# GENERAL CARE AND CLEANING OF WEAPONS

## Desert

Sand is a very dangerous enemy of weapons in the desert. Oil or grease when mixed with sand or dirt forms a cutting compound. This cutting compound will increase the wear on moving parts, thus shortening the life of weapons and make them inefficient.

Desert atmosphere is dry; consequently the danger of rust is very small. Weapons must be cleaned at least once a day. In cleaning, the metal parts should be wiped clean of all dirt, oiled thoroughly, with oil being rubbed into pores of the metal. The weapons are then wiped dry of oil. A light film of oil is added to moving parts before firing.

The correct lubricants and cleaning material must be used. Heavy oils and grease is used in the desert.

Stocks of rifles and wooden parts that require oiling will demand twice as much linseed oil as they would in a temperate zone.

Leather must be cleaned often with saddle soap and oiled thoroughly with Neats foot oil.

Heavy recoil oil is used in recoil cylinder.

Gasoline tanks should be kept filled during the hot part of the day to prevent condensation or formation of moisture when they become cool.

## Jungles

Tropical jungle atmosphere is hot and damp. Dampness on metal forms rust. Weapons must be cleaned at least once a day. Heavy oil is used, to lubricate weapons. Caution is used not to touch the metal surfaces with any part of your body.

Saturate cloth with oil and rub vigorously into the pores of the metal. Detailed schedule inspection plus corrective action will keep weapons in excellent condition.

## Extreme Cold

Oil or grease on the mechanism of weapons thickens and congeals at low temperatures and often prevents their proper functioning. Unless special cold weather oils are provided, it is well to wipe the mechanism of such weapons dry. Powdered graphite rubbed upon bearing surfaces will cause them to work smoothly and tend to reduce wear. Rust does not form on dry, cold metal.

Recoil Oil Special is used in weather from +15° Fahrenheit and below.

Snow in the muzzles of weapons may cause the barrels to burst when they are fired. For this reason special care must be taken to insure that the bore is free of snow, ice, or other obstructions before the weapon is fired. Closing the muzzle with plugs of any kind is prohibited.

Cold metal sweats almost to the point of dripping when it is brought into heated inclosures. Weapons should not, therefore, be brought into warm tents or houses, but should be stacked outside, their mechanism being protected from drifting or falling snow. Ammunition should also be left outside for the same reason.

Gasoline can be used in place of water and sal soda or soda ash for cleaning barrels. Water in the jackets of machine guns can be replaced with No. 10 crankcase oil. However the packing must be watched closely and checked frequently.

The lenses and prisms of cold optical equipment fog up when brought indoors and also when placed close to the face. Special eyepieces should be provided so as to allow circulation of air between the eye and the lenses. A thin coating of glycerine "anti-dim", such as issued with the regulation gas mask, or a similar preparation will assist greatly in preventing clouding.

Dry batteries usually fail to give adequate current at temperatures below minus 20° Fahrenheit. Small flashlights can sometimes be kept warm enough to use by carrying them inside pockets.

Kerosene can be used in place of oil in extreme cold.

## Salt Air

Material that is to be shipped overseas and is not to be used until after landing should be treated with a rust preventive compound, light rust preventive compound to be used if storage is less than six months and heavy rust preventive compound if storage is over six months. If material is to be used in transit or in landing, it must be kept clean and in good working shape at all times. Cleaning material should be used depending on the temperature or weather conditions.

Damp salt air forms rust, thus it is vitally important that weapons and material be cleaned thoroughly at least once a day. A detailed inspection should be held daily.

Metal should be protected from salt spray by a coating of heavy oil. A piece of paper saturated with grease or oil can be put over the muzzle of large guns to protect them from salt spray.

## Gas

Material which is in constant danger of gas attacks should have all bright parts of metal well coated with oil. Sights should also be covered with oil and protected with covers when not in actual use, care being taken oil does not come in contact with any glass or find its way into the interior of instrument.

All uncapped fuzes or fuzes which have been removed from their containers should be wiped over with oil as soon as possible and protected with a cover.

All bright parts of guns and carriages, together with all accessories and spare parts exposed to mustard gas, must be cleaned and wiped dry as soon as possible after the attack, and in any case within 24 hours after which they should be thoroughly coated afresh with oil. The same applies to the whole of the ammunition still in the battery position. Ammunition which for any reason has not been oiled must be cleaned and oiled. It is desireable to expend it as soon as possible.

The following measures should be taken for the removal of gas from various materials and equipment which have come in contact with mustard and Lewisite gas. For all following operations gas mask and protective clothing including protective shoes and gloves must be worn.

(a) Commence by freeing objects of dirt, lumps of earth and liquid with woods spatulas, rags, etc., which will be buried immediately after this operation. They must never be burned.

(b) Sprinkle a continuous layer of calcium hypochlorite which is preferred if available, or dry chloride of lime over the parts that lend themselves to this treatment. Hereafter calcium hypochlorite is specified but dry chloride of lime may be substituted in event calcium hypochlorite is not available. After two hours or preferable six hours if practicable, wash off the layer of calcium hypochlorite and rinse thoroughly. In the case of ammunition, it is imperative to prevent particles of calcium hypochlorite from being introduced into the bore. Caution must be taken when using chloride of lime with mustard gas as it reacts violently causing flame and driving off high concentration of vapor. If powder is mixed with sand or earth, this violent reaction does not occur . Proportion: about one part of chloride of lime to three of sand or earth.

(c) Whitewash soiled parts, which do not lend themselves to sprinkling with dry powder, with a thick paste of calcium hypochlorite made from three volumes of calcium hypochlorite and one part of water. After two hours or preferable six hours, wash off calcium hypochlorite.

(d) Delicate parts of the apparatus such as breech mechanism, sighting apparatus, glasses, etc., which would be injured by calcium hypochlorite should be cleaned by dry polishing with rags. After this operation, the rags should be buried.

(e) If there are large quantities of water at hand, in the place of calcium hypochlorite, use water. The water should be warm, but not boiling and large quantities should be used. This cannot be done in the case of greasy articles, where only calcium hypochlorite should be used.

The above material should only be used when a decontaminating agent is not issued by Ordnance. There is now being issued to each destroyer, 2 - three and a half gallons cans of dual non-corrosive. There is a pump with each can and the liquid is sprayed on the infected areas and may be washed off immediate

Summary is that plenty of work with knowledge of correct cleaning material to use plus detailed inspection, weapons and material will always be in first class shape.