

Grist

March / April 1975

Volume 19 / Number 2

Play Structures For A Natural Setting

A clever answer to plastic play structures and candy-striped swing sets is evident in these three structures of wood and rope guaranteed to make any youngster happy.

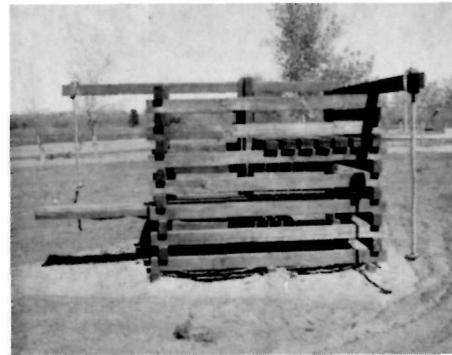
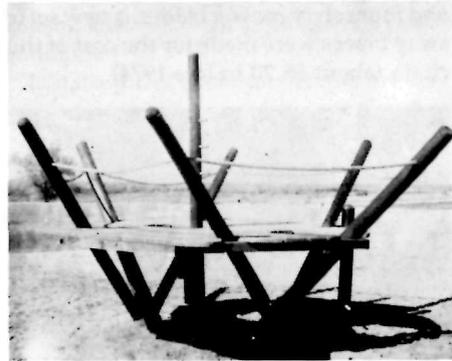
Grist contributor Ed Fahey of Chatfield Dam SRA in Denver, Colorado assures us that each structure is easy to make and durable.

The play platform is made with seven poles about two and a half inches in diameter sunk a good four feet into the ground to assure stability. A platform made of cedar straddles the poles which are set seemingly at random. The platform is set about four feet above ground, with steps on one side to assure easy access. Ed recommends that a good 18-inch bed of sand be laid around the structure to add to the fun and cushion any youngster's fall.

About 33 feet of three-inch thick, Manilla rope is pulled through holes two and a half inches in diameter—a task so back-breaking that Ed turned to a block and tackle to help force the rope through the holes. The tight fit assures minimum chafing and a longer lasting rope. The structure is made with wooden dowels as much as possible rather than nails.

Ed recommends that the platform and the poles be sanded and coated with Wood Life and a stain to preserve and protect the wood.

The two by four jungle-gym-like structure pictured below the platform is simply



an eight-foot high, six-foot square box with a platform inside.

The forty-odd two-by-fours are stabilized by four rods which run from top to bottom at each corner and are sunk in concrete at the base. All nails are counter-sunk to avoid torn clothing or cuts and bruises. The three-inch Manilla rope is spliced to fit through a hole drilled in the wood.

As with the first play structure, the rope is forced through the hole tightly to avoid chafing. And Wood Life again is recommended.

The last play structure (seen in partial view here) is another play platform with a chain ladder. The eye to hold the tire rope is set up rather than down to prevent rope chafing and wearing.

Sand surrounds all three structures and is contained by a low concrete wall defining the perimeters of the play area. "I think these structures should be used close to water recreation areas," says Ed Fahey, "That way, when Mom and Pop go for a swim, the kids can keep busy and in sight."

Ed suggests that old telephone poles could be substituted for the poles shown for a considerable savings.

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.

Tool Locker For Truck

Richard H. Adkins, Maintenance Technician at Chain O'Lakes State Park in Albion, Indiana and his co-workers have come up with a handy solution for carrying and securing tools in pick-up trucks.

Rather than spend a lot of money on manufactured tool boxes, they took old metal wall lockers and mounted them on each side of their truck.

The lockers are fastened down by four $3/8" \times 1/2"$ long bolts and one piece of $1' \times 1/8"$ strap metal for a brace from the fender well to the bottom rear of the tool box.

"We left the top shelf in," says Adkins, "and use this area to store gas for our chain saw and lawn mowers. The only problem we have had is that we have to keep a lock in the handle on the door, if not, the door will vibrate open."

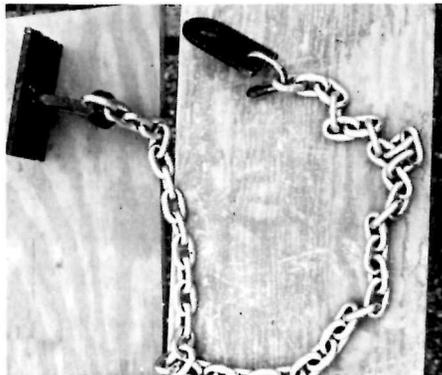
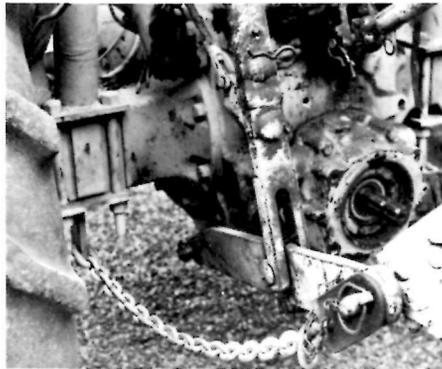
If you can find some old lockers, in need of recycling, this idea will cost you the price of a can of paint and a few bolts!



Sway Brace For Tractor Implements

Curtis Morgan, a tractor operator at Horseshoe Bend National Military Park has come up with a money-saving way to make sway braces for tractor implements from discarded materials.

Using a six-foot length of heavy chain and four rotary mower blades, a new set of sway braces were made for the cost of the chain (about \$5.20 in late 1974).



The braces are sufficiently flexible to give without bending or breaking, preventing a possible tip over of the tractor due to sudden weight shifts of heavy implements.

How did Morgan do it? First cut four four-inch sections from the attachment end of four swinging mower blades. Then drill a hole in the square end of two blades opposite the existing hole. Attach one end link of chains (three-foot lengths) to the blades through the drilled hole. Attach the other end of the chains to existing holes in the two other blade sections. Weld these sections in a vertical position to the roll bar bracket under the tractor's axle. Attach the opposite end of the chain on the outside of the tractor's lift arm and you have it!

It's For the Birds

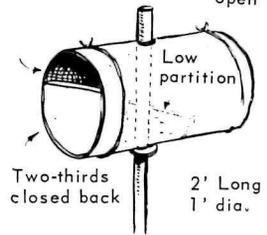
Michigan Natural Resources magazine has some interesting suggestions for making bird houses from recycled materials. The ideas, developed by Ozz Warback, include mounting a large tin can—perhaps two feet long and one foot in diameter, on a pole. The cylinder, open at one end and two-thirds closed at the back, should be covered with roofing paper to prevent rusting and excessive heat due to the sun reflecting on the tin.

Another idea is to take an old garbage can lid, nail it to the post, fill it with hay for some lucky bird. An old wash tub, attached to a stub can serve the same purpose.

Hardware cloth cones as a base for mourning dove nests improve survival



Hardware cloth cylinder covered with roofing paper
Front open



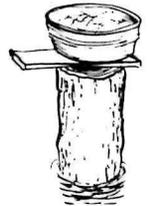
A horizontal nest "box" with large opening will attract woodducks but discourage starlings.

Two-thirds closed back
2' Long
1' dia.

2' to 3' above water



Hay-filled garbage can lid nailed to post.



Washtub pad

Whatever the container, put it in a place where visitors can see your efforts and take the idea home with them—who knows, you may start a whole new trend in recycled bird houses!

Ingenuity

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 Line . . .

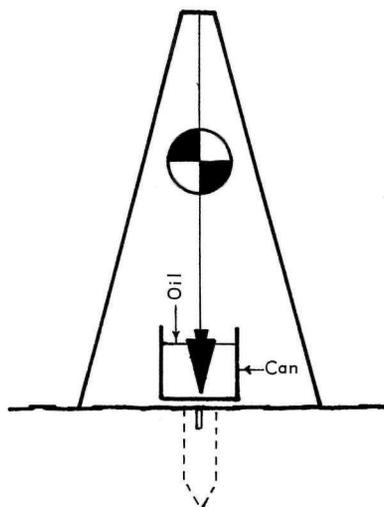


DIAGRAM OF TRIPOD

How many times have you watched a plumb bob sway in the wind?

Millard W. Wilcox, Civil Engineer at the National Park Service Denver Service Center, suggests that once a bob has been accurately hung, place an empty pail or can under the bob, filling it with oil to near the top of the bob. By dampening or stabilizing the plumb bob, the string or the wire that suspends the bob makes an accurate vertical line about the point.

Down The Drain

Park Technician Ida Townsend at Mount Rushmore suggests that a lot of precious water could be saved by using spring-loaded faucets which shut off automatically when handles are released.

Save Lights, Save Money

Emergy C. Lehnert, Supervisory Park Ranger at Aztec Ruins National Monument suggests that park and recreation areas use an inexpensive photo-electric socket for areas where dawn-to-dusk lighting would prevent accidents, vandalism, theft or damage in government buildings.

Installation of a few small units in existing sockets would, says Lehnert, save between three- and four-hundred dollars per area.

Emergency Info

What do you do in an emergency to contact family and physicians if a park or recreation employee is injured or involved in an accident or becomes ill?

Howard L. Dimont, Park Ranger at Redwood National Park in California suggests that all employees fill out a card, voluntarily, at the time of employment, listing next of kin, current doctor, insurance companies, and any crucial information about allergies. The cards would be kept on file with park personnel and the individual so that if the need arises, help can be brought quickly.

Clean-Up

Restrooms at Tumacacori National Monument in Arizona have taken on a new cleaner image thanks to some simple signs appealing to people's personal pride. They read:

PLEASE LOOK AROUND.
HAVE YOU LEFT ANYTHING?

DOES THIS ROOM LOOK
BETTER—OR WORSE—BECAUSE
YOU WERE HERE?

Margaret Moore, a technician at the park, reports that there is a dramatic difference in the cleanliness of the restrooms.

Mister—There's A Bear In Your Restroom



It may seem funny, but restrooms with garbage cans filled with picnic leftovers are a popular place for bears to visit—a not so funny event for an unsuspecting tourist.

Harold Lambert, an incinerator operator at Yosemite National Park where they do have bears, suggests that all restroom doors should be hung to swing out, not in, preventing easy access by hungry bears and giving them an easy way out if they do get in!

Anti-Pollution Sign

Buses are a frequent cause of park pollution. Oscar L. White, Jr., an officer with the U. S. Park Police, suggests that special signs be designed to advise bus drivers to turn off their engines when parked at sight-seeing stands.

Key It Right

Bernie Bovee, Chief of Field Operations of Colorado's Division of Outdoor Recreation, suggests that confusion about keys can be easily cleared up by purchasing new color-coded keys and matching their locks with corresponding colors of cheap nail polish.

Thinking of all the time you would save fumbling around for the right key for the right lock!

Play Structures

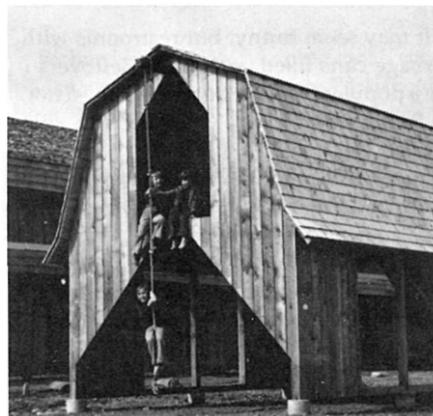
A Lofty View On Fun

Canadian landscape architects Ray and Elizabeth Bradbury of New Brunswick, Canada, have developed plans for this delightful play barn.

Made of rough sawn siding (smooth on the interior) the barn has a two-inch decking hay loft with four by four beams supporting the roof and deck.

The cedar shake roof and the unpainted exterior make the barn blend into the environment. A ladder leads up to the roof on the interior and a ramp runs from the deck down to the ground level.

The barn rests on a concrete foundation. The overall dimensions are 12 feet by 16 feet—an exciting unique play structure, fun for any park or recreation area.



Play Pile Of Dirt



Darrell G. Winslow of Northern Virginia Regional Park Authority uses every possible resource. Rather than cart away dirt displaced by construction, he makes a mountain for playground area. The playground pictured here is at Bull Run Regional Park. The concrete culvert in one photograph is 42-inches high, a fun "crawly" tunnel for youngsters.

No doubt the hills make great sites for winter sledding.

Play Structures

Swinging Up And Away

How many times can you remember pumping your legs and swinging as high as you could go on a swing?

East Norriton Road Foreman Bob Tyler, East Norriton, Pennsylvania, insists that swing set legs be set in concrete-filled buckets in footings about two feet by two feet.

With one man working each leg of the swing's frame, lifting it into place in the forms, the buckets can be shifted around until the frame is level. Concrete is poured over the forms and dirt covers the dry concrete.

Special thanks to Frank J. Crivella, Director of E. Norriton Park and Recreation Department for sending us photographs and information.



GRIST

A bimonthly publication of the nonprofit, educational park practice program cooperatively conducted by the National Park Service, National Society of Park Resources and the National Recreation and Park Association.

Material For Publication should be sent ONLY to:

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

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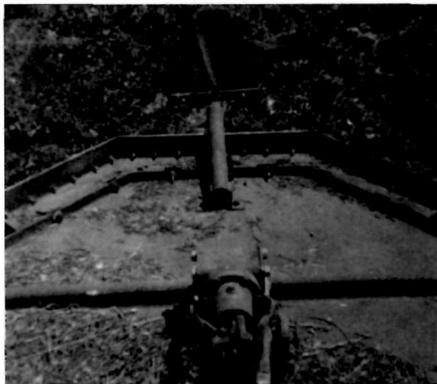
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Mow That Lawn

Mow In Safety

Park Manager Richard W. Rees, Vega SRA, Colorado, suggests welding a piece of 3-inch angle iron to the frame of a mower to extend beyond the blade. The belting is then bolted to the angle iron to hang down and around, not exposing any of the mower blade. Rocks, sticks, etc., can't fly up and hurt anyone with this simple solution.



Remote Control Mowing

What do you do when you have 12 acres of grass to mow with two running miles of terraces? You dream of ways to make your job easier—of course!

Foreman Kenneth Caldwell of Fredericksburg National Military Park has figured out a way to save money and manpower using a 21-inch, self-propelled Jacobsen mower.

Basically Caldwell designed and installed an extension handle for the Jacobsen to permit a single worker to guide the mower

along the terrace in complete safety from above or below.

He used the Porter center section pruner handles, shortening one section to 18 inches with couplings on both ends, fastened to the mower's handle with a pair of continuous thread hose clamps. Now with a five-foot section of pruner handle inserted in either coupling, the operator can walk the mower along a slope on flat, secure footing above or below the terrace by simply twisting the mower handle thus disengaging the clutch.

In recognition of the nearly \$4,000 saved, through his device in reduced manpower, Caldwell received an Incentive Award of \$220.

Carrying Case For Sickle Bars

Storage of sharp sickle bar blades is often a problem.

Dan Lambert, an Engineering Equipment Operator at Great Smoky Mountains National Park in North Carolina, suggests that a carrying case, attached to a tractor, will reduce sharpening costs and reduce the potential for accidents.

He used a piece of downspout, 4 1/2' by 3 1/3' by 60 inches, attached by two brackets welded to the tractor for a total cost of \$12—a suggestion which netted Lambert a \$135 Incentive Award!



Maintenance and Safety

Fire Ring

Vincent G. Moorhouse, Director of Harbors, Beaches and Development in Huntington Beach, Calif., sent *Grist* these sketches for concrete fire rings to be used on a beach.

The core of the ring is a manhole cover,

turned upside down. Steel reinforcement rods are inserted in the cover while the concrete foundation is still wet to extend the life span of the cover due to exposure to extreme heat.

The biggest problem continues to be children falling into fire rings when not properly supervised by their parents. To alert parents, a warning is stenciled on the flat surface of the ring.

A Place For Everyone And Everything



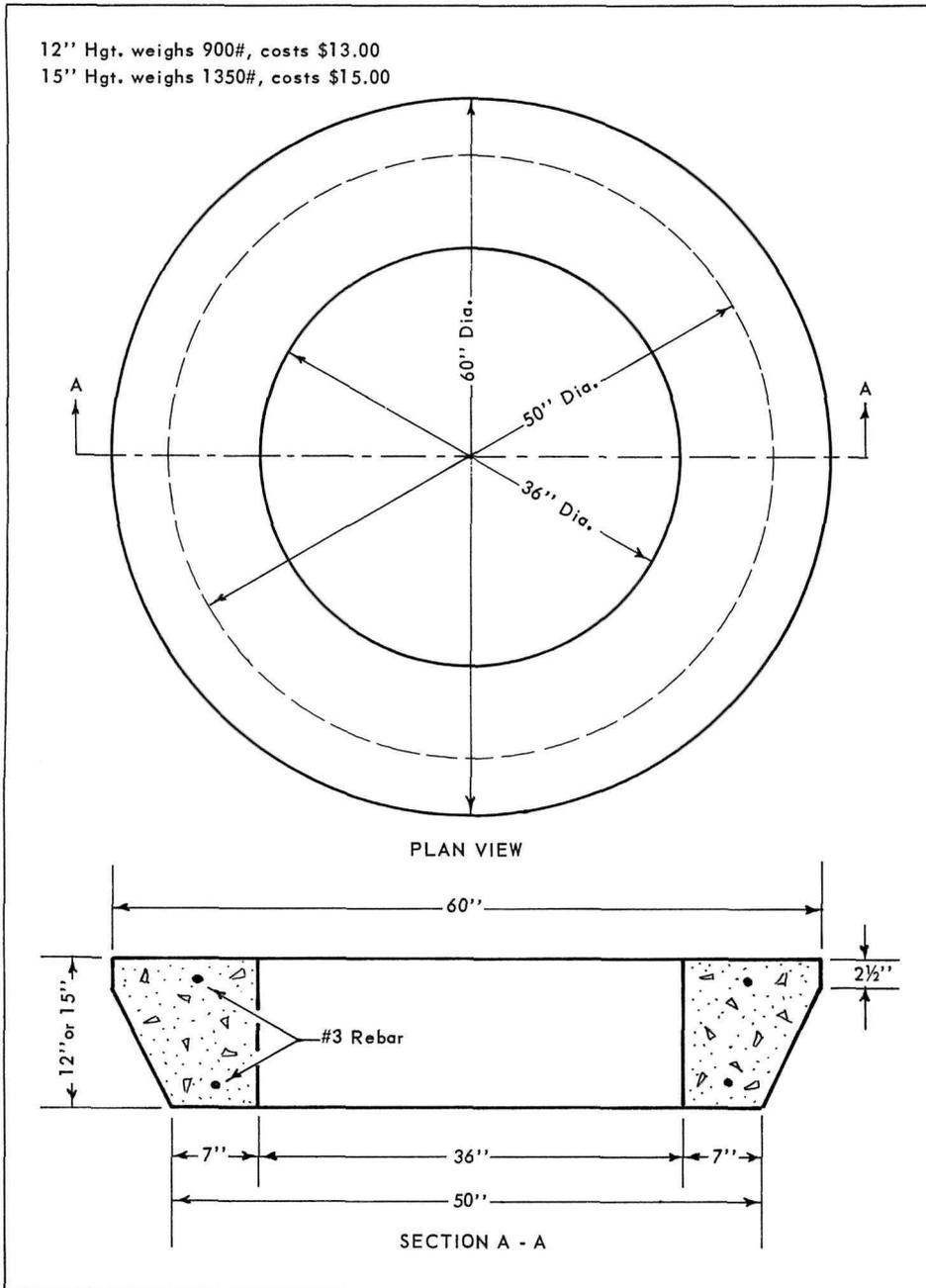
"Say Ranger, is it okay if I park my 'cycle in front of your building? Maybe you could keep an eye on it for me?" was a question and wish often heard at the visitor center in Carlsbad Caverns National Park.

No more, since May of '74, a special parking area has been set aside for motorcycle parking. Located on a parking terrace in front of the visitor center, the cycle zone is designated by the installation of yellow and orange rubber posts in the center of a series of previously marked automobile stalls.

Visitor Message Board

Park visitors should have no trouble finding one another if parks adopt Maxine S. Newell's suggestion for a uniform message board system. The Park Technician at Arches National Park in Utah suggests that the boards should include allocated message spaces and blanks for expiration dates so that they could be kept current.

Ms. Newell finds the problem of communicating is especially difficult for recreational campers, who often end up spending a good deal of their visit searching for other members of their group. Her idea won her a \$50 incentive award.



Telescope Entrance Gate

Pennsylvania Park Foreman, Merle Smeltzer of Samuel S. Lewis State Park, faced a real problem—how do you build a gate for a steep grade, 50-foot wide entrance?

By putting an island in the center with a short piece of well casing in the middle, two gates could be hung and opened from the center. But this was only half the battle. Even 25-foot gates were too large, so two telescoping gates were developed using a 13½-foot section of two inch pipe plus accompanying bracing used for the main frame and a 14-foot section of 1½-

inch pipe as the telescoping portion of each gate.

In the closed position the telescoping section is extended and in the open position it is retracted.

