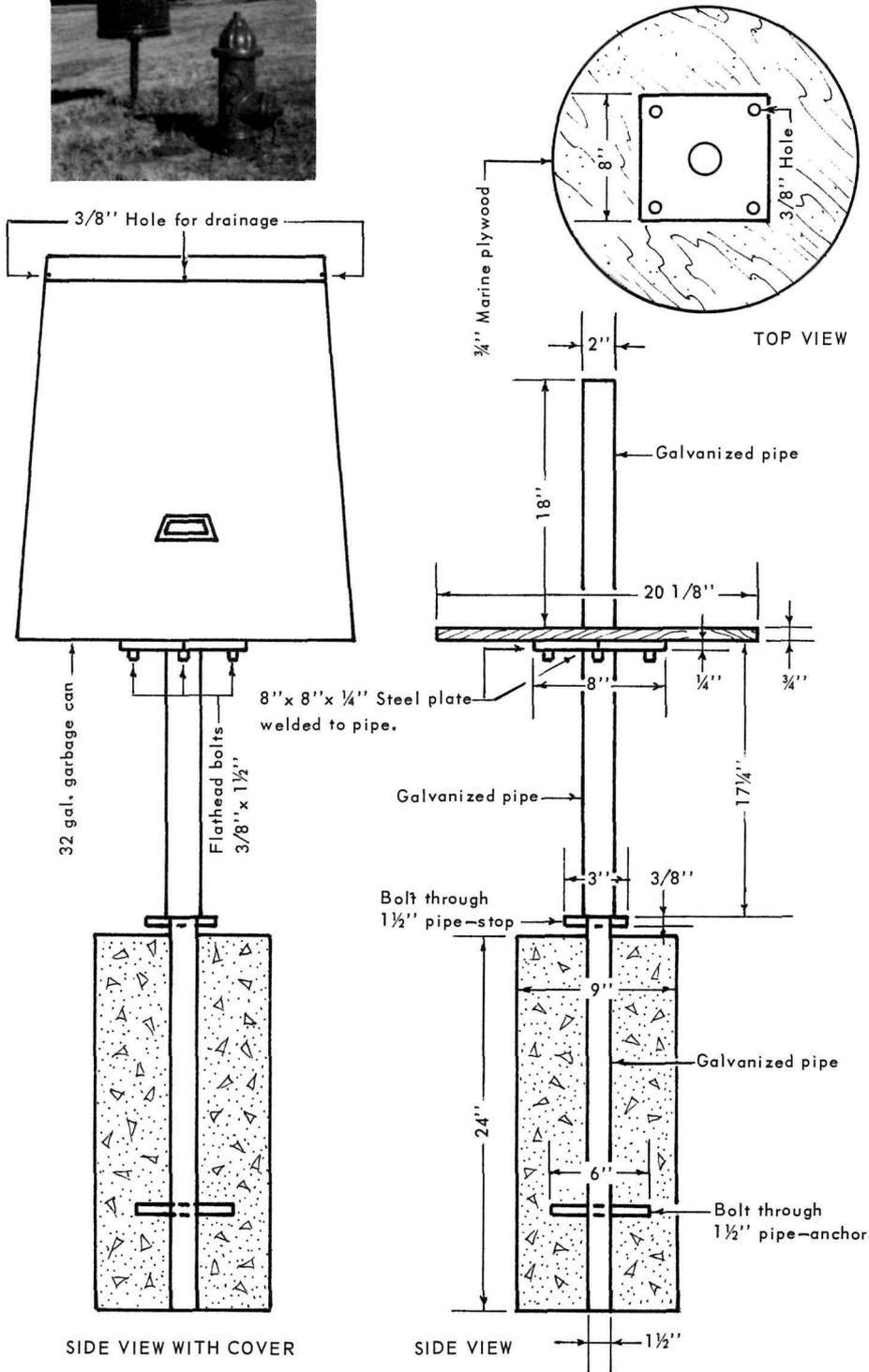


GO WEST

MARCH/APRIL 1973

VOLUME 17/NUMBER 3

A LESSON IN HOSERY



Technician Joe E. Neal and Ranger Charles B. Cooper, at Platt National Park, have come up with a better way to store fire hose at hydrant locations throughout the park. They're award money ahead, and the Service saved over \$370 the first year the new holders were installed.

The hose storage boxes currently being used in many locations require that the hose be folded. While this does not seriously affect linen hose, rubber-lined, cotton-jacketed hose must be removed, inspected, and refolded quarterly to impede deterioration of rubber lining. This repeated refolding of the hose shortens its useful life and requires approximately 1 man-day a year for each box.

Neal and Cooper devised a revolving plywood platform, 20 1/8 in. in diameter, supported on an 8 x 8-in. steel plate, pierced by a 36-in. long section of 2-in. pipe, the steel plate being welded in place at the middle of the length of pipe. The 2-in. pipe, carrying its circular hose platform, fits over a section of 1 1/2-in. pipe set in concrete (and extending 16 in. above ground), and revolves about it.

The hose is readily stored simply by coiling it on the platform around the pipe with the nozzle resting on the last coil. A 32-gallon garbage can, up-ended over the coils, fits down snugly over the hose and platform, and protects the fabric from the weather. A half-inch lift of road tar on the top side of the can (actually the bottom of the unended container) protects against corrosion, with four 3/8-in. holes through the rim permitting rain water to drain off.

Savings result from the innovative design from 2 directions: from that of manpower, with only 1 man-hour of inspection being required each year for the revolving platform, compared to 8 man-hours required for conven-

(Continued on page 10)



GRIST

a bimonthly publication of the nonprofit, educational park practice program cooperatively conducted by the National Park Service, U.S.D.I. and the National Recreation and Park Association.

Material for Publication should be sent ONLY to:

James A. Burnett, Editor
Division of State and Private Liaison
National Park Service, Washington, D.C. 20240

The publishers of GRIST do not guarantee that the ideas or procedures presented herein are suitable for all applications. GRIST serves only as a medium for the dissemination of these ideas.

Advertising is not accepted; however, information is given on those products or services which our contributors believe can provide more efficient and economical park and recreation area operation. The mention of a product, service or procedure does not constitute official endorsement, nor does it imply that comparable products or methods are less suitable.

Subscription Rates

NEW subscr. to Program — all vols. of DESIGN, GUIDELINE, TRENDS, and GRIST (2 prev. yrly. vols.); plus all publications as issued; thru 1st calendar yr. — 1st yr. only \$80.00
RENEWAL (all publications as issued thru calendar yr.) \$20.00
GRIST only renewal \$ 7.50
GRIST, additional quantities of each issue to new or renewal subscriptions, sent to same address, ea. annual vol. (no binder) . . \$1.
Same, but with new hard plastic binders, 1 set of four . . . \$10.00 (separately, \$3.00 each)

Subscription applications and fees, and membership inquiries should be sent ONLY to: Executive Secretary, National Recreation and Park Association, 1601 North Kent Street, Arlington, Va. 22209

Printed by Cooper Trent, Arlington, Virginia
Not printed at Government expense.

Note:

New GRIST binders are available from the National Recreation and Park Association, 1601 North Kent Street, Arlington, Va., 22209, for \$3, each.

A LESSON IN HOSERY

(From page 9)



tion storage boxes; from replacement costs, with the Neal-Cooper concept costing only \$25 compared to \$75 for the conventional type. Further savings are expected, too, as the replacement costs of cotton-jacketed, rubber-lined hose go down, due to their increased longevity when coiled, rather than folded.

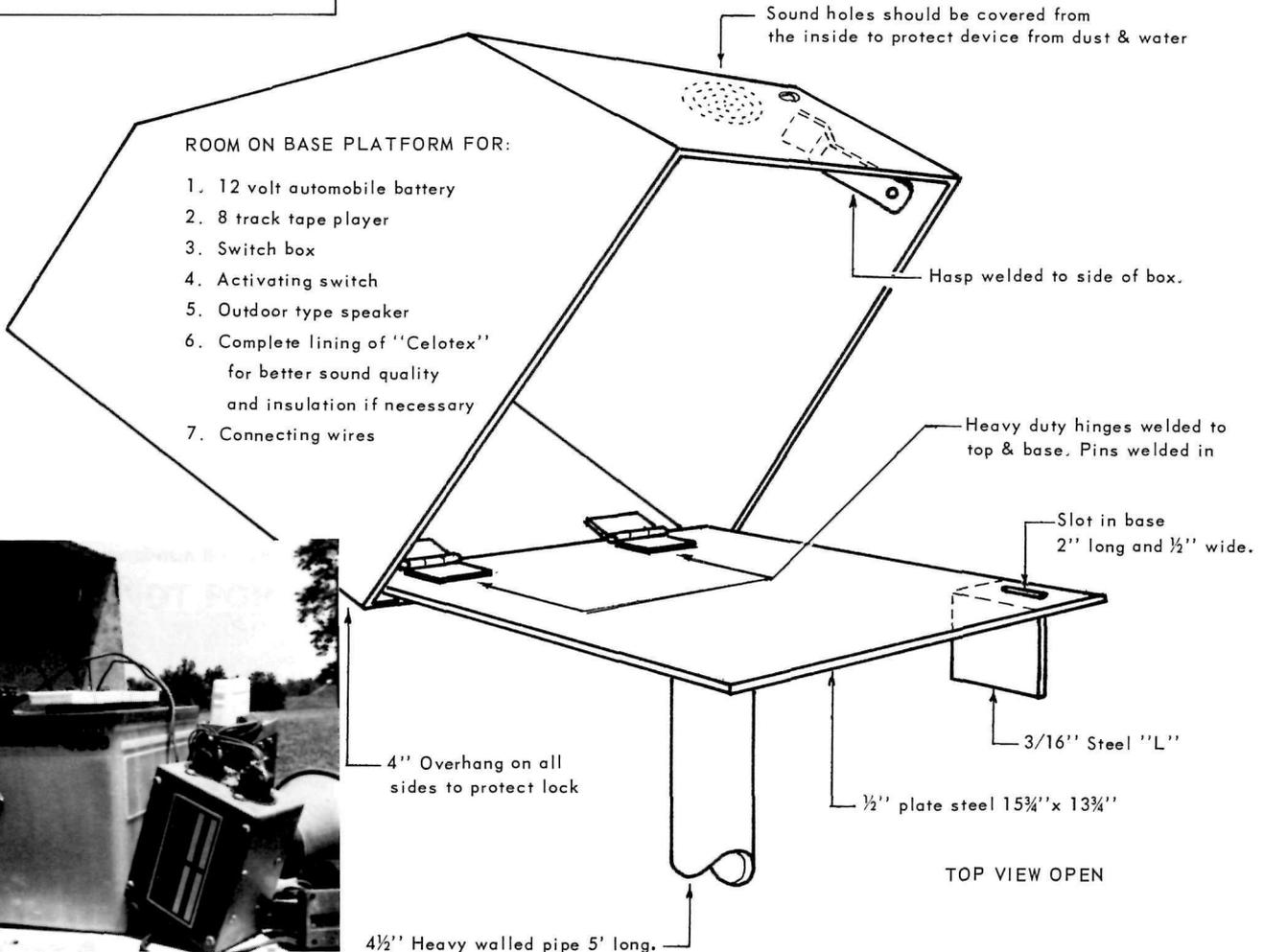
A final, but intangible, plus of the revolving storage container is its ability to let the hose be speedily unreeled in any direction—something that is not possible with most conventional storage boxes. This, alone, could possibly top the list of cost benefits, with the prompt extinguishing of a potentially destructive fire.

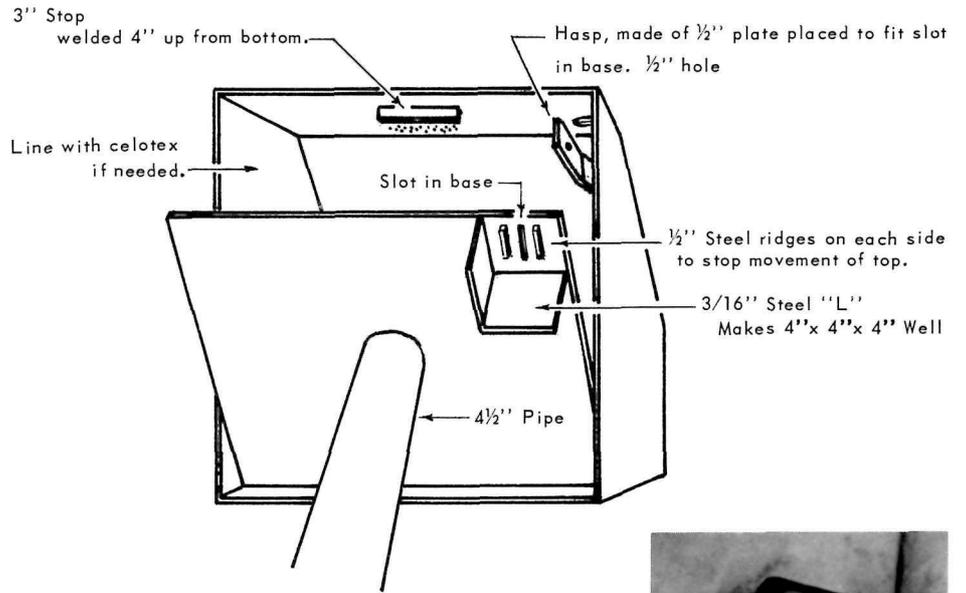
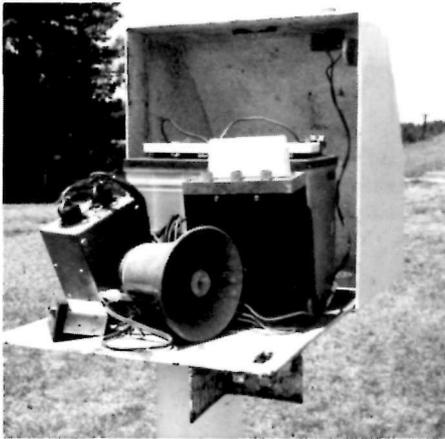
VANDAL PROOF AUDIO BOX

"I had some second thoughts about calling this little device 'vandal-proof.' It might better be called 'vandal resistant;' however, I have called it that with the realization that a vandal is not usually a professional thief. It will take a professional or at least someone with much determination and lots of time to get the innards out of this one," says W.P. Crawford, superintendent of Ocmulgee National Monument about his outdoor interpretive audio box.

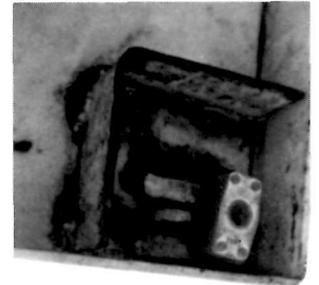
Various forms of audio containers used in Park Service areas are either flimsily built of plywood or other fragile material that would be impractical or are in the other extreme — huge fortresses of stone, brick or cement that often detract from what is being interpreted and can't be moved to new locations.

With these problems in mind and a recent series of robberies where valuable equipment was lost, Supt. Crawford set out to make a box





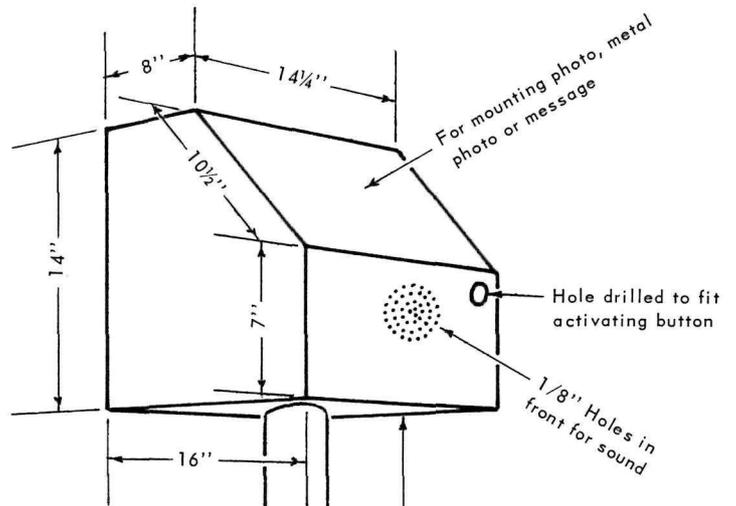
BOTTOM VIEW OPEN



which would be:

- 1) As near vandal-proof as possible.
- 2) Compact and unobtrusive.
- 3) Simple yet attractive.
- 4) Easy to service.
- 5) Difficult to break into with tire irons, rocks, hammers, screwdrivers, wrenches or bolt-cutters or any other vandal's tool.
- 6) Non-movable except with special equipment.
- 7) Affording good quality sound, nevertheless.

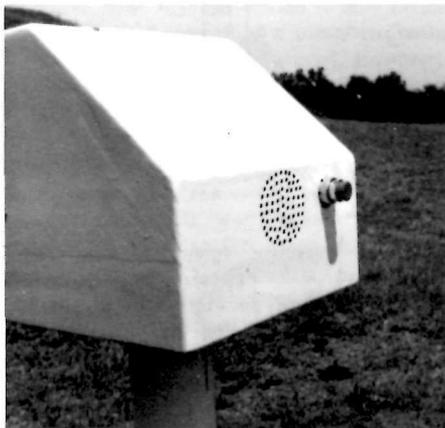
The design Crawford developed is shown in the various photos and drawings. He had three of these built at \$45.00 each. All three have been in use for some time now with no losses despite several attempts by local vandals. The lock is so placed that even to shoot it off would be extremely dangerous to the vandal.



CLOSED VIEW

Pipe, 5' long, with cross piece welded to bottom to prevent movement in concrete.

Set in 2' of concrete



CAMPGROUND LOCATOR

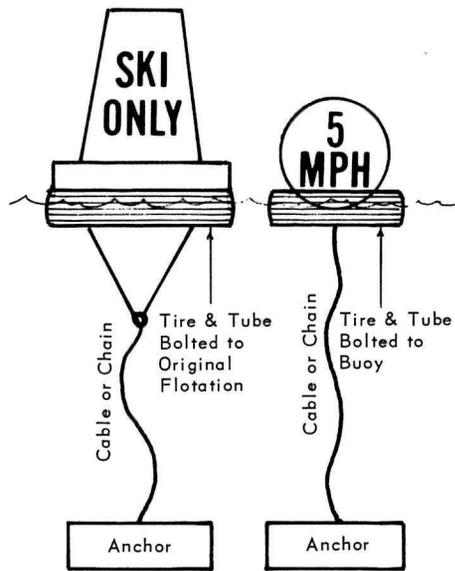
How many of you can identify with this situation? You are on the evening shift at the contact station of a campground which has been full for 6 hours or so and you have just told the 100th disappointed, weary camper that you are full. You can direct him to a few local, private campgrounds. As you do so, though, you get the feeling that, although you have helped him, you are still not easing his plight.

Feeling that there must be a "better way," Wendell C. Rickon, ranger at the Mendocino Area of the California Department of Parks and Recreation, called all the local campgrounds telling them that he would like to add their campgrounds to a list to be handed out to campers which the state parks couldn't accommodate due to being full.

If the campgrounds were interested, their name, location and type of facilities would be listed. The response was favorable and a mimeograph sheet was produced and handed out.

The next year the handout was improved and other campgrounds were asked to join. The third year something new was added and the 40,000 sheets were beginning to cost quite a bit to be produced. So, each campground owner on

NEW LIFE FOR "TIRED" BUOYS



"In all our wisdom we still buy some items which do not hold up as well as expected." That remark from Edward J. Fahey, Senior Park Manager, Cherry Creek Recreation Area, Denver, Colo., illustrates one of the continuing problems of park maintenance: How to save items which wear out sooner than expected and for which no budget allowance has been made.

Fahey was speaking specifically of buoys which lost their float capabilities too early. His solution sounds good and might be useful for other floating platforms as well.

A used tire is bolted to the underside of the buoy with lag bolts and the opening around the bolt sealed. A tube is then inserted into the tire and inflated to 30 lbs. pressure.

This method keeps the buoys afloat, but causes them to ride a bit high in the water. Fahey says that's no problem, though, and might even be more effective in the case of boater instruction buoys such as speed limit or channel markers.

MENDOCINO COAST

PRIVATE CAMPGROUNDS & PARKS

We are sorry we are not able to accommodate you at this time but hope this directory of alternate camping areas will be of assistance. We suggest that when planning to use popular state parks you either plan to stop early in the day or make reservations at least 10 days in advance. Good luck!

CAMPS & PARKS	PHONE	MILES FROM MENDOCINO	TENT	HOOKEUP	DOGS
1. WAGES CREEK	964-2964	25 NORTH	YES	NO	YES
2. VAGABOND VILLAGE	964-9938	13 NORTH	NO	YES	YES
3. HIDDEN PINES	964-5465	8 NORTH	YES	YES	YES
4. TARA CAMPGROUND	964-5378	8 NORTH	YES	YES	YES
5. TRAVEL SHORES	964-9392	7 NORTH	YES	YES	YES
6. WOODSIDE PARK	964-3684	7 NORTH	NO	YES	YES
7. POINT CABRILLO	937-5842	4 NORTH	NO	YES	NO
8. SCHOONERS LANDING	837-5707	7 SOUTH	YES	YES	YES

PERMITS AND INFORMATION REGARDING CAMPING IN JACKSON STATE FOREST CAN BE OBTAINED AT THE DIVISION OF FORESTRY HEADQUARTERS ON MAIN STREET AT THE NORTH END OF FORT BRAGG.

contributed for your convenience by above camps and parks.

the list was contacted by mail and asked if the service rendered was helpful - and would the owner be willing to share the cost (about \$25 each) to have the handout professionally printed. A majority of the owners said yes and with their contribution and the help of a local

artist and printer, 40,000 new handouts were printed.

These have been even better accepted than the mimeograph sheets. The campground information included in the handout lists the distance from the state park, the phone number

and what type of hookup the campground offers. On top of offering the service to the weary camper, the handout serves as a positive public relations device as it gives the camper the impression that you are doing all you can to help him.

KEEPING TRASH CANS UPRIGHT

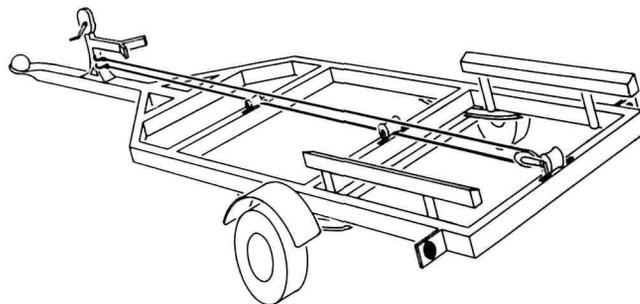
This useful trash can holder offers several innovative design features. It is made out of galvanized steel and cast aluminum and therefore resists corrosion. It will keep cans from being overturned by animals; keeps the cans off the ground thereby preventing corrosion from ground moisture; has an adjustable height and, once installed, offers no maintenance problems.

The cans rest on a molded platform and are suspended in place by hooks inserted through the can's handles.

The double can holder costs \$7.97 and weighs 7 lbs. There is also a single can holder for \$6.49 weighing 6 lbs. The firm will accept purchase orders. Further information can be obtained by contacting the Albeni Corporation, P. O. Box 606, Tarpon Springs, Fla. 33589, telephone 813-937-4171.



INTO THE WATER SMOOTHLY



There's an old saying about the three ways to do things, each progressively more difficult -- "the easy way, the hard way, and the Army way." Well, there's also a fourth way, which the editors of the Iowa Conservationist call the "easiest way."

Launching a light boat from a trailer is usually a simple and easy task especially if the trailer has rollers and a tilt bed. But a heavy boat, loaded with a couple of full fuel tanks, a large outboard motor plus other gear often takes two men with all the push they can muster to slide the boat back to the trailer tilt position. From here on, of course, it's easy to get the boat into the floating position.

Here's an easy way to launch a heavy boat using a device concocted by YACHTING MAGAZINE. The device utilizes the trailer winch to back off the trailer. With it, one man can easily launch a heavy outboard. The device consists of a pulley installed in the midsection of the trailer's back bolster and a line running

through the pulley with both ends extending forward as far as the trailer winch. Both ends of this launching line (1/2" polyethylene or light steel cable) should be equipped with stout steel hooks.

To operate, the trailer is backed down the ramp to the water's edge, and the usual things done: remove the tie downs, tilt the motor, install the drain plug and release the tilting mechanism. The trailer is then backed down the ramp to about axle depth (keeping warm wheel bearings out of the water) and the winch shackle released from the boat's bow ring. One end of the launching line is then hooked to the bow ring and the other end to the winch shackle. At this point, make sure that the line under the boat to the pulley is not twisted. If all is clear, merely turn the winch handle and watch your boat slide back, over the tilt into the water, no wet feet, no sweat and no strain. From here on, it's up to the captain.

FIELD FIRST AID STATION

In 1968, the US Forest Service Equipment Development Center at Missoula, Montana, was assigned to develop a first aid station for treating large numbers of men in the field. Design and selection of supplies was based on information provided by various Forest Service regions, the Departments of Agriculture and Health, Education & Welfare, and the US Army's Fort Sam Houston Medical Center.

The field first aid station is now available and will be furnished as a complete outfit -- units will not be sold piecemeal. However, all items will be available to restock stations as supplies are depleted.

Although the station will be used mainly by Fire Control units, requirements of other possible users were also considered in the design. For example, the tent package may not be necessary for some fire camps, but would be necessary if the station were to be used by Civil Defense authorities in natural disasters.

The First Aid Station consists of 6 separate units weighing a total of 500 pounds and is set up as follows:

UNIT 1: Contains medical supplies, medica-

tion, dressings, and instruments for first aid treatment of minor injuries, stomach disorders, colds, flu, bee stings and so on. Two emergency medical manuals are included.

UNIT 2: Contains a utility pack with tools and equipment for maintaining the station, including a waterbag, lanterns, flashlights, and a special emergency kit for treating patients who may be a long distance from the station.

UNIT 3: Contains two folding tables.

UNIT 4: Contains two litters, restraints and blankets.

UNIT 5: Contains tentage consisting of one 10X12" wall tent, aluminum poles, stakes and removable floor.

UNIT 6: Contains supplemental medical supplies including medication, dressings and supplies most likely to be exhausted when the station is operated for a week or more in a 500 to 1,000-man camp.

The station is designed and equipped so the

emergency medical technicians are completely self-sufficient; they will require only food from the base camp. The outfit will fit in a station wagon or can be dropped by helicopter and parachute. Medication and bandages are packaged in waterproof, dustproof containers. Once a location has been selected, two men can have the station in operation in less than an hour.

Staffing for the center should be one medical technician for a 300-man camp, two technicians for a 300 to 1,000-man camp. The technicians should have training well beyond advanced first aid training as taught by the Red Cross.

The US Forest Service Region 1, Division of Administrative Services is consolidating all orders, assembling the stations and servicing the resupply requests. Cost of the station is estimated at \$895 and inquiries should be directed to USDA Forest Service, Spokane Warehouse, East 800 3rd Ave., Spokane, Washington 99202.

Non-Forest Service users who want to provide similar aid stations can secure assembly instructions and packing lists from the Equipment Development Center in Missoula, Montana 59801.

MAP MOUNTING PRIMER

You can custom mount your own maps from Quadrangles of the US Geological Survey, or reinforce any flimsy chart by using this method widely practiced by surveyors and civil engineers. Robert Meier writing in the May-June issue of *Wilderness Camping* tells how.

To mount the maps, you will need a map or chart (further information on obtaining these is given later); Chartex Dry Mounting Cloth (manufactured by Seal Inc., Derby, Connecticut 06418 and available through most engineering or architectural supply houses); a large flat work area and an electric iron.

The Chartex Dry Mounting Cloth is a light, closely woven material coated on one side with an adhesive which softens under heat and reseals when cool. The material is similar to Dry Mounting Tissue — long a staple item for photographers and graphic artists.

Most maps contain roads, contour lines or other information which can be used to line up two or more individual map sections. The first step, therefore, is to line up the map sections you wish to join. Study the series carefully and plan where you must trim the sheets to join them. With a sharp pen- or Xacto knife and a T-square (or suitable ruler) trim away excess margins. Try to preserve at least one key box when trimming as these give valuable information relating to contour intervals, declination and location.

Lay out the trimmed maps in the predetermined order. Again follow roads and contour lines to make sure you have spliced the sheets properly. Tack the maps in this position with several small pieces of masking tape. Press the tape down lightly for you will want to remove it prior to applying the mounting cloth.

Measure the amount of material you will need to cover the completed map, allowing only about 1" extra on all sides as it will only have to be trimmed off later. Confining each mounted map to 34x34" is a good idea as the mounting material comes in rolls 36" wide. To back a 34x34" map costs about \$1.00.

Cover the flat working area with a good pad of newspapers and lay the tacked map face down. The shiny side of the mounting cloth is

the adhesive side and is on the inside of the role. Cover the map with the mounting cloth and use a hot iron (set for "cotton") to "tack" the cloth to the map at several places — preferably the corners and in the middle. ["Tacking" is a term meaning, in this case, to lightly apply the iron to attach the cloth to the material being mounted. This procedure insures permanent alignment of the material and the cloth.]

The backing should be tacked with the iron through a piece of construction or heavy Kraft paper. This prevents scorching.

When the tacking is finished, turn the map over and remove the masking tape. Carefully re-turn the map and finish ironing the mounting cloth using the same technique as when ironing a sheet.

After ironing is completed, place heavy books over the map while it cools and the bond becomes permanent.

When cool, trim the map edges. Reinforce the joined areas of the map with transparent



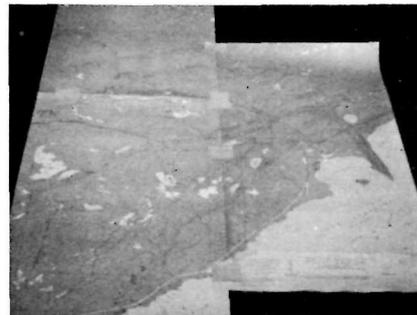
Place backing material on map shiny side down and lightly tack with sizzling iron. Remove masking tape swatches before finishing.



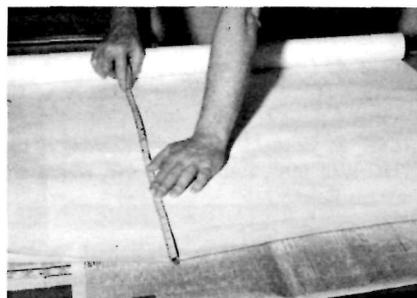
After entire map has been ironed down under paper sheet, weight with books until adhesive cools.



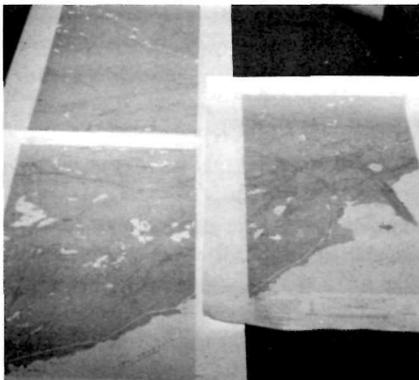
Trim away margins where maps join. Preserve the bottom margin and its special information where possible.



Lay out trimmed maps as indicated. Lightly tack joined areas with masking tape swatches.



Measure the area to be covered on the backing material. Cut only enough backing to generously cover the map.



Lay out adjoining map sheets as indicated on their margins and study their relationship.

plastic tape (e.g. Scotch Magic Tape). This will assure a firmer seal and will add life to the finished product.

A label can then be placed in the top corner of the map and the whole thing folded to whatever convenient shape suits the purpose.

Geological Survey indexes for topographical maps can be obtained from Distribution Section, Geological Survey, Federal Center, Denver, Colorado 80225 for maps west of the Mississippi and from Distribution Section, Geological Survey, 1200 South Eads Street, Arlington, Virginia 22202 for maps east of the river. Indexes include a dealer list and are free.

Maps cover 7 1/2' of latitude and longitude (1"=2,000') and cost \$.65 each quadrangle.

CAMPERS' COOKBOOK

A 64-page full color cookbook, "Cooking for Campers," is available from Kampgrounds of America (KOA). The cookbook features well over 100 different recipes for tent and trailer campers including such basic variations on a theme as "Hamburger Chow Suey."

The cookbook was prepared by the Pillsbury Company and the recipes were then tested by campers in actual camping conditions to assure reliable results. The book costs \$1 and can be obtained from Kampgrounds Publishing, 1999 Shepard Road, St. Paul, Minnesota 55116.

SAFE TRASH RETRIEVER

Maintenance workers at Padre Island National Seashore are doing their clean-up chores better, more efficiently, and more safely because one man had an idea, and encouraged another to make it real.

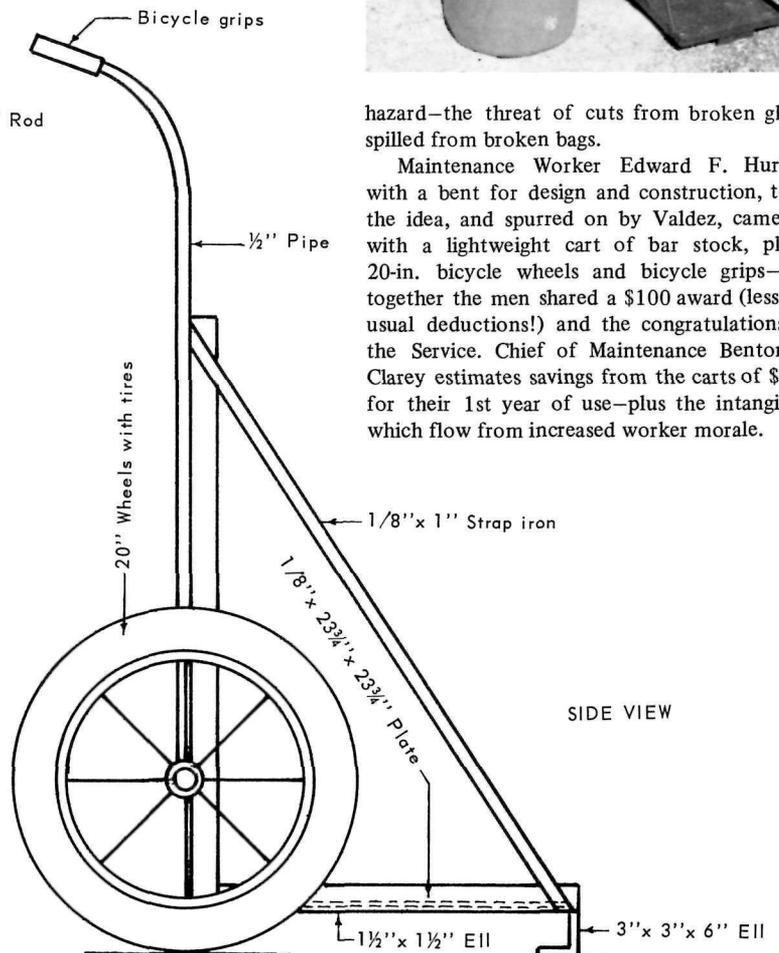
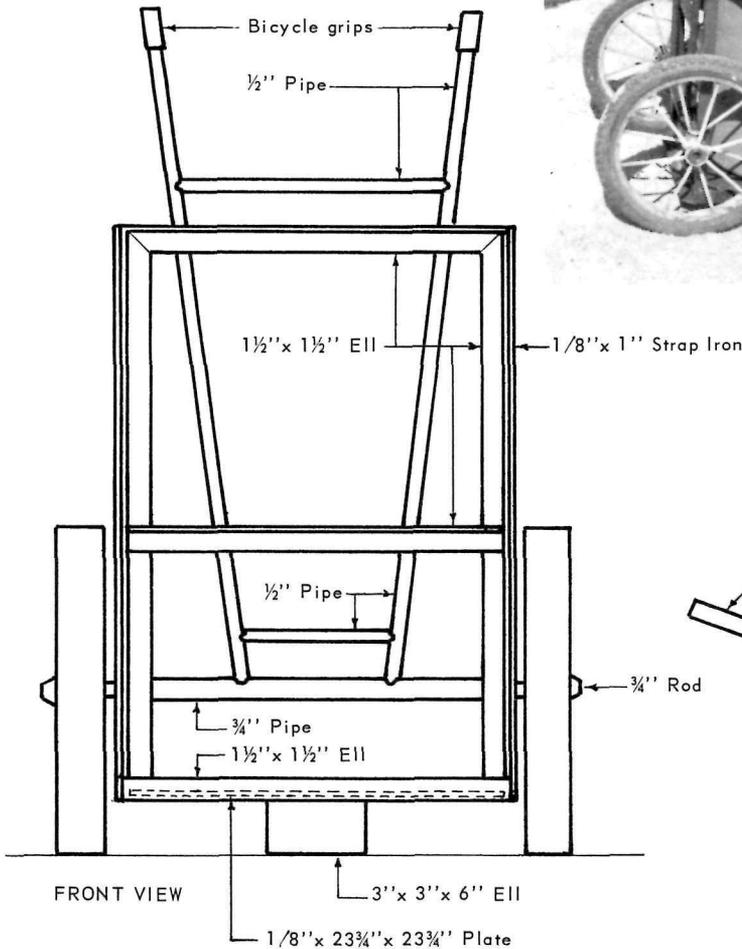
Foreman Raul Valdez had the idea. He'd noted the use of plastic bags for pick up of



AUTO WAX PROTECTS OUTDOOR SIGNS

A can of wax and a little elbow grease are slicking up the appearance of painted wooden arrowheads and other painted outdoor signs and displays at Joshua Tree National Monument. Park Technician Michael W. Leitner reports on this unusual use of auto paste wax. He states that not only do the arrowheads and signs look better, with the dullness of paint oxidation replaced by a gleaming finish, but also the waxing eliminates the necessity for their frequent removal, repainting and replacement. Man hours are saved.

For the record, Michael says that Vista Car Wax and Cleaner will do the job well! (Editor's note: This should protect the outside covering of any equipment or appurtenance exposed to the weather, for example, housing for an air conditioner).



trash and emptying of partially filled containers in park areas inaccessible to vehicles. He noted that the maintenance workers often returned to the vehicles with bags only partly filled—an obvious waste of manpower. And when the bags split, as they sometimes did, more manpower was wasted, doing the job over again. Finally, sometimes the men cut themselves retrieving the contents of those split bags, broken bottles exacting their unpleasant toll.

Valdez reasoned that a lightweight cart upon which a refuse container could be rolled back along paths and trails to those remote areas, with their litter cans and fireplaces waiting for cleanup, would remedy the whole thing. And he felt, too, that the realization of his idea would not only reduce manpower in keeping the grounds clean and policed up, but should up morale through elimination of a safety

hazard—the threat of cuts from broken glass, spilled from broken bags.

Maintenance Worker Edward F. Hurley, with a bent for design and construction, took the idea, and spurred on by Valdez, came up with a lightweight cart of bar stock, plate, 20-in. bicycle wheels and bicycle grips—and together the men shared a \$100 award (less the usual deductions!) and the congratulations of the Service. Chief of Maintenance Benton J. Clarey estimates savings from the carts of \$440 for their 1st year of use—plus the intangibles which flow from increased worker morale.

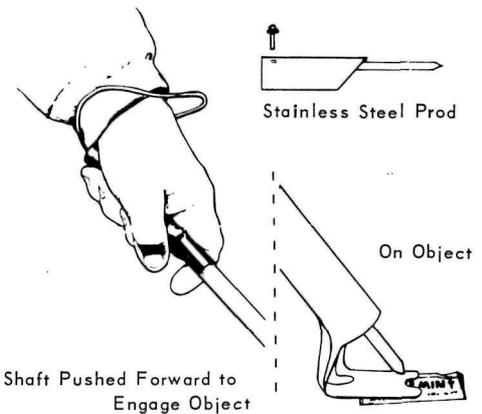
LITTER STICK PICKS UP FROM HARD SURFACE, DIRT & SOD. . . IS INEXPENSIVE

David L. Hieb, Superintendent at Herbert Hoover National Historic Site in Iowa writes to advise Grist readers of a new lightweight, inexpensive litter stick which his area is now using, and which has been used, also, at both George Washington Carver National Monument and Wilson's Creek Battlefield. The stick is a proprietary item, is on the Federal Supply Schedule, and is called "Litt'r Pik-Stik".

The tool is an all-metal zinc-plated tube, 40" long, 5/8" in diameter, with a stainless steel prod and claw-and-sleeve arrangement at the "business" end, a hand grasp and wrist strap at the other. To use the tool, the worker pushes

forward on the shaft, thus projecting the prod to and through a U-shaped opening in the claw and piercing the litter, be it paper, napkin, cup, plastic plate, whatever. Raising the stick to the lip of pick-up sack or can, he then pushes forward on a knob at the upper end of the sleeve, this motion causing the sleeve-and-claw to sweep downward as the prod recesses and strip the litter from the prod into the bag.

On hard surfaces, the claw is slipped under the litter to assist in pickup. Slipping the claw into bottle or can openings makes pick-up of these objects easy, too. "Litt'r Pik-Stik" weighs



only one pound. As of December 1972 the price to government agencies was \$1.59 each. For current information and prices, write to Litt'r Pik-Stik, M.P.O. Box 510, Springfield, Missouri, 65801.

TRAFFIC MIRRORS TRAFFIC

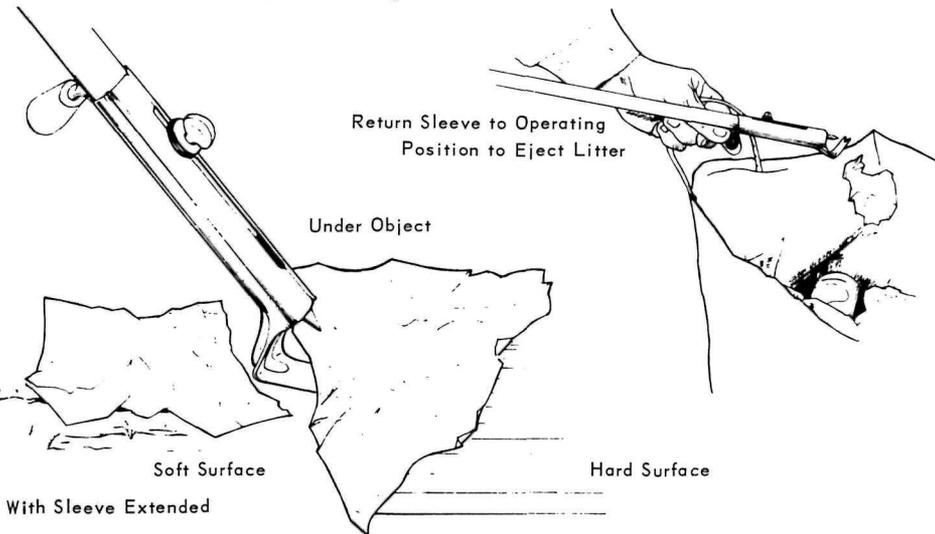
Employees working in the National Capital Parks Headquarters building can thank Sergeant Joseph A. Bruzzese, U.S. Park Police, for the added safety of traffic mirrors guarding the corners of the hallways.

Mirrors are located in the corners about 10 feet above the floor. They are 36 inches in diameter and cost \$60 each. Persons approaching these blind corners can see moving carts or persons around the corner thereby avoiding accidents. Also, the duty guard could spot intruders in a corridor before turning the corner.

THE SURVIVAL KIT



By Jim Burnett



METAL CAMPSITE MARKERS SAVE MONEY



'I' BEAM NOT FOR VISITORS EYES

After several comments and questions from visitors when they noticed a steel I-beam supporting the ceiling in the shop room at the old Stone House in Georgetown, D.C., John C. Wolf, park technician, National Capital Parks, suggested that it be covered with a simple sanded wood covering. No attempt at faking old wood was made. The toning down of the modern intrusion in this historic structure softened the distraction for visitors viewing exhibits.

Robert D. Yager, motor vehicle operator at Zion National Park, had a money-saving idea for better, more permanent marking of campsites. His idea was adopted—he's money ahead, and so is Zion, to the tune of \$425!

Yager took note of the destruction and loss of the site markers previously used. They were 4 x 4 or 2 x 4", 36" long redwood posts, set in the ground, with the camp site numbers painted on them. They were run over by cars and trailers, used for fire wood, vandalized, stolen. Since there are 435 campsites in Zion, replacement of these wooden signs became a costly, never-ending problem, with up to 75 having to be replaced each season, up to 135 having to be reset.

Yager's solution: weld to the stanchion supporting the fireplace stands—one at each campsite—a 4 x 8", 1/8" steel angle, and on it, on the two sides facing the road, paint or stencil the campsite number. Not only is Zion money ahead with the permanent metal markers, their initial cost being far less than replacement costs of the wooden posts, but, by combining the marker with an already existing and necessary fixture, the fireplace stand, one more distracting eyesore has been eliminated from the campground environment.