

GRIST

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Removal of Asbestos-Containing Material

There has been much recent notoriety given to asbestos exposure and its potential health hazard. Current OSHA regulations do not adequately address sprayed asbestos demolition. Because many park systems are involved with the renovation and demolition of structures that may contain asbestos, the following Environmental Protection Agency guidelines on asbestos stripping should prove useful.

In addition to the information cited here, EPA has published two guidance documents—"Asbestos-Containing Materials in School Buildings: Part 1" and "Part 2"—which offer invaluable assistance to anyone trying to identify or strip this hazardous substance. While the documents were prepared specifically for school buildings, EPA emphasizes that the advice and suggestions contained apply to *any* building. These guidance documents give clear, step-by-step instructions. They also contain copies of the EPA Asbestos Survey Report and list state and regional sources of help, complete with toll-free telephone numbers. For further information or to request copies of these guidance documents, call the following toll-free number: 800/424-9065.

The preferred method of eliminating hazards from sprayed asbestos exposure is the complete removal of all materials containing the substance. While this eliminates any future exposure, great caution and proper protective procedures must be exercised in the stripping process. The following steps should be taken:

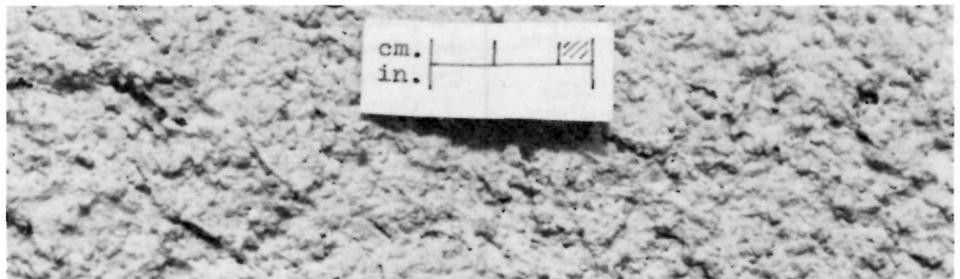
1. Isolate the work area heating and ventilation system to prevent contamination and fiber dispersal to other areas of the structure during stripping.
2. Remove as much furniture,



Removal, disposal and clean-up.



Removed material in drum with plastic liner.



What will friable material look like? Irregular soft surface (usually applied by spraying).

equipment, and miscellaneous items as possible from the work area. Seal anything remaining with polyethylene sheeting.

3. Isolate the removal area and restrict access according to OSHA regulations. (Seal corridors and entry ways with polyethylene barriers. Set up decontamination area.)

4. Remove ceiling-mounted objects such as lights, partitions, and other fixtures. Potentially significant exposure may occur from contact with the ceiling.

Localize water spraying during fixture removal to reduce fiber dispersal.

5. Remove the asbestos. If dust is dislodged, spray and respray with water as required.

6. Remove the debris. Collect and label the material according to OSHA regulations using 6-mil or heavier plastic bags. The use of 55-gallon (209 l) drums is recommended as a secondary containment for the bags.

(Continued on p. 34)

GRIST

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

William J. Whalen, Director
National Park Service

John H. Davis, Executive Director
National Recreation and Park Association

Editorial Staff

Division of Federal and State Liaison
National Park Service

Frank C. Goodell, Managing Editor

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Kathleen Pleasant, Editorial Assistant

Contractors to the Program

Maureen Palmedo, Consulting Editor, *Trends, Grist, and Design*.

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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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Articles, suggestions, ideas, and comments are invited and should be sent to: Park Practice Program, Division of Federal and State Liaison, National Park Service, U.S. Department of the Interior, Washington, DC 20240.

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.



7. Gross clean up. Place all debris in bags and drums for disposal. Continue spraying any fallen material.

8. Repeat this cleaning and spraying cycle at least twice, with a 24-hour interval between.

9. Dispose of the material in accordance with EPA guidelines. Special high-cost hazardous waste material disposal services usually are not necessary if the sanitary landfill disposal area and procedures are performed within EPA regulations.

10. Inspect the removal site visually with great care to insure adequacy and completeness of removal procedure.

11. Take an airborne asbestos sampling both during and following stripping. During stripping, sampling in the removal work area, outside containment barriers, and within the decontamination area should determine sufficiently the adequacy of contamination control. Another air sampling supplements post-removal visual inspections. This sampling is likely to reveal residual contamination from settled fibers.

Decontamination Area

Everyone should pass through an adequate decontamination area for entry into and exit from the work area. An adequate decontamination area consists of the following serial arrangement of connected rooms or spaces:

1. *Outside room* (clean area): Workers leave all street clothes here and dress in clean work clothes, usually disposable coveralls. Respiratory equipment is picked up here. *No asbestos contaminated items should enter this room.* Workers enter it either from outside the structure dressed in street clothes, or naked from the showers.

2. *Shower room*: This separate room is used for transit by cleanly dressed workers entering the job from the outside room, or by workers headed for the showers after undressing in the equipment room.

3. *Equipment room* (contaminated area): Work equipment, footwear, and any other contaminated work clothing are left in this change and transit area for workers.

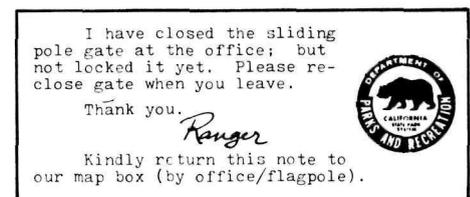
4. *Work area*: Polyethylene barriers should separate equipment room from work area.

Closing Up Day-Use Parks

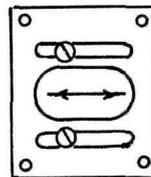
Closing up a day-use park when there are a few remaining cars in the parking lot can be a time-consuming job. It's often fruitless to attempt to find people still in the woods. And you don't want additional cars entering the park.

Bill Krumbein, unit ranger at Annadel State Park (CA), has come up with a good idea for solving this problem. At closing time, he places the card shown here on the windshield of any cars remaining in the lot; then he closes the gate.

Krumbein reports that most park visitors are cooperative. More often than not, on his final patrol, the lot is empty and the gate has been reclosed.



Adjusting Alarm Magnets on Wooden Doors



During the change of seasons, wooden doors tend to warp due to temperature and humidity fluctuations. This warping will affect the magnetic catches used on alarm systems, making it necessary to move the catches. Moving the catches is difficult because they are so small. Also, after one or two moves, the wood becomes worn and part of the door has to be replaced.

Woodcraftsman Francis P. Lucas, of Independence National Historical Park, suggests attaching a thin brass or copper plate to the door. (This material will not affect the magnet.) Elongate the holes, as illustrated, so the magnet can slide back or forth. Then, when adjustment is needed, all you have to do is loosen two small screws, move the magnet, tighten the screws, and the job is done.

Tape Cutter

Carl Moffler, mechanic with the Monmouth County Park System (NJ), has designed a tape cutter that should prove useful to many park systems. He got the idea when he needed half-inch (1.25 cm) border tape for highway directional signs, but only had one-inch (2.5 cm) tape in stock. Scissors and other cutting methods proved too lengthy and awkward, and Carl thought there must be a better way of using available stock tape.

His solution was a cutter design made from old scrap material in the shop and constructed in about 8 hours. The design uses the following material:

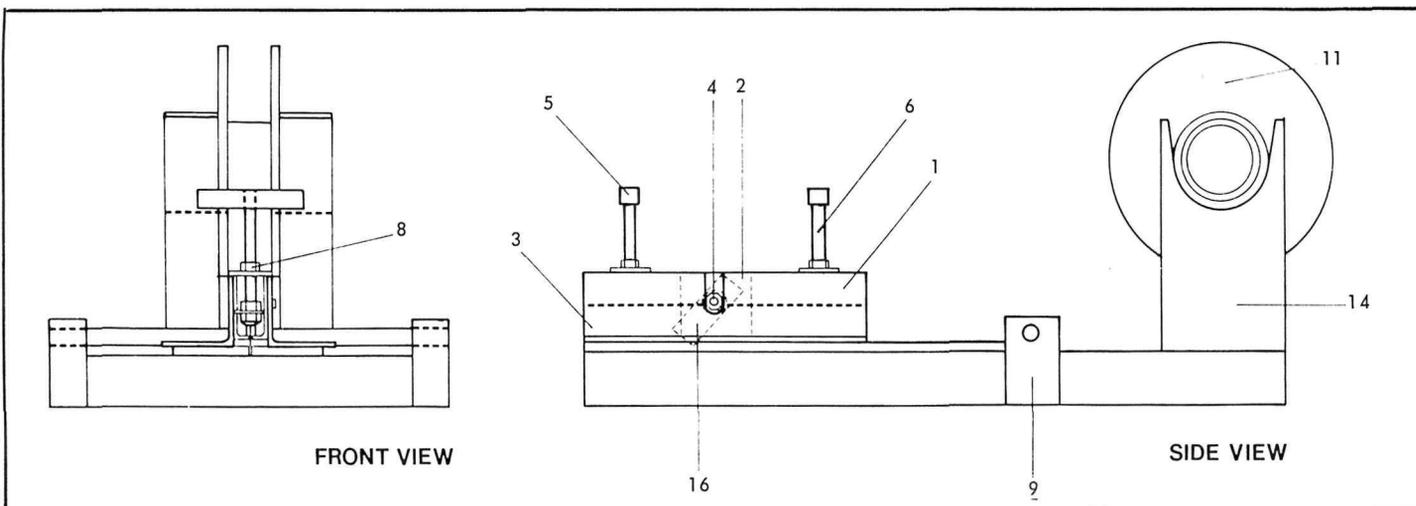
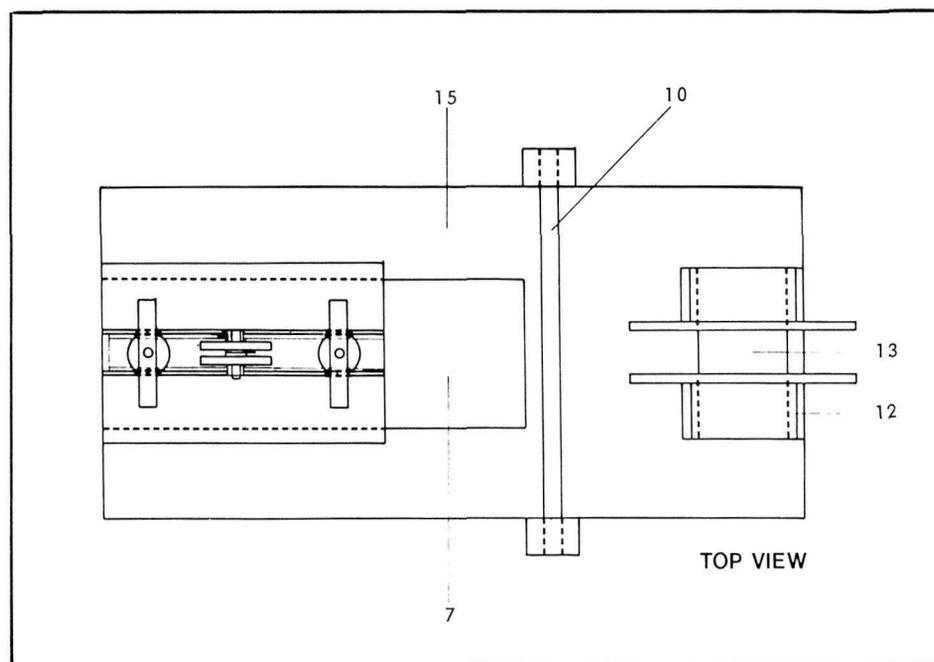
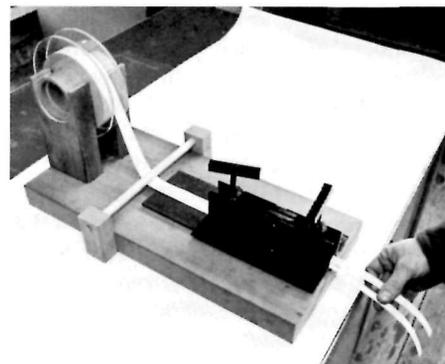
Item	Quantity
1. 2" x 2" x 1/8" (5 x 5 x .3 cm) angle 8" (20 cm) long	2
2. 2" x 1/4" (5 x .625 cm) flat iron 1 3/4" (4.4 cm) long	2
3. 1" x 1" x 1/8" (2.5 x 2.5 x .3 cm) tubing 8" (20 cm) long	1
4. 1/4" (.625 cm) bolt 2" (5 cm) long	1
5. 1/2" x 1/2" (1.25 x 1.25 cm) square stock 3" (7.5 cm) long	2
6. 3/8" (.9 cm) threaded rod 3" (7.5 cm) long	2
7. 4" x 1/4" (10 x .625 cm) flat stock 12" (30 cm) long	1
8. 3/8" (.9 cm) nut welded to 1/2" (1.25 cm) washer	2
9. 1" x 2" (2.5 x 5 cm) wood 3" (7.5 cm) long	2
10. 1/2" (1.25 cm) wooden dowel 12" (30 cm) long	1

11. 6 1/2" (16.25 cm) round Plexiglass 2
12. 2" (5 cm) PVC coupling cut in half 1
13. 2" (5 cm) PVC pipe 3 1/2" (8.75 cm) long 1
14. 2" x 4" (5 x 10 cm) wood 6 1/2" (16.25 cm) long, 2 3/4" (6.8 cm) radius 2
15. 2" x 10" (5 x 25 cm) wood 20" (50 cm) long 1
16. Razor blade 1

Using Moffler's device, the park system now can get 100 yards (90 m) of border tape by cutting a 50-yard (45 m) lot, at a savings of \$6.95 per 100 yards (90 m). Depending on the amount of border tape

used in a year, this savings can be substantial.

Our thanks to Superintendent Bruce A. Gollnick for sending Mr. Moffler's design along to us.



Maintenance

Chute Adapter for Payloader Bucket

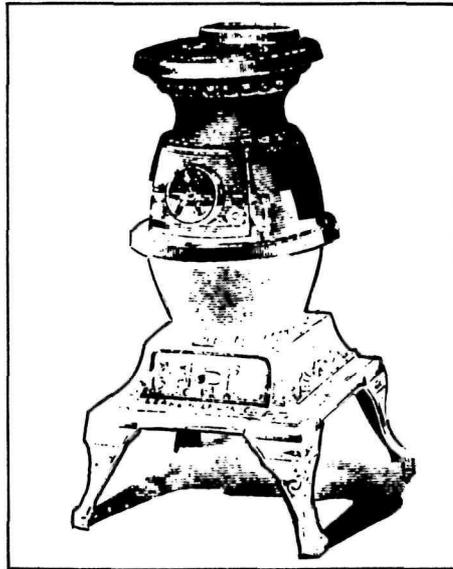
The park crew at Ozark National Scenic Riverways used to haul cement by wheelbarrow to pouring sites where concrete mixer trucks could not go. Then, Maintenance Worker Anvil G. Akers came up with a better idea.

He built a concrete chute adapter using scrap $\frac{3}{8}$ " (.9 cm) sheet steel and $1\frac{1}{2}$ " (3.6 cm) angle reinforcing iron. He bolted the device to a Hough Payloader bucket. By using the sliding door, the cement flow can be controlled, thus eliminating excess spillage and waste.

In areas unreachable by concrete mixing truck, this modified loader can be maneuvered to deliver approximately $\frac{1}{2}$ cubic yard (.38m³) of concrete. The cement truck can easily dispense the concrete from its chute into the loader bucket, then the loader can deliver the material to the job site.

This labor-saving chute adapter has reduced time spent on jobs at least 60 to 75 percent, says Akers. Its use has also prevented possible back injuries to workers pushing wheelbarrows and eliminated other possible hazards.

For this device, Akers was granted a \$25 National Park Service Incentive Award.



Cast Iron Stove Polish

As more and more people return to using old-fashioned stoves for cooling and heating, the demand for stove polish grows. *The Old-House Journal* reports that this hard-to-find substance can be ordered from The Hope Company. Manufactured under the name "Grill and Stove Black," the polish is heat resistant to 1,400 degrees F (760°C) and easy to apply—no brushes are required. It will restore luster and blackness to any cast iron surface and is recommended particularly for black cast iron stoves.

Price is \$4.95 for a 16-oz. (448 g) can. To order, or for more information, write: The Hope Company, Inc., Dept. OHJ, Box 28431, St. Louis, MO 63141.

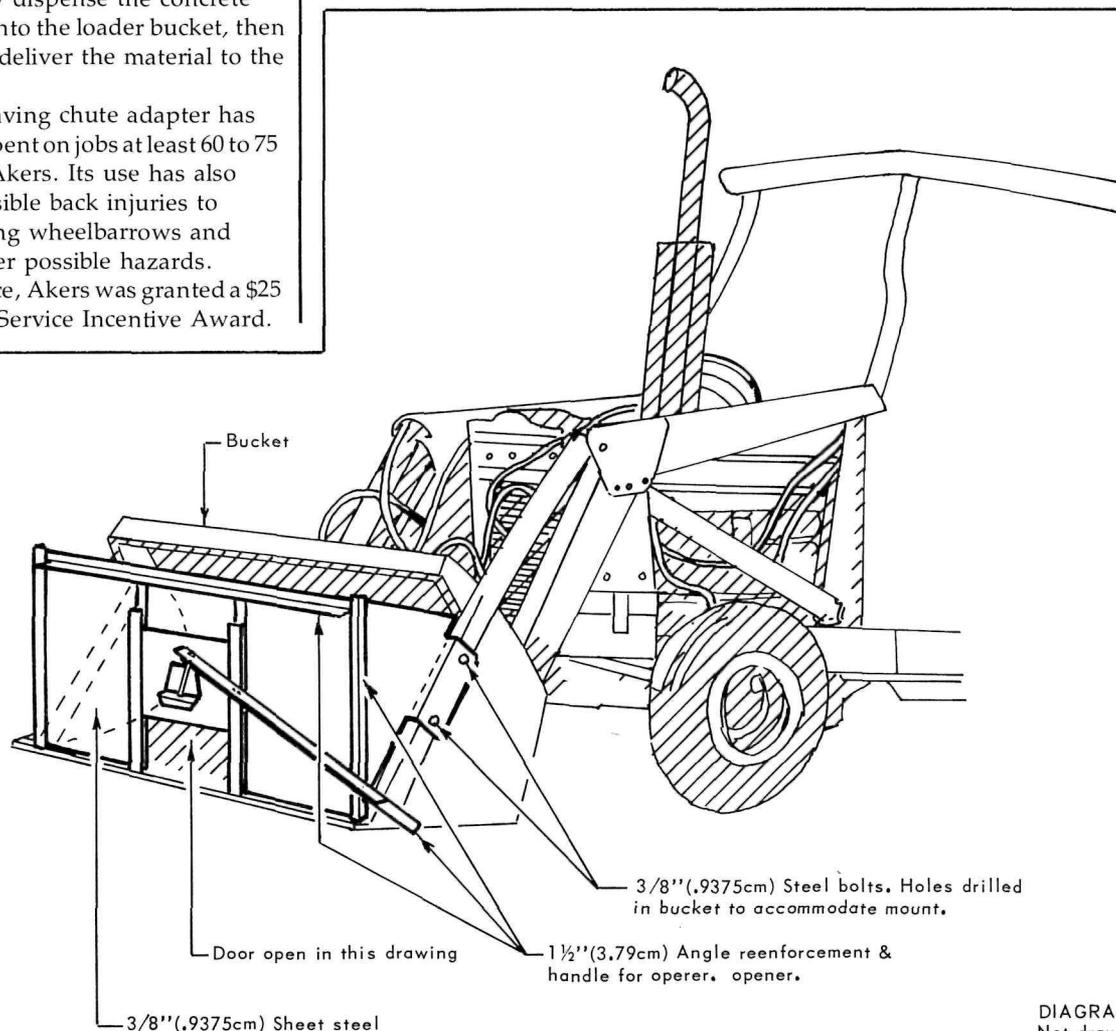


DIAGRAM
Not drawn to scale

Painting Touch-Up Tip

In a recent issue of *The Old-House Journal*, Anne Roquemore, of Montgomery (AL), shares a good tip for touching up paint jobs.

Save empty nail polish bottles. Clean them thoroughly, first with nail polish remover, then with soap and water. Let the bottles and little brushes dry thoroughly.

Whenever you paint a room, piece of furniture, or equipment, save some of the paint by filling one of the clean bottles. You can use a clean eyedropper for dripless filling. Then, when you need to touch up minor scratches and nicks, you have the paint right at hand, complete with tiny brush, for quick, non-messy cosmetic repairs.



Nozzle and Brush for Hotsy Steam Jenny

Jesse E. Plowman, work leader at Ozark National Scenic Riverways, has devised a way to increase the efficiency of the Hotsy Steam Jenny in removing paint from trash cans and other equipment. He uses a $\frac{3}{8}$ " x $\frac{1}{8}$ " (.9 x .3 cm) reducer on the nozzle in combination with a wire brush.

To reduce the nozzle to $\frac{1}{8}$ " (.3 cm), Plowman welds a rod in a $\frac{1}{4}$ " (.625 cm) nipple, using a $\frac{3}{8}$ " (.9 cm) bushing at the top. He drills a $\frac{1}{8}$ " (.3 cm) hole in the rod at bottom. Then he drills a $\frac{1}{2}$ " (1.25 cm) hole in a standard wire brush $1\frac{1}{2}$ " (3.79 cm) from the end, and allows the Hotsy Steam Jenny nozzle to barely protrude through the bristles on the brush by clamping the two together as shown.

This adaption enables one man to do a steam and brush operation. By tilting the handle back, the brush can be used; by tilting the handle forward, the steam nozzle comes in contact with the surface being cleaned. As an added safety feature, the worker cannot get burned by brushing too close to the nozzle.

Mr. Plowman was granted a National Park Service Incentive Award for this fine suggestion.



Homemade Tractor Wheel Weights

The South Dakota Division of Parks and Recreation recently received a new utility tractor for use at the Big Sioux Recreation Area near Brandon. To get the most wear out of the unit, management decided to get a set of wheel weights for the rear wheels. Then, John Trotter, maintenance man for the district, came up with a money-saving idea.

John went to a local gasoline station and got a set of worn F-78 x 14 winter tread tires that were about to be thrown out. These tires fit snugly against the rear wheels of the tractor, inside the 12.4 x 28 farm tread tires, and stick out 4 inches (10 cm) or so.

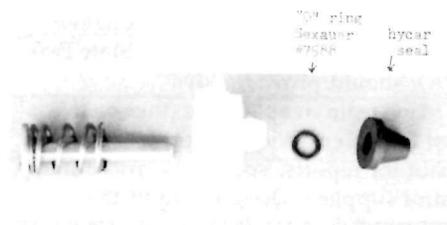
John cut holes in the tires to line up with the ones in the wheel made for attaching the wheel weights. Then, he cut pieces of pipe to fit in these holes. The tires were set flat on the ground with a hubcap on the underside filling the hole in the middle of the tire. The pipes were held in place and the tires filled with concrete (some does leak out from where the hubcap meets the inner rim of the tire). Once the concrete dried, the weight was ready to be mounted on the wheel with bolts.

The weight can be varied by the amount of concrete that is added. This idea has saved the Division some money and should have wide application in other park and recreation areas. Our thanks to District Manager Jeffrey D. Tiberi for sharing it with *GRIST* readers.

Stop Leaks On Toilet and Urinal Handles

Maintenance Worker Rolland F. Cogle and Plumber Leo Rice, from Sequoia and Kings Canyon National Parks (CA), share this tip on stopping toilet and urinal flushmeter handle leaks.

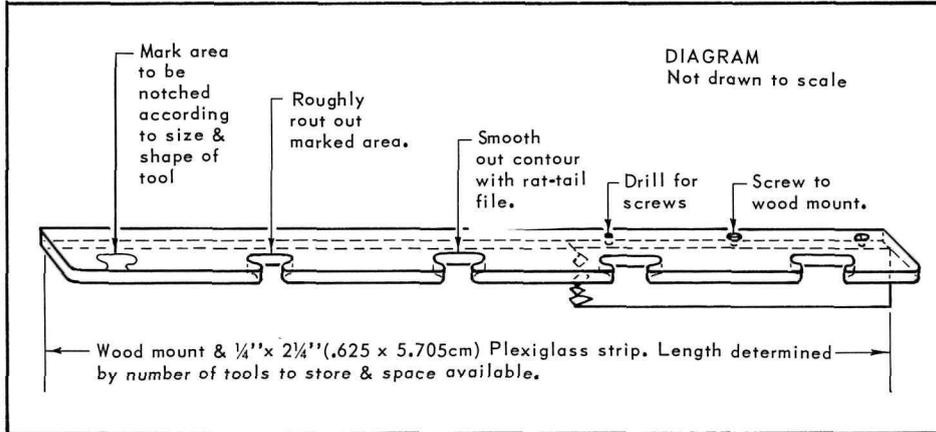
Simply place an "O" ring Sexauer #7588 over the plunger shaft under the hycar seal when the original begins to leak. This item will cost you about 25¢ and will eliminate the need to install a complete new kit, at a cost of approximately



\$3.50, because the seal is not sold separately.

For this suggestion, Cowles and Rice have each been granted a National Park Service Incentive Award of \$25.

Racks and Holders



Plexiglass Small-Tool Holder

The Monmouth County (NJ) Park System had a problem with peg board hooks falling off whenever workers took tools out for use. Then, County Park Ranger John Reardon devised a solution.

Out of some scrap $\frac{1}{4}$ " (.625 cm) plexiglass and a piece of wood, Reardon built a plexiglass tool holder for small tools.

Since this tool holder has been in use, it has worked quite well. It holds tools securely yet releases them easily. Recently, Reardon expanded on this idea with a plexiglass holder for tools which previously had been too awkward to handle on peg board panels.

Besides the functional aspects of this tool holder, it also offers a clean, modern look which may be important to work areas open to public viewing.



Homemade Console for Patrol Car



For park and recreation agencies switching to smaller patrol cars in these days of energy crunch, this homemade console submitted by Thomas Chalmers, equipment operator at Ole Bull State Park (PA), should prove handy.

Made from scrap lumber, the console is just 10" (25 cm) wide, yet provides ample space for reports, spotlights, and other patrol supplies. Designed to fit the contour of the seat, it stays in place with no attachments necessary. This console was made for a 1978 AMC Concord, but any model can be equipped with a suitable size. Besides providing needed storage space, this simple structure keeps patrol car supplies safe and readily accessible.

Interpretive Display

From Dennis P. Stebick, superintendent of Ole Bull State Park (PA), comes this idea for a compact, functional, interpretive display that holds posters of all sizes. The park office needed a structure that would conserve space, protect posters, and provide visitors with interesting, accessible interpretive material.

The unit was designed and built by Equipment Operator Thomas Chalmers, using scrap lumber at the park. Posters are either coated with acetate or plexiglass and put in a standard frame. Then, $\frac{3}{8}$ " (.9 cm) dowels are attached to the top and bottom of the frame corners and positioned into the wall bracket. End result—a flexible, easy-to-move, attractive display for any size poster!



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Description _____

Cost and Source of Materials _____

Benefits (If a saving of time, money or effort, how much?) _____

Please include any illustrations — plans, rough sketches, charts and/or photographs. _____

Attach additional sheets if necessary.

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