

A Handbook for

FIRE WATCHERS



United States
OFFICE OF CIVILIAN DEFENSE
Washington, D. C.

A Handbook for
FIRE WATCHERS



Prepared by the Training Section

United States
OFFICE OF CIVILIAN DEFENSE


U. S. Government Printing Office, Washington, D. C., January 1942.

PREFACE

This is one of a series of civilian defense handbooks prepared by the United States Office of Civilian Defense. The purpose of each handbook is to instruct the individual enrolled civilian defense worker in his duties, and to serve as a manual for reference.

The measures for safeguarding civilians against the effects of air attack, which are described in the following pages, have become a necessary part of the defensive organization of any country open to air attack.

Every State and municipality should take such legal or administrative action as may be necessary to provide for the organization, direction, and training of its Decontamination Squads.



F. H. LaGuardia,
U. S. Director Civilian Defense.

Washington, D. C.
December 1941.

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This Book Belongs to:

(First name)

(Initial)

(Last name)

My Home Address Is:

My Telephone Number Is:

I Am _____ Fire Watcher.

Post No. _____, city of _____

State of _____

In case of emergency, notify:

A Handbook for

FIRE WATCHERS

Chain of Command for Fire Watchers.

In a local plan for Civilian Defense, the Fire Watchers Service comes under the command of the Senior Air Raid Warden; however, when bombs begin to fall, the Fire Watcher is expected to act often on his own initiative. He may be assigned to work alone or with a small group, but his is the individual responsibility for spotting and combating incendiary bombs and if possible, preventing these bombs from starting fires.

The Fire Watcher's Station.

The basic unit of Civilian Defense against air attack is a Sector containing the homes of about 500 persons. Its extent will depend on the character of the homes or buildings. One apartment house may easily accommodate 500 persons. Where detached houses are the rule, a number of blocks or squares may form a sector. Each sector or large building is served by an Air Raid Warden Post. Within each sector, stations for Fire Watchers will be established on high places such as roofs, towers, etc. so that all roof areas in the sector may be watched from the fewest stations. Stations should be so located that they can be reached quickly and provision should be made for storage of the necessary equipment.



Place watchers on high places, standpipes, steeples, etc., so that all roof areas can be watched with the fewest posts.

Number of Fire Watchers.

There will be from 10 to 50 Fire Watchers for each 500 persons. Their exact number depends upon the character of the Sector and the inflammable material in the houses or buildings.

In addition to the regular Fire Watchers responsible for a sector, there will be many individual householders or employees in buildings performing the task of spotting incendiaries on their own premises. Actually, every person in a sector must watch for fires, but special reliance must be placed upon the skill and ability of the trained personnel.

Equipment of Fire Watchers.

Each Fire Watcher should be supplied with the necessary tools. These tools will be distributed by the Senior Air Raid Warden of the Sector unless some other arrangement is followed locally. Tools will be furnished on a loan basis and the utmost care should be taken of them. Should any of his tools become damaged, the Watcher should report the matter at once to his superior so that they may be repaired or replaced. Equipment should be kept at a convenient location in accordance with specific plans adopted locally.

Equipment may consist of the following types:

1. Pack-type pump containing approximately $7\frac{1}{2}$ gallons of water and contained pump similar to stirrup type.

This pump is for use in combatting fire caused by an incendiary bomb and is easily carried.

2. Extra buckets for carrying water for pump. Since the water supply may be outside the building where bomb is being tackled, it may become necessary to send for more water. A reserve supply should be stored in the buckets at all times.

3. Bucket for sand.

If the Fire Watcher is not issued a pack-type water pump, he will combat incendiaries by the sand method.

4. Long-handled shovel or scoop.

This shovel or scoop is for covering the incendiary with sand or dirt, for lifting the sand-covered incendiary into sand bucket, and for carrying bucket containing incendiary outside the building.

5. Hand axe or hatchet.

The hand axe or hatchet is for use in event an incendiary crashes through roof and attic flooring into the space between floor and ceiling, or through the sidewall of frame house, lodging between outer and inner walls. It may become necessary for the Fire Watcher to chop away portions of the floor or wall to reach the bomb.

6. Flashlight.

The Fire Watcher may need to use light in searching through attics, sidewalls, or roof spaces of houses in which an incendiary has fallen. Care should be taken at all times to make certain the light does not become visible during a blackout.

Fire Watchers should know the location of these items and of all other pumps and extinguishers near their stations, and be able to find them quickly under any condition

Your Duties as a Fire Watcher.

You have been chosen as a Fire Watcher because you are known to be reliable and responsible and

because you have the needed qualities of stamina, ability to endure smoke and heat, and courage.

In your Sector are the homes of some hundreds of your friends and neighbors. It is your responsibility to see that everything possible is done to protect those homes or buildings against fire caused by incendiary bombs.

As a Fire Watcher you have certain specific duties to perform. You must study them, review them, practice them over and over so that you may carry them out in an air raid without failure or error. You must know your sector as intimately as others know their own homes.

You must know your people well. To them, you are both instructor and protector. In every way, you must seek to gain their confidence so that in time of stress you may more easily aid them or direct them.

You are not a policeman, nor are you a fireman, but *within the limits of your authority*, you have some duties like theirs. Yours is a preventive job. You should endeavor to persuade people to follow the Warden's suggestions or directions for fireproofing homes and other buildings. Report any cases of noncompliance to the Senior Warden. This preparatory work will help you in combatting any flames caused by incendiaries.

No fire department in the world could cope with a great conflagration that could be caused by incendiary bombs. You must prevent the conflagration. The great fire of London, caused by incendiaries, must not be repeated in this country. You have a position of leadership and trust that demands an effort not less than your best.

Duties Preliminary to an Air Attack.

There are several methods of treating attics of houses and buildings so as to lessen the danger of incendiary fire. You are charged with the responsibility of instructing your friends and neighbors in your sector as to these methods and seeing that they are followed. There are also various methods of combatting an incendiary bomb. You must see that these methods are known to the people in your sector and that they are prepared to use them. And finally, you must take an active part in combatting incendiaries. You must watch them fall and must put them out.

Detailed Knowledge of the Sector.

Fire Watchers should draw maps of the area assigned to them to show location of:

- A. All buildings, the character of each, and access doors to roofs and attics.
- B. Fire hydrants, alarm boxes, auxiliary water storage, fire stations, and reserve supplies of sand or dirt.
- C. Places of special danger, such as oil storage tanks, filling stations, lumber yards, other highly inflammable materials, fire-trap houses.
- D. Police stations, first-aid posts, hospitals, decontamination stations, road repair stores, and other organized services of Civilian Defense.

It is not enough to assemble this information on a map. As a Fire Watcher, you must know it by heart, and be able to find any required position or place in a complete blackout.































Detailed Knowledge of the People.

Your neighbors must be studied carefully as to temperament and ability to assist in emergency.

You should know all persons with special training useful in fighting fire.

Standard Map Symbols.

Use these standard symbols on your map—they are intended to make clear the facts you and others will need to know in a hurry.

| | |
|--|--|
|  Warden's Post |  Bomb Crater |
|  Fire Watcher's Station |  Roped-off Area |
|  Fire Alarm |  Street Car Tracks |
|  Telephone |  Double Tracks |
|  Air Raid Shelter |  Cisterns or Water Reserves |
|  Gas-Proof Air Raid Shelter |  Sector Limits |
|  Entrance to Shelter |  Zone Limits |
|  Fire Station |  Site of Gas Bomb |
|  Decontamination Squad Depot |  Contaminated Area (For large area, blue cross-hatch) |
|  Repair Squad |  Street Lamp |
|  Casualty Station |  Fire Hydrant |
|  Decontaminating First Aid Station |  Sewer Gratings |
|  Bomb Squad Station |  Manhole |
|  Location of Incident (Show number in center) |  Tree |
|  Demolished Building |  Sandbags |

Training Selected People.

Certain people in every Sector should be selected and trained to assist the Fire Watchers. Some people will be needed to carry extra supplies of water, to furnish sand or dirt for combatting an incendiary; and many should be trained to do the same work as yourself.

The Fire Watcher in War.

In time of war or other emergency, think of yourself first as a leader chosen from the neighborhood to do the right thing, with your neighbors and for them. The keynote of your conduct must be courage and presence of mind. You have been selected by the Senior Air Raid Warden to fill a position of trust.

Air Raid Warning.

When the air raid warning signals sound, put on your arm band, secure your personal equipment and go to your post. Reassure all those you meet that the services of Civilian Defense are on the job and will watch over them.

First Duties Following an Air Raid Warning.

As soon as you reach your station, make a quick survey to see if any incendiaries might have fallen from a plane unheard during the sounding of the warning. See that your equipment is ready for instant action. Then settle down to your vigil. You must keep sharp watch at all times for the flare of an igniting incendiary bomb. Make sure that you have shelter from

possible bomb splinters. You will be required to remain at your post throughout the bombing attack, or, in the case of a long alert, until relieved by order of the Senior Warden of your sector.

When Bombs Fall.

If small incendiary bombs lodge in nearby buildings, your first duty is to warn the occupants, then deal with the fire. Put out the fire if you can do so quickly and then report the locations of these bombs immediately by telephone to the designated Warden's Post or Fire Report Center. If you cannot put the fire out alone, send a report immediately that help is needed.

Where and How to Report.

On the opposite page is a model for reports which you are to make on each incendiary bomb incident. As soon after an air raid as you have all required information, make a report following this form. Include ALL the information that is pertinent. Your Air Raid Warden needs this information for his report for the Sector.

If unusual difficulty was met with in extinguishing an incendiary bomb, report the details to the Air Raid Warden. It might be a new type of bomb. If it is difficult to reach the roof or attic of certain buildings or houses, report in detail. Means may be devised by which you will be enabled in the future to keep a closer watch on the surrounding property and gain easier access in event a bomb falls.

ADMINISTRATIVE OFFICERS
AND PLACE TO REPORT

This is post No. _____ City _____

Senior Warden _____

Home address _____

Telephone _____ Alternate phone _____

Location of post _____

Telephone _____ Alternate phone _____

Alternate place to report fires _____

Address _____

Telephone _____

Special instructions on reporting:

FIRE WATCHER'S REPORT FORM

(Form of Report to Designated Center)

Commence with the words "INCENDIARY
BOMB INCIDENT."

Designation of REPORTING AGENT:

(Fire Watcher _____)

POSITION OF occurrence:

Exact location in house or building:

Damage:

Time of occurrence (approximate):

Unusual difficulty in extinguishing bomb:

Unusual difficulty in reaching bomb:

Remarks:

Finish with the words "REPORT ENDS."

See that each report you send contains all the pertinent information included in the table above. Do not use this page for reports—it is a check list to help you make sure you have included everything.

Methods of Combatting Incendiary Bombs.

Several types and sizes of incendiary bombs have been tried at one time or another by different countries, but the kind most likely to be used, because of its effectiveness, is a bomb commonly referred to as a magnesium bomb, probably weighing no more than 2 pounds. As many as 2,000 of these bombs can be carried in a modern bombing plane. This type of bomb easily penetrates roofs or even side walls of frame buildings.

Magnesium bombs consist of a thick-walled tube 9 inches long and 2 inches in diameter, made of an alloy of magnesium with a small proportion of aluminum. On one end of this bomb is a tail 5 inches long to steady it in flight. The bomb is filled with an igniting compound of the thermit type. The detonating unit to set off the ignition charge may be located in either the nose or tail of the bomb. The bomb functions on impact.

Recently an explosive charge has been added to some of these bombs to make them more difficult to combat. The explosive charge goes off approximately 2 minutes after the bomb strikes.

The usual type of electron bomb (i. e., without explosive charge) gives forth a violent reaction during the first minute or so following impact. The thermit igniting compound spews out of vent holes near the end and pieces of molten magnesium may be thrown as far as 50 feet. After the first minute, the bomb becomes less active because the magnesium tube melts and the pressure within is released.

The bomb burns for as long as 20 minutes after impact but usually burns itself out in 10 to 15

minutes. Experience has shown that in a bombing attack on a modern city about 1 out of 6 bombs starts a fire while the other 5 bombs fall into streets, gardens, or other open places where they can be permitted to burn themselves out.

Treatment of Attics.

A considerable degree of protection can be given to a floored attic or roof space by covering the floor with a 2-inch layer of sand, cinders, ash, or dirt. A netting of chicken-wire should be placed 6 inches to a foot above this layer of protective material. The bomb, crashing through the roof, would then fall into the chicken-wire netting and burn out there, with the molten magnesium falling on the protective materials. There is danger that the bomb might penetrate sand, dirt, cinders, or ash if it fell directly on them.

Upper woodwork should be protected with the flame resisting paint or whitewash. Ordinary whitewash it is found to give fairly satisfactory protection for woodwork above the fallen bomb. It will not protect any wood on which the bomb might be lying.

Inflammable materials should be removed from the attic. An accumulation of the usual "junk" in attics makes the task of combatting an incendiary even more difficult. Several buckets of dry sand or water should also be kept in or handy to the attic at all times.

Magnesium Bombs.

As previously emphasized, it is clearly of the utmost importance that the magnesium bomb should be tackled as soon as it falls if possible.

Wherever there is inflammable material about, the bomb will start a fire immediately and this should be dealt with first. Care should be taken to direct the stream of water into the seat of the fire and not indiscriminately into the smoke and flame.

When water is applied to a bomb, the effect is not to extinguish the burning magnesium, but to cause accelerated combustion so that the bomb, instead of burning in the ordinary way, obtains an increased supply of oxygen and burns out in about two minutes. Hydrogen is released from the water and burns in the air above the bomb.

If, therefore, too much water is applied at one time, the effect is of an explosive character. Water applied as a jet produces this effect and scatters the burning magnesium, pieces of which might strike the Fire Watcher or spread the fire. Water applied to the bomb in the nature of a spray does not produce this effect, but causes the magnesium to be rapidly consumed. Meanwhile, the surroundings are kept wet and the fire is prevented from spreading. The hose connected to the back-type handpump should therefore have a dual purpose nozzle, one that can throw a jet or a spray.

If a spray nozzle is not available, a satisfactory coarse spray can be obtained by placing a finger or thumb across the jet nozzle.

Whether the fire or the bomb should be tackled first must depend on the seriousness of the fire. The fire must not be allowed to spread or get out of control, but on the other hand, water should be sprayed on the bomb as early as possible to prevent the metal from burning through the floor.

It will usually be necessary to control the fire with the jet, then use the spray to deal with the bomb, and finally to extinguish the fire with the jet. Care should be taken in approaching the bomb for the first minute or two while the igniting compound is giving forth its violent reaction.

It is desirable to have at least two persons tackle each incendiary bomb, one to operate the back-pack pump and one to carry spray buckets of water. However, one person can usually do the work in an emergency.

If a pump extinguisher is not available, then the bomb should be covered with sand or dirt. This is why every attic should have buckets of water or sand kept in it.

To cover an incendiary bomb with sand or dirt, the Fire Watcher should use a long-handled shovel or scoop. Cover the bomb, wait for any violent sputtering to stop, then, using the shovel, scoop up the bomb and sand and deposit it in the bucket. Leave several inches of sand in the bucket. Then, using the shovel as a lever, lift the bucket and carry it outdoors. The sand or dirt will not extinguish the bomb, but it will slow down its rate of burning. After removing the bomb, make sure all fire in the woodwork of the house is extinguished.

A wet blanket folded and slung across the arm will help to provide protection against the heat and sputtering of magnesium.

Oil and Gasoline Bombs.

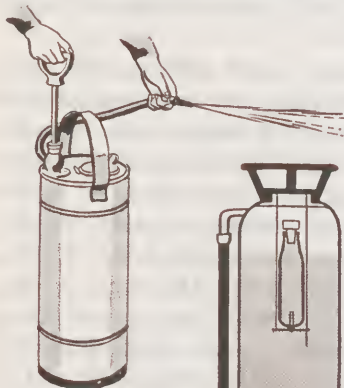
Although these materials, on burning, liberate a great deal more heat than magnesium, they are not suitable for incendiaries for use in small bombs. A gasoline bomb weighing as much as a magnesium

bomb would certainly contain only one pint of gasoline. The incendiary effect of oil or gasoline is almost entirely upward. A large amount can be burned on a floor without even scorching the wood. The fire can be smothered with sand or similar material. The most effective extinguisher for oil or gasoline is a foam appliance; however, water will extinguish small amounts of the inflammable material. Care should be used in this type of incendiary so that the flaming liquid is not spread by the water.

About Fire Extinguishers.

Many houses and public buildings have fire extinguishers. They will be as useful as ever in putting out fires caused by an incendiary bomb.

(See page 31 for precautions.)



A simple pump-tank extinguisher. Can be refilled during use.



Soda-acid type. Turn upside down. Chemicals create pressure, do not affect fire which is quenched by water stream.



Foamite extinguisher. Turn upside down. Chemicals create blanket over fire.

Thermit Bombs.

Compositions of the thermit type are most frequently used as priming agents as for the magnesium alloy bomb. Thermit was used in the First World War as an incendiary bomb filler but was not considered efficient. Thermit is a mixture of iron oxide and *granulated aluminum*, which on burning liberates molten iron. Although thermit produces a very high temperature that enables it to penetrate even through thick steel, it burns much more rapidly than magnesium and generates less heat for weight volume.

Nothing can be done to extinguish the thermit while the initial reaction takes place, but surroundings can be wetted down to keep them from bursting into flames. The room or space below must also be taken care of as the molten iron will run quickly through floor cracks and burn holes in the floor.

Final Precautions.

Never leave a house or building into which an incendiary bomb has fallen without making a thorough check of the premises. Experience abroad has shown that often more than one bomb will have struck. It is of no use to remove one source of danger only to find later that the house has been gutted by a second incendiary bomb. Search the house from attic to cellar. Quite often an incendiary bomb will have struck the side of the house and crashed through the wooden wall, or through a window. Make sure that no possible source of fire remains.

Check carefully the eaves and gutters. A bomb might be lodged where you cannot easily see it.

Approach all incendiary bombs with caution. You must use reasonable care in tackling them.

Keep all doors closed. A closed door will hold back heat and smoke almost indefinitely and will hold back flame for a considerable time. It will also restrict the movement of air currents.

If you have to search a whole house, start at the top and work down to the comparative safety of the lower floors.

Any fire will create smoke. Air near the floor will be comparatively free of smoke, and will be cooler. Therefore, in a room filled with smoke, always crawl with the mouth as near the floor as possible. The air will be purer, one can see better, and there is not the danger of falling over things.

If you have to open a door towards you, when there may be a fire on the other side, place one foot about 3 inches away from the opening edge. The door will be checked after swinging open a few inches, you will be protected by the door itself, and you can shut it again if necessary. Hot gases are generated by fire and if the door is not checked, it may burst open and flames and smoke and hot air may overcome anyone on the other side.

If the room is on fire, keep the door closed until your equipment is ready, then, cautiously opening the door, examine the situation. Study the nature of the fire and turn your jet of water on it. The ordinary pack-type extinguisher can handle most room fires if they are located early enough. If the fire is beyond your control, send in a report as you have been instructed.

This Page Is for Watcher's Notes.

This Page Is for Watcher's Notes.

BLACKOUTS

Blackouts are ordered only on the authority of the War Department. A blackout may be ordered during any period when hostile forces are believed to be in the vicinity, whether or not enemy airplanes have been sighted.

"Blacking Out" a city means that light sources must be so hidden or dimmed that an enemy bomber will have difficulty in finding the target and lack aiming points such as main street intersections. Following are the general plans used.

Street Lights. These are fitted with low-watt bulbs and covers that diffuse the light.

Automobiles. Headlights must be covered except for a small pair of slits and hooded.

Traffic Lights. Are treated the same way as automobile headlights.

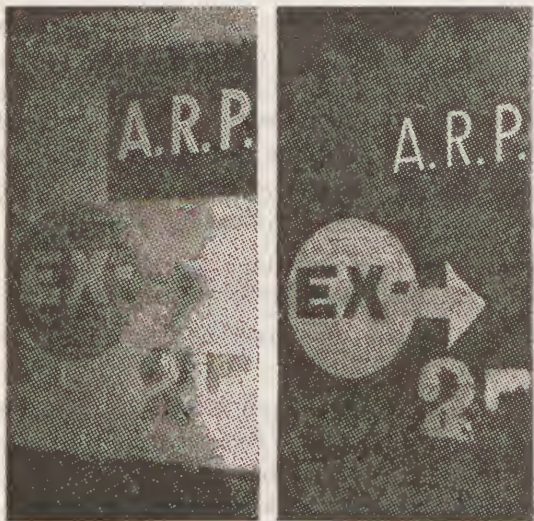
Buildings. Windows and doors must be covered with opaque materials. Paint on the glass, heavy curtains, light "baffles" or screens are some of the ways. No cracks of light must show.

Aids to Seeing. Since people have to move about during a blackout, the lack of light may be somewhat offset and safety promoted by—



1. Painting curbs, trees, poles and hydrants with white paint. There is a luminous paint, also, that gives off a faint blue light quite visible in total darkness.

2. Painting signs of luminous paint or making them of fluorescent material on which shines ultra-violet or "black" light or installing dimly lighted signs with horizontal screens to diffuse the light.



3. Painting white fenders and stripes around automobiles.

Members of the Citizens' Defense Corps who have outside duties during a blackout can be identified more easily if they wear a white cap or white-painted helmet; also a white belt fitted with crossed straps over the shoulders.



Individual Conduct During a Blackout.

Observe traffic rules. Keep to the right and remember the man or vehicle approaching *from* your right *has* the right of way.

If you must smoke, go into a hallway or covered place to strike the match. No smoking in the open is an even better rule. Make all crossings at intersections. It is hard for a driver to see you.

Be sure that everyone you know is acquainted with these simple rules.



DO NOT run when air raid warnings sound after dark during blackouts.



Use your flashlight as little as possible, if at all. Never point it upward.



Curb edges and direction signs painted white will help you find your way.



Keep pets on leash if you take them out after dark.



If an air raid warning sounds, get under cover, you may be hit by shell fragments.



If you don't know the neighborhood the first policeman or warden will tell you where to go.



When an observer sights a group of hostile planes, he picks up his telephone (1) and says *Army Flash*. The Central Operator (2) at once connects him with the assigned Filter Center (3) to which he reports the type of planes, number, height, and direction of flight. When several reports agree, watchers transmit the data to an Information Center (4) where developments over a large area are plotted on a huge map.

Watching the map, Air Corps officers order interceptor planes into the air, (5) direct them to contact with the enemy; another officer notes the cities threatened and flashes a yellow, blue, or red alarm, according to the degree of danger, to the proper Warning District Center (6).

At this point, Civilian Defense takes over from the Air Corps, telephones the warnings to Control Centers (7) within the Warning District. And here the Commander of the local Citizens' Defense Corps orders the alert, has the public warning sounded usually short blasts on air horns, power horns or steam whistles or on the wailing sirens—and if the bombers arrive overhead, directs the operation of passive defense. Learn the air raid warning for your city.

FLASH



2



3



4

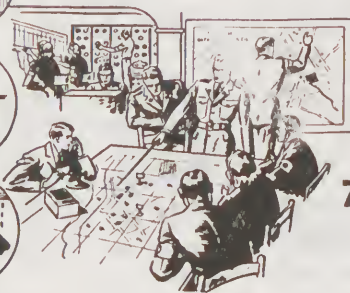
6



5



7





The Refuge Room

WHAT TO DO IN AN AIR RAID

At the yellow warning, if you are not already on duty, you will be summoned to your post and will carry out orders until relieved. However, here are the rules for those who do not have assigned duties when the air raid warning comes. Memorize them carefully so that you can in turn instruct others. Here is what to tell them:

1. If away from home, seek the nearest shelter. Get off the street.
2. If you are driving, first park your car at the curb; be sure all lights are shut off.
3. If you are at home, send the others to the refuge room. This should be a comfortable place with as little window exposure as possible, equipped with drinking water, things to read, toilet facilities, a flashlight, a portable radio, a sturdy table, and food if you like.
4. Turn off all gas stove burners but leave pilot lights, water heaters and furnaces alone. Leave electricity and water on. Fill some large containers or a bathtub with water.
5. Check up on blackout arrangements. Don't let a crack of light show to the outside.



6. See that everyone's eyeglasses and dentures are in the refuge room. There should be additional warm garments for everyone, too.

7. Keep out of line of windows. Fragments and glass splinters cause most casualties.

8. If bombs fall nearby, get under a heavy table, an overturned davenport.

9. Don't rush out when the "all clear" signal sounds. Maintain the blackout. The Raiders may return.

10. Otherwise, keep cool; be sensible and set an example to others.

FIRE DEFENSE

IT WILL BE VERY DIFFICULT TO FIGHT A MAGNESIUM BOMB UNLESS SOME WORK IS DONE BEFORE THE ATTACK



ALL FURNITURE TRUNKS AND JUNK OF ALL KINDS SHOULD BE REMOVED FROM ATTIC OR TOP FLOOR!

ROOF BEAMS JOISTS AND STUDS CAN BE TREATED TO RESIST FLAME — GIVING MORE TIME TO REACH THE BOMB



PAINT DOES NO GOOD! A HEAVY COAT OF ORDINARY WHITEWASH HELPS SOME

HOW THE MAGNESIUM BOMB WORKS

THE MOST EFFECTIVE INCENDIARY BOMB MADE SO FAR IS THE MAGNESIUM BOMB



LENGTH, ABOUT 14" WEIGHT, 2.2 POUNDS

A LARGE BOMBER CAN CARRY 1000 SUCH BOMBS!



THEY ARE USUALLY RELEASED 20 TO 50 AT A TIME, SPREAD LIKE SHOT BEFORE STRIKING.

DROPPED FROM A HEIGHT OF 20,000 FEET, THEY DEVELOP ENOUGH FORCE TO PENETRATE AN AVERAGE ROOF...



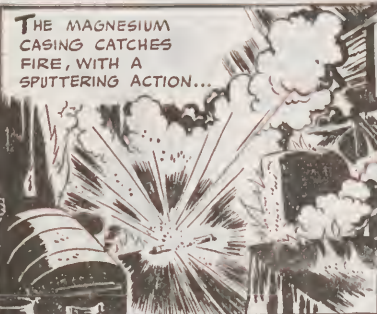
...THUS, THEY USUALLY START BURNING IN A TOP STORY OR ATTIC

THE THERMITE FILLING OF IRON OXIDE AND FINELY DIVIDED ALUMINUM IS THEN IGNITED AND DEVELOPS A FIERCE HEAT OF OVER 4500 DEGREES!



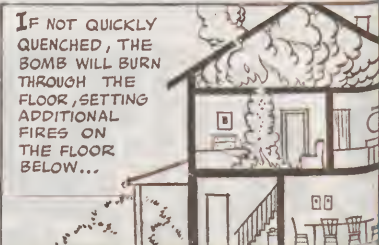
THE FLAME ROARS OUT OF THE ESCAPE HOLES.

THE MAGNESIUM CASING CATCHES FIRE, WITH A SPUTTERING ACTION...



...FLAMING MOLTEN METAL IS THROWN ABOUT AND SURROUNDING INFLAMMABLE MATERIAL CATCHES FIRE

IF NOT QUICKLY QUENCHED, THE BOMB WILL BURN THROUGH THE FLOOR, SETTING ADDITIONAL FIRES ON THE FLOOR BELOW...



BUT, WITH PROMPT ACTION AND SIMPLE TOOLS, A MAGNESIUM BOMB CAN BE QUENCHED!

CONTROLLING WITH WATER

TO FIGHT A BOMB WITH WATER, YOU NEED TWO MEN AND SPECIAL EQUIPMENT. REMEMBER, YOU CAN'T PUT OUT THE BOMB — YOU FEED IT WATER, TO BURN OUT!

ONE MAN PUMPS 80 STROKES A MINUTE TO KEEP A STRONG ENOUGH PRESSURE TO THROW A JET 30 FEET, AS SPRAY, 15 FEET. ONE MAN FIGHTS THE FIRE.

YOU USE UP A BUCKET IN 1½ MINUTES

SPECIAL DOUBLE ACTION PUMP WITH 30 FEET OF HOSE AND SPECIAL NOZZLE NEEDED.



SPRAY ON BOMB

A THIRD PERSON IS MOST USEFUL TO CHECK OTHER POINTS FOR FLAME REPLENISH WATER AND RELIEVE PUMPER.

AMPLE STORAGE OF WATER SHOULD BE PROVIDED IN ADVANCE, AS WATER MAINS MAY BE BROKEN BY HIGH EXPLOSIVES AND PRESSURE LOST! FILL THE TUB, EXTRA PAILS AND DON'T FORGET IN A PINCH —

THE CONTENTS OF HOT WATER OR HEATING BOILERS!

NEVER THROW THE CONTENTS OF A WATER PAIL ON A BOMB!

IF CONTROL OF THE BOMB SEEMS DOUBTFUL, HAVE AN ALARM TURNED IN, BUT CONTINUE FIGHTING THE BOMB UNTIL HELP ARRIVES OR SUPPLIES ARE EXHAUSTED!

1 LEARN NOW HOW TO CALL

2 LEARN NOW LOCATION OF NEAREST ALARM...

... IT WILL SCATTER WITH EXPLOSIVE VIOLENCE!

MILTON CANIFF

CONTROLLING WITH SAND

APPROACH THE BOMB IN A CROUCHING OR CRAWLING POSITION. PLACE THE SAND BUCKET, UPSET, TO ALLOW A FULL-ARM SWING TOWARD THE BOMB



TRY TO COVER THE BOMB WITH DRY SAND, TO CONFINE IT'S ACTION, SO THAT YOU CAN GET NEAR ENOUGH TO SCOOP IT UP ON THE SHOVEL



WHEN THE BOMB IS UNDER FAIR CONTROL, SCOOP IT UP ON THE SHOVEL, FIRST RIGHTING THE BUCKET, BUT LEAVING SOME SAND IN THE BOTTOM...



... IF THE BOMB CAN BE DROPPED FROM A WINDOW TO SOME PLACE WHERE IT CAN BURN OUT WITHOUT HARM —

GET RID OF IT THAT WAY!



... OTHERWISE, PUT IT, IN THE BUCKET ON TOP OF SAND, COVER IT WITH MORE SAND ...



... THEN, HOLDING THE BUCKET ON THE SHOVEL, CARRY IT OUT OF THE HOUSE ...





ABOUT FIRE EXTINGUISHERS

Many houses and public buildings have fire extinguishers. They will be as useful as ever in putting out fires caused by an incendiary bomb. For putting out the bomb itself, the extinguisher may not be suitable.

Read the label. If it says that the contents include **CARBON TETRACHLORIDE**, it cannot under any circumstances be used on a magnesium bomb. It is not only ineffective, it may cause dangerous gas to be generated. After the bomb is burnt out, use it on any remaining fire.

All water-type extinguishers are suitable. If the label says **SODA-ACID**, that's simply a means of creating pressure in the extinguisher. Turn it upside down, use it. You can get a spray effect by putting the thumb over the nozzle, use the jet on surrounding fires. However, *one extinguisher is not enough to burn out a magnesium bomb*. And you cannot refill the extinguisher.

It is best to have sand or pump-bucket equipment handy, use them on the bomb, and save the extinguishers for resulting fires.

A foam extinguisher will also help to control a bomb, but one extinguisher load will not finish the job.

See that the extinguishers you know about are ready for use.




























CHEMICAL WARFARE AGENTS

REFERENCE AND TRAINING CHART

The importance of proper first aid for gas victims cannot be overemphasized. The following are general rules which apply in all cases.

- C. Keep the patient at absolute rest; loosen clothing to facilitate breathing.
- D. Remove the patient to a gas-free place as soon as possible.
- E. Summon medical aid promptly; if possible, send the victim to a hospital.
- F. Do not permit the patient to smoke, as this causes coughing and, hence, exertion.

| HOSPITAL CASE | FIRST AID STATION | LUNG PROTECTION NEEDED | COMPLETE PROTECTION NEEDED |
|---|---|---|--|
|  |  |  |  |

| CLASS | NAMES AND SYMBOLS | FORM | ODOR | PERSISTENCE | TACTICAL CLASS | PROTECTION | FIRST AID (After removal from gassed area) | PHYSIOLOGICAL EFFECT |
|----------------|--|------------------|---|--|---|--|--|--|
| VESICANTS | MUSTARD <small>PC-CASUITY, DRYING</small> | LIQUID AND VAPOR |  Earthy, Mustard, Mustard | One day to one week. Longer if dry or cold. |  |  | Debrass: remove liquid mustard with protective ointment, blanch parts, or kerosene; bathe; wash eyes and nose with soda solution. | Delayed effect. Burns skin or membrane. Inflammation respiratory tract, leading to pneumonia. Eye irritation, conjunctivitis. |
| | LEWISITE <small>CA-AMPHI-PACK-BAGGAGE</small> | LIQUID AND VAPOR |  Pungent | One day to one week. Longer if dry or cold. |  |  | Debrass: remove liquid Lewisite with hydrogen peroxide. Use chlorine or kerosene bathing; wash eyes and nose with soda. Best—doctor. | Burning or irritation of eyes, nasal passages, respiratory tract, skin. Asymptomatic. |
| IRRITANTS | CHLOROPICRIN <small>ATTACHED AND BURN</small> | GAS |  Pungent, acid | Open 6 hours. Wounds 12 hours. |  |  | Wash eyes, keep quiet and warm. Do not use bandages. | Causes severe coughing, crying, vomiting. |
| | DIPHOSGENE <small>THICK WHITE, CA-ROD-SMALL</small> | GAS |  "Strang. Acrid" | 30 minutes. |  |  | Keep quiet and warm. Give coffee as a stimulant. | Causes coughing, breathing hurts, eyes water, later. |
| LUNG IRRITANTS | PHOSGENE <small>CASUITY, CHLORINE</small> | GAS |  Bitter Air, Green Sun | 10 to 20 minutes. |  |  | Keep quiet and warm, bed rest. Coffee as a stimulant. Loosen clothing for alcohol or cigarettes. | Irritation of lungs, occasional vomiting, tears in eyes, dazed feeling. Occasionally symptoms delayed. Later, collapse, heart failure. |
| | CHLORACETOPHENE <small>C-H-CD-CH-Cl</small> | GAS |  Apple blossoms | 10 minutes. |  |  | Wash eyes with cold water or boric acid solution. Do not bandage. Face wind. For skin, sodium sulphate solution. | Makes eyes smart. Shut tightly. Tears flow. Temporary. |
| LACRIMATORS | BROMBENZYL CYANIDE <small>C-H-CH-Br-CN</small> | GAS |  Sour Fruit | Several days. (Weeks in winter.) |  |  | Wash eyes with boric acid. Do not bandage. | Eyes smart, shut, tears flow. Effect lasts some time. Headache. |
| | ADAMSITE <small>POWDERY WHITE, CRACKLING</small> | GAS |  Earl Fanta | 10 minutes |  |  | Keep quiet and warm. Loosen clothing. Reassure. Spray nose with res-syringium or stuff blotching powder. Aspirin for headache. | Causes sneezing, skin depressed feeling, headache. |
| STERNUTATORS | DIPHENYL CHLORARSINE <small>(C₆H₅)₂-NH₂Cl</small> | GAS |  Sour Fruit | Summer 10 minutes. |  |  | Remove to pure air, keep quiet. Sulf choline from blanching powder bottle. | Causes such feeling and headache |

WAR GASES

General Notes.

War "Gases," or chemical agents used to produce casualties, are surprise weapons. As this is written, they have not been used against the British or others trained to protect themselves. They have been used against the Ethiopians and the Chinese.

A gas-tight room suitably located offers fair protection against any probable concentration of war gas in a city. For those whose duties take them into the streets a gas mask offers full protection against all but the "blister gases" (liquid vesicants). To enter areas where mustard or lewisite is present, full protective clothing is needed.

War gases may be dropped in bombs or simple containers and liquid vesicants may also be sprayed by airplanes.

The gas warning is a "percussion sound"—that is, bells, drums, hand rattles, rapidly struck resonant objects of any kind. If the presence of gas is suspected, report to the nearest warden. Do not shout if distant gas alarms are heard. The danger is local and the spreading of an alarm must be left to the wardens.

The notes on the following pages are simply for reference for those who have received instruction in protection against gas. Reading them will not by itself make you an expert in gas defense.

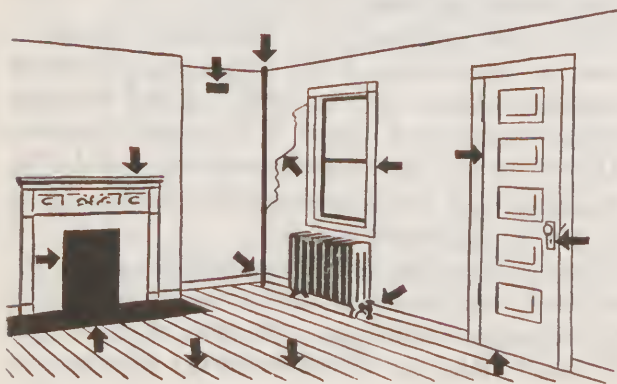
THE GAS-TIGHT ROOM

War gases hug the ground, flow into cellars and basements. Upper floors of a dwelling are away from dangerous concentrations. If all openings and cracks are closed, a room three stories from the ground will offer good protection against war gases.

To stop cracks and small openings, tape of various kinds may be used. A mush made by soaking newspapers in water or patching plaster may be used for caulking larger openings. A piece of wall board, nails and caulking material may be kept handy to cover a window broken by the blast of high explosives.

One door may be used as an entrance by fastening over it a blanket in such a way as to seal it tightly when no one is going in or out. If soaked in oil to close the air spaces, the blanket is more effective.

Store necessary supplies in such a room—food, water, chairs, a battery-operated radio, flashlight and by all means provide some sort of toilet facilities—use it as the refuge room.



Allow 20 square feet of floor space for each person who is to occupy an average room with a ceiling nine feet high. This will give enough air to occupy the room 10 hours.

The illustration shows where to stop up cracks, how to hang the blanket at the entrance door.

“Blister Gases” and Decontamination.

Lewisite and mustard “gas” are liquids in the normal state. They give off a dangerous vapor that acts as a war gas and unless chemically neutralized may persist for a week, contaminating the air for a considerable distance down wind.

Full protection against these chemical agents is afforded by gas-proof clothing, covering the wearer from top to toe and tightened at wrists and ankles. The greatest care must be used in undressing after exposure to lewisite or mustard and this is done at personnel decontamination stations, where vesicant casualties are also taken for first aid.

Decontamination of streets, walls, and buildings is effected principally by means of chloride of lime (bleaching powder) freshly mixed with earth and water as a slurry or paste. It must be thoroughly worked into cracks and crevices and the resulting product flushed away. This work is done by the decontamination squads.

The liquid vesicants are very penetrating and ordinary shoes or clothing offer no protection. Do not go into the streets after a gas alarm has been sounded except on direction of the Warden.

| RANK DESIGNATION | ▲ | ▲ ▲ | ▲ ▲ ▲ | ▲ ▲ ▲ ▲ | △ | △ △ | △ △ △ | ★ | ★ ★ | ★ ★ ★ | ★ ★ ★ ★ | ★ ★ ★ ★ ★ |
|--|----------------|-----------------------------|----------------|-------------------|--------------------|---------------------------|----------------|----------|-------------|---------|---------|-----------|
| AIR RAID WARDEN | FIRST CLASS | SENIOR OR SECTION WARDEN | ZONE LEADER | GROUP LEADER | CHIEF WARDEN | STATE WARDEN | NO OTHER RANKS | | | | | |
| AUXILIARY FIREMEN | " | SQUAD LEADER | PLATOON LEADER | COMPANY LEADER | FIRE CHIEF | STATE FIRE COORDINATOR | NO OTHER RANKS | | | | | |
| AUXILIARY POLICEMEN | " | " | " | " | CHIEF OF POLICE | NO OTHER RANKS | | | | | | |
| BOMB SQUADS | " | " | NONE | " | " | NO OTHER RANKS | | | | | | |
| RESCUE SQUADS | " | " | DEPOT LEADER | " | FIRE CHIEF | NO OTHER RANKS | | | | | | |
| MEDICAL FIELD UNITS | " | TEAM LEADER | SQUAD LEADER | UNIT LEADER | CHIEF OF E. M. S. | STATE MEDICAL DIRECTOR | NO OTHER RANKS | | | | | |
| MEDICAL AUXILIARIES (stretcher teams) | " | " | " | NO OTHER RANKS | | | | | | | | |
| NURSES' AIDES | | | | | | | | | | | | |
| EMERGENCY FOOD AND HOUSING | | | | | | | | | | | | |
| DRIVERS UNITS | | | | | | | | | | | | |
| MESSENGERS | | | | | | | | | | | | |
| ROAD REPAIR CREWS | | | | | | | | | | | | |
| DEMOLITION AND CLEAR. | | | | | | | | | | | | |
| DECONTAMINATION SQUADS | | | | | | | | | | | | |
| FIRE WATCHERS | | | | | | | | | | | | |
| REPAIR CREWS | | | | | | | | | | | | |
| LOCAL STAFF | | | | | | | | | | | | |
| STATE STAFF | | | | | | | | | | | | |
| U. S. STAFF | | | | | | | | | | | | |
| EQUIVALENT ARMY TERM | PVT. 1st CLASS | NON-COMM OFF | LIEUTENANT | CAPTAIN | MAJOR | COLONEL | BRIG GEN. | MAJ GEN. | LIEUT. GEN. | GENERAL | | |

CITIZENS' DEFENSE CORPS

The team of trained civilian services organized to operate the passive defense is known as the Citizens' Defense Corps. It includes regular forces of the city—police, firemen, welfare workers, sanitation men—as well as volunteers. It operates as a unit under the local Defense Coordinator.

Staff.

The Citizens' Defense Corps is headed by a Commander assisted by a staff. His second in command is the Executive Officer. There are others who operate the control center and the communications, account for personnel and property and assign transportation. The Chiefs of the Fire and Police Departments assist him in the passive defense. There is a Chief Air Raid Warden, a Chief of Emergency Medical Services, and others who control groups of the enrolled volunteers. Learn the organization of the Citizens' Defense Corps in your community.

Enrolled Volunteer Services of The Citizens' Defense Corps.



Air Raid Wardens are in complete charge of a sector containing the homes of about 500 people. To them the warden is the embodiment of all Civilian Defense.



Auxiliary Firemen assist the regular fire-fighting forces.



Auxiliary Policemen assist the police department in enforcing blackout restrictions, in traffic control, and in guard duties.



Bomb Squads are specially trained squads of police to handle and dispose of time bombs and duds.



Rescue Squads are trained crews of about 10 men each with special equipment to rescue the injured from debris.



Medical Forces consist of first-aid parties and stretcher squads and personnel at casualty clearing stations. Members of these forces are doctors, trained nurses, and assistants.



Nurses' Aides assist nurses. They have special Red Cross Training.



Emergency Food and Housing Corps members provide welfare services to the needy and homeless.



Drivers Units consist of emergency drivers of vehicles used by the Civilian Defense services.



Messengers carry supplies, dispatches, and messages wherever needed.



Road Repair Crews restore normal flow of traffic as quickly as possible. Utility repair men work with these crews and with demolition squads.



Demolition and Clearance Crews remove rubble, fill bomb craters, and remove unsafe walls or parts of buildings.



Decontamination squad members are specially trained to treat clothing and equipment as well as streets and walls contaminated by war gas.



Fire Watchers must spot and combat incendiary bombs.

A MANUAL OF DRILL

for the

CITIZENS' DEFENSE CORPS

*Adapted from the Basic Field Manual of the
United States Army*

Basic drill is required of a volunteer for award of the insigne. Drill for units of the Citizens' Defense Corps, moreover, is recommended as it helps to coordinate the work of individuals under a single command. The purposes of drill are:

- 1 To enable a leader to move his unit from one place to another in an orderly manner.
- 2 To aid in disciplinary training by instilling habits of precision and response to the leader's orders.
- 3 To provide a means, through ceremonies, of enhancing the morale; develop a spirit of cohesion; and give an interesting spectacle to the public.
- 4 To give leaders practical training in commanding volunteers.

Drills should be frequent, intensive, and of short duration.

General.

A normal squad of volunteers contains 12 men or 12 women, all of one service. It consists of a leader, an assistant leader, and other personnel. As far as practicable, the squad is kept intact. The usual formation of the squad is a single rank or single file. This permits variations in the number of men composing the squad.

To Form the Squad.

The command is; FALL IN. At the command FALL IN the squad forms in line as shown. Squad leader on the squad's extreme right, assistant leader on the squad's extreme left.

To secure uniformity, the tallest leader is put in charge of the first squad, the second tallest in charge of the second squad, etc. Assistant

Fig. I—A Squad in Line



leaders are similarly arranged. Other volunteers are placed according to height beginning with the tallest being placed next to the leader.

On falling in, each man except the one on the left extends his left arm laterally at shoulder height, palm of the hand down, fingers extended and

joined. Each man, except the one on the right, turns his head and eyes to the right and places himself in line so that his right shoulder touches lightly the tips of the fingers of the man on his right. As soon as proper intervals have been obtained, each man comes to attention, drops his arm smartly to his side and turns his head to

Fig. II—A Volunteer at Attention



the front, heels are together, feet forming a right angle; knees are straight without stiffness, hips level and drawn back slightly, body erect and resting equally on hips, chest lifted and arched, shoulders square and falling equally. Arms hang straight down without stiffness with the back of the hands out, fingers held naturally. Head erect and squarely to the front, chin drawn in so that the axis of the head and neck is vertical, eyes straight to the front. The weight of the body rests equally on the heels and the balls of the feet. In assuming the position of attention the heels are brought together smartly and audibly.

(Leaders and assistant leaders will be appointed under authority defined by the Chief of the Service of which the squad forms a part.

To Form at Close Intervals.

The commands are: At Close Interval, FALL IN. At the command FALL IN, the volunteers fall in as described above, except that close intervals are obtained by placing the left hands on the hips. In this position the heel of the palm of the hand rests on the hip, the fingers and thumb are extended and joined, and the elbow is in the plane of the body.



Fig. III—A Volunteer Falling in at Close Interval

To Aline the Squad.

If in line, the commands are: Dress Right, DRESS, Ready, Front. At the command DRESS, each man except the one on the left extends his left arm (or if at close interval, places his left hand upon his hip), and all aline themselves to the right. The instructor places himself on the right flank one pace from and in prolongation of the line and facing down the line. From this position he verifies the alinement of the men, ordering individual men to move forward or back as is necessary. Having checked the alinement, he faces to the right in marching and moves three paces forward, halts, faces to the left and commands: Ready, FRONT. At the command FRONT, arms are dropped quietly and smartly to the sides and heads turned to the front.

Rests.

Being at a halt the commands are: FALL OUT, REST, AT EASE, and PARADE REST.

At the command FALL OUT, volunteers leave the ranks but are required to remain in the immediate vicinity.

At the command REST, one foot is kept in place. Silence and immobility are not required.

At the command AT EASE the right foot is

kept in place. Silence but not immobility is required.

At the command of execution **REST** of Parade **REST**, move the left foot smartly 12 inches to the left of the right foot keeping the legs straight so that the weight of the body rests equally on both feet. At the same time, clasp the hands behind the back, palms to the rear, thumb and fingers of the right hand clasping the left thumb without constraint; preserving silence and immobility.

Being at any of the rests except **FALL OUT**, to resume the position of Attention, the commands are Squad (or other unit being commanded) **ATTENTION**. At the command **ATTENTION** take that position in your squad.

Eyes right (left).

The commands are: Eyes (Preliminary Command), **RIGHT** (Command of Execution) (**LEFT**) Ready **FRONT!** At the command **RIGHT**, each man turns his head and eyes to the right. At the command **FRONT** the head and eyes are turned to the front.

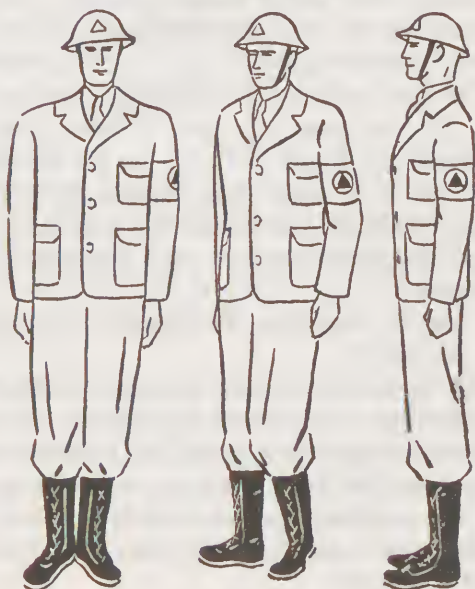
Facings.

(All Facings are executed at the halt.)

To the flank.—The commands are Right (Left) FACE. At the command FACE, slightly raise the left heel and the right toe: Face to the right, turning on the right heel, assisted by a slight pressure on the ball of the left foot. Next, place the left foot beside the right. Exercise Left FACE on the left heel in a corresponding manner.

To the rear.—The commands are: About FACE. At the command FACE, carry the toe of the right foot a half-foot length to the rear and slightly to the left of the left heel without changing

Fig. IV—Executing Right FACE



the position of the left foot; weight of the body mainly on the heel of the left foot; right leg straight without stiffness. (TWO) Face to the rear turning to the right on the left heel and on the ball of the right foot, place the right heel beside the left.

Steps and Marchings.

All steps and marchings executed from the halt, except right step, begin with the left foot.

Quick Time: Being at a halt, to march forward in quick time, the commands are: Forward MARCH. At the command Forward, shift the weight of the body to the right leg without perceptible movement. At the command MARCH, step off smartly with the left foot and continue the march with steps taken straight forward without stiffness or exaggeration of movements. Swing the arms easily in their natural arcs, 6 inches to the front and 3 inches to the rear of the body. To halt when marching in quick time, the commands are: Squad HALT. At the command HALT, given as either foot strikes the ground, execute the halt in two counts by advancing and planting the other foot and then bringing up the foot in rear.

To Mark Time the commands are; Mark-Time, MARCH.

Being in march at the command MARCH, given as either foot strikes the ground, advance and plant the other foot, bring up the foot in rear, placing it so that both heels are on line and continue the cadence by alternately raising and planting each foot. The feet are raised 2 inches from the ground.

Being at a halt, at the command MARCH, raise and plant first the left then the right as prescribed above.

The halt is executed from mark time as from quick time.

Half Step.—The commands are: Half Step MARCH. At the command MARCH, take steps of 15 inches in quick time. To resume the full step from the half step or mark time the commands are: Forward MARCH.

Side Step.—Being at a halt the commands are: Right (Left) Step MARCH. At the command MARCH, carry the right foot 12 inches to the right, place the left foot beside the right, left knee straight. Continue the cadence of quick time. (The side step is executed in quick time from the halt and for short distances only.)

Back Step.—Being at a halt the commands are, Backward MARCH. At the command MARCH, take steps, beginning with the left foot, 15 inches straight to the rear.

To March to the Flank.—Being in march the commands are: By The Right (Left) Flank—MARCH. At the command MARCH, given as the right (left) foot strikes the ground, advance and plant the left (right) foot, then face to the right (left) in marching and step off in the new direction.

Oblique March.—Being in march the commands are Right (Left) Oblique—MARCH. At the command MARCH, given as the right (left) foot strikes the ground, advance and plant the left (right) foot, then face to the right (left) oblique in marching and step off in the new direction.

To resume the original direction, the commands are—Forward, MARCH. At the command MARCH each individual faces half left (right) in marching then moves straight to the front.

Change Step.—The commands are Change Step, MARCH. Being in march at quick time, at the command MARCH, given as the right foot strikes the ground, advance and plant the left foot, plant the toe of the right foot near the heel of the left and step off with the left foot. (Execute the change on the right foot similarly, the command MARCH being given as the left foot strikes the ground.)

To the Rear.—To face to the rear in marching, being in march, the commands are: To The Rear, MARCH. At the command MARCH, given as the right foot strikes the ground, advance and plant the left foot, turn to the right about on the balls of both feet and immediately step off with the left foot.

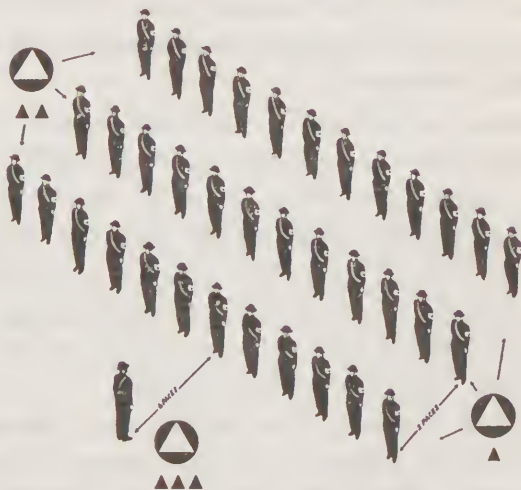
Other Marchings.—March other than at Attention. The commands are: Route Step, MARCH or At Ease, MARCH. Route Step MARCH, at the command MARCH Volunteers are not required to march at attention or to maintain silence. At Ease, MARCH is the same as Route Step, MARCH, except that Volunteers will maintain silence.

Dismissing the Squad.—The unit being at a halt the leader calls the unit to attention, if they are not at attention, from a point six paces in front of the center of the unit. He then will give the command—DISMISSED. Volunteers are then free to go and do as they please until the next regularly scheduled drill period.

Forming the Platoon.

To form the platoon, which consists of 3 squads—the command, FALL IN will be given by the senior leader facing the area on which he wishes the platoon to form. At this command the unit will form facing the leader with its center 6 paces to his front in 3 parallel lines (each of these lines constitutes a squad). (Should there be insufficient men to form 3 complete squads, skeleton squads of as near equal number as possible will be formed in 3 ranks, squad leaders placing themselves directly behind one another.)

Fig. V.—A Platoon in Column of Squads



From this formation the unit can march; forward, to the right, or to the left.

Platoon Movements.

At the command: Forward MARCH, each man steps off with his left foot directly to his own front preserving his relative position and so regulates his step that the ranks remain parallel to his original front.

At the command: Right (Left) FACE Forward MARCH, the unit executes a right face on the heel of the right foot and ball of the left foot at the word FACE and at the word MARCH they step off with their left foot as in moving to the front. (Left face is performed by turning on the heel of the left foot and the ball of the right foot.) In the movements to the right or left the commander of the unit takes a position three paces in front of the left file of his command, at double time if necessary.

Being in a column to change direction the commands are—Column Right (Left) MARCH. At the command MARCH, given as the right (left) foot strikes the ground the first man of the leading element on the right (left) advances one step and then steps off in the new direction using half steps until the men to his left (right) are abreast of him. Full step is then resumed.

Close Interval—Normal Interval.—Being in column of threes at normal interval between squads to March or form at Close Interval, the commands are: Close, MARCH. At the command MARCH, the squads close to the center by

obliquing until the interval between men is 4 inches. The center squad take up the half step until the dress has been regained.

If this movement is executed from the halt, the squads close toward the center by executing Right or Left Step until 4-inch intervals are reached.

Being in column of threes at close interval between squads to March or form at Normal Interval, the commands are: Extend, MARCH. At the command MARCH, the squads open to the right and left from the center by obliquing until the normal interval is regained.

If this movement is executed from the halt, the squads Right or Left Step until normal interval is regained.

Change Direction.—Being in column of threes to change direction, the commands are: Column Right (Left) MARCH. The right flank man of the leading rank is the pivot. At the command MARCH, given as the right foot strikes the ground, the right flank man of the leading rank faces to the right in marching and takes up the half step until the other men of his rank are abreast of him, then he resumes the full step. The other men of the leading rank oblique to the right in marching without changing interval, place themselves abreast of the pivot man, and conform to his step. The ranks in rear of the leading rank execute the movement on the same ground and in the same manner as the leading rank.

Fig. VI

Forming the Citizens' Defense Corps for Parade

(Services will form and move as platoons)

| | |
|---|---|
| ● | Mayor, Defense Coordinator and Dignitaries. |
| □ | Commander, C. D. C. |
| ▬ | Staff. |
| ▬ | Messengers. |
| ▬ | Drivers. |
| □ | Fire Department Chief. |
| ▬ | Auxiliary Firemen. |
| ▬ | Rescue Squads. |
| □ | Police Department Chief. |
| ▬ | Auxiliary Police. |
| ▬ | Bomb Squads. |
| □ | Colors. |
| □ | Warden Service Chief. |
| ▬ | Air Raid Wardens. |
| ▬ | Fire Watchers. |
| ▬ | Emergency Food Housing Units. |
| □ | Medical Service Chief. |
| ▬ | Medical Field Units. |
| ▬ | Nurses' Aides Corps. |
| □ | Public Works Service Chief. |
| ▬ | Demolition and Clearance Crews. |
| ▬ | Road Repair Squads. |
| ▬ | Decontamination Corps. |

United States
OFFICE OF CIVILIAN DEFENSE
Washington, D. C.

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, \$300