

**FIRE FIGHTING.****CARE OF FIRE APPLIANCES AND FIRE DRILLS.****Fighting Fires.**

The following points which are not generally known should be noted for guidance:—

1. No two fires are exactly alike, consequently no definite action can be laid down regarding their extinction.—*Avoid laying down definite fire fighting detail.*

2. Fire in itself is not to be feared as the heat will give necessary warning of danger, but the smoke will often interfere with a simple operation.—*Avoid the smoke.* Smoke, except in the case of gaseous or heavy oil fires, will almost invariably rise from the ground. When tackling any fire, the air will often be found quite breathable close to the ground, while it would be impossible to kneel or stand up.—*Go under the smoke.*

3. Electric, phosphorus, petrol and carbide of calcium (acetylene) fires cannot be extinguished with water alone. Sand or chemicals are necessary.—*Be prepared accordingly.*

Petrol on fire will flow in all directions and will continue burning even on top of water, so that Petrol must be confined.

Phosphorus is a delusive agent where fire is concerned and will often appear to be extinguished, but will break out again if exposed to the air. Fires, where phosphorus is concerned, should be closely watched for some hours after their supposed extinction.

4. Fire will not burn without air, so that doors of rooms, huts, hangars, etc., on fire should not be opened until the fire appliances are actually at work and not even then if it is possible to attack the fire closely without doing so. Small openings are suggested to permit this being done.

5. Fire Appliances should always be kept in an easily getatable position. If the Fire Picquet have to search about in a smoke-laden atmosphere for the appliances, they will probably be in no fit condition to handle them effectively when they do find them.

6. A Fire impossible to "wet out" with water can often be "knocked" out by water under pressure, so that *all fires* should be tackled from a point as close as possible to the fire.

7. Fires, if not extinguished in the first few minutes, will probably last hours. Pay most attention to First Aid appliances.

CHEMICAL EXTINGUISHERS AND CHEMICAL FIRE ENGINES.**General.**

These should be examined *weekly*, to ascertain if they are fit for action. If unfit they are useless for emergency and are *dangerous*.

If when charging these machines any of the acid is spilt or comes in contact with human flesh its action may be easily nullified by rubbing in a little of the bi-carbonate of soda. Chemical extinguishers are tested to withstand a pressure from 300-lbs. to 350-lbs. to the square inch. If the contents cannot escape they will generate more than this pressure, and so burst the cylinder.

Should an extinguisher fail to act, the following action is necessary:—

1. At a fire—

Place it aside and get some other extinguisher to work.

2. At a drill practice or while testing the appliance—

Immediately unscrew the cover until the gas or the contents commence to escape, and then lay aside. After it becomes inactive take off the cover, remedy the fault, recharge and test again.

The method to be adopted in examination is as follows:—

Examination.

1. Examine the delivery outlet and see that it is quite clean and free from corrosion.
2. Unscrew the cover and stir the alkali solution with a stick.
3. Test the solution for prompt reaction by dropping one or two drops of the acid into it.
4. Examine acid container, striker, washer, etc.
5. Smear the threads and moving parts with oil, replace the cover and screw up tightly.

Charging.

A charge for one of these machines is 1-lb. of bi-carbonate of soda and 1½ fluid ozs. of commercial sulphuric acid to every gallon of water.

The chamber should be thoroughly cleaned before renewing a charge.

The chamber should only be filled with water to about 7/8ths of its capacity, and the soda should be added and thoroughly stirred until completely dissolved.

Examine the acid charge and place in position.

Smear all working parts with oil and replace cover, taking care to screw up tightly.

Working.

This depends on nature of fire, but as a general principle the closer the nozzle is taken to the fire the more effective the work.