

Fire!



A PARRISH COLOUR BOOK FOR CHILDREN

FIRE !

by Marie Neurath

Like its famous predecessors, which are described on the back wing of this jacket, *Fire !* explains an exciting subject so simply, and so clearly, that young children can really understand it.

It *is* an exciting subject. What child (what adult for that matter) is not thrilled when a fire engine dashes by, firemen alert, bell clanging ? Where is the fire and how do the firemen know ? How do they get off so quickly ? How do the escape ladders work ? The pumps ? The hydrants ? The hoses ? The children love the fireman's uniform; what is it for ? How do we fight heath fires, and forest fires with aeroplanes ?

The pictures *do* explain at sight. They are prepared with extreme care and attention to detail. Nothing is there which is not necessary; the same object has always the same simple, unmistakable shape. Colour is used with meaning, not as a decoration. They are drawings done by experts in explaining to young children.

This book is made to answer questions. Its gay colours, exciting subject, clear, lively text will absorb the children's attention. It will interest *you*, too. Look through its pages.

Fire!

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by Marie



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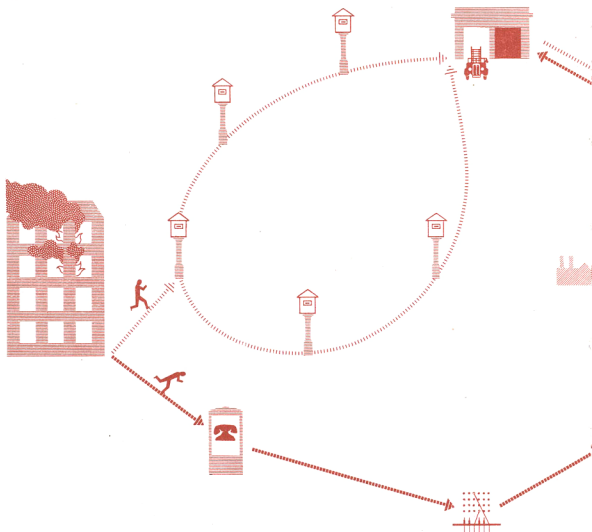
Neurath



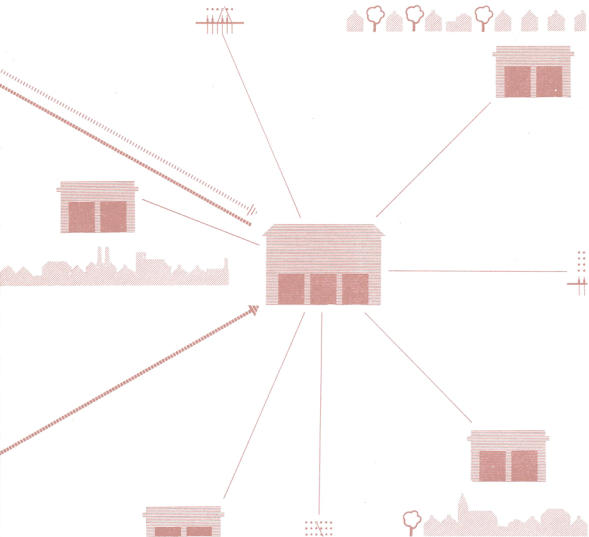
DEVENTER. COPYRIGHT 1950

Max Parrish London

Quick! Give the Alarm!



Run to the telephone or a fire alarm. The call by telephone goes through the exchange to Fire Service Headquarters. They tell the nearest fire station to



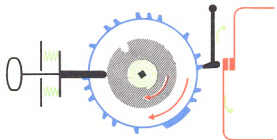
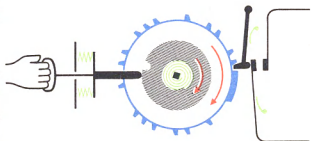
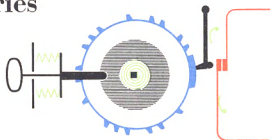
send help. The fire alarm sets a bell ringing at the nearest station. In one minute or less, fire engines race to the fire. The station tells headquarters.

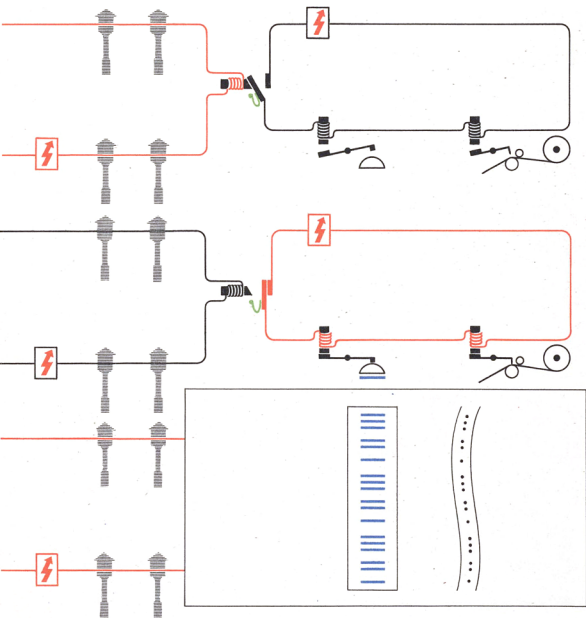
The Cog-wheel that Carries a Code Message

Inside the fire alarm is a wheel with cogs arranged to form a code number. In this alarm the number is 321, and the spaces between the cogs run 3-2-1, 3-2-1, 3-2-1. When you break the glass and pull out the handle, the rod comes out of the slot in the wheel. The spring uncoils and turns the wheel.

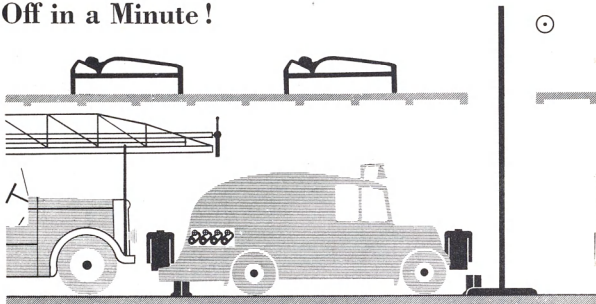
The hammer falls into each space in turn, and in doing so it breaks the electric current in the first circuit. Each break *starts* a current in the second circuit, which rings a bell and punches a hole in the tape at the fire station.

The breaks go 3-2-1, the current goes 3-2-1, the bell rings and the holes appear 3-2-1. The firemen know that they must go to the alarm with the code number 321. When the alarm wheel has made one complete turn, the slot is back in its original position. The rod clicks into it and stops the wheel.

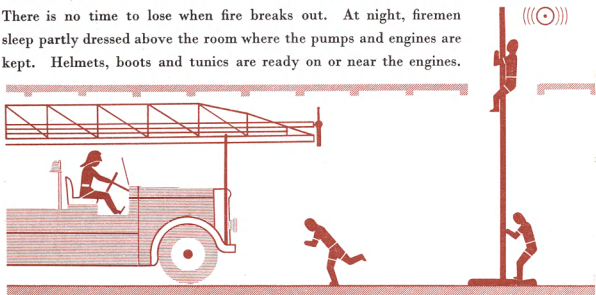


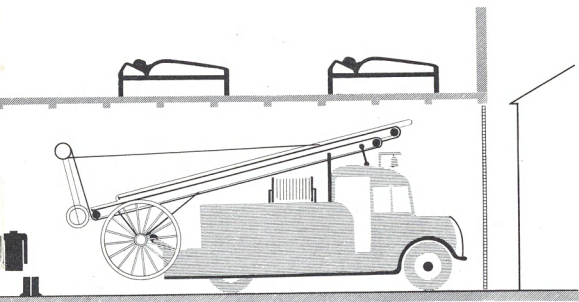


Off in a Minute !

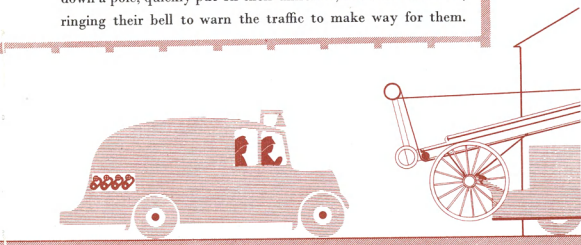


There is no time to lose when fire breaks out. At night, firemen sleep partly dressed above the room where the pumps and engines are kept. Helmets, boots and tunics are ready on or near the engines.

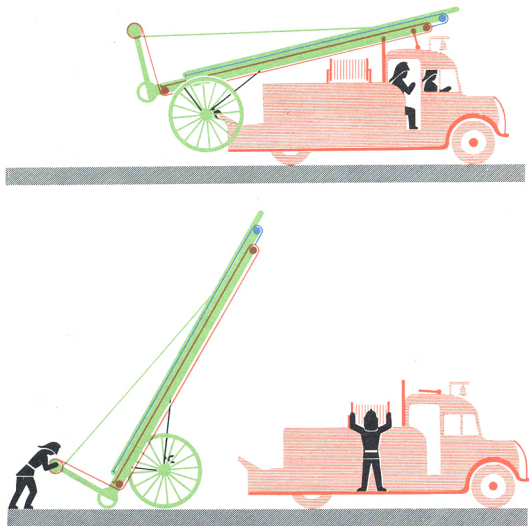




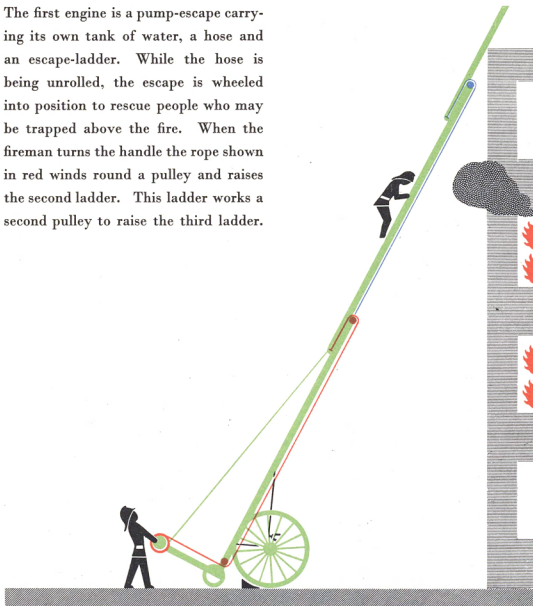
When the alarm bell sounds, the men leap out of bed, slide down a pole, quickly put on their uniforms, and race to the fire, ringing their bell to warn the traffic to make way for them.



The Rescue Begins



The first engine is a pump-escape carrying its own tank of water, a hose and an escape-ladder. While the hose is being unrolled, the escape is wheeled into position to rescue people who may be trapped above the fire. When the fireman turns the handle the rope shown in red winds round a pulley and raises the second ladder. This ladder works a second pulley to raise the third ladder.

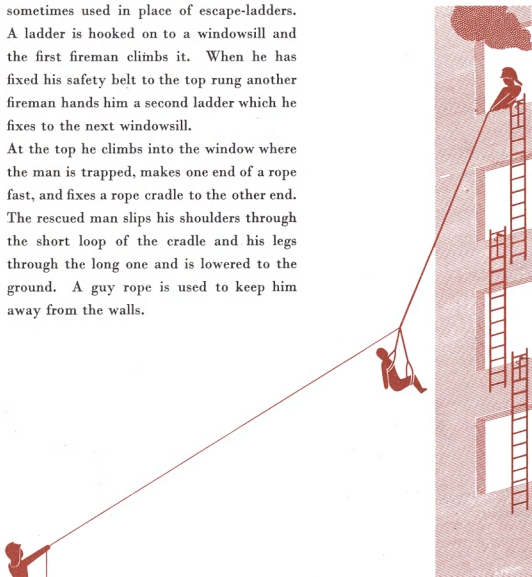


Rescue by Ladder and Line

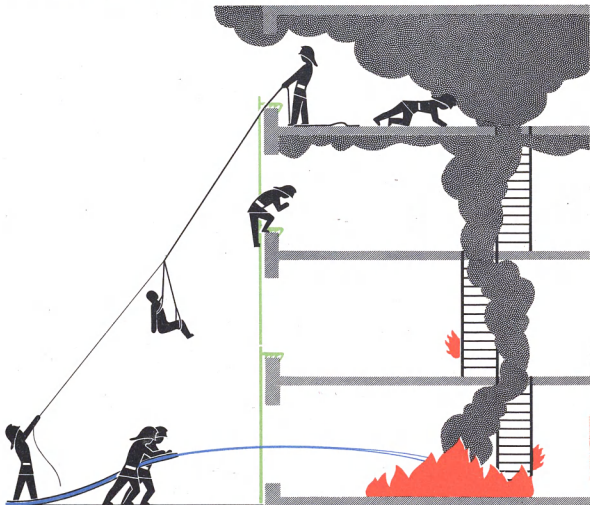


In very high buildings hook-ladders are sometimes used in place of escape-ladders. A ladder is hooked on to a windowsill and the first fireman climbs it. When he has fixed his safety belt to the top rung another fireman hands him a second ladder which he fixes to the next windowsill.

At the top he climbs into the window where the man is trapped, makes one end of a rope fast, and fixes a rope cradle to the other end. The rescued man slips his shoulders through the short loop of the cradle and his legs through the long one and is lowered to the ground. A guy rope is used to keep him away from the walls.



When No One can Pass Down the Stairs

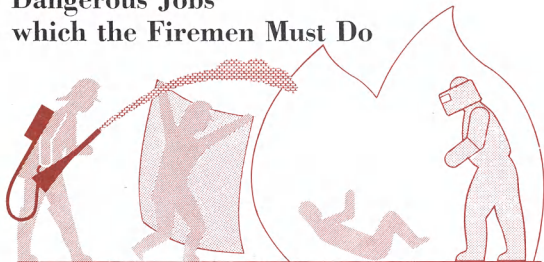


In this building the foot of the staircase is blazing, and people in upstairs rooms are trapped. While hoses play on the flames, smoke clouds billow up and fill the top parts of the upper floors. Rescuers must crawl to avoid being suffocated.



People at the back of the building escape by a ladder leading to the roof of a nearby house, and climb over the roof by means of two hook-ladders. At the far side, an escape-ladder is in position to get them in safety down to the street.

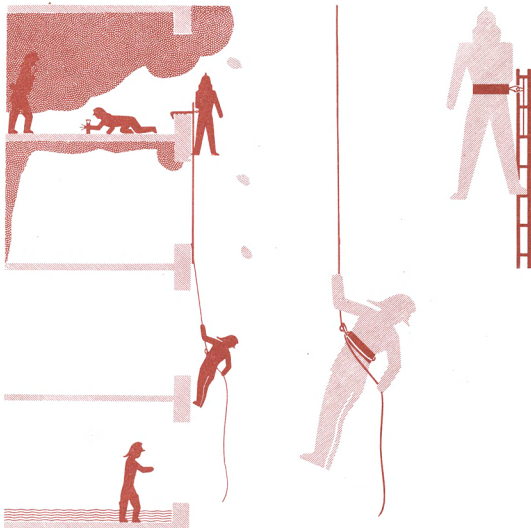
Dangerous Jobs which the Firemen Must Do



When fires are attacked at close range, the firemen are protected by asbestos sheets. In emergency, rescuers wearing asbestos suits can walk through flames.

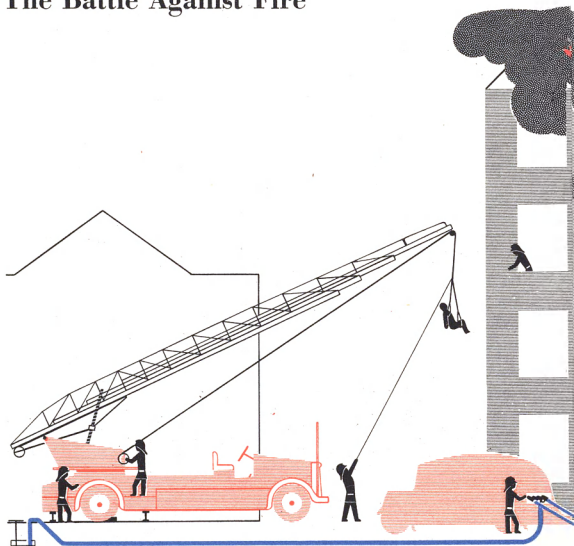


In dangerous fumes, a fireman wears breathing apparatus. When he enters a room filled with smoke he has a long rope fixed to his belt to help him find his way back. If he is overcome and loses grip of his lamp, a bell rings automatically.

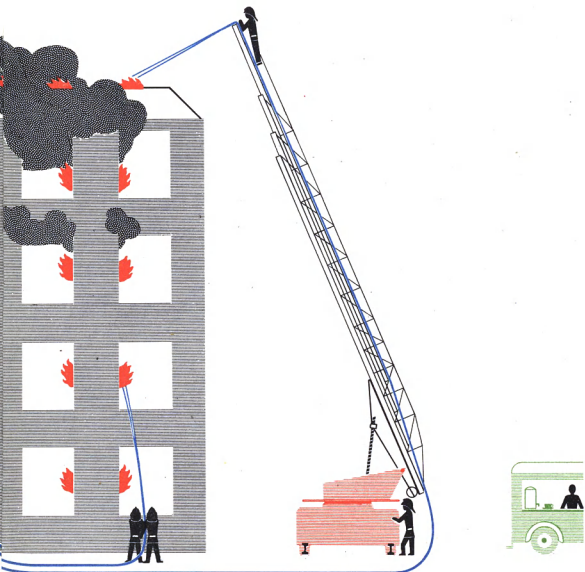


The fireman's helmet protects his head from falling masonry. His high rubber boots keep out the water. His safety belt not only holds him safely to hook-ladders; it also keeps the rope round his body in position as he slides down it.

The Battle Against Fire

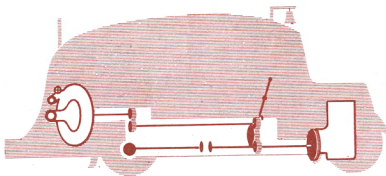
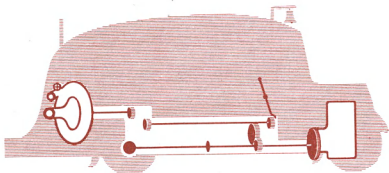
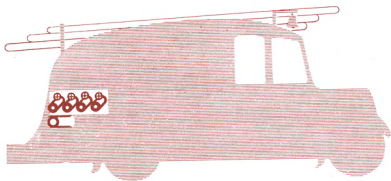


Fire has taken a strong hold of this building. Two turntable ladders, which can be extended, raised, lowered and swung round, are brought into action.



One is used to rig an escape line, and the other serves as a high water-tower, its hose fed by the pump. A mobile canteen provides food for the firemen.

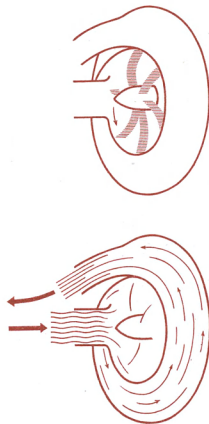
The Pumps which Force Water



on to the Flames

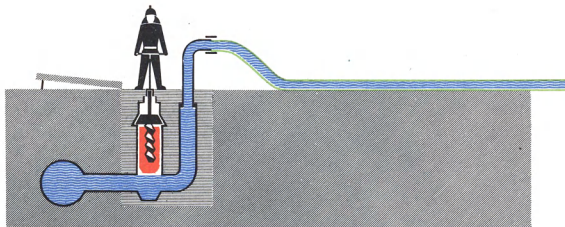
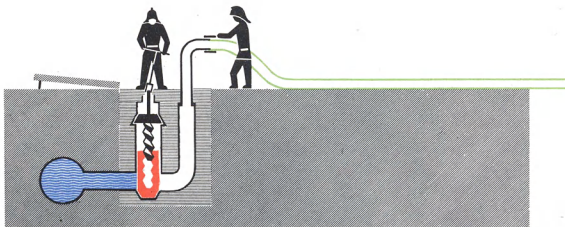
The pump which draws water up from the hydrants beneath the pavement and sends it spurting from the hoses is driven by an engine like that of a motor car.

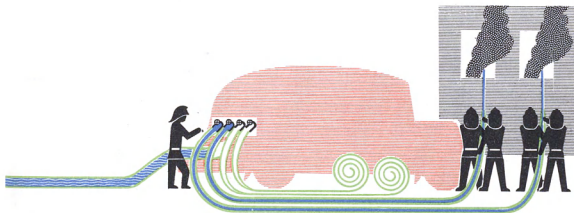
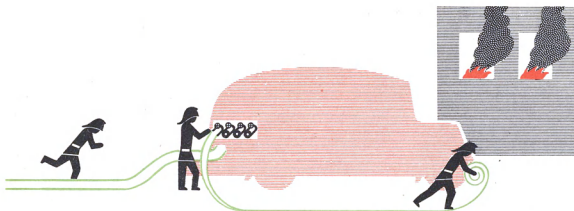
When the pump is being driven to the fire, its engine turns the crankshaft which drives the back axle and wheels. When it reaches the fire, hoses are connected to the inlet and outlet pipes of the pump at the back of the car. The driver pushes forward a lever, and cog-wheels turn a different shaft which drives the pump.



Inside the pump is a propeller with a number of curved blades, rather like the screw of a ship. The engine sets this propeller spinning round, and the blades force water out through the nozzles of the hoses. More water rushes in from the hydrant to fill the empty space.

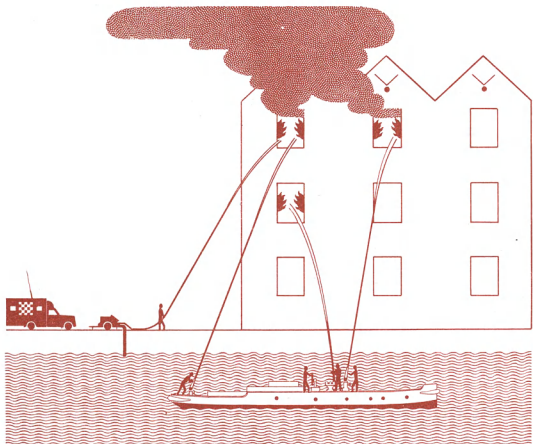
The Powerful Jets which Put Out the Fires



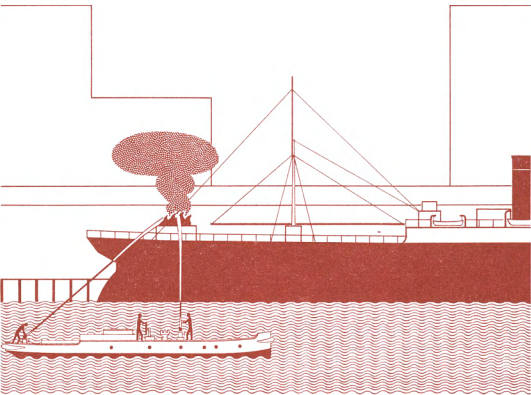


One fireman fixes the stand-pipe to the hydrant and screws on to it the hose leading to the pump inlet. A second screws another to the pump outlet, while a third unrolls it to bring the nozzle near the flames. A fourth turns the screw which releases the water from the mains. Each hose is held by two firemen.

The Fireboat Fights a Dockland Fire

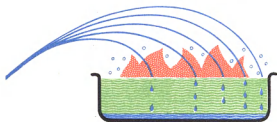


When a dockside warehouse catches fire, a fireboat often helps to fight the blaze. It pumps water direct from the river to feed its powerful hoses. It must be moored or anchored, or the force of the water would act like a jet engine and push the boat away from the fire. The land pump also draws water from the river.

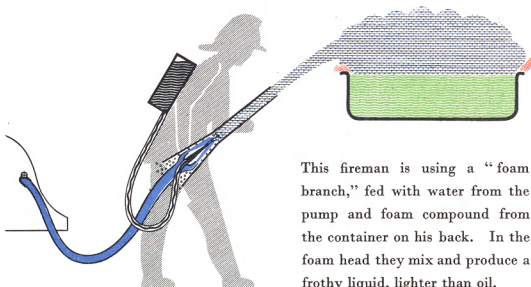
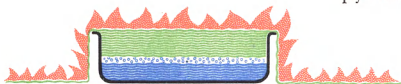


A fireboat also fights fires on ships in dock. By day it can signal to the land brigade by semaphore, at night by signal lamp. The control van, stationed on the bank of the river, keeps in touch with headquarters by radio. The fireboat's powerful engines enable it to travel fast ; they also drive the pumps.

Why Foam can Conquer Liquid Fire

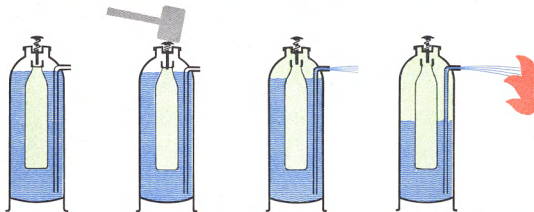


If water is poured on burning oil, the oil, being lighter, will float on top of the water and spread the fire. The air supply must be cut off instead.

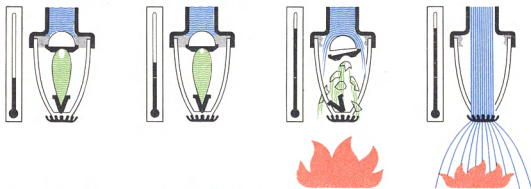


This fireman is using a “foam branch,” fed with water from the pump and foam compound from the container on his back. In the foam head they mix and produce a frothy liquid, lighter than oil.

Aids which Stand Ready against Fire

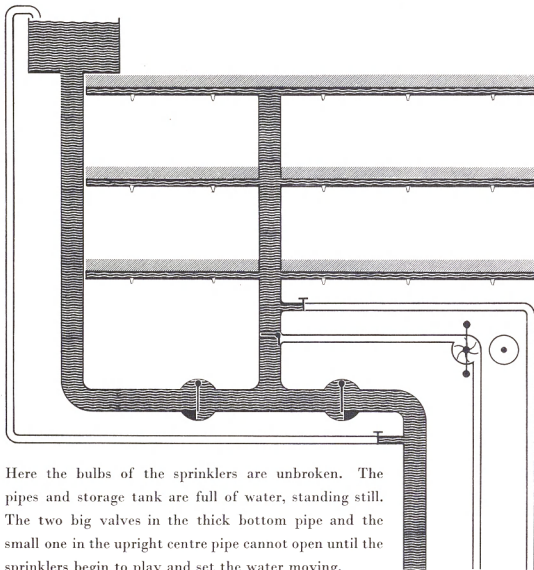


This fire extinguisher can be used as first aid against a small fire. The inner canister contains compressed gas and the outer part water. When the plunger is hit the inner part breaks. The gas expands and forces water from the nozzle.

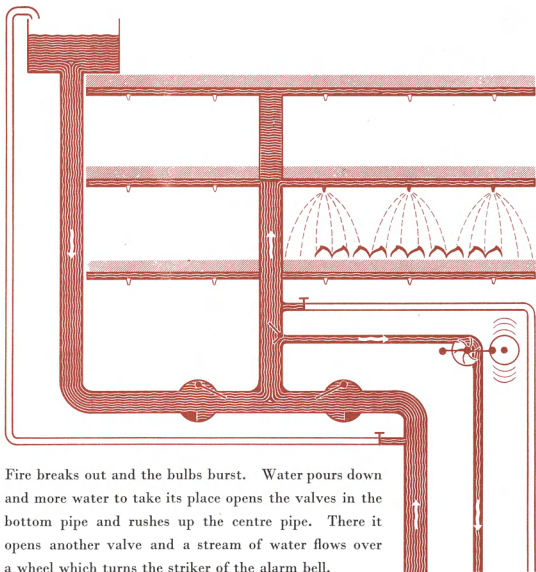


Many factories are equipped with fire-sprinklers. Above each is a water valve held up by a glass bulb containing liquid and a bubble. In hot weather the liquid will expand, but the bubble contracts to make room. If fire breaks out the liquid expands still more ; the bulb bursts and water begins to spray.

How Water Sounds the Factory Alarm

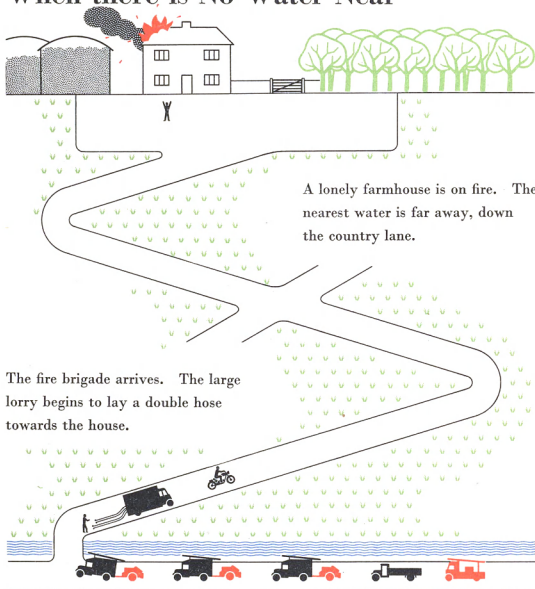


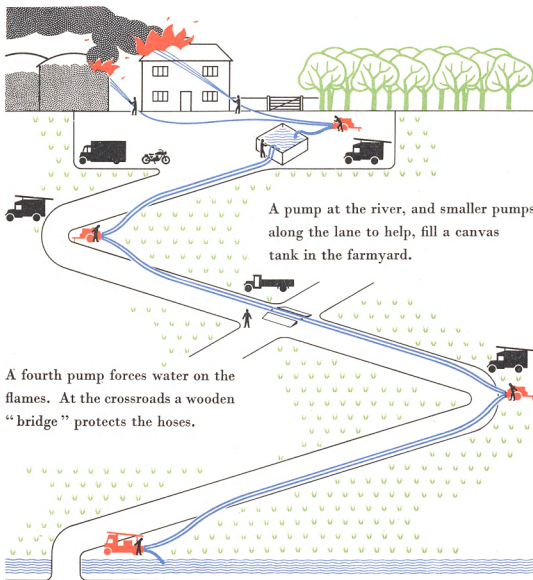
Here the bulbs of the sprinklers are unbroken. The pipes and storage tank are full of water, standing still. The two big valves in the thick bottom pipe and the small one in the upright centre pipe cannot open until the sprinklers begin to play and set the water moving.



Fire breaks out and the bulbs burst. Water pours down and more water to take its place opens the valves in the bottom pipe and rushes up the centre pipe. There it opens another valve and a stream of water flows over a wheel which turns the striker of the alarm bell.

When there is No Water Near





A pump at the river, and smaller pumps along the lane to help, fill a canvas tank in the farmyard.

A fourth pump forces water on the flames. At the crossroads a wooden "bridge" protects the hoses.

Fighting Fires on the Open Heath



A dry bog burns, and the fire eats deeply into the peat beneath.



After a long dry spell, a spark sets fire to heathland grass and ferns.



Through dry gorse or bracken, fire travels like a galloping horse.



A deep trench must be cut by plough or spades to stop the flames.



Beaters made of green twigs or wire-netting are used to fight the blaze.



A “break” is made by cutting a lane in the path of the flames.

Planes and Parachutes Save a Forest



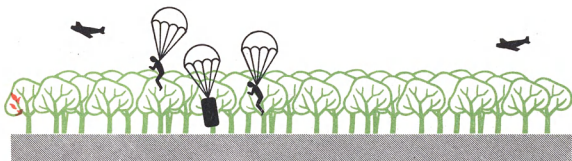
A distant forest is on fire. Help must come quickly by aeroplane.



The well is dug on the side towards which the wind is blowing the fire.



One side of the fire is fought with hoses. On the other it burns itself out.



The planes spray foam on the fire. Parachutists drop with tools to dig a well.

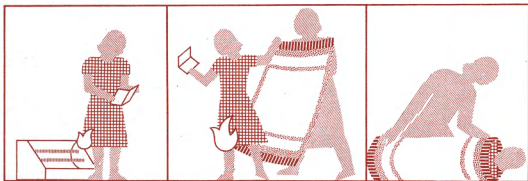


On the other side airborne foresters cut down trees to make a “fire break”.

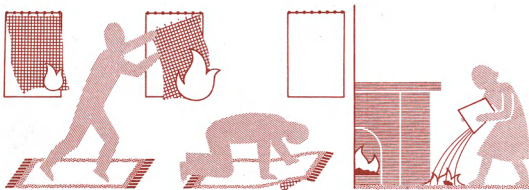


Firemen still search for dangerous embers on or under the scorched ground.

What to do with Fire in your Home



The girl's clothes have touched the electric fire and are set ablaze. Roll her quickly in the hearthrug. *Fire cannot burn without air.*



If the curtains catch fire, tear them down before they can set light to window frames, and put out the flames by smothering them with the hearthrug. Pour water on burning coals which fall from the fire on to the carpet.

A REVOLUTIONARY SERIES
FOR CHILDREN

For Young Children

IF YOU COULD SEE INSIDE

Digging for buried treasure—
Inside a fiery mountain—The
underground home of the mole—
The lonely house that stands in the
sea—The paper house which the
wasps build—The wonderful thing
that happens inside an egg—The
train that goes to sea.

I'LL SHOW YOU HOW IT HAPPENS

Tower Bridge makes way for a tall
ship—Seeds that fly to new ground
on wings and parachutes—The
wonderful birth of the dragonfly—
The turning earth makes day
and night—How a boat can go
uphill—How a burning candle can
lift a balloon.

For Older Children

RAILWAYS UNDER LONDON

The machine that prints your
ticket and gives you change—How
air puts on the brakes—The giant
moving stairways which take you
up and down—Cutting the tunnels
to take the trains—How the doors
open without being touched—
Signals worked by the trains
themselves.

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