the stick-pin to the badge. Lloyd suggests you eliminate this possible mechanical failure—and loss of the badge—by removing the hinge pin (just file off one peened end) and substituting a medium-size paper clip. When one end of the paper clip is threaded through the hinge hole, the other end will drop down over the clasp post and remain there out of the way. The paper clip can't fall out and it is made of a metal hard enough to wear well.

Try the Partnership Approach

Would you like to stretch your personnel resources, save money on shop fabrication jobs, and help train future workers? Leon D. Clark, maintenance foreman at Glacier National Park (MT), proposes one creative way of doing all three.

On smaller jobs that are not too technical, Clark suggests that you contact local high school industrial arts shops to see if students would like to do the projects for work experience. Not only does the park realize monetary savings from the contributed labor, the students also benefit from the practical work.

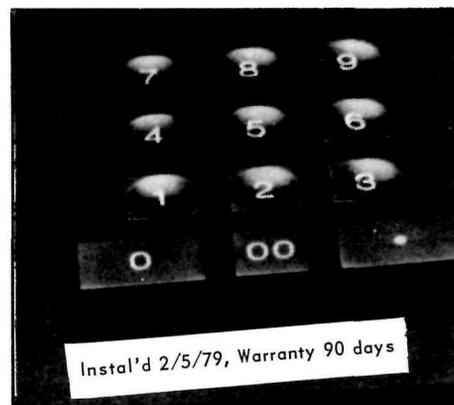
Save Money—Record Equipment Installation Dates!

Here's a simple, yet valuable tip that can save park agencies money on the servicing and adjusting of office equipment.

Edith Duarte, purchasing clerk in the Western Regional Office of the National Park Service, suggests that the date of installation or delivery be recorded somewhere on new office equipment such as typewriters, adding machines, calculators, dictaphones, and other electronic devices. This helps identify equipment still covered under warranty, since the warranty period generally begins from the date of installation and covers all adjustments for three months, all parts for one year.

Due to personnel turnover and machines being moved around, Ms. Duarte notes, many employees using such equipment are unaware of their installation dates. When a machine requires service or adjustment, the employee using it usually calls the contractor who has the mandatory service contract for the office. This bypasses the manufacturer's warranty service which is generally better, more specialized—and free!

Recording the installation or delivery date on all office equipment helps avoid this mistake. Employees can see at a glance whether or not their equipment is still under warranty; can save the agency money by using the warranty service; and ensure that the equipment gets the quality service that only the manufacturer's trained technician can provide.



Recycling

The Suitable Bottle



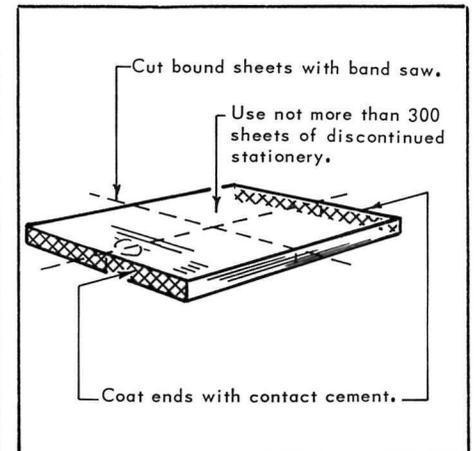
Ever wonder just what happens to the bottles you return for recycling? Here's one example!

Just 26 soft drink bottles, made of polyester, can be recycled into this coat and pants, says Goodyear, maker of the polyester used in the bottles. Two more bottles will make the tie.

The polyester bottles, now being used by Pepsi-Cola and Coca-Cola, can be converted into hundreds of useful products, from adhesive tape to zippers. For further information about these "suitable bottles," contact the Goodyear News Bureau in Akron, Ohio. Phone: (216) 749-2490.

And keep up your bottle returns!

Recycled Scratch Pads



Here's another recycling idea—a new use for discontinued stationery and office forms that are printed on one side, blank on the other. Make them into scratch pads!

Forrest E. Gladden, III, assistant superintendent of Fairy Stone State Park (VA), suggests that you coat both short ends of a stack of stationery with contact cement. Then bandsaw the pack into four sections. This will give you scratch pads approximately $4\frac{1}{4} \times 5\frac{1}{2}$ inches (10.6 x 13.8 cm) made from material that normally would be thrown out.

For easy handling, Mr. Gladden recommends that no more than 300 sheets be glued up in a "pack."

Maintenance

Rolling Dumpster

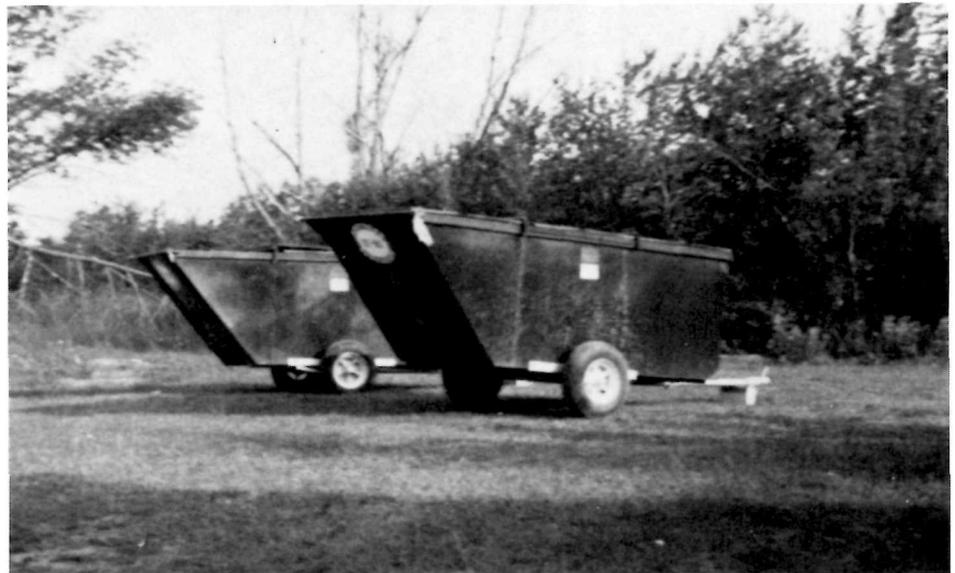
Last Spring, Straits State Park (MI) tackled solid waste collection and disposal for the coming peak summer season by renting two 8 cubic yard (6.08m³) refuse containers and negotiating with a contract vendor for daily dumping of the units. Unfortunately, the first week of filling the refuse hauling truck and then trying to dump into the container, proved to be a chore not worthy of all the effort and mess.

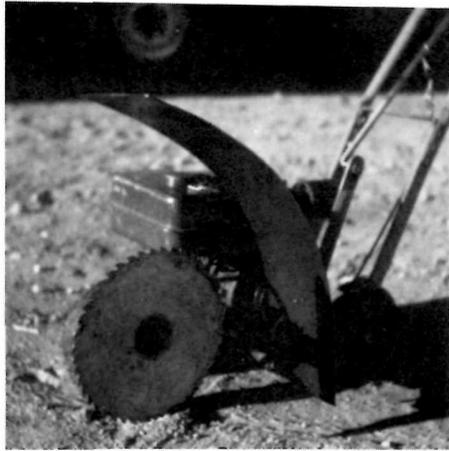
Then CETA worker Giles Litzner came up with a way to improve the system. Litzner suggested that the containers be mounted on individual trailers and towed into the field to collect park refuse directly.

The park purchased two sets of used housetrailer axles for \$100 apiece. Then with scrap pipe and angle iron plus a new trailer hitch, the staff fabricated two husky trailers and mounted the containers. Total cost per unit amounted to \$125.

The trailer system proved its worth in many ways. Not only did it solve the messy problem of trying to dump a full load of refuse into a container, it also eliminated the need to handle the garbage twice. The 1 ton (0.9t) tow vehicle, clean of refuse during the non-peak seasons, stands ready for immediate service on other maintenance jobs. Since this system does not haul directly on the truck, the more versatile low racks can be used. Finally, the contract vendor can pick up the containers, using the rear load winch, with the trailer attached to dump the refuse in the packer truck.

The Michigan Vehicle Code does not require licenses on these units to travel from one location to another over public highways. And safety chains from the hitch to the slow-moving vehicle symbol on the rear meet minimum requirements. Before adapting this idea, however, be sure to check your own local standards and requirements.





Faster, Easier Trenching for Control Cables

Howard L. Avery, maintenance worker at Lake Mead National Recreation Area (AZ, NV), shares a way of saving time and manpower in cutting trenches for control cables. For quick and easy trenching prior to laying electric control cables to solenoid valves in automatic sprinkling systems, Avery suggests using a gas-powered lawn edger.

First, take off the regular blade and guard and replace them with an old 10 $\frac{1}{4}$ " (25.6 cm) or 15" (37.5 cm) table saw blade



(rip type works best). Then, set the saw so it will cut a $\frac{1}{2}$ " wide (1.25 cm) trench. Bush the hole down to fit the edger shaft; put the blade on reversed; and add a larger temporary guard with C clamps. This will cut a trench 4" (10.7 cm) to 7" (17.5 cm) deep in a short time.

If a deeper trench is needed, use a $\frac{1}{8}$ " x 2" x 14" or 15" (.3 x 5 x 36 cm) flat iron. Bend one corner of the blade on each end about $\frac{1}{4}$ " (.625 cm). Be sure the corners are bent opposite each other. Then, drill a hole the same size as the edger shaft, and your tool is ready for use.

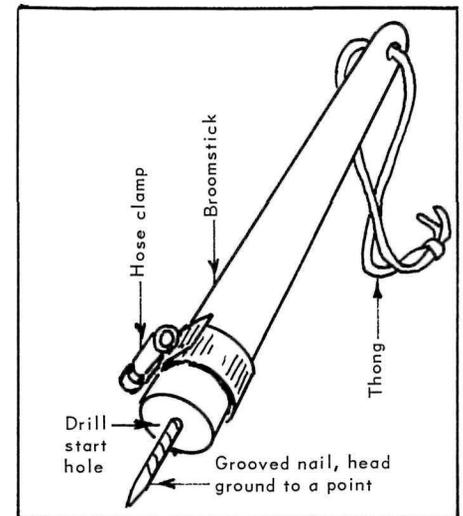
Use of this method reduces the time of trenching by 1/3, claims Avery. After the control cable is in the ground, a little sand will cover it, and the trench is so small, it is hardly noticeable in the lawn.



Trash Picker to Use While Mowing

Sooner or later, many park workers are faced with the problem of how to pick up the trash that gets in the way of their mower. A simple and inexpensive solution can be this elaboration of the classic stick and nail, suggested by Park Aide/Intern Randy Welsh, of Malad Gorge State Park in Idaho.

Find an old broomstick or small rake handle and drive a 16p grooved nail into one end. The grooves help the nail stay in the wood better and help hold the litter too. Drilling a starter hole in the stick will reduce chances of the wood's



splitting. A hose clamp will stabilize the nail—and work wonders should splitting develop. When the nail is securely in place, grind the head carefully to a fine point. Then drill a hole through the opposite end for a string or leather thong thread; this loop eases storage and gives better control while picking up litter.

Now where does the trash go? A plastic 2-4 ml garbage liner and a ring of inerttube complete the set. Cut the inerttube ring to fit snugly over the gas cap of the mower. Place the liner over the gas cap, then stretch the rubber ring into place around the gas cap. The liner will hold firmly and can hang over the coolest side of the mower away from moving parts.

When not in use, the picker can be fastened behind the mower by its cord and the garbage liner hangs out of the way all the time.

Safety and Security

Firearms/Evidence Lockers

Joseph R. Tomasovic II, park technician at Independence National Historical Park (PA), has a great suggestion that solves two problems at once—firearms safety and a secure chain of custody for evidence.

Tomasovic discovered that there were times when the protection staff needed a place to safely stow their weapons. When rangers were out on the street, for example, their weapons sometimes were left unattended in a briefcase at the Protection Center. This practice seemed to invite the possibility of weapon theft or accidental discharge by an innocent park visitor or park employee. Another hazardous condition existed when prisoners were brought back to the Protection Center for processing and had their handcuffs removed for fingerprinting. If the ranger were wearing his gun in his holster, the prisoner could seize an opportunity to grab it, thus creating a deadly situation.

Another storage need existed simultaneously at the Protection Center—a place to secure evidence. Tomasovic found that evidence was generally handed over to a criminal investigator. But the squads did not have an investigator working seven days a week. Often evidence had to lay around

the Protection Center until an investigator was there to receive it. Although the evidence was stored in an "evidence locker," at least six keys, assigned to various staff members, could open that locker—leaving adequate grounds for a sharp defense attorney to ruin an otherwise strong case on sloppy chain of custody procedures.

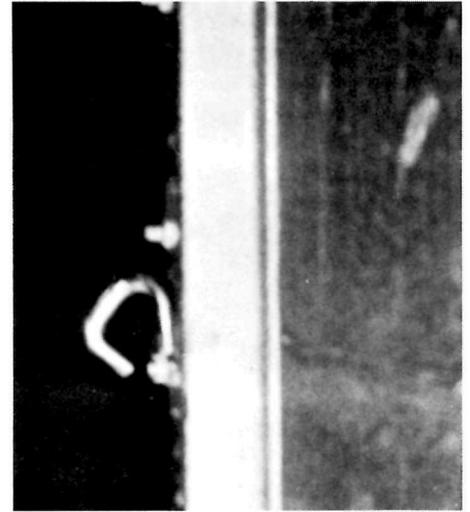
Tomasovic came up with two possible solutions to both problems at once. Solution 1 was to purchase a commercially made gun locker for each ranger. Both weapons and evidence could be stored in the locker safely. Each locker would have two keys—one for the ranger, the second, a master key which would remain in the possession of the evidence officer at all times. Whenever convenient, evidence could be removed from the gun locker by the investigating ranger and be given to *one* evidence officer to be placed in the evidence safe.

Solution 2 called for simply enclosing the fronts of enough hat racks with fronts and locks to create gun/evidence lockers, using the same key control system outlined above.

These two solutions can help save human lives and prevent serious injuries from accidental discharge of firearms. It also allows the ranger to go into court with an almost perfect chain of custody and makes him or her look more professional in the eyes of the court.

Rope "Tie Downs" for Trucks

Ranger Gary Olsen, of Straits State Park (MI), suggests that the cold shuts commonly used to repair broken tow chains can make great rope tie downs for trucks equipped with low racks. The $\frac{3}{8}$ " (.9 cm) cold shuts pictured here can effectively secure mowers and other equipment in transit or serve as ties for tarps and other light materials.



Rid Your Buildings of Problem Bats

Have your large buildings been serving as unwilling hosts to bats lately? Between leaving droppings, damaging stored materials, and spreading communicable diseases, these creatures can truly bring havoc to park buildings. But William L. Myers, buildings foreman at Glacier National Park (MT), has found an effective way to rid your facilities of these pests.

Myers suggests bat-proofing large buildings with the commercially available spray Mono-Therm. This product can be sprayed onto any surface, filling cracks

and voids to stop bats from entering the area. As a bonus, the Mono-Therm also has an insulating factor and is fire resistant.

The spray proved most effective on the upstairs storage area of a supply center building at Glacier and saved the park thousands of dollars. Myers estimates it would have cost \$6,000 for materials and labor needed to completely sheet the storage area with plywood; using Mono-Therm, the area was bat-proofed for \$446 and the job was completed in one work day.

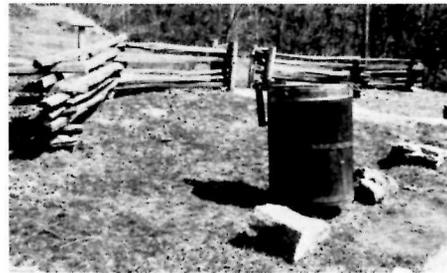
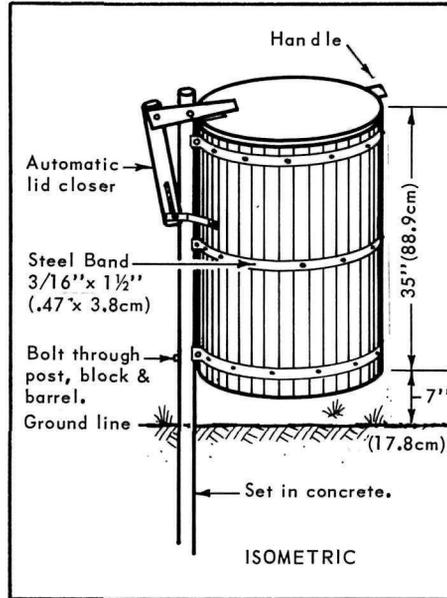
Think Metric!

Barrel-Like Trash Receptacle

Parks looking for a strong, attractive trash can that blends in with natural surroundings might try this idea sent in by Troy A. Robertson, automotive mechanic at Cumberland Gap National Historical Park (KY, VA, TN).

To make a barrel-like trash can, Robertson starts with a 55-gallon (209 l) oil drum. Then he takes old oak boards—old barn boards are ideal—and cuts them to the height of the drum, about 35 inches (87.5 cm). He makes a cut $1\frac{1}{2}$ inches (3.8 cm) wide on a 15 degrees bevel the whole length of each board. To make the boards fit flush on the side, he next cuts two grooves in the boards to fit the external grooves around the side of the drum. Then he bends around the boards three mild steel bands $\frac{3}{16}$ " x $1\frac{1}{2}$ " (.47 x 3.8 cm) with a $1\frac{1}{2}$ inch (3.8 cm) lip into which a $\frac{3}{8}$ inch (.9 cm) bolt is inserted to pull the bands tight around the barrel.

The post and automatic lid closure shown can be ordered from Kay Park Recreation Corporation, Jamesville, Iowa 50647 at a cost of \$23.85 each.



Self-Guiding Metric Trails

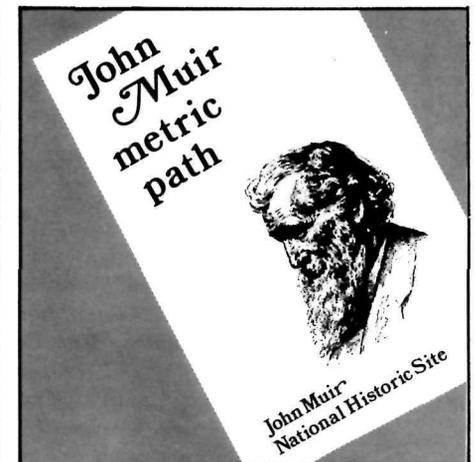
As we move rapidly toward adapting the metric system across the nation, it has become increasingly apparent that more and more concrete examples are needed to illustrate this form of measurement.

At the John Muir National Historic Site (CA), unique, self-guiding trails provide not only entertainment . . . but basic lessons in "metric" as well.

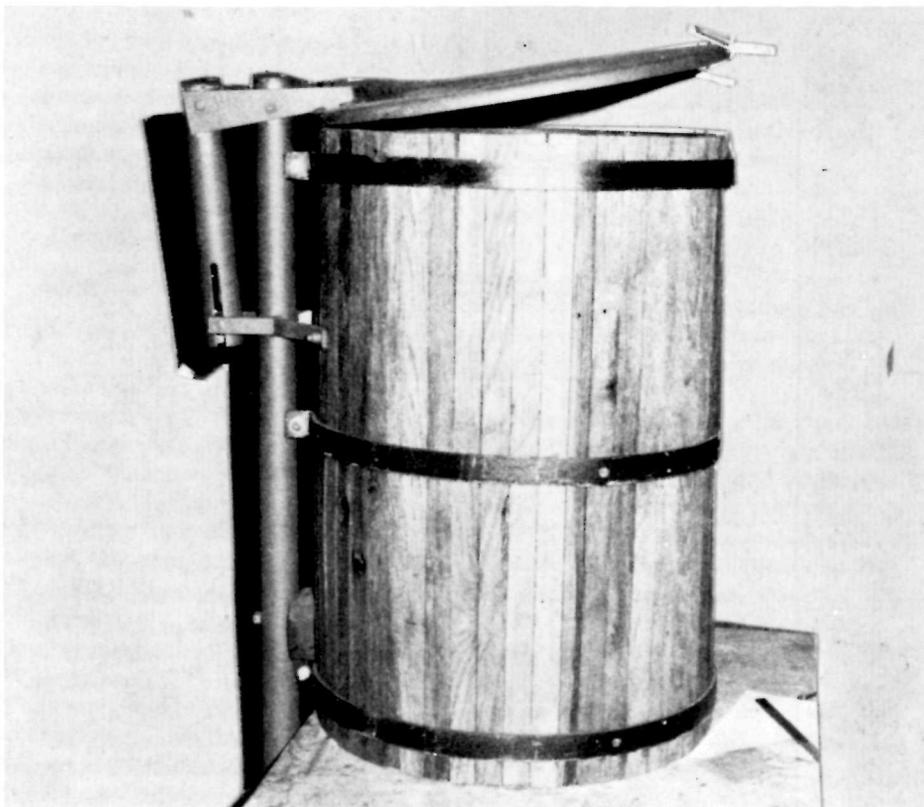
Mr. P.J. Ryan and Mr. James A. Tuck, park ranger and park technician, have sent in a copy of the innovative pamphlet they use to introduce the self-guiding Orchard Trail. Various features of the orchard are used as examples of the metric system's types of measurements—length, capacity, weight, area, and temperature. Very few additional changes to the existing trail were necessary.

The trail is directed mainly toward elementary school students who have had at least some background on the metric system in their classrooms.

This kind of trail is more applicable at a site which has a number of schools in the vicinity. However, the concept could be considered when revising the texts or outlines of new trails. The metric systems could be discussed at appropriate stops along the trail to bring the system more to life for visitors.



By utilizing the metric system in the parks, we can more effectively serve the public in education. It will also help the public understand this system which more and more parks are now putting into general use.



NPS Awards

Three outstanding articles, submitted to the Park Practice Program's publications by National Park Service personnel, have been cited for their contribution to park and recreation management. An editorial/advisory committee reviewed all material which appeared in 1978 issues of *Trends*, *Grist*, and *Design*. Based on its recommendations, the following Awards of Excellence have been made.

William C. Everhart for his article, "Park Forecasting," which challenged a number of popular, long-held premises basic to park management. The article appeared in the Winter 1978 issue of *Trends*. A distinguished employee of the National Park Service for more than 25 years, Mr. Everhart retired last year from the position of Special Assistant to Director William J. Whalen. He now teaches at Clemson University in South Carolina.



"Are there limits to growth?"

NEWS RELEASE

u.s. department of the interior

national park service

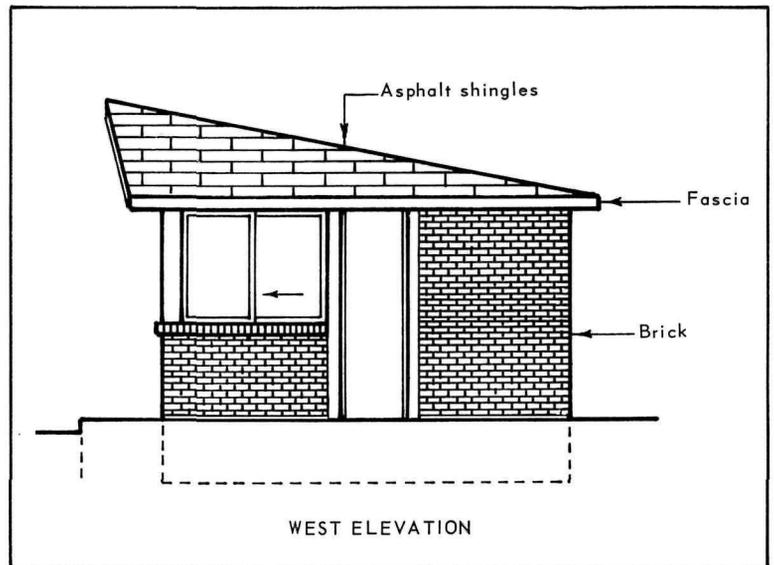
Roger Giddings for his "Saving Cents on News Releases" submission to the September/October 1978 issue of *Grist*. Mr. Giddings suggests sending out park news releases as self-mailers rather than using envelopes. Mr. Giddings is a management assistant at Grand Canyon National Park in Arizona.

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Robert Campisi for his "Triangular Entrance Station" plan, which appeared in the Spring 1978 issue of *Design*. This dramatically shaped, low-maintenance structure was designed for the George Washington Birthplace National Monument in Virginia. Mr. Campisi is a designer at the National Park Service's Denver Service Center.