

NEW INSTRUCTIONS

ON HOW TO FIGHT FIRE BOMBS!



ISSUED BY THE DIRECTOR OF CIVIL AIR RAID PRECAUTIONS, OTTAWA

ACCORDING to the latest reports from Britain, the enemy is now making extensive use of several new types of incendiary bombs that are far more dangerous to deal with than any used in the past. Some of these contain powerful explosive charges which detonate on impact, while others are equipped with delayed action fuses so that they do not explode until some time after they fall. Some are of the ordinary magnesium type; others are filled with live phosphorus or a phosphorus-oil composition. These explosive incendiaries have no great demolishing power, but, like fragmentation bombs, they are designed to kill or wound.

These new types of fire bombs not only create new and greater hazards, making the work of those who may be called upon to fight them more difficult, but necessitate radical changes in the general tactics of defence against incendiary raids. Even more important, these bombs compel radical changes in the actual methods of dealing with all incendiaries, and the discarding of some previously effective methods now become dangerous because of the explosive menace.

The instructions given in this leaflet cancel all previous instructions on dealing with fire bombs. Read them carefully, study them, memorize them and practise them so you will be well prepared to carry them out if the necessity arises.

New Enemy Tactics

In an attempt to defeat well organized civilian defence and start a large number of major fires as quickly as possible, the enemy is not only using explosive bombs in conjunction with the ordinary type of incendiary but is employing new methods of

attack. When conditions make it practicable, enemy raiders may fly at low altitudes and drop explosive and ordinary fire bombs in relatively large clusters. Or, if forced to attack from high altitudes, they drop containers, each filled with from 10 to 120 fire bombs, which burst at a low height or upon striking some object, and release their contents. In both cases, a large number of bombs fall within a small area and instead of one or two bombs penetrating a building, five or ten or even more may fall within a single room. This makes the task of dealing with them much more difficult and, if some of the bombs happen to be of the explosive type, the situation is definitely dangerous.

New Types of Incendiaries

Of the new German incendiaries, one type is being used more extensively than any of the others. This is a high explosive modification of the small magnesium fire bomb. Actually it is an ordinary "kilo" magnesium bomb with a powerful charge of high explosive in an extension fitted to the nose. A wire, running the length of the bomb, holds the two parts together until impact when, usually, they break away and fall a short distance apart. The impact causes the fuse in the incendiary to light the thermite contents immediately and this, in turn, ignites the magnesium casing. At the same time it ignites a delayed action fuse in the explosive extension which usually **does not detonate until from one to seven minutes after, and therein lies its greatest danger.** The overall length of this bomb is about 21 inches and its weight is about five pounds—double that of the ordinary incendiary—which gives it much greater penetrative power.

Other types of explosive magnesium incendiaries used by the enemy carry the explosive charge in the casing or in the tail. These generally explode within the first two minutes.

Phosphorus and phosphorus-oil bombs are easier to recognize by the clouds of acrid smoke they give out and while these bombs are poor incendiaries, the fine particles of molten phosphorus are extremely dangerous. Water will put them out immediately, but every particle must be kept wet until placed where they can burn without causing damage. Phosphorus burns violently when dry and, wet or dry, **must never be touched with the bare hands.**

New Bombs Require New Methods of Attack

Many of the fire bombs that may be dropped by enemy raiders will be of the old kind, but on the other hand, **any bomb dropped may be of the explosive type.** Therefore, **all** bombs must now be treated as if they are of the explosive type.

Adequate Cover is Vital to Safety

The explosive extension of the new German incendiary bomb described on page 2 is, in reality, a small high explosive anti-personnel or fragmentation bomb. When it explodes, the steel casing breaks into countless small pieces which are propelled at exceedingly high velocity in all directions and are capable of killing or seriously wounding at a distance of 100 feet or more. These fragments will penetrate an ordinary lath and plaster wall, a wooden fence or door and most pieces of furniture which, therefore, do **not** offer full protection.

Complete protection from the blast of these new bombs is provided by a solid brick, concrete, or stone wall $4\frac{1}{2}$ inches thick, while reasonably good protection is afforded by similar walls 3 inches thick.

When fighting a fire bomb make the utmost use of the best available cover and be sure that the cover you choose affords protection from any other fire bombs that may have fallen nearby.

A Stream of Water is the Best Weapon

A stream or jet of water is the best weapon against all types of fire bombs and is the only means by which both a burning bomb and any fires set by it can be attacked with equal effectiveness. It is also the only form in which water can be applied to a burning bomb from a relatively safe distance.

Properly used, a stream or jet of water from a stirrup pump or garden hose will control a burning incendiary in less than a minute and, often, in only a few seconds—using less than two gallons of water.

Do Not Approach Burning Fire Bombs

Short-range methods previously recommended, that involve approaching the bomb closely in the open, should **never** be attempted. To try to deal with a burning bomb by placing a sand-bag, sand-mat or loose sand on it will expose you unduly to danger not only from the bomb you are fighting—if it happens to be an explosive one—but from other explosive bombs that may have fallen nearby.

Do not approach or expose yourself to a burning bomb **during the first seven minutes.** After that it is reasonably safe to deal with it at close quarters in the normal way.

These are the New Instructions for Dealing with Fire Bombs:

- 1** Bombs falling where they will do no harm should be left to burn, themselves out. Keep away from them. If you have to pass one in the open do so on the run, giving it a wide berth and making use of any cover available.
- 2** Bombs falling where they may start a fire must be attacked promptly and resolutely but from behind the best cover available (see page 3).
- 3** Use a **stream of water** on all types of burning incendiary bombs. Don't try to use sand-mats or other short range methods (see page 3).

If you haven't a stirrup pump or garden hose and you have to act alone, throw water from behind cover in the direction of the bomb, using a small container filled from a bucket. Then, **after seven minutes** or when the bomb has exploded, enter the room and extinguish any remaining fire.

- 4** Concentrate on the fire first; then on the bomb.
- 5** If possible, attack a burning bomb in a room through a doorway from behind a wall or from the outside through a window, using the exterior wall of the building as a shield.
- 6** Search all floors for bombs. The new incendiaries have greater penetrative powers than the ordinary magnesium fire bomb and may go through to the ground floor.
- 7** Bombs lodging in the roof usually will be of the non-explosive type unless the roof is exceptionally strong. The new incendiaries usually penetrate the roof and one or two storeys.
- 8** **Do not touch, move or otherwise attempt to deal with an unignited bomb.** Some bombs contain a composition which will ignite spontaneously when wetted and allowed to dry. Others contain an explosive charge, to which is connected a delicate detonating fuse that will cause it to explode when touched.

Report unignited bombs immediately to the nearest Air Raid Warden or policeman.