

# FRONT LINE

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The Battle of the  
Flames

*"It is a question of time—a few short weeks, then this conflagration will have reached its natural end."*

Bremen broadcast, 10th September, 1940.

WHEN THE BIG RAIDS began, four-fifths of London's auxiliary firemen had never seen a fire. Itching for experience, those who could had gathered in quite unnecessary numbers round any "peace-time" fire that they could reach. There had been a big air raid fire in the City on the night of 24th August, and the Thames-side oil fires were an especially pungent appetiser for those who partook. But on 7th September the auxiliaries, four-fifths of them with no prior experience of actual fire-fighting, faced the greatest incendiary attack ever launched.

In normal times a fire requiring thirty pumps to fight it is a very big fire. Shortly after midnight the first night there were nine fires in London rating over 100 pumps. In the Surrey docks were two, of 300 and 130 pumps; at Woolwich Arsenal, 200 pumps; at Bishopsgate Goods Yard and at five points on the docks, hundred-pump fires. All these were then technically "out of hand," that is to say unsurrounded, uncontrolled and spreading.

In Quebec Yard, Surrey Docks, was the night's biggest fire—immense in its area, moving with disconcerting speed, generating terrific heat. It was thirty or forty times larger than the great Barbican fire of 1938, the biggest in London's recent history. It

set alight the wooden blocks in the roadways, a thing without precedent. A blaze covering such an area is not only worse than a smaller one in direct proportion to its area, but is far harder to fight than its mere extent would suggest. The greater the cumulative heat the fiercer the draught of cold air dragged in to feed it, and thus the quicker the movement of the fire and the greater the length of its flames. They were so long and their heat so great as to blister the paint on fireboats that tried to slip past under the lee of the opposite river-bank 300 yards away. Solid embers a foot long were tossed into streets afar off to start fresh fires. Stocks of timber which the firemen had drenched began at once to steam, then to dry, then themselves to burst into flame in the intense heat radiated from nearby blazes.

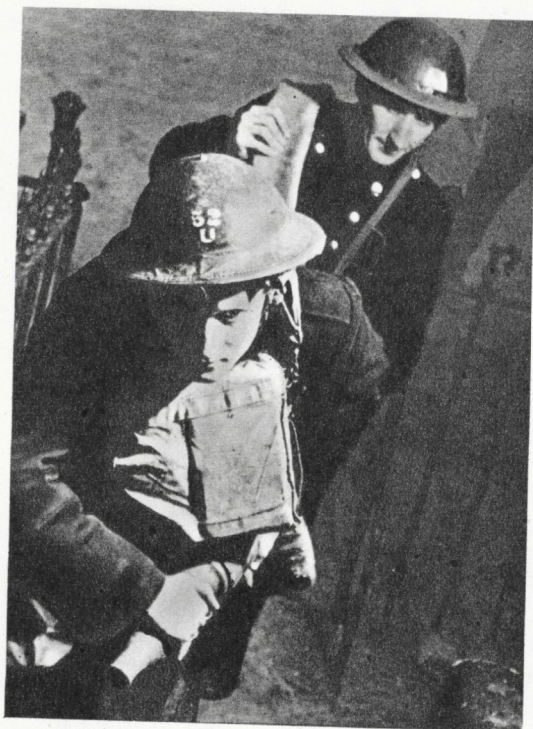
While the men fought this monster the enemy naturally did not spare so promising a target. Bombs fell incessantly all night. Time and again they would rekindle an area that had just been laboriously conquered. Only with daybreak could real progress begin. The exhausted men could not be relieved after a normal interval because the brigades were fully extended. Many firemen were at work here for forty hours, some officers for longer. In the end, of course, the fire was mastered, and London's novices who helped to fight it had had, with their regular comrades, a concentrated experience without parallel in years of peace-time fire-fighting.

This was but one of the night's events. At Woolwich Arsenal men fought the flames among boxes of live ammunition and crates of nitro-glycerine, under such a special hail of bombs as the enemy could then devote to London's No. 1 military target. But in the docks themselves strange things were going on, as they did on many nights thereafter. There were pepper fires, loading the surrounding air heavily with stinging particles so that when the firemen took a deep



breath it felt like breathing fire itself. There were rum fires, with torrents of blazing liquid pouring from the warehouse doors (nor any drop to drink) and barrels exploding like bombs themselves. There was a paint fire, another cascade of white-hot flame, coating the pumps with varnish that could not be cleaned for weeks. A rubber fire gave forth black clouds of smoke so asphyxiating that it could only be fought from a distance, and was always threatening to choke the attackers.

Sugar, it seems, burns well in liquid form as it floats on the water in dockland basins. Tea makes a blaze that is "sweet, sickly, and very intense." It struck one man as a quaint reversal of the fixed order of things to be pouring cold water on to hot tea-leaves: and the resulting brew was like



INTO THE BATTLE. Before September, 1940, four-fifths of London's auxiliary firemen had never fought a fire.

nothing but the morning-after slops that the W.A.F.S. (Women's Auxiliary Fire Service) girls threw out of the canteen. A grain warehouse on fire brings forth unexpected offspring—banks of black flies that the firemen's jets wash off the walls, rats in hundreds, and as the residue of burnt wheat, "a sticky mess that pulls your boots off."

Into this infernal bazaar the firemen had journeyed at once and they kept coming back as long as the enemy did. This narrative from an auxiliary fireman gives something of the atmosphere of the first nights.

"Most of us had the wind up to start with, especially with no barrage. It was all new, but we were all unwilling to show fear, however much we might feel it. You looked around and saw the rest doing their job. You couldn't let them down, you just had to get on with it. You began to make feeble jokes to each other and gradually you got accustomed to it. . . The fires had a stunning effect. Wherever the eye could see, vast sheets of flame and a terrific roar. It was so bright that there was no need for headlights.

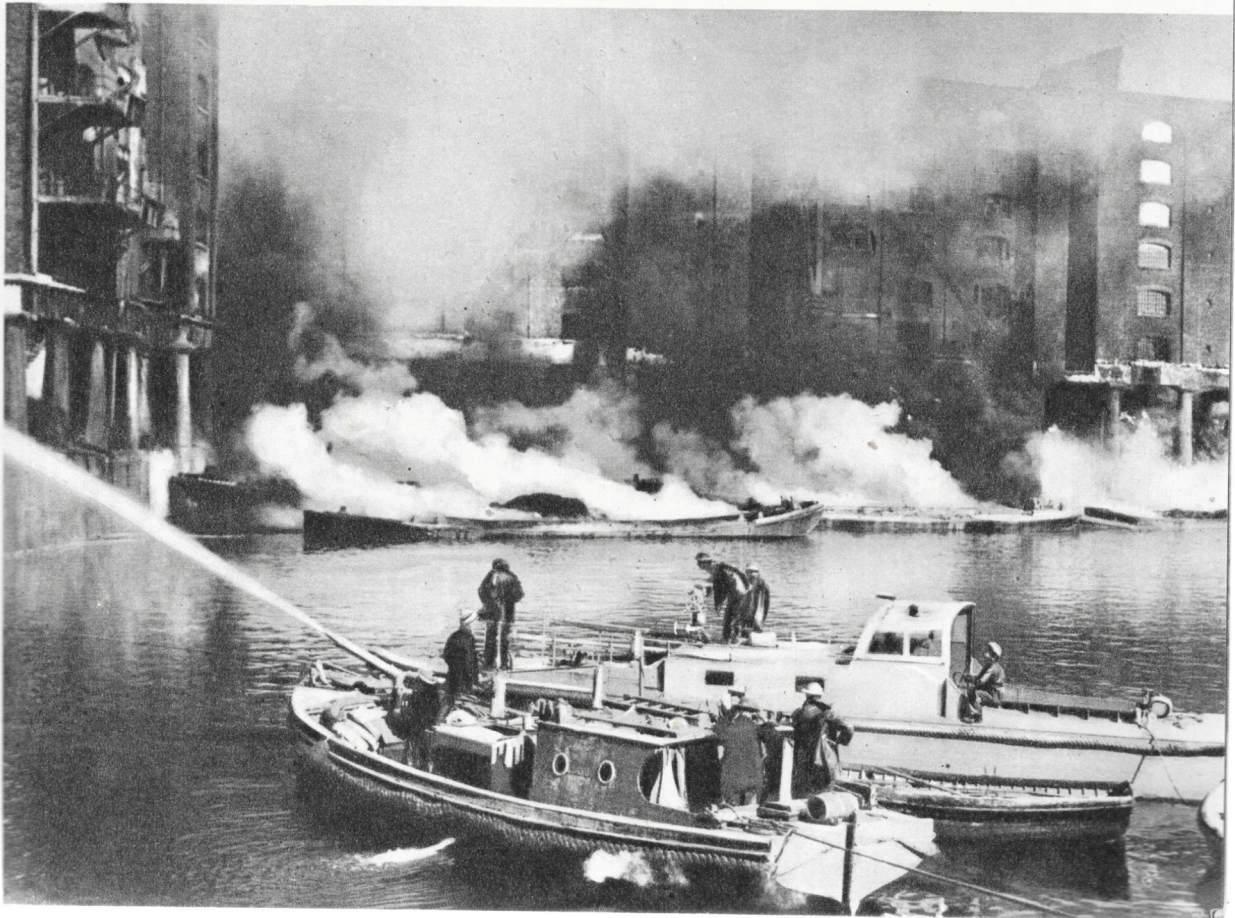
"On 7th September we took our pumps to East India Dock, to Rum Wharf. The first line of warehouses was ablaze from end to end. . . I walked down between the two warehouses by myself. Half-way down was a staff car in the middle of the causeway. Standing nonchalantly by it was a young W.A.F.S., outwardly not taking a blind bit of notice of the stuff that was falling pretty thick all round. Seeing her I strolled past as if I was used to walking out in the middle of falling bombs every Saturday afternoon. We gave each other a sickly smile and I passed on. . .

"The fire was so huge that we could do little more than make a feeble attempt to put it out. The whole of that warehouse was a raging inferno, against which were silhouetted groups of pigmy firemen directing





THE FIREMEN WERE AT THE FOREFRONT OF DANGER. Where the flames were, the bombs fell. They fought the greatest incendiary attack ever launched; they fought it on land and water, by night and day.

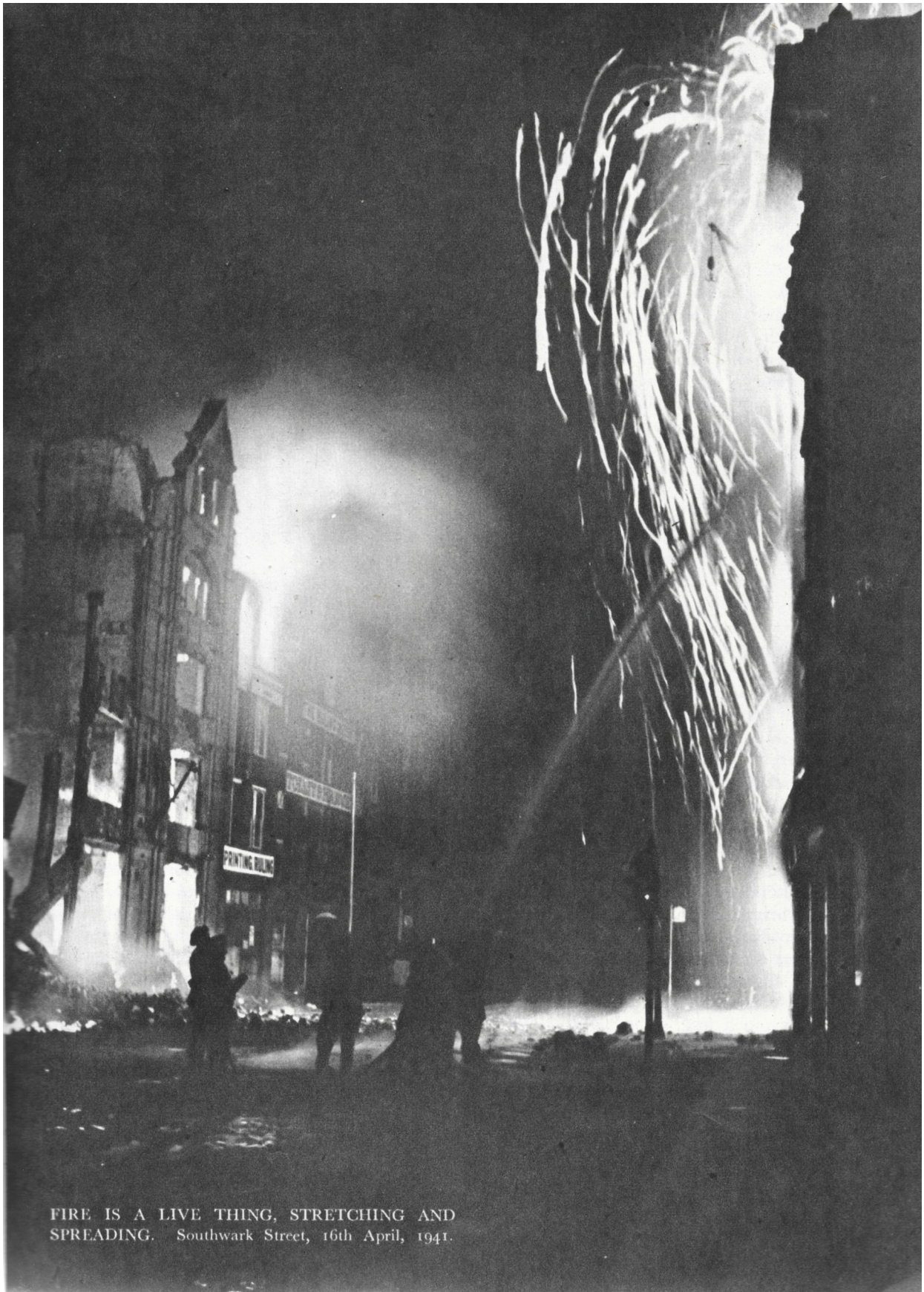






IN THE HEART OF THE FURNACE.  
Ave Maria Lane, 29th December, 1940.





FIRE IS A LIVE THING, STRETCHING AND SPREADING. Southwark Street, 16th April, 1941.



their futile jets at the wall of flame. . . While we were working on our branch—we had to keep in the same position for hours on end, unable to let go of the branch to take cover when bombs fell—a large cargo ship took fire for'ard. . . We put this fire out in half-an-hour and then returned to our warehouse.

“ In spite of the numbness you have time to think a little while you crouch over the branch and I remembered the crowd of women and children whom we had met as we rode in, streaming away from the danger area, carrying bundles over their shoulders. Some would run out into the roadway and call to us to come and attend to their fires. . .

“ Occasionally we would glance up and then we would see a strange sight. For a flock of pigeons kept circling round overhead almost all night. They seemed lost, as if they couldn't understand the unnatural dawn. It looked like sunrise all round us. The pigeons seemed white in the glare, birds of peace making a strange contrast with the scene below.

“ When the real dawn came about five, the Germans eased off their blitz. The All Clear raised a weary cheer. By 7 o'clock I was hunched half-asleep across the branch holder. At last the relief crews arrived. Knowing that we were returning home gave us that extra ounce of strength without which we could hardly have hoisted the rolled-up lengths on our shoulders.”

The first twenty-two days and nights of the London raids were the testing time of the fire brigade. During those nights they, and their Regional and other reinforcements, attended nearly 10,000 fires. After the first two nights they began to get the enemy's measure, and the number of conflagrations grew much less. The nightly total of fires attended exceeded 1,000 on three nights, and the total on other nights fluctuated between 40 and 950. Not all these engagements were fought without local retreats and some confusion.



The early nights confronted the brigades with unheard of problems of mobilisation—the task of having the right number of pumps turned out from the right stations and present at the right fires—and of transport along roads pitted with craters and littered with debris. Experience taught its lessons, however, and the fire brigades' officers began to apply more and more successfully the strategy appropriate to the blitz, regarding each fire not as an objective in itself, but an element in the general situation of an area that needed to be appreciated





FIRE DOES ITS WORK. The burning building crashes—No. 23 Queen Victoria Street, 10th May, 1941.

and tackled as a whole. If it had been a question of sending to each fire what it required, first come first served, there would have been no problem. But to adjust limited resources to the relative needs of a whole district, sorting the hopeful prospects from the predestined "burn-outs" and concentrating on the fires that might spread dangerously, at whatever sacrifice of other fighting hopes—this called for judgment indeed, and judgment built upon no precedent, experience or teaching.

In October the enemy's attack was not

as heavy, but even so the brigades turned out to about 7,600 fires, nearly 2,000 of them on two nights. This particular double onslaught was comparable in weight to September's worst; yet in the entire month there were no conflagrations and only twelve fires of more than thirty pumps.

In the ensuing weeks the attack was lighter again, with a heavy night on November 15th; there were but one conflagration and seven major fires in that month. This was encouraging evidence of the proficiency



and success of the fire-fighters; and it was strikingly confirmed by the result of one heavy attack. This raised 1,724 fires, by far the largest number the London Fire Brigade and the associated brigades of the outer Region had had to face. High explosive and incendiaries—many of them explosive—fell together for many hours of the raid, yet the firemen kept the number of major fires down to six, and there was no conflagration.

But if we had been learning, so had the enemy; and on 29th December he achieved the great City fire. He had a favourable prospect, for the vulnerability of the City had never been a military secret. He used skill, choosing a time when the City was empty—far emptier of fire-watchers than it should have been. He had luck, too, doing damage to mains which could not have been aimed for, but affected vitally the fire-fighters' prospects. The night's total was some 1,500 fires, intensely concentrated on and around the City, and they included six conflagrations and sixteen other major fires. The greatest were the half a square mile of fire in the Moorgate-Aldersgate Street area, and another, half this size, in the Minories. The damage in the City was very largely civil, though there was injury to a number of telephone exchanges.

The partial loss of the Guildhall was a sad blow, all the harsher in that the old building's fire defences proved quite adequate to defend it from its own bombs. It was the fire in the neighbouring church of St. Lawrence Jewry that did the damage. By 7.30 in the evening, an hour and a quarter after the raid began, the church was in flames, and the wind carried great showers of sparks and embers on to the Guildhall roof. At 8.30 the roof just above the Lord Mayor's screen caught fire. Just as it was almost extinguished the water supply failed and the wind increased. The whole roof was soon ablaze and fell in flames on to the floor where a huge fire

burned. It was attacked whenever water was available, reduced to smouldering and finally put out without having done serious damage to the walls.

During these hours the flames seemed to be roaring and raging from one end of the City to the other; the glare was like daylight, and the streets were filled with driving galaxies of sparks. A watcher away across the river in Lambeth saw. . .

"An unforgettable sight. The whole of London seemed involved, one great circle of overwhelming disaster save in one corner . . . where the night sky was clear. One could not distinguish known buildings through the great clouds of smoke, except when there was a sudden spurt of yellow flames which lit a church tower . . . it seemed impossible that the City, that London, could be saved. There was only that one small bit of calm sky in the distance as a symbol of hope that the circle would not be completed. At last the news came through that water supplies were being





restored—that the miracle had happened—St. Paul's was saved and the City, devastated, was still the City."

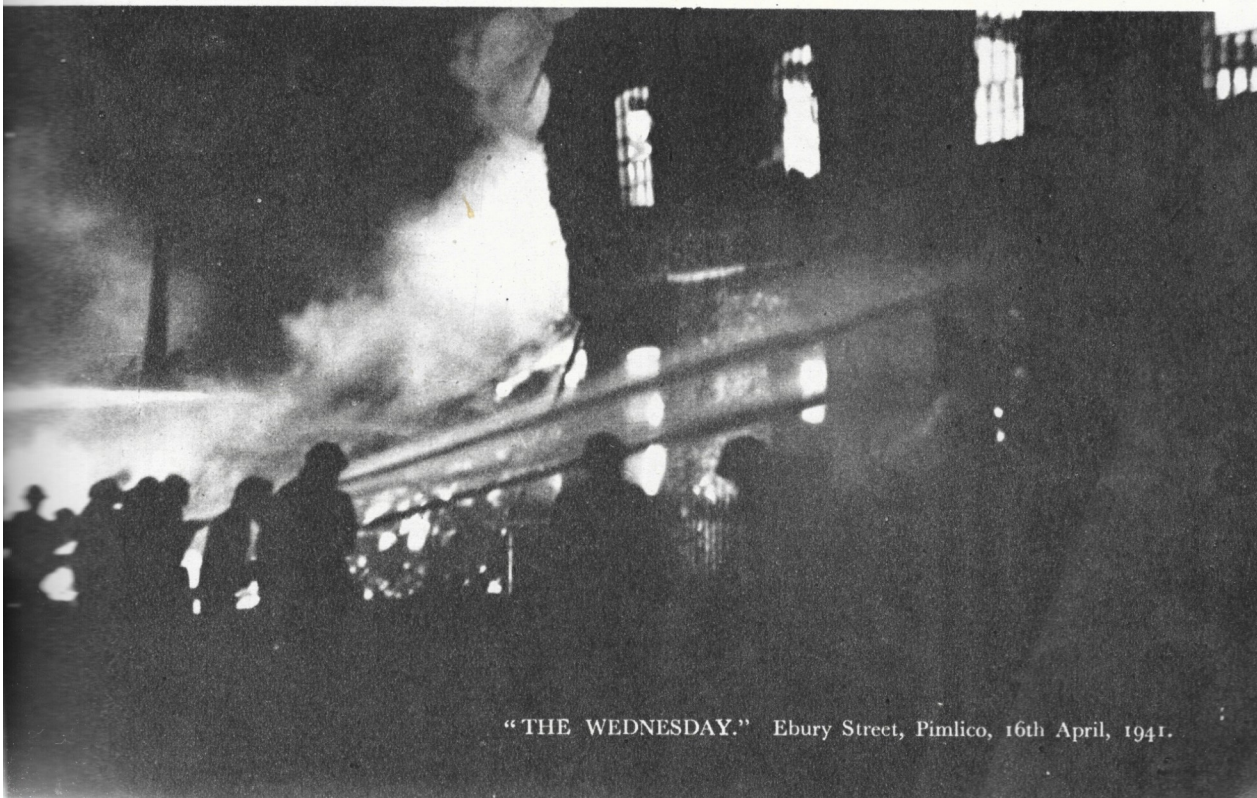
The brigades and their reinforcements were at full stretch, with many painful and strenuous interludes in search of water. Firemen on top floors got unparalleled views of St. Paul's dark bulk silhouetted against the blaze—and above it that clear patch of sky noted by the Lambeth watcher. There were wonderful escapes of firemen and civilians trapped by encircling flames and managing to find safe passage in the nick of time. But many of the human stories had no happy endings. A young fireman and his team, fresh from a successful struggle to keep the flames away from Dr. Johnson's house, lost their way in the smoke down a narrow street and happened upon a trailer pump crew working hard at a printing press building.

"I thought when I saw them that they were too near. Just at that moment a wall, which looked as if it was bulging dangerously, crashed down on them. As we looked round

all we could see was a heap of debris with a hose leading towards it."

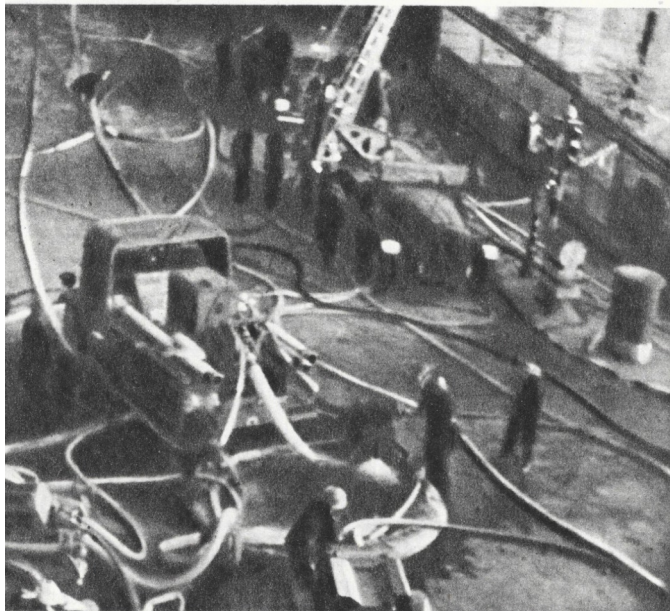
There were some heavy fire raids in January, February and March, but the lesson of 29th December had been learned, and the brigades found a fire fighting force on the scene before them. Citizens who had for many months been carefully trained to go to shelter when a raid developed, now came out, faced high explosives, and fought the incendiary bombs to a finish. The result was that despite some very heavy attacks the enemy achieved no mastery over the fire brigades for many weeks.

But 10th May was the climax, with nine conflagrations and a further twenty-one major outbreaks. It was a night that must have graven on many a fire-fighter's heart the words "no water." The breakage of mains was very great and the plans for multiplying the emergency water supplies were as yet far from fully carried out. The sheer weight of the calls on the brigades set the mobilising officers a formidable problem. In many a control room all pumps were



"THE WEDNESDAY." Ebury Street, Pimlico, 16th April, 1941.

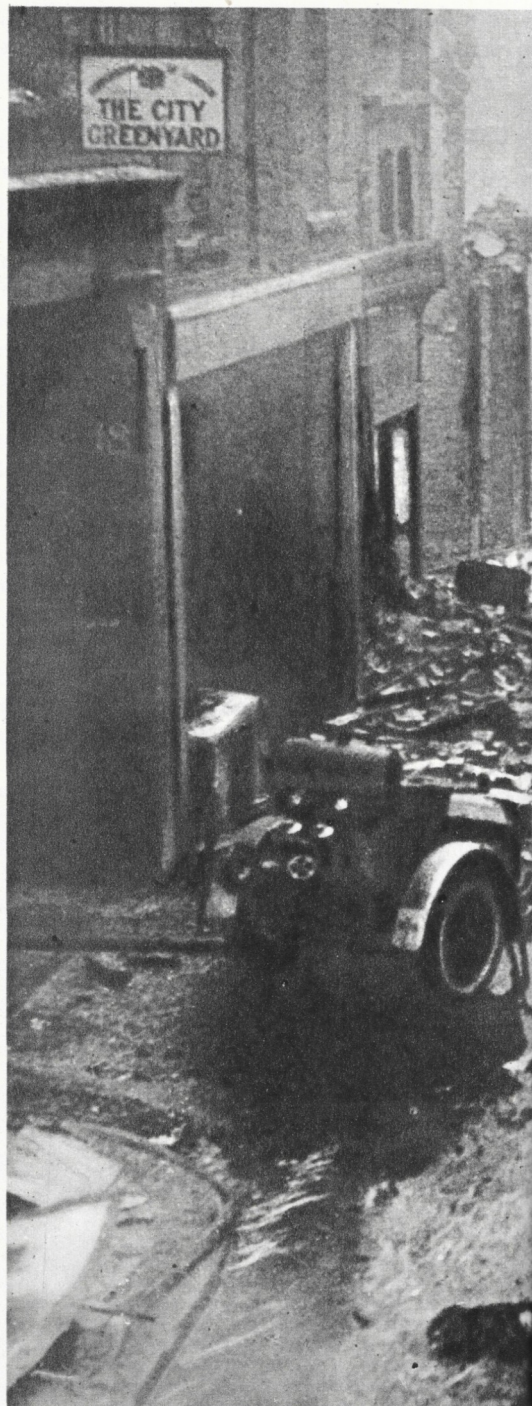




**THE STRUGGLE FOR WATER.** A tangle of hoses at a corner of Thames Street indicates both the scale of the demand on water supplies and the complexity of the firemen's task.



9.40 p.m. **BY THE CLOCK,** but light as day. The City is its own torch, 29th December, 1940.







THE BATTLE HAS PASSED. Morning reveals the casualties caught by fire and bomb.





BEHIND THE LINES WERE MANY WORKERS. With the blitz still at its height, casualties are attended to in Westminster Hospital. The patient is a woman driver.

ordered out before midnight, reinforcements were in strenuous demand, and the pile of slips representing unattended fires grew on the tables. The women of the control staffs, injured to strain and steadfast through months of bombing, found their nerves stretched by this new test, and their sympathies tried by the messages they had to receive and transmit, ordering grimy men near the last stages of exhaustion out again to some pressing task.

At the Elephant a medium-sized fire grew into a great conflagration because every water main was dry, and a succession of lucky bomb hits defeated for hours every attempt to get water by other means. A group of pumps relaying water from a big emergency basin not far off was hit by a

heavy bomb which killed seventeen men and blocked the only entrance to the water supply. A hose line laid with toil and sweat from a point on the river a mile and a half away was crushed and burnt by a collapsing building. Another mile and more of hose was laid from another point, but sparks and embers fell upon and holed it into uselessness before water came through. At last it was replaced. Water was beginning to appear when a bomb fell and broke it. It was repaired, but splinter holes and burns reduced its flow almost to a trickle. The fire, which had reached immense proportions, was finally controlled next day by relaying water through nine miles of hose from the river and a canal.

The tale of damage that night was crowned



by the entire demolition of the House of Commons Chamber, with its Press Gallery, Strangers' Gallery and Ladies' Gallery. Fire was the villain—no one knows exactly how caused. Some say high explosives also fell on or near the Commons, but this is uncertain. The fire buckled the roof trusses of the Chamber and expanded the stonework of the outer walls. The whole roof and part of the upper wall collapsed.

The roof of Westminster Hall suffered, and so, though not severely, did the Abbey itself. The lantern was ringed with a crown of flames, which happily were quickly put out by the emergency water with which the ancient building is well furnished. Just before daylight a fire officer outside the main door heard "a loud roar which tailed off into a long echo. I rushed inside to find a mass of burning debris in front of the High Altar. The whole of the roof above the lantern had collapsed, leaving a blue gap high above from which a few red cinders would occasionally drop."

The weight and persistence of incendiary

attack which the enemy achieved in this raid, as he had done in some others both in London and the provinces, presented to the defence two problems which it was not then fully equipped to solve.

One was how to fight fires when main water supplies failed—the problem of emergency water. This could be solved only by an elaborate constructional programme which did not approach completion until much later. The other was how to concentrate defensive forces on the ground at a speed to match the intensity of concentration which the enemy could sometimes secure for his attack from the air. This was the problem of mobilisation and reinforcement. To solve it required radical reorganisation.

In August, 1941, came the constitution of the National Fire Service, which absorbed, reshaped and superseded the separate locally controlled brigades. Its formation is both the concluding episode in the battle of the flames of 1940-1 and also the opening chapter of another and a different story, not yet enacted.



ALL CLEAR.