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Playgrounds For Free

Virtually every American child has swung from a tire swing suspended from a tree. But too few children have shared the joys of climbing a tire jungle gym or riding a tire dragon, an oil drum horse or play on a cable reel castle.

A new book titled *Playgrounds for Free* by Paul Hogan has been released by MIT Press which presents hundreds of ideas for transforming industrial waste into fun playgrounds for children. The 252-page volume (\$9.95) presents projects which have been built all over the world.

The book is filled with sketches and photographs for most of the ideas presented. The author stresses that the ideas presented are meant to stimulate readers to expand their own creativity.

"I feel that I have only scratched the surface of that vast and growing pile of industrial 'junk' that can be used with profit in playgrounds, . . ."

The basic materials used in most of the playgrounds presented include: cable reels, tires, tanks and drums, concrete pipe, utility poles, railroad ties, inner tubes and a host of other ready-to-use materials.

The possibilities for using these materials, singly or in combination, are vast—Hogan touches on swings and cableways, constructions, landscapes, tree houses, shanties and other shelters.

One of the most intriguing chapters is on making animals, beginning with a telephone pole horse, a cardboard tube horse and a concrete elephant slide.

As most park administrators and recreation specialists know, playground equipment often suffers at the hand of vandals. Hogan's experience in developing playgrounds has shown him that those areas which are built by people for themselves are less apt to be vandalized than playgrounds built for people. In addition to running a "playgrounds for free" program for the state of Pennsylvania, Hogan has



lectured or built playgrounds in Connecticut, Wisconsin, Kansas, Tennessee and Alabama and has traveled throughout the world gathering ideas from people in other countries.

Hogan's book shares not only his successes—but his failures—so that others might avoid some of the well-intentioned but poorly conceived ways of creating recycled playgrounds.

All the tools necessary to obtain materials and build quality useable play equipment are provided including a shopping list which indicates potential materials available from utility companies, local, state and federal governments and private companies.

One of the most interesting parks described in the book is the Rokugo Tire park in Ota-Ku, Tokyo, Japan. Using more than 3,500 tires donated by the Rokugo Tire Company, the park has an exciting array of tire toys—the largest of which is a dragon perhaps two stories high made almost entirely from tires. Other tire forms in the park include a tire robot, a slide, swings and a climber—in addition to a host of loose tires ready for children to play with, in and around.

Hogan has now established a nonprofit group called Playground Clearing House, Inc. and will be publishing a quarterly newsletter on the latest developments in playgrounds constructed with used and surplus materials.

For further information or copies of the book, contact Playground Clearing House, Inc. 26 Buckwalter Road, Phoenixville, Pa. 19460.

For a few of the ideas included in the book, see pages 28-29.

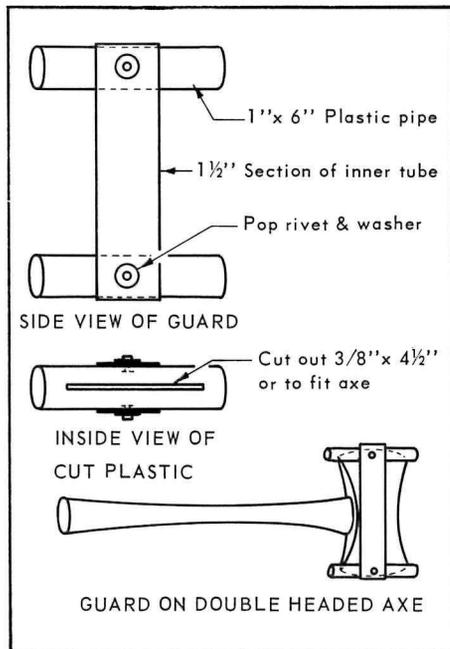
Recycling

With a little effort and imagination, we can recycle all sorts of things we find around us. As a regular feature, *Grist* will present new ideas for recycling materials you find around you. Send your ideas to Jim Burnett, Editor, *Grist*, Division of Federal, State and Private Liaison, National Park Service, Washington, D.C. 20240.

Safe Storage for a Double-Bit Axe

Joseph Kovich, a Park Foreman of Tobyhanna State Park in Pennsylvania suggests a handy cover for a double bit axe when not in use.

Kovich took two 6-inch pieces of rigid plastic 1-inch pipe and linked them with two strips of inner tube 1 1/2 inches wide. The inner tube and the rigid plastic are linked by pop rivets with washers. A cut, about 3/8 by 4 1/2 inches, big enough for the axe, is made in the rigid plastic and the cover slips on the axe head easily.



Recycled Road Striper

Take a bicycle wheel hub, a 4-inch V-pulley, a V-belt, a 12-inch pulley with a cam, an air hose, paint hose, beader and bead reservoir and what do you have? A Rube Goldberg invention? No—a Raymond J. McGillivray special—an automatic surfaced road striper that can be attached to a truck and can paint about six miles of stripe per hour.

How does it work? The engineer equipment operator at Death Valley N.M. explains that he bolted a 4-inch pulley to

the hub of a 27-inch bicycle wheel which drives a 12-inch pulley one revolution to four revolutions of the bicycle wheel. A 10-inch cam, bolted to the 12-inch pulley activates the 3-way air valve which in turn activates the paint gun and bead dispenser. The 4 to 1 ratio paints a stripe 9-feet long and leaves a 16-foot space. The length of the cam determines the length of the stripe. The width of the stripe is regulated by the distance the spray gun is above the road surface. The paint pot, air compressor, beads and extra paint are carried in the bed of the pick-up truck.



Light Stand for Easy Work

Jerry Wilson, General Foreman for the Scott County Conservation Board in Iowa has come up with a good idea for a light stand for workshops or even for a display area.

The stand is made from two 32-inch pieces of pipe, one has a 1 1/2-inch diameter and the other a one-inch diameter. The two pipes slide into one another and a set screw is placed through and near the top of the wider pipe to allow the inside pipe to be raised and locked in place. The pipes are then set in an old 18-inch disc blade, and capped with a 1/8-inch angle iron about 24 inches long to form a "tee" welded in place. A 2- by 6-inch board is secured to the angle iron and swivel lights are mounted on it and hooked in a series to operate as a single unit (see picture).



Ingenuity

GRIST

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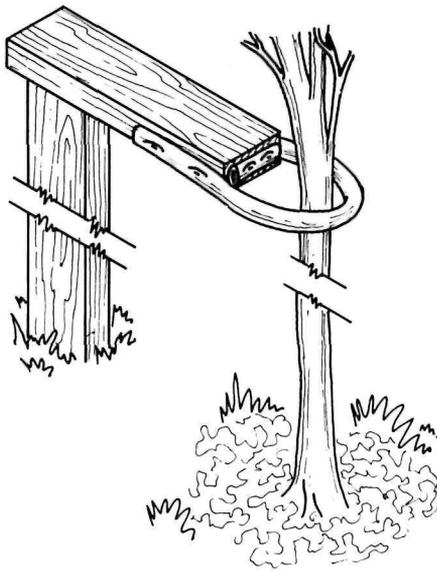
WARNING

In the November/December 1974 issue of *Grist* we suggested a coat hanger suet feeder. Martin Parker, a naturalist with Ontario's Ministry of Natural Resources, writes us to caution against this device in areas where the temperature drops below freezing. "Birds can receive severe eye and tongue damage when they come in contact with the cold metal," says Parker. He suggests the use of the plastic sacks that some brands of cooked ham are sold in. Filled with suet and hung from a tree branch, these sacks are safe for birds.

The following helpful hints will make your job a little simpler, a little more efficient. Send in your ideas to us at *Grist*!

Hold That Tree

Louis Witherspoon, Park Manager of Port Crescent State Park in Michigan suggests that when planting trees in need of support, sink a post outside the disturbed area a few feet and attach a two by four arm to the top of the post. Then cover the end of the arm with a cushion of garden hose and extend a loop from one side of the arm to the other around the tree to support it.



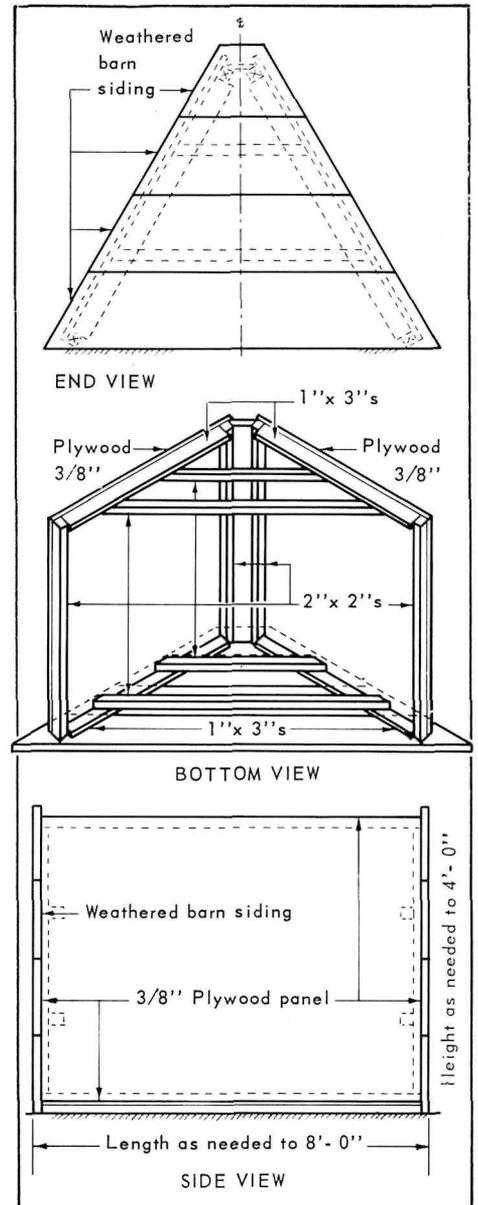
Dust Free Padlock

Just as cold weather can freeze a lock, so too can fine road dust. To prevent padlocks from getting "frozen," Acting District Ranger Kenneth C. Patrick of Organ Pipe Cactus National Monument cuts the thumb from an old rubber glove and slips it over the padlock, securing it with electrical tape around the shank. A slit at the end of the thumb provides access for the key.

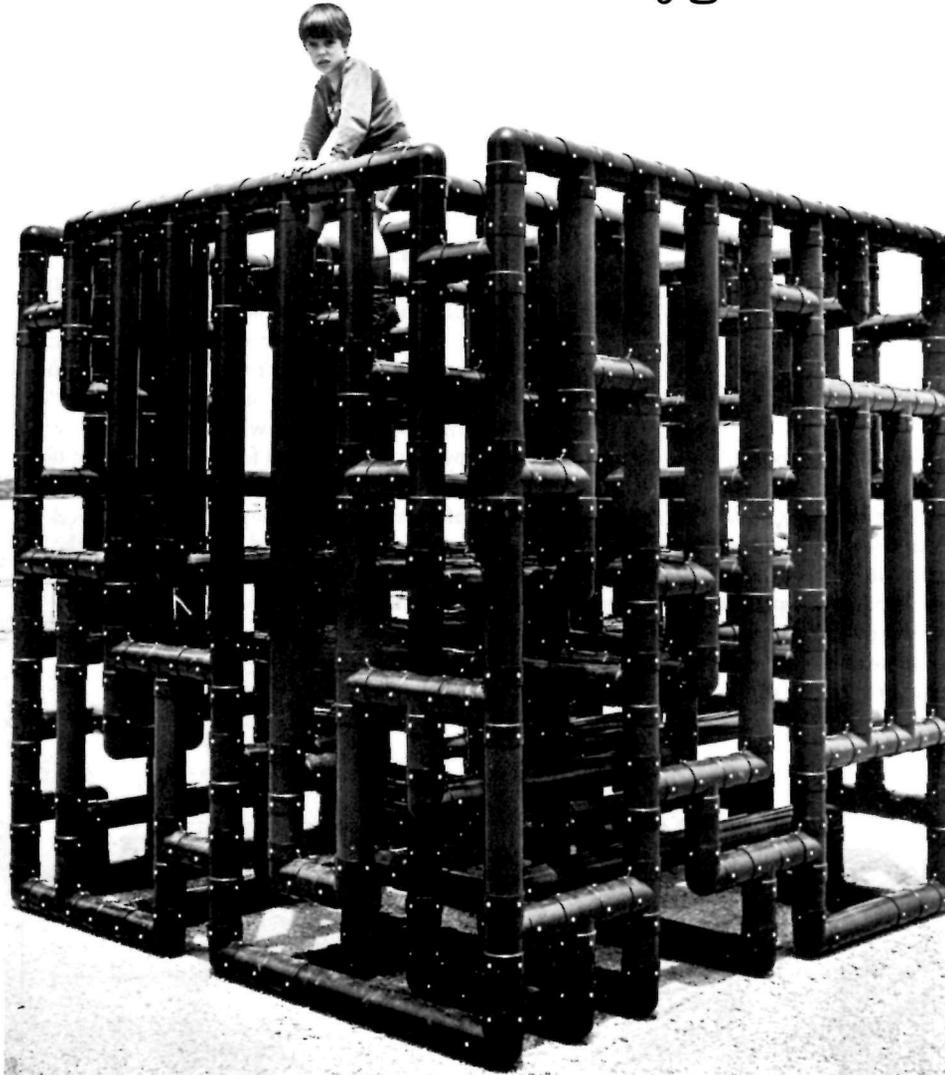
Easy to Make Exhibit Panels

Samuel Lyons of Clearwater Nature Center in Clinton, Md. suggests this simple but easy-to-construct exhibit panel.

The 38-inch high exhibit can be placed on a table or a counter with ease. Two panels made with one by threes (see sketch) are braced with 2- by 2-inch or 1- by 3-inch braces to form a square-topped triangle. The square-topped faces can be of barn wood, burlap or cloth covered cardboard, plywood paneling or cork board, depending on the available materials and the use you have in mind.



Playgrounds



Plumber's Jungle Gym

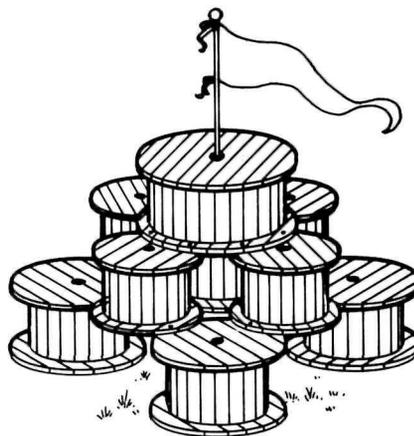
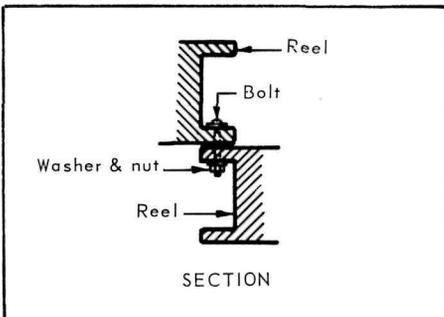
Plumbers are increasingly relying on polyvinyl chloride (PVC) piping and connections. Seconds of this piping might have gone to waste had it not been for the ingenuity of a sculptor who made a play structure from them. The possible forms which can be made from these connections are endless.

Utility Pole Swing

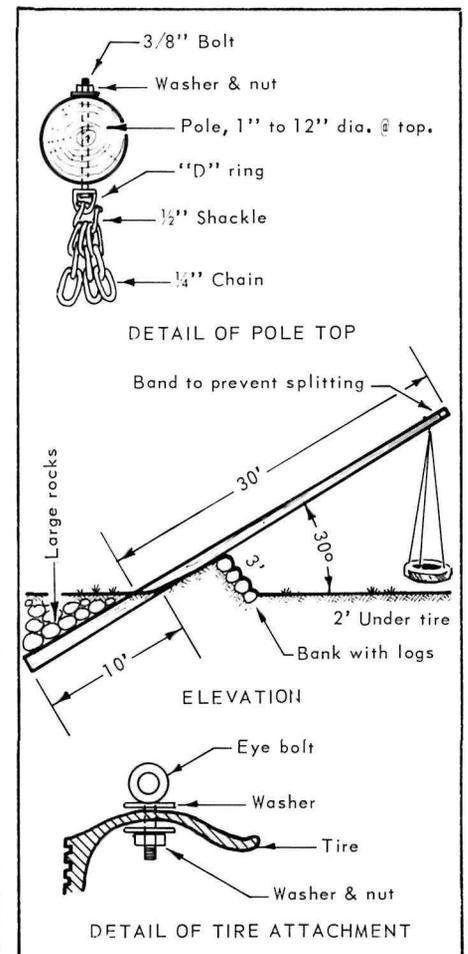
A cantilever tire swing, designed by Rockford, Ill. landscape architect John Cook uses a 40-foot pole buried at a 30 degree angle about 10 feet in the ground. The tire is suspended by a 1/4" chain hung from a 5/8" bolt drilled through the pole into a "D" ring and attached to a 1/2" shackle. The tire hangs from eye bolts attached by a nut on the inside of the tire which is suspended two feet above the ground.

Cable-Reel Castle

Random size reels can be used to make this sturdy castle. Heavy bolts with washers should secure the edges to one another at numerous points. Make certain that the bolts do not extend down very far creating a possible safety hazard. Fill in spaces between the reels with two by fours and sand down any rough edges.



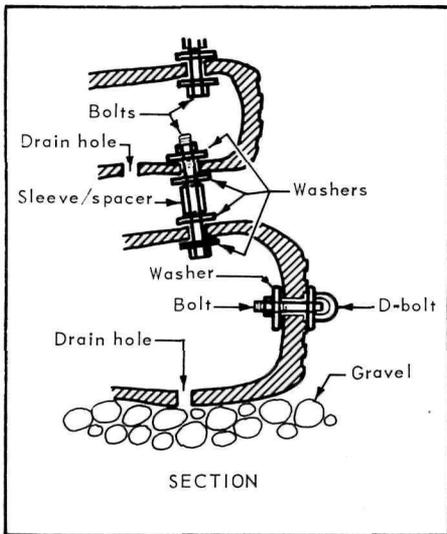
CASTLE READY FOR THE CHILDREN



Playgrounds

Tire Teepee

By using tires of graduated sizes attached by nuts and sleeved galvanized bolts, a simple tire teepee can be constructed. The tires should be placed over a well-drained area and slightly buried in the earth and anchored. Drain holes should be placed in the bases of all tires.



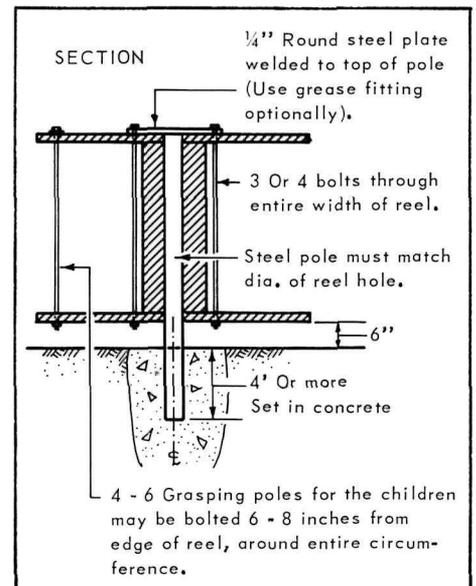
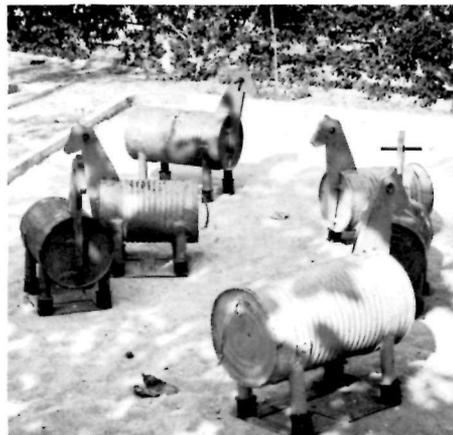
Cable-Reel Merry-Go-Round



The photograph shows an easy to install cable-reel merry-go-round. The size of the reel should reflect the size of the children for whom the merry-go-round is intended.

Oil Drum Horses

These horses, created from old oil drums and steel pipe legs and jig-saw heads require a little welding and wood-work but are easy to construct and fun for children to paint.



Maintenance and Safety

Camp Property Management

Owners and managers of camps and campgrounds responsible for property control and maintenance will find the new publication produced by the Boy Scouts of America titled "Camp Property Management" of considerable interest.

Although written for their own use, the publication contains checklists management forms and guidelines applicable to related public and private operations. It is available from the National Supply Division, Boy Scouts of America, North Brunswick, New Jersey 08902 at a cost of \$3.75, catalog number 3688.

Traffic Cones

John B. Claveloux, a horticulturist with National Capital Parks, suggests that vehicles working on roadways and parkways carry red traffic cones at all times to be placed in the rear of the vehicle when stopped.

"This alerts other motorists and the driver must return to the rear of the truck and pick up the cones, forcing him to check the back of his vehicle before moving. . . . this would greatly reduce backing accidents."

Camouflaging Highway Signs

In areas where a number of traffic signs are required, Jay D. Martindale, Park Planner with Arkansas Dept. of Parks and Tourism, has come up with a simple solution to visual pollution.

The solution is simple—paint the backs and supports of the signs with a paint which blends in with the surroundings so that only sides with the message for the motorist are visible. Sounds simple—but what a difference it makes!



Heavy Duty Door Latch

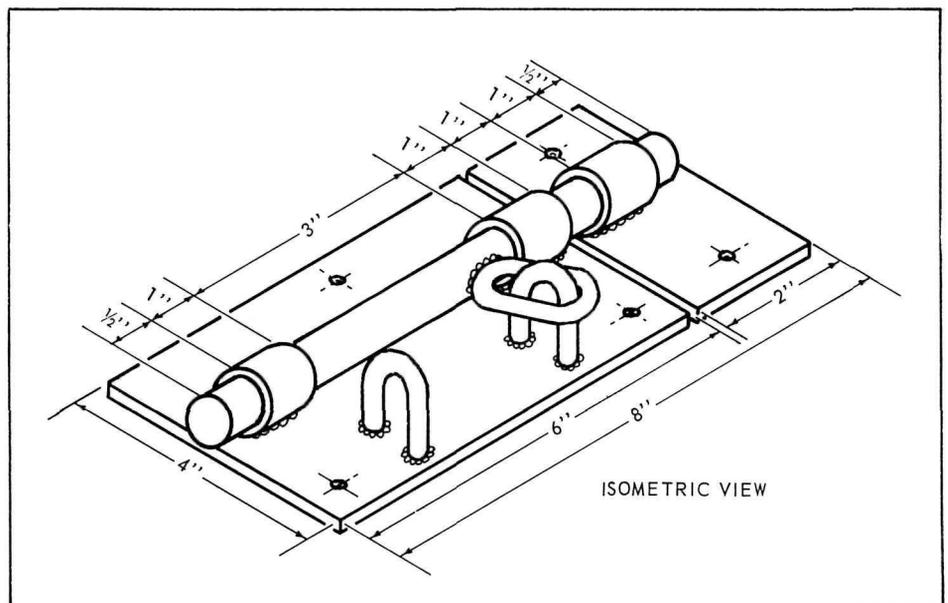
Automotive garage personnel at New Castle County Department of Parks and Recreation have come up with a vandal resistant door latch.

Using scrap materials usually found in parks maintenance operations, this lock can be easily welded without the expenditure of much time.

An important feature of the assembly

is that the bolt can be locked in the open position for use on doors that need security only part of the day. The assembly can be adapted for right or left hand opening doors and can be attached by welding, bolting or screws depending on the situation.

Very simply, the lock uses a 1/2" rebar for the bolt, 1/4" steel plate for the base; 1" x 3/4" O.D. pipe sections for the bolt guides and rungs for the lock shaft made from chain links.

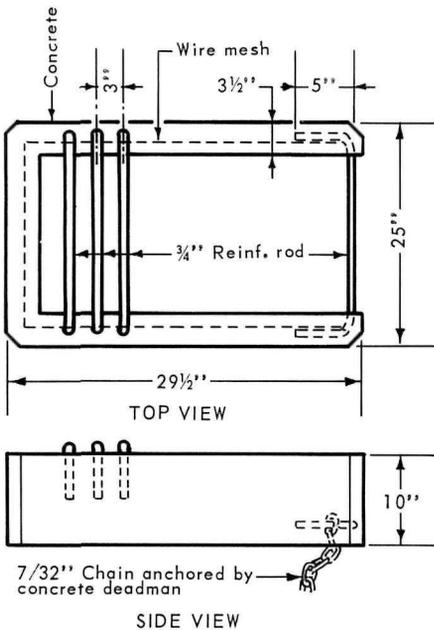


Quick and Easy Fire Pit

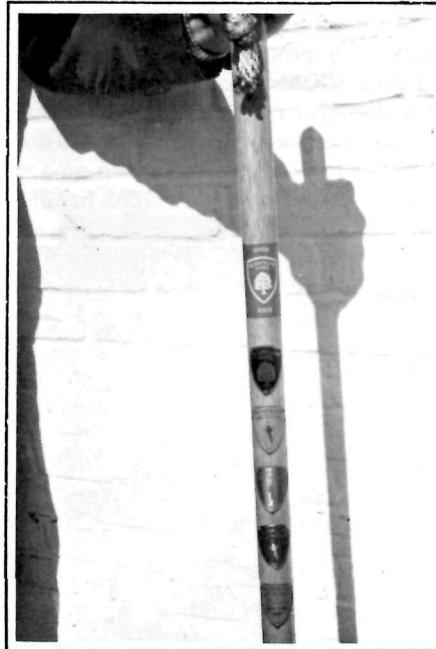
Richard A Dick, Construction Foreman with Iowa's Scott County Conservation Board, has come up with a good idea for an inexpensive fire pit for a wilderness camping area.

The pit is a simple U-shaped reinforced concrete form 10 inches high, 3 1/2 inches thick. The finished pit is 25 inches by 39 1/2 inches. A rebar grill with four bars spans one end and a bar at the open end spans the other. A chain embedded in the body of the pit when it was poured is anchored by a concrete deadman. This prevents campers from walking away with the pit.

While many concrete pits do not hold up well under extreme heat, this pit has a small enough size to limit the intensity of fires and it is easy to produce and replace.



Encouraging Hikers



The Metropolitan Park District of Akron, Ohio has developed a successful comprehensive program to encourage the use of park trails.

The 10-year old program is called the "Fall Hiking Spree" and brings new and veteran hikers alike to the parks. Walks with a naturalist often begin the program.

Hikers get awards based on the amount they hike. Every participant in the program gets some kind of award and is placed on a mailing list for a monthly newsletter. The park keeps accurate records on each hiker. First year awards start with a decal and move up to a lanyard, and finally, to a "hiking stick" made of a broom handle for veteran hikers to fix their metal badges.

Thanks to naturalist Bert Szabo for sending us information about the program.

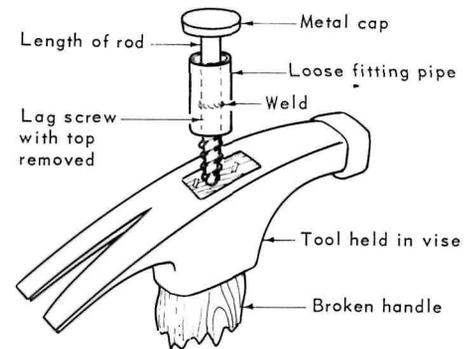


Replace that Wooden Handle

Roy A. Elie, of Metamora Hadley Recreation Area in Michigan, has come up with a handy tool to remove wooden handles from tools.

The tool is made from a lag screw with the head cut off and the screw portion welded to the end.

A loose fitting piece of pipe is then slipped over the entire tool up to the cap end. To remove broken wooden handles, the lag screw is screwed into the top of the wood and the loose pipe is used as a battering instrument against the head. With a tool securely anchored in a vise, splintered or broken handles are easily removed.



Draining Pumps Made Easy

Bill Warren, a Park Technician at Platt/Arbuckle in Oklahoma suggests that parks switch to Forrester 14 x 120 slip-on fire fighting units which have a valve and faucet on the side to test the pump when not in use. With the inclusion of this cut-off valve, water will not go into the hose during the testing of the pump.

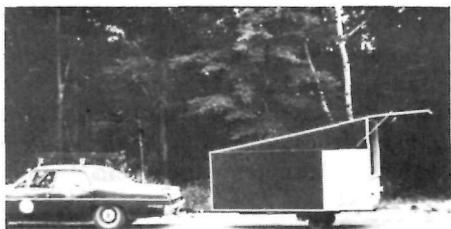
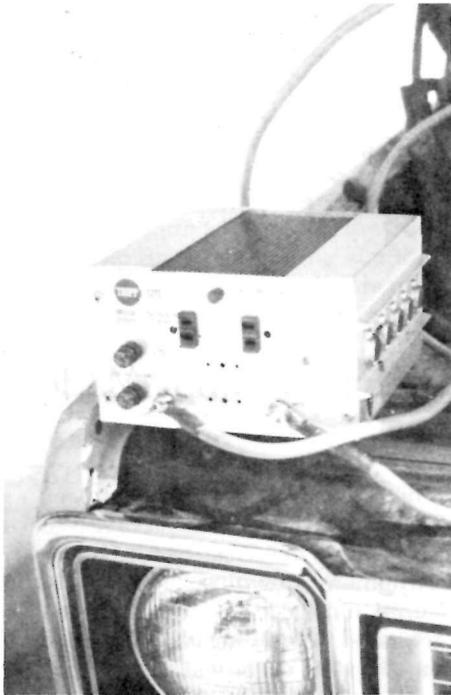
Pumps can be easily drained without any need to unreel the hose and drain its entire length in freezing weather. In addition, small spot fires can be extinguished with backpack pumps filled from the faucet. Both time and manpower are saved through the use of this device.

Making Evening Programs At Campgrounds More Efficient

Fred Young, a Park Technician at Pictured Rocks National Lakeshore in Munising, Michigan and Fred Tyszka, Park Interpreter at Sleeper State Park in Caseville, Mich. have developed several good ideas for slide and film presentations at remote campgrounds.

Young uses a 500-watt "inverter" to provide power for slide programs. The inverter runs off a vehicle battery, taking little energy, while the car engine is *not* running.

The type used by Young is sold at Sears and is called a Powerverter, model PV5003 and weighs only 19 pounds.



Tyszka's ideas require more pre-planning but easier interpretive presentations using film.

A car-top screen carrier was one solution to the problem of wind-blown screens. Chains hold the screen in proper position over the side of the car and the bottom is staked in place and tied to door handles to prevent wind action on a spring-wound screen. A brook handle with a hook on the end was used to raise and lower the unit and canvas mattock type cover placed on the unit to protect it from rain when traveling.

A more elaborate plan is a portable rear screen projection unit constructed on an old boat trailer. The unit has all equipment bolted down inside, safe from rain, insects, sand and prying fingers. Projectors and tape recorder are loaded prior to the program and the unit is ready to roll on arrival.

The frame of the projection box is made from welded steel angle irons with exterior plywood pop-riveted to it using the large washer type of rivet. The floor is of 5/8-inch plywood bolted to the frame and the whole unit is then bolted to the trailer. Projectors are located beneath the screen with a light shield over them. The light shines on a plate glass mirror at the tongue end of the trailer which in turn reflects the images back on the screen. While this unit can use electricity on site, if hooked up to an inverter, it is self-contained and not dependent on electric outlets.

