

MILITARY SCIENCE

Gas Mine Detonator

If Axis uses poison gas before the war is over, U. S. Army is prepared with "surefire exploder" for gas. It looks like a clothesline.

► IF THE AXIS uses poison gas before the war is won, a peacetime mining product will prove President Roosevelt's assertion that the United States is more than ready for this phase of warfare, according to the War Department.

This product, in appearance, is innocent enough for it looks like a clothesline. It would be used primarily to detonate gas mines laid to delay or incapacitate enemy troops, although it is itself a rapid, powerful explosive.

It is called primacord and was developed in 1936 for use in the mining industry. But it is not a fuze, a mechanical device with or without combustibles used to explode a main charge. Nor is it a fuse, the name given to a train of combustibles used to explode a main charge after being ignited, similar to a dynamite fuse. It is an explosive used generally for setting off a number of charges simultaneously and, thus, would

technically become a combination fuze and fuse. It must be detonated electrically or mechanically and, by leading from the detonator to one or more charges, becomes a fuse also.

Primacord can be laid for miles, and when set off the explosion takes only one second to traverse more than three-and-a-half miles of the cord.

The cord, developed as a substitute for a lead-covered detonating fuse, can itself tear down a tree 15 inches in diameter when used in sufficient quantity. It can, naturally, be used under water. Laid on the ground, it can be exploded to clear a two-foot-wide path of small brush and at the same time dig earth from two to four inches deep, throwing it over a wide area. It can withstand rough handling, making it highly valuable in the field. It will stand friction, can be beaten with a hammer and burned like paper without exploding.



PREPARED—These members of a Depot Company, wearing masks, impervious clothing and rubber gloves, are filling land mines with chemical agents which can be set off by primacord.

The Corps of Engineers uses it a great deal in demolitions, but one of its principal uses at present is by the Chemical Warfare Service of the Army Service Forces for training troops in best methods of setting off chemical land mines.

Chemical Warfare troops are vital in combat service, especially if gas is being used and a strategic withdrawal is ordered. It is their task to aid in slowing the enemy's advance, just as engineer, now lay mines and booby traps to slow up the enemy.

It is the duty of Chemical Warfare troops, also, to prevent the enemy from using certain areas by dispersing gas in that area; and if the enemy has laid down gas, to assist in decontaminating the area. In this latter work, primacord may be laid and exploded above ground when it blasts open a path a foot wide on each side and tears up the earth, aiding in neutralization of the contaminated area and permitting passage of troops.

In setting off chemical mines, primacord is tied in eight-foot lengths around each mine and each mine is connected with primacord. When detonated, the mines explode simultaneously and fling the contents over a wide area, thus forcing the enemy to detour or halt long enough to decontaminate the area.

Primacord is packaged in varying lengths and has many advantages over other methods of simultaneous explosion of land mines. Chemical Warfare Service authorities say it is much faster, more dependable and requires less time and labor for use. The Service calls it their "surefire exploder."

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PUBLIC HEALTH

Meningitis on Increase As Paralysis Declines

► WITH the infantile paralysis epidemic definitely on the down grade, health authorities are now anxiously watching another threat to the nation's health, meningitis. The situation may be worse this year than last.

The number of meningitis cases reported by state health officers to the U. S. Public Health Service was high last winter, continued at a high level this summer and now is climbing even higher. Total for the week ending Oct. 2, latest on which figures are available, was 192. This represents a steady climb from 135 reported the week of Sept. 18 and 178 the week of Sept. 25.

The number that would normally be expected, based on the median for five years, is 27 cases for the last week in