

Grist

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ANNUAL NRPA GRIST AWARDS

Two Michigan state park employees shared 1st place money in the annual Grist award program for outstanding contributions during the year, 1972. National Recreation and Park Association announced that the \$100 first prize went to Steve Poleshuk and Russell Cooley of the Matamora-Hadley Recreation Area in Michigan. Second place money, \$50, was

awarded to Alan D. Schultz, Chadron State Park, Nebraska, while the third place check for \$25 went to Ronald Pilbin, Groton Forest Area Maintenance Shop, Vermont.

Poleshuk and Cooley's prize winning idea (see Grist Vol. 16, No. 6, page 63) was for a do-it-yourself, multi-purpose variable trailer hitch. Their device permitted park vehicles to be used for many different types of hauling and thus offered a savings in equipment and manpower by freeing equipment for a range of jobs which might otherwise be tied up for specific, limited tasks. The materials for the hitch were not uncommon (often to be found on hand in many park shops) and were purchased at a salvage yard at a nominal cost.



Alan Schultz, assistant superintendent of Chadron State Park, has his 2nd prize check in hand.

Schultz's 2nd place idea (see Grist Vol. 16, No. 6, page 63) was for a vandal-proof, "quick-change" sign holder. Fitted into vertical slots on the inside faces of a pair of 4 x 4 support posts, the sign is held in place by a top plate hinged to one of the posts, and secured to the other by hasp and lock.

Pilbin won his 3rd place check with his silent salesclerk (see Grist Vol. 16, No. 5, page 60). This is a shop-made coin collection stanchion for sale of firewood to campers, based on the honor system. A coin collection container is encased in a slotted 3-in. black iron pipe, with a hasp and lock, cap arrangement permitting easy periodic collection of the proceeds by a park attendant.

Committee for the awards was John Blair of National Conference on State Parks, Bob Buechner, Membership Services, National Recreation and Parks Association, and Barry S. Tindall, Senior Associate, NRPA.



Orie Scherschligt, Chief, Parks Division, (right) Michigan Department of Natural Resources, presents check for half of 1st place 1972 GRIST award to Russell Cooley, Assistant Park Manager, Matamora-Hadley Recreation Area. Poleshuk, the other joint award winner, was absent from the ceremony.

Logs to Seats, Dogs to the Pound, Station Signs to Nature Trail

Typifying American ingenuity, in general, but more specifically, the sort of ingenuity demonstrated by park people—national, state, county and municipal—is Earl E. Wilder, a California park maintenance man. No matter where he's assigned he's popping with ideas that make jobs a little simpler, more effective, less costly—or all three! Here're a few samples—just three of the many he has developed while stationed at Big Basin State Park.

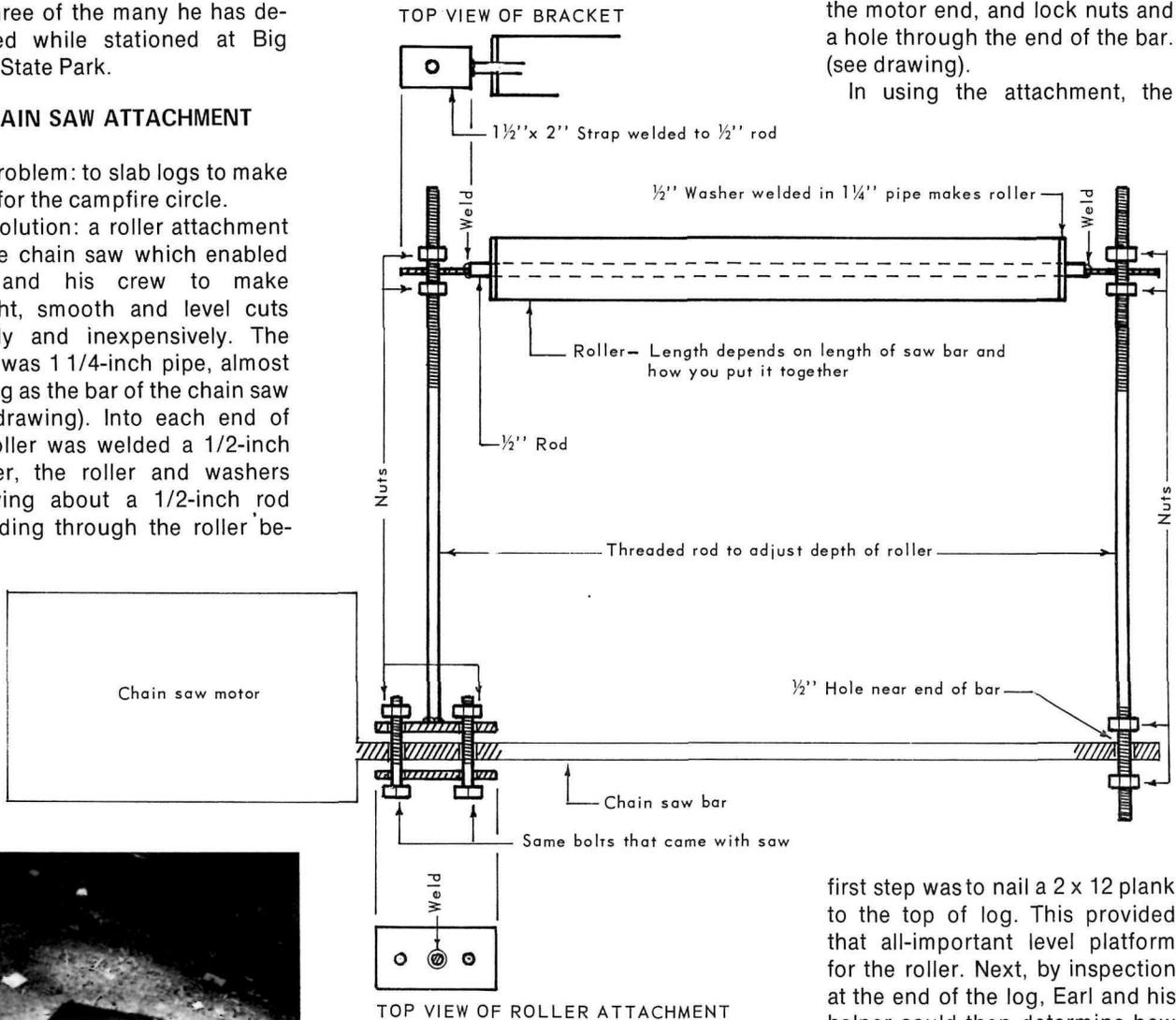
1. CHAIN SAW ATTACHMENT

The Problem: to slab logs to make seats for the campfire circle.
 The Solution: a roller attachment for the chain saw which enabled Earl and his crew to make straight, smooth and level cuts quickly and inexpensively. The roller was 1 1/4-inch pipe, almost as long as the bar of the chain saw (see drawing). Into each end of the roller was welded a 1/2-inch washer, the roller and washers revolving about a 1/2-inch rod extending through the roller be-



and drilled for a half-inch hole. The entire assembly—roller, shaft, and end plates—thus fitted over the two threaded rods, with height adjustment of the roller being effected by lock nuts on the threaded rod above and below the end plates. The bases of the threaded rods were attached to the saw by use of a plate and the same bolts which held the bar at the motor end, and lock nuts and a hole through the end of the bar. (see drawing).

In using the attachment, the



tween upright threaded rods at each end of the chain saw's bar. Securing the 1/2-inch rod (that is, the shaft of the roller) to the upright threaded rods was accomplished by 1 1/2 by 2-inch plates, welded to each end of the rod,

first step was to nail a 2 x 12 plank to the top of log. This provided that all-important level platform for the roller. Next, by inspection at the end of the log, Earl and his helper could then determine how deep into the log the cut was to be made, and they then adjusted height of the roller (i.e., the depth of the cut) accordingly. In making the cut, one man guided the chain saw itself, another got on the ends of ropes tied to both sides of the saw and pulled, adding manpower and helping assure a steadily-

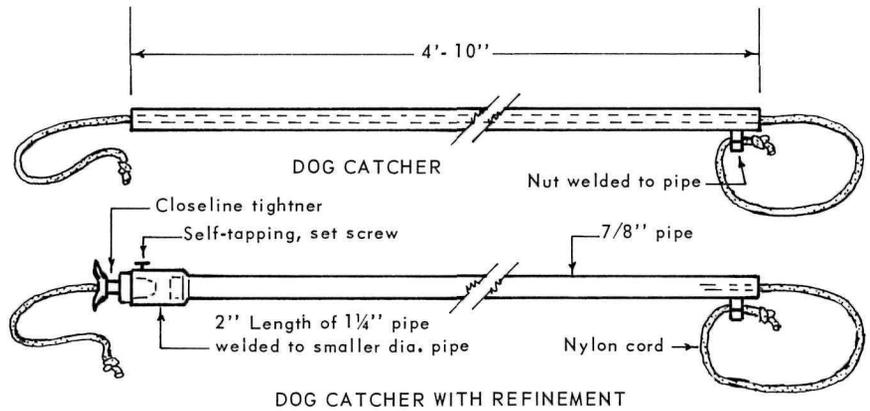
forward, level cut—with the roller riding consistently down onto and along the 2 x 12, in contact from side to side, thus producing a smooth, level campfire seat.

2. ROUNDING UP STRAY DOGS

The problem: stray dogs--a danger to themselves, visitors and park employees.

They had to be controlled.

The Solutions: a dog catcher and a dog trap. Necessity and self-protection inspired Wilder's dog catcher--there were ever more stray dogs to catch, after his earlier painful encounter with one. It took 32 stitches to put him back together! So he had plenty of respect for those vicious, possibly rabid, jaws. As he put it: "I decided that if I had to catch another dog I would like to be farther away from him". And that he accomplished by a 5-foot long piece of 1/2-inch electrical conduit through which he passed a 12-foot length of 3/8-inch nylon rope. At the business end of the conduit he welded a 3/8-inch nut, and here the nylon cord terminated with a knot, with enough cord protruding from the end of the conduit to form a noose (See drawing). In use, Earl drops the noose about the animal's neck, then pulls up tight on the cord at the other end, securing the dog until it can be eased into a cage. As a further refinement, the Big Basin man has added a clothes-line tightener to some of the catchers he's made. This is a device through which the cord is passed at the operator's end. It



permits the cord or rope to move in only one direction (until tension is released) thus making use of the dog catcher more safe, because the dog cannot pull loose from the tightened noose. Wilder advises, however, that he has been unable to obtain these tighteners in recent months. Wilder's dog trap was made from some old steel cots (at a junk yard!) plus some scrap lumber. Bait--hamburger in nylon netting or cheese cloth--is tied to the bait pan of a rat trap mounted outside the enclosure. Tugging on the bait releases the trap's spring, and it, in turn, pulls a pin holding

open the swinging gate, made up of 1/2-inch pipe.

3. STATION SIGNS FOR A NATURE TRAIL

The Problem: designating stations on a self-guided nature trail. The Solution: small, but readily seen permanent markers made of 3/4-inch pipe to which were welded 4-inch long sections of 1 1/2-inch angle, the upward facing arm of the angle being painted yellow, with the number of the station

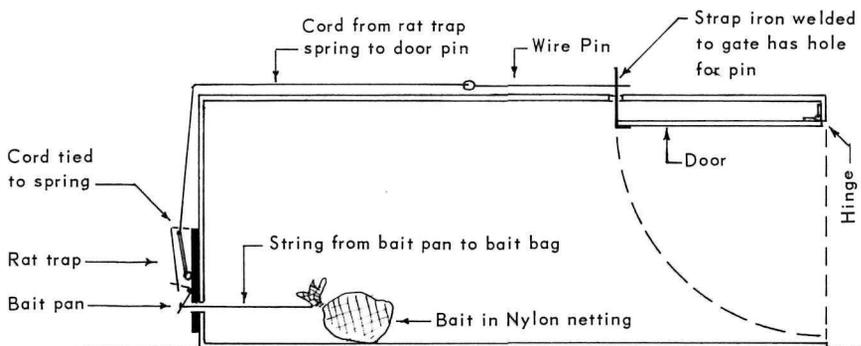
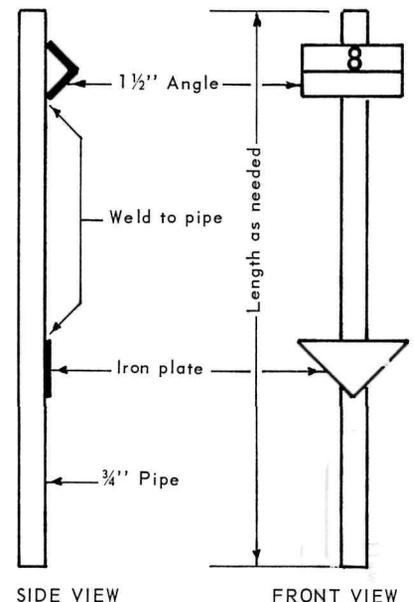


DIAGRAM OF DOG CAGE SHOWING GATE RELEASE



painted a contrasting brown. Angular pieces of iron welded to the pipe supports just below their normal depth of embedment in the ground helped to secure the sign posts and prevented them from turning (similar to steel fence post construction).

Permanent Center Support Keeps Tennis Net at Correct Height

From Robert P. Lodde, Director, Department of Service and Maintenance of Milwaukee Public Schools' Division of Municipal Recreation comes this idea for a tennis net center support which can stay up all year, thus eliminat-

ing both labor costs and storage requirements.

"Secret" of the support's success is the slotted tube on the base bracket into which is inserted a shorter length of smaller tube welded to one of the pair of steel plates which actually

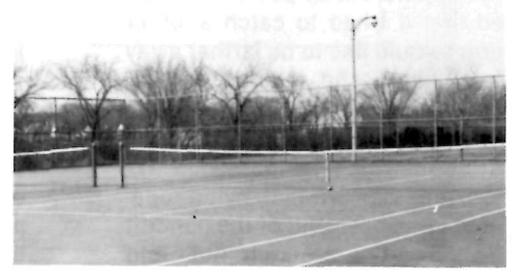
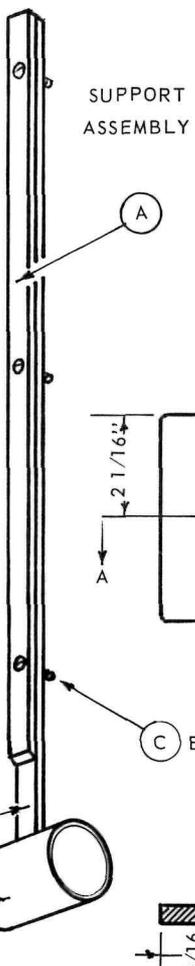
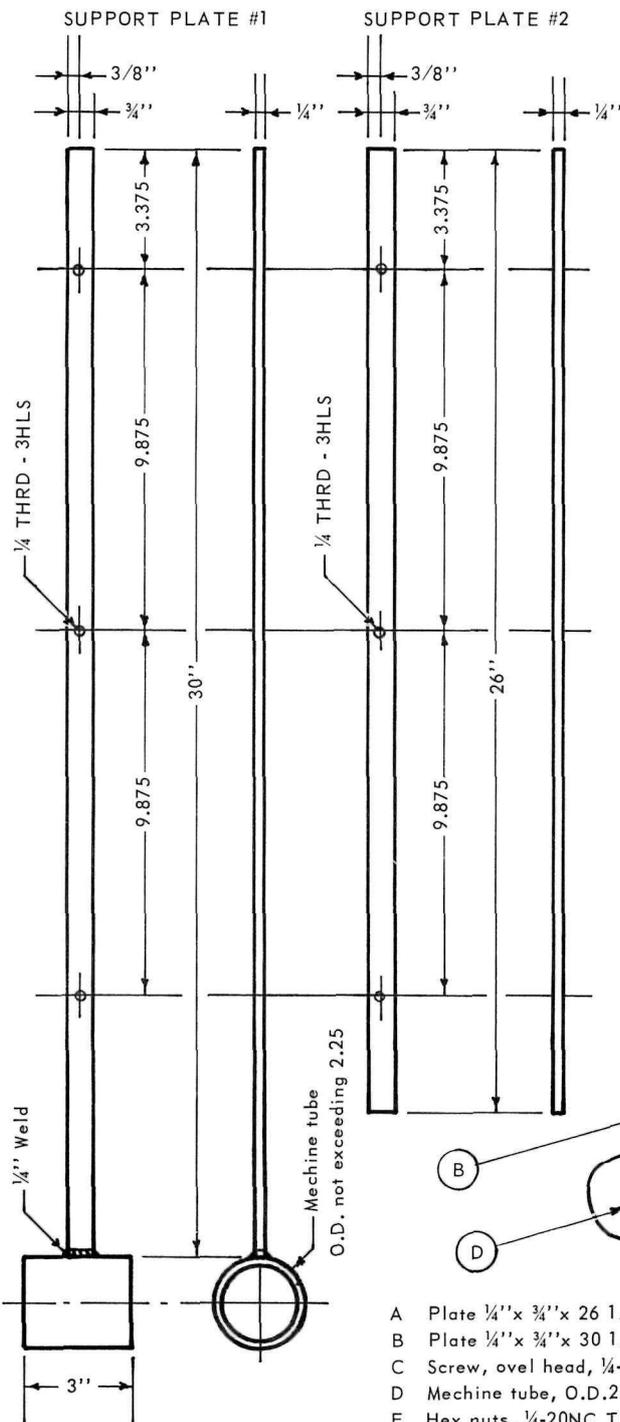
hold the net up at the specified 36-inch height.

The slotted tube is wide enough to allow the net to give under the impact of a player falling into it,

and to accommodate the movement of ground due to winter frost heaving.

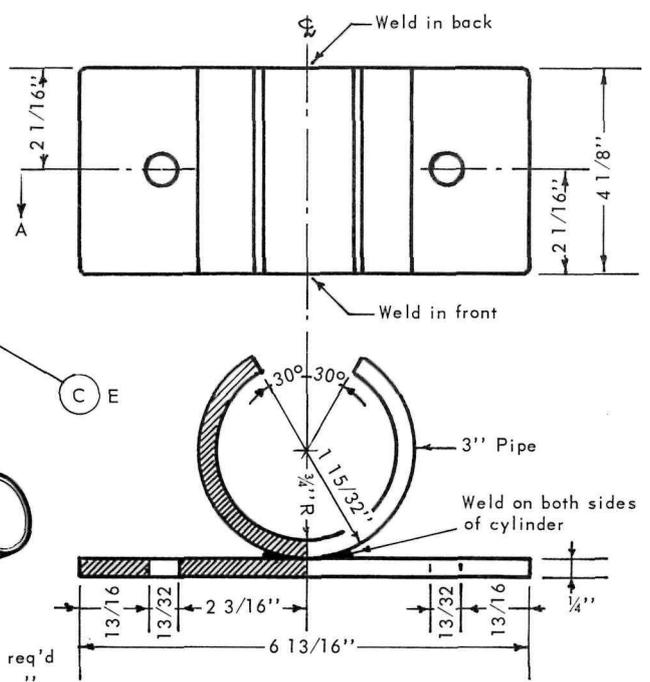
The two plates, which support the net at its center, are of 1/4 by 3/4-inch stock, in two lengths, 26 1/8 inches and 30 1/8 inches, drilled in common in 3 places for the 3 oval head 1/4-inch hex nuts which tighten the plates together, cinching the net between them.

Welded to the foot of the longer plate is a 3 1/8-inch length of mechanical tube, with an O.D. not exceeding about 2 1/4 inches.



PLAN VIEW SUPPORT BRACKET

Entire bracket to have rough finish



- A Plate 1/4"x 3/4"x 26 1/8" 1 req'd
- B Plate 1/4"x 3/4"x 30 1/8" 1 "
- C Screw, oval head, 1/4"-20NC 3 "
- D Mechine tube, O.D.2.25 1 "
- E Hex nuts, 1/4"-20NC THRD 3 "

HALF SECTION A HALF END VIEW

SUPPORT BRACKET



Public Activity Symbol Signs

That the picture is worth more than ten thousand words, as the old proverb has it, is being demonstrated anew these days in our parks and public areas. The new evidence: recreation symbol signs which convey at a glance exactly what facility, service, convenience or activity is available, or, in some cases, prohibited! The symbols, which have been developed in accordance with National Park Service Sign System Standards, have been adopted by various federal agencies, and are applicable to state, county, city parks and recreation areas, as well as to private facilities.

Symbol signs, which are now available commercially in a range of sizes, colors and metal thicknesses, offer the public these advantages: they are more explicit than words, more can be communicated in a shorter time; they require less space than most phrases which they replace, sign sizes therefore can be reduced; they are more universally understood, fulfilling both national and international acceptability.

There are more than 80 symbol sign variations available, ranging from water recreation to accommodations or service to viewing areas, bus stops, or lockers. Many

of the symbols also obtainable with a red diagonal slash across them, indicating prohibited activity.

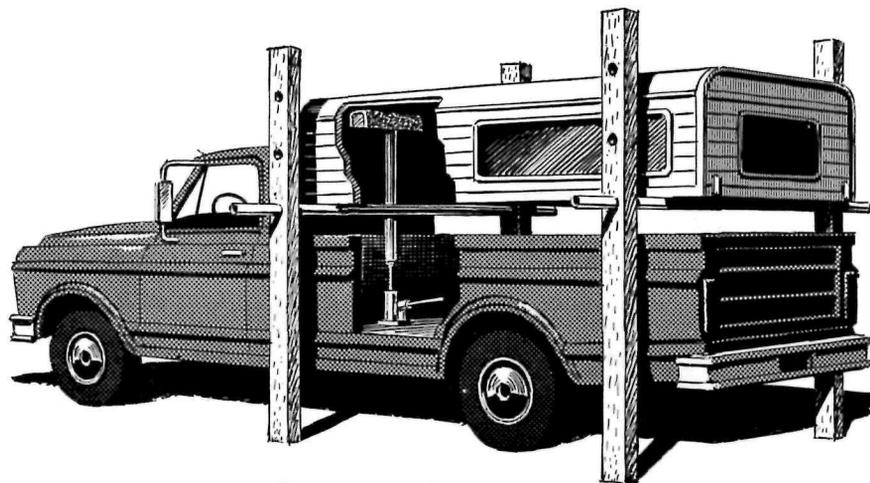
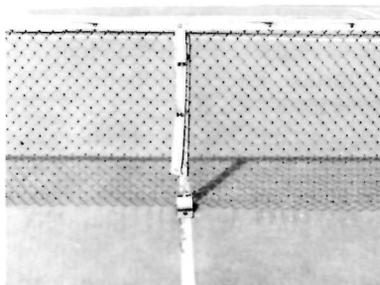
The sign symbols are available in 3 colors, brown, blue and green, with the legend usually being in white, with a choice of non-reflectorized or reflectorized surface. The average life expectancy of the reflectorized sign surface is set at 7 years. The signs may be ordered in any of 4 sizes—9, 12, 18 or 24 inches square.

For prices and an informational brochure giving recommended colors for each activity, write: Hawkins-Hawkins Co., Inc. 1255 Eastshore-Berkeley, Calif 94710.



inches wide. Welded to this plate across its width is a section of 3-inch diameter pipe, with a slot approximately 1 1/2 inches wide (60 degrees of its circumference) cut along its length on top. Two 13/32-inch holes in the plate accommodate 3/8-inch anchor bolts, 8 inches long, which are embedded in a 12-inch deep footing of concrete.

In addition to its advantages in terms of permanence and saving labor and storage costs, the Milwaukee center support has proved effective in removing tension from the cable which supports the net, this tension sometimes causing the side support posts to tilt in and necessitate further costly maintenance work.



Rack Up Shell Camper

Removing the camper is usually a rough job. But with this rack, one man can do it alone. The rack also doubles for off-the-ground storage.

To make it, dig four postholes 18 inches deep, spaced so you can back pickup between them (see drawing). Set a four-by-four-inch pressure treated post—long enough to reach six inches above the camper base—into each hole. Tamp earth around the post to firm them up.

Mark each post for a hole centered two inches above the camper base. Augerbore the four 1 1/2-inch holes. Cut two 3/4-inch pipes to span each pair of posts and protrude six inches.

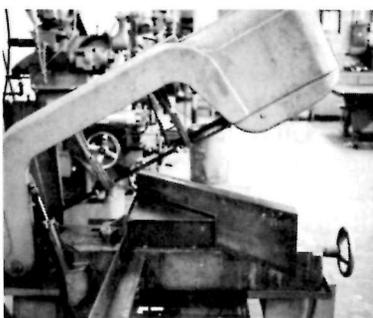
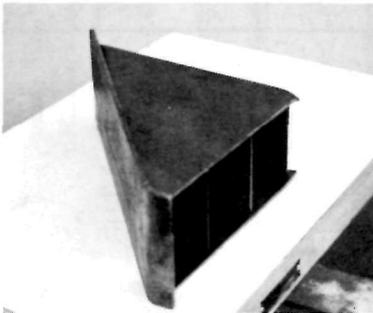
To use, back in and unbolt the shell. Lift it and slide in the rear pipe. Repeat in front. For a heavy camper, use a jack and padded T lifting block.

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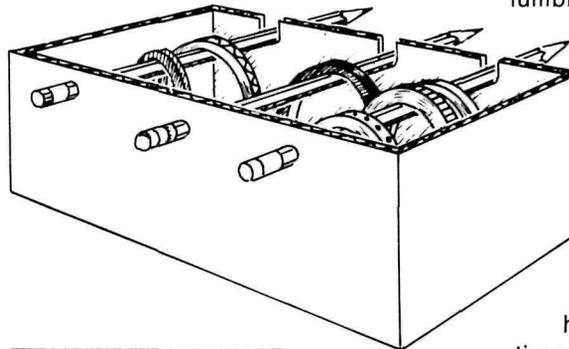
Speed 45° Power Saw Cuts

Machinist William W. Cranford had an angle. And that angle won him an award—and is saving the government money. Cranford had noticed that many times during the week it was necessary to change and adjust the vise backplate on the power saw in his shop in order to make 45 degree cuts. For square cuts, of course, the backplate again had to be adjusted. Furthermore, he noticed that often the adjustments weren't made correctly, at a further loss in time, not to mention material.

Cranford's angle, his way of solving the problem, was an angle - a metal box about 3 inches thick in the shape of a right angle triangle, its two equal legs forming 45 degree angles with the hypotenuse. Placed against the vise



The pressure was on at the Bureau of Sport Fisheries and Wildlife in Anchorage and Draftsman/Illustrator Tim Murnane and his co-workers had to get out lots of maps—like right now! And on the maps, designating various features—roads, lines, rights-of-way,



backplate, with an extension of the 45 degree side lipping over the backplate, the attachment offers a guide for the stock, thus assuring an accurate 45 degree cut each time it is used.

Since the vise backplate does not have to be moved when the 45 degree attachment is used, it remains adjusted for square cuts, which can be made merely by lift-



ing the attachment back out of the way.

Installed in the Brentwood machine shop of National Capital Parks (District of Columbia) Cranford's angle is estimated to be saving nearly \$500 a year in time saved on backplate adjustments no longer necessary. The quality of the work output is up, too—right on the angle!

Tim's Organizer-Dispenser of Tape

boundaries—were to go inches and inches of tape.

The drafting room was a bit of a mess. Each draftsman had an assortment of the necessary tapes and that meant that the rolls literally were scattered just about everywhere on all the drafting tables. There was grand confusion, fumbling here and there, trying to find an inch-worth

of the right tape to apply to this particular spot on that particular map.

To the rescue, Tim Murnane!

His invention, which ended confusion—and helped get the job out on

time—was made out of pencils and cardboard boxes. Near the top edges of a corrugated box (about the size of a shoe box) he punched several pencils, from side to side. And on these pencils, he spooled his various rolls of tape. Presto! Order was restored. Now the tapes couldn't roll away, they were all collected in one spot, and on display, ready for immediate use.

And the idea was picked up all around the drafting room. Which just goes to show that tape comes in more colors than red.

Skid-mounted Signs for Winter

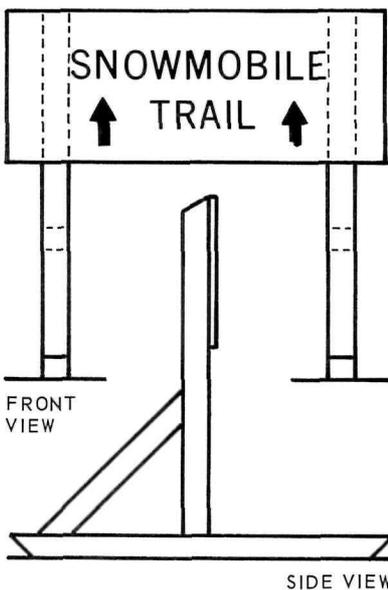
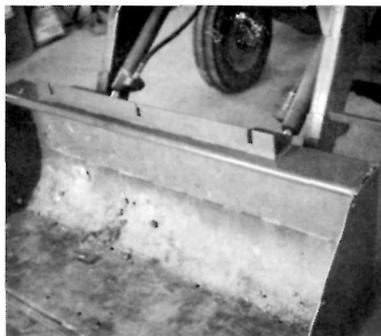
From Robert Dopiriak, seasonal ranger at State Forest Park, Ft. Collins, Colorado comes this sensible solution to the problem of keeping snowmobile trails and routes to various winter recreation facilities well marked, despite increasing snow accumulation.

Dopiriak knocks together his signs from plywood, 2 x 4 or 2 x 2, and then mounts the assembly on wooden skids. The signs sit atop the snow and stay there at a fixed eye-height the season-round. They move down with the melt, of course. But, as the snow load

Winter Time is Idea-Time at Bonny Dam

Although winter usually means a slow-down in park activities from the pace needed to cope with the peak flow of summer visitors, it doesn't seem to affect the flow of good ideas at Bonny Dam State Recreation Area in Colorado. On the contrary, Conservation Aide R.B. Smith seems to come up with some of his best ideas during the months that he and fellow workers are preparing for another year.

For example, while overhauling a tractor this past winter he came up with two ideas that are going to make work with this machine faster and more productive this



year. Since they often use the bucket of the frontender for lifting and moving loads (other than dirt, gravel or other bulk loads) Smith decided to add a 3-inch angle to its back end, with three slots cut into the angle's vertical leg. The slots are used for quick and secure anchorage of the chains which are lashed around the load—the links exactly fitting into the slots. Furthermore, the angle acts as a barrier against the load slipping off the back of the bucket.

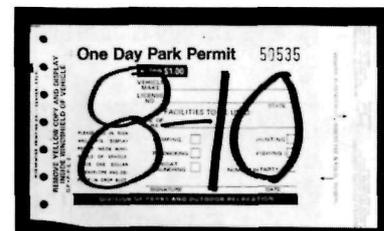
While he was about it, Smith then decided he'd make it easier for the tractor operator to know when the bucket was level with the ground—important when spreading aggregates, grading or leveling. His solution, one of those simple, but good 'how-come-nobody-ever-thought-of-it-before' ideas: to weld to the trailing top edge of the bucket a rod about 10 inches long, this rod being an extension of that top edge and being parallel to the ground (the bucket being in normal position, parallel to the ground). On the support leg for the bucket, on the same side as this leveler rod, he next welded a piece of strap iron, extending out almost to the tip of the rod, and in the same plane as the rod (with the bucket at a level position). Now, all the tractor operator need do is to glance down at his bucket leveler rod—if its end is nearly touching the strap extending from the bucket support leg—his bucket's level!

Having observed the unproductive time required to pay off plastic trash bags at stations around Bonny Dam, Smith figured a way to speed this operation, and, at the same time, clear the bed of the pickup for other cargo. Instead of having the roll of bags loose in the bed, Smith has mounted it on a roller and frame arrangement, somewhat similar to a brown paper dispenser in a store. One support for the bar upon which the roll turns is bolted to the pickup's

bed at the right front corner, just behind the cab. The other, shorter support, is bolted to the right rear fender well. The bar is secured to the supports by U-clamps. The entire rig can be taken out readily by removing the 2 3/8-inch bolts, nuts and washers which hold the end supports in place.

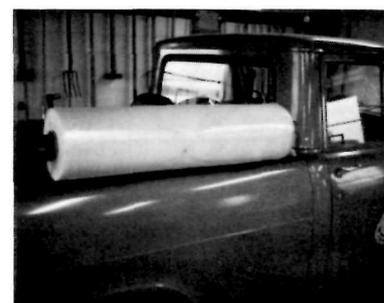
Stop Re-use of 1-Day Permits

There'll always be gate-crashers, it seems. Some folks just gotta try to get by without paying. . . even when they have the money! And in the parks, that translates into staying over on an expired one-day park permit.



Ed Fahey and his men at Bonny Dam State Recreation Area in Colorado aren't about to be fooled, however. They've foiled the one-buck cheaters. On the face of each one-day permit, they print with felt-tip pen in big, bold figures, the date of the permit.

This dating can't be removed without tearing the permit; it can't be changed. And it can be read at a distance, thus making it easy for patrolmen and rangers to check vehicles and campsites for expired permits.



Good thinking at Bonny Dam !

Real Support for Side Reels

This is a story about a do-it-yourselfer who saw a problem, solved it himself, and, as a result, is saving a city money each year and contributing to better looking parks. The do-it-yourselfer is Henry Kessler, small engine repair mechanic, the problem was excessive wear and tear on triplex mowers, and the city is Janesville, Wisconsin.



Here's how General Park Foreman Robert McKinney describes the problem that existed: In mowing the city's parks his operators often "received damage to side reels as a result of trying to trim too close to trees and shrubs. The stabilizing rod on the side reels would become bent, over a period of time, causing unnecessary wear on the reel belts. The cost involved in replacing three belts and one stabilizing rod was \$18 in material and \$23 in labor for a total of \$41 per mower over a single mowing season." And instruction and closer supervision of the mower operators didn't help; the damage continued.

So Henry Kessler proposed an experimental solution, applied it to one mower at a cost of only \$10 and the mower went the full season on a single belt and a single stabilizing rod! His do-it-yourself solution worked!

Here's what he did. He rigged a "bumper" across the front of the mower, the ends of the "bumper" extending beyond the mower's front wheels. From the ends of the "bumper" to the ends of the side reel frames he fastened lengths of 1/4-inch chain. It is these chains, tensioned just enough to keep the side reels from being bent back, which prevent damage to the reels and stabilizing bars, and reduce wear on the belt.

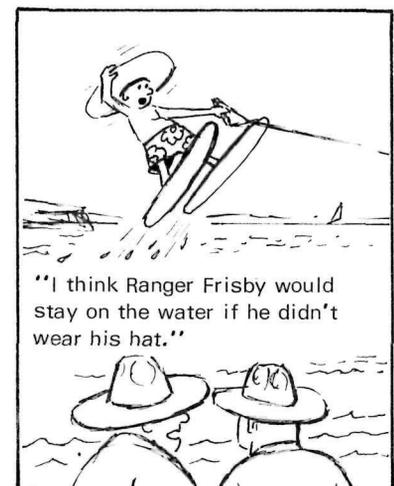
Although the details and dimensions of the rigging necessarily would vary from mower to mower, other do-it-yourselfers might be guided by Kessler's experience in rigging Janesville's National Triplex machine. The length of the "bumper", for example, 42 inches, is critical because *this* length on *this* mower gives the proper angle for support of the reel (both in position and raised) and is not long enough to become awkward. The "bumper", 3 x 1 2/4-inch channel iron, was rigged to the mower's front end by a 10-inch length of 2-inch pipe which was welded to the channel iron, and

can be adjusted by a pin fitting. Five-sixteenths-inch U-bolts were fitted to each end of the channel iron for attachment of the chains.

The lengths of chains required for the National machine turned out to be three feet and four inches. The fastening of these chains to the reel ends is governed by the mower itself. Older models with changeable reels have stabilizing shaft collars at each side which can be used with a machine bolt, both for attachment of the chain and adjustment of tension. On newer models, however, it may be necessary to cut a chain link in half, weld it to the reel frame, slip the chain support over it, and take up the tension at the "bumper".

Kessler's solution was so successful that after one year's experience all of the city's triplex mowers were so equipped. Foreman McKinney sums it up by reporting that in addition to saving on belts and bars each year, "we have reduced damage to trees and shrubs. Also mower performance is more to form in that the support at the end of the reel gives a better cut and in many situations reduces scalping. Additional savings can be realized in sharpening of the blades and reduction of reel frame damage."

THE SURVIVAL KIT



By Jim Corson & Jim Burnett

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