

These fine structures are not exempt from 'low neighborhoods' of white-washed houses, which belong to the garrison or to the poorer inhabitants. The hill on which this part of the city stands rises from the rear of the Flagstaff Battery to the height of two hundred feet or more, and presenting a steep face to the creek from the dockyard, sweeps round to the roads, into which it descends, sheer behind the southern forts.

We cannot see the houses which are built up on this face of the hill, but those which are situated on the eastern face, or on the descent to Dockyard Creek, are quite discernable to the naked eye. There is a poor suburb at the base, thence the houses rise in terraces, with flights of steps and curving roads up to the brow of the hill.

The bombardment is beginning to tell on these buildings. A church decorated with many small pinnacles at the angles of the roof has been struck by a shell, which has burst in the roof. Some of the best mansions are split open, or gape from their cracked walls on the clay; others are perforated through with shot holes, through which the light is visible—wind down, pillars, and columns are broken or destroyed.

In the rubbish of the suburb, next to the Flagstaff Works, there are several batteries in excellent order, which are not injured by the allied batteries, and which have not yet fired much, if at all. They are mostly fleches, and seem intended as outlying works of the second line of defences.

Near the top of the hill, inside the crenellated wall, a portion of the interior line of these defences is to be seen. A battery, called the 'Crow's Nest,' from its elevated position, is placed near this line, and has an extensive command over the right of the French left attack, and over our sailors' batteries in the left of our attack, to which it is rather troublesome.

This contains a couple of large mortars in addition to some long-ranged guns, and can bear in any troops between the outer defences and the foot of the hill on which the town rises, and the ravine between our left and the French left attack.

A very long series of earthworks crowns the ridge of the same hill, and the defences broken by the creek are continued towards the right by the various batteries, (Barrack, Road, Garden, Black, Butty, &c.) which are connected with the Great Redan, and thence are carried to the Malakoff and its outlying works.

The suburb behind these defences next to the creek, and in front of our left attack, is in complete ruins, but our line of batteries is almost too far to do injury to the public buildings behind the suburb, although our old first parallel, has been disarmed as being too far, and the guns moved into the second parallel and various batteries in front of it.

The line of the first parallel and the hill on which it is placed, conceal from the spectator at Cathcart's hill, the cemetery which we occupy since the 18th of June, and which is improperly marked as 'The Ovens' in one of the best maps of the place.

They also hide the course of the Wornzoff road and the ravine in front under the proper right of the Redan. The ravine between our right and left attack is visible till it is closed up by the sweep of the hills on which the attack batteries are placed, and by the ragged height seaward with rifle pits, craters of bombs, zigzags, and the works of our Quarries Battery.

Behind the Redan are visible the long line of the dockyard and arsenal buildings, and the barracks which have been rendered uninhabitable on the near side by our fire—the great sheers, the floating bridge across the roads to the north side, the two lines of men-of-war—the Twelve Apostles and five two deckers, frigates and steamers.

Then, on the right lie Malakoff, Mamelon, and the White Works, and Mount Sapoune peering beyond over them and the north side—the citadel, the Russian camp, Inkermann, its batteries, and the plateau of the Belbek forming the back ground, which is defined still further by a strip of the Blue Sea.

From Cathcart's hill, therefore, on the right front of the Fourth Division camp, one can gain an admirable view of certain points of the position from the sea on the left to our extreme right at Inkermann. That advantage is, however, rarely obtainable when there is any heavy firing, as the smoke generally hangs in thick clouds between the earthworks, nor can it be dispelled, unless by a brisk wind.

If one of the few persons who were in the secret of the opening of the French batteries had been on Cathcart's hill on the morning of the 5th, he would have beheld then, just ere half-past 5 o'clock, the whole of this scene marked out in keen detail in the clear morning air.

The men in our trenches can be seen sitting down behind the traverses, or strolling about in the rear of the parapets. Small trains of animals and files of men are passing over the ground between the trenches and the camp, and the only smoke that catches the eye arises from the kettles of the soldiery, or from a rifle in the advanced works. On the left, however, it can be seen that the French trenches are crowded with men, and that their batteries are all manned, though the men keep well out of view, and the mantlets and screens are yet down before the muzzles of some of their guns. The men beneath the parapets swarm like bees.

A few grey-coated Russians are in view repairing the works of the Flagstaff Battery, or engaged in throwing up a new work, which

promises to be of considerable strength, in front of the second line of their defences.

Suddenly, along the earthen curtain between Nos. 7 and 8 bastions, three jets of flame spring up into the air, and hurl up as many pillars of earth and dust, which are warmed into ruddy hues by the horizontal rays of the sun. The French have exploded three fougasses to blow in the counterscarp, and to serve as a signal to their men.

Instantly, from the sea to the Dockyard Creek, there seems to run a stream of fire, and fleecy, curling, rich white smoke, as though the earth had been suddenly rent in the throes of an earthquake, and was vomiting forth the material of her volcanoes. The lines of the French trenches were at once covered, as though the very clouds of heaven had settled down upon them, and were whirled about in spiral jets, in festoons, in clustering bunches, in columns and in sheets, all commingled, involved together by the vehement flames beneath.

The crash of such a tremendous fire must have been appalling, but the wind and the peculiar condition of the atmosphere did not permit the sound to produce any great effect on our camp; in the city for the same reason the noise must have been terrific and horrible.

The iron storm tore over the Russian lines, tossing up in sport, jets of earth and dust, rending asunder gabions, and 'squelching' the parapets, or bounding over among the houses and ruins in their rear.

The terrible files of iron, about four miles in front, rushed across the plain, carrying death and ruin with it, swept with its heavy and irresistible wings the Russian flanks, and searched their centre to the core.

A volley so startling, simultaneous, and tremendously powerful, was probably never yet uttered since the cannon found its voice. The Russians seemed for a while utterly paralyzed; their batteries were not manned with strength enough to enable them to reply to such an overlapping and crushing fire; but the French leaping to their guns with astounding energy, rapidity and strength, kept on filling the very air with the hurdling storm, and sent it in unbroken fury against their enemies.

More than two hundred pieces of artillery of large calibre, admirably served and well directed, played incessantly on the hostile lines. In a few moments a great veil of smoke—a war cloud rolling down—spread from the guns over on the left of Sebastopol; but the roar of the shot did not cease, and the cannonade now pealed forth in great irregular bursts, now died away into hoarse murmurs, again swelled up into tumult, or rattled from end to end of the line like the file-fire of infantry.

Stone walls went down before the guns at once, but the earthworks yawned to receive shot and shell alike. However, so swift and incessant was the passage of these missiles through the embrasures, and along the tops of the parapets, that the enemy had to lie close, and could scarcely show themselves in the front line of defences. For a few minutes, then, the French had it all their own way, and appeared to be on the point of sweeping away the place without resistance; but, after they had fired a few rounds from each of their numerous guns, the Russian artillerymen got to work, and began to return our allies' fire.

They made good practice, but fired slowly and with precision, as if they could not afford to throw away an ounce of powder. The French were stimulated rather than impeded by such a reply to their astonishing volleys, and their shot flew with increased rapidity along the line of the defences, and bounded in among the houses of the town. But what were we doing all this time? What was our admirable naval brigade and our gallant siege train doing? They were just working their guns as usual, and had received no orders to open general fire. Our batteries, therefore, rendered little assistance to the French, but they maintained their usual destructive and solid 'hammering' on the face of the Redan and of the Malakoff, and aided our invaluable allies by keeping up a regular shell practice on the batteries from the Creek to the Redan. Now two or three mortars from Gordon's, then two or three mortars from Chapman's hurled 10 and 13-inch shell behind the enemy's works, and connected the discharges by rounds from long 32's and 68's. It is not known why this evident want of unanimity existed, and why we did not open fire at the same time with the French.

General Pelissier was over at our headquarters, and had an interview with Gen. Simpson yesterday, and it is not unlikely that the French commander, with his characteristic impetuosity, resolved on opening fire, finding that we were not quite prepared to do so with effect, and relying on his own numerous and heavy ordnance and abundance of ammunition.

I am by no means prepared to say we were not ready to open on the day agreed upon, nor do I insinuate that there was the smallest want of unanimity between the generals, but it is a fact that we had not all the guns and ammunition required for opening a three days' fire of intensity, and that with plenty of a certain sort of material and missiles, there was not the requisite quantity of those of a different, but useful description.

Our allies must appreciate the readiness with which we have on several occasions lent them guns, shot and shell, and are too generous while remembering such services to find fault with us if we had not accumulated such masses of stores as they had collected. After all, it may turn out that for military reasons the generals resolved to let the French open first, and that

their cannonade was a matter of arrangement. Although there are some complaints of deficiency in the engineering department, I have never heard it said that our artillery, as long as they had powder, shot and guns, were not ready to meet any enemy.

It unfortunately happens at this juncture that General Jones, who has always displayed great energy in directing the siege works, is unwell and cannot go out, owing to a severe attack of rheumatism, which almost cripples him.

But all this has nothing to do with the siege, and meantime our allies are pounding away with exceeding warmth at everything within range of them. Our Quarter Battery, armed with two mortars and eight cohorns, just 400 yards below the Redan, plies the suburb in the rear of the Malakoff vigorously, and keeps the top of the Redan clear.

Redan and Malakoff are alike silent, ragged and torn. At most the Redan fires three guns, and the adjoining batteries are equally parsimonious. The parapets are all pitted with shot and shell, and the embrasures are greatly injured, so that the gabions are sticking out and are tumbling down in all directions. There is no more of that fine polishing and of that cabinet-maker's work, which the Russians bestowed on their batteries; our constant fire by night, our riflemen, and incessant shelling have prevented their assiduous anxiety as to external appearance being gratified.

After two hours and a half of furious fire, the artillerymen of our allies suddenly ceased, in order to let their guns cool and to rest themselves. The Russians crept out to repair damages to their work, and shook sand bags full of earth from the parapets over the outside of their parapets. Their gunners also took advantage of this sudden cessation to open on our sailors' batteries in the left attack, and caused us some little annoyance from the 'crow's nest.'

At 10 o'clock, however, having previously exploded some fougasses, as before, the French reopened a fire, if possible, more rapid and tremendous than the first, and continued to keep it up with the utmost vigor till 12 o'clock at noon, by which time the Russians had only a few guns in the Flagstaff road and Garden batteries in a position to reply. We could see them, in great agitation, sending men and carts to and fro across the bridge, and at 9 o'clock a powerful column of infantry crossed over to resist our assault, while a movement towards Inkermann was made by the army of the Belbek.

Soon after our fire began, as early as 6 o'clock, the working parties which go over to the north side every morning, seemed to be recalled, and were marched back again across the bridge to the south, no doubt to be in readiness for our expected assault. From 12 till 5 o'clock p.m. the firing was slack; the French then resumed their cannonade with the same astounding vigor as at dawn and at 10 o'clock, and never ceased their volleys of shot and shell against the place till half past seven, when darkness set in, and all the mortars and heavy guns, English as well as French, opened with shell against the whole line of defences.

A description of this scene is now impossible. There was not one instant in which the shells did not whistle through the air—not a moment in which the sky was not seamed by their fiery curves, or illuminated by their explosion. Our practice was beyond all praise. Every shell burst as it ought, and the lines of the Russian earthworks of the Redan, Malakoff, and all their batteries were rendered plainly visible by the constant light of the bursting shells. The Russians scarcely attempted a reply. At five o'clock it was observed that a frigate in the second line near the north side was smoking, and as it grew darker flames were seen to issue from her sides. Men and officers rushed to the front in the greatest delight and excitement, and as night came on the whole vessel broke out into one grand blaze from stem to stern. The delight of the crowd on Cathcart's hill was intense. 'Well, this is indeed a sight!—to see one of these confounded ships touched at last!' These and many different and stronger expressions were audible on all sides, but there were some who thought the Russians had set the ship on fire, or that incendiaries and malcontents were at work, and one gentleman even went so far as to say he 'thought it was merely a signal—may be to recall their cavalry from Eupatoria.' It is not known precisely how the thing was done. Some say it was done by the French—others, by ourselves; and bombs, red-hot shot, and rockets have been variously named as the agency by which the fire was accomplished.

In spite of the efforts of the Russians, the flames spread, and soon issued from the ports and quarter gallery. At 8 o'clock the light was so great that the houses of the city and the forts on the other side could be discerned without difficulty. The masts stood long, and towered aloft like great pillars of fire; but, one after the other, they yielded; the decks fell in about 10 o'clock, and at midnight the frigate was burnt to the water's edge.

Sept. 6.—Last night a steady fire was kept up all along the front, to prevent the Russians repairing damages. At 10 p.m., orders were sent to our batteries to open, as soon as there was a good light, the following morning, but they were limited to 50 rounds each. At 5 30 the whole of the batteries from Quarantine to Inkermann opened with a grand crash. The Russians were silent as before. The cannonade was maintained as it was yesterday, from half-past 8 till 10, from 12 till 5, and from half-past 6 to 7, the fire was comparatively slack.

Captain Shone, R.A., was killed yesterday in the batteries by a round shot. He was a brave

and much esteemed officer. I regret to have to record also the death of Captain Buckley, Scots Fusilier Guards, who was shot through the heart as he was posting his sentries. This gallant young officer was shot through the neck at the Alma, but did not go home. He was a most promising young officer.

The firing continued as before, and the enemy seemed greatly distressed. They are strengthening their position on the Belbek, and evince a disposition to rely on the north side. However they have large masses of men in the town. The bombardment was renewed and lasted all night.

Sept. 7.—The cannonade was resumed at day-break, the Inkermann batteries firing briskly. A council of generals was held to-day at head quarters, the sick were cleared out of the field hospitals, and it gradually oozed out that the assault would take place to-morrow at 12 o'clock. The firing was tremendous all day, but clouds of dust, which a high wind from the north drifted into our faces, rendered a view of the place impossible.

About 3 o'clock a two-decker was set on fire and burnt all night. A steamer towed other vessels near her way to the dockyard harbor, but the lines of men-of-war are still in tact. Flames broke out behind the Redan in the afternoon. The bombardment was renewed at dusk. A Sardinian corps was marched up to reinforce the French. There was a heavy explosion in the town at 11 o'clock p.m. The men all take 48 hours' provisions, cooked, into the trenches with them. Nothing is known of the plan of attack.

September 8, 11 a.m.—All comers from Balaklava and the rear of the camp are stopped by a line of sentries. Another line of sentries in front prevent any one going as far as Cathcart's Hill on the picket houses, except staff officers or men on duty. The fire is exceedingly heavy. The assault takes place at noon. The 4th division is now under arms.

**THE INVENTOR OF GAS LIGHTS.**—We translate the following from a French paper. The credit of originating lighting by gas is generally supposed to belong to the English, but it appears that they took their hint from a French source.

The inventor of gas lights was a Frenchman, Philippe le Bon, an engineer of roads and bridges who, in 1785, adopted the idea of using, for the purpose of illumination, the gasses distilled during the combustion of wood. He labored a long time in the attempt to perfect his crude invention, and it was not until 1799 that he confided his discovery to the Institute.

In September, 1800, he took out a patent, and in 1801 he published a memoir containing the result of his researches. This was entitled 'Thermo lamps, or stoves which heat, give an economical light, and afford, besides several valuable products, a motive power applicable to all kinds of machinery.'

Le Bon commenced by distilling wood in order to obtain from it gas, oil, pitch, and pyrolegineous acid; but his work indicated the possibility of obtaining gas by distillation from fatty or oily substances.

From 1799 to 1802 Le Bon made numerous experiments. He established at Havre his first thermo lamps, but the gas which he obtained being a mixture of carburetted hydrogen and oxide of carbon, and but imperfectly freed from its impurities, gave only a feeble light and evolved an insupportable odor, and the result was that but little favor was shown to the new discovery; the inventor finally retired to Versailles, where he established a factory of pyrolegineous acid, and eventually died, ruined by his experiment.

The English soon put in practice the crude ideas of Philippe le Bon. In 1804 Windsor patented and claimed the credit of inventing the process of lighting by gas; in 1805 several shops in Birmingham were illuminated by gas, manufactured by the process of Windsor and Murdock. Among those who used the new light was Watt, the inventor of the steam engine.

In 1816, the first use was made of gas in London, and it was not until 1818 that this invention, really of French origin, was applied in France, when M. Chabrol, the prefect of the Seine, caused an apparatus for its manufacture to be constructed at the Hospital of St. Louis.—[Ex.]

**DIRECT FROM LIVERPOOL TO CHICAGO.**—After crossing the Atlantic, the Arabia passed into the St. Lawrence, and, surmounting its rapids by means of the British Canadian locks and canals, entered Lake Ontario, after sailing thro' which she overcame some three hundred feet descent, in all, of the Niagara river, by the locks of the Welland canal, and entered lake Erie, thence thro' said lake, the straits and lake of St. Clair, lake Huron, and lake Michigan, to Chicago, in the heart of the American continent.

At Chicago she is somewhat up in the world, being at an elevation above the level of the sea, which overtops the highest pyramid of Egypt. Such are the achievements of science, labor and civilization.

'Peace hath her victories, no less renowned than war.'—[N.Y. Herald.]

**MANLINESS.**—Learn from the earliest days to insure your principles against the peril of ridicule. You can no more exercise your reason, if you live in perfect dread of laughter, than you can enjoy your life, if you live in the constant terror of death.

If you thing it right to differ from the times, and to make a point of morals, do it, however rustic, however antiquated, however pedantic it may appear, do it, not for insolence, but seriously and grandly—as a man who wore a son of his own in his bosom, and did not wait till was breathed into him by the breath of fashion.