

IMPROVISED MUNITIONS

Black Books Vols. I, II, and III

"Nothing added, nothing taken away"

Typed by The Mad Cracker

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* Board ads: *
* *
* Big Boobs #1 10 meg Ae -No Pw- 224/212/202 catfur.....[713] 729-5100 *
* Terrapin Station Ae 300/1200 pw: CICADA idv. soon!.....[505] 865-0883 *
* The Arena Ae 20 meg Ae pw: TURKEY 224/212.....[408] 429-8562 *
* Binary Sixx Ae 20 meg 1200/202 catfur pw: SIXX.....[505] 275-0110 *
* *
* All boards are 24 hours *
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Opening: Greetings! Welcome to my first major production. What the hell is this guy babbling about "black books"? Well, in the 60's a special forces program was developed at the Frankford arsenal to develop and test improvised explosives. What you see here are the results of these tests. Typed directly from Army TM 31-210 and Desert Publication's Black Book Vol. III.

Disclaimer: I take absolutely no responsibility for the use of this material, whether it be direct or indirect. What I have done here is simply provide this information for one purpose only (har har) and that is for informational purposes only. All information here, however, should be taken as seriously as the bible. You can very easily fuck up and get killed. Please be very, very careful (shit, i sound like your mother) when dealing with any of the items presented here. Note especially the section on improvised pistols.

thanx. and by god...

HAVE PHUN!

What would you guys like next?

(note: the first (good) part of the poor mans james bond is in the works.. I am sick of seeing all of his good book trashed into many files, so I will present it (like this) in volume form..)

Poor mans James bond (first section only... its all that is good)
Anarchist cookbook (oohhhh nooo...)
Principles of Improvised Explosive Devices (a bunch of switches and initiators)
FM 5-20 Camouflage
Complete guide to lock picking
Get Even I and II
TM 31-200-1 Unconventional warfare- both of these are about sabotage mainly
TM 31-201-1 Unconventional warfare references
Grandads Book of Chemistry (are you kidding?)
FM 3-50-1 Deliberate Smoke Operations (just for that HS lunchroom...)
FM 23-30 Grenades and Pyrotechnics
ST 21-75-3 Dismounted Patrolling
FM 5-15 Field Fortification
U.S. Navy Seal Manual- underwater demolitions, etc.. good book.
Improvised Munition Systems
Special Forces Handbook

Special Forces Operational Techniques
Anarchist HANDBOOK
Weaponer (another from 'ole Kurt Saxon)
Imp. Weapons of Modern Ninja (supposed to be good, its on order..)

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Plastic Explosive Filler

Sec I, No. I

A plastic explosive filler can be made from potassium chlorate and petroleum jelly. This explosive can be detonated with a commercial #8 or any military blasting cap.

Materials

Sources

Potassium chlorate

Medicine, match heads (white)

Petroleum jelly (vaseline)

Medicine, Lubricant

Round stick

Wide bowl or other container for mixing

Procedure

1. Spread potassium chlorate crystals thinly on a hard surface. Roll the round stick over crystals to crush into a very fine powder or wheat flower.
2. Place 9 parts powdered potassium chlorate and 1 part petroleum jelly in a wide bowl or similar container. Mix ingredients with hands until a uniform paste is obtained.

Note: Store in a waterproof container until ready to use.

Potassium Nitrate

Sec. I, No. 2

Potassium nitrate can be extracted from many natural sources and can be used to make nitric acid, black powder and many pyrotechnics. The yield ranges from .1 to 10% by weight, depending on the fertility of the soil.

Materials

Sources

Nitrate bearing earth or other material,
about 3.5- gallons (13.5 liters)

Soil containing old decayed
vegetable or animal matter
Old cellars/farm floors, earth
from old burial grounds,
decayed stone or mortar
building foundations.

Fine wood ashes, about .5 cup (1/8 liter)

totally burned whitish wood ash powder, totally black paper

Bucket, about 5 gallons (19 l) in volume

2 pieces finely woven cloth, each slightly bigger than the bottom of the bucket

shallow pan or dish, at least as large as the bottom of bucket

Shallow heat resistant container (ceramic, metal, etc.)

Water- 1.75 gallons (6.75 l)

Awl, knife, or screwdriver, or other hole punching tool

alcohol - 1 gallon (4 l) can be whiskey, rubbing, etc.

heat source

paper

tape

Note: Only the ratios of the amounts of ingredients are important. Thus, for twice as much, double all quantities.

Procedure

1. Punch holes in bottom of bucket. Spread one piece of cloth over holes inside bucket.
2. Place wood ashes on cloth and spread to make a layer about the thickness of the cloth. Place second piece of cloth on top of ashes.
3. Place dirt in bucket.
4. Place bucket over shallow container. Bucket may be supported on sticks if necessary.
5. Boil water and pour it over earth in bucket a little at a time. Allow water to run through holes in bucket into shallow container. Be sure water goes through all the earth. Allow drained liquid to cool and settle for 1 to 2 hours.

Note: Do not pour all the water at once, as this may cause stoppage.

6. Carefully drain off liquid into heat resistant container. Discard any sludge remaining in bottom of the shallow container.
7. Boil mixture over hot fire for at least 2 hours. Small grains of salt will begin to appear in the solution. Scoop these out as they form, using any type of improvised strainer (paper, etc)
8. When liquid has boiled down to approx. half its original volume, remove from fire and let sit. After half an hour, add an equal volume of alcohol. When mixture is poured through paper, small white crystals will collect on

top of it.

9. To purify the potassium nitrate, re-dissolve the dry crystals in the smallest possible amount of boiled water. Remove any salt crystals that appear (step 7); pour through an improvised filter made of several pieces of paper and evaporate of gently heat the concentrated solution to dryness.
10. Spread crystals on plat surface and allow to dry. The crystals are now ready to use.

Improvised Black Powder

Sec. I, No. 3

Black powder can be prepared in a simple, safe manner. It may be used as blasting or gun powder.

Materials

Sources

Potassium nitrate, granulated 3 cups (.75 l)
see Sec. I, No. 2)

Wood charcoal, powdered, 2 cups (.5 l)

Sulfur, powdered, .5 cup (1/8 l)

Alcohol, 5 pints (2.5 l) whiskey, rubbing, etc.

water 3 cups, (.75 l)

heat source

2 buckets- each 2 gallon (7.5 l) cap., one of
which must be heat resistant (metal, ceramic)

Flat window screen 1 foot square

large wooden stick

cloth, 2 ft. sq.

Procedure

1. Place alcohol in one of the buckets.
2. Place potassium nitrate, charcoal, and sulfur in the heat resistant bucket. Add 1 cups water and mix thoroughly with wooden stick until all ingredients are dissolved.
3. Add remaining water (2 cups) to mixture. Place bucket on heat source and stir until small bubbles begin to form.

Note: Do NOT boil mixture. Be sure all mixture stays wet. If any is dry, as on sides of pan, it maignite.

4. Remove bucket from heat and pour mixture into alcohol while stirring vigorously.
5. Let alcohol mixture stand about 5 minutes. Strain mixture through cloth to obtain black powder. Discard liquid. Wrap cloth around black powder and squeeze to remove all excess liquid.

6. Place screening over dry bucket. Place workable amount of damp powder on screen and granulate by rubbing solid through screen.

Note: If granulated particles appear to stick together and change shape, recombine entire batch of powder and repeat steps 5 and 6.

7. Spread granulated powder on flat dry surface so that layer about .5" (1.25 cm) is formed. Allow to dry. Use radiator, or direct sunlight. This should be dried as soon as possible, preferably in one hour. The longer the drying period, the less effective the black powder.

Note: Remove from here as soon as granules are dry. Black powder is now ready for use.

Nitric Acid

Sec. I, No. 4

Nitric acid is used in the preparation of many explosives, incendiary mixtures and acid delay timers. It may be prepared by distilling a mixture of potassium nitrate and concentrated sulfuric acid.

Materials

Sources

Potassium nitrate (2 parts by volume)

Drug store, improvised, (Sec. I No. 2)

Concentrated sulfuric acid (1 part by vol)

motor vehicle batteries,
industrial plants

2 bottles or ceramic jugs (narrow necks
preferable)

pot or frying pan

Heat source

Tape (paper, electrical, not cellophane)

Paper or rags

Note: If sulfuric acid is obtained from motor vehicles, it must be concentrated by boiling until white fumes appear. Do NOT inhale fumes. Also, the amount of nitric acid produced is the same as the amount of potassium nitrate used, so for 2 tablespoons of nitric acid, use 2 tablespoons potassium nitrate and 1 tablespoon sulfuric acid.

Procedure

1. Place dry potassium nitrate in bottle or jug. Add sulfuric acid. Do not fill more than 1/4 full Mix until a paste is formed.

Note: Treat sulfuric acid like any other acid, wash affected skin with water, and dont inhale the fucking fumes.

2. Wrap paper or rags around necks of 2 bottles. Securly tape necks of bottles together. Be sure bottles are flush against each other and that there are no air spaces.
3. Support bottles on rocks or cans so that empty bottle is slightly lower

than bottle containing paste so that nitric acid is formed in receiving bottle will not run into other bottle.

4. Build fire in pot or frying pan.

5. Gently heat bottle containing mixture by moving fire in and out. As red fumes begin to appear periodically pour cold water over empty receiving bottle. Nitric acid will begin to form in the receiving bottle.

Note: Do not overheat or wet bottle containing mixture or it may shatter. As an added protection, place bottle to be heated in a heat resistant container filled with sand or gravel. Heat this outer container to produce nitric acid.

6. Continue the above process until no more red fumes are formed. If the nitric acid formed in the receiving bottle is not clear (cloudy) pour it into cleaned bottle and repeat steps 2-6.

Note: Do not inhale fumes, and nitric acid should be stored in a sealed glass or ceramic container.

Initiator for dust explosions

Sec I, No. 5

An initiator which will initiate common material to produce dust explosions can be rapidly and easily constructed. This type of charge is ideal for the destruction of enclosed areas such as rooms or buildings.

Materials

Sources

a flat can, 3 in. (8 cm) in diameter and
1-1.5 in. (3-3.75 cm) in height. A 6.5 oz.
Tuna can serves the purpose quite well

blasting cap

explosive

aluminum (may be wire, cast sheet, flat can,
or powder)

large nail, 4 in. (10 cm) long

wooden rod, .25 in. (6 mm) in diameter

flour, gasoline, and powder or chipped aluminum

Note: Plastic explosives (comp. C4, etc.) produce larger explosions than cast explosives (comp. B, etc.).

Procedure

1. Using the nail, press a hole through the side of the Tuna can 3/8 to 1/2 in. (1-1.5 cm) from the bottom. Using a rotating lever action, enlarge the hole until it will accommodate the blasting cap.

2. Place the wooden rod in the hole and position the end of the rod at the center of the can.

3. Press explosive into the can, being sure to surround the rod, until it is

spoon or similar measuring container

Procedure

1. Spread a handful of the ammonium nitrate (an) on the large flat board and rub vigorously with the other board until the large particles are crushed into a very fine powder that looks like flour (approx. 10 min. per handful)

Note: Continue with step 2 as soon as possible, since the powder may take moisture from the air and become spoiled.

2. Mix one measure (cup, tablespoon, etc) of fuel oil with 16 measures of the finely ground AN in a dry bucket or other suitable container and stir with the wooden rod. If fuel oil is not available, use one half measure of motor oil. Store in a waterproof container until ready to use.
3. Spoon this mixture into an iron or steel pipe which has an end cap threaded on one end. If a pipe is not available, you may use a dry tin can, a glass jar or a heavy-walled cardboard tube.

Note: Take care not to tamp or shake the mixture in the pipe. If mixture becomes tightly packed, one cap will not be sufficient to initiate the explosive.

4. Insert blasting cap just beneath the surface of the explosive mix.

Note: Confining the open end of the container will add to the effectiveness of the explosive.

Carbon Tet Explosive

Sec. I, No. 7

A moist explosive can be made from fine aluminum powder combined with carbon tetrachloride or tetrachloroethylene. This explosive can be detonated with a blasting cap.

Materials

Sources

Fine aluminum bronzing powder

paint and artists supplies

Carbon tetrachloride
or

tetrachloroethylene

Pharmacy, or fire extinguisher
liquid
dry cleaners

stirring rod (wood)

Mixing container

Measuring container

storage container with lid

blasting cap

pipe, can or jar

Procedure

1. Measure out two parts aluminum powder to one part carbon tetrachloride or tetrachloroethylene liquid into the mixing container, adding liquid to powder while stirring with the wooden rod.
2. Stir until the mixture becomes the consistency of honey syrup.

Note: Fumes from the liquid are dangerous and should not be inhaled.

3. Store explosive in a jar or similar waterproof container until ready to use. The liquid in the mixture evaporates quickly when not confined.

Note: Liquid will detonate in this manner for a period of 72 hours.

How to Use

1. Pour this mixture into an iron or steel pipe which has an end cap threaded on one end. If a pipe is not available, you may use a dry tin can or a glass jar.
2. Insert blasting cap just beneath the surface of the explosive mix.

Note: Confining the open end of the explosive will add to the effectiveness of the explosive.

Fertilizer AN-AL Explosive

Sec. I, No. 8

A dry explosive mixture can be made from ammonium nitrate fertilizer combined with fine aluminum powder. This explosive can be detonated with a blasting cap.

Materials

Sources

Ammonium Nitrate fertilizer (not less than 32% nitrogen)

Farm and feed stores

fine aluminum bronzing powder

paint or artists supply

Measuring container

Mixing container

two flat boards (one should be comfortably held in the hand and one very large, i.e., 2"x4" and 36"x36")

Storage container

Blasting cap

Wooden rod- .25 in. in diameter

pipe, can or jar

Procedure

1. Method I- low velocity explosive

A. Use measuring container to measure four parts fertilizer to one part aluminum powder and pour into the mixing container. (ex. 4 cups fertilizer to 1 cup aluminum powder)

B. Mix ingredients with the wooden rod

2. Method II- high velocity explosive

A. Spread a handful at a time of AN on the large flat board and rub vigorously with the other board until the large particles are crushed into a very fine powder that looks like flour. (approx. 10 min. per handful)

Note: Proceed with step B below as soon as possible since the powder may take moisture from the air and become spoiled.

B. Follow steps A and B of Method I.

3. Store the explosive mixture in a waterproof container, such as a glass jar, steel pipe, etc., until ready to use.

How to Use

Follow steps 1 and 2 of "How to Use" in section I, No. 7.

Red or White powder propellant

Sec. I, No. 9

Red or White powder propellant may be prepared in a simple, safe manner. The formulation described below will result in approx. 2.5 lbs. of powder. This is a small arms propellant and should only be used in weapons with .5 in. inside diameter or less, such as the match gun, or the 7.62 carbine, but not pistols.

Materials

Sources

Heat source

2 gallon metal bucket

Measuring cup (8 oz)

Wooden spoon or rubber spatula

metal sheet or aluminum foil (at least 18 sq. in.)

flat window screen

potassium nitrate (granulated)- 2.33 cups

white sugar (granulated)- 2 cups

powdered ferric oxide (rust)- 1/8 cup

clear water- 3.5 cups

Procedure

1. Place the sugar, potassium nitrate (pn), and water in the bucket. Heat with a low flame, stirring occasionally until the sugar and PN dissolve.
2. If available, add the ferric oxide (rust) to the solution. Increase the flame under the mixture until it boils gently.

Note: The mixture will retain the rust coloration.

3. Stro and scrape the bucket sides occasionally until the mixture is reduced to one quarter its original volume, then stir continuously.
4. As the water evaporates, the mixture will become thicker until it reaches the consistency of cooked breakfast cereal (yum!) or homemade fudge. At this stage of thickness, remove the bucket from the hear source and spread the mass on the metal sheet.
5. While the material cools, score it with the spoon or spatula in crisscrossedfurrows about 1 inch apart.
6. Allow the material to air dry, preferably in the sun. As it dries, rescore it occasionally (about every 20 minutes) to aid drying.
7. When the material has dried to a point to where it is moist and soft but not sticky to the touch, place a small spoonful on the screen. Rub the aterial back and forth against the screen mesh with a spoon or other flat object until the material is granulated into small worm-like particles.
8. After granulation, return the material to the sun to dry completely.

Nitric Acid/nitrobenzene ("Hellhoffite") explosive

Sec. I, No. 10

An explosive munition can be made from mononitrobenzene and nitric acid. It is a simple explosive to prepare. Just pour the nitrobenzene into the acid and stir.

Materials

Sources

Nitric acid

Field grade or 90% concentrated
(specific gravity of 1.48)

Mononitrobenzene (nitrobenzene)

drug store (oil of mirbane) or
chemical supply house

Acid resistant measuring containers

Glass, clay, etc.

Acid resistant stirring rod (glass, etc)

Blasting cap

Wax

steel pipe, end cap, tape

bottle or jar

Note: Prepare this mixture just before use.

Procedure

1. Add 1 volume (cup, quart, etc) of mononitrobenzene to two volumes nitric acid in a bottle or jar.
2. Mix ingredients well by stirring with acid resistant rod.

Note: Nitric acid will burn skin and destroy clothing. If any is spilled, wash well with water. Don't inhale the fumes!

How to Use

1. Wax blasting cap, pipe and end cap.
2. Thread end cap onto pipe.
3. Pour mixture into pipe.
4. Insert and tape blasting cap just beneath surface of mixture.

Note: Confining the open end will increase effectiveness of the weapon.

Optimized Process for Cellulose/Acid Explosive

Sec. I, No. 11

An acid type explosive can be made from nitric acid and white paper or cotton cloth. This explosive can be detonated with a commercial #8 cap or any military blasting cap.

Materials

Sources

Nitric acid

Industrial metal processors,
90% concentrated (1.48 grvty.)
Field grade, (sec. I, No. 4)

white unprinted, unsized paper

paper towels, napkins

clean white cotton cloth

clothing, sheets, better kmarts

Acid resistant container

wax coated pipe or can, ceramic
pipe, glass jar, etc.

Aluminum foil or acid resistant material

food stores

protective gloves

blasting cap

wax

Procedure

1. Put on gloves.
2. Spread out a layer of paper or cloth on aluminum foil and sprinkle with nitric acid until thoroughly soaked. If aluminum foil is unavailable, use an acid resistant material (glass, ceramic, etc)

Note: Use same warning again for handling acid.

3. Place another layer of paper or cloth on top of the acid-soaked sheet and repeat step 2 above. Repeat as often as necessary.
4. Roll up the aluminum foil containing the acid-soaked sheets and insert the roll into the acid resistant container.

Note: If glass or ceramic tray is used, pick up with two wooden sticks and load into container.

5. Wax blasting cap.
6. Insert the blasting cap in the center of the rolled sheets. Allow 5 min. before detonating the explosive.

Methyl Nitrate Dynamite

Sec. I, No. 12

A moist explosive mixture can be made from sulfuric acid, nitric acid and methyl alcohol. This explosive can be detonated with a blasting cap.

Materials

Source

Sulfuric Acid

Clear battery acid boiled until white fumes appear

Nitric Acid

Field grade, (sec. I, No. 4), sp. gravity of 1.48

Methyl alcohol

methanol, wood alcohol, non-permanant antifreeze

eyedropper or styring with glass tube

large diameter glass (2 qt.) jar

Narrow glass jars (1 qt.)

Absorbent (fine sawdust, shredded paper, shredded cloth)

cup

pan (3-5 gallon)

teaspoon

wooden stick

steel pipe with end cap

blasting cap

water

tray

Procedure

1. Add 24 teaspoons of sulfuric acid to 16.5 teaspoons of nitric acid in the 2 qt. jar.
2. Place the jar in the pan (3-5 gallon) filled with cold water or in a stream and allow to cool.
3. Rapidly swirl the jar to create a whirlpool in the liquid (without splashing) while keeping the bottom portion of the jar in the water.
4. While continually swirling, add to mixture, .5 teaspoon at a time, 13.5 teaspoons of methyl alcohol, allowing the mixture to cool at least one minute between additions.

DANGER! PELIGRO!- If there is a sudden increase in the amount of fumes produced or if the solution turns much darker or begins to froth, dump the solution in the water within 10 seconds! This will help lengthen your life, and prevent an accident.

5. After the final addition of methyl alcohol, swirl for another 35-40 seconds.
6. Carefully pour the solution into one of the narrow glass jars. Allow jar to stand in water for approx. 5 minutes until two layers separate.
7. With an eyedropper or syringe, remove top layer and CAREFULLY put into another narrow glass jar. This liquid is the explosive.

Note: Thought I should tell you, this is shock sensitive. (very)

8. Add an equal quantity of water to the explosive and swirl. Allow mixture to separate again as in step 6. The explosive is now the bottom layer.
9. Carefully remove the top layer with the eyedropper or syringe and discard.
10. Place one firmly packed cup of absorbent in the tray.
11. While stirring with the wooden stick, slowly add explosive until the mass is very damp but not wet enough to drip. Explosive is ready to use.

Note: If it gets too wet, add more absorbent. If storage is required, store in a sealed container to prevent evaporation. Do not allow this to touch the skin. If it does, flush with large quantities of water. Keep grit, dirt, and sand out of the mix.

How to Use

1. Spoon this mixture into an iron or steel pipe which has an end cap threaded on one end. If a pipe is not available, you may use a dry tin can or a glass jar.
2. Insert blasting cap just beneath the surface of the explosive mix.

Note: Confining the other end will add to the effectiveness of the explosive.

Urea nitrate can be used as an explosive munition. It is easy to prepare from nitric acid and urine. It can be detonated with a blasting cap.

Materials

Source

Nitric acid, (90%, 1.48 sp. gravity)

Field grade (sec. I, No. 4)

Urine

Animals, yes, humans too

2 one gallon heat and acid resistant
containers (pyrex, ceramic)

Filtering material

paper towel, fine cotton

Aluminum powder (optional)

paint stores

heat source

measuring containers (cup and spoon)

water

tape

blasting cap

steel pipe and cap<s>

Note: Prepare mixture just before use.

Procedure

1. Boil a large quantity of urine (10 cups) to approx. 1/10 its volume (1 cup) in one of the containers over the heat source.
2. Filter the urine into the other container through the filtering material to remove impurities. Use tape to secure filter onto jar.
3. Slowly add 1/3 cup of nitric acid to the filtered urine, let stand for 1 hour.
4. Filter mixture as in step 2. Urea nitrate crystals will collect on the paper.
5. Wash the urea nitrate by pouring water over it.
6. Remove urea nitrate crystals from the filtering and allow to dry thoroughly (approx. 16 hours)

Note: Drying time can be reduced to two hours if a hot (not boiling) water bath is used. See step 5 of Sec I, No. 15.

How to Use

1. Spoon urea nitrate crystals into an iron or steel pipe which has an end cap screwed on one end.
2. Insert blasting cap just beneath the surface of the urea nitrate crystals.

Note: This explosive can be made more effective by mixing with aluminum powder (from paint stores) in the ratio of 4:1. One cup aluminum powder to four cups urea nitrate. Capping the other end will add to the effectiveness of the explosive.

Preparation of Copper Sulfate (Pentahydrate)

Sec. I, No. 14

Copper sulfate is a required material for the preparation of TACC. See section I, No. 16)

Materials

Sources

Pieces of copper or copper wire

circuit boards, electronic stores

Dilute sulfuric acid (battery acid)

Potassium nitrate (Sec. I, No. 2) or
Nitric Acid, (90%, 1.48 gr.)(Sec. I, No. 4)

Alcohol

water

two 1 pint jars or glasses, heat resistant

paper towels

pan

wooden stick or rod

improvised scale

cup

container

heat source

teaspoon

Procedure

1. Place 10 grams of copper pieces into one of the pint jars. Add 1 cup (240 ml) of dilute sulfuric acid to the copper.
2. Add 12 grams of potassium nitrate or 1.5 teaspoons of nitric acid to the mixture.

Note: Nitric Acid gives a product of greater purity.

3. Heat the mixture in a pan of simmering hot water bath until the bubbling has ceased (approx. 2 hours). The mixture will turn to a blue color.
4. Pour the hot blue solution, but not the copper, into the other pint jar. Allow solution to cool at room temperature. Discard the unreacted copper pieces in the first jar.

- Carefully pour away the liquid from the crystals. Crush crystals into a powder with a wooden rod or stick.
- Add .5 cup (120 ml) of alcohol to the powder while stirring.
- Filter the solution through a paper towel into a container to collect the crystals. Wash the crystals left on the paper towel three times, using .5 cup (120 ml) portions of alcohol each time.
- Air dry the copper sulfate crystals for 2 hours.

Reclamation of RDX from C4

Rdx can be obtained from C4 explosive with the sue of gasoline. It can be used as a booster explosive for detonators (Sec. VI, No. 13) or as a high explosive charge.

Sources

C4 plastique

water

pan

heat source

cup

Procedure

Note: These quantities can be increased to obtain more RDX. For example, use 2 gallons of gasoline per 1 cup of C4.

3. Stir the mixture again until a fine white powder remains on the bottom of the jar.

4. Filter the mixture through a paper towel into the other glass jar. Wash the particles collected on the paper twoel with .5 cup (120 ml) of gasoline. Discard the waste liquid.

5. Place the RDX particles in a glass or ceramic dish. Set the dish in a

pan of hot water, not boiling, and dry for a period of 1 hour.

Note: RDX can be air dried for 2 to 3 hours.

TACC (Tetramminecopper (II) Chlorate

Sec. I, No. 16

TACC is a primary explosive that can be made from sodium chlorate, copper sulfate and ammonia. This explosive is to be used with a booster explosive such as picric acid (Sec. I, No. 21) or RDX (Sec. I, No. 15) in the fabrication of detonators (Sec. VI, No. 13).

Materials

Sources

Sodium Chlorate

Sec. I, No. 23, medicine

Copper sulfate

Weed killer, hardware store,
Sec. I, No. 14

Ammonia hydroxide

household ammonia, smelling
salts, water purifier

alcohol, 95%

wax, clay, pitch, etc.

water

bottle, narrow mouth (wine or coke)

bottles, wide mouth (mason jars)

tubing (copper, steel) to fit around
mouth bottle

teaspoon

improvised scale

Sec, VII, No. 8

heat source

paper towel

pan

tape

cup

Procedure

1. Measure 1/3 teaspoon (2.5 grams) of sodium chlorate into a wide mouth bottle. Add 10 teaspoons alcohol.
2. Place the wide mouth bottle in a pan of hot water. Add 1 teaspoon (4 g) of copper sulfate to the mixture. Heat for a period of 30 minutes just under the boiling point and stir occasionally.

Note: Keep away from flame. Keep volume constant by adding additional alcohol

approx. every 10 minutes.

3. Remove solution from pan and allow to cool. Color of solution will change from a blue to a light green. Filter solution through a paper towel into another wide mouth bottle. Store until ready for step 6.
4. Add 1 cup (250 Ml) of ammonia to the narrow mouth bottle.
5. Place tubing into neck of bottle so that it extends about 1.5 in (4 cm) inside bottle. Seal tubing to bottle with wax, clay, pitch, etc.
6. Place free end of tubing into the chlorate-alcohol-sulfate solution (step 3). Heat bottle containing ammonia in a pan of hot, but not boiling water, for approx. 10 minutes.
7. Bubble ammonia gas through the chlorate-alcohol-sulfate solution approx. 10 minutes, until the color changes from light green to dark blue. Continue bubbling for another 10 minutes.

Note: Mixture is now primary explosive, keep from flame.

8. Remove the solution from the pan and reduce the volume to about 1/3 of its original volume by evaporating in the open air or in a stream of air.

Note: Pour container into a flat container for faster evaporation.

9. Filter the solution through a paper towel into a wide mouth bottle to collect crystals. Wash crystals with 1 teaspoon of alcohol and set aside to dry (approx. 16 hours) Drying time can be reduced to 2 hours if a hot, not boiling, water bath is used.

Note: Explosive is shock and flame sensitive. Store in a capped container.

HMTD

Sec I, No. 17

HMTF is a primary explosive that can be made from hexamethylenetetramine, hydrogen peroxide, and citric acid. This explosive is to be used with a booster explosive such as picric acid (Sec I, No. 21) or RDX (Sec. I, No. 15) in the fabrication of detonators (Sec VI, No. 13).

Materials

Sources

Hexamethylenetetramine

Drugstore under names of urotropine, hexamine, methenamine, etc.
Army heat tablets (sterno?)

Hydrogen Peroxide

6% hair bleach or stronger

Citric Acid

Drug or Food stores,
known as "sour salt"

Containers, bottles or glasses

paper towels

teaspoon

pan

water

tape

Procedure

1. Measure 9 teaspoons of hydrogen peroxide into a container
2. In 3 portions, dissolve 2.5 teaspoons of crushed hexamethylenetetramine (hexa) in the peroxide.
3. Keep the solution cool for 30 minutes by placing container in a pan of cold water.
4. In 5 portions, dissolve 4.5 teaspoons of crushed citric acid in the hexa-peroxide solution.
5. Permit solution to stand at room temperature until solid particles form at the bottom of the container.

Note: Complete precipitation will take place in 8-24 hours

6. Filter the mixture through a paper towel into a container to collect the solid particles.
7. Wash the solid particles collected in the paper towel with 6 teaspoons of water by pouring the water over them. Discard the liquid in the container.
8. Place these explosives in a container and allow to dry.

Note: Handle dry explosive with great care. Do not scrape or handle it roughly. Keep from open sparks or flames. Store in a cool, dry place.

Potassium or Sodium Nitrite and Litharge (lead monoxide) Sec. I, No. 18

Potassium or sodium nitrate is needed to prepare DDNP (Sec. I, No. 19) and litharge is required for the preparation of lead picrate (Sec. I, No. 20)

Materials

Sources

Lead metal (small pieces or chips)

Plumbing supply

Potassium or sodium nitrite

Field grade (Sec. I, No. 2) or drug store

Methyl (wood) alcohol

Iron pipe with end cap

Iron rod or screwdriver

Paper towels

2 glass jars, wide mouth

metal pan

heat source (hot coals or blow torch)

improvised scale (Sec VII, No. 8)

cup

water

pan

Procedure

1. Mix 12 grams of lead and 4 grams of potassium or sodium nitrite in a jar. Place the mixture in the iron pipe.
2. Heat iron pipe in a bed of hot coals or with a blow torch for 30 minutes to one hour. (mixture will turn yellow)
3. Remove the iron pipe from the heat source and allow to cool. Chip out the yellow material formed in the iron pipe and place the chips in the glass jar.
4. Add .5 cup (120 ml) of methyl alcohol to the chips.
5. Heat the glass jar containing the mixture in a hot water bath for approx. 2 minutes. Heat until there is a noticeable reaction between chips and alcohol; solution will turn darker.
6. Filter the mixture through a paper towel into the other glass jar. The material left of the paper towel is lead monoxide.
7. Remove the lead monoxide and wash it twice through a paper towel using .5 cup of hot water each time. Air dry before using.
8. Place the jar with the liquid (step 6) in a hot water bath (as in step 5) and heat until the alcohol is evaporated. The powder remaining in the jar after evaporation is potassium or sodium nitrite.

Note: Nitrite has a strong tendency to absorb water from the atmosphere and should be stored in a closed container.

DDNP

Sec. I, No. 19

DDNP is a primary explosive used in the fabrication of detonators (Sec. I, No. 13). It is to be used with a booster explosive such as picric acid (Sec. I, No. 21) or RDX (Sec. I, No. 15).

Materials

Sources

Picric acid

Sec. I, No. 21

Flowers of sulfur

drug store

lye (sodium hydroxide)

Red devil(tm) sink unstopper

sulfuric acid, diluted

motor vehicle batteries

Potassium or sodium nitrite

Sec. I, No. 18

Water

2 glass cups, pyrex

stirring rod (glass or wood)

Improvised scale

Sec VII, No. 8

teaspoon

tablespoon

eyedropper

heat source

containers

tape

Procedure

1. In one of the glass cups, mix .5 gram of lye with 2 tablespoons (30ml) of warm water.
2. Dissolve 1 teaspoon (3 grams) of picric acid in the water-lye mixture. Store until ready for step 5.
3. Place .25 teaspoon (1ml) of water in the other glass cup. Add .5 teaspoon (2.5 grams) of sulfur and 1/3 teaspoon (2.5 g) of lye to the water.
4. Boil solution over heat source until color turns dark red. Remove and allow solution to cool.
5. In three portions, add this sulfur-lye solution to the picric acid-lye solution (step 2); stir while pouring. Allow mixture to cool.
6. Filter the mixture through a paper towel into a container. Small red particles will collect on the paper. Discard the liquid in the container.
7. Dissolve the red particles in .25 cup (60 ml) of boiling water.
8. Remove and filter the mixture through a paper towel, as in step 6. Discard the particles left on the paper.
9. Using an eyedropper, slowly add the sulfuric acid to the filtered solution until it turns orange-brown.
10. Add .5 teaspoon (2.5 g) more sulfuric acid to the solution. Allow the solution to cool to room temperature.
11. In a separate container, dissolve .25 teaspoon (1.8 g) of potassium or sodium nitrite in 1/3 cup (80 ml) of water.
12. Add this solution in one portion, while stirring, to the orange-brown solution. Allow the mixture to stand for 10 minutes. The mixture will turn light brown.

Note: Mixture is now primary explosive. Keep from sparks and flames.

13. Filter the mixture through a paper towel. Wash the particles left on the paper with 4 teaspoons (20 ml) of water.
14. Allow particles to dry, approx. 16 hours. Drying time can be reduced to two hours if a hot (not boiling) water bath is used. See Sec. I, No. 16.

Note: Explosive is flame and shock sensitive. Store in a capped container.

Preparation of lead picrate

Sec. I, No. 20

Lead picrate is used as a primary explosive in the fabrication of detonators (Sec. VI, No. 13). It is to be used with a booster explosive such as picric acid (Sec. I, No. 21) or RDX (Sec. I, NO. 15).

Materials

Sources

Litharge (lead monoxide)

Sec. I, No. 18 or plumbing store

Picric acid

Sec. I, No. 21

Wood alcohol (methanol)

Paint remove, some antifreezes

wooden or plastic rod

dish or saucer (china or glass)

teaspoon

improvised scale

Sec. VII, No. 8

containers

Flat pan

Heat source (Optional)

Water (optional)

Procedure

1. Weigh 2 grams each of picric acid and lead monoxide. Place each in a separate container.
2. Place 2 teaspoons (10 ml) of the alcohol in a dish. Add the picric acid to the alcohol and stir with the wooden or plastic rod.
3. Add the lead monoxide to the mixture while stirring.

Note: Mixture is now primary explosive, keep from spark or flame.

4. Continue stirring the mixture until the alcohol has evaporated. The mixture will suddenly thicken.
5. Stir mixture occasionally (to stop lumps from forming) until a powder is formed. A few lumps will remain.

Note: Be very careful of dry material forming one the inside of the container.

6. Spread this powdered mixture, the lead picrate, in a flat pan to air dry.

Note: If possible, dry the mixture in a hot, not boiling, water bath for a period of two hours.

Preparation of Picric Acid from aspirin

Sec. I, No. 21

Picric acid can be used as a booster explosive in detonators (Sec. VI, No. 13), a high explosive charge, or as an intermediate to preparing lead picrate (Sec. I, No. 20) or DDNP (Sec. I, No. 19)

Materials

Sources

Aspirin tablets (5 grains per tablet)

drugstore, kmart

alcohol, 95% pure

Sulfuric acid, concentrated (boil until white fumes appear)

potassium nitrate (Sec. I, No. 2)

Water

paper towels

cleaning jar, 1 pint

rod (glass or wood)

glass containers

ceramic or glass dish

cup

teaspoon

tablespoon

pan

heat source

tape

Procedure

1. Crush 20 aspirin tablets in a glass container. Add 1 teaspoon of water and work into a paste.
2. Add approx. 1/3 to 1/2 cup of alcohol (100 ml) to the aspirin paste; stir while pouring.
3. Filter the alcohol-aspirin solution through a paper towel into another glass container. Discard the solid left on the paper towel.
4. Pour the filtered solution into a ceramic or glass dish.

5. Evaporate the alcohol and water from the solution by placing the dish into a pan of hot water. White powder will remain in the dish after evaporation.

Note: Water in pan should be at hot bath temperature, not boiling, approx. 160 degrees to 180 degrees F. It should not burn the hands.

6. Pour 1/3 cup (80 ml) of concentrated sulfuric acid into a canning jar. Add the white powder to the sulfuric acid.
7. Heat canning jar of sulfuric acid in a pan of simmering hot water bath for 15 minutes; then remove jar from the bath. Solution will turn to a yellow-orange color.
8. Add 3 level teaspoons (15 g) of potassium nitrate in three portions to the yellow-orange solution; stir vigorously during additions. Solution will turn red, then back to a yellow-orange color.
9. Allow the solution to cool to ambient or room temperature while stirring occasionally.
10. Slowly pour the solution, while stirring, into 1.25 cup (300 ml) of cold water and allow to cool.
11. Filter the solution through a paper towel into a glass container. Light yellow particles will collect on the paper towel.
12. Wash the light yellow particles with 2 tablespoons (25 ml) of water. Discard the waste liquid in the container.
13. Place particles in ceramic dish and set in a hot water bath, as it step 5, for 2 hours.

Double Salts

Sec. I, No. 22

Double salts is used as a primary explosive in the fabrication of detonators (Sec. VI, No. 13). It can be made in the field from silver (coins), nitric acid, calcium carbide, and water.

Materials

Sources

Nitric acid (90%)

Sec. I, No. 4

Silver metal (silver coin, 5/8 in. in diameter)

Calcium carbide (acetylene or calcium carbide lamps)

rubber and glass tubing (approx. 1/4 in. inside diameter)

paper towels

heat resistant bottles or ceramic jugs, 1 to 2 qt. capacity, and one cork to fit. (Punch hole in cork to fit tubing)

teaspoon *aluminum, stainless steel or wax-coated)
or equivalent measure

glass container

heat source

long narrow jar (olive jar)

tape

water

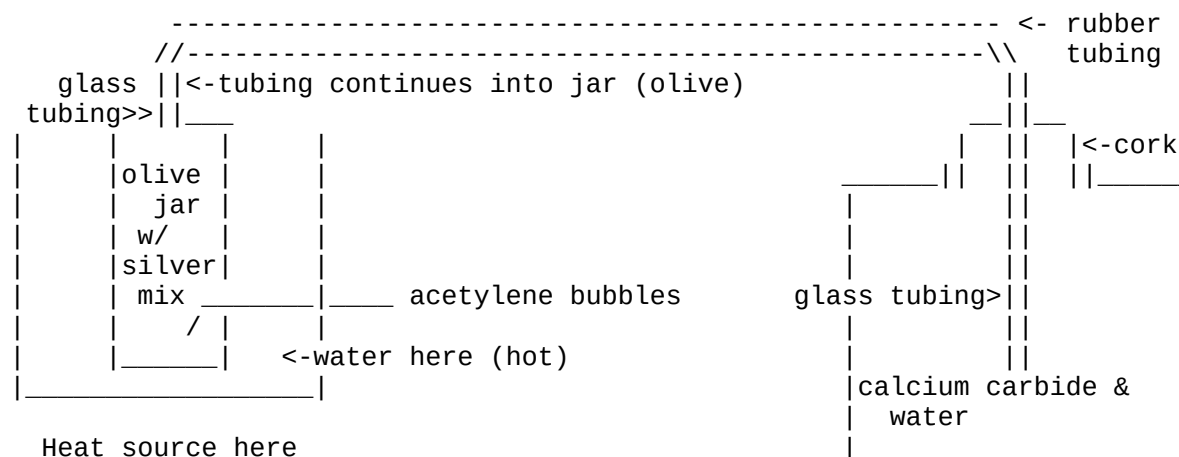
alcohol

Procedure

1. Dilute 2/25 teaspoons of nitric acid with 1.5 teaspoons of water in a glass container by adding the acid to the water.
2. Dissolve a silver coin (a silver dime) in the diluted nitric acid. The solution will turn to a green color.

Note: It may be necessary to warm the container to completely dissolve the silver coin. Take the usual precautions when working with acid!

3. Pour solution into a long narrow (olive) jar and place it in a bottle of hot water. Crystals will form in the solution; heat until crystals dissolve.
4. While still heating and after crystals have dissolved, place 10 teaspoons of calcium carbide in another glass bottle and add 1 teaspoon of water. After the reaction has started add another teaspoon of water. Then set up as shown.



5. Bubble acetylene through the solution for 5 to 8 minutes. A brown vapor will be given off and white flakes will appear in the silver solution.
6. Remove the silver solution from the heat source and allow it to cool. Filter the solution through a paper towel into a glass container. Green crystals will collect on the paper.
7. Wash the solids collected on the paper towel with 12 teaspoons of alcohol. The solid material will turn white while the solvent in the container will have a green color.

8. Place the white solid material on a clean paper towel to air dry.

Note: Handle dry explosive with great care. Do not scrape or handle it roughly. Keep from sparks or flame. Store in a cool, dry place.

Sodium Chlorate

Sec. I, No. 23

Sodium chlorate is a strong oxidizer used in the manufacture of explosives. it can be used in place of potassium chlorate (see Sec. I, No. I).

Materials

Sources

2 carbon or lead rods (1 in. diameter x
5 in. long)

dry cell batteries (2.5 in.
diameter x 7 in. long) or
plumbing supply store

salt, or ocean water

grocery store or ocean

sulfuric acid, diluted

motor vehicle batteries

motor vehicle

water

2 wires, 16 gauge (3/64 in. diameter approx.)
6 ft. long, insulated

gasoline

1 gallon glass jar, wide mouth (5 in. diameter x
6 in. high, approx.)

sticks

string

teaspoon

trays

cup

heavy cloth

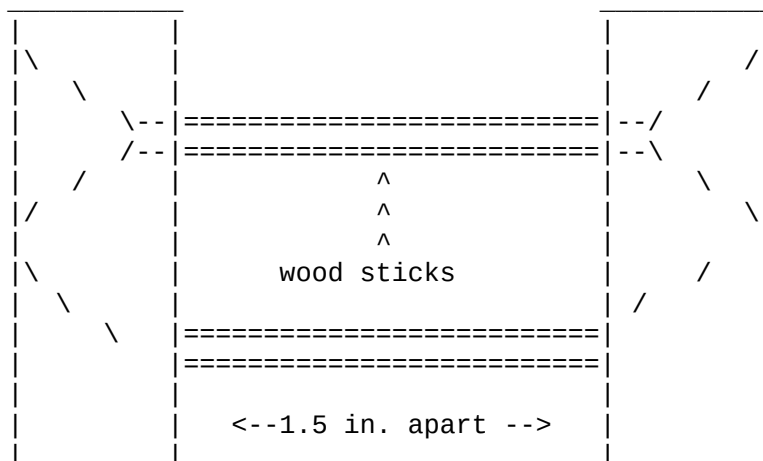
knife

large flat pan or tray

Procedure

1. Mix .5 cup of salt into the one gallon glass jar with 3 liters (3 qts) of water.
2. Add 2 teaspoons of battery acid to the solution and stir vigorously for 5 minutes.
3. Strip back about 4 in. of insulation from both end of the two wires.

4. With knife and sticks shape 2 strips of wood 1 x 1/8 x 1.5. Tie the wood strips to the lead or carbon rods so that they are 1.5 inches apart.



5. Connect the rods to the battery in the motor vehicle with the insulated wire.
6. Submerge 4.5 in. of the rods into the salt water solution.
7. With gear in neutral position start the vehicles engine. Depress the accelerator approx. 1/5 of its full travel.
8. Run the engine with the accelerator in this position for 2 hours; then; shut it down for 2 hours.
9. Repeat this cycle for a total of 64 hours while maintaining the level of the acid-salt water solution in the glass jar.

Note: This arrangement employs voltages which may be dangerous to personnel. Do not touch the bare wire leads while the engine is running.

10. Shut off the engine. Remove the rods from the glass jar and disconnect wire leads from the battery.
11. Filter the solution through the heavy cloth into a flat pan or tray, leaving the sediment at the bottom of the glass jar.
12. Allow the water in the filtered solution to evaporate at room temperature (approx. 16 hours). The residew is approx 60% or more sodium chlorate which is pure enough to be used as an explosive ingredient.

Mercury Fulminate

Sec. I, No. 24

Mercury fulminate is used as a primary explosive in the fabrication of detonators (Sec. VI, No. 13). It is to be used with a booster explosive such as picric acid (Sec. I, No. 21) or RDX (Sec. I, No. 15).

Materials -----

Nitric Acid (90%) 1.48 gr.

Sources -----

field grade (Sec. I, No. 4) or industrial metal processors

mercury

thermometers, old radio
tubes

ethyl (grain) alcohol (90%)

filtering material

teaspoon measure (.25, .5, and 1 teaspoon
capacity) aluminum, stainless steel, or
wax coated

heat source

clean wooden stick

clean water

glass containers

tape

syringe

Procedure

1. Dilute 5 teaspoons of nitric acid with 2.5 teaspoons of clean water in a glass container by adding the acid to the water.
2. Dissolve 1/8 teaspoon of mercury in the diluted nitric acid. This will yield dark red fumes.

Note: It may be necessary to add water, one drop at a time, to the mercury-acid solution in order to start reaction. Also take usual precautions when handling acid.

3. Warm 10 teaspoons of the alcohol in a container until the alcohol feels warm to the inside of the wrist.
4. Pour the metal-acid solution into the warm alcohol. Reaction should start in less than 5 minutes. Dense white fumes will be given off during reaction. As time lapses, the fumes will become less dense. Allow 10 to 15 minutes to complete reaction. Fulminate will settle to bottom.

Note: This reaction generates large quantities of toxic, flammable fumes. The process must be conducted outdoors or in a well ventilated area, away from sparks or flames. Do not inhale fumes unless you like death.

5. Filter the solution through a paper towel into a container. Crystals may stick to the side of the container. If so, tilt and squirt water down the sides of the container until all the material collects on the filter paper.
6. Wash the crystals with 6 teaspoons of ethyl alcohol.
7. Allow these to dry.

Note: Handle dry explosives with great care. Do not scrape or handle it roughly. Keep away from sparks or open flame. Store in a cool dry place.

An explosive munition can be made from sodium chlorate combined with granular sugar, or aluminum powder. This explosive can be detonated with a commercial #8 or Military J2 blasting cap.

Materials

sodium chlorate

granular sugar

aluminum powder

wooden rod or stick

bottle or jar

blasting cap

steel pipe (threaded on one end)

end cap and tape

measuring container

Sources

Sec. I, No. 23

food store

paint store

Procedure

1. Add three volumes (cups, quarts, etc) sodium chlorate to one volume aluminum powder, or two volumes of granular sugar, in bottle or jar.
2. Mix ingredients well by stirring with the wooden rod or stick.

How to Use

1. Wax blasting cap, pipe and end cap.
2. Thread end cap onto pipe.
3. Pour munition into pipe.
4. Insert and tape blasting cap just beneath surface of mixture.

Note: Confining the open end of the pipe will add to the effectiveness of the explosive.

Acetone/Peroxide Explosive

Sec. I, No. 26

Materials

Hydrogen Peroxide

Acetone

Sulfuric Acid

Eye dropper or syringe with glass tube

Sources

Drug store, Hair Bleach

Hardware, drug stores

Clear battery acid boiled until white fumes appear

Graduated cylinder (cc or ml) or other measuring device

Thermometer (0-100 C)

Glass containers

Large pan

Ice and salt

Water

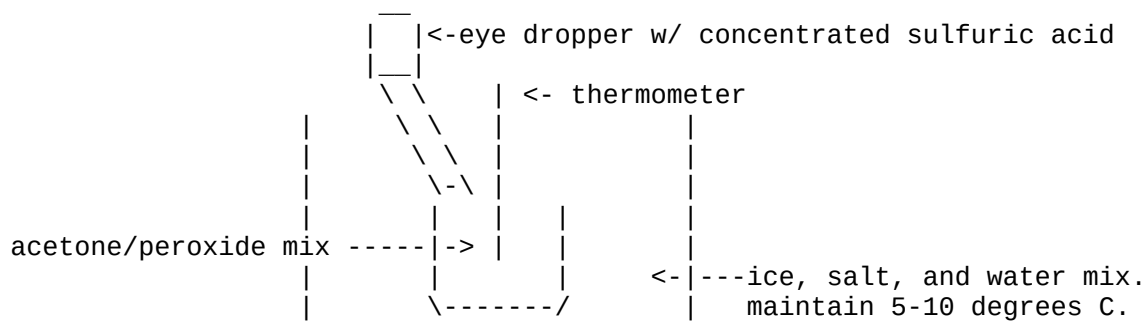
Paper towels

Procedure

1. Measure 30 ml of acetone and 50 ml of hydrogen peroxide into a glass container and mix thoroughly.
2. Cool the acetone/peroxide mixture by placing its container in a larger one containing a mixture of ice, salt and water.

Note: Because of the lighter inner container being buoyant in the larger outer container, it is necessary to secure it so that it will not fall over into the ice, salt, and water mixture.

3. Cool the acetone/peroxide mixture to 5 degrees C.
4. Add 2.5 ml of concentrated sulfuric acid to the acetone/peroxide mixture slowly. drop by drop, with the use of an eye dropper. Stir the mixture during the addition of the sulfuric acid with a thermometer, keeping the temperature between 5-10 degrees C., stop adding the sulfuric acid and continue stirring until the temp. drops again to 5 degrees C., then continue adding the sulfuric acid.



5. After all the sulfuric acid has been added, continue stirring the mixture for another five minutes.
6. Let the acetone/peroxide/sulfuric acid mixture stand in the ice/water/salt bath or remove the inner container and place it in an ice box for 12-24 hours.
7. After 12 hours, white crystals of acetone peroxide will precipitate out of the once clear solution. Precipitation should be completed after 24 hrs.

Note: At this point the mixture is a primary explosive. Keep away from shock, friction and flame.

8. Filter the mixture through a paper towel into a container to collect all of the solid particles.
9. Wash the solid particles collected in the paper towel with small amounts of ice cold water poured over them. Discard the liquid in the container.
10. Place these explosive crystals in a container and allow to dry.

Note: Handle the dry explosive with great care. Do not scrape or handle it roughly. Keep away from sparks or open flame. Store in a cool, dark, dry place.

How to Use

Acetone peroxide is a powerful initiator and can be used by itself as the main filler when making homeade detonators. Using 2.5" lengths of brass or copper tubing with one end sealed shut with either solder or epoxy resin, begin by partially filling the tube with acetone peroxide and compressing with a loading press (Sec. VI, No. 13, Vol. 2 and Sec. II, No. 12, Vol 3). Continue This process until the explosive is within 1/2" of the top. Cap the open end tightly with a cork or wood stopper. When ready to use, remove stopper and insert time fuse. Seal around fuse and tube insert into the main charge to a depth of 2". The caps will detonate most of the explosives shown in this volume.

Note: These detonators should be used within 7 days of their manufacture and should be stored in a cool, dry place.

Bullseye (low-high) Explosive

Sec. I, No. 27

A highly effective and powerful low - high explosive can be obtained by simply using a fast burning double-based, smokeless pistol powder called Bullseye. This propellant is used to reload pistol and revolver cartridges and contains a sensitive mixture of nitroglycerin and nitrocellulose.

Materials

Sources

Bullseye smokeless pistol powder

Gun and reloading stores

Compound detonator or time fuse

Five finger discount at many fine National Guard bases

How to Use

1. To use as a low explosive, simply pour the powder into a pipe with end caps and ignite with a time fuse. When ignited, the pipe will explode into many fragments traveling at a velocity of approximately 600 fps.
2. To use as a high explosive, simply pour the powder into a pipe with end caps, insert a compound detonator with a fuzing mechanism and detonate. When detonated, the pipe will fragment into many small fragments traveling at a velocity in excess of 20,000 fps.

Note: Because of the unique mixture of nitroglycerin with nitrocellulose (double-base), Bullseye is one of the few propellants that can be detonated with a blasting cap. When detonated, it is as powerful as military TNT and should be used to defeat hard targets.

HTH/Naptha Explosive

Sec. I, No. 28

An explosive munition can be made from granular calcium hypochlorite (HTH, swimming pool bleach) and petroleum naptha. This explosive can be detonated with a compound detonator.

Materials

Granular calcium hypochlorite 70%, HTH swimming pool purifier.

Benzine (petroleum naptha)

Mixing container (bowl, bucket, etc)

Stirring rod (Wood)

Measuring container (cup, tablespoon)

Storage container (jar, can) with tight lid

Blasting cap, compound detonator required

Strong pipe with end caps

Sources

Bleaching agent, swimming pool supply houses, better K-marts.

Hardware and paint stores, paint thinner, cleaning fluid.

Procedure

1. Measure out 32 parts by volume, 27 parts by weight, of calcium hypochlorite (CH) to 1 part by volume, 1 part by weight, of petroleum naptha into the mixing container.
2. Stir until thoroughly mixed with wooden stirring rod.

How to Use

1. This mixture forms a low power/brisant high explosive which should be used under strong confinement and only as an explosive filler for antipersonnel fragmentation bombs. To use, spoon this mixture into an iron or steel pipe which has an end cap on one end.
2. Insert a compound detonator just beneath the surface of the explosive and screw the other end cap on with a hole drilled through for the fuse.

Note: Take care not to tamp or shake the mixture in the pipe. If the mixture becomes tightly packed, one cap will not be sufficient to detonate the explosive. Store in tightly sealed container.

Potassium Permanganate/Aluminum Explosive

Sec. I, No. 29

An explosive munition can be made from potassium permanganate and aluminum powder. This explosive can be detonated with a compound detonator.

Materials

Sources

Potassium permanganate

chemical and photography stores

fine aluminum bronzing powder

paint stores

measuring container (cup, tablespoon, etc.)

storage container with tight lid

two flat boards (one should be comfortably held in the hand such as a square block or rolling pin and one very large, ie., 36" x 36")

blasting cap, compound detonator required

strong pipe with end caps

Procedure

1. Spread a handful at a time of potassium permanganate on the large flat board and rub vigorously with the other flat board or rolling pin until the large particles are crushed into a very fine powder (approx. 10 minutes per handful)
2. Measure 2 volumes (cups, tablespoons, etc.), 60% by weight, of potassium permanganate with three volumes, 40% by weight, of fine aluminum bronzing powder into a mixing container with a tight fitting lid.
3. Secure the lid tightly and shake the mixture for approx. five minutes to mix thoroughly.
4. Store the explosive in the mixing container until ready to use. Before using, shake the contents once again to remix any settled particles.

How to Use

1. This mixture forms a low power/brisant high explosive which should be used under strong confinement and only as an explosive filler for antipersonnel fragmentation bombs. To use, spoon this mixture into an iron or steel pipe which has an end cap on one end.
2. Insert compound detonator just beneath the surface of the explosive and screw the other end cap on with a hole drilled through for the fuse.

Potassium Chlorate/Sulfur Explosive

Sec. I, No. 30

An impact sensitive explosive can be made from potassium chlorate and sulfur. This explosive can be used as a filler when making reusable primers (Sec. III, No. 5, Vol. 1) or as a fill when making impact sensitive fragmentation bombs.

Materials

Potassium chlorate

Sulfur

Measuring container

Mixing container

Two flat boards (same as No. 29)

Sources

Drug stores, chemical supply houses

Drug Stores

Procedure

1. Spread a handful at a time of potassium chlorate on the large flat board and rub vigorously with the other flat board or rolling pin until the large particles are crushed into a very fine powder (approx. 10 minutes per handful).

Note: Clean and dry both boards before using again with a different substance.

2. Repeat this process using the sulfur.
3. Measure 7 parts by volume, 11 parts by weight, of powdered potassium chlorate and 1 part by volume, 1 part by weight of powdered sulfur into the mixing container.

Note: This mixture forms an extremely shock sensitive explosive, especially between two metal surfaces. Reasonable care should be exercised from this point on.

4. Gently tumble the mixing container between the hands until the ingredients are thoroughly mixed together.
5. Place the mixed explosive in a tightly sealed storage container until ready to use.

Note: Do not store the mixed explosive for more than five days before using.
KEEP THIS EXPLOSIVE DRY AT ALL TIMES.

How to Use

1. This explosive can either be used to either fill primer caps (Sec. III, No. 5, Vol. 1), reloading ammunition, or it can be used to make the following palm sized fragmentation bombs:

- A. Obtain a short section of threaded water pipe with two end caps.
- B. Thread on end cap onto the pipe and fill 1/4 full with steel ball bearings.
- C. Fill the remaining space with potassium chlorate/sulfur mixture and screw the remaining end cap on.

/*_*_*_*_*\ <-threaded end cap
|_-----_|

actual water pipe ->

```

      |--0-0--|
      |----0-|  "0's" represent ball bearings
      |-0----|  "'s" represent the mixture
      |__-__0__-__|
      \*****/ <-threaded end cap

```

Note: Maintain a loose mixture between the ball bearings and explosive by not over tamping the explosive into the pipe. This will allow the ball bearings to move and impact together.

D. Gently tumble the pipe between the hands to mix the ball bearings with the explosive.

E. When ready to use, throw against or near the target area.

Potassium chlorate/Kerosene explosive

Sec. I, No. 31

An effective explosive munition can be made by simply pouring kerosene into powdered potassium chlorate. This explosive can be detonated with a compound detonator.

Materials

Potassium chlorate

Kerosene

Measuring container

Mixing container

Stirring rod

Storage container with tight lid

Two flat boards (same as No. 30)

Compound detonator

Sources

Drug, chemical supply stores

Hardware stores

Procedure

1. Spread a handful at a time of potassium chlorate on the large flat board and rub vigorously with the other flat board or rolling pin until the large particles are crushed into a very fine powder (approx. 10 minutes per handful)
2. To produce the explosive, all that is required is to pour 1 part by volume, 10% by weight, of kerosene into 9 parts by volume, 90% by weight, of potassium chlorate. Stir until completely mixed, then store in a sealed container until ready to use.
3. Another method in producing the explosive is to lightly pre-pack a selected charge container with powdered potassium chlorate. When ready to use, simply pour the pre-measured amount of kerosene into the potassium chlorate and allow to soak in for five minutes before using.

How to use

1. This mixture forms a low power/brisant high explosive which should be used under strong confinement and only as an explosive filler for antipersonnel fragmentation bombs and light blasting operations.
2. to use, spoon this mixture into an iron or steel pipe which has an end cap on one end.

Note: Store mixed explosive in mixing container or load into pipe.

3. Insert compound detonator just beneath the surface of the explosive and screw the other end cap on with a hole drilled through for the fuse.
4. The pipe can be pre-filled with potassium chlorate and when ready to use, simply pour in the kerosene, allow to soak for five minutes, then detonate.

Potassium chlorate/Nitrobenzene Explosive

Sec. I, No. 32

A moist explosive can be made from solid potassium chlorate and liquid nitrobenzene. This explosive has medium to high power and brisance. It can be used as a substitute for 50% ditching dynamite or flake TNT. This explosive can be readily detonated by a standard blasting cap (No. 6).

Materials

Sources

Potassium chlorate

Drug and chemical supply stores

Nitrobenzene

Drug stores (oil of mirbane),
chemical supply houses

Measuring container

Mixing container

Storage container with tight lid

Two flat boards (from No. 31)

Blasting cap (No. 6)

Procedure

1. Use step one from No. 31 to pulverize the potassium chlorate.

Note: Nitrobenzene is extremely toxic and should be handled in well ventilated areas. Harmful effects may result from swallowing, inhalation of vapors, or contact with the skin or eyes. In case of accidental spilling, wash the affected area immediately with large quantities of water.

2. To produce the explosive, all that is required is to pour 1 part by volume, 20% by weight of nitrobenzene into 4 parts by volume, 80% by weight, of powdered potassium chlorate. Stir until completely mixed, then store in a sealed container until ready for use.

3. Another effective method in producing the explosive is to tightly pre-pack a selected charge container with powdered potassium chlorate. When ready for use, simply pour the pre-measured amount of nitrobenzene into the potassium chlorate and allow to soak for 3 to 3 minutes before using.

Note: An important factor to observe when pouring the nitrobenzene into the potassium chlorate is to not allow the potassium chlorate to be disturbed after it has been soaked with nitrobenzene. Whenever a liquid is poured into a powdered substance, a natural "caking action" will result, producing a fairly uniform density throughout the solid material. Since uniform density has a direct overall effect on the explosive performance, it is important to first pre-pack a rigid container with the potassium chlorate and then pour in the nitrobenzene and allow it to soak in without stirring. This will produce a high performance explosive. Mixing in a plastic bag will produce a low performance explosive.

How to Use

1. This mixture forms a very powerful explosive that can be used for general purpose blasting and ditching operations. It is extremely sensitive to detonation and can be initiated by simple homemade detonators.

Nitromethane/Sawdust explosive

Sec. I, No. 33

A simple nitromethane based explosive can be made by simply pouring nitromethane into a container filled with screened sawdust. This explosive can be detonated with a compound detonator.

Materials

Sources

Nitromethane

Chemical supply houses, hobby shops (fuel for r/c cars)

Sawdust (fine)

Common window screen

Measuring container

Mixing container

Storage container

Compound detonator

Procedure

1. Using a common window screen as a sieve, place a handful of sawdust in the center and shake between the hands in a back and forth motion. Collect the sawdust that passes through and discard the rest. (do not force big pieces through the screen)
2. Measure out 2 parts by volume, 20% by weight, of screened sawdust into a mixing container. Pour in 1 part by volume, 80% by weight, of liquid nitromethane. Stir until completely mixed.

3. Store in a sealed container until ready to use.

How to Use

1. This mixture forms a medium power/brisant high explosive which should be used under strong confinement and as a filler for fragmentation bombs and light blasting operations.
2. To use, spoon this mixture into an iron or steel pipe which has an end cap on one end.
3. Insert a compound detonator just beneath the surface of the explosive and screw the other end cap on with a hole drilled through for the fuse.
4. The pipe can be pre-filled with sawdust. When ready for use, simply pour in the nitromethane, then detonate.

Nitromethane/Ammonium Nitrate Explosive

Sec. I, No. 34

A moist explosive can be made from solid ammonium nitrate fertilizer combined with liquid nitromethane. This explosive has both high power and high brisance and can be used as a direct substitute for TNT. This explosive can be readily detonated by a blasting cap, No. 6 in strength. A compound detonator is not required.

Materials

Sources

Ammonium nitrate fertilizer (not less than 32% nitrogen) or pure

Farm or feed store, or chemical supply house

Nitromethane

Hobby stores, chemical supply house

measuring container

mixing container

storage container w/ tight lid

Two flat boards (same as No. 30)

Blasting cap (No. 6)

Procedure

1. Spread a handful at a time of the fertilizer on the large flat board and rub vigorously with the other board or rolling pin until the large particles are crushed into a fine powder that looks like flour (approx. 10 minutes per handful)

Note: Proceed with steps 2 and 3 as soon as possible, since the powder may moisture from the air and become spoiled.

2. To produce the explosive, all that is required is to pour 1 part by volume or 2 parts by weight of nitromethane into 3 parts by volume or 5 parts by weight of powdered ammonium nitrate. Stir until completely mixed, then store in a sealed container until ready to use.

3. Another effective method in producing the explosive is to tightly pre-pack a selected charge container with powdered ammonium nitrate. When ready to use, simply pour the pre-measured amount of nitromethane into the ammonium nitrate and allow to soak in for 3 to 5 minutes before using.

Note: An important factor to observe when pouring the nitromethane into the ammonium nitrate is to not allow the ammonium nitrate to be disturbed after it has been soaked with nitromethane. Whenever a liquid is poured into a powdered substance, a natural "caking action" will result, producing a fairly uniform density throughout the solid material. Since uniform density has a direct overall effect of the explosive performance, it is important to first pre-pack a rigid container with ammonium nitrate and then pour in the nitromethane and allow to soak without stirring. This will produce a high performance explosive. Mixing in a plastic bag will produce a low performance explosive.

How to Use

1. This explosive is one of the most powerful/brisant two component explosives readily available. Each component is perfectly safe to handle by itself. However, when the two are mixed together, they form a sensitive high explosive that can be detonated with a standard blasting cap.
2. This explosive mixture should be used to defeat hard targets, such as steel and reinforced concrete. It can also be used with special charges that require high brisance, i.e., shaped charges, platter charges, and SCIMP charges.

Nitromethane Liquid explosive

Sec. I, No. 35

A liquid explosive, that resembles water in appearance, can be made from nitromethane and aqueous ammonia (household glass cleaner). This explosive is 22 to 24 more powerful than military TNT and can be detonated with a standard blasting cap. However, to achieve maximum velocity, a compound detonator should be used.

Materials

Sources

Nitromethane

chemical supply or hobby store
(racing fuel)

Aniline, ethylenediamine, aqueous ammonia
(non-detergent)

Hardware stores, chemical
supply, grocery store

measuring container (cup, pint, etc.)

blasting cap or compound detonator

Procedure

Note: Nitromethane is a common chemical reagent, and under normal conditions cannot be made to detonate even if a strong detonator is used. However, if certain ammonia-containing compounds (called sensitizers) are added in small percentages (5-6 %), then the sensitized nitromethane can be detonated with a standard #8 blasting cap. The most effective sensitizers are aniline and ethylenediamine. The most readily available sensitizer is common household

glass cleaner (aqueous ammonia).

1. To produce the explosive, simply pour the sensitizer into the nitromethane and mix thoroughly. One-half pic sensitizer will sensitize one gallon of nitromethane.
2. The explosive can be premixed, or for safety's sake, it can be mixed just prior to use by prefilling a charge container with nitromethane and then adding the sensitizer when ready to detonate.

How to Use

1. This liquid explosive can be used whenever or wherever a liquid can be used for disguiseability. It can be poured directly into prefabricated special charge containers, i.e., shape charges, platter charges, and SCIMP charges, without special measures being taken to maintain uniform densities required for solid explosives to be effective.
2. To obtain the maximum efficiency, a compound detonator should be used for initiation. Reliability of initiation is increased by positioning and immersing the detonator centrally with respect to the wall of the container. By centrally positioning and immersing the detonator in the liquid, the output energy of the detonator is transmitted to the explosive instead of being partially dissipated through the wall of the container.

do

dont

"-" = cap

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Fertilizer/hydrazine liquid explosive

Sec. I, No. 36

A liquid explosive can be made from solid ammonium nitrate fertilizer combined with liquid anhydrous hydrazine. This liquid explosive is more powerful and brisant than C4 plastic explosive and can be used as a direct replacement for C4. This explosive can be detonated with a blasting cap. However, to achieve maximum velocity a compound detonator should be used.

Materials

Sources

Ammonium nitrate fertilizer (not less than 32% nitrogen)

farm or feed store or
chemical supply store

anhydrous hydrazine

chemical supply house

large mixing container

glass stirring rod

storage container

blasting cap, compound detonator

Procedure

Note: Anhydrous hydrazine is classified as as corrosive and is flammable. Keep away from spark or flame. It is also mildly toxic and should be handled in well ventilated areas. Affected areas of skin should be washed with large quantities of water.

1. Pour into the mixing container an amount of anhydrous hydrazine equal to the amount of explosive required.
2. Ammonium nitrate (prilled or powdered) is then added, a teaspoon at a time, to the hydrazine in the mixing container.

Note: The mixing container should be fairly large (5x the volume of the hydrazine) because the chemical reaction between the ammonium nitrate and the hydrazine is extremely effervescent and can easily bubble over the top.

3. Because of the effervescent reaction, the ammonium nitrate should be added very slowly so as not to create accidental over-flowing. With each addition of ammonium nitrate, the person doing the mixing should wait for the initial reaction to subside, then stir the solution until all of the ammonium nitrate dissolves into it.

Note: The reaction between the ammonium nitrate and hydrazine liberates large volumes of poisonous gas. The person doing the mixing should be upwind of the mixing process so as not to breath the poisonous fumes.

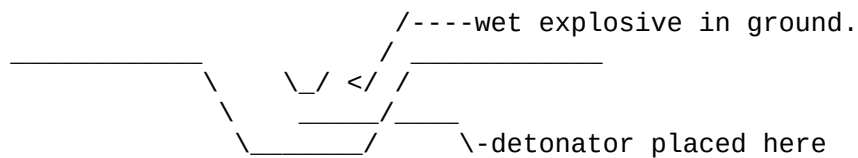
4. The mixing process is continued until the ammonium nitrate no longer dissolves into the solution, even after five minutes of stirring, and a small amount reamains undissolved at the bottom of the mixing container. This undissolved ammonium nitrate does not affect the performance of the explosive.
5. After the mixing process is complete, what will remain will be a clear liquid explosive more powerful and brisant that any military explosive.

Note: The mixed explosive has a lower toxicity of the hydrazine. However, it is recommended that the same handling precautions be observed.

6. To make an even more powerful explosive, 20% aluminum powder (100 mesh or finer) can be added to the ammonium nitrate before mixing with the hydrazine (it does not react with the other two ingredients), or ir can be added after the mixing process is complete.

How to Use

1. This explosive is the most powerful/brisant of the two complement explosive systems available. It can be used whenever or wherever a liquid can be used for disguiseability.
2. It can be poured directly into prefabricated special charge containers, i.e., shape, platter and SCIMP charges, without special measures being taken to maintain uniform densities required by solid explosives to be effective.
3. It has unique absorption and retention poperties which can be used to create a liquid land mine. The liquid explosive can be poured directly into the ground, soaking into and blending with the surrounding earth. The pocket of explosive can be initiated by a conventional electrically or mechanically actuated detonator. These pockets of explosives have remained detonable for four days in the ground, even when the soil was soaked due to rainy weather.



Explosive paper

Sec I, No. 37

An excellent absorption explosive can be made from a solution of PETN (the center filler of detonator cord), acetone, and mineral oil. When any non-gloss paper, i.e., newspaper, paperback books, corrugated cardboard, etc., is dipped in this explosive solution and then removed and allowed to dry, the paper will retain its original texture and appearance along with a microcrystalline high explosive incorporated into the fiber content of the paper. This produces a disguised explosive that can be carried into a target area without arousing suspicion.

Materials

Sources

PETN

detonating cord (primacord)

Acetone

hardware stores

mineral oil

drug stores

mixing container

pan or bucket larger than the mixing container

large, flat pan, (cake pan)

sheets of newspaper, paperback books, corrugated cardboard, etc.

Procedure

1. Using a razor blade, cut detonating cord lengthwise and remove the center filler (P.E.T.N.). Approx. .5 lb. of PETN can be removed per 100 ft. of detonating cord.
2. Fill a canning jar 2/3 full of acetone and heat until mildly warm by placing the canning jar in a pan or bucket on heat source when it contains the canning jar.
3. Add PETN to the acetone, a tablespoon at a time, while stirring with a stirring rod. Stir the solution until the PETN dissolves. Add more PETN until it no longer dissolves into solution, even after five minutes of stirring. Approx. 1/3 lb. of PETN will dissolve in every lb. of warm acetone used.
4. Approx. 2% mineral should be added to the final solution. This mineral oil will prevent the crystals of PETN from recrystallizing to a noticeable size when the acetone evaporates. The mineral oil will also provide a better texture to the paper when it is dry after the soaking process.
5. Pour this solution into a large, flat pan, then fill the pan with even sheets of a non gloss paper. If rolled newspaper is used, unroll it and

lay it out evenly in the an. Allow the paper to soak for 30 minutes.

6. After soaking for 30 minutes, remove the paper and allow to dry for at least 24 hours. DO NOT DRY IN AN OVEN. After the paper has had time to dry, 50 % of its weight will consist of a microcrystalline high explosive intimately incorporated into the fiber content of the paper.

How to Use

1. To use simply insert a blasting cap or compound detonator into the paper and detonate.
2. If a rolled newspaper is used, the detonator and fusing mechanism can be concealed in the center of the roll and easily carried into the target area and left where destruction is desired. An average size newspaper has the explosive equivalent of several sticks of dynamite.

RDX

Sec. I, No. 38

RDX is a powerful/brisant high explosive that can be made from hexamethylenetetramine and strong nitric acid. It can be used as a booster explosive for compound detonators, as a main explosive filler, and for the manufacture of explosive flour (Sec. I, No. 39)

Materials

Sources

Hexamethylenetetramine (hexamine)

Drug stores under names of urotropine, hexamin, methenamine, etc.

strong nitric acid (d 1.50)

Sec. I, No. 4

Acetone

drug store

weighing scale with at least gram accuracy or measuring spoons

graduated cylinder (cc or ml) or measuring cups

thermometer 20 degrees - 100 degrees C or 68 degrees - 212 degrees F

several large quart canning jars

two large basins or bowls made of metal or other similar material that can be heated

paper towels

Procedure

1. Place .5 cup, 120 ml or cc of nitric acid in a large canning jar and bring the temperature to between 20 and 30 degrees C. (68-86 F) By putting the

jar in a basin of cold water. If necessary, swirl the canning jar around the basin of cold water to bring the temperature down, while being careful not to allow any water to splash into the acid.

Note: Maintain the thermometer in the acid throughout the reaction while carefully noting and controlling the temperature by alternating the jar between the basin of cold water and the basin of hot water. The thermometer can be used as a stirring rod if the solution is gently stirred.

2. Weigh or measure out 70 grams by weight, 18 teaspoons by volume, of the hexamine and start adding the salt-like hexamine slowly, 1/2 teaspoon at a time, during a 15 minute period. Maintain the temp. between 20 - 30 degrees C, while stirring gently with the thermometer. Control the temp. by dipping the canning jar in and out of the basin filled with cold water.
3. When all of the hexamine is dissolved in the acid, heat the solution to 55 degrees C, by placing the canning jar in a basin of hot water. Maintain this temperature for about 10 minutes.
4. After heating the solution for 10 minutes, remove the canning jar from the basin of cold water and place it in the basin of cold water. Cool the canning jar to 20 degrees C. (68 degrees F).
5. When the temperature has reached 20 degrees C, add 3 cups (750 ml) of cold water to the solution and a white salt will appear.

Note: The white salt is RDX and should be handled with great care from now on.

6. Filter the acid/water/RDX solution through a paper towel covering the mouth of another jar.
7. Wash the RDX crystals off the paper towel and into a canning jar, using an additional 3 cups of fresh, cold water. Add a teaspoon of sodium carbonate to neutralize the acid and stir rapidly for 2-3 minutes, then filter again.
8. The crude product can be dried out on the paper towel filter. It is suitable for fairly immediate use, or it can be purified.
9. To purify RDX, fill a quart canning jar 2/3 full of acetone. Heat the acetone by placing the jar in a basin of hot simmering water, then add RDX, a tablespoon at a time, until it completely dissolves in the acetone.
10. After the maximum amount of RDX has been dissolved into the hot acetone, allow the solution to cool to room temperature, then let stand for one more hour.
11. The RDX will form a salt once again. Filter the RDX and spread it out on a paper towel as before.
12. The purified RDX should be stored in a clean canning jar with a tight fitting lid. It can be stored for months without loss of effectiveness.

Note: RDX is not too sensitive to heat and shock, but is fairly sensitive to friction. Care should therefore be taken when the explosive is to be packed or when the dry explosive is handled. Using the amounts of chemicals listed in this article, the yield of RDX should be about 1/5 oz.

An explosive that looks and bakes like ordinary wheat flour can be made from a mixture flour and RDX. It can be used in many different forms as an explosive: in its dry powder form, moistened with water and used as a dough like plastic explosive, or by using special recipes it can be baked into pancakes or bisuits.

Materials

Sources

RDX

Sec. I, No. 15

Sec. I, No. 38

Flour

grocery store

large sheet of wood, and a rolling pin
(wood must be flat)

Procedure

1. Place a tablespoonful of RDX crystals on the large sheet of wood. Using a rolling pic, crush the crystals into a fine powder, the consistency of flour.

Note: Use only a rolling pic, not a block of wood. It is important to crush the RDX crystals into a fine powder rather than using friction between to rubbing surfaces.

2. Mix 80% by weight of powdered RDX with 20% by weight of flour in a canning jar with a tight fitting lid by shaking for five minutes.
3. The mixed explosive flour can be stored in the sealed mixing container for long periods of time before using. It can also be disguised by storing it in an original bag of flour.

How to Use

1. This explosive flour is more powerful and brisant than military TNT and is easiest to detonate in its powdered form. A standard blasting cap provides sufficient shock to set it off.
2. To use as a plastic explosive, mix 4 parts by weight of flour to 1 part by weight of water. This forms a dough that has very desirable plastic qualities which can be used to mold itself around certain types of targets in the same manner as military C4 plastic explosive. A compound detonator must be used to insure positive detonation.
3. The following recipes make it possible to bake the powdered explosive into pancakes or biscuits:

A. For pancakes, use this recipe:

3 cups explosive flour
2 teaspoons of baking powder
.5 teaspoon of salt
1 cup of milk
1 egg
2 tablespoons of melted lard

Note: This pancake mixture can be left on the griddle until it completely chars

with no unusual effects, thus demonstrating the stability of the mixture to heat.

B. For explosive biscuits, use this recipe:

3 cups explosive flour
2 teaspoons of baking powder
3/8 teaspoon of salt
2 teaspoons of lard
88 ml or cc of water

4. The finished pancakes and biscuits look, feel, and taste like ordinary pancakes and biscuits. However, they are highly toxic, and **SHOULD NOT BE EATEN**. Before using these baked items as an explosive, they must be moistened and kneaded into a plastic mass to remove the air spaces. They may be exploded in the same manner as the plastic form.

Pipe Hand Grenade

Sec. II, No. I

Hand grenades can be made from a piece of iron pipe. The filler can be plastic or granular military explosive, improvised explosive, or propellant from shotgun or small arms ammunition.

Materials

Sources

Iron pipe, threaded ends, 1.5" to 3" in diameter, 3" to 8" long

2 end caps

explosive or propellant

nonelectric blasting cap (comm. or military)

fuse cord

hand drill

pliers

Procedure

1. Place blasting cap on one end of fuse cord and crimp with pliers.

Note: To find out how long the fuse cord should be, check the time it takes for a known length of fuse to burn. If 12 inches burns in 30 seconds, a six inch cord will ignite the grenade in 15 seconds.

2. Screw pipe cap to one end of pipe. Place fuse cord with blasting cap into the opposite end so that the blasting cap is near the center of the pipe.

Note: If plastic explosive is to be used, fill pipe before inserting blasting cap. Push a round stick into the center of the explosive to make a hole and then insert blasting cap.

3. Pour explosive or propellant into pipe a little at a time. Tap the base of the pipe frequently to settle filler.
4. Drill a hole in the center of the unassembled pipe cap large enough for the fuse cord to pass through.

5. Wipe pipe threads to remove any filler material. Slide the drilled pipe cap over the fuse and screw handtight onto pipe.

Nail Grenade

Sec. II, No. 2

Effective fragmentation grenades can be made from a block of TNT or other blasting explosive and nails.

Materials

Sources

Block of TNT or other blasting explosive

Nails

Non-electric military blasting cap

fuse cord

tap, string, wire or glue

Procedure

1. If an explosive charge other than a standard TNT block is used, make a hole in the center of the charge for inserting the blasting cap. TNT can be drilled with relative safety. With plastic explosives, a hole can be made by pressing a round stick into the center of the charge. The hole should be deep enough that the blasting cap is totally within the explosive.
2. Tape, tie or glue on or two rows of closely packed nails to sides of explosive block. Nails should completely cover the four surfaces of the block.
3. Place blasting cap on one end of the fuse cord and crimp with pliers.

Note: Use same method in Sec. II, No. 1 to determine burning lengths of fuse.

4. Insert the blasting cap in the hole in the block of explosive. Tape or tie fuse cord securly in place so that it will not fall out when the grenade is thrown.

Alternate Use

An effective directional anti-personnel mine can be made by placing nails on only one side of the explosive block. For this case, an electric blasting cap should be used.

Wine Bottle Cone Charge

Sec. II, No. 3

This cone charge will penetrate 3 to 4 in. of armor. Placed on an engine compartment, it will disable a tank or other vehicle beyond immediate repair.

Materials

Sources

Glass wine bottle with cone shaped false bottom

Plastic or castable explosive

blasting cap

gasoline or kerosene (small amount)

string

adhesive tape

Procedure

1. Soak a piece of string in gasoline or kerosene. Double wrap this string around the wine bottle approx. 3 in. above the top of the cone.

Note: Adding a small amount of motor oil to the gasoline or kerosene will improve results.

2. Ignite the string and allow to burn for 1 to 2 minutes. Then plunge the bottle into cold water to crack it. The top half can now be easily removed and discarded.

3. If plastic explosive is used:

- A. Pack explosive into the bottle a little at a time compressing with a wooden rod. Fill the bottle up to the top.
- B. Press a .25 in. wooden dowel .5 in into the middle of the top of the explosive charge to form a hole for the blasting cap.

4. If TNT or other castable explosive is used:

- A. Break explosive into small pieces using a wooden mallet or non-sparking metal tools. Place pieces in a tin can.
- B. Suspend this can in a larger container which is partly filled with water. A stiff wire or stick pushed through the smaller can will accomplish this.

Note: The inner can must not rest on the bottom of the outer container.

- C. Heat the containr on a electric hot plate or other heat source. Stir the explosive frequently with a wooden stick while it is melting.

Note: Keep area well ventilated while melting explosive. Fumes may be poisonous.

- D. When all the explosive has melted, remove the inner container and stir the molten explosive until it begins to thicken. Diring this time the bottom half of the wine bottle should be placed in the container of hot water. This will pre-heat the bottle so that it will not crack whenthe explosive is poured.
- E. Remove the bottle from how water and dry thoroughly. Pour molten explosive into the bottle and allow to cool. The crust which forms on top of the charge during cooling should be broken with a

wooden stick and more explosive added. Do this as often as necessary until the bottle is filled to the top.

- F. When explosive has completely hardened, bore a hole for the blasting cap in the middle of the top of the charge about .5 in. deep.

How to Use

1. Place blasting cap in the hole in the top of the charge. If non-electric blasting cap is used, be sure cap is crimped around fuze and fuze is long enough to provide safe delay.
2. Place the charge so that the bottom is 3-4 in. from the target. This can be done by taping legs to the charge or any other convenient means as long as there is nothing between the base of the charge and the target.
3. If electric blasting cap is used, connect blasting wires to firing circuit.

Note: The effectiveness of this charge can be increased by placing it inside a can, box, or similar container and packing sand or dirt between the charge and the container.

Grenade/Tin can land mine

Sec. II, No. 4

This device can be used as a land mine that will explode when the trip wire is pulled.

Materials

Sources

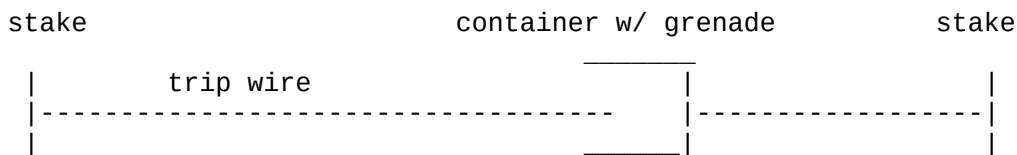
Hand grenade having side safety lever

Sturdy container, open at one end, that is just large enough to slip over the grenade and its safety lever.

Strong string or wire

Procedure

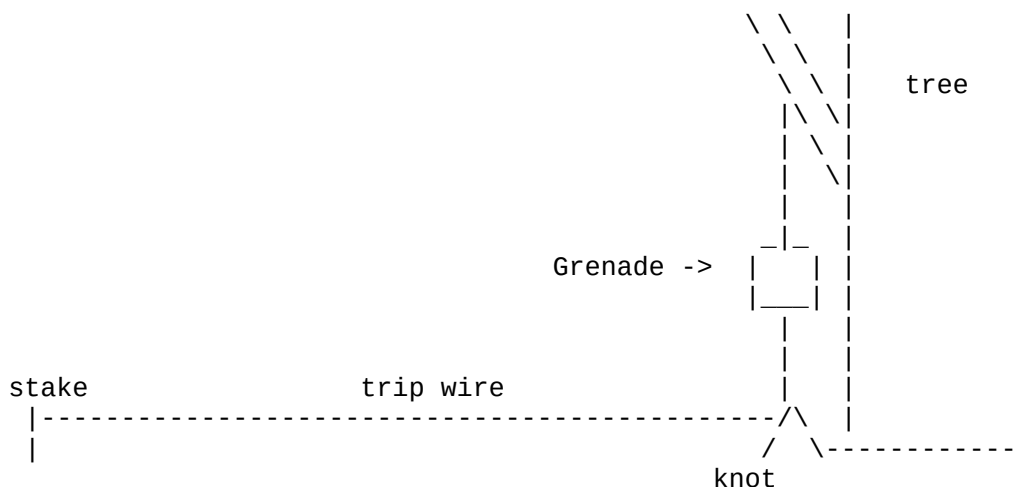
1. Fasten one piece of string to the closed end of the container, making a strong connection. This can be done by punching 2 holes in the can, looping through them, and tying a knot.
2. Tie free end of this string to bush, stake, fencepost, etc.
3. Fasten another length of string to the grenade such that it cannot interfere with the functioning of the ignition mechanism of the grenade.
4. Insert grenade into container.
5. Lay free length of string across path and fasten to stake, bush, etc. The string should remain taught.



How to Use

1. Carefully withdraw safety pin by pulling on ring. Be sure safety lever is restrained during this position during this operation. Grenade will function in normal manner when trip wire is pulled.

Note: In area where concealment is possible, a greater effect may be obtained by suspending the grenade several feet above ground, as illustrated below (yuk)



Mortar Scrap mine

Sec. II, No. 5

A directional mine that can be placed in the path of advancing troops.

Materials

Iron pipe, approx. 3 ft. in length and 2-4 in. in diameter and threaded on at least one end

Threaded cap to fit pipe

black powder or salvaged artillery powder
(.5 lb total)

Electrical igniter (commercial SQUIB or improvised ignitor from Sec. VI, No. 1.
Safety or improvised fuse may also be used

Small stones, about 1 in. in diameter or small size scap; about 1 lb. total

rags for wadding, each 20 in. x 20 in.

Sources

Scrapyard, steel company
Salvaged artillery case

paper or bag

battery and wire

stick (non-metallic)

Note: Be sure pipe has no cracks or flaws

Procedure

1. Screw threaded cap onto pipe.
2. Place propellant and igniter in paper or rag and tie package with string so contents will not fall out.
3. Insert packaged propellant and igniter into pipe until package rests against threaded cap leaving firing leads extending from open end of pipe.
4. Roll rag until it is about 6 in. long and the same diameter as pipe. Insert rag wadding against packaged propellant ignitor. With caution, pack tightly using stick.
5. Insert stones and/or scrap metal into pipe.
6. Insert second piece of rag wadding against stones and/or metal scrap. pack tightly as before.

explosive	stones/scrap	firing leads
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How to Use

1. Bury pipe in ground with open end facing the expected path of the enemy. The open end may be covered with cardboard and a thin layer of dirt or leaves as camouflage.
2. Connect firing leads to battery and switch. Mine can be remotely fired when needed or attached to a trip device placed in path of advancing troops.

Note: A NON-ELECTRICAL ignition system can be substituted for the electrical system as follows:

1. Follow above procedure, substituting safety fuse for igniter.
2. Light safety fuse when ready to fire.

Coke bottle shaped charge

Sec.II, No. 2

This shaped charge will penetrate 3 in. of armor. It will disable a vehicle if placed on the engine or engine compartment.

Materials

Glass coke bottle 6.5 oz. size

plastic or castable explosive, about 1 lb.

blasting cap

metal cylinder, open at both ends, about 6 in. long and 2 in. inside diameter (should be heavy walled for best results)

plug to fit mouth of coke bottle (rags, metal, wood, paper, etc.)

Non-metal rod about .25 in. in diameter and 8 in. or more in length

tape or string

2 tin cans if castable explosive is used (see Sec. II, No. 3)

Procedure

1. Place plug in mouth of bottle.
2. Place cylinder over top of bottle until bottom of cylinder rests on widest part of bottle. Tape cylinder to bottle. Container should be straight on top of bottle.
3. If plastic explosive is used:
 - A. Place explosive in cylinder a little at a time tamping with rod until cylinder is full.
 - B. Press the rod about .5 in. into the middle of the top of the explosive charge to form a hole for the blasting cap.
4. If castable explosive is used, follow procedure of Wine Bottle cone charge, Sec. II, No. 3, step 4, a thru f.

How to Use

Method 1. If electrical cap is used.

1. Place blasting cap in hole in top of explosive.

Note: Do not insert cap until ready to detonate the charge.

2. Place bottom of coke bottle flush against the target. If target is not flat and horizontal, fasten bottle to target by any convenient means, such as by placing tape or string around target and top of bottle. Bottom of bottle acts as stand-off.

Note: Be sure that base of bottle is flush against target and that there is nothing between the target and the base of the bottle.

3. Connect leads from blasting cap to firing circuit.

Method II. If non-electrical cap is used.

1. Crimp cap around fuse.

Note: Be sure there is enough fuse to allow a safe delay.

2. Follow steps 1, 2 and Notes of Method I.

3. Light fuse when ready to fire.

Cyndrilical Cavity shaped charge

Sec. II, No. 7

A shaped charge can be made from common pipe. It will penetrate 1.5 in of steel, producing a hole 1.5 in in diameter.

Materials

Ir on or steel pipe, 2 to 2.5 in. in diameter and 3 to 4 in. long.

Metal pipe, .5 to .75 in in diameter and 1.5 in. long, open at both ends.
Pipe should be as thin as possible.

Blasting cap

Non-metallic rod, .25 in. in diameter

Plastic or castable explosive

2 metal cans of different sizes	-----	
stick or wire		only if castable explosive is used
heat source	-----	

Procedure

1. If plastic explosive us used:

- A. Place larger pipe on flat surface. Hand pack and tamp explosive into pipe. Leave approx. .25 in. space at the top.
- B. Place rod in center of explosive. Enlarge hole in explosive to diameter and length of small pipe.
- C. Insert small pipe into hole.

Note: Make sure that there is direct contact between the explosive and the small pipe. Hand pack if necessary.

- D. Make sure that there is .25in. empty space aboce small pipe.
Remove pipe if necessary.
- E. Turn large pipe upside down, (the whole object) and pus rod .5 in. into center of opposite end of explosive to form a hole for the blasting cap.

Note: Do not insert cap until ready to fire shaped charge.

2. If TNT or other castable explosive is used:

- A. Follow procedure, Sec. II, No. 3, step 4, Parts A, B, C, including Notes.
- B. When all explosive has melted, remove the inner container and stir the molten explosive until it begins to thicken.
- C. Place large pipe of flat surface. Pour explosive into pipe until it is 1.75 in. from the top.
- D. Place small pipe in the center of large pipe so that it rests on top of explosive. Holding small pipe in place, pour explosive around small pipe until explosive is .25 in. from top of large pipe.
- E. Allow explosive to cool. Break crust that forms on top of the charge during cooling with a wooden stick and add more explosive. Do this as often as necessary until explosive is .25 in. from top.
- F. When explosive has completely hardened, turn pipe upside down and bore a hole for the blasting cap in the middle of the top of the charge about .50 in. deep.

How to Use

Method I. If an electrical cap is used.

1. Place blasting cap in hole made for it.

Note: Do not insert cap until ready to use.

2. Place other end of pipe flush against target. Fasten pipe to target by any convenient means, such as by placing tape or string around target and on top of pipe. If target is not flat and horizontal.

Note: Be sure that base of pipe is flush against target and that there is nothing between the charge and the base of the pipe.

3. Connect leads from cap to firing circuit.

Method II. If non-electrical cap is used.

1. Crimp cap around fuse.

Note: Be sure that there is enough fuse to allow safe delay.

2. Follow steps 1, 2 and notes of Method I.
3. Light fuse when ready to fire.

Funnel shaped charge

Sec. II, No. 9

An effective shaped charge can be made using various commercial funnels. See table for penetration capabilities.

Materials

Container (sode or beer can, etc.), approx. 2.5 in. in diameter x 5 in. long

Funnels (glass, steel or aluminum) 2.5 in. in diameter

Wooden rod or stick, .25 in. in diameter

tape

blasting cap (electrical or non-electrical)

sharp cutting edge

explosive

Procedure

- 1. Remove the top and bottom from can and discard.
- 2. Cut off and throw away the spout of the funnel(s).

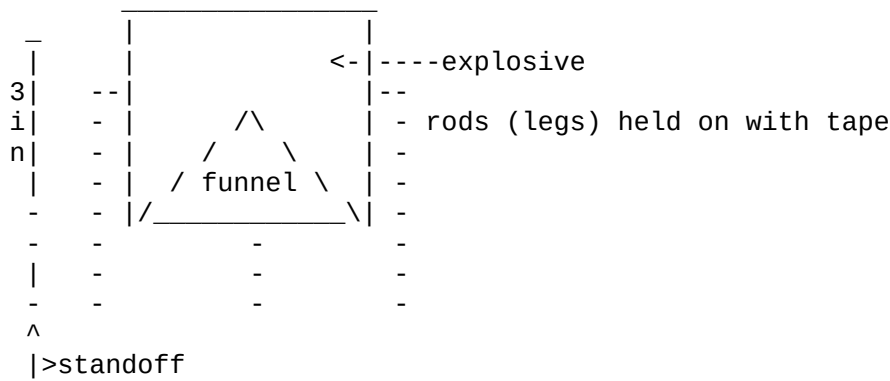
Note: When using 3 funnels (see table), place the modified funnels together as tight and as straight as possible. Tape the funnels together at the outer ridges.

- 3. Place the funnels in the modified can. Tape outer ridges to hold funnels to can.
- 4. If plastic explosive is used, fill the can with the explosive using small quantities, and tamp with wooden rod or stick.

Note: If castable explosive is used, refer to step 4 of Sec. II, No. 3.

- 5. Cut wodden rod to lengths 3 inches longer than the standoff length. (see table) Position three of there rods around the explosive filled can and hold in place with tape.

Note: The position of the rods on the container must conform to the standoff dimensions to obtain the penetrations given in the table.



Table

Funnel Material	No. of funnels	Standoff (ins.)	Penetration
glass	1	3.5	4
steel	3	1	2.5

aluminum	3	3.5	2.5
If only one steel or aluminum funnel is available:			
steel	1	1	1.5
aluminum	1	1	1.5

6. Make a hole for blasting cap in the center of the explosive with rod or stick.

Note: Do not place blasting cap in place until the funnel shaped charge is ready to use.

How to Use

1. Place blasting cap in the hole in top of the charge. If non-electric cap is used, be sure cap is crimped around fuse and fuse is long enough to provide safe delay.
2. Place (tape if necessary) the Funnel Shaped Charge on the target so that nothing is between the base of charge and target.
3. If electric cap is used, connect cap wires to firing circuit.

Linear shaped Charge

Sec. II, No. 10

This shaped charge made from construction materials will cut through nearly 3 inches of armor depending upon the liner used. (see table)

Materials

Standard structural angle or pipe (see table)

wood or cardboard container

hacksaw -----|
vise -----| only is pipe is used

wooden rod, .25 in. in diameter

explosive

blasting cap

tape

Table

Type	material	liner size	Standoff	Penetration
angle	steel	3x3 legs x .25 in web	2 in.	2.75 in
angle	aluminum	2x2 legs x 3/16 web	5.5 in.	2.5 in.
pipe half section	aluminum	2 diameter	2 in.	2 in.
pipe half section	copper	2 diameter	1 in.	1.75 in.

Procedure

Note: These were the only linear shaped charges of this type that were found to be more efficient than the ribbon charge.

Ribbon Charge: No standoff; just place on target.

1. If pipe is used:
 - A. Place the pipe in the vise and cut pipe in half lengthwise. Remove the pipe half sections from the vise.
 - B. Discard one of the pipe half sections, or save for another charge.
2. Place angle or pipe half section with open end face down on a flat surface.
3. Make container from any material available. The container must be as wide as the angle or pipe half section, twice as high, and as long as the desired cut to be made with the charge.
4. Place container over the liner (angle or pipe half section) and tape liner to container.
5. If plastic explosive is used, fill the container with the explosive using small quantities, and tamp with wooden rod or stick.

Note: If castable explosive is used, refer to step 4 of Sec. II, No. 3.

6. Cut wooden rod to lengths 2 inches longer than the standoff length (see table). Position the rods at the corners of the explosive filled container and hold in place with tape.

Note: The position of the rods on the container must conform to standoff and penetration dimensions given in the table.

7. Make a hole for blasting cap in the side of the container .5 in. above the liner and centered with the wooden rod.

Note: Do not place blasting cap inside Linear Shaped Charge until ready to detonate.

How to Use

1. Place blasting cap into hole on the side of the container. If non-electric cap is used, be sure cap is crimped around fuse and fuse is long enough.
2. Place (tape if necessary) the LSC on the target so that nothing is between base of charge and target.
3. If electric cap is used, connect cap wires to firing circuit.

Soap Dish charges

Sec. II, No. 11

Using common plastic soap dishes, two special charges can be prepared. One is a miniature claymore mine, and the other being a miniature Petroleum Oil/Liquid charge for the destruction of small P.O.L. storage containers and vehicle gas tanks.

Materials

Soap dishes consisting of two separate halves, the bottom flat half fitting into the to bevelled half (standard soap dish)

Any homemade high explosive

blasting cap

.25 in. diameter steel ball bearings and epoxy resin (wristrocket ammo)

thermite incendiary (Sec. V, No. 20), or other metalized incendiary mixture

small alnico 5 horseshoe or double sided adhesive tape, or both

Procedure

1. To produce a miniature claymore mine, follow the steps below.
 - A. Separate the two halves of the soap dish.
 - B. Fill the bottom half with any powerful homemade explosive.
 - C. Fill the top half to a depth of 3/4 inch with 1/4 inch diameter steel ball bearings held together with a light coating of epoxy resin.
 - D. Insert the bottom half into the top half and secure in place with tape.
2. To produce a miniature P.O.L. charge, follow the steps below:
 - A. Separate the two halves of the soap dish.
 - B. Fill 1/2 inch of the bottom half with a metalized incendiary such as thermite or aluminum granules.
 - C. Fill the remaining half of the bottom half with any powerful homemade explosive.
 - D. Fill 1/2 to the top half with the same homemade explosive.

- E. Insert the bottom half of the soap dish into the top half and secure in place with tape.

How to Use

1. Claymore mine:

- A. Cover the bottom of the bottom half of the mine with double-sided adhesive tape or attach one horseshoe magnet to each side of the top half and secure in place with epoxy resin. Both attachment methods can be combined so the mine can be attached to almost any surface area.
- B. Using a sharp pointed rod, 1/4 inch in diameter, puncture a hole in the rear center of the bottom half.
- C. Insert a detonator into this hole and attach a fuzing mechanism to the sides of the soap dish and connect to the detonator.
- D. Attach the bottom of the soap dish, vertically, to any surface facing the target area, within a 45 degree angle from either side of the center line of the soap dish. For attachment, use either the tape or magnets, or both if possible.

2. P.O.L. charge:

- A. Cover the bottom of the bottom half of the mine with double sided adhesive tap, or attach one horseshoe magnet to each side of the top half and secure in place with epoxy resin. Both attachment methods can be combined so the mine can be easily be attached to almost any surface area.
- B. Using a sharp pointed rod, 1/4 inch in diameter, puncture a hole in the rear center of the top half of the soap dish.
- C. Insert the detonator into this hole and attach a fuzing mechanism to sides of the soap dish and connect to the detonator.
- D. Using magnets, tape, or both, attach the bottom of the soap dish to any surface containing petroleum products, i.e., 55 gallon storage drums, rail and truck P.O.L. shipping cars, gas tanks of vehicles, etc.

Mini-Compound detonators

Sec. II, No. 12

Miniature compound detonators can be made from empty .22 Magnum sheel casings, a quantity of secondary (booster) explosive, a smaller quantity of primary explosive, an ignition charge and a loading press. These powerful miniature detonators are used in the construction of various type of miniature hand grenades, i.e., cigarette lighter hand grenade, shotgun shell impact grenade and explosive candles.

Materials

Empty .22 magnum shell casings or copper, brass or aluminum tubing 1/4 inch in diameter, 1 inch long, and closed at one end.

A quantity of secondary explosive, i.e., RDX (Sec. I, No. 15) or (Sec. I, No. 38), PETN (the center filling of Primacord (detonating cord))

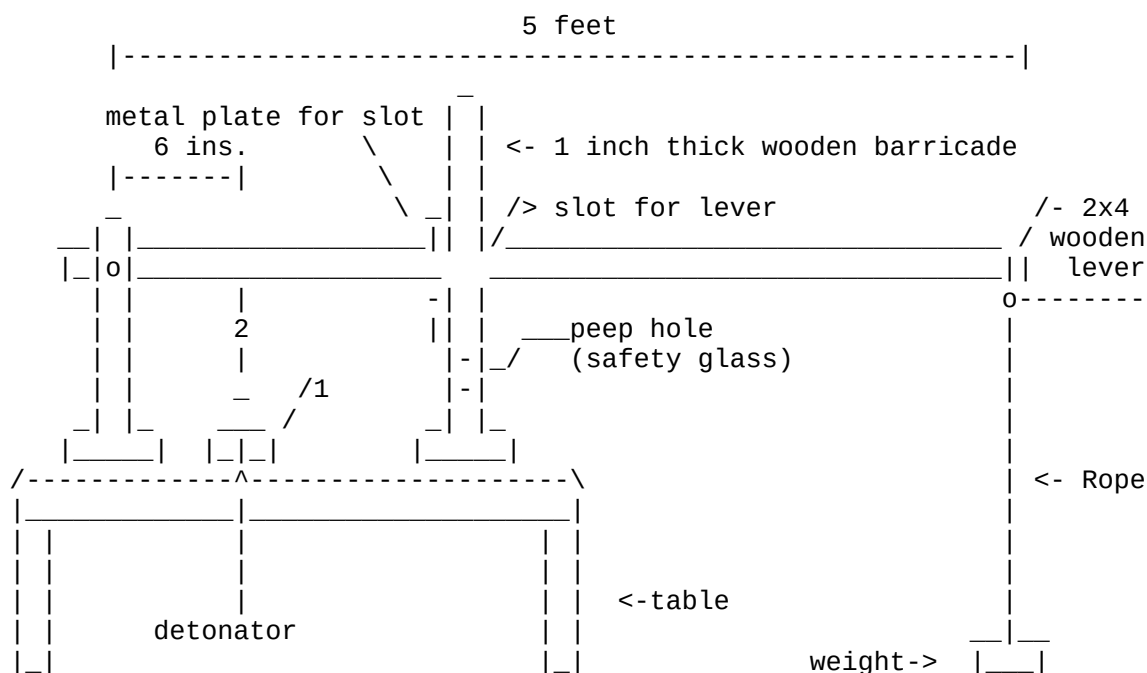
A quantity of primary explosive, i.e., mercury fulminate (Sec. I, No. 24), HMTD (Sec. I, No. 17), acetone peroxide (Sec. I, No. 28)

An ignition charge or either black powder (Sec. I, No. 3) or small arms propellant

A loading press, or materials to construct a loading press as illustrated

Procedure

1. If a loading press is not available, construct on as illustrated below: (this is going to be touchy, please stick with me)



Notes: 1. Block- wood (10" x 10" x 6" or steel (6" x 6" x 6") with 3/8" diameter hole 1" deep.

2. 1/4" O.D. hard brass or wood ram

Note: The loading press is provided with a protective barrier and a remote system of rope and pulley operation to provide operator safety during loading. Only wood and spark-proof (brass) metals are used near the explosive.

CAUTION: Making detonators is hazardous business that can be made safe by taking certain precautions. Operations must be performed slowly and with great care. Cleanliness is important. Dirt in the explosive or containers will greatly increase sensitivity to detonation by impact or shock. If possible the air should be moist. Boil a bucket of water in the room before starting to work if the air is dry. When inserting and removing the ramrod and when carrying primary explosives, use tongs or pliers. If possible, use only one hand at a time when handling the primary explosive in the loading process and wear protective goggles at all times.

2. With the arrangement shown on the preceding page, the pressure applied to the explosive inside the shell casing will be about 200x the force

applied to the end of the lever. That is, a 20 pound weight pulling at at the handle will compress the explosive with a press of 4,000 lbs. of pressure per sq. in. This pressure is required for the best sensitivity of mercury fulminate. A 2.5 gallon bucket of water weighs about 20 lbs.

3. Light a candle and let two drops of wax drop into the bottom of each shell casing before using.
4. Allow the wax to cool, then insert the shell casing into the loading block.
5. Fill the shell casing to a depth of 1/4 in. with RDX or PETN secondary explosive. Gently insert the ram.
6. Compress the explosive slowly and evenly by pulling on the rope until the weight leaves the ground. Remove the ram carefully.
7. Continue the adding and pressing operation until a column of secondary explosive 5/8 inch high has been pressed into the 1 inch long shell casing.
8. Add a small quantity of primary explosive on top of the secondary explosive and gently insert the ram.
9. Continue the adding and pressing operation until an additional 1/4 inch column of primary explosive has been pressed on top of the 5/8 inch column of secondary explosive.
10. Gently compress the remaining 1/8 inch of empty space with an igniter of either black powder or smokeless pistol powder.
11. Seal the top with either tape or wax paper held in place with a small rubber band until ready to use.

Note: When inserting the detonator into a selected hand grenade, be careful not to tilt the detonator and let the igniter charge spill out. Instead, place the grenade over the detonator and lower it until the detonator is sealed into place, then invert the genade and fill with explosive.

Cigarette Lighter Hand Grenade

Sec. II, No. 13

An effective and powerful miniature hand grenade can be made from a Zippo brand cigarette lighter, any homemade explosive and a mini-compound detonator (Sec. II, No. 12). This explosive device can be used either as a hand grenade or a boobytrap.

Materials

Any powerful homemade explosive, i.e., potassium chlorate/nitrobenzene (Sec. I, No. 32), ammonium nitrate/nitromethane (Sec. I, No. 34), etc.

Mini-Compound detonator (Sec. II, No. 12)

Black powder (Sec. I, No. 3)

Zippo cigarette lighter, approx. 2 1/4" length x 1 1/2" Diam., or larger

Copper and brass tubing 9/32" diameter x 12" long

hacksaw

small mixing bowl

epoxy resin

Procedure

1. Obtain a zippo lighter with outer case dimensions of approx. 2 1/4 long x 1 1/2" wide x 1/2" deep. Separate the inner lighter mechanism from the outer casing and remove all the cotton wadding.
2. Remove the cotton ignition wick and convert it into a black powder time fuse by the following steps:
 - A. Place a couple of tablespoons of black powder (sec. I, No. 3) into a small mixing bowl and add enough water until it looks like a heavy oil.
 - B. The cotton wick is placed in the oil-like mixture and stirred for 15 minutes so that it becomes saturated with the black powder mix.
 - C. The cotton wick is removed and hung to dry for four hours.
 - D. This mixture fuse was found to have a burning rate of 1.3 seconds per inch.

Note: Be sure and test burning time on a similar wick before using. If a new Zippo lighter is used, it is necessary to use the lighter approx. 25 times before disassembling. This will make the lighter appear used and will blacken the cotton ignition wick which will help disguise the black powder time fuse that will be reinserted.

3. Reinsert the cotton wick fuse through the wick hole and leave enough fuse in the ignition chamber so that it can easily be pulled from the igniter.

Note: Knot the end of the fuse inside the lighter so that it won't pull free later when using.

4. Using a hacksaw, cut a one inch length from a 9/32" diameter piece of copper or brass tubing.
5. Insert this one inch tube over the wick hole and use a 1/8" layer of epoxy resin or other strong glue to seal in place.
6. Insert a mini-compound detonator (Sec. II, No. 12) into the holding tube inside the lighter.

Caution: The mini-compound detonator is a sensitive and extremely powerful detonator and should be handled carefully at all times.

7. Fill the remaining space to within 1/8" of the bottom with any homemade explosive this manual.

Note: The explosive can be loaded in first, and when ready to use, simply insert the detonator. When using potassium chlorate or ammonium nitrate for a base explosive, load the cigarette lighter with either base explosive and insert the detonator. When ready to use, simply pour in the liquid activator of either nitromethane or nitrobenzene.

8. After filling to within 1/8" in. of the bottom with explosive, cut off a

1/8" strip from the original cotton wadding and insert in the bottom of the lighter to complete the disguise.

How to Use

1. To use as a hand grenade, simply pull out a length of fuse and ignite with a separate cigarette lighter or match.
2. To use as a boobytrap, insert the lighter, with a short fuse, into the target area.

Shotgun shell impact grenade

Sec. II, No. 14

An effective and powerful impact grenade can be made from a 12 gauge shotgun shell, any homemade high explosive and a mini-compound detonator (Sec. II, No. 12). This explosive device can be used as an impact grenade or as a boobytrap.

Materials

Any homemade explosive, i.e., potassium chlorate/nitrobenzene (Sec. I, No. 32), ammonium nitrate/nitromethane (Sec. I, No. 34), etc.

Mini-compound detonator (Sec. II, NO. 12)

12 gauge shotgun shell

wood dowel or steel bar 11/16" in diameter and any length beyond 1/2"

hacksaw

drill w/ 1/4" bit

pieces of cloth, 12" x 12"

epoxy resin or strong glue

steel ball bearings 3/8" in diameter

electrical tape

Procedure

1. Either cut off or open up the forward end of any 12 gauge shotgun shell and empty out the shot, wadding, spacer and propellant. Retain the shell casing.
2. In order for the mini-detonator to be over the center of the primer, a detonator guide cylinder has to be made from either a piece of bar steel or a wooden dowel in the following manner:
 - A. Using a hacksaw, cut a 1/2" length of 11/16" steel bar or wooden dowel.
 - B. Drill a 1/4" diameter hole in the center of the 1/2 long wood or metal cylinder.

Note: It is preferred that a steel cylinder be used in ot to lend more weight to the base of the shell case.

3. After the guide cylinder is prepared, it is glued in place in the bottom of the shotshell case.

Note: Do not place any glue on the primer in the base of the shell casing.

4. The mini-compound detonator (Sec. II, No. 12) is the inserted, open end down, into the guide cylinder and glued in place.

Caution: The mini-compound detonator is a sensitive and extremely powerful detonator and should be handled carefully at all times.

5. Fill the remaining space in the shotshell case with any homemade high explosive in this manual.

Note: When using potassium chlorate or ammonium nitrate for a base explosive, load the shotshell case with either base explosive. When ready to use, simply pour in the liquid activator of either nitromethane/nitrobenzene.

6. After the top of the shotshell has been resealed, tape a 3/8" steel ball bearing in place over the center of the primer in the base of the shell.
7. Cloth streamers (12" x 1/2") are then taped in place around the shotshell. These streamers lend stability in flight and insure bottom base impact with the ground.
8. As a further refinement, nails can be taped around the shotshell case with ntches, spaced 1/4" apart, down the length of the shell.

How to Use

1. To use as a grenade, simply throw into the target area.
2. To use as a boobytrap, do not attach streamers or the ball bearing. Simply insert the shotshell case into the target area.

Platter Charge

Sec. II, No. 15

An extremely effective directional charge can be made from a steel pipe cap, any high explosive, and a tin can. This charge is effective against such targets as transformers, generators, fuel storage containers and vehicles. It can be fired horizontally or used as an improvised land mine and fired vertically.

Materials

Steel pipe cap with a diameter between 1" and 24"

Tin can or other similar container with an inside diameter being the same as the steel pipe cap

sheet of wood 1" thick

steel pipe cap, (between 1 - 2" in diameter) and a piece of pipe, (approx. 2" in length

drill with 1/4" bit

Solid or liquid high explosive, i.e., nitromethane/ammonium nitrate explosive

(Sec. I, No. 34), fertilizer/hydrazine explosive (Sec. I, No. 36), or nitromethane liquid explosive (Sec. I, No. 35)

blasting cap

Procedure

1. Obtain a steel pipe cap. An ideal diameter would be 6 - 12". However, pipe caps as small as 1" may be used.
2. Locate a coffee can or similar container with an inside diameter the same as the outside diameter of the pipe cap. Remove the lid (do not throw away) and empty the contents of the can and clean it out.
3. Place the pipe cap in the bottom of the can with the concave side facing the bottom of the can.
4. An exact center priming disk must be made from a 1" thick piece of wood in the following manner:
 - A. Using the coffee can lid from step 2 as a template, place it on a sheet of wood 1" thick and mark the outside diameter with a pencil.
 - B. Using a saw, cut the disk out of the sheet of wood. After cutting the disk out, drill a 1/4" hole through the exact center. If this priming disk is to be used as a packing tool for the solid explosive, center sink the 1/4" center hole to fit the head of a 1/4" bolt. Set the disk aside for later use.
5. If a solid explosive is being used, the following construction technique should be used:
 - A. Using the center priming disk prepared from step 4, a uniform packing tool can be prepared by the addition of a 1/4" nut and bolt, a steel pipe cap and a piece of pipe.
 - B. Carefully pack an amount of solid explosive equal to the weight of the pipe cap around and behind the pipe cap using the packing tool. For example, if the pipe cap weighs five pounds, use five pounds of solid explosive.

Note: For this charge to be effective, it is necessary to uniformly pack the explosive behind the pipe cap with no air gaps.

- C. After the explosive has been loaded into the tin can behind the inverted pipe cap, disassemble the packing tool and place the priming disk over the compressed explosive. Seal the inside edges with glue, wax, or tar. The discarded pipe handle and cap can be used later to form a pipe hand grenade (Sec. II, No. 1)

Note: The wood priming disk prepared in step 4 has three main uses: as a packing tool for solid explosive, as a lid to keep the explosive from falling out of the container, and as a template that insures exact rear center priming of the charge.

- D. After the priming disk has been sealed in place, insert a blasting cap through the center hole and into the solid explosive to a depth of 3/4". Seal around the cap with glue, wax or tar.
6. When using a liquid explosive, an easier construction method may be used:

- A. When ready to use, simply pour in an amount of liquid explosive equal to the weight of the pipe cap and seal in place the wood priming disk prepared in step 4.
 - B. Insert a blasting cap through the center hole and into the liquid explosive to a depth of 3/4". Seal around the blasting cap with glue, wax, or tar.
7. If a coffee can was used in the construction, there should still be sufficient room inside the can for a fuzing mechanism, i.e., a wrist watch delay timer with battery (Sec. VI, No. 4), or a small remote control radio receiver.

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Note: A second disguise can be achieved by inseting a third disk covering the fizing mechanism, sealing around the edges of the disk and then pouring coffee into the can until full. Place the plastic sealing lid over the top of the can to complete the disguise.

1. The unique capability of this charge is that it can be fired through a chain link fence and into its target without any loss of effectiveness. At close range the platter will penetrate about one inch of mild steel plate. It is effective at ranges up to 100 feet or more, although at this distance penetration is reduced to about 1/4" of mild steel at best and sighting becomes a problem unless the target is a very large one.
2. Upon detonation, the platter is projected forward at tremendous velocity. The air in front of the platter is compressed and becomes superheated. It is this mass of air, moving at extremely high velocity, that first penetrates the target. The platter follows and may indeed strike the target, but research has shown that the primary destruction effect is created by the compacted high velocity air column.

Using materials that are readily available in its construction, this mine will defeat almost any target that is mad-made, i.e., tanks, armored cars, buildings, etc. This charge is four times for effective than any other directional charge, to include shaped and platter charges. This directional charge utilizes two special techniques to achieve its effectiveness; one is sandwiching an explosive charge between two steel plates, and the other involves detonating this charge from all sides at the same time (periphreal detonation).

Materials

oil filter cap or other similar steel dish

No. 6 sheet metal screws, 1" long

steel plate, 1/8" thick

Solid or liquid high explosive, i.e., fertilizer/nitromethane, fertilizer/hydrazine liquid explosive, and nitromethane liquid explosive

wood or styrofoam sheets, 1" thick

blasting cap

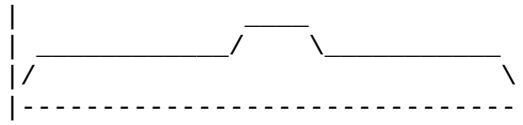
coffee can or other similar container

drill with 1/4" bit

Procedure

1. Obtain a concave steel dish, 3" to 12" in diameter: for example, by removing the center retaining bolt from any two piece oil filter assy. and using the oil filter cap (an oil filter from a 1951-53 chevy, with a diameter of 5 1/4" is ideal).
2. Plug the bolt hole in the center of the cap with wood, rubber, or cork stopper.
3. Using the oil filter cap as a template, place it on a sheet of steel 1/8" thick and mark the outside diameter with a pencil.
4. Using a hacksaw, cut the disk out of the plate.
5. Repeat steps 3 and 4, cutting out two disks from a 1" thick sheet of wood or styrofoam.
6. Take the three disks (one steel and the other two wood or styrofoam) and glue them together with the steel disk on one side. Set aside for later use.
7. Locate a coddee can or similar container with an inside diameter 1/4" to 1/2" larger than the outside diameter of the filter ca. Remove the lid (do not throw away) and empty and clean the can.
8. Using the coffee can lid as a template, repeat steps 3 and 4 on a 1" thick sheet of wood, and after cutting the disk out, drill a 1/4" hole in the exact center and set aside for later use.

9. Place the oil can filter cap in the bottom center of the coffee can and glue in place with the concave cap facing towards the bottom of the can.



10. If a solid explosive is being used, the following construction technique should be used:

- A. Mark two rings around the inside of the coffee can; one 3" from the bottom of the can, and the second 5 5/8" from the bottom of the can.
- B. Carefully pack the explosive uniformly around the filter cap until it reaches the 3" mark inside the can.

Note: The 1" thick wood disk prepared from step 8 can be used as a uniform packing tool by attaching an improvised handle using a piece of pipe, two pipe caps and a 1/4" nut and bolt.

- C. After reaching the 3" mark inside the can, place the three layer disk assy. (prepared in step 6) on top of the compressed explosive. Center it with the steel disk on the explosive.
- D. Carefully pack the explosive between the inside edge of the can and the edge of the three layer disk assy. until the explosive level is even with the top of the disk.
- E. Carefully pack an additional 1/2" layer of explosive on top of the last styrofoam or wood disk. This layer should reach the second ring marked inside the can.

Note: Again the wood disk/pipe packing tool can be used to compress the remaining explosive on top of the charge.

- F. Disassemble the wood disk/pipe packing tool by removing the center nut and bolt that holds the two together. Save and use the pipe for a future pipe hand grenade (Sec. II, No. 1).
- G. Place the 1" thick wood packing disk on top of the explosive contained inside the can and seal with glue, wax or tar.
- H. When ready to use, insert a 1/4" blasting cap through the center hole in the wood disk and into the 1/2" layer of explosive.

Note: The wood disk prepared from step 8 has three main uses; a packing tool, a lid to prevent the explosive from falling out of the container, and a template that insures rear center priming of the charge.

11. When using a liquid explosive, a slightly different and easier construction method is used:

- A. Mark two rings around the inside of the can; one 5 1/8" from the bottom of the can and the second 6 5/8" from the bottom of the can.
- B. Place the top of the three layer disk assy. at the level of the first ring marked inside the can and secure in place with four No. 6 sheet metal screws spaced every 90 degrees around the outside of the coffee can and screwed into the center of the center disk assy. Since the disk assy. is smaller than the inside diameter of the coffee can, it can be held in place by inserting 1/4" wood dowels between the can and

- C. Place the remaining 1" thick wood disk, prepared from step 8, at the level of the second ring marked inside the can and secure in place with four more No. 6 sheet metal screws spaced every 90 degrees around the outside of the can. Seal the inside edges with wax, glue or tar.
- D. When ready to use, simply pour the liquid explosive through the center hole until full. Insert a blasting cap through the hole and into the 1/2" layer of liquid explosive. Seal around the hole and blasting cap with glue, wax, or tar.

[illegible]

Note: A second disguise can be achieved by inserting a third disk covering the fuzing mechanism, sealing around the edges of the disk and the pouring coffee back into the can until full. Place the plastic sealing lid over the top of the can to complete the disguise.

How to Use

1. The SCIMP charge should be used when direct access to the target is not possible, i.e., under or beside a roadway or hanging on a fence looking into the target area.
2. The applications are very similar to a platter charge with the exception that the SCIMP charge has far greater penetration ability of hard targets at long distances than does the platter charge. The SCIMP charge described here can penetrate 1" thick steel at 50 yards.

Note: The SCIMP charge relies on a super-heated, rod-like projectile traveling at ultra high velocity to destroy its target.

Typist Note: I, the Mad Cracker, am not going to type every damn picture in the book. If you would like to build a "pipe pistol" I suggest you buy the books. Unless you totally understand the instructions, I would not consider to attempt these without pictures, as they are dangerous enough when done with the pictures.

Pipe Pistol for 9mm Ammunition

Sec. III, No. 1

A 9mm pistol can be made from 1/4" steel, gas or water pipe and fittings.

Materials

1/4" nominal size water pipe, 4-6 inches long with threaded ends

1/4" solid pipe plug

Two (2) steel pipe couplings

Metal strap, roughly 1/8" x 1/4" x 5"

Two (2) elastic bands

Flat head nail, 6D or 8D (approx. 1/16" in diameter)

Two (2) wood screws #8

wood 8" x 5" x 1"

drill

1/4" wood or metal rod, approx. 8" long

Procedure

1. Carefully inspect pipe and fittings.
 - A. Make sure that there are NO cracks or other flaws in the pipe or fittings.
 - B. Check inside diameter of pipe using a 9mm cartridge as a gauge. The bullet should closely fit into the pipe without forcing but the cartridge case SHOULD NOT fit into pipe.

C. Outside diameter of pipe MUST NOT be less than 1 1/2 times bullet diameter (.536 in; 1.37 cm)

2. Drill a 9/16" diameter hole 3/8" into one coupling to remove the thread.

Note: Drilled section should fit tightly over smooth section of the pipe.

3. Drill a 25/64" diameter hole 3/4" into pipe. Use cartridge as a gauge; when cartridge is inserted into the pipe, the base of the case should be even with the end of the pipe. Thread coupling tightly onto pipe, drilled end first.

4. Drill a hole in the center of the pipe plug just large enough for the nail to fit through.

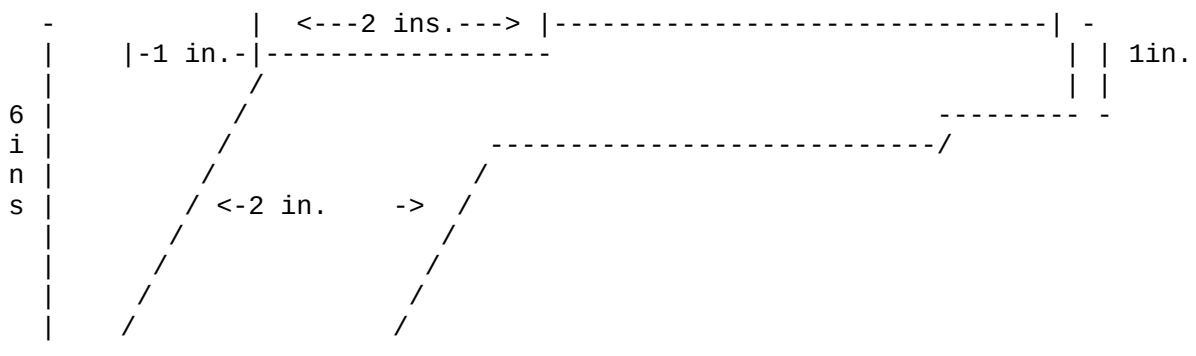
Note: THE HOLE MUST BE CENTERED IN PLUG.

5. Push nail through plug until head of nail is flush with square end. Cut nail off at other end 1/16" away from plug. Round off end of nail with file.

6. Bend metal strap to "U" shape and drill holes for wood screws. File two small notches at top.

7. Saw or otherwise shape 1" thick hardwood into stock.

| - length must be 2" greater than length of unassembled pipe - |



8. Drill a 9/16" diameter hole through the stock. The center of the hole should be approx. 1/2" from the top.

9. Slide the pipe through this hole and attach front coupling.

Note: If 9/16" drill is not available, cut a "V" groove in the top of the stock and tape pipe securely in place.

10. Position metal strap on stock so that top will hit the head of the nail. Attach to stock with wood screws on each side.

11. String elastic bands from front coupling to notch on each side of the strap.

SAFETY CHECK- TEST FIRE PISTOL BEFORE HAND FIRING

1. Locate a barrier such as a stone wall or large tree which you can stand behind in case the pistol ruptures when fired.

2. Mount pistol solidly to a table or other rigid support at least ten feet

in front of the barrier.

3. Attach a cord to the firing strap on the pistol.
4. Holding the other end of the cord, go behind the barrier.
5. Pull cord so that the firing strap is held back.
6. Release the cord to fire the pistol. (If pistol does not fire, shorten the elastic bands or increase their number)

Note: Fire at least five rounds behind the barrier and then re-inspect the pistol before you attempt to hand fire it.

How to Operate Pistol

1. To load:
 - A. Remove plug from rear coupling.
 - B. Place cartridge into pipe.
 - C. Replace plug.
2. To Fire:
 - A. Pull strap back and hold with thumb until ready.
 - B. Release strap.
3. To remove shell case:
 - A. Remove plug from rear coupling.
 - B. Insert 1/4" diameter steel or wooden rod into front of pistol and push shell case out.

Shotgun (12 gauge)

Sec. III, No. 2

A 12 gauge shotgun can be made from 1/4" water or gas pipe and fittings.

Materials

Wood 2" x 4" x 32"

3/4" nominal size water or gas pipe 20" to 30" long threaded on one end

3/4" steel coupling

solid 3/4" pipe plug

metal strap (1/4" x 1/16" x 4")

twine, heavy, approx. 100 yards

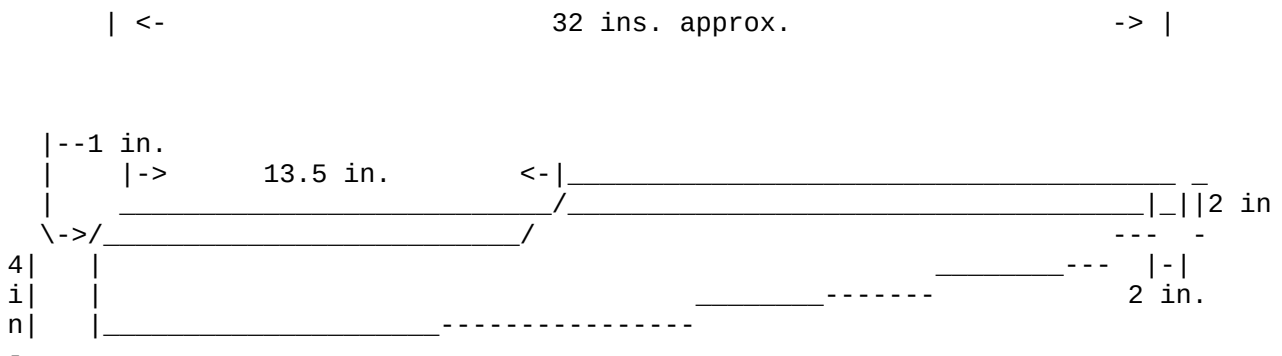
3 wood screws and screwdriver

flat head nail 6D or 8D

hand drill
 saw or knife
 file
 shellac or lacquer
 elastic bands

Procedure -----

1. Carefully inspect pipe and fittings
 - A. Make sure there are no cracks or other flaws.
 - B. Check inside diameter of pipe. A 12-gauge shot shell should fit into the pipe, but the brass rim should not.
 - C. Outside diameter of pipe must be at least 1 in.
2. Cut stock from wood using a saw or knife. (excuse the shitty drawing)



3. Cut a 3/8" deep "V" groove in the top of the stock.
4. Turn coupling onto pipe until tight.
5. Coat pipe and "V" groove of stock with shellac or lacquer and, while it is still wet, place pipe in "V" groove and wrap pipe and stock together using two heavy layers of twine. Coat twine with shellac or lacquer after each layer.
6. Drill a hole through the center of pipe plug large enough for nail to pass through.
7. File threaded end of plug flat.
8. Push nail through plug and cut off flat 1/32" past the plug.
9. Screw plug into coupling.
10. Bend 4" metal strap into "L" shape and drill hole for wood screw. Notch metal strap on the long side 1/2" from the bend.

11. Position metal strap on stock so that top will hit the head of the nail. Attach to stock with wood screw.
12. Place screw in each side of stock about 4" in front of metal strap. Pass elastic bands through notch in metal strap and attach to screw on each side of the stock.

SAFETY CHECK- TEST FIRE SHOTGUN BEFORE HAND FIRING

1. Locate a barrier such as a stone wall or large tree which you can stand behind in case the weapon explodes when fired.
2. Mount shotgun rigidly to a table or other support at least ten feet in front of the barrier.
3. Attach a long cord to the firing strap on the shotgun.
4. Holding the other end of the cord, go behind the barrier.
5. Pull the cord so that the firing strap is held back.
6. Release the cord to fire the shotgun. (if shotgun does not fire, shorten the elastic bands or increase their numbers.)

Note: Fire at least five rounds from behind the barrier and then re-inspect the shotgun before you attempt to shoulder fire it.

How to Operate

1. To load:
 - A. Take plug out of coupling..
 - B. Put shotgun shell into pipe.
 - C. Screw plug hand tight into coupling.
2. To fire:
 - A. Pull strap back and hold with thumb.
 - B. Release strap.
3. To unload:
 - A. Take plug out of coupling.
 - B. Shake out used cartridge.

Shotshell dispersion control

Sec. III, No. 4

When desired, shotshell can be modified to reduce shot dispersion.

Materials

Shotshell

screwdriver or knife

Any of the following fillers:

crushed rice
rice flour
dry bread crumbs
fine dry sawdust

Procedure

1. Carefully remove crimp from shotshell using a screwdriver or knife.

Note: If cartridge is of roll crimp type, remove top wad.

2. Pour shot from shell.

3. Replace one layer of shot in the cartridge. pour in filler material to fill the space between the shot.

4. Repeat step 3 until all shot has been replaced.

5. Replace top wad (if applicable) and re-fold crimp.

6. Roll shell on flat surface to smooth out crimp and restore roundness.

7. Seal end of case with wax. (from lit candle)

How to Use

1. This round is loaded and fired in the same manner as a standard shotshell. The shot spread will be about 2/3 that of a standard round.

Carbine (7.62 mm; .308 Winchester)

Sec. III, No. 4

A rifle can be made from water or gas pipe and fittings. Standard cartridges are used for ammunition.

Materials

wood approx. 2 in. x 4 in. x 30 in.

1/4 in. nominal size iron water or gas pipe 20 in. long threaded at one end.

3/8 in. to 1/4 in. reducer

3/8 in. x 1 1/2" threaded pipe

3/8" pipe coupling

metal strap approx. 1/2 in. x 1/16 in. x 4 in.

twine, heavy, approx. 100 yards

3 wood screws and screwdriver
flat head nail about 1 in. long
hand drill
saw or knife
file
pipe wrench
shellac or lacquer
elastic bands
solid 3/8 in. pipe plug

Procedure

1. Inspect pipe and fittings carefully.
 - A. Make sure there are no cracks or flaws.
 - B. Check inside diameter of pipe. A 7.62 mm projectile should fit 3/8" into pipe.
2. Cut stock from wood using saw or knife.

Dimensions:

 - 30" long
 - 4" high at butt end
 - 15" section from butt to center of rifle 1" below original taper
 - 1 1/2" wide throughout
 - 2" high at tapered end
3. Cut a 1/4" deep "V" groove in top of the stock.
4. Fabricate rifle barrel from pipe.
 - A. File or drill inside diameter of threaded end of 20 in. pipe for about 1/4" so neck of cartridge case will fit in.
 - B. Screw reducer onto threaded pipe using pipe wrench.
 - C. Screw short threaded pipe into reducer.
 - D. Turn 3/8 pipe coupling onto threaded pipe using pipe wrench. All fittings should be as tight as possible. Do not split fittings.
5. Coat pipe and "V" groove of stock with shellac or lacquer. While still wet, place pipe in "V" groove and wrap pipe and stock together using two layers of twine. Coat twine with shellac or lacquer after each layer.
6. Drill a hole through center of pipe plug large enough for nail to pass through.
7. File threaded end of plug flat.
8. Push nail through plug and cut off rounded 1/32 in. past the plug.

9. Screw plug into coupling.
10. Bend 4 in. metal strap into "L" shape and drill hole for wood screw.
Notch metal strap on the long side 1/2" from bend.
11. Position metal strap on stock so that top will hit the head of the nail.
Attach to stock with wood screw.
12. Place screw in each side of stock about 4 in. in front of metal strap.
Pass elastic bands through notch in metal strap and attach to screw on each side of the stock.

SAFETY CHECK- TEST FIRE RIFLE BEFORE HAND FIRING

Follow all notes and steps from Sec. III, No. 2.

How to Operate

Follow all steps from Sec. III, No. 2. Including loading, firing, and unloading.

Reusable primer

Sec. III, No. 5

A method of making a previously fired primer reusable.

Materials

used cartridge case

2 long nails having approx. the same diameter as the inside of the primer pocket

"Strike - Anywhere" matches: 2 or 3 needed for each primer

vise

hammer

knife or other sharp edged instrument

Procedure

1. File one nail to a needle point so that it is small enough to fit through hole in primer pocket.
2. Place cartridge and nail between jaws of vise.
3. Remove anvil from primer cup.
4. File down point of second nail until tip is flat.
5. Remove indentations from face of primer cup with hammer and flattened nail.
6. Cut off tips of the heads of "strike anywhere" matches using knife.
Carefully crush the match tips on dry surface with wooden match stick

until the mixture is the consistency of sugar.

Note: Do not crush more than 3 match tips at a time or the mixture may explode.

7. Pour mixture into primer cup. Compress mixture with wooden match stick until primer cup is fully packed.
8. Place anvil in primer pocket with legs down.
9. Place cup in pocket with mixture facing downward.
10. Place cartridge case and primer cup between vise jaws, and press slowly until primer is seated into bottom of pocket. The primer is now ready for use.

Pipe Pistol for .45 ammunition

Sec. III, No. 6

A .45 caliber pistol can be made from 3/8 in. nominal diameter steel gas or water pipe and fittings. Lethal range is about 15 yards.

Materials

Steel pipe, 3/8 in. in nominal diameter and 6 in. long with threaded ends

2 threaded couplings to fit pipe

solid pipe plug to fit pipe coupling

hard wood, 8.5 in. x 6.5 in. x 1 in.

tape or string

flat head nail, approx. 1/16" in diameter

2 wood screws, approx. 1/16" in diameter

metal strap, 5 in. x 1/4 in. x 1/8 in.

bolt, 4 in. long, with nut (optional)

elastic bands

drills, one 1/16 in. in diameter and one the same as the bolt (optional)

rod, 1/4" in diameter and 8 in. long

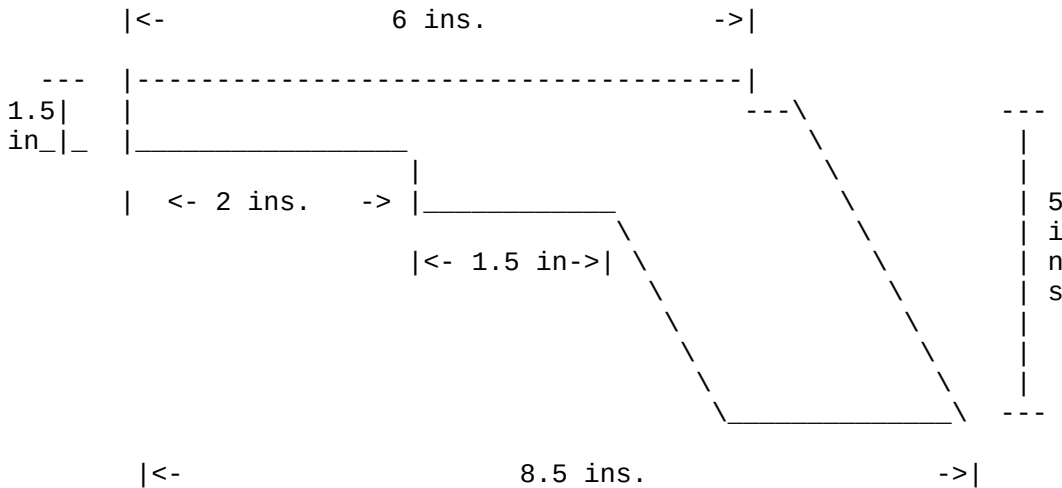
saw or knife

Procedure

1. Carefully inspect pipe and fittings.
 - A. Make sure that there are no cracks or flaws in the pipe and fittings.
 - B. Check inside diameter of pipe using .45 caliber cartridge as a gauge. The cartridge should fit into the pipe snugly, but without forcing.
 - C. Outside diameter of pipe MUST NOT BE less than 1 1/2 times the

bullet diameter.

2. Follow procedure of Section III, No. 1, steps 4, 5 and 6.
3. Cut stock from wood using saw or knife.



4. Cut a 3/8 in. "V" groove in the top of the stock.
5. Screw couplings into pipe. Screw plug into coupling.
6. Securely attach pipe to stock using string or tape.
7. Follow procedures of Sec. III, No. 1, steps 10 and 11.
8. (optional) Bend bolt for trigger. Drill hole in stock and place bolt in hole so strap will be anchored by bolt when pulled back. If bolt is not available, use strap as trigger by pulling back and releasing.
9. Follow safety check, Sec. III, No. 1.

How to Use

1. To load:
 - A. Remove plug from rear coupling.
 - B. Wrap string or elastic band around extractor groove so case will seat into barrel securely.
 - C. Place cartridge into pipe.
 - D. Replace plug.
2. To fire:
 - A. Pull metal strap back and anchor in trigger.
 - B. Pull trigger when ready to fire.
 - C. If bolt is not used, pull strap back and release.
3. To remove spent cartridge:

A. Remove plug from rear coupling.

B. Insert rod into front of pistol and push cartridge case out.

Match gun

Sec. III, No. 7

An improvised weapon using safety matches as the propellant and a metal object as the projectile. Lethal range is about 40 yards.

Materials

Metal pipe, 24 in. long and 3/8 in. in diameter (nominal size) or its equivalent, threaded on one end

end cap to fit pipe

safety matches- 3 books of 20 matches each

wood- 28 in. x 4 in. x 1 in.

toy caps OR safety fuse OR "strike anywhere" matches (2)

electrical tape or string

metal strap about 4 in. x 1/4 in. x 3/16 in.

2 rags, about 1 in. x 12 in. and 1 in. x 3 in.

wood screws

elastic bands

metal object (steel rod, bolt with head cut off, etc.) approx. 7/16 in. in diameter, and 7/16 in. long if iron or steel, 1 1/4 in. long if aluminum, 5/16 in. long if lead

metal disk 1 in. in diameter and 1/16 in. thick (quarter?)

bolt, 3/32 in. or smaller in diameter and nut to fit

saw or knife

Procedure

1. Carefully inspect pipe and fittings. Be sure that there are no cracks or other flaws.
2. Drill a small hole in center of end cap. If safety fuse is used, be sure it will pass through this hole.
3. Cut stock from wood using saw or knife.

Dimensions:

recess
____/____|____|_____
4 in. at butt (high) butt->|_____- <- taper
1 in. thick

1/2 in. at tapered end
28 in. long
14 in. recessed

4. Cut a 3/8 in. deep "V" groove in top of stock.
5. Screw end cap onto pipe until tight.
6. Attach pipe to stock with string or tape.
7. Bend metal strap into "L" shape and drill holes for wood screw. Notch metal strap on long side 1/2 in. from bend.
8. Position metal strap on stock so that the top will hit the center of hole drilled in end cap.
9. Attach metal disk to strap with nut and bolt. This will deflect blast from hole in end cap when gun is fired. Be sure that head of bolt is centered on hole in end cap.
10. Attach strap to stock with wood screws.
11. Place screw on each side of stock about 4 in. in front of metal strap. Pass elastic bands through notch in metal strap and attach to screw on each side of stock.

How to Use

A. When toy caps are used:

1. Cut off match heads from 3 books of matches with knife. Pour match heads into pipe.
2. Fold one end of 1 in. x 12 in. rag 3 times so that it becomes a 1 in. square of 3 thicknesses. Place rag into pipe to cover match heads.
3. Place metal object into pipe. Place 1 in. x 3 in. rag into pipe to cover projectile. Tamp firmly WITH CAUTION.
4. Place toy caps over small hole in end cap. Be sure metal strap will hit caps when it is released.

Note: It may be necessary to tape toy caps to end cap.

5. When ready to fire, pull strap back and release.

B. When "Strike-Anywhere" matches are used:

1. Follow steps 1-3 in A.
2. Carefully cut off tips of heads of 2 "strike-anywhere" matches with knife.
3. Place one tip in hole in end cap. Push in with wooden end of match stick.
4. Place second match tip on a piece of tape. Place tape so match tip is directly over hole in end cap.
5. When ready to fire, pull metal strap back and release.

C. When safety fuse is available (recommended for booby traps)

1. Remove end cap from pipe. Knot one end of safety fuse. Thread safety fuse through hole in end cap so that knot is on inside of end cap.
2. Follow steps 1-3 in A.
3. Tie several matches to safety fuse outside end cap.

Note: Bare end of safety fuse should be inside match head cluster.

4. Wrap match covers around matches and tie. Striker should be in contact with match bands.
5. Replace end cap on pipe.
6. When ready to fire, pull match cover off with strong, firm, quick motion.

Note: Follow safety check from Sec. III, No. 1.

Rifle Cartridge

Sec. III,

No. 8

A method of making a previously fired rifle cartridges reusable.

Note: See Sec. III, No. 5 for reusable primer

Materials

Empty rifle cartridge, be sure it still fits inside gun

threaded bolt that fits into neck of cartridge at least 1 1/4 in. long

safety or strike anywhere matches (58 needed for 7.62 mm cartridge)

rag wad (about 3/4 in. square for 7.62 mm cartridge)

knife

saw

Procedure

1. Remove coating on head of matches by scaping match sticks with sharp edge.

CAUTION: If wooden "strike-anywhere" matches are used, cut off the tips first. Discard tips or use for Reusable Primer, Sec. III, No. 5.

2. Fill previously primed cartridge case with match head coatings up to its neck. Pack evenly and tightly with match stick.

Note: remove head of match stick before packing. In all packing operations, stand off to the side and pack gently. Do not hammer.

3. Place rag wad in neck of case. Pack with match stick from which head was removed.
4. Saw off head end of bolt so remainder is approx. the length of standard bullet.
5. Place bolt in cartridge case so that it sticks out about the same length as the original bullet.

Note: If bolt does not fit snugly, force paper or match sticks between bolt and case, or wrap tape around bolt before inserting in case.

Pipe pistol for .38 caliber ammunition

Sec. III, No. 9

A .38 caliber pistol can be made from 1/4 in. nominal diameter steel gas or water pipe and fittings. Lethal range is approx. 33 yards.

Materials

Steel pipe, 1/4 in. nominal diameter and 6 in. long with threaded ends (nipple)

solid pipe plug, 1/4 in. nominal diameter

2 steel pipe couplings, 1/4 in. nominal diameter

metal strap, approx. 1/8 in. x 1/4 in. x 5 in.

elastic bands

flat head nail- 6D or 8D, approx. 1/16 in. in diameter

2 wood screws, #8

hard wood, 8 in. x 5 in. x 1 in.

drill

wood or metal rod, 1/4 in. diameter and 8 in. long

saw or knife

Procedure

1. Carefully inspect pipe and fittings.
 - A. Make sure there are no cracks or other flaws.
 - B. Check inside diameter of pipe using a .38 cartridge as a gauge. The bullet should fit closely into the pipe without forcing, but then the cartridge case should not fit into the pipe.
 - C. Outside diameter of the pipe must NOT be less than 1 1/2 times the bullet diameter.
2. Drill a 35/64 in. diameter hole 3/4 in. into one coupling to remove the thread. Drilled section should fit tightly over smooth section of pipe.
3. Drill a 25/64 in. diameter hole 1 1/8 in. into pipe. Use cartridge as a gauge; when a cartridge is inserted into the pipe, the shoulder of the case should butt against the end of the pipe. Thread coupling tightly onto pipe.
4. Follow procedures of Sec. III, No. 1, steps 4-11.
5. Follow safety check, Sec. III, No. 1.

How to Use

Follow procedures of How to Operate Pistol, Sec. III, No. 1, steps 1, 2 and 3.

Pipe Pistol for .22 caliber Ammunition (long or short) Sec. III, No. 10

A .22 cal. pistol can be made from 1/8 in. nominal diameter extra heavy, steel gas or water pipe and fittings. Lethal range is about 33 yards.

Materials

steel pipe, extra heavy, 1/8 in. nominal diameter and 6 in. long with threaded ends (nipple)

solid pipe plug, 1/8 in. nominal diameter

2 steel pipe couplings, 1/8 in. x 1/4 in. x 5 in.

elastic bands

flat head nail- 6D or 8D approx. 1/16 in. diameter

2 wood screws, #8

hardwood, 8 in. x 5 in. x 1 in.

drill

wood or metal rod

saw or knife

Procedure

1. Carefully inspect pipe and fittings.
 - A. Make sure that there are NO cracks or other flaws in the pipe or fittings.
 - B. Check inside diameter of pipe using a .22 caliber cartridge, long or short, as a gauge. The bullet should fit closely into the pipe without forcing, but the cartridge case should NOT fit into the pipe.
 - C. Outside diameter of pipe MUST NOT BE less than 1 1/2 times the bullet diameter.
2. Drill a 15/64 in. diameter hole 9/16 in. deep in the pipe for long cartridge. (If short cartridge is used, drill hole 3/8 in. deep). When a cartridge is inserted into the pipe, the shoulder of the case should butt against the end of the pipe.
3. Screw the coupling onto the pipe. Cut coupling length to allow pipe plug to thread in pipe flush against the cartridge case.
4. Drill a hole off center of the pipe plug just large enough for the nail

to fit through.

Note: Drilled hole MUST BE OFF CENTER in plug. (Centered, but low)

5. Push nail through pipe plug until head of nail is flush with square end. Cut nail off at other end 1/16 in. away from plug. Round off end with file.
6. Follow procedures of Sec. III, No. 1, steps 6-11.
7. Follow safety check, Sec. III, No. 1.

How to Use

Follow procedures of How to Use, Sec. III, No. 1, steps 1, 2 and 3.

Low Signature System

Sec. III, No. 11

Low signature systems (silencers) for improvised small arms weapons (Sec. III) can be made from steel gas or water pipe and fittings.

Materials

grenade container (approx. 2.75 in. in diameter, 5 in. long)

steel pipe nipple, 6 in. long- See table 1 for diameter

2 steel pipe couplings- See table 2 for dimensions

cotton cloth- See table 2 for dimensions

drill

absorbent cotton

Procedure

1. Drill hole in grenade container at both ends to fit outside diameter of pipe nipple. (See table 1)
2. Drill four (4) rows of holes in pipe nipple. use table 1 for diameter and location of hole.

Table I. Low signature system dimensions

	A	B	C	(coupling) D	Holes per row	Four rows total
.45 cal.	3/8	1/4	3/8	3/8	12	48
.38 cal.	3/8	1/4	1/4	1/4	12	48
9 MM	3/8	1/4	1/4	1/4	12	48

7.62 MM	3/8	1/4	1/4	1/4	12	48
.22 cal	1/4	5/32	1/8*	1/8	14	50

 *- extra heavy pipe

All dimensions in inches

3. Thread on of the pipe couplings on the drilled pipe nipple.
4. Cut coupling length to allow barrel of weapon to thread fully into low signature system. Barrel should butt against end of the drilled pipe nipple.
5. Separate the top half of the grenade container from the bottom half.
6. Insert the pipe nipple in the drilled hole at the base of the bottom half of container. Pack the absorbent cotton inside the container and around the pipe nipple.
7. Pack the absorbent cotton in top half of grenade container leaving hole in center. Assend container to the bottom half.
8. Thread the other coupling onto the pipe nipple.

Note: The longer container and pipe nipple, with saw "A" and "B" dimensions as those given, will further reduce the signature of the system.

How to Use

1. Thread the low signature system on the selected weapon securely.
2. Place the proper cotton wad size into the muzzle end of the system.

Table II. Cotton wadding- Sizes

weapon	cotton wad size
-----	-----
.45	1 1/2 in. x 6 in.
.38	1 x 4 in.
9 mm	1 x 4 in.
7.62 mm	1 x 4 in.
.22	not needed

3. Load weapon.
4. Weapon is now ready to use.

Cherry Bomb Flechette gun

Sec. III, No. 14

Typist note: In the Black book III, the .22 pistol is done again. Since the two are almost identical and therefore, the second one has not be typed and presented here. That is the reason for this section being No. 14, instead of No. 13.

A highly effective, hand held shotgun can be made from 3/4 in. water pipe and

the projectiles are homemade flechettes (steel darts) made from box nails. This shotgun uses cherry bombs as a source of propellant and can achieve muzzle velocities as high as 1300 feet per second. The effective range is approx. 50 yards.

Materials

3/4 in. diameter water pipe, 12 inches long

3/4 in. pipe coupler and pipe plug

box nails between 1 in. and 1 1/2 in. long

short piece of 3/4 in. water pipe, approx 2 in. long

rubber from inner tube

cork from wine bottle

plaster of paris

hammer and drill with 1/8 in. bit

cherry bombs or homemade flash powder

Procedure

1. Flechette rounds can be made in the following manner:
 - A. Flatten the heads of box nails with a hammer.
 - B. Pour plaster of paris into a mold made from a short section of 3/4 in. water pipe, to a depth of 3/8 in.
 - C. Insert the nails, fins down, into this mold and allow the plaster of paris to harden. (approx. 20 minutes)
 - D. Push the flechette round out of the mold and set aside for later use.
2. For every flechette round that is prepared, a gas seal spacer has to also be prepared in the following manner:
 - A. Using the short section of 3/4 in. water pipe as a die, sharpen the edges with a file and hammer out circular pieces from a rubber inner tube.
 - B. Using a razor blade, cut a 3/4 in. diameter wine bottle cord into 1/2 in. sections.
 - C. Attach the rubber gas seal to the cork spacer with a thumb tack.
3. The shotgun may be prepared in the following manner:
 - A. Drill a 1/8 in. diameter hole through the center of a 3/4 in. pipe plug, then screw the pipe plug into a 3/4 in. pipe coupler.
 - B. Screw this pipe coupler assy. onto one end of a 12 inch long piece of 3/4 in. water pipe.

How To Use

1. Unscrew the pipe coupler assy. from the end of the pipe.
2. Insert the flechette round into the pipe.
3. Insert the gas seal spacer assy. behind the flechette round.
4. Insert a cherry bomb into the pipe coupler assy. with the fuse protruding from the rear of the pipe plug.
5. Screw the coupling assy. onto the pipe and ignite the fuse.

Note: Gloves should be worn if this weapon is to be hand fired. With sufficient practice, it can be fired, broken down, reloaded and fired again in a reasonably short period of time.

A second application is to fire it electrically.

By using an electric bulb initiator (Sec. IV, No. 1) and filling the bulb with the contents of a cherry bomb, this weapon can be used as an effective booby trap to cover a trail or other type of passageway. It can still be hand fired by means of a hand held battery pack and switch arrangement.

If cherry bombs are not available, the following flash powders can be substituted:

1. 4 parts by weight of potassium perchlorate
1 part by weight of antimony sulfide
1 part by weight aluminum powder
2. 3 parts by weight of potassium permanganate
2 parts by weight of aluminum powder
3. 4 parts by weight of potassium chlorate
1 part by weight of sulfur
1 part by weight of aluminum powder

The first mixture is standard cherry bomb powder and should be used whenever possible.

The second mixture is an excellent substitute for the first and is relatively safe to handle.

The third mixture is extremely shock sensitive and should only be used as a last resort.

To use these mixtures, separately pulverize each ingredient into a fine powder. Add these powder ingredients to a canning jar or other similar container with a tight fitting lid. Mix thoroughly by gently tumbling the container between the hands of a period of five minutes. Add one gram (approx. 1 teaspoon) to an electric bulb initiator when ready to use.

Recoilless launcher

Sec. IV, No. 1

A dual directional scrap fragment launcher which can be placed to cover the path of advancing troops.

Materials

Iron water pipe approx. 4 ft. long and 4 in. in diameter

black powder (commercial) or salvaged artillery propellant (about 1/2 lb.)

safety or improvised fuse (Sec. VI, No. 7) or improvised electrical igniter (Sec. IV, No. 2)

stones and/or metal scrap approx 1/2 in. in diameter- about 1 lb.

4 rags for wadding- each about 20 in. x 20 in.

wire

paper or rag

Note: Be sure pipe has no cracks or flaws

Procedure

1. Place propellant and igniter in paper or rag and tie with string so contents cannot fall out.
2. Insert packaged propellant and igniter in center of pipe. Pull string leads out one end of pipe.
3. Stuff a rag wad into each end of pipe and lightly tamp using a flat end stick.
4. Insert stones and/or scrap metal into each end of pipe. Be sure the same weight of material is used on each side.
5. Insert a rag wad into each end of the pipe and pack tightly as before.

How to Use

1. Place scrap mine in a tree or pointed in the path of the enemy. Attach igniter lead to the firing circuit. The recoilless launcher is ready to fire.
2. If safety or improvised fuse is used instead of the detonator, place the fuse into the packaged propellant through a hole drilled in the center of the pipe. Light free end of fuse when ready to fire. Allow for normal delay time.

Caution: Scrap will be ejected from both ends of the pipe.

Shotgun grenade launcher

Sec. IV, No. 2

This device can be used to launch a hand grenade to a distance of 160 yards or more, using a standard 12 gauge shotgun.

Materials

Grenade (Improvised pipe grenade, Sec. II, No. 1, may be used)

12 gauge shotgun

12 gauge shotgun shells

two washers, (brass, steel, iron, etc.), having outside diameter of 5/8 in.

rubber disk 3/4 in. in diameter and 1/4 in. thick (leather, neoprene, etc.) can be used

a 30 in. long piece of hard wood (maple, oak, etc.) approx. 5/8 in. in diameter- be sure it will slide down barrel easily

tin can (grenade and safety lever must fit into can)

two wooden blocks about 2 in. square and 1 1/2 in. thick

one wood screw about 1 in. long

two nails about 2 in. long

12 gauge wads, tissue paper, or cotton

adhesive tape, string, or wire

drill

Procedure

1. Punch hole in center of rubber disk large enough for screw to pass through.
2. Make push rod as shown (I hate this):

```
|+|::|+|-----  
=|+|  |+|-----  
=|+|  |+|-----  
|+|::|+|-----
```

where:

"=" is screw head
":" (space between) is rubber disk
"|+|" is a washer
"|-|" is a wooden stick

Note: Gun barrel is slightly less than 3/4 in. in diameter. If rubber disk does not fit in barrel, file or trim it very slightly. It should fit tightly.

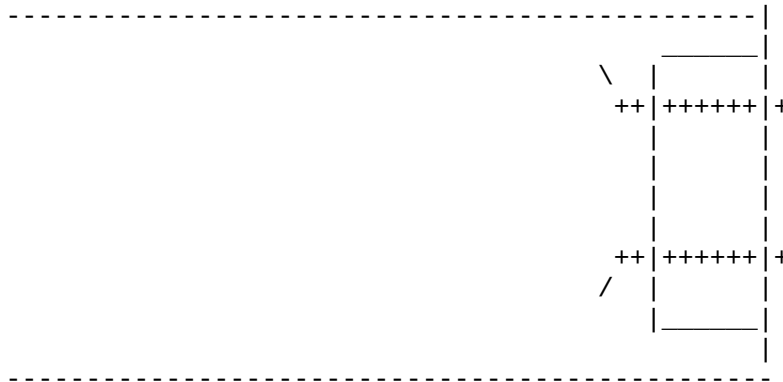
3. Drill a hole through the center of one wooden block of such size that the push rod will fit tightly. Whittle a depression around the hole on one side approx. 1/8 in. and large enough for the grenade to rest in.
4. Place the base of the grenade in the wooden block. Securely fasten grenade to block by wrapping tape (or wire) around entire grenade and block.

Note: Be sure that the tape or wire does not cover hole in block or interfere with the operation of the grenade or safety lever.

5. Drill hole through the center of the second wooden block, so that it will just slide over the outside of the gun barrel.
6. Drill a hole in the center of the bottom of the tin can the same size as

the hole in the block.

7. Attach can to block as shown: (this is getting on my nerves)



This diagram (hmpf!) represents the can, a wood block at the bottom, and nails holding the block on (they are to be bent over).

8. Slide the can and block onto the barrel until muzzle passes the can's open end. Wrap a small piece of tape around the barrel an inch or two from the end. Tightly wrapped string may be used instead of tape. Force the can and wooden block forward against the tape so that they are securely held in place. Wrap tape around the barrel behind the can.

Caution: Be sure that the can is securely fastened to the gun barrel. If the can should become loose and slip down the barrel after the launcher is assembled, the grenade will explode after the regular delay time.

9. Remove crimp from a 12 gauge shotgun shell with pen knife. Open cartridge. Pour shot from shell. Remove wads and plastic liner, if present.
10. Empty the propellant onto a piece of paper. Using a knife, divide the propellant in half. Replace half of the propellant into the cartridge case.
11. Replace the 12 gauge cardboard wads into cartridge case.

Note: If wads are not available, stuff tissue paper or cotton into the cartridge case. Pack tightly.

How to Use

Method I- when ordinary grenade is used:

1. Load cartridge into gun.
2. Push end of push-rod without the rubber disk into hole in wooden block fastened to grenade.
3. Slowly push rod into barrel until it rests against the cartridge case and grenade is in can. If the grenade is not in the can, remove rod and cut to proper size. Push rod back into barrel.
4. With can holding safety lever of grenade in place, carefully remove safety pin.

Caution: Be sure that the sides of the can restrain the grenade safety lever. If the safety lever should be released for any reason, the grenade will

explode after regular delay time.

5. To fire grenade launcher, rest gun in ground at angle determined by range desired. A 45 degree angle should give about 160 yards.

Method II- when improvised pipe grenade is used:

An improvised pipe grenade (Sec. II, No. 1) may be launched in a similar manner. No tin can is needed.

1. Fasten the grenade to the block as shown above with the fuse hole at the end opposite the block.
2. Push end of push-rod into hole in wooden block fastened to grenade.
3. Push rod into barrel until it rests against cartridge case.
4. Load cartridge in gun.
5. Follow step 5 of method I.
6. Using a fuse with at least a 10 second delay, light the fuse before firing.
7. Fire when the fuse burns to 1/2 its original length.

Grenade Launcher (57 mm cardboard container)

Sec. IV, No. 3

An improvised method of launching a standard grenade 150 yards or an improvised grenade 90 yards using a discarded cardboard ammunition container.

Materials

Heavy cardboard container with inside diameter of 2 1/2 to 3 in. and at least 12 in. long- ammunition container is suitable

black powder- 8 grams (124 grams) or less

safety or improvised fuse (Sec. VI, No. 7)

grenade or (improvised grenade, Sec. II, No. 1)

rag, approx. 20 in. x 24 in.

paper

Caution: 8 grams of black powder yield the maximum ranges. Do not use more than this amount. See improvised scale, Sec. VII, No. 8, for measuring.

Procedure

Method I- If standard grenade is used:

1. Discard top of container. Make small hole in bottom.
2. Place black powder in paper. Tie end with string so contents cannot fall out. Place package in container.
3. Insert rag wadding into container. Pack tightly with CAUTION.

4. Measuring off a length of fuse that will give the desired delay. Thread this through hole in bottom of container so tat it renetrates into the black powder package.

Note: If improvised fuse is used, be sure fuse fits loosely through hole in bottom of container.

5. Hold grenade safety lever and carefully withdraw safety pin from grenade. Insert grenade into container, lever end first.

CAUTION: If grenade safety lever should be released for any reason, grenade will explode after normal delay time.

6. Bury container about 6 in. in the ground at 30 degree angle, bringing fuse up alongside container. Pack ground tightly around container.

CAUTION: The tightly packed dirt helps to hold the tube together during the firing. DO not fire unless at least the bottom half of the container is buried in solidly packed dirt.

Method II- If improvised pipe hand grenade is used:

1. Follow step 1 on above procedure.
2. Measure off a piece of fuse at least as long as the cardboard container. Tape one end of this to the fuse from the blasting cap in the improvised grenade. Be sure ends of fuse are in contact with each other.
3. Place free end of fuse and black powder on piece of paper. Tie ends with string so contents will not fall out.
4. Place package in tube. Insert rag wadding. Pack so it fits snugly. Place pipe hand grenade into tube. Be sure it fits snugly.
5. Insert fuse through hole in end of cardboard container. Be sure it goes into black powder package.

Note: Cardboard container may be used for ony one firing.

6. Follow step 6 of method I.

How to Use

Light fuse when ready to fire.

Fire Bottle launcher

Sec. IV, No. 4

A device using 2 items (shotgun and chemical fire bottle) that can be used to start or place a fire 80 yards from launcher.

Materials

standard 12 gauge shotgun or improvised shotgun (Sec. III, No. 2)

improvised fire bottle (Sec. V, No. 1)

tin can, about 4 in. in diameter and 5 1/2 in. high

wood, about 3 in. x 3 in. x 2 in.

nail, at least 3 in.

nuts and bolts or nails, at least 2 1/2 in. long

rag

paper

drill

If standard shotgun is used:

Hard wood stick, about the same length of the shotgun barrel and about 5/8 in. in diameter- stick need not to be round

2 washers (brass, steel, iron, etc.) having outside diameter of 5/8 in.

one wood screw about 1 in. long

rubber disk, 3/4 in. in diameter and 1/4 in. thick (leather, cardboard, etc. may also be used)

12 gauge shotgun ammunition

If improvised shotgun is used:

Fuse, safety or improvised fast burning (Sec. VI, No. 7)

hard wood stick, about the same length of the barrel and 3/4 in. in diameter

black powder- 9 grams, See Sec. VII. No. 8)

Procedure

Method I- If improvised shotgun is used:

1. Drill hole in center of wood block approx. 1 in. deep. Hole should have approx. the same diameter of the wooden stick.
2. Drill 2 small holes on opposite sides of the wooden block. Hole should be large enough for bolts to pass through.
3. Fasten can to block with nuts and bolts.

Note: Can may also be securely fastened to block by hammering several nails through can and block. Do not drill holes, and be careful not to split wood.

4. Place wooden stick into hole in wooden block. Drill small hole (same diameter as that of 3 in. nail) through wooden block and through wooden stick. Insert nail in hole.
5. Crumple paper and place in bottom of can. Place another piece of paper around fire bottle and insert into can. Use enough paper so that bottle will fit snugly.
6. Place safety fuse and black powder on paper. Tie each end with string.

7. Thread fuse through hole in plug. Place powder package in rear of shotgun. Screw plug finger tight into coupling.

Note: Hole in plug may have to be enlarged for fuse.

8. Insert rag into front of cartridge. Pack rag against powder package with stick. USE CAUTION!

Method II- If standard shotgun is used:

1. Follow steps 1 and 2, shotgun grenade launcher, Sec. IV, No. 2.
2. Follow procedure of method I, steps 1-5.
3. Follow steps 9, 10, 11, shotgun grenade launcher, Sec. IV, No. 2, using 1/3 of total propellant instead of 1/2.
4. Load cartridge in gun.

CAUTION: Do not tilt muzzle downward.

2. Hold gun against ground at 45 degree angle and light fuse.

Note: Steps 1 and 2, "How to Use" same for both standard and improvised shotguns.

CAUTION: Severe burns may result if bottle shatters when fired. If possible, obtain a bottle identical to that being used as the fire bottle. Fill about 2/3 full of water and fire as above. If bottle shatters when fired instead of being launched intact, use a different type of bottle.

Grenade Launchers

Sec. IV, No. 5

A variety of grenade launchers can be fabricated from metal pipes and fittings. Ranges up to 660 yards can be obtained depending on length of tube, charge, number of grenades, and angle of firing.

Materials

Metal pie, threaded on one end and approx. 2 1/2 in. in diameter and 14 in. to 4 ft. long, depending on range desired and number of grenades used.

end cap to fit pipe

black powder, 15 to 50 grams, approx 1 1/4 to 4 1/4 tablespoons (Sec. I, No. 3)

safety fuse, fast burning improvised fuse (Sec. VI, No. 7) OR improvised electric bulb initiator (Sec. VI, No. 1) automobile light bulb is needed

grenades- 1 to 6

rag(s) about 30 in. x 30 in.

drill

string

Note: Examine pipe carefully to be sure there are no flaws or cracks.

Procedure

Method I- If fuse is used:

1. Drill small hole through center of end cap.
2. Make small knot near one end of fuse. Place black powder and knotted end of fuse in paper and tie with string.
3. Thread fuse through hole in end cap and place package in end cap. Screw end cap onto pipe, being careful that black powder package is not caught between threads.
4. Roll rag wad so that it is about 6 in. long and has approx. the same diameter as the pipe. Push rolled rag into open end of pipe until it rests against black powder package.
5. Hold grenade safety lever in place and carefully withdraw safety pin.

CAUTION: If grenade safety lever is released for any reason, the grenade will explode after the usual delay (4-5 sec.).

6. Holding safety lever in place, carefully push grenade into pipe, lever end first, until it rests against rag wad.
7. The following table list carious types of grenade launchers and their performance characteristics.

Desired range	No. of grenades	black powder	pipe length	firing angle
250 m	1	15 gm	14"	30 degrees
500 m	1	50 gm	48"	10 degrees
600 m (A)	1	50 gm	48"	30 degrees
200m	6 (B)	25 gm	48"	30 degrees

(A): For this range, an additional delay is required, see Sec. VI, No. 11& 12.

(B): For multiple launcher, load as shown: (bullshit. Like this.)

Note: Since performance of different black powder varies, fire several test rounds to determine the exact amount of powder necessary to achieve the desired range.

Load in this order, from bottom: Black powder package, rolled rag (30x30), grenade, stuffed rag (20x20), grenade, stuffed rag (20x20), etc...

How to Use

1. Bury at least 1/2 of the launcher pipe in the ground at desired angle. Open end should face the expected path of the enemy. Muzzle my be covered with cardboard and a thin layer of dirt and/or leaves as camouflage. Be sure cardboard prevents dirt from entering pipe.

Note: The 14 in. launcher may be hand held against the ground instead of being buried.

2. Light fuse when ready to fire.

Method II- If electrical igniter is used:

Note: Be sure bulb is in good operating condition.

1. Prepare electric bulb initiator as described in Sec. VI, No.1.
2. Place electric initiator and black powder charge in paper. Tie ends of paper with string.
3. Follow above procedure, steps 3 to end of Procedure.

How to Use

1. Follow above How to Use, Step 1.
2. Connect leads to firing circuit. Close circuit when ready to fire.

60MM mortar projectile Launcher

Sec. IV, No. 6

A device to launch 60MM mortar rounds using a metal pipe 2 1/2 in. in diameter and 4 ft. long as the launching tube.

Materials

Mortar, 60MM projectile and charge increments

metal pipe, 2 1/2 in. in diameter and 4 ft. long, threaded on one end

threaded cap to fit pipe

bolt, 1/8 in. in diameter and at least 1 in. long.

two nuts to fit bolt

file

drill

Procedure

1. Drill hole 1/8 in. in diameter through center of end cap.
2. Round off end of bolt with file.
3. Place bolt through hole in end cap. Secure in place with nuts.

```
=====
+=+
()::+:+:: <- must protrude 1/4 inch on both sides
+=+
=====
```

where:

"=" is end cap
"()" is bolt head
"+" is nut
"." is bolt

4. Screw end cap onto pipe tightly. Tube is now ready for use.

How to Use

1. Bury launching tube in ground at desired angle so that bottom of tube is at least 2 ft. underground. Adjust the number of increments in rear finned end of mortar projectile. See following table (shit) for launching angle and number of increments used.
2. When ready to fire, withdraw safety wire from mortar projectile. Drop projectile into launching tube, FINNED END FIRST. (yes, several assholes in the ARMY have actually put one down head first....BOOM! They ain't with us no more...)

CAUTION: Be sure bore riding pin is in place when mortar projectile is dropped into tube. A live mortar round could explode in the tube if it fits too loose enough to permit the bore riding pin to come out partway. Also keep all body parts behind open end of tube when firing, as the mortar will fire once dropped down the tube.

Table

desired range (yds.)	max height (yards)	angle of elevation	charge (a)
150	25	40	0
300	50	40	1
700	150	40	2
1000	225	40	3
1500	300	40	4
125	75	60	0
300	125	60	1
550	250	60	2
1000	375	60	3
1440	600	60	4
75	100	80	0
150	200	80	1
300	350	80	2
400	600	80	3
550	750	80	4

(A): charge- number of increments
Silent grenade launcher

Sec. IV, No. 7

A completely silent grenade launcher can be made from a 12 gauge shotgun shell, pieces of pipe, pipe resucer, wooden dowels and a wine bottle cork. This produces a launcher that can propel a fire bottle in excess of 100 yards and a grenade in excess of 300 yards. After firing, all of the expanding gas is contained within the barrel. This principle of gas containment produces a

completely silent weapon.

Materials

12 gauge shotgun shells

launcher parts:

3/4 in. nominal size water or gas pipe, 30 in. long and threaded on both ends

3/4 in. steel pipe coupler

3/4 in. steel pipe plug

sheet of wood 2 in. x 4 in. x 32 in.

metal strap 1/4 in. x 1/16 in. x 4 in.

heavy twine (approx. 100 yards)

3 wood screws and screwdriver

flat head nail (8D) for firing and safety pins

saw, file and drill with assortment of bits

shellac or lacquer

rubber bands

Gas containment parts:

3/4 in. to 1/2 in. steel pipe reducer

3/4 in. diameter, 1 1/2 in. long hard wooden dowel

3/4 in. diameter wine bottle cork

rubber disk 3/4 in. in diameter and 1/4 in. thick (leather or neoprene can be used in place of the rubber disk)

vaseline

Launching platform parts:

hard wooden dowel 30 in. long x 1/2 in. in diameter

tin can to fit over fire bottle or hand grenade

wood platform base approx. 3 in. x 3 in. x 2 in. to which tin can and wooden dowel will be mounted

nuts and bolts, or nails, at least 2 1/2 in. long

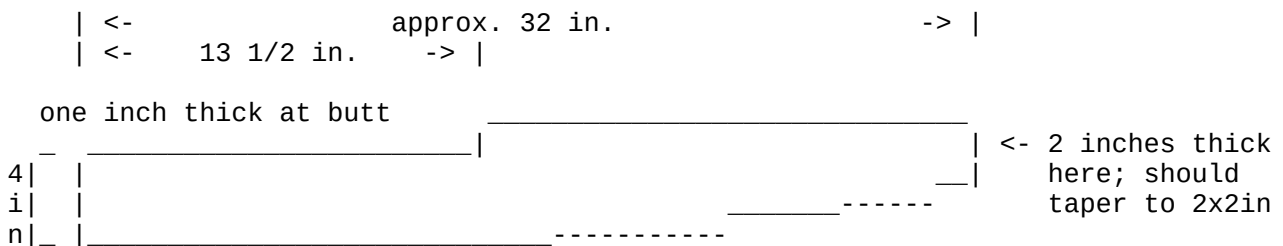
Procedure

1. Carefully inspect pipe and fittings:

- A. Make sure there are no cracks or other flaws.
- B. Check inside diameter of pipe. A 12 gauge shotgun shell should fit into the pipe but the brass rim of the shell should not.
- C. Outside diameter of the pipe must be at least 1 in.
- D. Screw the 3/4 in. - 1/2 in. pipe reducer onto the front end of the pipe. Sighting through the rear end of the pipe, ensure that the reduced 1/2 in. center hole is centered with respect to the side walls of the 3/4 in. pipe. Remove the pipe reducer and set aside for later use.

CAUTION: Do not use a pipe reducer that causes an offset center hole when it is tightened down on the end of the pipe.

2. Cut stock from wood using a saw:

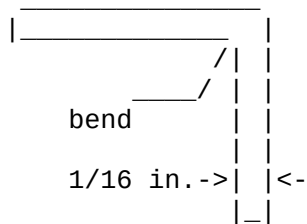


3. Cut 3/8 in. deep "V" groove into the top of the stock.
4. Turn the 3/4 in. pipe coupling onto the rear of the pipe.
5. Coat pipe and "V" groove of stock with shellac or lacquer and while still wet, place pipe in "V" groove and wrap pipe and stock together using two heavy layers of twine. Coat twine with shellac or lacquer after each layer.
6. Using a metal file, file the threaded end of the pipe plug flat. This allows a firm seat between the rear of the shotshell case and the end of the pipe plug. However, because of tapered screw threads on the pipe and pipe plug, the pipe coupler may prevent firm seating between the shotshell case and the pipe plug. If this is the case, fill the space between the pipe plug and the shotshell case with 1 in. steel washers with holes in the center of the firing pin to pass through.
7. Drill a hole through the center of the pipe plug large enough for a .08D nail to pass through.
8. Using the same size drill, drill a hole through the rear side of the pipe plug, perpendicular to and intersecting with the central firing pin hole. This is going to be used as a safety for the firing pin.
9. Push an .08D nail through the central firing pin hole and cut off flat 1/32 in. past the end of the pipe plug or the end of the last 1 in. steel washer.
10. Using a file, notch the firing pin nail where the side hole intersects with the central firing pin hole and file the end round.
11. Using a separate .08D nail, push it through the side hole. Note where it intersects the firing pin hole and file it flat, to half its normal thickness, from that point until it passes through the other side.
12. Insert the firing pin into the central firing pin hole, aligning the slot

in the firing pin with the safety hole in the side of the pipe plug.

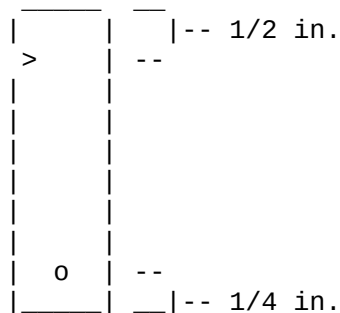
13. Insert the safety nail through the side hole so that it interlocks with the central firing pin. Bend the protruding end of the safety nail around the end pipe plug to ensure that the firing pin is locked into place.
14. Insert steel washers, if necessary, and screw end plug tightly into pipe coupler.
15. Bend a 4 in. metal strap into an "L" shape and drill a hole for the side pivot screw to pass through. Notch the metal strap on the long side, 1/2 in. from the bend.

| <- 1 1/2 in.->|



|.5 in|

|*| "*" = notch should go in 1/8 in.



|_ |
|
1/4 in.

16. Position the metal strap on the stock so that the top will hit the head of the nail. Attach to the stock using a wood pivot screw.
17. Place a screw on each side of the stock about 4 in. in front of the metal strap. Pass rubber bands through the notch in the metal strap and attach to screw on each side of the stock.
18. Two gas containment pistons should be made in the following manner:
 - A. Cut a 3/4 in. diameter wood dowel to a length of 1 1/2 in. Round the forward edges of the dowel off with file.
 - B. Attach a 3/4 in. diameter, 1/4 in. thick rubber or leather washer to the rearend of the wooden dowel with a thumb tack. If rubber or leather of the proper thickness is not available, the washer can be built up to 1/4 in. thick with successive layers of thin rubber or leather.
 - C. Cut a 3/4 in. diameter wine bottle cork to a length of 1 1/2 in.

D. Set both pistons aside for later use.

19. A launching platform should be made in the following manner:

- A. Drill a 1/2 in. hole approx. 1 in. deep in the center of the wood block. The 1/2 in. diameter, 30 in. long hard wooden dowel is to fit into this hole.
- B. Drill two 1/4 in. holes on opposite sides of the wooden support block. These holes should be drilled clear through the block for bolts to pass through.
- C. Using the supporting block as a template, mark the bolt holes on the bottom of a tin can which is large enough to hold either a fire bottle or hand grenade, then drill the two holes in the bottom of the can. Secure the can to the supporting block by placing 1/4 in. bolts through the bottom of the can and the block, securing with nuts.
- D. Push the 30 in. long, 1/2 in. diameter wooden dowel into the 1 in. deep hole in the bottom of the supporting block. Secure in place by driving a nail through the supporting block and into the center of the wooden dowel.

20. Prepare a 12 gauge shotgun shell in the following manner:

- A. Remove crimp from the shell with a pen knife. Pour shot from shell and remove the wads and plastic liner if present.
- B. Empty the propellant onto a folded piece of paper. Divide the propellant into thirds. Replace 2/3 of the propellant back into the shell case.
- C. Replace the 12 gauge cardboard wads back into the shell casing. If wads are not available, stuff tissue paper or cotton into the shell case and pack tightly.

How to Use

1. To load:

- A. Remove the firing pin plug from the rear of the pipe coupler.
- B. Insert the specially loaded 12 gauge shotgun into the rear end of the pipe.
- C. Insert steel washers if necessary and screw the pipe plug back into the rear pipe coupler until it seats against the base of the shell.
- D. Cover the 3/4 in. wooden dowel (gas containment piston) with Vaseline and insert in the forward end of the barrel. Using the launching platform as a ramrod, push the piston down against the shotgun shell in the rear of the launcher.
- E. Cover the 3/4 in. diameter wine bottle cork with Vaseline and press down against the wooden piston.
- F. Secure the 3/4 in. to 1/2 in. pipe reducer tightly to the forward end of the pipe barrel.
- G. Insert the 1/2 in. x 30 in. wooden dowel launching platform into the barrel through the center hole of the pipe reducer and seat

it against the cork secondary gas seal.

- H. Insert fire bottle, hand grenade, or pipe bombs into the tin can on the end of the launching platform.

Note: If a fire bottle is used, crumple paper and place in the bottom of the can. wrap more paper around the fire bottle and insert into the can. Use enough paper so the bottle will fit snugly.

2. To fire:

- A. Place stock of launcher against the ground and position the launcher at various degrees of elevation, in relation to ground level, so that variations of ranges can be achieved.
- B. Pull firing strap back with thumb. When ready to fire, release strap.

Chemical Fire bottle

Sec. V, No. 1

This incendiary is self igniting on target impact.

Materials

Source

Sulfuric acid	motor vehicles- batteries materials processing, industrial plants
gasoline	motor fuel
potassium chlorate	drug store
sugar	food store
glass bottle with stopper (1 qt. approx.)	
small bottle or jar with lid	
rag or absorbent paper (paper towels, newspaper)	
string or rubber bands	

Procedure

1. Sulfuric acid must be concentrated. If battery acid or other dilute acid is used, concentrate it by boiling until dense white fumes are given off. Container should be oven glass or enamel-ware.

CAUTION: Sulfuric acid will burn skin and destroy clothing. If any is spilled, wash it away with a large quantity of water. Fumes are also dangerous and should not be inhaled.

2. Remove the acid from heat and allow to cool to room temperature.
3. Pour gasoline into the large (1 qt.) bottle until it is approx. 2/3 full.
4. Add concentrated sulfuric acid to gasoline slowly until the bottle is filled to within 1 to 2 in. from the top. Place the stopper in the mouth of the bottle.

5. Wash the outside of the bottle thoroughly with clear water.

CAUTION: If this is NOT done, the bottle may be dangerous to handle during use.

6. Wrap a clean cloth or several sheets of absorbent paper around the outside of the bottle. Tie with string or fasten with rubber bands.

7. Dissolve 1/2 cup of potassium chlorate and 1/2 cup of sugar in one cup of boiling water.

8. Allow the solution to cool, pour into the small bottle and cap slightly.

CAUTION: Store this bottle separately from the other bottle.

How to Use

1. Shake the small bottle to mix contents and pour onto the cloth or paper around the large bottle.

Bottle can be used wet or after solution has dried. However, when dry, the sugar-Potassium nitrate mixture is very sensitive to spark or flame and should be handled accordingly.

2. Throw or launch the bottle. When the bottle breaks against a hard surface (target) the acid in the gasoline will react with the chlorate-sugar mixture and then ignite the gasoline.

Igniter from book matches

Sec. V, No. 2

This is a hot igniter made from paper book matches for use with molotov cocktails and other incendiaries.

Materials

paper book matches

adhesive or friction tape

Procedure

1. Remove the staple(s) from match book and separate matches from cover.

2. Fold and tape one row of matches.

3. Shape the cover into a tube with striking surface on the inside and tape. Make sure the folded cover will fit tightly around the taped match heads. Leave cover open at opposite end for insertion of the matches.

4. Push the taped matches into the tube until the bottom ends are exposed about 3.4 in.

5. Flatten and fold the open end of the tube so that it laps over about 1 in.; tape in place.

Use with Molotov Cocktail

Tap the "match end tab" of the igniter to the neck of the molotov cocktail.

Grasp the "cover end tab" and pull sharply or quickly to ignite.

General Use

The book match igniter can be used by itself to ignite flammable liquids, fuse cords, and other similar items requiring hot ignition.

CAUTION: Store matches and completed igniters in moistureproof containers such as rubber or plastic bags until ready for use. Damp or wet paper book matches will not ignite.

Mechanically Initiated fire bottle

Sec. V, No. 3

The mechanically initiated fire bottle is an incendiary device which ignites when thrown against a hard surface.

Materials

glass jar or short neck bottle with a leakproof lid or stopper

tin can or similar container just large enough to fit over the lid of the jar

coil spring (compression) approx. 1/2 the diameter of the can and 1 1/2 times as long

gasoline

four (4) "blue tip" matches (I think they are called Ohio kitchen matches)

flat stick or piece of metal roughly 1/2 in. x 1/16 in. x 4 in.

wire or heavy twine

adhesive tape

Procedure

1. Draw or scratch two lines around the can- one 3/4 in. and the other 1 1/4 in. from the open end.
2. Cut 2 slots on opposite sides of the tin can at the line farthest from the open end. Make slots large enough for the flat stick or piece of metal to pass through.
3. Punch 2 small holes just below the rim of the open end of the can.
4. Tape blue tip matches together in pairs. The distance between the match heads should equal the inside diameter of the can. Two pairs are sufficient.
5. Attach paired matches to second and third coils of the spring, using thin

wire.

6. Insert the end of the spring opposite the matches into the tin can.
7. Compress the spring until the end with the matches passes the slot in the can. Pass the flat stick or piece of metal through slots in can to hold spring in place. This acts as a safety device.
8. Puch many closely packed small holes between the lines marked on the can to form a striking surface for the matches. Be careful to not seriously deform the can.
9. Fill the jar with gasoline and cap tightly.
10. Turn can over and place over the jar so that the safety stick rests on the lid of the jar.
11. Pass wire or twine around the bottom of the jar. Thread ends through the holes in can and bind tightly to jar.
12. Tape wire or cord to jar near the bottom.

How to Use

1. Carefully withdraw flat safety stick.
2. Throw jar at hard surface.

CAUTION: DO NOT REMOVE SAFETY STICK UNTIL READY TO THROW FIRE BOTTLE. The safety stick, when in place, prevents ignition of the fire bottle if it should accidentally be broken.

Gelled flame Fuels

Sec. V, No. 4

Gelled or paste type fuels are often preferable to raw gasoline for use in incendiary devices such as fire bottles. This type fuel adheres more readily to the target and produces greater heat concentration.

Several methods are shown for gelling gasoline using commonly available materials. The methods are divided into the following catagories based on the major ingredient:

- 4.1 Lye systems
- 4.2 Lye-alcohol
- 4.3 Soap-alcohol systems
- 4.4 Egg white systems
- 4.5 Latex systems
- 4.6 Wax systems
- 4.7 Animal blood systems

I will type this one warning ONE TIME only!

CAUTION: Never at ANY time should you light up a cigarette while mixing flame fuels! No Smoking! Go smokeless!

Lye Systems

Sec. V, No. 4.1

Lye (also known as caustic soda or Sodium hydroxide) can be used in combination with powdered rosin or castor oil to gel gasoline for use as a flame fuel which will adhere to target surfaces.

Note: This fuel is not suitable for use in the chemical (sulfuric acid) type of fire bottle (Sec. V, No. 1). The acid will react with the lye and break down the gel.

Materials

Parts by volume -----	Ingredient -----	How used -----	Common source -----
60	gasoline	motor fuel	gas station
2 (flake) or 1 (powder)	lye	drain cleaner, making soap	food, drug store
15	rosin	manufacturing paint & varnish	naval stores industry
	or		
	castor oil	medicine	food and drug stores

Procedure

1. Pour gasoline into jar, bottle or other container. (Do not use an aluminum container).
2. If rosin is in cake form, crush into small pieces.
3. Add rosin or castor oil to the gasoline and stir for for about five (5) minutes to mix thoroughly.
4. In a second container (not aluminum) add lye to an equal volume of water slowly while stirring.
5. Add lye solution to the gasoline mix and stir until mixture thickens (about 1 minute).

Note: The sample will eventually thicken to a very firm paste. This can be thinned, if desired, by stirring additional gasoline.

Lye-Alcohol Systems

Sec. V, No. 4.2

Lye (also known as caustic soad or Sodium hydroxide) can be used in combination with alcohol and any of several fats to gel gasoline for use as a flame fuel.

Materials

Parts by volume -----	Ingredient -----	How Used -----	Common source -----
60	gasoline	motor fuel	gas station

2 (flake) or 1 (powder)	lye	drain cleaner making of soap	food, drug store
3	ethyl alcohol	whiskey	medicine, liquor store

Note: Methyl (wood) alcohol or isopropyl alcohol can be used, but they produce softer gels.

14	tallow	food, soap making	fat rendered by cooking the meat of animal
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Note: The following can be substituted for the tallow:

- A. wool grease (lanolin) (very good)- fat extracted from sheep wool.
- B. castor oil (good).
- C. Any fish oil.
- D. Butter or oleo margarine
- E. Any vegetable oil (corn, cottonseed, peanut, linseed, etc.)

It is necessary when using substitutes E and D to double the given amount of fat and lye for satisfactory bodying.

Procedure

1. Pour gasoline into bottle, jar or other container. (Do not use an aluminum container)
2. Add tallow or substitute to the gasoline and stir for about 1/2 min. to dissolve fat.
3. Add alcohol to the gasoline mixture.
4. In a separate container (Not aluminum) slowly add lye to an equal amount of water. Mixture should be stirred constantly while adding lye.
5. Add lye solution to the gasoline mixture and stir occasionally until thickened (about 1/2 hour).

Note: The mixture will eventually (1 to 2 days) thicken to a very firm paste. This can be thinned, if desired, by stirring in additional gasoline.

Soap-Alcohol system

Sec. V, No. 4.3

Common household soap can be used in combination with alcohol to gel gasoline for use as a flame fuel which will adhere to target surfaces.

Materials

Parts by volume -----	Ingredient -----	How used -----	Common source -----
36	gasoline	motor fuel	gas station, cars
1	ethyl alcohol	whiskey	liquor, drug store

Note: Methyl alcohol or isopropyl alcohol can be substituted for the whiskey.

20 (powder) or	laundry soap	washing	food store
----------------	--------------	---------	------------

28 (flake)

clothes

Note: Unless the word "soap" actually appears somewhere on the container or wrapper, a washing compound is probably a detergent. These cannot be used.

Procedure

1. If bar soap is used, carve into thin flakes using a knife.
2. Pour alcohol and gasoline into a jar, bottle or other containr and mix thoroughly.
3. Add soap powder or flakes to gasoline-alcohol mix and stir occasionally until thickened (about 15 minutes).

Egg systems

Sec. V, No. 4.4

The white of any bird egg can be used to gel gasoline for use as a flame fuel which will adhere to target surface.

Materials

Parts by volume -----	Ingredient -----	How used -----	Common source -----
85	gasoline	motor fuel	gas station
14	egg whites	food	food store, farm
Any one of the following:			
1	table salt	food	sea water natural brine, food str.
3	ground coffee	food	coffee plant food store
3	dried tea leaves		tea plant, food store
3	cocoa	food	cacao tree food store
2	sugar	sweetening	sugar cane, food store
1	saltpeter (potassium nitrate)	pyrotechnics explosives matches	drug store natural deposts
1	epsom salts	medicine mineral water industrial procs.	natural deposits kieserite drug, food store
2	washing soda (sal soda)	washing cleaner photography medicine	food store drug store photography store
1 1/2	baking soda	baking manufacture of	food store drug store

		beverages, mineral water and medicines	
1 1/2	aspirin	medicine	drug, food store

Procedure -----

1. Separate the egg white from yolk. This can be done by breaking the egg into a disk and carefully removing the yolk with a spoon.

Note: Do not get the yellow egg yolk mixed into the egg white. If egg yolk gets into the egg white, discard the egg.

2. Pour egg white into a jar, bottle, or other container and add gasoline.

3. Add the salt or other additive to the mixture and stir occasionally until a gel forms (about 5-10 minutes).

Note: A thicker gelled flame fuel can be obtained by putting the capped jar in hot (65 degree C) water for about 1/2 hour and then letting them cool to room temperature. (Do not heat the gelled fuel containing coffee).

Latex systems

Sec. V, No. 4.5

Any milky while plant fluid is a potential source of latex which can be used to gel gasoline.

Materials -----

Ingredient -----	How used -----	Common source -----
gasoline	motor fuel, solvent	gas station, motor vehicle
latex, commercial	paints, adhesives	natural or from tree or plant, rubber cement

One of the following acids:

acetic acid (vinegar)	salad dressing developing film	food stores fermented apple cider photographic supply
sulfuric acid (oil of vitriol)	storage batteries materials processing	motor vehicles industrial plants
hydrochloric acid (muriatic acid)	petroleum wells pickling and metal cleaning industrial processes	hardware store industrial plants

Note: If acids are not available, use acid salt (aluminum sulfates and chlorides other than sodium or potassiu). The formic acid from crushed red ants can also be used.

Procedure

1. With commercial rubber latex:

- A. Place 7 parts by volume of latex and 92 parts by volume of gasoline in bottle. Cap bottle and shake to mix well.
- B. Add 1 part by volume vinegar (or other acid) and shake until gel forms.

2. With natural latex:

- A. Natural latex should form lumps as it comes from the plant. If lumps do not form, add a small amount of acid to the latex.
- B. Strain off the latex lumps and allow to dry in air.
- C. Place 20 parts by volume of latex in bottle and add 80 parts by volume of gasoline. Cover bottles and allow to stand until a swollen gel mass is obtained (2 to 3 days).

Wax systems

Sec. V, No. 4.6

Any of several common waxes can be used to gel gasoline for use as a flame fuel which will adhere to target surfaces.

Materials

Parts by volume -----	Ingredient -----	How Used -----	Common source -----
80	gasoline	motor fuel, solvent	gas station, vehicle

Any one of the following:

20	Ozocerite mineral wax fossil wax ceresin wax	leather polish sealing wax candles crayons waxed paper textile sizing	natural deposits general stores department store
	beeswax	furniture and floor waxes artificial fruit lithographing wax paper textile finish candles	honeycomb of bee general store department store
	bayberry wax myrtle wax	candles soaps leather polish medicine	natural form myrica berries general store department store

Procedure

1. Obtaining wax from Natural sources: Plants and berries are potential sources of natural waxes. Place the plants and/or berries in boiling water. The natural waxes will melt. Let the water cool. The natural waxes will form a solid layer on the water surface. Skim off the solid wax and let dry. With natural waxes which has suspended matter when melted, screen the wax through a cloth.
2. Melt the wax and pour into jar or bottle which has been placed in a hot water bath.
3. Add gasoline to the bottle.
4. When wax has completely dissolved in the gasoline, allow the water bath to cool slowly to room temp.

Note: If a gel does not form, add additional wax, (up to 40 % by volume) and repeat the above steps. if no gel forms with 40 % wax,, make a lye solution by dissolving a small amount of lye (sodium hydroxide) in a equal amount of water. Add this solution (1/2% by volume) to the gasoline wax mix and shake bottle until get forms.

Animal blood systems

Sec. V, No. 4.7

Animal blood can be used to gel gasoline for use as a flame fuel which will adhere to target surfaces.

Materials

Parts by volume -----	Ingredient -----	How used -----	Common source -----
68	gasoline	motor fuel	gas station, cars
30	animal blood serum	food, medicine	slaughter house natural habitat
Any one of the following:			
2	salt	food, industrial processes	sea water natural brine food store
	ground coffee	food beverage	coffee plant food store
	dried tea leaves		food store
	sugar	sweetening	sugar cane food store
	lime	mortar plaster medicine ceramics steel making	from calcium carbonate hardware store drug store garden supply
	baking soda	baking	food store

	beverages	drug store
	industrail prcs.	
epsom salts	medicine	drug store
	mineral water	natural deposits
		food store

Procedure

1. Preparation of animal blood serum:

- A. Slit animal's jugular vein. Hang upside down to drain.
- B. Place coagulated (lumpy) blood in a cloth or a screen and catch the red fluid (serum) that drains through.
- C. Store in cool place if possible.

CAUTION: DO not get aged blood serum into an open cut. This can cause infections.

2. Pour blood serum into jar, bottle, or other container and add gasoline.

3. Add the salt (or other additive) to the mixture and stir until a gel forms.

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