Improvised Explosives

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CONTENTS:

Materials

ACETONE

Common Names: Ketone, propanone, dimethyl ketone
Substitute: Nail polish remover
Uses: Solvents

Safety:

1. Can irritate eyes and nose.
2. Keep away from open flame or excessive heat.

AMMONIA GAS

Uses: Refrigerant, fertilizer, pharmaceuticals
Substitute: Many household cleaners

Safety:

1. Can irritate eyes, nose, and throat.
2. Can freeze and burn skin.
3. Use safety gloves and goggles when handling.

AMMONIUM NITRATE

Uses: Fertilizer.

herbicides, freezing mixtures

Safety:

1. Gives off toxic gas when heated.
2. May explode in fire.
3. Exposure to its dust can cause irritation to eyes and mucous membrane.

For our purposes, ammonium nitrate must contain a minimum of 33.3 percent nitrate.

ANILINE

Common Names: Amino benzine, phenylamine, benzenamine, aminophen, blue oil

Uses: Manufacture of dyes, resins, varnish, perfume and shoe polish; vulcanization of rubber; industrial solvent

Safety:

1. Inhalation of fumes can cause dizziness and disorientation.
2. Skin contact can cause severe headaches.
3. Can cause eye irritation.
4. Keep away from ozone, strong oxidizers, acids, and strong alkalides.
5. Use safety goggles, rubber gloves, and apron when handling.

BUTYLLITHIUM

Uses: Manufacture of rubber tires, foot wear, flooring, molded and extruded goods, insulation for wires and cables, styrene plastics, antibiotics, antihistamines, and anticlotting agents

Safety:

1. Can cause severe skin burns; inhalation can cause dizziness.
2. Use safety goggles, leather gloves, and apron when handling.
3. Keep this material cool.
4. Keep away from moisture.
5. Keep away from combustible materials.

Butyllithium is usually found in 15 to 20 percent combination with pentane, heptane, or hexane.

CARBON BISULFIDE

Uses: Manufacture of rayon, cellophane, vacuum tubes, industrial solvents.

Safety:

1. Can cause irritation to eyes, nose, and throat.
2. Can burn skin and eyes.
3. Use protective goggles, gloves, and apron when handling.
4. Keep away from sources of electricity.
5. Keep this material cool

CHLORINE

Uses: Bleaching fabrics, manufacture of rubber and plastics, water purification, detinning and dezincing of iron.

Safety:

1. Can cause irritation of eyes, nose, and throat.
2. Can burn and/or freeze skin.
3. Use protective goggles, gloves, and apron when handling.
4. Keep away from flammable materials.
5. This material is highly corrosive

FIBERGLASS

Common names: Glass wool
Uses: Insulation, building, packing

Safety:

1. Can irritate or lacerate skin.
2. Dust can damage lungs.
3. Use gloves and dust mask when handling.

FURFURAL ALCOHOL

Common Names: Hydroxymethylfuran, furancarbin oil.

Uses: Manufacture of medicines and synthetic resins, oil refining, industrial solvents

Safefy:

1. Can irritate skin and eyes.
2. Inhalation can cause headaches and nausea.
3. Use safety goggles and gloves when handling.
4. Keep away from acids.

IODINE CRYSTAL

Uses: Pharmaceuticals, process engraving, dyes

Safety:

1. Can irritate skin and throat.
2. Inhalation can cause headaches and nausea.
3. Use rubber gloves and safety goggles when handling.
4. Store away from combustibles

NITRIC ACID

Uses: Photographic plates, fertilizers

Manufacture:

1. Mix two parts by volume potassium nitrate to one part concentrated sulphuric acid.
2. Distill this mixture with a very gentle heat.
3. Red fumes will be given off and will collect in the receiving bottle; keep this bottle cool.
4. Nitric acid produced will be equal to the potassium nitrate in the original mixture.

Safety:

1. Will burn eyes, nose, throat, and skin.
2. Use safety goggles and as much rubber clothing as possible when handling.
3. Extremely corrosive.
4. Keep this material cool

POTASSIUM CHLORATE

Common Names: Chlorate of potash, potcrate
Substitute: Match heads Uses: Textile printing,
dyes, bleaching, matches Safety:

1. Can irritate eyes, nose, and throat.
2. Store away from combustibles.

POTASSIUM NITRATE

Common Names: Saltpeter, niter
Uses: Metal heat treatment, fertilizer, glass clarifier, meat processing, pharmaceuticals

Manufacture:

1. Place a charcoal filter at the bottom of a large strainer. A charcoal filter can be improvised by spreading fine wood ash between two pieces of cloth.
2. Fill strainer with nitrate-rich earth. The best sources of nitrate-rich earth are well-tended farmland and decaying cellar floors.
3. Pour boiling water slowly over the earth.
4. Collect the water that drips out of the strainer.
5. Strain the sludge out of this water.
6. Boil off half the water; allow to cool.
7. Add an equal measure of alcohol to the water.
8. Filter mixture through paper.
9. White saltpeter crystals will collect on the paper.

Safety:

1. Can cause nausea, dizziness, and diarrhea.
2. Store separately from all other materials.
3. Store away from heat.
4. Use safety goggles and gloves when handling.

POTASSIUM PERMANGANATE

Common Names: Permanganous acid, potassium salt, chameleon mineral, Condy's crystal, cairox

Uses: Bleaching of resins, waxes, fats, oils, straw, cotton, silk and chamois; topical anti-infective; veterinary topical antiseptic.

Safety:

1. Can irritate eyes and nose.
2. Use dust mask and goggles when handling.
3. Extremely corrosive.
4. Store in glass container.
5. Keep away from all other materials.

SULPHURIC ACID

Common Names: Oil of vitriol, dipping acid

Uses: Production of fertilizers, pigments, rayon and film; Petroleum refining; etching and alkylation

Manufacture:

1. Automobile batteries use sulphuric acid in dilute form.
2. To concentrate the acid, place in a glass container and boil until white fumes are given off.

Caution: These fumes are highly toxic.

Safety:

1. Can cause irritation of eyes, nose, and throat.
2. Can burn skin.
3. Use goggles and as much rubber protective clothing as possible.
4. Store in glass bottle.
5. Keep separate from all other materials.

NOTES

1. All materials outlined are extremely dangerous or potentially so.
2. Avoid storing these materials for any length of time in any amounts.
3. Health dangers and safety measures outlined assume limited exposure to limited amounts of materials.
4. Detailed information on the use and handling of these materials can be obtained from a wide variety of state and federal agencies dealing with industrial safety and toxic materials.
5. Familiarize yourself with the properties of these materials by experimentation with small quantities.

Explosives And Incendiaries

NAPALM

1. Fill the bottom container of a household double boiler with water.
2. Fill one-half the top container with gasoline.
3. Using gentle electric heat, bring the gasoline to a boil.
4. Slowly pour in pure soap flakes (Ivory Snow).
5. Stir the mixture as you pour in the flakes.
6. Continue this process until the saturation point is reached.
7. Allow the mixture to simmer for five minutes

AMMONIA TRIODINE

1. Place iodine crystals in household ammonia. Allow the crystals to settle out.
2. Mild explosive when unconfined.
3. Confined it will produce blast, fragmentation, and fire.
4. This explosive is impact-sensitive. Detonate with any blasting cap.

Caution: Make immediately before use. This explosive is unstable and, while it can be used safely, no attempt should be made to store it.

NITROCHLORIDE

1. Fill a large glass beaker with a solution of ammonium nitrate and water.
2. Fill a small beaker with chlorine gas.
3. Place the small beaker upside down in a large beaker.
4. Gently heat the small beaker; the surface of the solution will become oily and small droplets will form and drop to the bottom of the large beaker.
5. When the process is finished, remove the heat and drain off excess ammonium nitrate solution; the material that remains at the bottom of the beaker is nitrochloride.

Caution: This explosive is spark sensitive.

GUN COTTON

1. In a large beaker mix two parts by volume nitric acid with one part sulphuric acid.
2. To this mixture add sterilized cotton; stir well.
3. Pour in a small quantity of acetone until the cotton dissolves and white crystals are formed; these white crystals are gun cotton.

4. This material must be confined to achieve detonation.
5. Gun cotton is theoretically spark-sensitive, but use of a blasting cap is advised.

NITRIC ACID

This acid will cause detonation when brought into contact with aniline, furfural alcohol, or turpentine. Note: The acid/alcohol combination is volatile enough to be used as rocket fuel.

BUTYLLITHIUM

This material will cause detonation when brought into contact with fiberglass.

CARBON DISULFIDE

This material is extremely flammable; its vapor is easily ignited by an electrical spark or even contact with a light bulb.

POTASSIUM NITRATE

This material is an effective explosive in combination with a large number of other substances. One lesser known but extremely powerful formula is a dry mix of 80 percent potassium nitrate and 20 percent finely ground solder. Confine in a pipe and use a blasting cap to detonate.

AMMONIUM NITRATE

This material is an effective explosive in combination with a large number of other substances. The simplest formula is a dry mix of 85 percent ammonium nitrate with 15 percent powdered charcoal. Confine in a pipe and use a blasting cap to detonate.

POTASSIUM PERMANGANATE

Dry mix 80 percent potassium permanganate with 20 percent powdered sugar. Confine in a pipe; detonate with a blasting cap or contact with sulfuric acid.

Note: Potassium permanganate should be kept out of contact with the metal pipe until the last possible minute.

Fuses and Detonators

FUSES

For both types of improvised fuse, it is best to use white cotton string. Wash the string with warm water and soap before use.

Slow-Burning Fuse

1. Make a solution of one tablespoon potassium nitrate and one cup of water; place the solution in a shallow glass dish.
2. Add precut lengths of string.
3. Bring the solution to a boil over gentle heat; boil for three minutes.
4. Remove string from solution and allow to dry.
5. Determine burning time by testing two sample fuses.

Fast-Burning Fuse

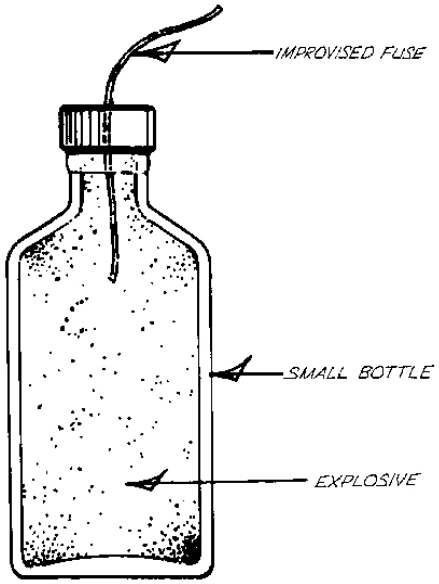
1. Coat a length of string with epoxy glue.
2. Roll the glue-coated string in a mixture of 50 percent potassium nitrate and 50 percent powdered sugar; allow the glue to harden.

3. Wrap the fuse in cellophane tape.
4. The burning rate of the fuse can be slowed by adding a small quantity of finely ground sawdust to the nitrate/sugar mixture.

DETONATORS

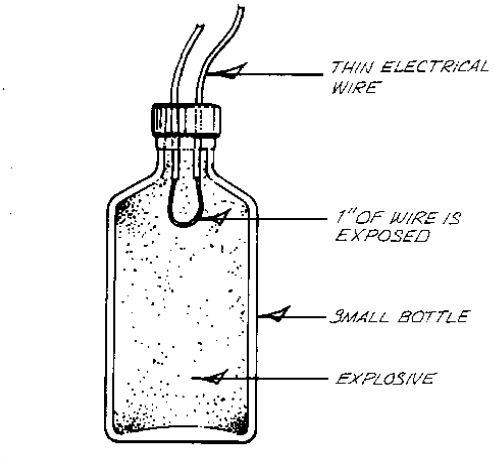
Picture #1:

1. Partially fill the bottle with explosive (use bottles from model paints; the best explosive is improvised by scraping the chemicals from the heads of matches).
2. Insert the fuse.
3. Fill the bottle to the brim. Tamp the explosive tightly.
4. Punch a small hole in the bottle cap; pull the fuse through the hole.
5. Screw the bottle cap on tight.
6. Seal the fuse hole with epoxy glue.



Picture #2:

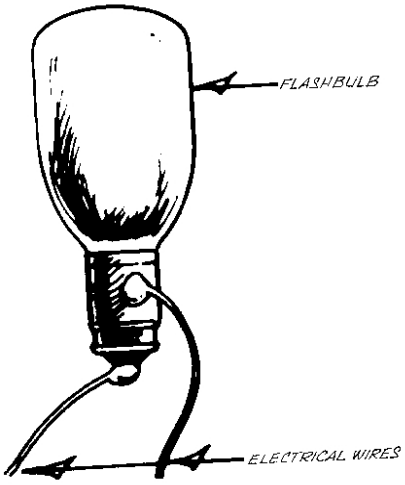
1. Use a length of thin electrical wire; remove one inch of insulation in the center of the length.
2. Partially fill the bottle with explosive (use either match-head scrapings or carbon bisulfide).
3. Insert the stripped section of wire.
4. Fill the bottle to the brim. Tamp the explosive tightly.
5. Punch two small holes in the bottle cap; pull one end of the electrical wire through each hole.
6. Screw the bottle cap on tightly.
7. Seal the hole with epoxy glue.



Picture #3

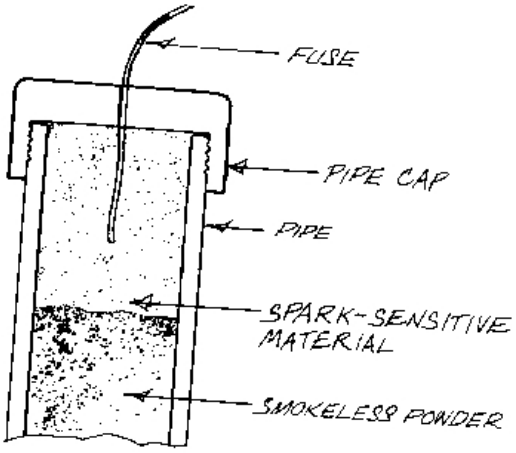
1. Most improvised explosives are sensitive enough to be detonated by the flash of a photographer s bulb. Solder one wire to the base of the bulb and the second to the metal side. Use as any electrical blasting cap.

2. When using a less sensitive explosive, first coat the bulb with epoxy glue and roll in any convenient flash material.



Picture #6

A common improvised bomb is a length of pipe filled with smokeless powder extracted from bullets. A simple detonation method for this kind of bomb is to fill the first two inches of pipe with a spark-sensitive material such as a potassium nitrate/sugar mixture.



Chemical Timers:

The following acids will cause violent reactions when brought into contact with certain materials

Sulfuric acid:

Potassium permanganate
Potassium chlorate

Match heads

Nitric acid:

Turpentine
Furfural alcohol
Aniline

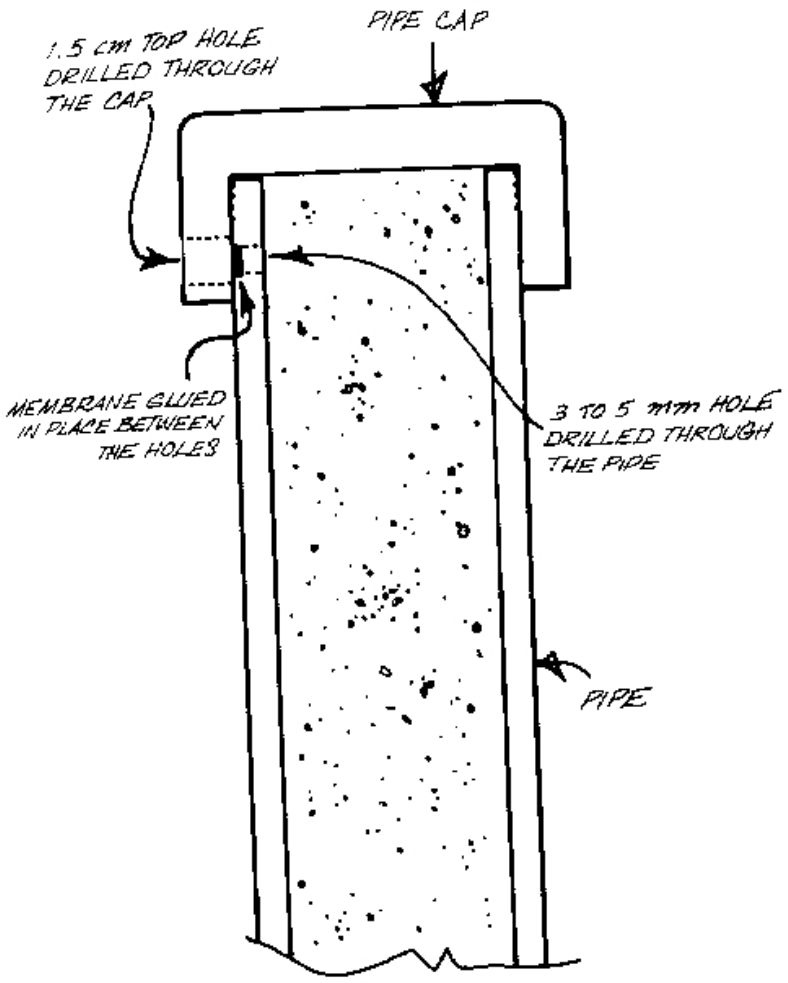
PIPE BOMB TIME FUSE I

Picture #7:

1. Fill the pipe with an acid-sensitive material or fill the end section of the pipe with an acid-sensitive material and the rest of the pipe with any convenient explosive.

2. Securely glue into place a membrane of a material that will be corroded by the acid. The type and thickness of the material will determine the length of delay. This method can be improved by threading the interior of the top hole and screwing in a plug after adding acid.

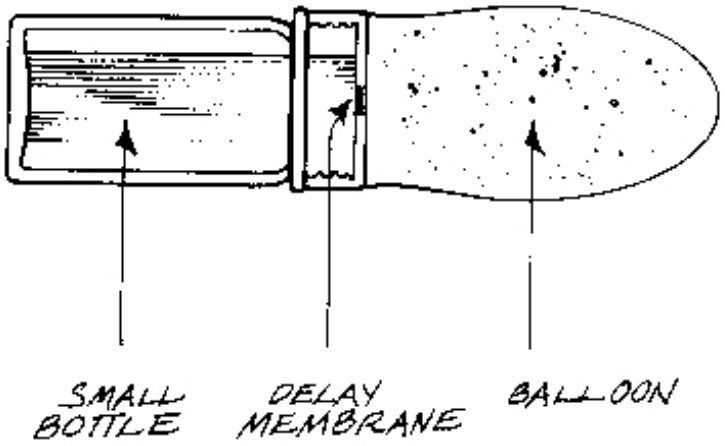
3. To start the delay, fill the top hole with acid. Use rubber gloves while assembling.



PIPE BOMB TIME FUSE II

Picture #8:

1. Fill a small bottle four-fifths full of acid.
2. Make a hole in the cap and securely seal it with delay membrane.
3. Secure a balloon filled with acid-sensitive material to the bottle.
4. Insert this device into the base of a pipe bomb. Keep the bomb in an upright position.
5. To start the delay, lay the bomb on its side, or secure the balloon to a short fuse.



Electrical Timers

DRIPPING TAP TIMER

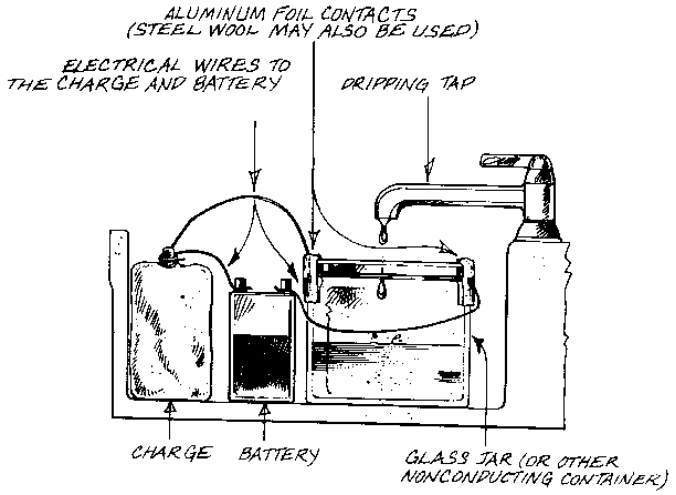
Picture #9:

1. Wires from the charge and the battery are attached to strips of aluminum foil.

2. These strips of foil are draped over the mouth of the jar.

3. The jar is placed under a dripping tap.

4. When the water level in the jar reaches the aluminum foil contacts, the electrical circuit is closed and detonation will occur.



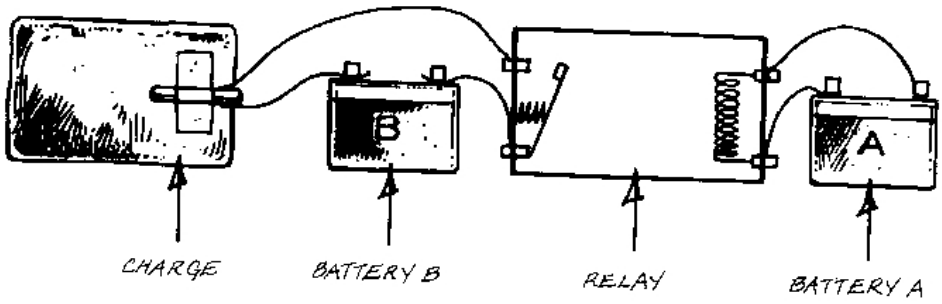
RELAY TIMER

Picture #10:

1. Battery A supplies power to the relay's electromagnet. When battery A fails, the circuit running through the relay closes.

2. Battery B fires the charge.

3. Because relays use very little power, this device is best used when long delays are required. Experimentation will show the best type of battery to use for the desired delay.



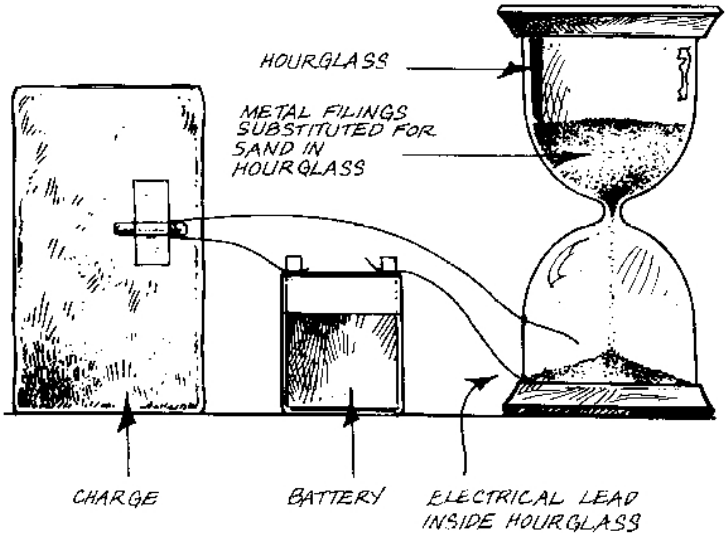
HOURGLASS TIMER

Picture #11:

1. Two small holes are bored into one end of the hourglass.

2. Electrical leads are introduced into the hourglass via these holes.

3. The metal filings flowing into the bottom of the hourglass will close the electrical circuit and cause detonation.



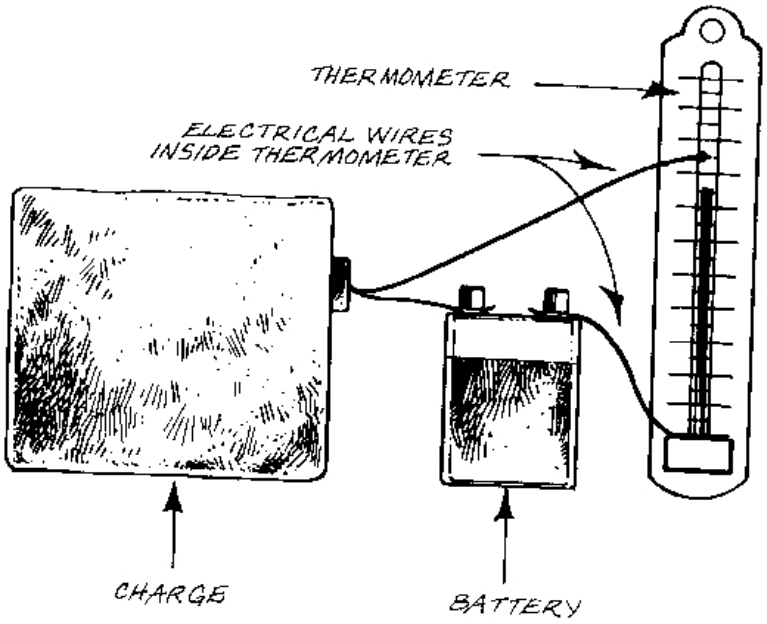
THERMOMETER TIMER

Picture #12:

1. Bore a small hole into the bulb of the thermometer; insert the first wire.

2. Next bore a hole into the stem of the thermometer, above the mercury level; insert the second wire.

4. When the thermometer is exposed to a heat source, the mercury will rise and close the electrical circuit, causing detonation. Delay time can be adjusted by varying the intensity of the heat source and the thermometer's proximity to it.

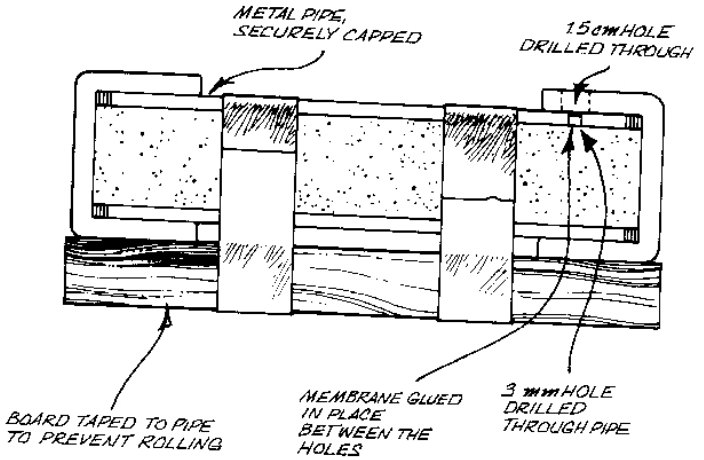


Explosives and Incendiary Devices

PIPE BOMB

Picture #13:

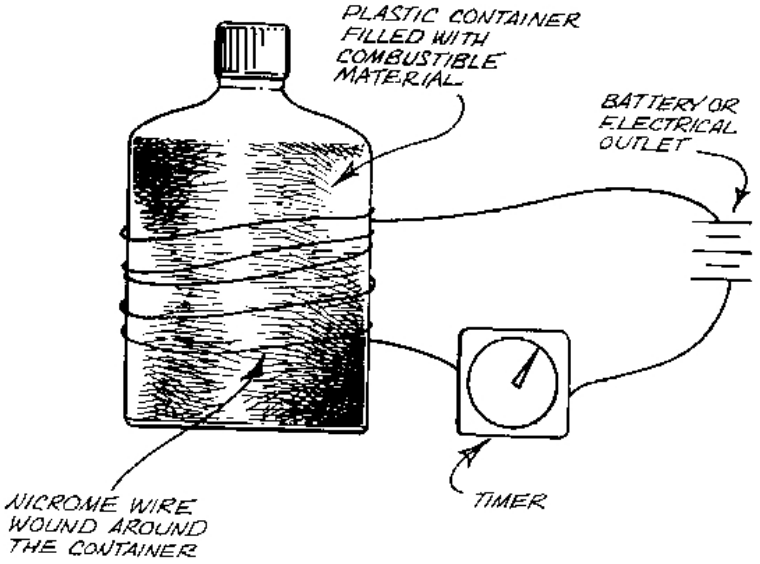
1. Pipe is filled with an 80 percent potassium permanganate/20 percent sugar mixture.
2. Top hole is filled with sulphuric acid.
3. When the acid comes into contact with the mixture it will explode violently.
4. The thickness and material of the membrane determines delay time.



PLASTIC BOTTLE BOMB

Picture #14:

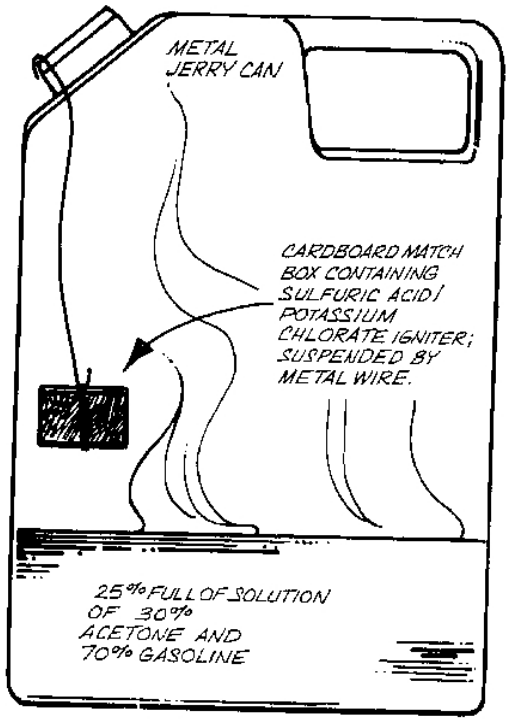
When the timer closes the circuit, the nicrome wire will melt the container and ignite the combustible material. Nicrome wire is used in commercial heating elements.



JERRY CAN BOMB I

Picture #15:

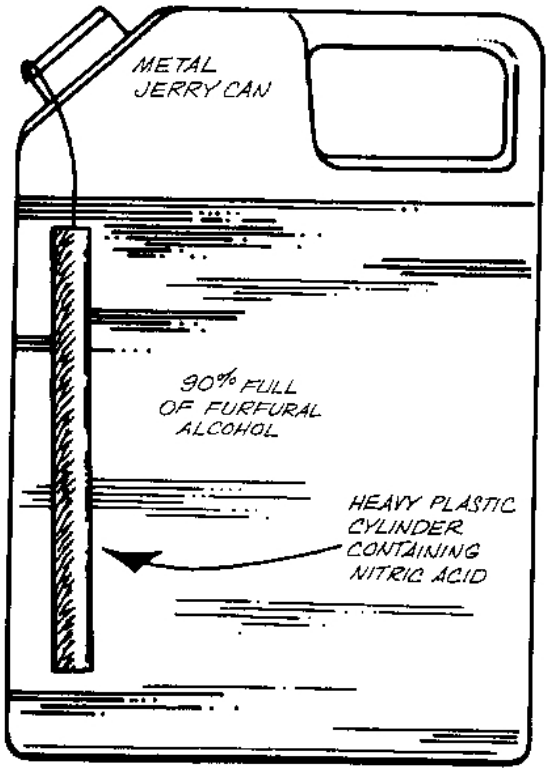
In this device, the explosivr is the vapor which rises from the acetone/gasoline mixture.



JERRY CAN BOMB II

Picture #16:

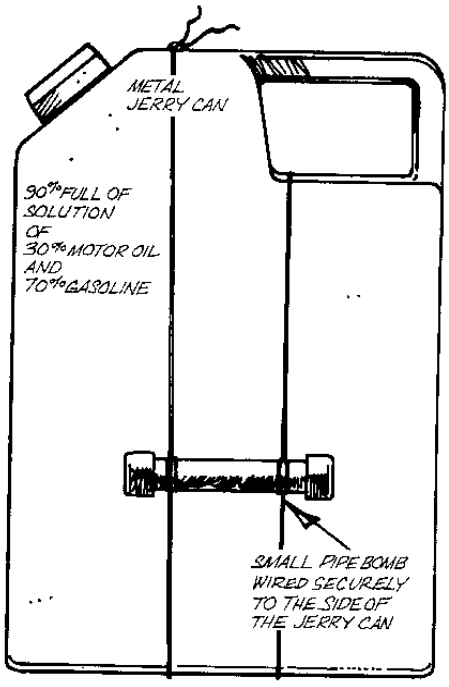
A violent explosion will occur when the plastic container is corroded through and the nitric acid comes in contact with the furfural alcohol.



JERRY CAN BOMB III

Picture #17:

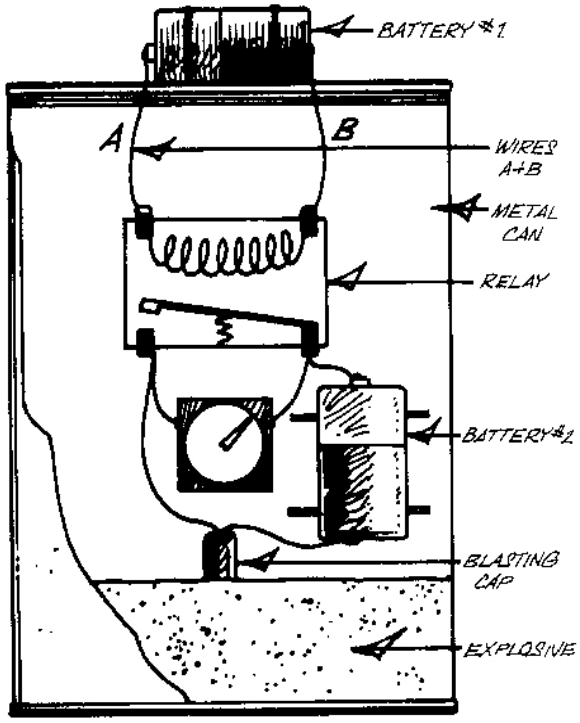
When the pipe bomb is detonated, the solution in the jerry can will explode.



TAMPERPROOF BOMB I

Picture #18:

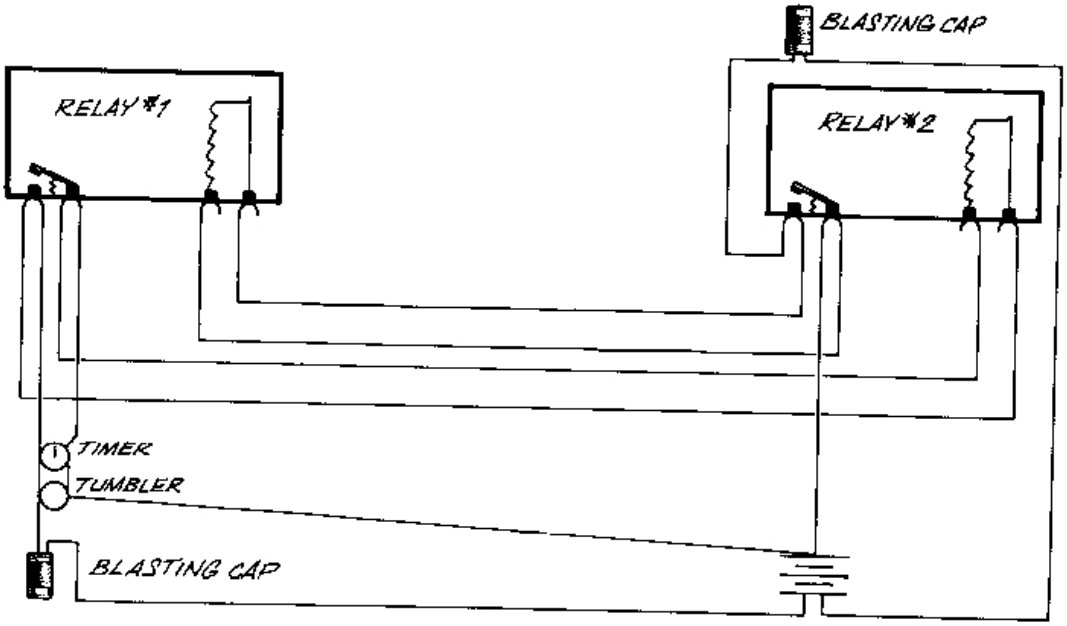
If this device is not tampered with, the timer will detonate at the set time. If any attempt is made to neutralize battery #1 by cutting wire A or B, the device will explode immediately.



TAMPERPROOF BOMB II (DOUBLE RELAY)

Picture #19:

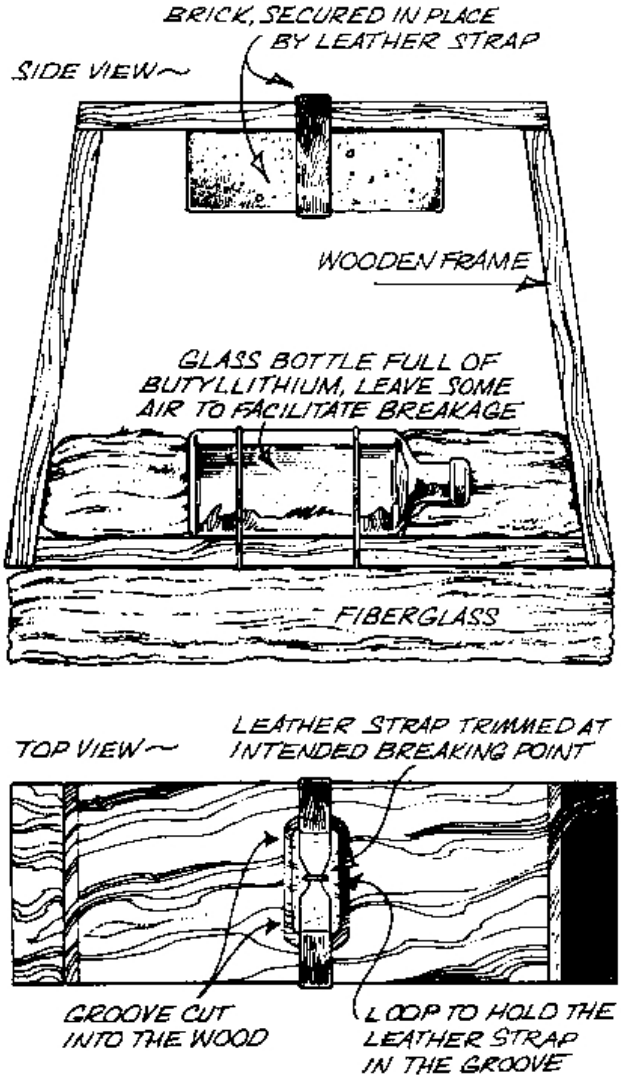
1. Cutting any wire closes one of the circuits.
2. Coat all leads with epoxy glue to preclude use of alligator clips.
3. Device must be neutralized or timer will detonate. Freezing is the only solution.



BUTYLLITHIUM/FIBERGLASS BOMB

Picture #20:

1. Groove is filled with sulphuric acid.
2. When the leather burns, the brick drops and breaks the glass bottle.
3. The butyllithium/fiberglass contact causes deflagration and in most cases explosion.

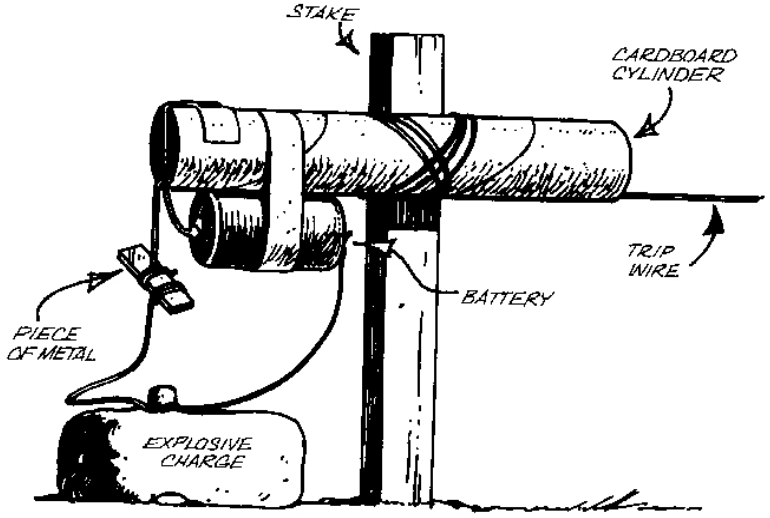


Booby Traps and Land Mines

CYLINDER BOOBY TRAP

Picture #21:

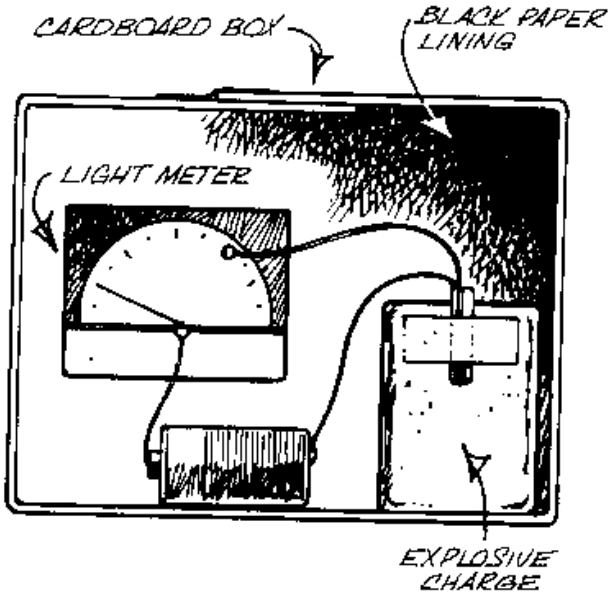
1. One of the wires runs directly from the battery to the charge.
2. A second wire runs from the battery through the rear of the cylinder. The section of the wire obstructing the opening is stripped.
3. A third wire runs from the charge to a piece of metal connected to the end of the trip-wire.
4. When the trip-wire is moved the metal piece is brought into contact with the end of the cylinder and the circuit is closed.



PACKAGE BOMB

Picture #22:

1. Carton is lined with black paper and closing edges overlap to keep out all light.
2. Opening the package activates the light meter and closes the firing circuit.
3. This device should be made in a photographer's darkroom.

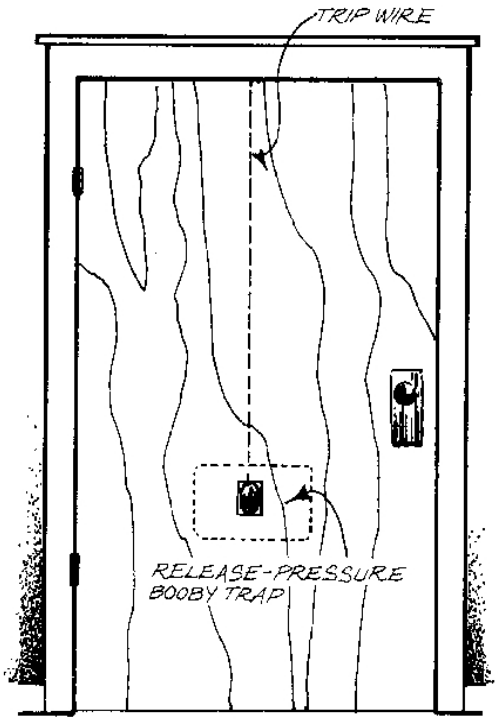


BOOBY-TRAPPED DOOR

Picture #23:

1. To booby-trap a door when there is no other exit from the room, any convenient booby trap utilizing release pressure and a trip-wire can be used.
2. Secure the device to the inside of the door.
3. Run the trip-wire up to and over the top of the door.
4. Close the door on the trip-wire, securing it in place.
5. Cut the end of the wire off as close to flush with the door as possible.
6. Opening the door releases the trip-wire and fires the device.

Note: It is important to run the wire over the top of the door so that the inevitable tail of wire is out of the line nf vision.



AUTOMOBILE TRAP

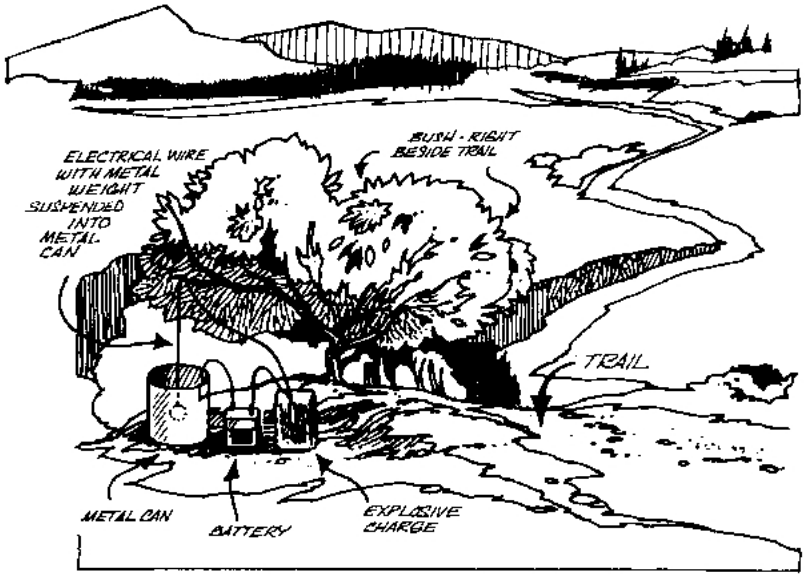
1. Attach any convenient pull-fire booby trap to some object to give it extra weight.
2. Attach a hook to the far side of the trip-wire.
3. Place the device on the ground beneath the target vehicle, just forward of the gas tank.
4. Attach a hook to any convenient part of the under-carriage.
5. Forward movement of the vehicle will pull the trip-wire and detonate the device under the gas tank.

TRAIL TRAP

Picture #24:

This method of booby trapping a foot path greatly reduces the chances of detection, because there are no trip-wires or signs of burial of mines. Anyone moving along the trail who brushes against the bush will activate the simple anti-movement mechanism. Two points are very important:

1. The bush must be as close as possible to the edge of the trail.
2. Use a wide can so a light breeze will not trigger the device.

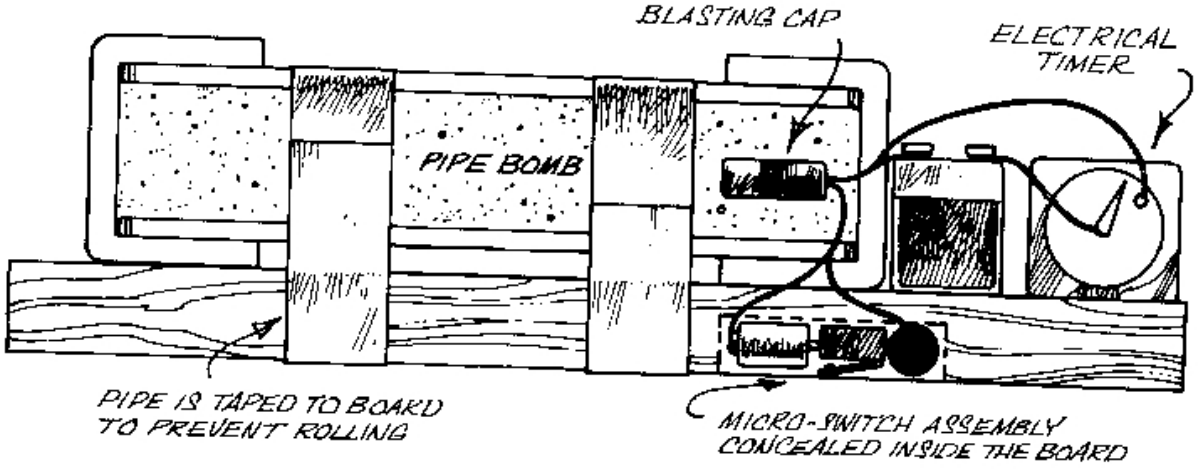


LIFT-PROOF BOMB

Picture #25:

1. The micro-switch assembly consists of a battery, a micro-switch set to serve as an anti-lift mechanism, and a timer which keeps the circuit open to allow safe handling.

2. If the pipe bomb is left alone, the electrical time will detonate it. If the pipe bomb is found and the electrical timer is neutralized, the micro-switch assembly will cause detonation as soon as an attempt is made to move the device.

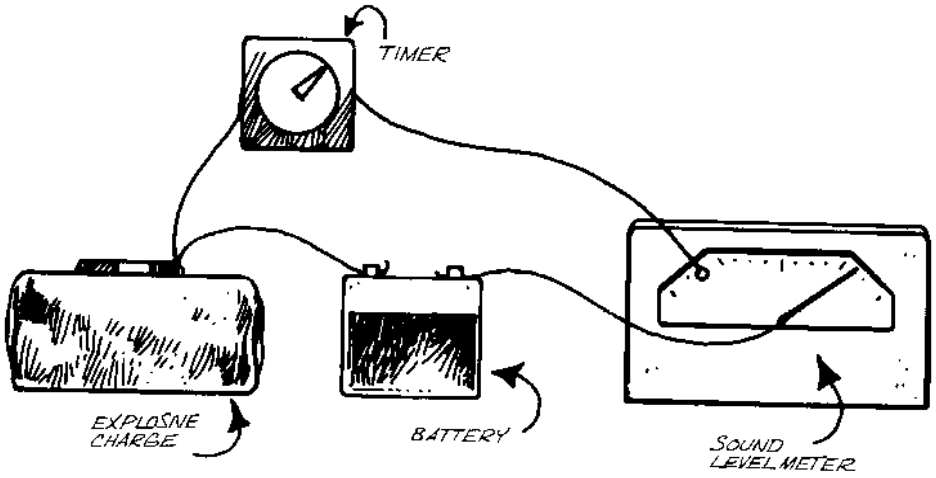


SOUND-DETONATED BOMB

Picture #26:

1. The sound level meter is used as the switch, and must be sensitive enough to be activated by the sound of a footstep, but not so sensitive that lesser noises will activate it.

2. A timer is included as a secondary circuit breaker to allow the manufacturer to work with the device without causing detonation.

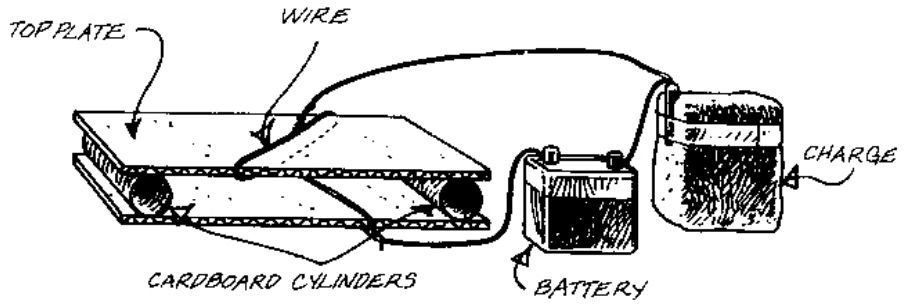


PRESSURE MINE I

Picture #27:

1. Top and bottom of pressure plate are made of heavy cardboard, and are held apart by cardboard cylinders.
2. One electrical wire is wound around the width of the top plate, and the other is wound around the width of the bottom plate.
3. The sections of electrical wire inside the mine are stripped.
4. Pressure on top plate brings wires into contact, causing detonation.

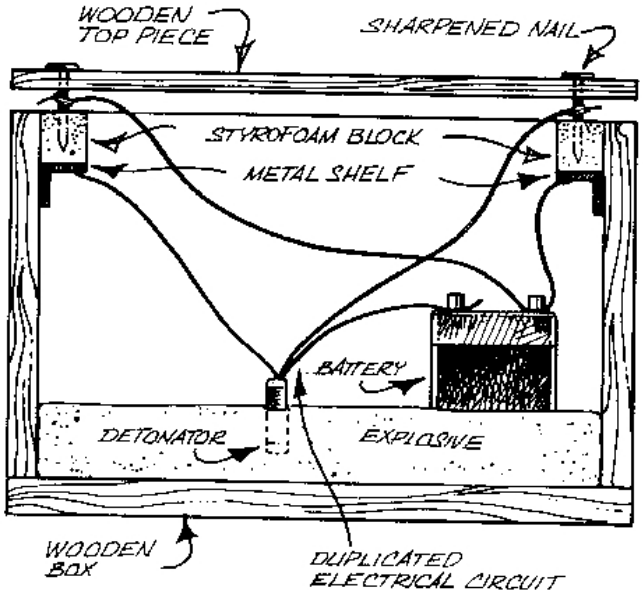
Note: This is an extremely sensitive mine.



PRESSURE MINE II

Picture #5:

Pressure on the pressure plate drives the nail through the Styrofoam and into contact with the metal shelf, closing the electrical circuit and causing rletonation.



BOUNDING MINE

Picture #4:

1. When the pressure plate is activated the launching charge will fire the mine out of the launcher. When the trigger wire is played out it will pull the top plate of the firing mechanism down and close the firing circuit.
2. The firing mechanism is covered with plastic.
3. When burying the launcher, make sure that the opening is unobstructed.