



PARK PRACTICE

VOLUME 10
NUMBER 4

Grist





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JULY/AUGUST '66

THE NATIONAL CONFERENCE ON STATE PARKS, INC.
DEPARTMENT OF THE INTERIOR, National Park Service
NATIONAL RECREATION AND PARK ASSOCIATION (AIPE)



Commentary— A COIN WITH TWO SIDES

We are reasonably certain that each person starts a professional career with certain goals in mind. Some, perhaps, a little higher than others. Ambition is of vital importance but if not carefully controlled can become distorted and out of proportion. It is easy, for example, to step on someone, often a friend (or until then a friend). In our climb to the top we ought often to check ourselves and make sure that we are going about this goal-chasing in the right way.

It is natural to compare ourselves with others—as we should—in order to emulate the best characteristics of those we touch in our daily lives. In this we are more acutely attuned to the relationships between employer and employee. Into what category do you fall and how do you add up when it comes to bringing the best qualities out of your fellow workers in the organization? In other words, how do you work with others and for others?

As an employer, while you are riding high, have you given any thought to those who have helped you and can continue to help you? These people also have their goals—goals which are as important to them as yours are to you.

This situation is a two-sided coin and both sides should be examined. All too seldom do we ask what little extra can be done for those above toward achievement of the organizational objective. How can we let them know that we're "with it" 100% and will do our level best? Perhaps if we looked deeply into the subject we might realize that our job offers many unrecognized opportunities to advance our own personal cause. We might discover that we are moving faster, or can move faster than we realized.

Often with a stern hand, always with a watchful eye and ready with an encouraging word, the good boss guides, trains, and tries to bring out the best in his fellow workers. Give him a little consideration and its an odds-on bet you'll win in the long run.

But if you're the boss, remember that loyalty is a two-sided coin. You can't expect loyalty from your employees if you're not willing to be loyal to them.

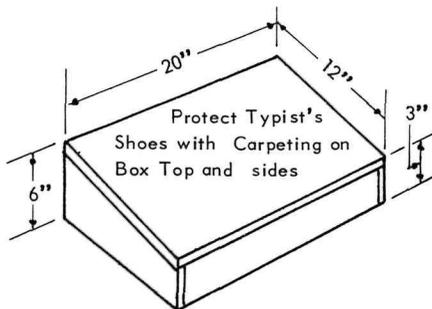
—Ira B. Lykes

ARBEN BUOYS REPRESENTATIVE

Circle Industrial Sales, Inc., 200 South Service Road (P.O.Box 133) Roslyn Hts., Long Island, N.Y. 11577, is the sales representative for Arben buoys described in the GRIST article on page 24 of the May/June issue. Those wishing further information should address their requests to Circle Industrial Sales at the Long Island address above.

BUILD HER A "POSTURE-BOX"

"My back aches!" is the frequent complaint of secretaries. Perhaps you have had "office-itis" from improper sitting position at typewriters or other machines.



If proper adjustment of the chair and desk does not remedy the situation, an inexpensive wooden box can be built to place the feet on. Diagram shows the box that was constructed by the carpenter shop of the National Capital Region.

The spine and thigh angle should be 90 degrees; the thigh and lower leg at 90 degrees to each other. These angles, as recommended by an orthopaedic surgeon, could benefit many of the "swivel-chair" set. Increased efficiency and production will result in less strain and fatigue on the employee.

Photograph shows Miss Loyola Collier, who suggested the idea, using the box.



PROMOTING THE GOLDEN PASSPORT

In an effort to stimulate visitor interest and to promote the sale of the annual \$7. 'Golden Passport', Harry V. Rawlings, Park Ranger at Petrified Forest National Park, Arizona designed and constructed a sign which he placed on the visitor information desk in the Painted Desert Visitor Center. The photo shows the finished product.



Harry informs us that the sign has had the desired effect for sales have greatly increased. More importantly, he says, the sign has improved the entrance station flow as well as visitor relations generally. He passes the idea along hoping that it may be used with the same results in other areas.

The sign measures approximately 18 by 30 inches and is painted in white, black, red and gold. Masonite hardboard was used as the baseboard material.

Sales of the Golden Passport should be encouraged for the money derived is put back into lands and developments of recreational facilities. Even though the \$7. passport has been widely publicized, there are many visitors and recreation-seekers who would avail themselves of the opportunity to buy one if the subject were to be called to their attention by means of a sign such as this one.

PARK PRACTICE GRIST

a bimonthly publication of the nonprofit, educational Park Practice Program cooperatively conducted by the National Park Service, U.S.D.I., the National Conference on State Parks, and the National Recreation and Park Association as listed hereafter.

Ira B. Lykes, Editor

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Speaking of Interpretation -

INTERPRETIVE POSTER-- ON MAKING CHARCOAL

Marc Sagon, naturalist in the Division of Interpretation and Visitor Services, National Park Service, Washington, brings our attention to a poster developed by the US Forest Service and on display at Elizabeth Furnace, George Washington National Forest. Marc tells us that it is placed in a frame and is used as a wayside exhibit at the site of the reconstructed coal hearth.

The poster, which is lithographed in quantity so that it may be replaced as may be necessary or used at other appropriate locations, tells the story of charcoal making from the cutting of the wood to the final "rake-off" of the cooled charcoal ready for the smelting furnace.

If there is vandalism in the area, these posters can be replaced, according to Marc, for about 25¢ each. Exhibits are much more expensive, naturally. Moreover, the posters can be sent in advance to scheduled school groups for pre-arrival briefing. Also, the poster may be used as a souvenir or sales item in addition to its use on the site.

Incidentally, this poster is one of a pair--the other one depicts the workings of an iron furnace which uses the charcoal. The size of the poster is 22 by 34 inches.

SIGNS THAT SPEAK FOR THEMSELVES---



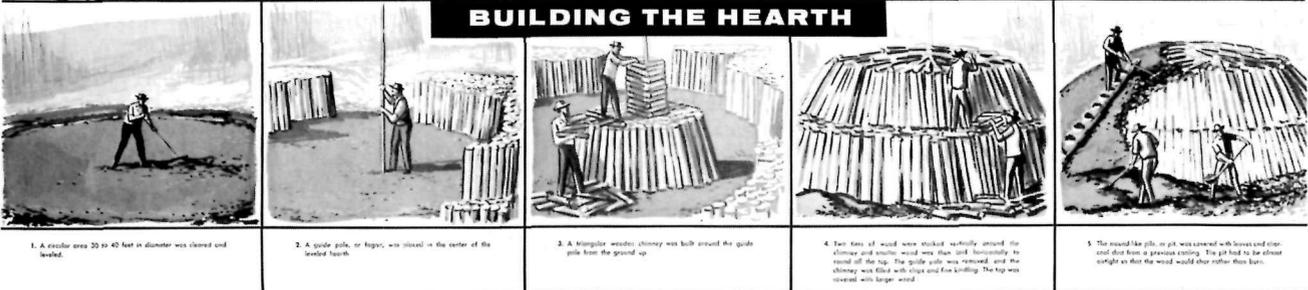
Tuzigoot National Monument

HOW CHARCOAL WAS MADE



CUTTING THE WOOD

Trunks of certain trees were felled, stacked, and cut into 4-foot lengths. The wood choppers were responsible for stacking 5000 of kind about 25 cords each, and the trees were felled to the top, which was using the drawing lines. About six loads of wood could be used, but these uniformly used were charcoal, oak, hickory, ash, and some pine.



BUILDING THE HEARTH

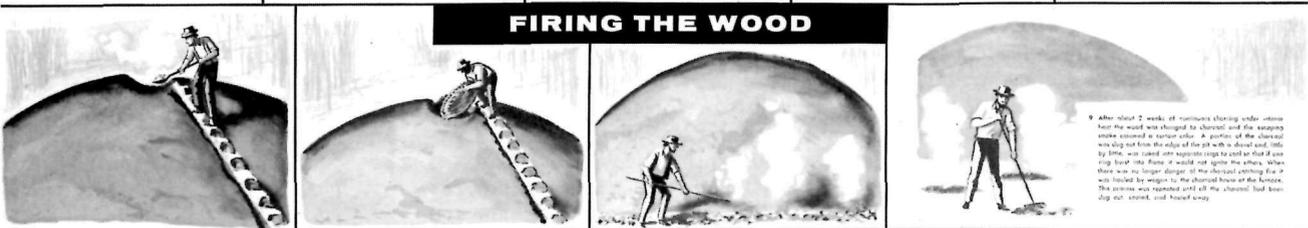
1. A circular area 20 to 40 feet in diameter was cleared and leveled.

2. A guide pile, or log, was placed in the center of the leveled hearth.

3. A rectangular wooden chimney was built around the guide pile from the ground up.

4. Two tiers of wood were stacked radially around the chimney and staked with iron rods to hold it horizontally to avoid all the top. The guide pile was removed, and the chimney was filled with chips and fine kindling. The top was covered with larger wood.

5. The round-like pile, or pit, was covered with stones and covered also from a grassy ceiling. The pit had to be about eight feet in diameter, would show rather than burn.



FIRING THE WOOD

6. A part of the chimney covering was removed, and red hot coals were staked on top of the loading.

7. The chimney covering was replaced, and the top of the pit was again covered by a half a foot of dirt.

8. As the pit burned in overnight heat was used to push wood down from the hearth, as needed. As being about without clearing up all sides of the pit.

9. After about 7 weeks of continuous charring under intense heat the wood was changed to charcoal and the remaining coals contained in separate cells. A portion of the charcoal was dug out from the edge of the pit with a shovel and, 1000 by 1000, was used into separate cells to hold on that day long until the flames it would not ignite the others, when there was no longer danger of the charcoal catching fire it was loaded by wagon to the charcoal house on the furnace. The process was repeated until all the charcoal had been dug out, sorted, and packed away.



GEORGE WASHINGTON NATIONAL FOREST VIRGINIA U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE

ASSIGNED WORK SCHEDULE

Park _____ Supervisor _____ Title _____
 District _____ Division _____ Date _____

Assignment	Person Assigned	Date Assigned	Date to be Completed	Date of Completion	Initials

ASSIGNED WORK SCHEDULE

The form reproduced here was drawn up by Irwin Cowley, Acting District Ranger, Painted Desert District, Petrified Forest National Park, to program various work projects systematically.

Irv says that it not only enables him to see at a glance what has been done and what needs to be done, but more important it provides the basis for various progress reports as well as employee performance analysis.

was then cut into the contours in true scale, both horizontally and vertically, and these sections were removed, fastened together in proper relationship, and saved.

The slot remaining after these contours were removed was painted a brilliant red, allowed to dry, and the removed contours, now assembled in chunks, were replaced but not permanently fastened back in.

Now Hank was ready to graphically give his side of the argument—and it makes a mighty convincing one, indeed.

The first photograph shows the park in its present state, somewhat as if viewed from the air.

The second photo shows Hank holding a slice of the 'land' and revealing the scar across the landscape which the new road would make.

You'd have to really hate parks not to get the point made by this graphic presentation!

NO-SPIKE LOW-COST TREE CLIMBERS

Thomas Emonds, Park Management Student, Nichols College, Dudley, Mass., saw an item in the Nov./Dec. 1963 issue of GRIST about a \$249 pair of no-spike tree climbers.

It occurred to Tom that there might be some GRIST readers who wouldn't know about a pair of "no-spike tree climber" they can make for pennies. A length of stout rope, a double overhand knot, a cow hitch and you're on your way up. Another like it and you've got the pair. (See sketch) You can either slide one of these climbing loops up while your weight is in the other, or completely untie the lower one and re-tie it above the one your weight is in and continue to use as if climbing a series of steps.

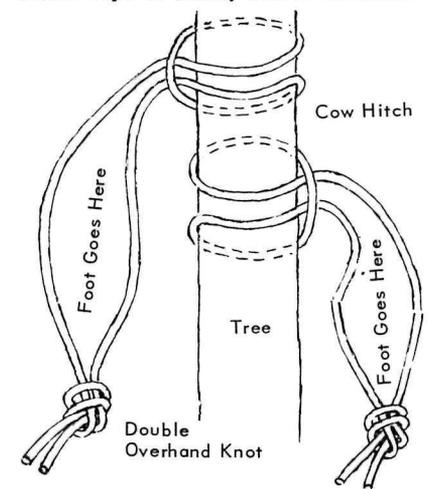
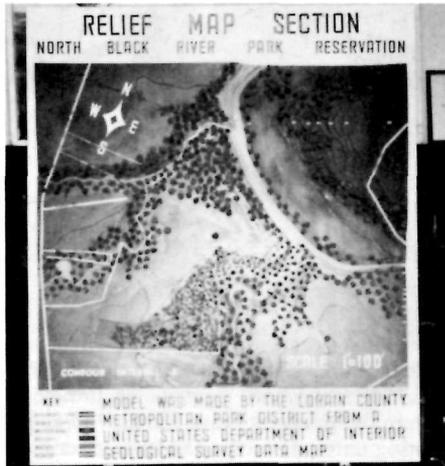
You'd better carry an extra length of rope on you, just in case you drop one of the pair. And don't forget that with this type of climber, as with other types, a waste rope or safety belt is essential.

BLOCKING THAT ENCROACHMENT FORWARD PASS

Henry Minert, Director of Parks, Lorain County, Ohio gets the same kind of pressures other park and open space administrators get in the form of demands to use the lands for other purposes, i.e.: for highways, public buildings (and sometimes private ones, too), for utility lines, ad infinitum, ad nauseum. It's often a tough job convincing boards and commissions, and frequently the courts, of the validity of the contention that such encroachments seriously damage or completely destroy the open space which was set aside for public enjoyment or natural beauty. As Confucius said 2500 years ago, "One picture is worth a thousand words." It would seem to make little difference what the picture was like as long as the idea is put across as factually and as forcefully as possible.

Hank has the answer—or at least, he has a very good one.

He had the shop make up a relief map of a park through which a new highway was planned. The contour layers, figured to scale, were not covered with clay in the usual way in order to smooth them out, but were left as they were cut. Next, the open lands, trees, streams, and boundaries were painted in appropriate colors directly onto the contour sheets. The proposed 'improvement' (in this case the new highway)



PREVENTION OF FALLS FROM HIGH PLACES

The Sala Safety Block, developed by Swedish engineers is constructed to stop a man within a foot of the start of a fall. When the ordinary slack life-line is used to provide some protection to the worker, the line gets in the way, the working radius is limited, and injuries sustained in being stopped by the lifeline may be greater than the man would have received had he continued to fall. The Sala Safety Block gives the worker freedom of movement throughout a 15-foot radius with the safety line taut at all times.



In the design of this block, the object has been to prevent falls rather than to arrest them. Most falls start with a jerky movement, as for example when a man stumbles or moves suddenly to avoid danger. If he can be supported at this point he will usually be able to recover. If he stumbles or jerks the taut rope, the pawls operate immediately. The wire rope no longer pays out and the user is supported. If in spite of this he actually falls, the second stage operates and he is brought gently to a stop without the snatching experienced with dead lines.

Steel wire rope is mounted on a spring loaded drum. With normal movement the rope pulls out and winds up automatically, keeping the rope taut and giving the user freedom of movement with absolute safety. A sudden pull engages a locking device and the rope is stopped. A friction brake on the rope drum in the block prevents jolt from the quick stop should the worker fall.

For further information write the Machinery Center, Inc., 1201 South 6th West, P.O. Box 964, Salt Lake City, Utah.

NONCLOGGING ROTARY PAINT GUN

Clogging, hard-to-control overspray, and a mist of paint over everything have been factors against using paint guns. The Electro Rotary Paint Gun overcomes these objections. It spins the paint at 12,000 RPM, eliminating the need for nozzles, needles, and valves. It won't clog.

The ordinary paint gun with a nozzle gives an oval pattern with feathering around the edges. This kind of pattern is difficult to control and requires skill to paint over the feathered areas. The Electro Rotary paints a straight line 1/2" or up to 18" wide, with practically no feathering, thus reducing the need for masking and touch-up to a minimum. Misting and overspray are also reduced to a minimum, so

the gun can be safely used anywhere inside or out.

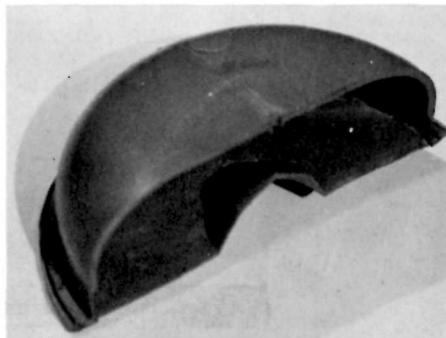
The gun is powered by a 115 volt AC, two-speed General Electric motor guaranteed for one year. It delivers as much paint per minute as a 1/3 H.P. compressor model. In ten minutes you can cover 100 sq. ft. of wall, or, by adjusting the mouth-like opening and controlling the speed, you can write your name in paint. Oil disinfectant, wax and sealer can also be used in the gun.

The Electro Rotary Gun has been tested in the Paint Shop of the National Capital Region, National Park Service and was given a favorable report within the limits of use for which it was developed. It sells for \$59.95 and a current offer of a 7 day trail includes two free quarts of paint. For further information write to American Products Division, American Slicing Machine Company, 6322 North Cicero Avenue, Chicago, Illinois 60646.



NEW SHAPED CHARGES TESTED

Here is a new method of blasting and boulder reduction that was tried during the 1965 summer season at Mt. San Jacinto Wilderness State Park. Plura-Jet blasting units, developed and manufactured



by Explosives Engineering Company, Box 22, Steamboat, Nevada, were used exclusively during construction of some three miles of new trail in an extremely

steep and rocky area of the park.

The units, ranging in five sizes from the thirteen pound large blasting unit down to the one pound trimmer, look for



all like shallow plastic mixing bowls with snap-on lids. The lid contains a cone shaped depression and slightly raised rim, which, when placed face down on the rock, aims the force of the explosion. Some two thousand pounds of various sizes were utilized on the project, about half being packed in twelve miles on mules and the other half flown in by helicopter. The packages in which the units are shipped are of convenient size for loading on pack stock or slinging from a 'copter.

Because the explosive itself is a dry powder sealed in waterproof plastic shells, storage is simple; no turning or restacking of boxes, as with dynamite. The charges are very stable and safe to handle yet are easily detonated with either caps or Prima-Cord.

As the charges are placed on the surface of the material to be reduced, no drilling was required on the project, a considerable saving over years past when gasoline drills and accessories were packed in and out. Though we made no study of the weight ratio of explosive to rock, we did find that the actual blasting costs using the shaped charges were less than half those incurred by the conventional method.

Albeit, a healthy air blast is experienced when detonation occurs, there is an utter lack of flying rock and debris. This very



important factor helped curtail tree damage, rolling rock and the obvious hazard to the crew from flying fragments. By the same token, the shattered rock

remained in place to be used for cribbing, base and fill.

Since the principles of force-wave echoes are involved, placement of the



charges is directionally critical and as considerable experience is required to determine charge size and quantity versus rock size, shape and type, we would advise consultation with the manufacturer or a blaster experienced in the use of the Plura-Jet product for best results.

PHOTO LAB UTILITY CABINET

Readers of GRIST, TRENDS, and other Park Practice publications are no doubt familiar with the excellent photographs by Abbie Rowe which appear from time to time. Abbie is Chief Photographer for the National Capital Region, National Park Service, in Washington, D. C. and does not only the photography work in the parks of the Nation's Capital, but the White House picture taking of special events, the Presidents, families and guests.

But did you know that Abbie is somewhat of an inventor, too? Take, for example, the photo lab storage cabinet which doubles as a trim, tacking and heat press mounting table.



The photo above shows a section of the counter part of the cabinet being raised. It lays over 180 degrees and rests on the gate-leg which swings out from the end of the cabinet. On the underside of

this hinged section is mounted a photo trimmer which fits down into a recessed area of the cabinet when the counter is closed.



The second photo shows Abbie trimming up some 8 by 10 prints. A photo mounting iron is stored in the recess, and when in use plugs into the outlet built into the end of the cabinet. The gate-leg also folds in when the trimmer lid is closed.



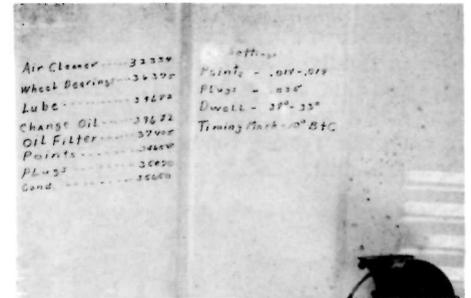
The third photo shows William Spradley, Photo Laboratory Technician, storing some of the camera equipment—in this case a floodlight—in the deep section of the cabinet at the rear. This section goes all the way to the floor and is separated from the lower cabinet space by a plywood partition. Tripods, extensions, and other items are kept neatly stowed away here.

The counter top is overlaid with white Formica making a neat, easily cleaned surface to work on. The lift ring in the counter section that swings open to expose the photo trimmer, is recessed.

The entire cabinet and work surface was built at the National Capital Region shops, and assembled in place in the photo lab. Abbie says it is a great saver of space while, at the same time, keeping much of the camera paraphernalia in an orderly storage space away from dust and dirt.

VEHICLE SERVICE REQUIREMENTS--
QUICK AND EASY RECORD

Requirements for spark plugs, points, wheel bearings, oil filters, etc., for a vehicle can be written on the underside



of the hood with a felt marking pen. The settings of the cam dwell, points, plugs, and the like can also be listed there. Silas D. Hatfield, Mechanic, HD, Petrified Forest National Park, who makes the suggestion says the lettering can easily be removed when desired with a solvent or thinner.

COLORFUL FIBERGLASS
COVERS OLD WOOD

Rough, splintered stadium seats, picnic tables, and park and playground benches can sparkle with color and a fresh new look if covered with reinforced fiberglass. Haak Fiberglass Covers slip on over the old wood. Because the wood is thus protected from rain, snow, and dew, no further deterioration occurs, and its life is practically unlimited. The plastic used in the covers is free from stress cracking, resists the elements well, and stands up under abusive treatment and vandalism. The coating process used makes the color an integral part of the Haak Cover and guarantees against glass shreds coming to the surface. Color change is said to be slight.

A 1/2" resilient pad is installed between the old plank and the 1/8" reinforced fiberglass cover to absorb irregularities in the plank, provide softer seating, increase impact resistance, and make the surface convex to assure water run-off. The covers are of the correct thickness to resist the rough treatment of track, baseball, and football shoes and women's high heels. The snap-over pad and the plank are fastened with 1 3/4" aluminum screw nail fasteners. After the fiberglass is installed, seat or bench ends are sealed with anodized aluminum end caps. Covers are delivered in any transportable length, but splicing is necessary in extra long installations. An aluminum extrusion that interlocks the spliced ends is provided for this purpose.

Maintenance costs are greatly reduced and the covered objects will retain a fresh new look in colors to suit your wishes. For additional information, write to Lasco Industries, 1561 Chapin Road, Montebello, California 90640.

INFRA RED COOKERY A GO GO

A five pound stove with a handle carries like a small hamper. It's good for camping and hunting trips, or backyard cookouts, can be set up in the back of a station wagon or in the kitchen. The broiling is done vertically, with flameless, smokeless infra red heat, so the cooking can be done in any area, indoors or out. If the weather is cool, the cooker can also be used to chase the chill.



One Probachi basket will hold 4 to 6 portions, such as 6 hamburgers, 4 strip steaks, 4 lobster tails. Because of the deep and rapid penetration of the pure infra red energy, the cooking time required is less than by a conventional method. Spareribs require 10 minutes each side, low heat; steaks, 3 to 5 minutes each side, high heat. Three units can cook a variety of items for 16 to 20 guests. One tank of fuel will last 2 to 3 hours and refills are available at all hardware and department stores.

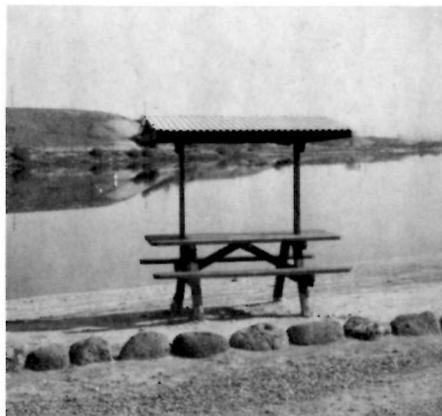


The Probachi is available postpaid from Polyplastic Forms, Inc., Farmingdale, New York, List price \$24.50.

Twenty centuries of progress have brought the average citizen a vote, a national anthem, a Ford, a bank account, and a high opinion of himself, but not the capacity to live in high density without befouling and denuding his environment, nor a conviction that such density is the true test of whether he is civilized. —Aldo Leopold.

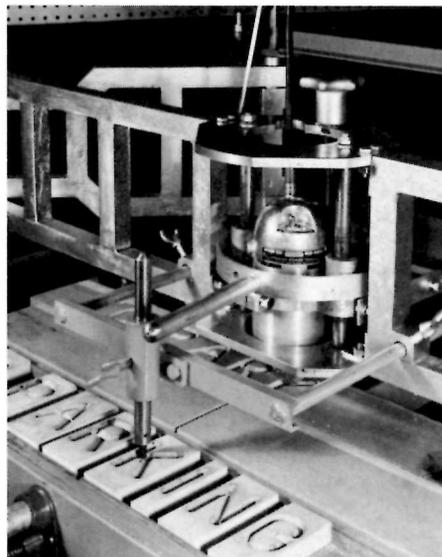
PICNIC SHELTER BUILT
BY PRISON LABOR

The picnic shelter shown in the photograph was made by inmates from the Roubideau honor camp at Sweitzer Lake out of Delta, Colorado. Edward J. Fahey, Senior Park Manager, Southwest Colorado Game Fish and Parks Department, sent the information and photograph to GRIST.

SIGNS—READY MADE OR
DO-IT-YOURSELF

Rite-A-Sign, Inc., will sell you carved rustic, sawtooth edge, redwood signs, or, if you prefer, you can buy the machine and make your own.

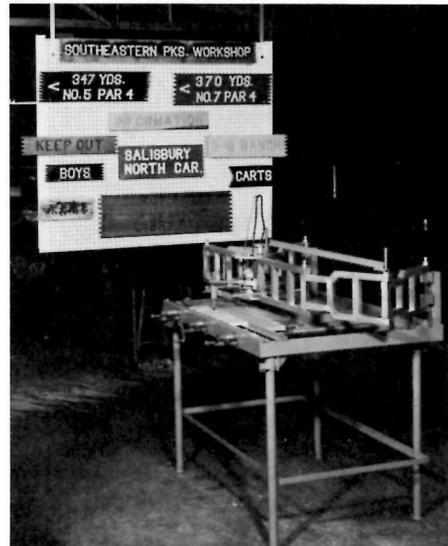
You can choose from a catalog of standard signs: one-line signs approximately 1" by 4" by 15", two-line signs approximately 1" by 8" by 24". Letters, Gothic



style, 2 1/2" may be had either straight or slanted. Large signs will be made up to your specifications; different letter styles and sizes are available. Signs are dipped in wood preservative on request at no extra charge.

If you want to rout your own, there's the portable Rite-A-Sign machine. The table

is all steel with parts welded or bolted. The unit includes a Carve-a-Sign unit, a 1-hp router motor, a two-inch centerline alphabet (will cut up to 3" letters), a five-inch centerline alphabet (will cut



up to 6" letters), a router bit, and template letter holders for up to two rows of letters. Carve-a-Sign uses the familiar pantograph motion whereby anything the machine stylus will follow will be reproduced by the router head. The stylus merely follows the template with virtually no down-pressure. It is therefore possible to reproduce your present signs and to design your own symbols. The type and style signs that can be cut depend only on the resourcefulness and ingenuity of the operator. It's fast—a standard "no parking" sign can be cut in less than three minutes.

For more information and prices on the signs or the machine write to Rite-A-Sign, Inc., P.O. Box 428, Salisbury, North Carolina.

PAPERCANS

A cabinet holder for paper refuse bags, featuring an exclusive clamp-release bar to facilitate bag installation and removal, has been introduced for park shops and camping use by the Bag Division of West Virginia Pulp and Paper Company.

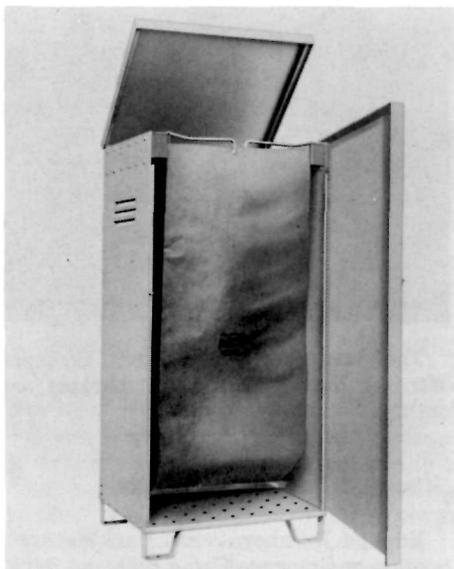
The holder is part of the Westvaco Papercan bag system for refuse collection. This system enables parks and camping areas to collect and dispose of refuse in convenient, sanitary, odorless and noiseless containers.

The clamp-release bar holds the Papercan bag firmly in the Model CAB-43 holder through a row of teeth piercing it at the top.

The bag does not touch the walls of the cabinet, as in the case of ordinary liners. Aeration is complete and effective. Ventilation is further aided with louvers on

the sides of the cabinet and perforations at the bottom of the unit.

The 20-gauge galvanized steel holder virtually eliminates the problems of flies,



odors and excessive moisture in conventional units of this type. In addition, the metal sides of the holder prevent the bag from snagging on other equipment or being damaged by stray animals.

Model CAB-43 is available with or without a lid. The Free Drop Top for 360° access is offered optionally. Other options include casters to make the unit more mobile, and a set of wheels plus a top handle to facilitate movement of the cabinet.

A new galvanized steel public access unit for use on top of the cabinet, especially suited for outdoor application, will be available by mid-summer.

The unit is 18 3/4 by 16 by 41 inches. It is available with a beige or green enamel finish.

The bags are made of heavy-duty, wet-strength, Clupak extensible kraft paper. Clupak stretches, absorbs more impact and withstands much rougher treatment than ordinary kraft paper. Westvaco bags can even be tossed on to a truck without danger of splitting.

Clupak is chemically treated to provide more wet strength than ordinary kraft. Westvaco bags made of Clupak will not be damaged even by a rainstorm.

These bags can hold as much refuse as two standard metal cans—up to four cubic feet of a variety of wastes.

Each bag is used only once, then thrown away—with the refuse. Bags are easy to store. One carton holds 100 bags. This is equal to the capacity of 200 standard metal cans.

For further information, contact the Bag Division, West Virginia Pulp and Paper Company, 230 Park Avenue, New York, New York 10017.

DRAMATIC LITTER SIGNS

You can get more attention and more results with anti-litter signs by attaching real litter to them. Robert J. Ferris of Arches National Monument, suggests use of cigarette packs, film boxes, gum wrappers and the like to call attention to the signs and the problem (see photograph).



A sign for trail users displays trash objects and says: "Please keep them in your pocket until you come back", but other signs with litter attached could be used along park roads urging motorists to keep the trash in a litter bag and to dispose of it in proper containers.

ADAPTING SIGNAL WAND TO FLASHLIGHT

The first photograph shows how Edward J. Fahey, Senior Park Manager,

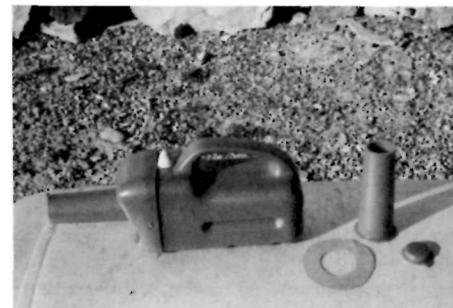


Southwest Colorado Game Fish and Parks Department adapts a signal wand for use on a flashlight when it is smaller than the lens which came with the flashlight.

Ed cuts a gasket out a sheet metal the size of the flashlight lens then cuts a hole the size of the wand out of this piece, as shown on the right in the picture. He

leaves the flashlight lens in, puts the gasket next to it, then attaches the wand. The pressure of the lens and the gasket hold the wand in place. The result is a three cell flashlight to use on area patrol.

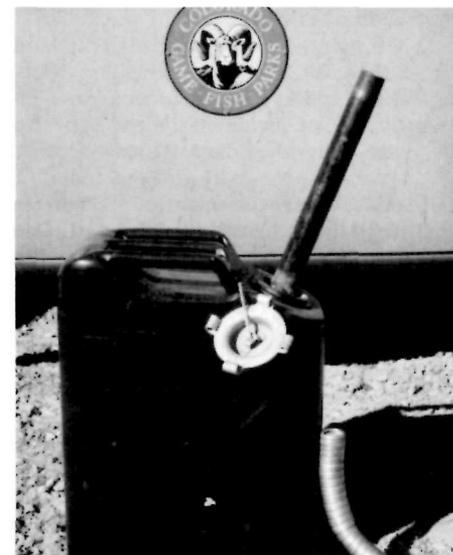
The other photograph shows an Eveready All American Lantern, powered with a #509 Eveready battery, with Ed's adaptation of the W-4 Signal Wand. The gasket makes it possible to put the wand next to the unbreakable lens. This light is good for night patrol; the red wand shows up well and the lantern throws a good beam.



RESTORATION FOR A BROKEN FLEX-NOZZLE

If the flex-nozzle of your gas can has broken off or leaks, you can put it back to work. Edward J. Fahey, Senior Park Manager, Southwest Colorado Game Fish and Parks Department, tells you how.

Take the rubber gasket off and then weld a piece of pipe onto the end that goes on the gas can (see photograph).



After the weld cools, wire brush it well then replace the gasket. The nozzle won't bend, but it and the can are usable again.

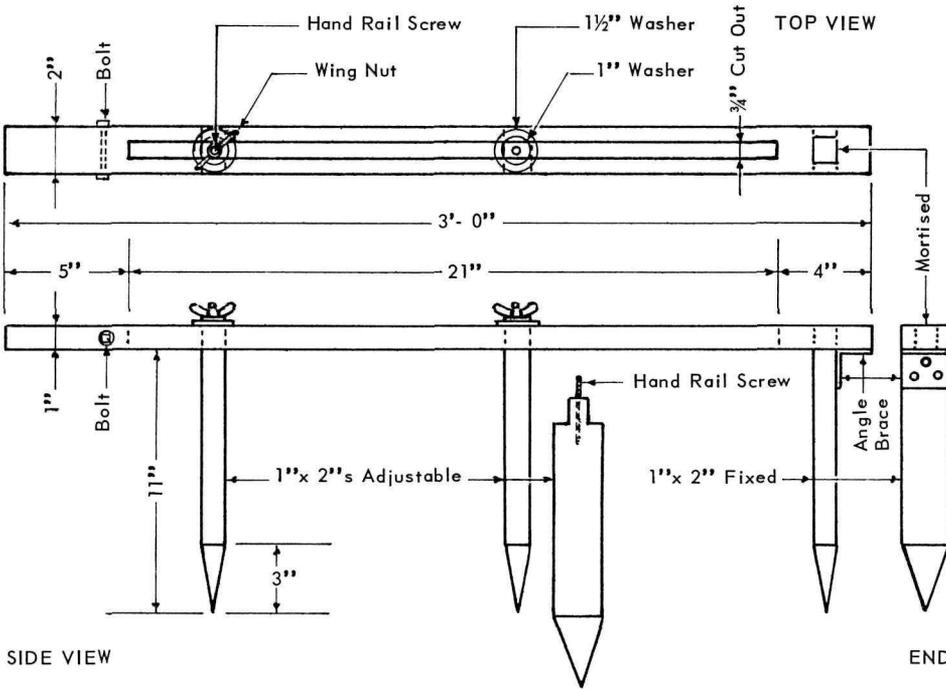
Thirty days bath September, April, June, and the speed offender.
—Boys' Life.

LINE MARKER FOR ANNUAL PLANT BEDS

Are you looking for a quicker, more accurate and more efficient way of marking and drilling beds for annual plants? If so, build yourself the simple hand device invented by Basil Ambler, Horticulturist, Central, National Capital Region, National Park Service. Basil's invention, illustrated below, consists of a 1 by 2 inch oak board which has a mortise slot in the middle 3/4 inch wide



The last photograph shows gardener Wendell Kurtz holding the marking and drilling device.



BUMPERS FROM SCRAP IRON

Edward J. Fahey, Senior Park Manager, Southwest Colorado Game Fish and Parks Department, used 5-inch scrap channel iron to make the sturdy vertical bumpers shown on the dump truck in the photograph. The 2 x 4's give added protection to the vehicle.



and about 28 inches long. The length of the slot can vary according to the width you require between rows.

Three pointed oak spikes, also made of 1 by 2 inch oak, do the marking and drilling. These spikes have shoulders one-inch deep by 5/8 inch wide on the end opposite the point. The shoulders fit snug against the bottom of the rail and the tenon of the spike, after the mortise is cut, is flush with the top surface of the rail. One of the spikes is permanently fastened in its own mortise hole at one end of the board. The other two are adjustable up and down the slot.

To hold the two spikes in place in the mortise in the top rail, a hole was drilled

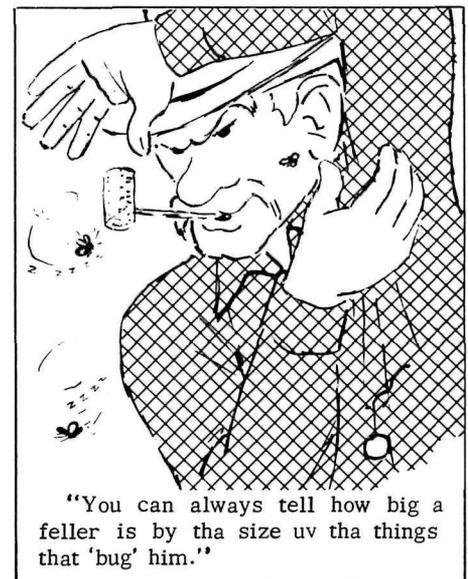


dead center of each and a hand rail screw was turned into it. The machine bolt treads on the exposed end of the hand rail screw accommodates a washer large enough to extend across the mortise in the top rail to hold the spikes in place. A wing nut tightens it down. The wing nut, when loosened, allows the spikes to be adjusted up and down the mortise to varying row widths.

As the photographs show, a man can run drill lines at evenly spaced distances and then return and use the device to punch holes evenly spaced up and down the drill lines. It is a simple matter thereafter to place the plants, and net result being plants evenly spaced laterally and horizontally.



RANGER 'RED' sez:-



"You can always tell how big a feller is by the size uv tha things that 'bug' him."

Jim Burnett & IBL