THERMITE INCENDIARY DEVICE

Thermite is an incendiary that consists of iron oxide (rust) and aluminum mixed together in granular form. This incendiary produces molten iron and aluminum oxide when it burns. This molten slag iron, with a temperature in excess of 4,000° F., can be used to melt, weld and cut holes in metal. Machines or apparatus containing large numbers of small, complicated parts are hopelessly ruined by the melting and flowing action of the hot steel slag. In addition, this type of device makes it possible to get through protective steel cases up to 1" in thickness and then attack the vital parts inside without the use of explosives.

MATERIAL REQUIRED:

Iron oxide (black granules)

Aluminum granules

Sulfur/aluminum igniter

Potassium chlorate/sugar igniter

Several fire bricks

Hi-Temp. epoxy resin

Two tin cans, one being larger in diameter than the other by at least two inches

Two wooden dowels, one 1/2" in diameter and the other 1/4" in diameter

Mixing container with a tight fitting lid, such as a canning jar

Vaseline or other petroleum lubricant

Four metal rods, 1/4" in diameter

Two metal hose clamps

Flower pot to fit over the larger of the two cans

Drill with 1/4" bit

PROCEDURE:

1. Obtain aluminum by filing an aluminum rod or tube with a metal file. The particles must be as small as coarse ground coffee or smaller.

2. Using a window screen as a filter, place several handfuls of filed aluminum particles on the screen and shake back and forth. Collect the aluminum particles that pass through the screen and fill a canning jar 1/3 full.

3. The iron oxide may be either red iron oxide commonly called jeweler's rouge or black iron oxide commonly called hammerscale or magnetic iron oxide.

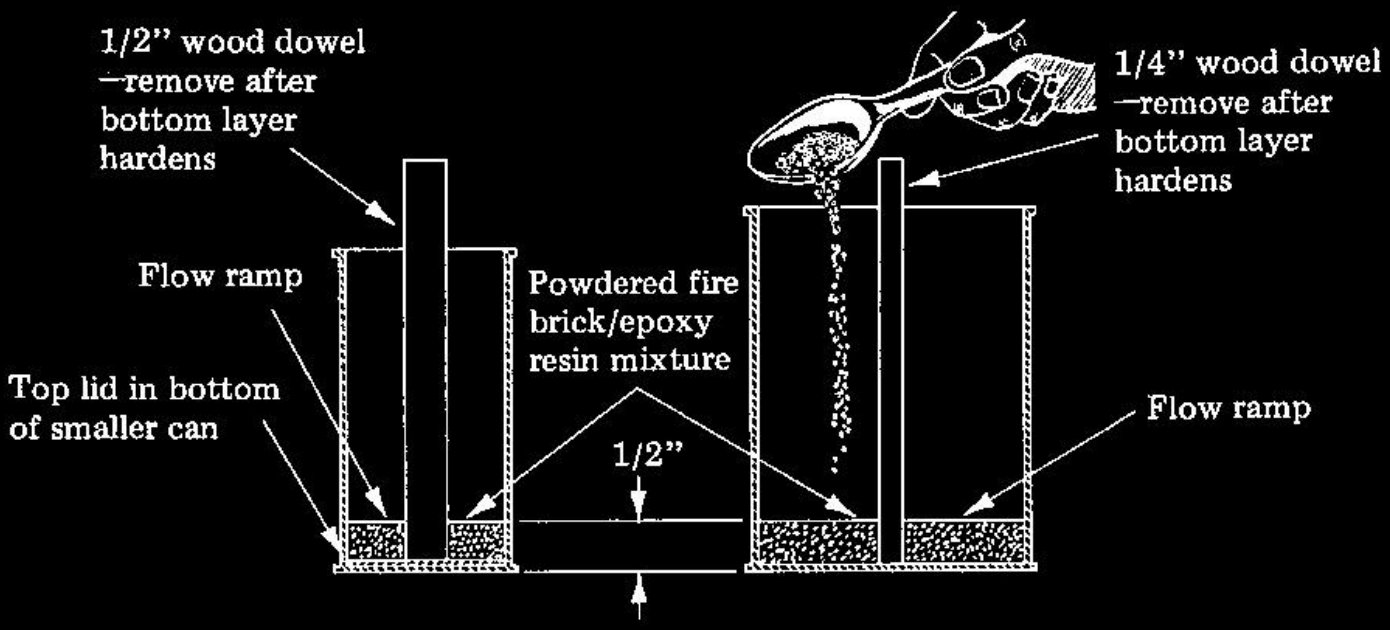
4. Whichever iron oxide is used, place several handfuls of it on a window screen and shake back and forth. Collect the iron oxide particles that pass through the screen and add them to the mixing container containing the aluminum particles until it is 2/3 full.

5. Place a lid on the mixing container and shake and tumble it for at least two minutes to blend the mixture together. It is now ready for use and can be stored for months in the closed container without losing effectiveness.

c. Using a hammer, pulverize a fire brick into a fine powder and screen through a window screen.

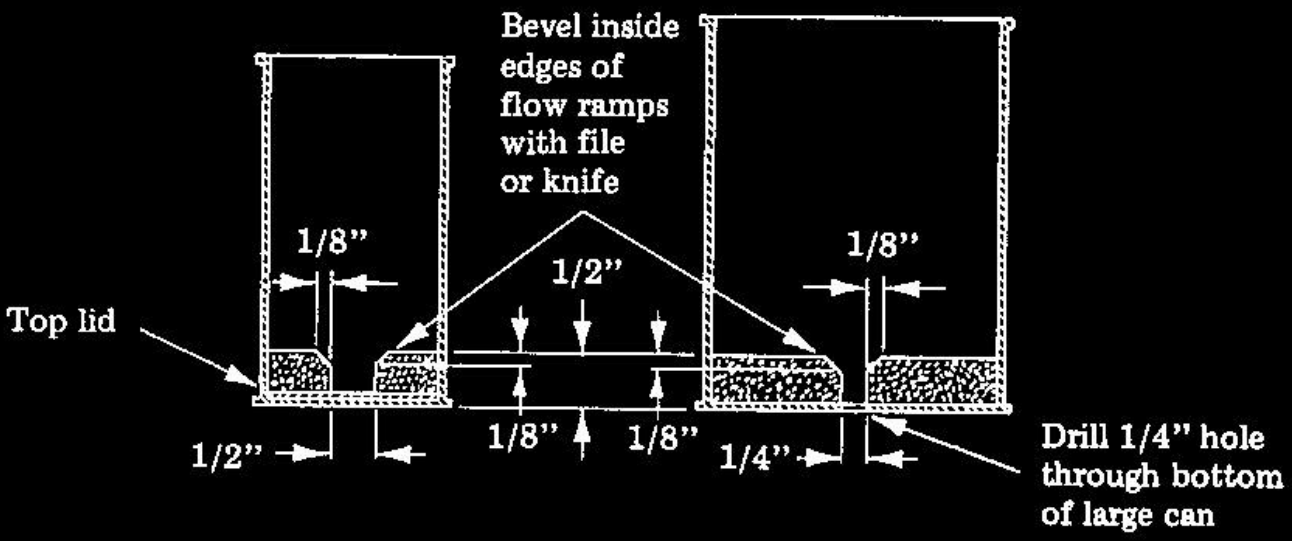
d. Place the screened fire brick powder in a large mixing bowl and add just enough epoxy resin (approximately 10%) to bind the powder together. When this is complete, the material will start to harden immediately.

e. Spoon this mixture immediately into the bottom of the two cans, to a depth of 1/2", forming it evenly around the two center dowels.

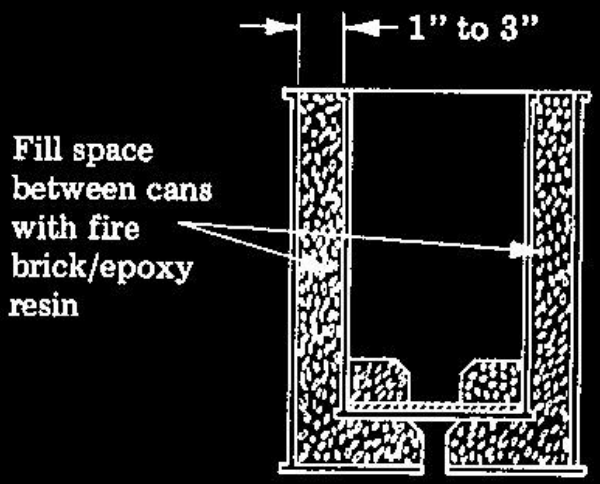


f. Allow the flow ramps to harden for 12 hours before removing the center dowels.

g. After removing the center dowels, a slight bevel should be formed around the center holes by using a small hand held circular file. By drawing a 1/2" circle around the 1/4" hole in the large can and a 3/4" circle around the 1/2" hole in the small can, then filing down to these circles, an even 1/8" bevel can be formed around both of these center holes.



4. After the flow ramps have been prepared drill a 1/4" hole in the center of the bottom of the large can and insert the small can into the exact center of the large can. Fill the space between the two cans with powdered fire brick/epoxy resin mixture. Thoroughly dry the epoxy resin by baking for four hours at 350° F. or let air dry for a week before using.



1. Fill the inner can to within 1/2" of the top with thermite mixture — one to three pounds should be used.

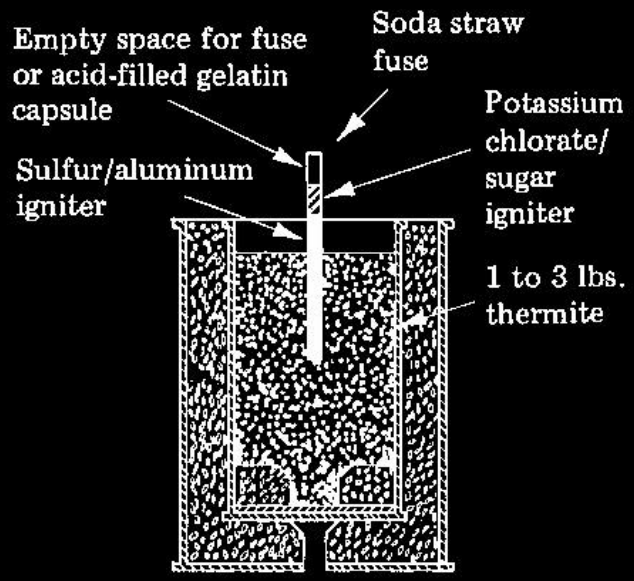
Thermite has an ignition temperature of 2,200° F., and requiress a special igniter for successful ignition. This igniter can be prepared from a soda straw, sulfur/aluminum igniter, and potassium chlorate/sugar igniter in the following manner:

a. Cut a 3" length from a common soda straw and seal one end with a cork, wood or rubber stopper.

b. Fill the soda straw 2/3 full (2") with aluminum/sulfur igniter.

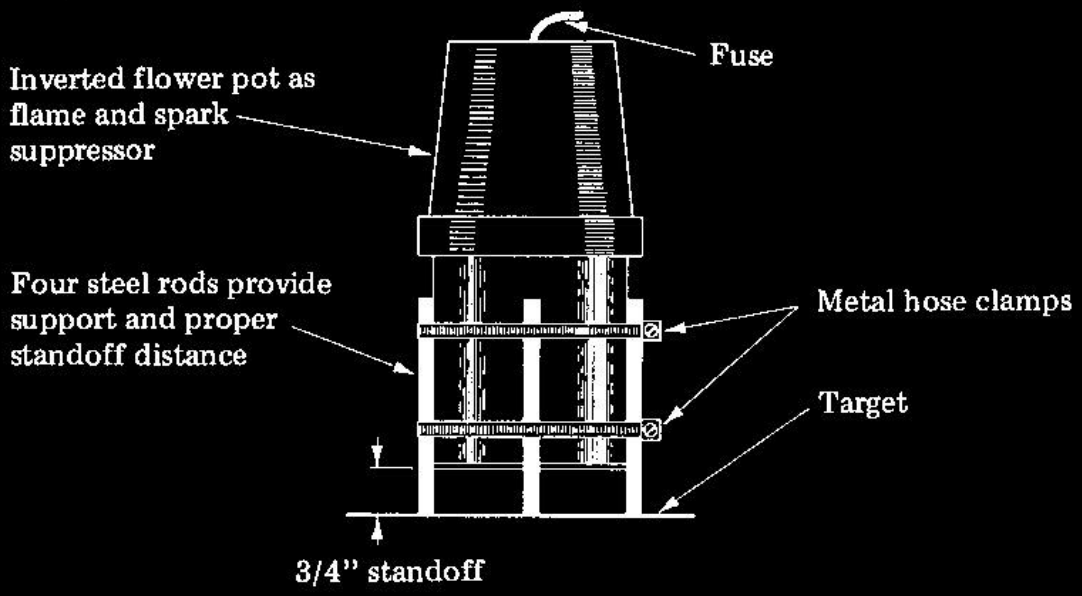
c. Add a 1/2" layer of potassium chlorate/sugar igniter on top of the aluminum/sulfur igniter.

d. The remaining 1/2" of empty space can be used to insert a time fuse or gelatin capsule filled with sulfuric acid (concentrated).



2. The thermite igniter is inserted into the center of the thermite mixture to a depth of 2" and the fuzing mechanism inserted into the open end of the straw. An inverted flower pot is used to cover the top of the device and serves as a flame and spark suppressor.

3. This incendiary device requires a 3/4" separation from the target to be effective. This standoff can be provided by attaching four metal rods spaced evenly around the outer can and held in place with two metal hose clamps.



OPERATION:

1. When the thermite is ignited by the special igniter, an intensely hot chemical reaction is started, which produces molten iron and aluminum oxide.

2. The lids and the bottom of the inner can provide a time delay which allows sufficient time for the molten iron to separate completely from the aluminum oxide.

3. At that precise moment the heavier molten iron drops to the bottom of the inner can, burns through the tapping plates, and drops onto the target in a precise stream of molten iron that has the ability to burn through protective steel casings up to 1" in thickness and destroy the contents within.