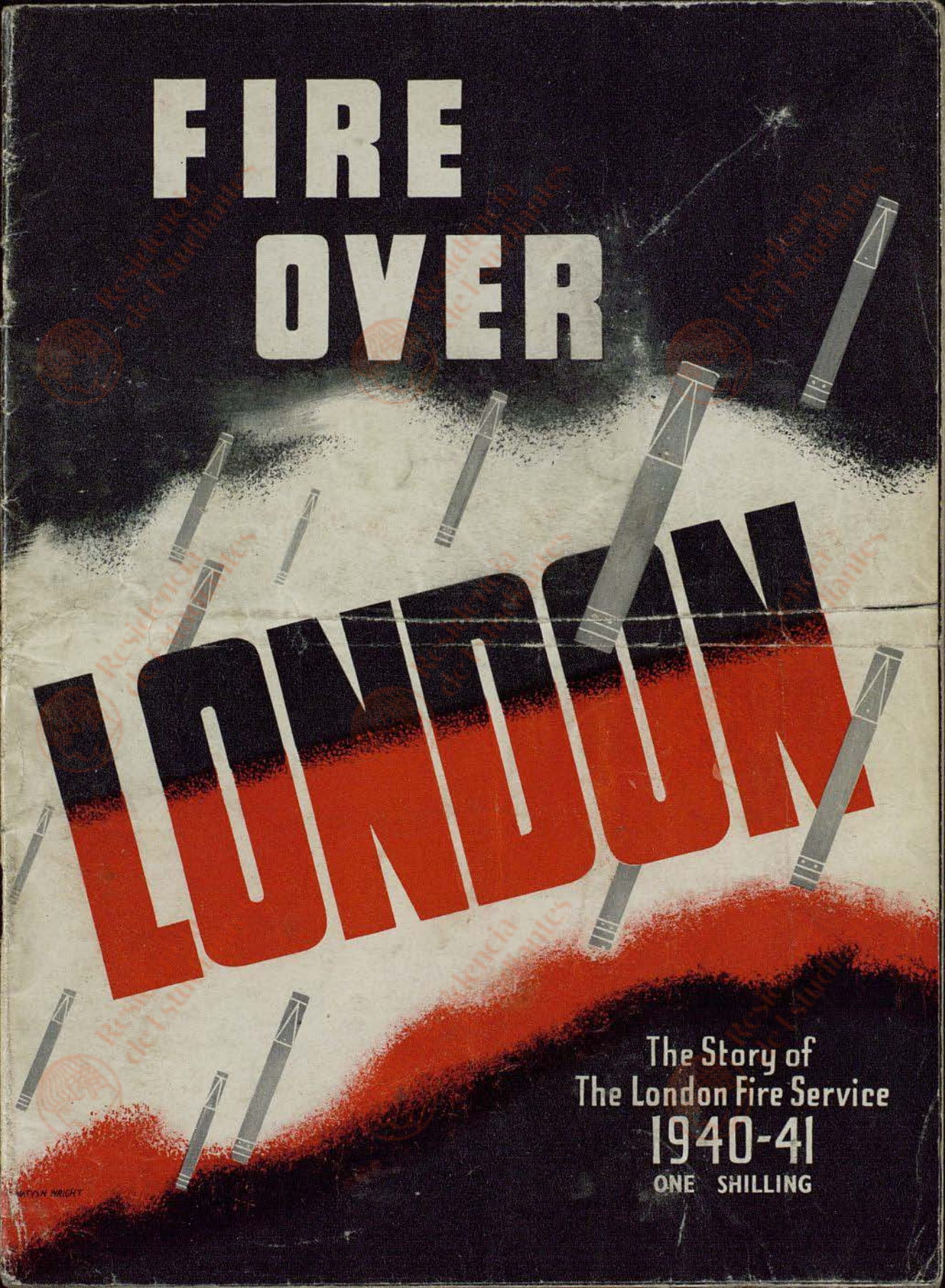
FIRE OVER LONDON



The Story of
The London Fire Service
1940-41
ONE SHILLING

MATTYSON WRIGHT

FIRE OVER LONDON

1940-41

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District Officer W. D. Doall
London Fire Force,

Message from Mr. Charles Latham

The London County Council has always been proud of its Fire Brigade, but it has never felt more pride than in these last months when regulars and volunteers, merged together in one citizen army, have grappled with the greatest emergency in the history of fire fighting.

The needs of war have now demanded that the London Fire Service should become part of a larger organisation and some of its links with the Council have been temporarily severed. This change will, however, in no way lessen the interest and affection which London feels for its fire fighters, and, on behalf of the Council, I should like to express to all of them our gratitude for their great services, regulars and auxiliaries, men and women, alike.

CHARLES LATHAM,
Leader, London County Council.

The County Hall,
London, S.E.1.
August, 1941.

Property of
Warren B. Lawson
911 West 40th Place
Los Angeles, California

FIRE OVER LONDON

SEPTEMBER

On Saturday, 7th September, 1940, Air-Marshal Goering directed the fleets of his Luftwaffe to destroy London.

For nearly a month the Battle of Britain had been fought in the skies. During this period German planes had bombed ceaselessly the aerodromes of our fighter squadrons; but with all his gigantic air-strength Goering had failed to fulfil his object—the destruction of the fighter forces of the R.A.F. Then, on 7th September, England learned that he had changed his stratagem. The air armadas appeared over London.

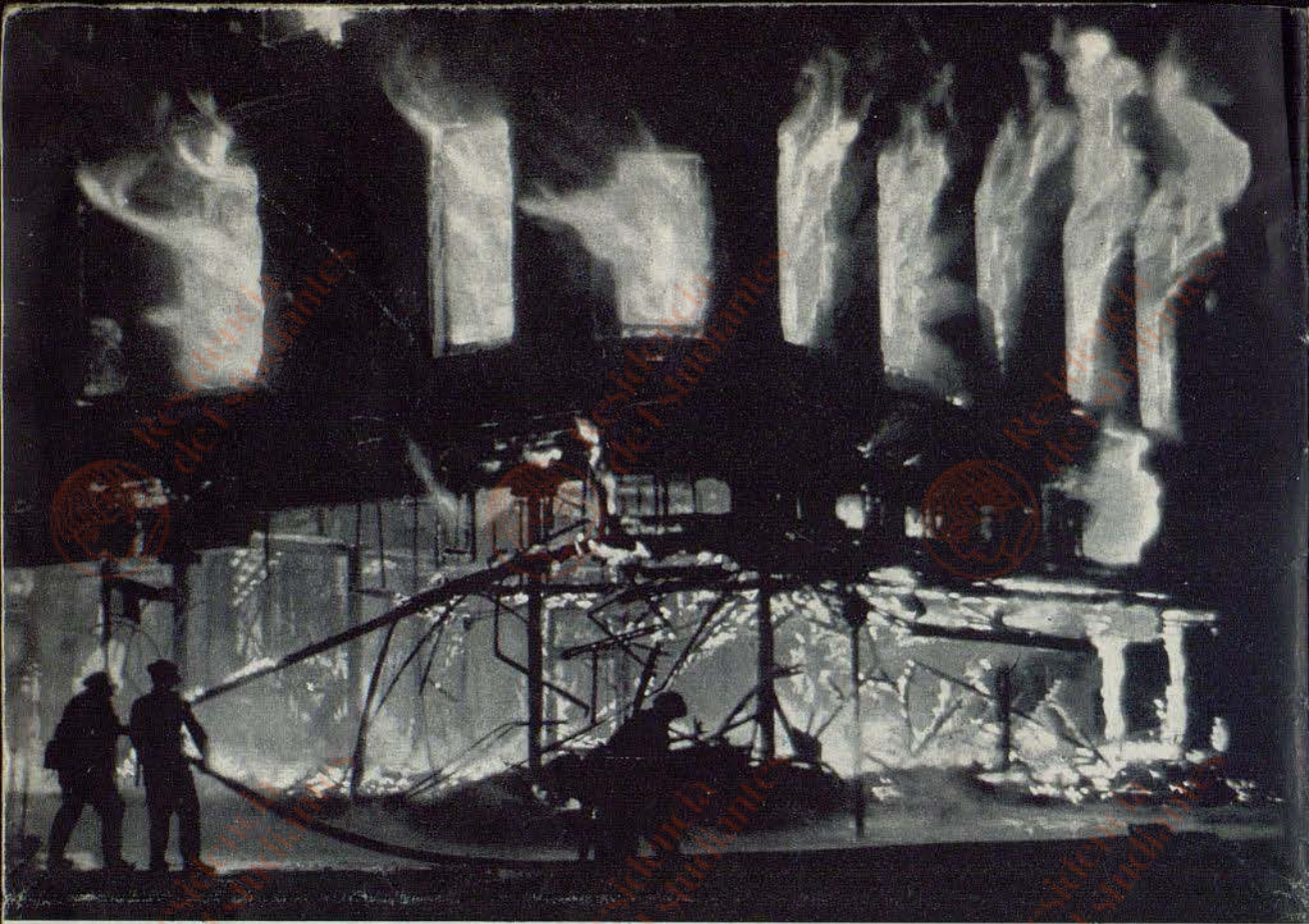
A quarter of a century before, on 8th September, 1915, Zeppelins had made their first big raid on London. A year before, on 3rd September, 1939, the capital had braced itself to meet the onslaught that never came when the sirens first wailed so dramatically at the end of Mr. Chamberlain's announcement of war with Germany. And then, twelve months later, on 7th September, 1940, the gentlemen of blood and iron came flying in their Dorniers and Heinkels to shower their bombs of fire and high explosive over the East End of London.

BAPTISM BY FIRE

When those fire-bombs were dropped, 25,000 firemen of the Auxiliary Fire Service followed the London Fire Brigade into their first major action—the most intense series of conflagrations that London had seen since yet another September far back in 1666, when the Great Fire ravaged a London built of wood. Some of these auxiliaries had fought fires before : but for the great majority it was their first fire-fighting job. With little or no practical experience these men were suddenly plunged into a savage inferno of bombardment and fire far beyond the experience of even the tried firemen of the regular Brigade.

The attack took place in the middle of the afternoon. It was a day of sunshine and blue skies. The afternoon was warm and drowsy. Outwardly the London atmosphere reflected that summer peace—although in many minds there were misgivings. In the previous week enemy raids had approached close to the capital. But up to that hour there had been no intimation of a big-scale attack on London itself. Now the attack came, and soon the docks and the working-class homes of the East End were ablaze. Thousands of feet up Spitfires and Hurricanes fought a valiant battle against vastly superior numbers. On the ground the alarm bells sounded and the Fire Service manned its machines to race East for their baptism by fire. That night the Luftwaffe struck again, mercilessly bombing fires that had been started in the afternoon. Through this intense bombardment, on their first day of action, the London Fire Service proved itself once and for all. They stuck right down to their job. They did not take cover. They worked savagely and ceaselessly and beat the spreading flames. The Nazis have named their vaunted terror-film "Baptism of Fire." That day saw, indeed, the literal baptism by fire of many thousand men. But the Nazi forgets that baptism does not destroy; it purifies and strengthens. Overnight, those untried men of an untried organisation knew they could hold their own, just as the heroes of the R.A.F. were doing high above in the blue summer skies.

The following day, as the men returned to their stations to snatch a few hours' sleep, an internal official communiqué from Fire Service Headquarters read : "The way in which the situation was dealt with gave rise to real confidence in the organisation and mobilising arrangements—and in the morale and efficiency of the auxiliaries."



FRAMEWORK FOR A FIRE FORCE

THE STUFF OF FIREMEN

At this point it would be well to consider what kind of men comprised the new auxiliary fire-fighting force. They were, of course, civilians. They had volunteered from every trade and profession, from every walk of life. Office-workers, labourers, lawyers, engineers, artists had flocked to the fire-stations both on the inauguration of the Auxiliary Fire Service in peace-time, and later in ever-increasing numbers when war did eventually break out. So there is one matter of which we may be quite certain : that a large proportion of these recruits were unused to heavy work, that nearly all up to that time had lived normal routine lives, immune from spectacular danger.

Fire-fighting in peacetime is heavy, strenuous work requiring strong reserves of stamina and courage. But fire-fighting in wartime, with flames beckoning the German pilots to drop their loads of bombs, demands even greater courage and endurance. So these new men had to be trained, and trained hard, to their job. They became tougher, they learnt how to handle their hoses and ladders, they absorbed the intricacies of fire-fighting equipment and organisation. One thing remained—and one thing only. They needed a fire. Some of them were lucky enough to attend normal peacetime fires. Others had to wait for the tremendous introduction of the blitz. In this respect, the embryonic fireman is at a disadvantage as compared with a soldier or an airman. You can train a soldier or an airman far nearer the point of battle than a fireman. You can build a bayonet dummy—but you can't build a dummy flame. You can give your pilot a mock battle—but you can't inure your fireman to the feel of a burning warehouse.

Facing the Unforeseen

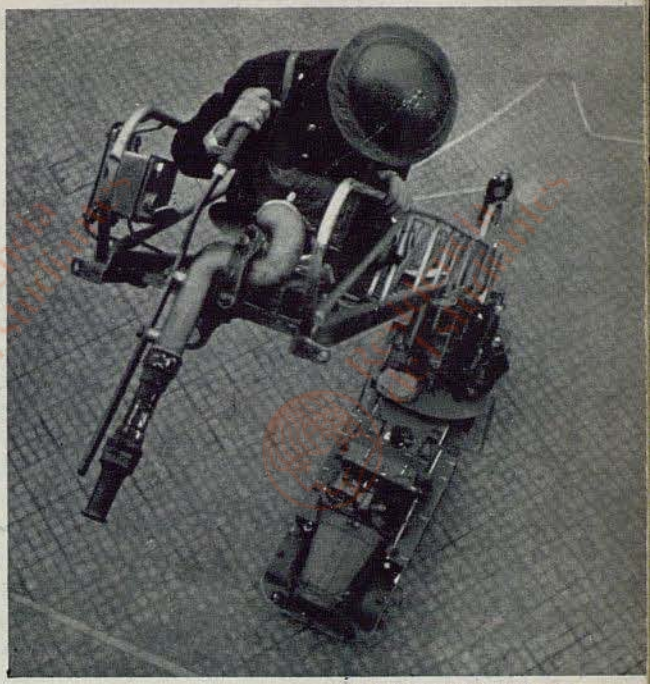
Thus the auxiliary fireman had to face the utterly new experience of a real fire. Out of his common sense and from the inspiration of the moment, he had to gauge the meaning of strange new smells, unexpected sounds, the vagaries of the wind, the strength of burning walls and floors. No two fires are alike. The unforeseen may occur at any moment. During the first nights of the London blitz, for instance, a group of firemen were suddenly conscious of a strong smell of pear-drops. In the front line, the sickly-sweet smell of pear-drops means only one thing. It means GAS. It is a sure indication of one of the commoner war-gases. On this occasion, the firemen concerned immediately took anti-gas precautions, spread the gas alert. But, much later, they found that the building they were trying to save housed a large consignment of amyl-acetate. This had vaporised with the heat, and the vapour exuded naturally, but quite innocently, the significant odour of pear-drops.

Again, the bursting of overheated bottles in a burning spirit warehouse can sound like automatic gunfire: the dislodgement of weakly-mortared façade decorations can give the impression that a perfectly sound wall is about to fall: a floor soaked in oil can appear safe—but in a second the whole room may burst into flame as the quiet oil heats up to its flash-point. There is no end to the variety of incident that arises to confound the fireman who has not had experience of actual fires.

Such, then, were the problems that faced those new auxiliary firemen. Their part was to go to it and find out for themselves. The finest instructor in the world could not have helped them. And, added to these intimate problems peculiar to fire-fighting was also the psychological impact of the melodramatic fire spectacle, often quite terrifying to the untutored mind. A rude initiation, too, into the pleasures of bombardment—an initiation haunted by the consciousness that, working in the glare of fires without cover or protection, they formed in contrast to the surrounding darkness a clearly illuminated target for the bombers overhead.

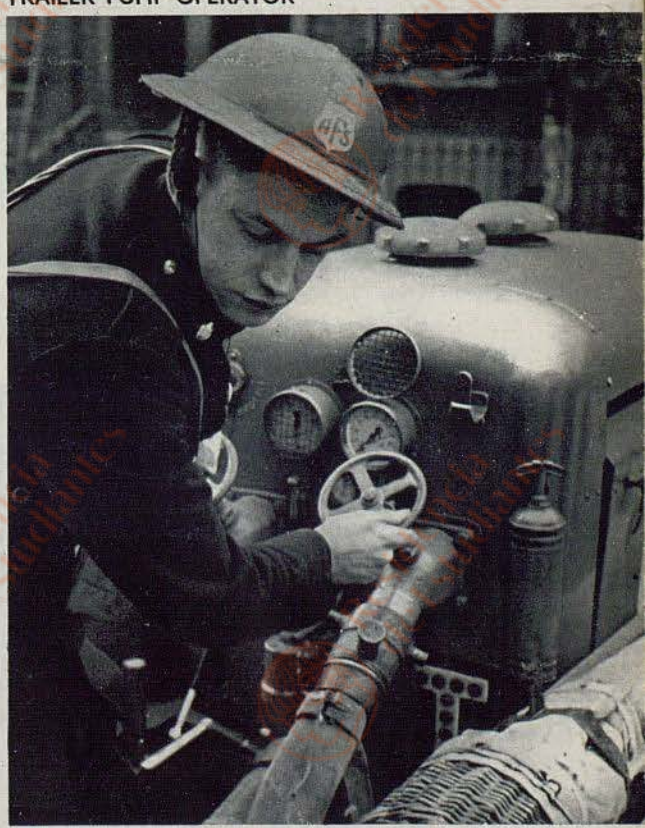
LINE OF BATTLE

On that memorable Saturday in September, the battle between the Luftwaffe and the London Fire Service was on. What, then, was the equipment at the disposal of our fire-fighting



A HUNDRED FEET UP

TRAILER PUMP OPERATOR



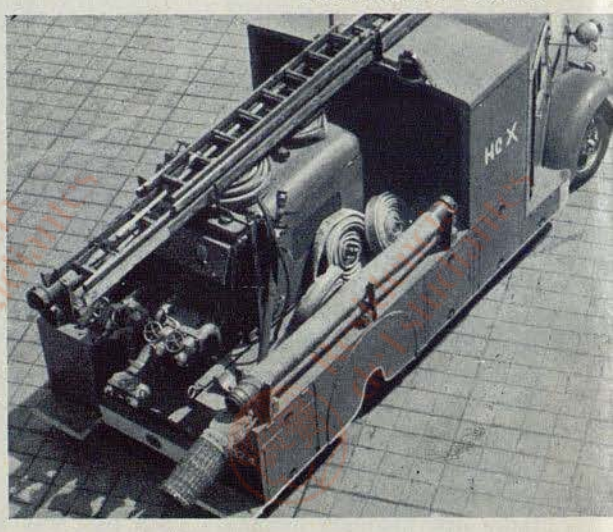
forces ? What was the extent of the resources upon which London could rely ?

First, the fire engines of the regular Brigade. These comprised heavy pumps capable of throwing out 900 gallons of water a minute, mobile fire-escape ladders, huge steel turntable water-towers that reach up one hundred feet into the air. These latter carry swivelling hose-nozzles operated by one man from a platform at the very summit of the fully-extended ladder. Added to these appliances were petrol-lorries, canteen vans, general purpose lorries, and specially equipped hose-lorries that can lay out long-distance hose at a speed of twenty miles per hour for relaying emergency water from the river or lakes and canals far from the fire sector.

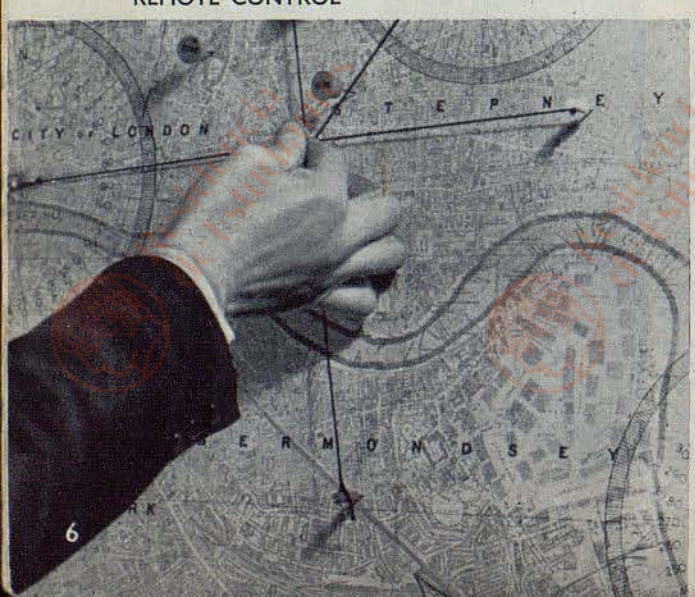
Secondly, there was the gigantic fleet of new fire-fighting appliances issued by the Home Office to augment the normal force to a strength commensurate with wartime requirements. Thousands of easily manœuvrable trailer pumps took the road. These light appliances, easily manhandled by two or three firemen, pump as many as 350 to 500 gallons of water a minute : they are towed into action by light vans and converted cars which also carry the hose and other fire-fighting equipment. In addition to these trailer pumps, hundreds of new heavy pumps were issued, each capable of supplying 800 gallons of water a minute. Many additional hose lorries, canteen vans and new ancillary vehicles of all kinds followed, among them special "dam" lorries carrying mobile "dams" (canvas water tanks) for speedy erection at danger points.

The number of these fire engines stationed in central London runs into four figures, but should reinforcements be required the Brigade control can call upon thousands more at a moment's notice. Throughout the long year before the London attack, ceaseless experiments and exercises brought this mobility system to a high level of efficiency ; so that now huge numbers of fire engines can be raced to London to meet an emergency. During a bad raid, Brigade control rooms chart the positions of each large fire and the stream of appliances. Observation posts manned in towers and on high buildings at strategic point: throughout the capital immediately communicate a fall of further incendiaries, fresh outbreaks

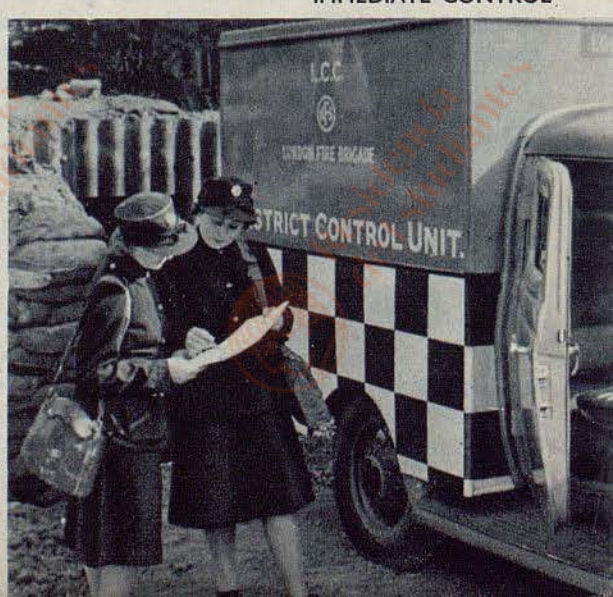
HEAVY UNIT—BEFORE



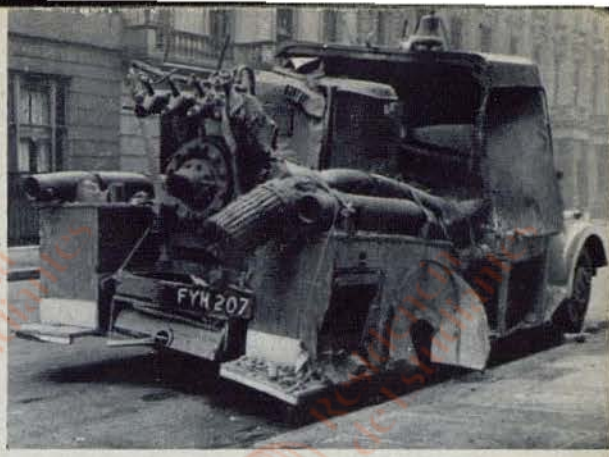
REMOTE CONTROL



IMMEDIATE CONTROL



of fire; local superintendent stations supplement this advice. If telephone communications are broken the special Fire Brigade Field telephone service is put on the job. From minute to minute the control rooms have a comprehensive picture of the complete fire situation, so that the Brigade mobilising officers can reinforce or deplete the emplacement of their squadrons as the situation demands.



HEAVY UNIT—AFTER

The Harnessing of All Water

Water is the main weapon of the fire-fighter. In London there are over 30,000 street hydrants through which water may be drawn from the dark labyrinth of subterranean mains. But there are times, in an area of concentrated fire, when even these powerful mains cannot adequately supply the number of fire engines demanding their life blood of water; there are times when a main is shattered and disorganised by explosive bombs, resulting perhaps in the drying up of a wide district. Then the cry goes up for water—any water from anywhere at any cost. Forecasts of such a situation gave birth to the organisation of an emergency water supply. So now, throughout the London area, every sizable source of water is tapped, every possible means evolved whereby it can be relayed to the afflicted quarter.

From children's paddling ponds to the big park lakes, all concentrations of water are assessed and charted. Swimming baths, water storage tanks—some small, others containing millions of gallons—have been adapted for use by the Fire Service. Even bomb craters have been pressed into service. Batteries of steel tanks have been erected at various points; and individual tanks stand at hundreds of street corners. And, most important reserves of all, there are the River Thames, the canals and the docks. Special steel mains draw unfiltered water from these sources, an increasing fleet of fire-floats and fire-barges sail their waters, batteries of pumps placed on pontoon barges draw ceaseless gallons from what are virtually inexhaustible reservoirs. Hose-laying lorries provide water-lines from emergency supply source to fire, often over great distances. Series of pumps positioned along relay lines keep the water coursing through at high pressure. Mobile canvas "dams" or tanks can be erected in a few minutes at the fire itself to receive this water from miles away.

These, then, are the forces of the Fire Service on a war footing. The brave scarlet of the

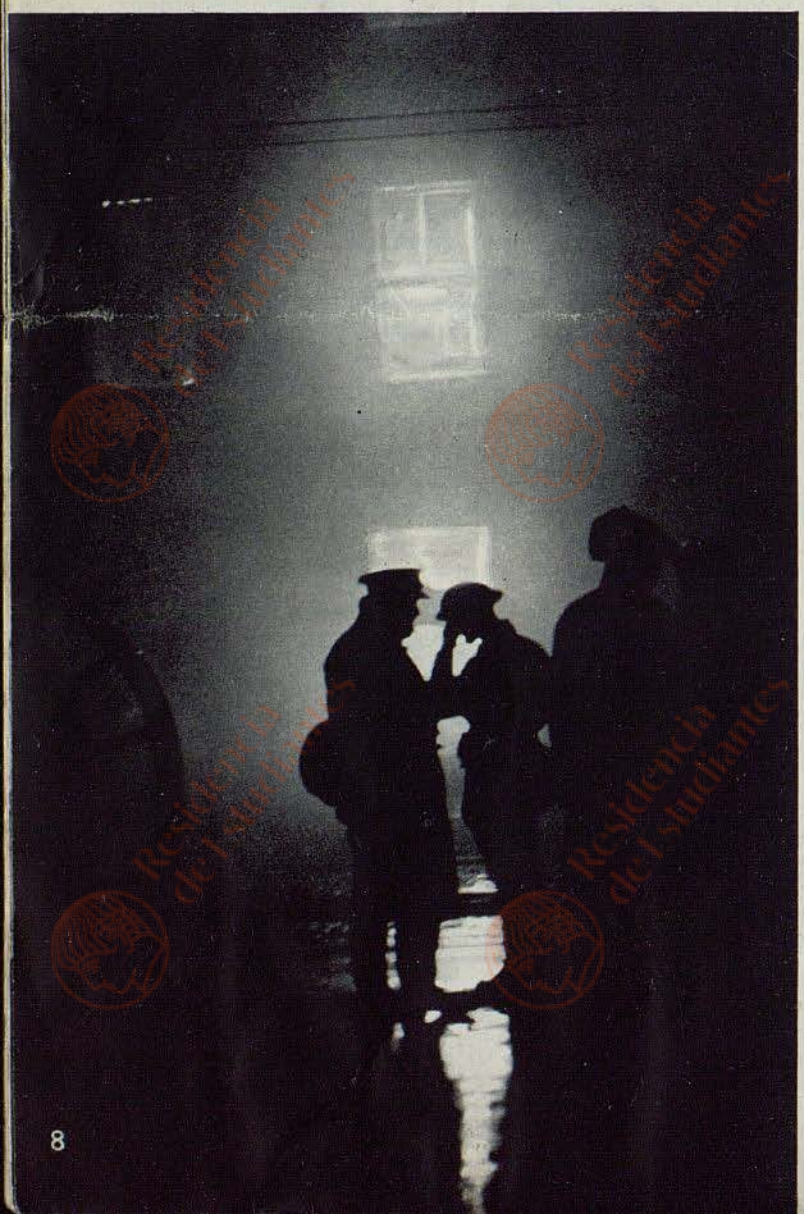
. . . . PREPARED FOR ANY EMERGENCY

Brigade fire engines has dulled to khaki, the shining brass is camouflaged with paint. Hundreds of new auxiliary stations house the sleek battleship grey of thousands of new auxiliary engines. Steel helmets replace the romantically combed fire helmets that graced the heads of peacetime firemen. Gas masks and strange suits of gasproof clothing are carried everywhere. For this is a force of men equipped to fight a battle at any time, anywhere, under any conditions.

THE FIGHT IS ON

From 7th September onwards, the Luftwaffe raided London day and night. R.A.F. fighter interception prevented many of the daylight raiders reaching Central London. But at night the bombers swarmed through under cover of darkness. A gigantic barrage of anti-aircraft gunfire curtained the skies and hampered the Luftwaffe's movement. Yet they came on—and each night they dropped their burden of fire-raising bombs. At first the attack was confined to the docks and working-class districts of the East End. Then, as the nights passed, the attack gradually moved west, over the centre of London's West End and farther—until the whole town and its outlying suburbs came within the target area. The Luftwaffe was bent on battering down the morale of all London.

THEY NEEDED A FIRE



At times it seemed, too, that the Luftwaffe attempted to encompass London with fire. Although no night passed without the glow of flames, there were some occasions when the whole of inner London was deliberately ringed with incendiaries. There seemed to be a plan to burn London out. Possibly it was an attempt to disperse our fire-fighting forces. But, whatever the object, it was not achieved. Usually all fires were under control by dawn or before. The amount of fire bombs varied from night to night and the number of fires oscillated erratically. Many "fires" were merely small outbreaks confined to the room or roof in which they started, but several times great conflagrations, or spreading groups of large fires, illuminated the night skies. In every case these were checked.

The tempo of bombing did not decrease until 5th October. From then onwards raids continued nightly, but with less ferocity, until 8th December, after which the attack on London was withdrawn and the fire services had their first real respite after three months of effort.

JETS

T.T.L.

. . . . . RAIDS LASTED FROM DUSK TO DAWN

But let us return to September. During that first hair-raising, fire-raising, temper-raising month London's fire-fighters fought a phenomenal battle. Raids lasted from dusk to dawn, an eight-hour stretch in September which gradually extended to twelve hours as the winter nights lengthened. But fire fighting seldom stopped with the dawn and it was quite usual for the men to work from ten to fifteen hours at a stretch. A fireman who is really "in amongst it" gets drenched through to his shirt in the first five minutes ; so that those long hours of hard work were spent in clothes heavy with water. The nights grew colder and the hardships of exposure consequently more wearying. And throughout, fires were fought in the open when bombs were falling. Fired districts were an especial target for the bombers. They provided the only certain light on the dark map of a blacked-out city. Night after night heavy explosives screamed down on the unfaltering fire-fighters. Firemen were exposed to direct hits from these bombs. Another indirect peril was the crumbling of a wall already weakened by fire. Added to these dangers was the constant risk of being hit by A.A. shell-splinters that peppered the streets with their peculiar glassy tinkle.

These Are the Bombs They Use

The Luftwaffe employs two main types of fire-bomb—the oil-bomb and the thermite incendiary. The oil-bomb is about the size and shape of an ordinary cylindrical dustbin. Its thin metal casing is packed with oil and other inflammable material. The bomb bursts and ignites on impact, flinging out flaming oil and splinters for many yards around. Much smaller is the thermite incendiary. About eighteen inches long and only a kilo or more in weight, these light bombs can be carried in their thousands on one airplane. With the force of their fall they can penetrate a normal tiled roof and burn furiously, their magnesium alloy container fusing on impact. Sometimes they are showered separately ; sometimes they are dropped in batches held together by a containing frame which explodes near to the ground, thereby dispersing the incendiary units over a small area ; sometimes they are supplemented with a small explosive charge to discourage quick attention from fire-fighters. Throughout the Luftwaffe attacks civilians, police and air-raid wardens have dealt splendidly with these small bombs whenever they have fallen in sight.

These were the bombs that scarred London during the first intense month of raids. After 5th October the pace slackened. But the attack was by no means over and sporadically there occurred heavy nights in certain localities. It was after a heavy raid on the night of 8th December that a period of peace at last began. The following night no fires were reported in the London area ; and from then until after Christmas the Fire Service was given its rest.

. . . . THROUGH CRATER-TORN STREETS

For three months London had been fired from the skies. In that time the Fire Service—the old hands of the regular Brigade, the raw auxiliaries and the war organisation that planned their movements—had proved itself equal to the task. It is needless to repeat tales of individual heroism ; the whole story of those months is a tale of courage and endurance. Every man, boy and woman in the service played his or her part. The men fought their fires unflinchingly. Young despatch riders rode their motor-cycles through the dark, crater-torn streets, providing an invaluable liaison service between officers at fires and their control centres. Women drivers and canteen workers smiled their way through the worst areas. Women control-room telephonists stuck to their posts after their stations had been largely demolished by direct hits or set on fire by incendiary bombs.

Too often we think of fires in terms of a rescue from the top storey of a tall house. But that is only one facet of fire-fighting. Firemen are faced with many different odds—equally formidable. It is when gasworks blaze, when petrol stations are aflame, that the fireman must fight some of his fiercest battles. When great timber-yards burn on a tremendous scale with the intense appetite of dry wood—the same appetite you may notice in miniature when you light the chopped sticks in your fire-grate at home ; when there is fire at a chemical works and the blistered chemicals throw off gases that may be poisonous ; when a giant gas container is in danger of explosion ; when the murderous flashback of vapour at a petrol station fire may engulf the fireman and his hose in one treacherous second ; these are some of the great risks in the hard game of fire-fighting—and they become even greater under bombardment.

THE GREAT FIRE OF THE CITY OF LONDON, 1940

The lull continued over Christmas. Then, on 27th December, the sirens sounded again and once more fire bombs began to drop over the City. It was a fairly bad night. Londoners thought that they were in for it again. But the following night nothing happened. The sirens were silent. The man in the street breathed his sigh of relief and speculated on the chances of a resumption of the lull. But twenty-four hours later these speculations were rudely put to an end. On Sunday, 29th December, the Luftwaffe fired the age-old City of London in the most savage attack of the aerial war. The German communiqué said that 100,000 fire bombs were dropped : for once this may be the truth. Here, then, is the story of the Great Fire of the City of London, 1940.

The air-raid warning was received at approximately 6 p.m. in the control room at Fire Service Headquarters. Soon after, the City of London report centre telephoned advice of two large falls of incendiary bombs at a certain point in the E.C. district and to the north and south of the Guildhall. In a very few seconds further reports of incendiary showers were received from other parts of London, notable from the X——* District, a sector of the City, and from Y—— District, south of the River, and opposite the City. Soon local stations in these areas were inundated with fire calls and emptied of their first-line engines. About an hour later a serious fire situation had developed in the neighbourhood of St. Paul's Cathedral. Towards 8 p.m. two further conflagrations were reported spreading, one in the Y——* area and the other in the square quarter mile of narrow City streets comprising X—— District.

In the City Danger Zone

Fire was spreading easily in the City danger zone—where the buildings were old and particularly open to fire risk, where narrow alleys and crooked streets ran between warehouses crowded with inflammable stocks, where space was so valuable that courtyards were roofed over with glass to house more and ever more sacks and crates packed with easily-fired goods. An adequate organisation of roof spotters would have saved many buildings and much stock from

* Censored

. . . . IN THE CITY DANGER ZONE

. . . CROWDED WITH INFLAMMABLE STOCKS

the peril of sparkstorms. As it was, there were few roof spotters and the fire spread. In addition to this, the owners of many buildings had padlocked and bolted their doors, thus seriously hampering the firemen.

There is normally no shortage of water for the fire services in London, but on this occasion immediate calls were sent for the supply of emergency water. A time-lag necessarily occurs before this water can come through. Pumps must be positioned on the Thames, dockside, canals, lines of hose laid to the fire area, canvas dams erected. These matters are put in hand at high speed ; but the water cannot come through in a minute. As soon as possible those tough river boats with their heavy pumps were in position, hose had been flung across the mudflats, powerful hose-laying lorries were setting out their twin lines in the direction of the City danger zone a mile away. At the same time, mobile land pumps were seeking strategic positions by the riverside where there might be water within reach of their suction pipes. These pumps eventually operated at bridges and dock basins situated some distance from the fires.

Before nine o'clock a message from the Guildhall reported that the spire of a neighbouring church was in imminent danger of collapse and might spread fire to the historic hall itself. Reinforcements were required here—and in a hundred other places too. By that time over three hundred fire engines had been sent to the City. More had been diverted to fight fires in other parts of London.

Fires in Their Hundreds

The fire situation in that square half-mile of the City called the "danger zone" was assuming alarming proportions. Even in peacetime its narrow, congested streets flanked by warehouses filled with inflammable goods made the possibility of a conflagration in this area an ever-present anxiety for London's fire chiefs. Fires were started in hundreds of buildings and orange fireglow blazed with the bright force of sunlight. A glare rose high into the sky that could be seen from great distances beyond London. Dark City alleyways and passages, curtained for a century by tall walls, exchanged their twilight gloom for a flood of yellow light in one theatrical moment. Firemen walked the streets through blinding spark showers that drove down from the roofs with the intensity and regularity of a snow-blizzard. Waves of flame rolled across whole streets, black clouds of smoke smothered the air. Firemen fought on. It seemed that they fought a lost battle. And high explosives were falling, killing and injuring men.

Three important City fire stations were burning and had to be evacuated. The controls retreated out of the immediate danger area and set up again on the outskirts of the fire. Then, towards ten o'clock the roof of the historic Guildhall caught alight. A control staff in the vaults stuck to their posts until the fire had all but reached their door, but eventually these, too, had to be evacuated. Before midnight the all-clear siren sounded. It was a relief to those working that the bombing was at an end ; but civilians further overloaded lines of communication with what they thought to be new information as to unreported fires.

By this time various units of the emergency water service were in operation and the supply of water was being strongly augmented as the minutes passed. Large canvas dams had been erected and firemen cheered as they saw the water pour in. Pumping operations gathered force. Firemen gathered new hope. Reinforcements of fire engines had arrived. So that now there was water and there were pumps and firemen to work them. Almost enough of each : enough anyhow to start effectively the stemming of that ferocious flood of fire. And more engines were racing on their way, more emergency water units were coming into operation every moment.

From then on every man was at work. Gutters ran with black water that streamed off the charred buildings. Dispatch riders scrambled their motor-cycles over the maze of snaking hose-lengths that littered every street. Petrol lorries arrived ; and here it may be noted that some of these heavy vehicles loaded with inflammable petrol were driven by girls of the Women's Auxiliary Fire Service, driven through dangerous blizzards of spark and flying ember. Women also brought canteen vans into that inferno, working tirelessly on through the night to feed the thousands of firemen on the job. The work of feeding those crowds of men was a

problem. What could be done was done. Yet many firemen there had to work the night through and on into the middle of the following day without refreshment or rest. A fifteen-hour stretch of this hard, wet work without so much as a cup of tea is no small order : but the men knew what they had to do and they stuck it.

Stories Inside the Story

Perhaps the quality of the fire-scene that night may best be illustrated by the mention of a few individual incidents characteristic of what was going on throughout the City. W—— Street, for instance, was ablaze from beginning to end. Debris blocked both outlets. Trapped in this basin of fire were half a dozen or more engines together with the personnel manning them. For a long time these men sought for a means to defeat the spreading blaze. Both ends of the street were sealed. There seemed nothing for it but to abandon the engines. This decision was at last taken and the men looked for a way out. By the grace of God they found one—some stairs leading to the entrance of an underground tunnel. Via this tunnel they made a perilous escape, leaving behind them a grave of fire and collapsing walls.

Firemen tell the story of a fantastic incident in another part of the City. Once again fire stretched the whole length of a street. Fire engines were still positioned at the kerb, still able to pump up water on to the blaze. But it got too hot for one of the small trailer pumps. The pump caught alight, the men had to retire. But they found they were still gripping hose fed from the burning pump. Curiously enough the pump was still forcing out water—the fire had not yet upset the engine. So they turned the jet on to the pump—and there was realised the anomaly of a fire engine on fire providing water to save itself !

. . . . A GRAVE OF FIRE AND COLLAPSING WALLS

A great hospital was snatched from the flames after a long battle and a fortunate choice of tactics by the officer in charge. It was like this. A corner of the block of buildings that comprised the hospital faced converging streets along which the fire crept rapidly from house to house. It was apparent that, unless this advance was somehow checked, that particular corner of the hospital would eventually fall victim to the flames. Set in the basement of the hospital was a swimming bath. This contained 40,000 gallons of water. Not a big supply, but enough for an attempt to hold the fire off the corner of the building. With this end in view, one of the smallest pumps was manhandled down into the basement and its suctions lowered into the bath. This pump was to relay water to a dam out in the open. From there another pump could feed on the water sent up and direct its jets on the approaching fire. This it did. The men stood on the corner and played water on the advancing enemy as a machine-gun post might make a last stand against a ceaseless flood of attacking infantry. Those men mowed the enemy down. The fire was prevented from crossing the street. Forty thousand gallons and a laughably little pump saved the huge hospital.

Down in the dark waters of the dock basins there was trouble too. A fire boat had nosed its way into one dock at a time when water was urgently required. This boat was to lift an invaluable ration of water to feed relaying lines leading to the fire sector. But beneath the surface of the dock water lay disaster—a hidden wreck. As luck would have it, the course of the boat was directed across the wreck's position. There was a collision. And for a time, at a period when minutes were precious as life and inexorable as death, that fire boat was out of action.

The Saving of St. Paul's

Many incendiaries fell across the dome and amid the towers and buttresses of St. Paul's Cathedral. Frantically, the Cathedral staff clambered over the treacherous slopes of the high roofs in their efforts to deal with the shower of bombs. Three outbreaks of fire occurred. Creeping across dizzy stone escarpments, reaching out among buttresses that fell sheer to the street many feet below, they yet managed to beat the bombs and quench the burning timbers. But another danger threatened the great Cathedral. Many buildings surrounding her were ablaze from top to bottom. Flames reached out across the street, licking close to the venerable stone. Firemen on the ground and on ladders worked furiously. Hour after hour they slaved to hurl back that advancing wall of fire. But hurl it back they did, and after a battle lasting hours they cheered to know that St. Paul's was saved.

The fire at the Guildhall was intense and terrible. But to the detached observer the scene must have seemed picturesque despite his horror at such destruction. Flames trembled up and down the skeleton of the great tower that now flickered like a huge pyrotechnic display piece. The silhouette of giant roof-rafters stood out black and sombre against the red fire that was breaking them. On shallow flats that buttressed the main building the fly-size shapes of firemen could be seen desperately fighting a sea of fire. They were right up against eddying waves of flame a hundred feet high. It looked as though they were already in it. Certainly they worked in great danger of a general collapse. But they were not wholly defeated and, though the building suffered harm, it is not irreparable and the flagstaff still stood to fly the Union Jack when they hoisted it in the fresh light of dawn.

Such are the tales that go to make the saga of that night. Every street had its story of heroism and smiling endurance. Gradually the battle was won. Soon after midnight the situation at Y—— was reported eased; at one o'clock the X—— District was in hand.

By 7.30 a.m. that morning all fires were under control.

But throughout the next day and night the work went on. Fresh outbreaks had to be checked, smouldering debris and piles of hot white ash doused of their last vestige of fire. By midday many of the crews that had striven in the night were relieved by men returning from leave. And so to the drugged sleep of exhaustion after a battle that had lasted since seven o'clock on the previous evening.

That morning a strange city greeted workers who sought their offices. Great blocks of

building had been gutted to the ground. The charred shells of burnt-out shops and offices lined whole streets. Beautiful architecture had disappeared overnight or now faced the daylight black and broken—pathetic evidence of the new German culture. Historic churches designed centuries before by the master hand of Christopher Wren lay shattered, their very altars choked with the black mud of sodden ember and ash. And yet with all this melancholy toll of destruction the heart of the City, together with its great Cathedral, had been saved.

On that night of 29th December, fourteen firemen were killed and over two hundred and fifty were injured. This in addition to casualties among the civilian and military help that was so readily volunteered. To these men and to the thousands of their comrades who fought with them went the gratitude of the people of London.

INTO THE NEW YEAR

Thus, on a note of high climax, 1940 came to a close. London had witnessed scenes unparalleled since the days of Pepys. Its men and women, civilians and firemen had passed through an ordeal by fire less destructive but more terrible than the disaster of 1666. Other towns had experienced a similar ordeal—but of necessity this report must deal with London alone. And so, as the New Year started on its course with belfries silent and crowds preoccupied, we can view the people of London and its Fire Service adapting their experience to face the future with one common resolution. Victory. Victory over anything and anyone that might fall upon their city from the skies.

Now, in retrospect, the fire situation in the months that were to follow can be traced. The

LEND TO THE LIMIT !

most notable feature was an appreciable change in the German tactics. The Luftwaffe did not return to bomb London solidly over a period such as the previous September-October. The incidence of heavy raids was markedly sporadic. Many nights were passed without the sounding of the sirens : but on certain dates strong formations of bombers attacked suddenly and heavily. These attacks were sometimes attributed to the full moon : sometimes they were thought to be reprisal raids for R.A.F. visits to Berlin. But, whatever the reason, the tempo was changed. London was to a great extent left alone while the strength of the Luftwaffe attended to our provincial centres. Yet, now and then, they did return to us : thus, tracing the fire history of the first six months of 1941, we find that the London Fire Service dealt with five large-scale attacks between periods of inactivity or very minor occasions of fire defence.

The area of concentration for these heavy attacks varied from Dockland to the central district of the West End. Sometimes only one area suffered, sometimes vast sectors of the town were peppered with incendiaries. It seemed that the Luftwaffe had no long-term system in operation. The attacks might occur anywhere and at any time.

On two occasions it appeared that more fire bombs had been dropped than on any one previous night. It is notable that in each of these cases the Fire Service—with the invaluable aid of its auxiliary army of civilian fire watchers—prevented more fires than ever before from assuming alarming proportions. Although more bombs were dropped, there was in ratio a distinct decline in the number of serious fires and spreading conflagrations.

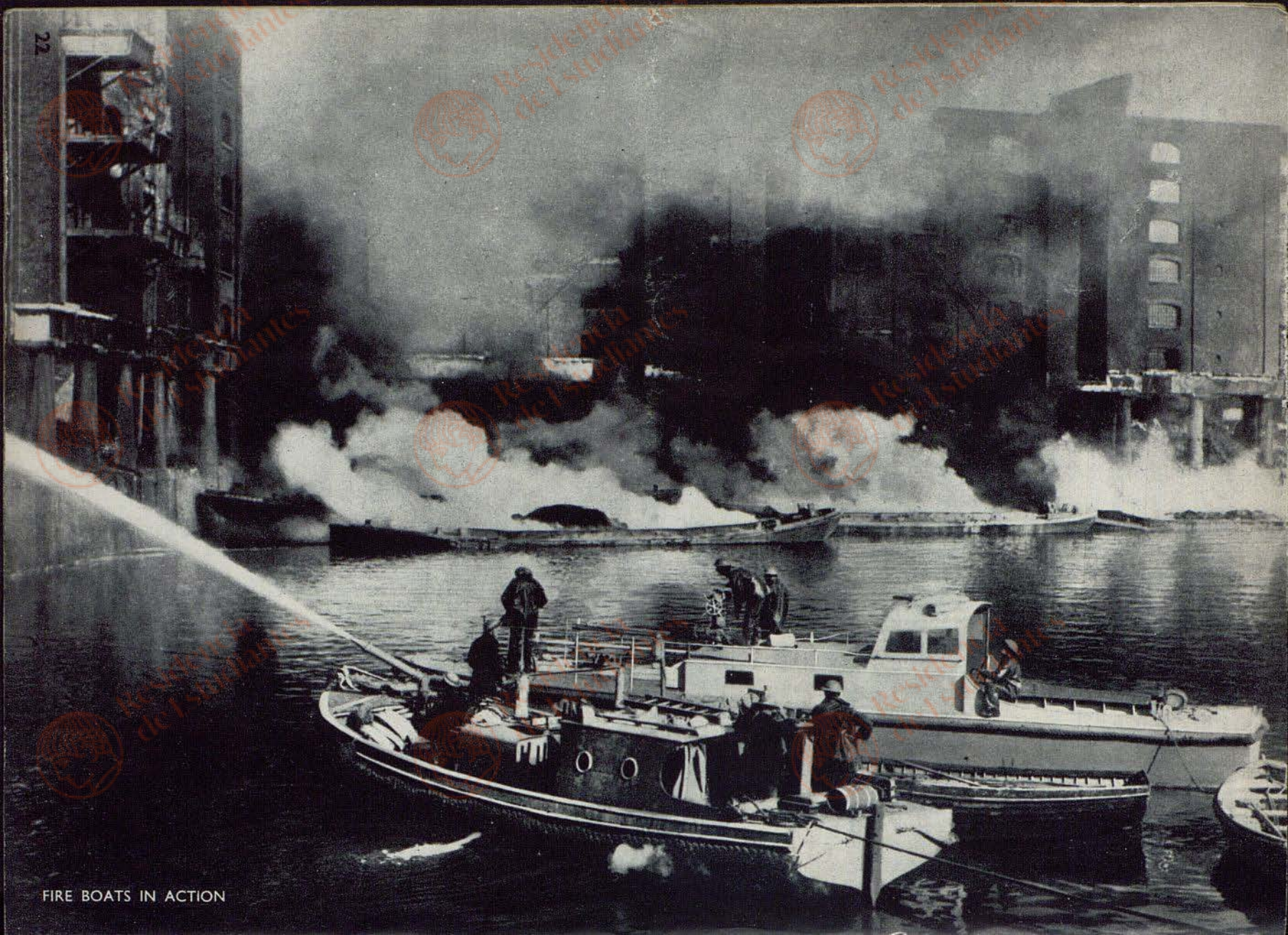
Reinforcements in Operation

A case in point was the attack on the night of the 10th-11th May. On this night more fires were recorded than ever. The attack was widespread, though central districts including the West End were most affected. Many thousands of incendiaries and some hundreds of high explosives were dropped. It was a particularly savage attack. It seemed that the Luftwaffe was making a supreme effort : probably the German Air Command envisaged an effect on our West End similar to that on the City district on the occasion of the Great City Fire.

But this was May. By this time the powers of defence had been reinforced. And in particular the organisation of emergency water supply had been strengthened. This supply had been of infinite value in the past. On 10th May, with increased resources, it was again to prove its worth. The great hose-laying lorries, canvas dams that spring up, like oases in the desert, wherever the fire is hottest—these were sound weapons to use on a battlefield where mobility and improvisation were necessarily at a premium.

That night again the ultimate object of the Luftwaffe was not attained. There was no burning out of London. Fires were caused and fires were fought the night through. But the forces of defence prevailed. The greatest danger of an incendiary attack is the fire that spreads from building to building at such a speed and with such intensity that fire fighters are unable temporarily to cope with it. This fire situation is technically known as a conflagration. It is notable, that, with all the fire bombs dropped, only one such conflagration occurred on the night of 10th May. There were other serious fires but in each case they were prevented from spreading dangerously. And the number of these serious fires was also reduced in comparison with previous raids.

However, though thousands of incendiaries were mopped up soon after impact, and though the flames were prevented from multiplying themselves catastrophically, much harm was done. Westminster was deliberately spattered with incendiaries. The Houses of Parliament, Westminster Abbey and the ancient monastic dormitory of Westminster Upper School were among many famous buildings throughout London that suffered the indignities of fire and high explosive. These buildings were in no case irreparably damaged. But much that was historic and lovable was lost. The great timbered roof spanning Westminster Hall caught alight. The place of coronation in the Abbey lay littered with rubble and broken timber beneath an open sky. Firemen played their jets of water over Gothic tracery lining the galleries of the House of



FIRE BOATS IN ACTION

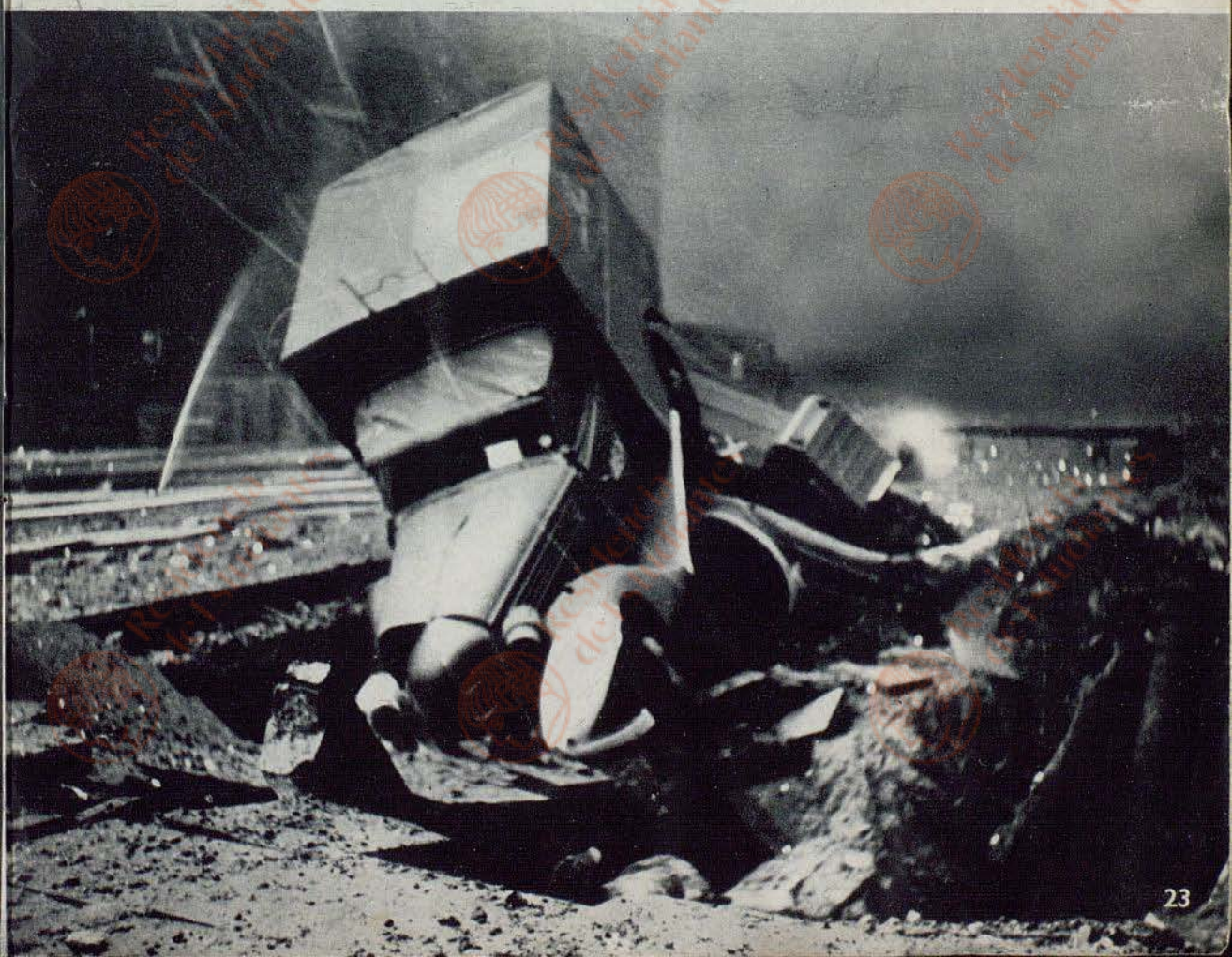
Commons : the famous green-padded leather of the seats was tinted red and orange as fire and water waged a battle across them. Though the rest of the building was saved, this famous sanctum of free speech was a charred and blackened shell by morning. The Bar no longer stood to check intruders. The Speaker's chair was burnt and lost. Gone were the dispatch boxes dented in the fervour of Gladstone's oratory.

THE FIGHT CONTINUES

Such is the story of the first battles between the London Fire Service and the Luftwaffe. The organisation has stood the test and the men and their weapons have proved the right ones for the job. But though catastrophes were averted, much damage has been done. Now, with experience of arson on a titanic scale the Fire Service is striving to increase its strength and minimise damage in the future. Every day the forces of fire prevention and fire fighting are being augmented and refined and a big salvage scheme to protect goods against damage by water is beginning to operate.

It is, therefore, with the development of still greater forces that the Fire Service is now primarily concerned. New hose-laying lorries and heavy relay pumps are ready. Special lorries carrying dams patrol the streets, scouting for an area where water is wanted to nip a small fire in the bud. To organise the great resources which now exist and to train crews in their instant use, special water officers have been appointed throughout the network of Fire Service stations in London. A training school has been recently opened, where personnel are learning about the complex problems connected with water supplies. If "water" is the cry London will get it—in

WRECKED TRANSPORT



THERE MAY BE GAS

ever vaſter quantities. Among the thousands of firemen engaged during the long hours of the winter raids "food" was also an inſiſtent cry. Now more canteen vans are on the run and a plan for mobile kitchens nears fruition. Each appliance too will soon carry its own rations with a ſtove to make hot drinks.

Fall in the Fire-bomb Fighters

Still more auxiliaries are being recruited to keep ready additional firſt-line pumps. But apart from these a new army has come into being—the army of the fire-bomb fighters. These thousands of roof spotters and private fire-fighting parties are of ineſtimable value. Previously many fires could have been prevented from assuming grave proportions by the prompt action of a man on the spot. Now there are men and women on the spot. By law, all commercial premises throughout London muſt be watched during air raids. Incendiaries can thus be dealt with as they fall, though maybe some will always elude detection.

In addition to this army commanded by law, there are the thousands of civilians who regard it as their job to watch their own ſtreets and their own roofs. This is a voluntary duty, but there are few ſtreets in London without their fire parties. No longer will these people see their homes ablaze because incendiaries have worked unseen in dark attics screened from the ſtreet by windowless roofs. Men and women are on the alert to hear them drop and mark their position. Only so can they attack the fire germ before it takes hold and infects a whole dwelling. These people saw their homes burning and they were angry. They rose to the suggeſtion of private fire-fighting and fire-watching and worked out their own salvation. Their weapons are ſtirrup pumps, shovels and sand : water is kept ready to hand in buckets so that little tax is put upon the mains. The only organisation is a rota syſtem whereby the ſtrain of fire fighting above their normal daily work is equally borne.

Roof spotters and fire parties release the regular Fire Service from much unnecessary work on small outbreaks. Every civilian who puts out an incendiary takes some of the weight off the fireman's shoulder. At times the weight on that shoulder is pretty heavy—and your fireman, working through long and difficult hours, is really grateful for every ounce of help given him. He wants to be free to get down to the big jobs—and have the beſt chance of finishing them quickly. Valuable pumps and skilled men can be diverted to concentrate on their real job of fighting large-scale fires. Thus each new measure can dovetail to make more efficient the huge resources built up for the battle againſt fire. Having come through the firſt phases of its ordeal, London is not ſtanding ſtill and now that nationalisation has taken place a great new chapter has been opened.

FIRESIDE CHAT

London's ordeal by fire has seen the maiming and the crippling of many beautiful buildings. Such fires are indeed sad to recall, yet for all that they are hardly the real measure of your fireman's most vivid recollections.

Your fireman will gloss over scenes of grandiose spectacle. He is used to them. Rather, he will tell you of a more intimate world turned topsy-turvy by heat and flames. He will tell you of the fire at that rubber warehouse when molten rubber covered the floors, when his boots stuck firm at every step so that he felt like a fly on flypaper. Or of another sticky job at a toffee store, when a lava-like flow of freshly warmed toffee enmeshed his hose and brought again to his nostrils the old exciting smell, a hundred times magnified, of the toffee pan in his mother's kitchen.

Eccentricities will happen. A man who fought a fire at a paint factory found the next morning that his boots were beautifully varnished. In a certain church in a south-west district the best vantage point for the firemen was the pulpit itself: that night the men preached a sermon of water on to a congregation of flames.

Again, somewhere in Dockland a wharf housing whisky caught alight. A wide curtain of the precious spirit streamed down the outside walls from burst crates up on the top floor. As it descended the spirit caught fire. And thus the whole side of the building became one sheet of falling flame—as blue as the flame on a Christmas pudding. Once, too, a butcher's shop caught fire. By chance the flames did not actually consume the stock of meat. But they were near enough to give it a fine roasting. Firemen saw huge sides of beef browned to a turn. The air was sweet with the perfume of good crackling pork.

Your fireman will also remember less pretty stories than these. Tales of fires spreading towards ammunition dumps, fatal moments when every ounce of energy must be exerted to stem the tide of flames flickering round drums of inflammable petrol. One motorman* will tell you of the night he drew his water from a flooded bomb crater with a delayed action explosive still at the bottom. His heavy suction dragged the sides of the crater: he and his pump remained within three yards of the sleeping bomb for over two hours. He will tell you how much pure philosophy he learned during those long hours of waiting and watching.

"The hose was like a live thing"

There is the story of another man who got into trouble with a "runaway" hose. "It was a rubber fire—rubber tyres," he said. "There was a lane fifty foot long running between stacks of burning tyres. The flames were a good six foot high on either side. At the end a single man was struggling with a branch and a pretty heavy water pressure. I was sent to back him up. I ran up the lane. The flames weren't blowing across—but I had to keep my head down for the heat. Just as I got to my man the hose got out of control. It flung the man down and snaked off towards the nearside wall of flame. The only thing to do was fall on it. I just got to it in time. It was like a live thing. If I hadn't reached it we'd have been done dor. The fire was blowing up more fiercely. We needed the water to fight our way back down the lane . . ."

Again, a driver at the tender mercies of bomb-blast—". . . the next thing I saw was a kind of blue flash. Then the very hell of an explosion. Down came the glass, slates, bricks, dust

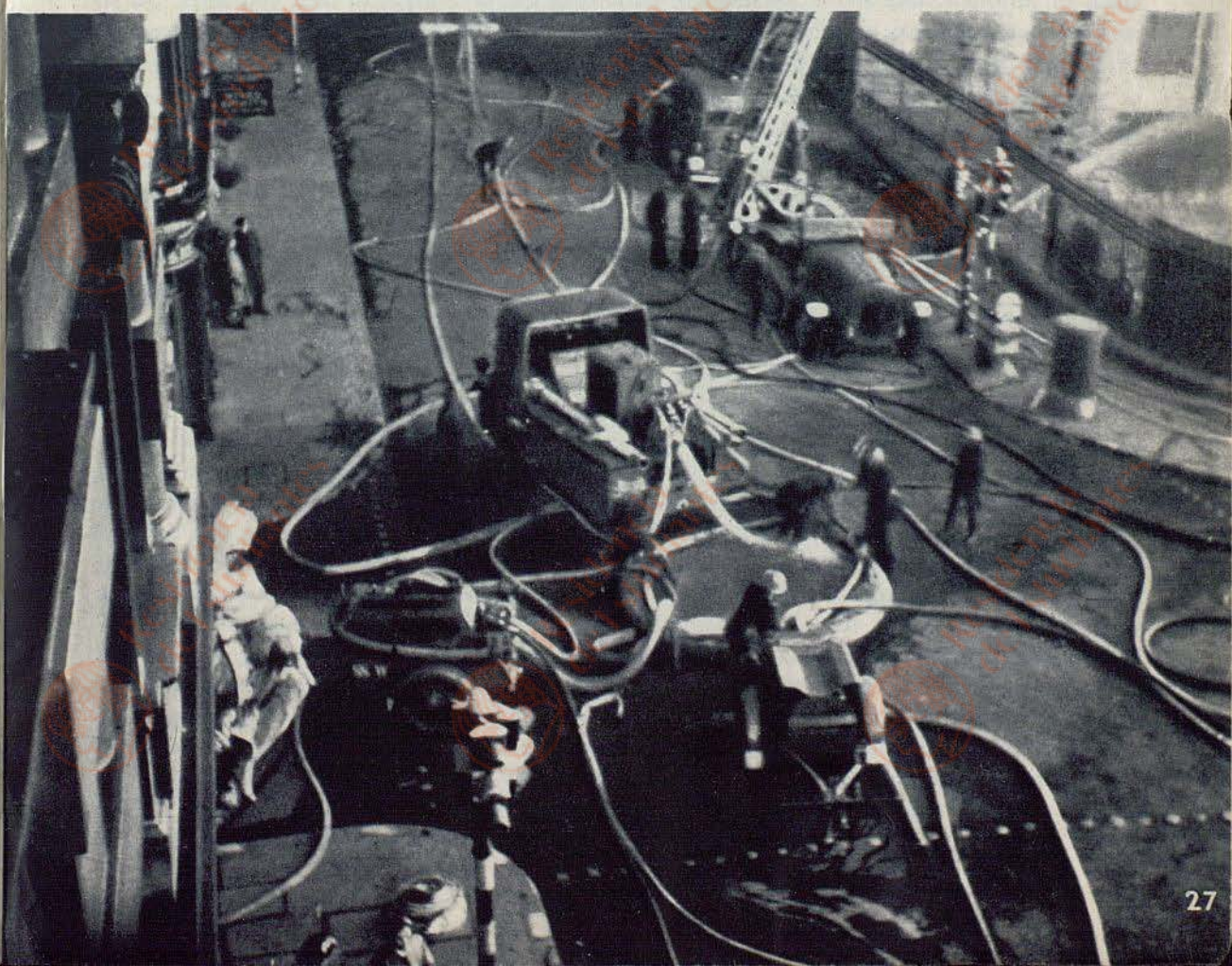
*Driver of the pump

all over the roof of my van. I was reversing at the time. I can remember being straight on the road—then I can remember being across the road. The blast must have slewed the whole van round on two wheels in that short second . . . "

And another man—" . . . we found a fireman—he was alive but unconscious—we never found out where he came from—there wasn't another pump or another man but our crew within 250 yards—it was just a great explosion, and then suddenly this chap lying along the street . . . "

Some of the men seem to remember the cold more than the heat. "You can have the winter! Used to get drenched through the first five minutes. Drenched to the skin—under my coat, in my boots, everywhere. Then an 'outside' job. Standing outside the building with the cold wind cutting into my soaked spine. And that would go on for hours. Give me the middle of the fire any day . . . " Yet there is another man who looks with a more kindly eye upon the drenching question after a certain night back in January. " . . . we heard the whistle and ducked for it. A flying brick or something must have hit our hose. It burst. The water gushed out everywhere. I was drenched through in a second. I cursed like I've never cursed before. Then I stopped—suddenly. For I saw something on the ground about eight inches from where my head had been. It was a huge bomb splinter—a square foot of it! Well, the water didn't seem so bad after seeing *that* . . . "

IF "WATER" IS THE CRY



"A solid mass of roaring flame nine storeys high"

There are some interesting incidents in the journal of a fireman stationed near Streatham Common. "A solid mass of roaring flame nine storeys high completely around the whole three sides of the dock . . . men carrying fifteen hundredweight pumps into the dock, over piles of hose, like slaves during the building of the Pyramids; 400 soldiers from the Tower of London to help roll the hose . . ."

And—"The water was hot, quite hot. It was being pumped into a building and as it gushed back into the bomb holes we pumped it back again."

And a third excerpt that speaks the mind of a pump operator down in the street below the fire—". . . Give them water, gallons, thousands of gallons of it. Don't fail; watch those gauges, easy on the pressure, a man's life depends on the way you get your water through, a man perched high on that building. A sudden jerk of your controls and he would hurtle to his death . . . the live thing in your control is only a machine, you're its master, make it behave . . ."

Tales of rescue and tales of tight corners abound. Many have been retold in the Press, many live silently in the memories of those men concerned. These and a hundred other things fade into the maze of flame and hot smoke, long hours and heavy equipment, noise and burning, much water and little sleep that goes to make up the fireman's particular blitzmare.

So here we choose at random from among those briefly-worded official communiqués that describe the actions of men awarded the George Medal. ". . . assisted in saving four buildings containing high explosives at . . .* They stuck to their duty in face of flying debris and exploding shells of various calibre and by their action set an example of courage to their comrades. In an isolated and dangerous position they insisted on remaining at their post, even when reminded of the imminent danger of explosion."

And, again, few words that mean so much—". . . when the station was hit and set on fire by a large incendiary bomb, he showed great courage in attempting to rescue two firemen who were trapped in the building. He was badly burned in his gallant rescue effort."

And another, ". . . entered a retort house. Petrol was flooded on the floor and a 'flashback' occurred, igniting petrol vapour. Another auxiliary fireman became entangled in a chain and was in imminent danger of being burned to death. Reeves remained to assist in releasing the trapped man. He was surrounded by flames and showed great bravery in making the attempt to release his comrade."

"I begin to turn over and over as I fall"

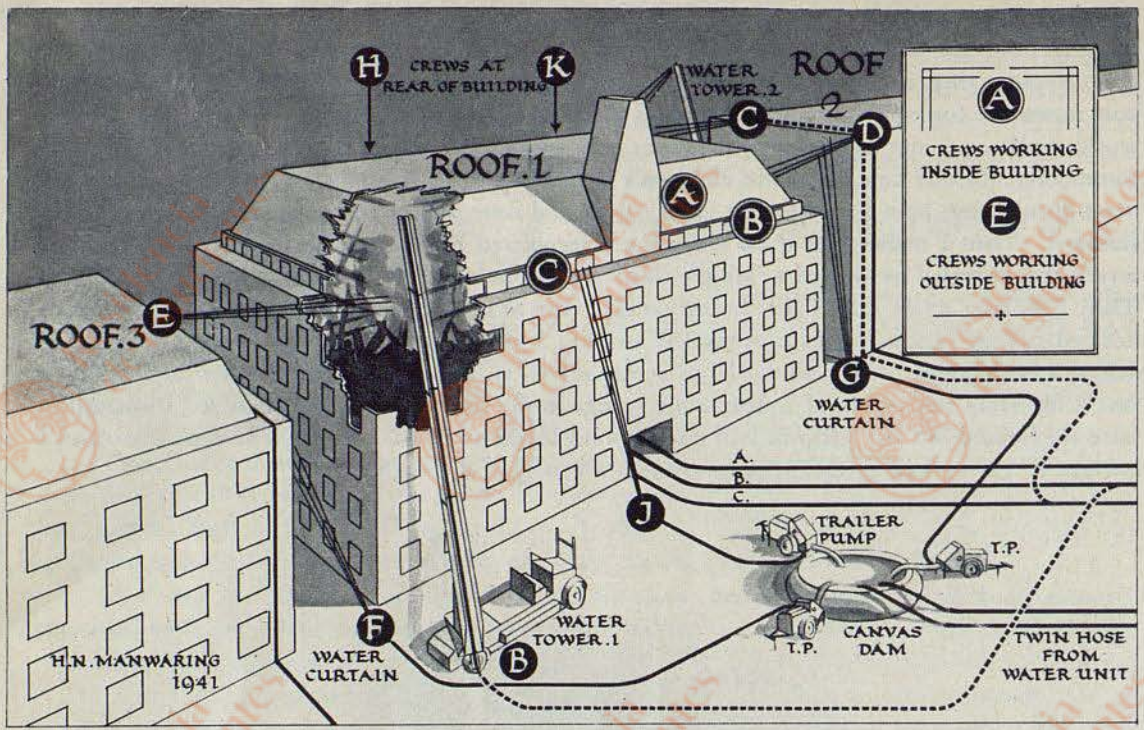
And, finally, from the journal of a London fireman comes the amazing story that runs—". . . Then without any warning, without any whistle or swish, a high explosive bomb drops on the ground underneath our bridge. I am hurled upwards through the air at a terrifying speed. At the top of my flight I seem to be stationary for a second. I am conscious of a brilliant light from the exploding bomb and in this instant I see the bridge breaking up underneath me. Kirby, the officer in charge, is flying through the air and the light is playing on his polished brass epaulettes. There is the roar of the explosion and the rumble of falling bricks and masonry. Then it is dark. I begin to turn over and over as I fall. I know that I have a long way to drop and I imagine that I shall be killed when I reach the ground. I let my body go limp because I think that by doing this I will possibly avoid violent fractures. I wonder how much it is going to hurt. There is still a loud rumbling of falling debris and I feel my forehead become moist against the wind as something grazes the skin. It seems that I have already been falling a week. I begin to feel

*Censored

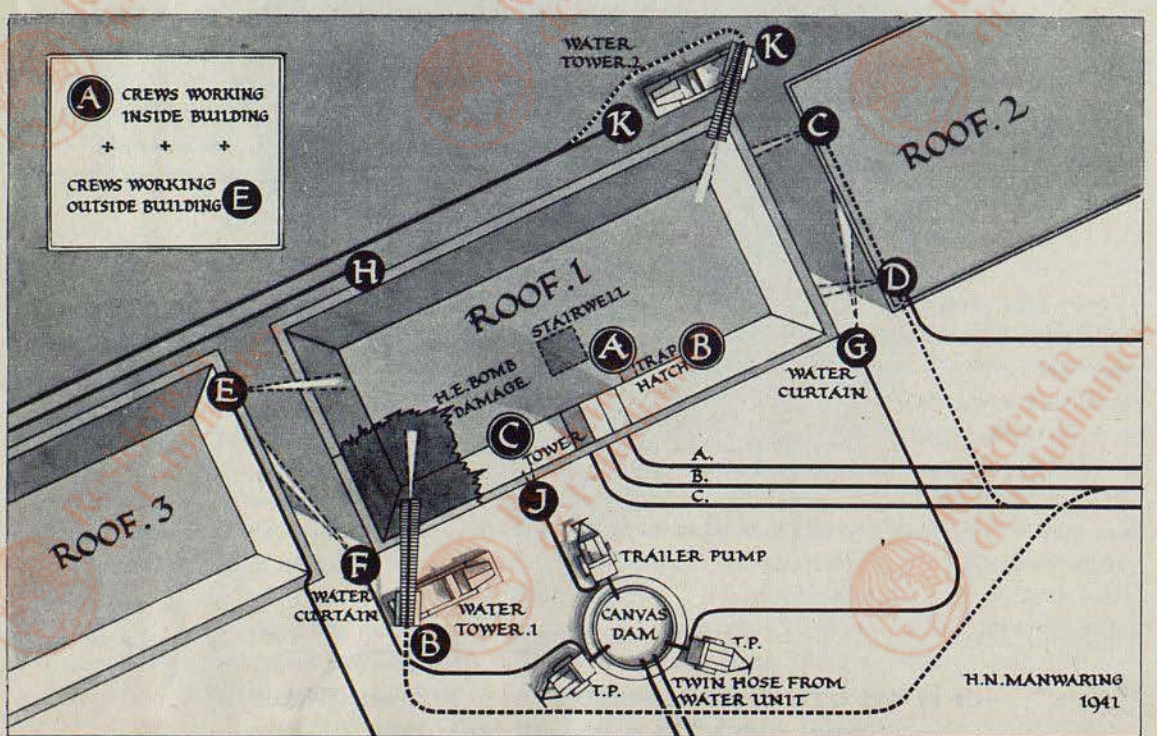
annoyed. Annoyed at the thought of dying before this war is finished. A pattern of loosely-connected thought impinges on my consciousness. All my life I have watched civilisation in revolt: first creeping, then a stampede. It would have been so interesting, so exciting. To be able to beat down the forces that are trying to stop us. The future of mankind . . . A new and better world order . . . not by race domination. I might have seen the beginning of a world community. In our time, or in our children's time. In a small way I had hoped to be part of the great change, but here I am turning crazily over and over and falling towards my doom. I am annoyed. Then I realise that these feelings are stimulated by very selfish motives and I console myself that at least I have lived to see the turning point in civilisation. That in itself is something. Then I wonder again how hard the ground is going to be. I am conscious of the fact that I have stopped falling. There is a pain in my left arm but I just can't think that I am alive. A piece of debris, a door frame or something, lands across my chest, but its full force is taken by the debris that is on either side of me. I welcome the twinge in my chest. I must still be alive. I attempt to raise the debris, but my left arm will not respond to the impulse. My right arm is active and I manage to get up and grope my way towards a group of dim lights . . ."

By courtesy of
The National Portrait Gallery

"UP BY FIVE O'CLOCK; AND BLESSED BE GOD! FIND ALL'S WELL"
(Samuel Pepys writing of the Great Fire of 1666)



MESSRS. J. & T.'S BUILDING IN V—— STREET



HOW A FIRE IS FOUGHT

To the layman, the fighting of a fire may appear a chaotic business. But beyond the incomprehensible maze of hose, beyond the roar of the pumps, the rivers of blackened water, the showers of sparks and burning embers, the hurrying and scurrying, lies a coldly calculated plan of action. This is no frantic improvisation. Rather it is the application, to suit immediate circumstances, of a store of well-tried tactics and experience. Under the officer's helmet are thoughts of the wind, varied water pressures, draughts, building construction, high-explosive damage to the structure of the building, difficulty of access to the building and reaching the seat of the fire, risk to his men from further collapse of masonry, risk to surrounding property, etc. Such knowledge and the intuition of experience will decide the tactics of his battle with the flames.

Below is the history of a fire. No two fires are quite alike: but this is a fair example of a reasonably typical case.

The building involved is an office-type building of fairly modern construction and large dimensions situated in a congested part of London. It consists of a basement with six storeys above. The topmost storey is contained within the roof. At the centre of the building an ornamental clock tower rises to a further height of about twenty feet.

9.8 p.m. A shower of incendiaries, together with some high-explosive bombs fall in the vicinity of V—— Street.

9.10 p.m. Reported by air-raid warden that Messrs. J. & T.'s building in V—— Street has been hit by H.E. and the roof is alight.

9.12 p.m. Trailer pump arrives at V——Street. Officer-in-charge sizes up the situation, observes that the roof and tower is seriously on fire, that the bomb explosion has demolished the west corner of the building and internal blast damage will make access to the upper floors very difficult, immediately sends back message for assistance.

He calls for four additional pumps and a water tower.

The pump's crew force an entry through the main doorway and, using a rope, haul the first line of hose up the stairwell. Pump operator outside has, in the meantime, connected his pump to a street hydrant and is ready to turn on the water.

9.15 p.m. Crew (A) have climbed to the topmost floor and find the fire is confined at present to the roof space and tower. Here is the first difficulty—water must be got on to the seat of the fire and access to roof spaces is usually restricted. A small trap-hatch fitted with a step-ladder is found and two men prepare to ascend with the branch.* A man is sent back to the pump with instructions for the pump operator to turn on the water. His instructions are precise: the pressure required has been calculated and he is informed of the position of the branchpipe.

The damaged western section has opened up the roof to the air and soon the entire roof is alight. It is evident that one jet is insufficient, and, leaving two men with the branch, the officer gets back to the pump with the remainder of his crew to lay out another line of hose.

9.25 p.m. Reinforcements of three trailer pumps and one heavy unit arrive. Two crews (B) and (C) are detailed to get to work on the floor immediately below the roof 1 (Fig. 2) of the building involved. Their object is to check the downward progress of the fire.

It is apparent that the proximity and construction of other buildings constitutes a grave risk of the fire becoming a conflagration. A crew (D) is sent to roof 2 to direct a jet of water across the alleyway on to roof 1 and thence to the seat of the fire. The remaining crew (E) is sent to roof 3 for a similar purpose.

All access to roofs is made by internal stairs and lines of hose are hauled up outside the buildings.

Within a few minutes water is pumped through to each of these crews.

The officer's plan has been first to concentrate a strong jet of water at the seat of the fire, secondly to position branches in strategical positions in relation to the wind direction and possible spread of the fire to other buildings.

9.28 p.m. Enemy planes seem to have moved their main attack over this district. Possibly

* Technical term for hose nozzle

they are guided by the brilliant light of the fire. Bombs fall in the near vicinity and cause a further portion of the damaged buildings to collapse. None of the men are injured and the fighting of the fire continues without interruption.

Crew (A) finding their position in the roof space untenable have retreated to the floor below. The tremendous heat above causes the ceiling to split. Large pieces of plaster fall to the floor, causing minor cuts and bruises to the firemen.

9.30 p.m. Now released of any restraining jet the fire spreads throughout the length of the roof. The clock tower, its supporting girders buckled by the heat and its fabric weakened by the shock of exploding high-explosive bombs, topples and falls inwards without warning. Crew (A) have no time to get clear. Two men, swept with tons of debris through several floors, are killed.

The officer immediately realises that his chances of saving the building are small and that crews (B) and (C) are in risk of being cut off. He decides to withdraw them from the building.

9.32 p.m. Water tower arrives and is set up at the western end of the building. Crew (B) connect their line of hose to the water tower. It is able to throw a strong jet on to the fire itself, and also on to the roof and windows of surrounding buildings.

Officer reviews situation, sends crew (C) to roof 2 to cover the eastern end of the building. A large body of fire was carried through the floors by the falling tower. Thus all floors are now involved.

Officer sends back message calling for five additional pumps and a second water tower. Also for a water relaying unit—since immediate supply from neighbouring hydrants will be insufficient to feed this added pump strength.

9.35 p.m. A senior officer and his staff arrive with a control car (see picture on page 6). The control point is set up and indicated with flashing lights.

A more detailed survey of the situation is now effected. It is found that all floors of the building are well alight and the roof is at the point of collapse. The building is too unsafe for crews to be permitted to work inside. It is decided to concentrate all efforts on confining the fire to the one building.

Additional pumps arrive and report to the control point. Here they are detailed where to position their jets and where to obtain water. Crews (F) and (G) are stationed at the entrances to the alleyways on either side of the fired building. These crews will throw a curtain of water covering the adjacent buildings (2) and (3) to combat any spread of fire in that direction.

Crews (H) and (K) are sent to the rear of the building to work from ground level.

9.40 p.m. The second water tower arrives simultaneously with the water unit. The water tower is also positioned at the rear of the building and crew (K) connect their line of hose to it.

The water unit has laid twin lines of hose from a canal half a mile distant and the crew set up a canal reservoir in front of the building. This is speedily filled with water relayed from the canal. Three pumps (F), (G) and (J) get to work from this new water supply and crew (J) position their jet at the front of the building.

9.55 p.m. The fire is now effectively surrounded. All jets are doing good work. The flames are prevented from spreading in any direction, the heavy volume of water is reducing the main body of fire. No further assistance will be required—the fire is on the point of being "in hand."

With these tactics, the fire is fought on through the night. From this point there is no further spread. It is now a matter of pouring more and ever more water on to salient points. The firemen attack relentlessly. As the intensity of the fire diminishes and daylight arrives they press home the attack and get to closer quarters, smashing home with their powerful jets of water until the flames are completely routed.

Next day. The fire is out—but for embers and small pockets of fire among fallen wreckage. Firemen get down to the job of cooling the hot piles of ash and ember so that no light will be visible during black-out hours that night.

The danger is over—the building is badly damaged but the fire has been confined to reasonable limits and the neighbouring blocks have been saved.

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