

not rise above the middleweight class. They are built with moderately thick walls, designed to break into small pieces when they explode and to act as a shower of missiles against troops caught on the road or elsewhere in the open. It is unlikely that fragmentation bombs will be much used in attacks on cities. The objectives of such attacks will be arsenals, factories, dockyards, rail-day terminals, government buildings, and so on—material rather than human targets, calling for smashing with demolition bombs rather than killing with fragmentation weapons.

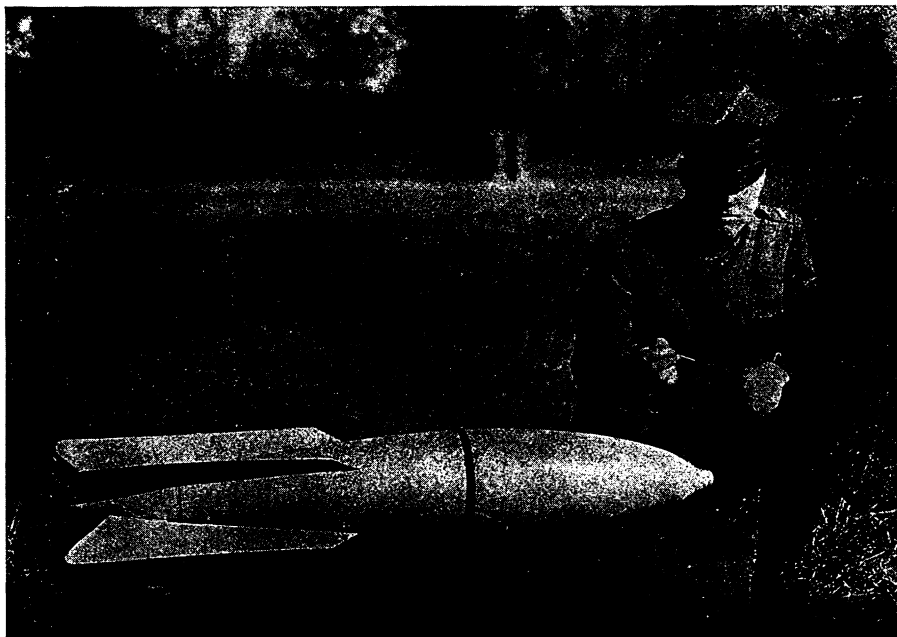
Cities do have good right and reason, however, to fear the third class of bombs, the incendiaries. These are designed to break through roofs and scatter their flaming contents inside the buildings. Incendiary bombs are usually quite small; they are the smallest of aerial weapons. It is better to start as many fires as possible than a few big ones: fire is the one weapon that increases itself instead of becoming spent. So incendiary bombs are mostly only a couple of pounds in weight, and are intended to be dropped in scores or hundreds.

Their effect is of course proportionate to the combustibility of the cities against which they would be used. Of all the nations, probably Japan has the cities most vulnerable to fire, the United States the least. European cities average about alike—pretty good kindling, under their roofs of slate and tile.

Thermit a Favorite

Various petroleum mixtures have been tried as incendiary bomb fillers, but ordnance men generally prefer solids to liquids, as being safer and less messy to handle. The well known industrial welding mixture, Thermit, is a favorite because of its stability and because of the terrifically hot flame it engenders when it is set off. The makers of incendiary bombs also like the highly inflammable chemical elements phosphorus and magnesium. A magnesium bomb built around a core of Thermit has something of a mode in European military circles just now, as being both light and hot.

The final class of bombs, the chemical bombs, are the center of hot dispute, and have been for years. Will they be useful against cities or not? The old scare-tales, of a single plane wiping out a city by dropping a single bomb of a super-poison-gas, have more or less subsided lately. Yet there is no denying the dread people have of gas. It might be said that even without the dropping of a single



ONLY A LITTLE ONE

Yet this small bomb can carry enough high explosive to demolish an ordinary house. Its bigger brothers, capacious enough for the officer to get inside their shells and stand up without crowding, might crush forts or full-sized ships with a single blow.

gas bomb, nations of Europe have done each other an immense amount of damage already, through the enforced distribution of gas masks to the civilian population and the equipping of bomb-proof shelters with gas-proofing and air-purifying devices—all at immense expense.

Despite the bitterness of the late civil war in Spain, the contending forces did not use gas against each other, neither have the ruthless Japanese used it in their attacks on crowded Chinese cities, nor the Germans over Warsaw. In all three of these defenseless lands gas would have had terrific effect on the civilian populations because of the utter lack of gas masks and the inadequacy of other protective measures. Why did the armies that gained control of the air—Japanese in China, Nationalists in Spain, Germans in Poland—spare the cities of their enemies this crowning horror when they laid on all the rest?

The answer remains an enigma in the dark clouds that overhang the world's sky at present. Perhaps not until a greater war parts these portentous curtains on the West, to let pass the flying hosts of the Winged Death, shall we be permitted to know.

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PSYCHIATRY

World War Mental Cases Will Grow Until 1947

AMERICA is still paying for the World War in the most precious sort of coin—men's minds.

The number of World War soldiers who are patients in hospitals for mental disease is still going up and will continue to increase, it is estimated, for another eight years. In 1929, a decade after the war, 18,393 veterans were hospitalized for mental disease. Now, another decade later the number has gone up to 29,000. By 1947, it is estimated by the U. S. Veterans' Bureau, the peak will be 40,000.

This figure does not include a much larger number suffering from mental and nervous diseases, but who are kept out of hospitals lest they bog down into "hospitalosis."

The total number of World War veterans receiving compensation for neuropsychiatric disease on January 1, 1929, was 54,785.

Today, it is 89,119, of which 67,366 cases are directly traceable to the war.

What will it be in 1947 when the peak is reached? No man knows.

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To save bulk in transit, tin cans are sometimes shipped in collapsed form.