

1981

EC81-1746 Building a Top Screen for a Burning-Barrel

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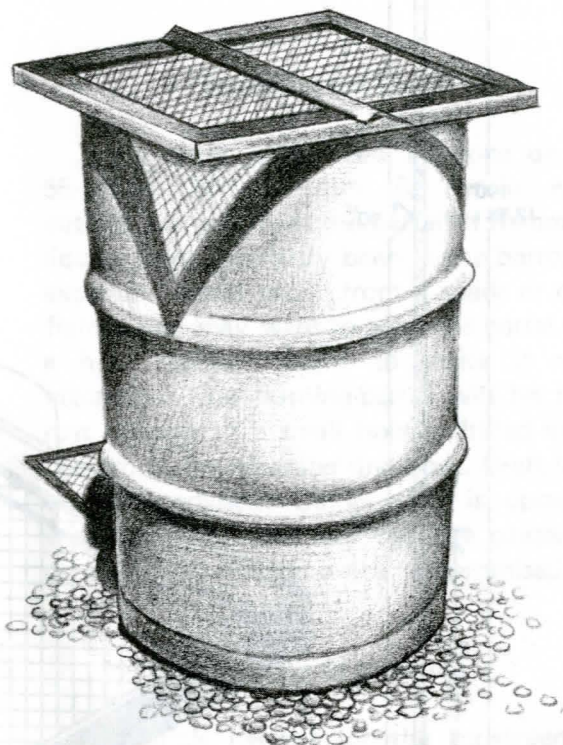
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NEBRASKA COOPERATIVE EXTENSION SERVICE
EC 81-1746

Building A

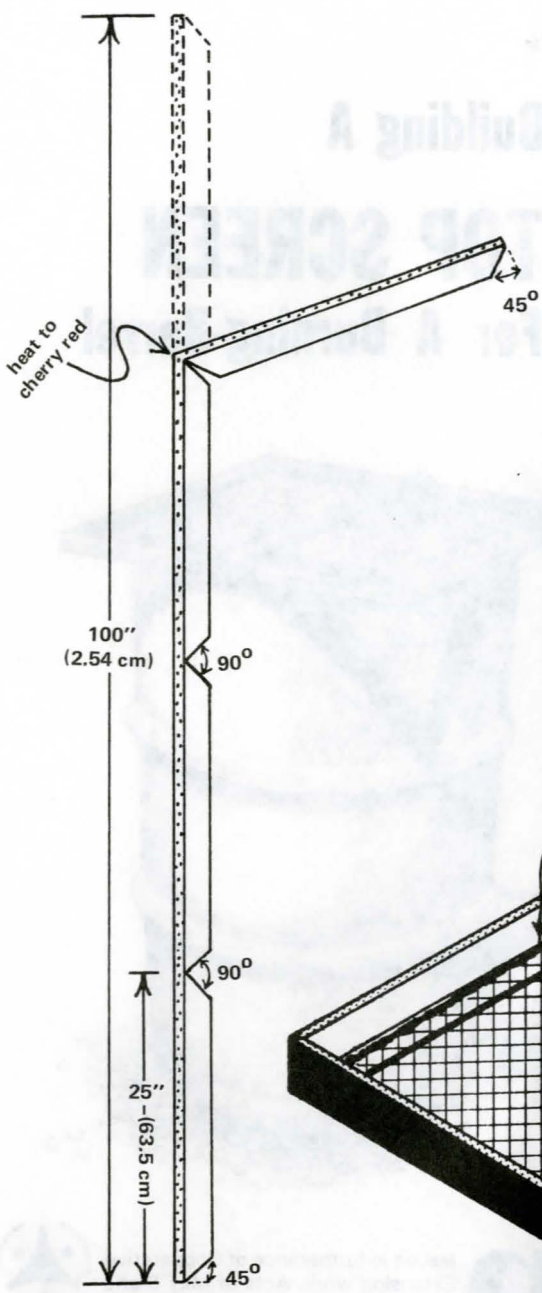
TOP SCREEN

For A Burning-Barrel



Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Leo E. Lucas, Director of Cooperative Extension Service, University of Nebraska, Institute of Agriculture and Natural Resources.





MAKING A BURNING BARREL TOPSCREEN

Prices 9/26/88

For 8	For 1
\$20.00	\$ 5.00
\$60.00	\$14.00
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\$80.00	\$19.00 ea.
or	
\$10.00 ea.	

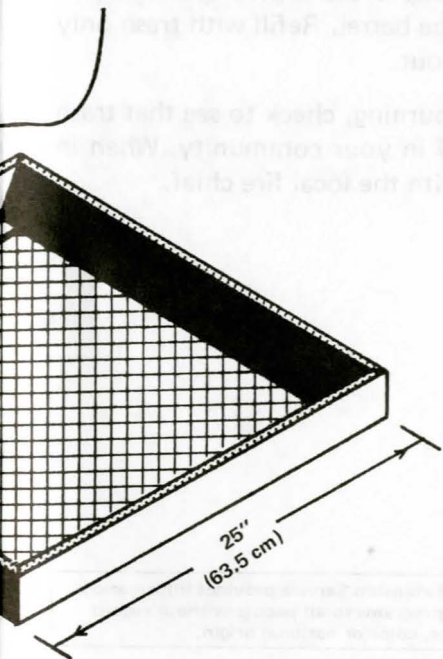
Materials Needed

- 1 pc. of Angle Iron 10' x 1" x 1" x 1/8" (3.05 m x 2.54 cm x 2.54 cm x .32 cm)
- 1 piece 1/2" (1.27 cm) No. 13 flattened expanded metal 24" x 24" (61 cm x 61 cm)

Equipment Needed:

Welding Torch

1. Cut 3 notches (90° each) 25" (63.5 cm) apart.
2. Cut 45° angle on each end of angle iron.
3. Heat outside of angle iron at notch and bend to right angle. Repeat at each notch.
4. Apply heat to area where 45° angles join and weld together.
5. Lay frame upside down and place expanded metal inside. Weld to the bottom of the frame.



Building a Topscreen For a Burning-Barrel

Donald E. Westover
Fire Program Coordinator

Introduction

Wildfires caused by burning piles of debris cost Nebraskans more than one million dollars each year. For the past three years debris burning wildfires have been the number one cause of wildfires and consistently burn more acreage than fires by any other cause.

At least 50 percent of these wildfires could be prevented by the use of topscreens in conjunction with empty 55-gallon (209 l) drums. The topscreen is easily made and the materials needed are relatively inexpensive.

Objective

Prevention of a major portion of wildfires caused by debris burning is the objective of this circular. The construction of topscreens necessary for safe burning of debris also will alert people to fire safety and other safety precautions important when burning debris.

Building the Topscreen

Figure 1 shows the five steps in building the topscreen. First, cut the three interior notches 25 inches (63.5 cm) apart and 25 inches (63.5 cm) from each end—notches should be about 90° with the point of the notch extending to the center of the angle

iron. Second, cut a 45° angle at each end of the angle iron. These will form the mitre type joint when the square frame is closed. Third, heat the unnotched side of the angle iron opposite each 90° notch. When the iron becomes cherry red, bend it 90° . Three bends will close the square. Fourth, weld the ends together to complete the frame. Fifth, lay the frame open side up and place the 24 in x 24 in (61 cm x 61 cm) expanded metal in the frame and weld to the angle iron.

You might wish to weld a handle to the topscreen but this is not necessary, or design and build a hexagonal or octogonal shaped topscreen.

Preparing the Barrel

Very little work need be done on the 55-gallon (209 l) drum. Be careful when cutting the end from the barrel. If flammable liquids have previously been in the barrel, an explosion could occur from a spark or open flame. You may want to paint the barrel with a heat resistant paint to make it more attractive. The burning-barrel will be more rust resistant if a small hole is drilled in the bottom to let rainwater drain out. Draft holes are not advised. Combustion is complete without draft holes and the fire containing capacity of the barrel is not compromised.

Selection of Materials

Materials needed for the topscreen are listed in Figure 1 along with their current cost. Savings are considerable when materials are bought in volume. Prices listed for materials for eight topscreens take advantage of

stock sizes of expanded metal (4' x 8', 1.2 m x 2.4m sheets) and stock lengths of angle irons (20 feet, 6.1 m). This offers the added advantage of an extra length of angle iron which can be used as a handle and stiffener for the topscreen.

Additional Precautions

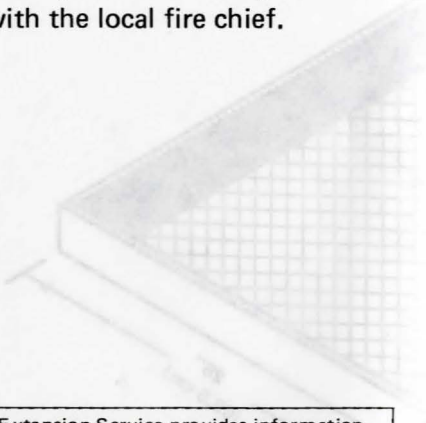
Once completed the topscreen-drum combination will help prevent fires. It is necessary, however, that users of the burning-barrel exercise reasonable care and good judgment. The following guidelines are still important:

1. Never locate the burning-barrel upwind from buildings or other high hazard areas.

2. Always place the barrel in a cleared area. This area should be free of combustibles for 5-10 feet (1.5-3 m) all the way around the barrel.

3. Never remove the topscreen when you have a fire in the barrel. Refill with trash only after the fire is out.

4. Before burning, check to see that trash burning is legal in your community. When in doubt, check with the local fire chief.



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