

dored possible the final advance of German infantry, whose previous losses, while supported only by direct artillery fire, had been terrible; also, at this critical juncture a mass of German guns advanced, and firing across the road and rail, entailed the French left, and threatened to cut off the line of retreat. In the earlier part of this battle the French had the superiority in number and position; but were left by their generals with a most inadequate supply of artillery.—one of these unaccountable mistakes which marked French generalship. While Frossard's force fought splendidly all day, seven divisions of Bazaine's stood inactive ten miles from the valley of the Saar. The Germans having turned the French left by Forbach, the 2nd division, sent by Bazaine, could not cover the retreat of Frossard's utterly disorganized force, which retreated to the south west, leaving open the road to St. Avold and Metz. Then the German armies with a cloud of cavalry in their front, gradually brought up their left flank. The small fortresses of Phalsburg and Bitsche, especially the latter, whose guns commanded the line of rail to the west, compelled them to make a considerable *detour*, and leave behind a masking force. They held out for a long time, and show the advantage of even a small fort on a strategic line of road or rail. The French commanders proposed to abandon the line of the Moselle, leaving a garrison in Metz with orders to defend or die,—the scattered divisions concentrating at Chalons (the only safe point for concentration) there to fight on their well known exercising ground, where, history tells us, the fate of France has before been decided in her favor. With Paris as a base, and reinforcements to swell the army, the result of the war might have been different; but politicians stepped in, and decreed her ruin. Bazaine, appointed to the chief command remained at Metz (where the Emperor also lingered), hoping to fall upon the divisions of German armies crossing to the north and south of Metz; but their whole force passed to the south at Ars, and Pont a Mousson, while Steinmetz had occupied the attention of the French by the battle of Courcelles. This was an obstinate soldier's battle, without any particular display of tactical skill. Bazaine committed an error in fighting at all; having previously determined to retreat towards Verdun, he should have done so, and left the protection of his rear to the fortress, instead of fighting a battle with his army astride of the Moselle, and an enemy whose object it was to detain him. The French engineers had unaccountably neglected to blow up the bridges over the Moselle, to the south, though they destroyed some in their own line of retreat. Bazaine's first march was a very short one, and impeded by an enormous quantity of baggage; he gives a further reason for delay in the fact that the French intendants, or control department, had stowed away six million of cartridges without telling him where to find them, and moreover, had forgotten their whereabouts. This gave the Germans time; they pushed forward as far as Mars-la-Tour with cavalry and guns, and struck the head of the French advance, also cavalry, apparently without guns. The French prepared to charge; but the German cavalry, who masked their guns, wheeling right and left, opened out and left the guns to work their deadly destiny, and thus turn the tide of French retreat.

At Vionville and Rezonville, in a somewhat similar manner, the French columns were fiercely struck, and held by cavalry and artillery until the infantry came up. The success of the final infantry onslaught is attributed by Captain Hosier to the Prussian

artillery being as usual massed on their enemies' flank. The extraordinary mobility of the Prussian field artillery, principally due to their system of carrying sufficient men on limbers and gun-axle seats, rendered possible their style of vigorous artillery action, impossible to the French with their antiquated system of carrying gunners on the wag-gons, or leaving them away behind out of breath.

The Prussian cavalry sacrificed themselves with the same heroic gallantry, as the English at Balaclava, with the difference that their self sacrifice had a strategic object and result, viz., holding the French for their comrades to come up. One terrible charge was made through two French batteries with bodies of infantry in their rear, to be finally met by the hostile cavalry. A little more than a fourth of the horsemen responded to the regimental call at that night's bivouac.

The French fought with the determined fury of their race, and inflicted terrible loss on their enemies, considering that they had gained a victory; but as corps after corps came into position on their left, and wheeled up, the German army, which at first looked northward, finished the fight with its front to the Rhine; while Bazaine had been compelled to fight with his face towards Chalons and Paris his line of retreat, just a fortnight from the opening affair at Saarbruck. After these bloody struggles at Mars-La-Tours, Vionville and Rezonville, Bazaine took up a position at Gravelotte. He had been nearly taken prisoner by the rapid German advance whose guns actually opened fire on the rear of the Emperor's escort as he left the army with his son. The tactical advantages of Gravelotte as a defensive position shewed skill in the selection of ground, for which Marshal Bazaine is famous. It is a long ridge the top of which forms an open natural glacis; the crest was strongly entrenched, and his artillery there posted; the left rests on densely wooded ravines, running down to the Moselle; and one of these parallel to the face of the position, is difficult to cross except by the road running at right angles to the French front, which was swept with guns, and the fire of a fortified farm-house. The Prussians lost terribly in repeated attempts to attack by this road. The difficulties of assault on the left of the position rendered it almost entirely an artillery action, where 84 Prussian guns were deployed by a most spirited manoeuvre. They galloped up a lane through one of these ravines, which concealed them till they reached the plateau south of Gravelotte. The guns were crowded, to avoid drawing fire by extending in front of the village, which was used as a field hospital; and the loss of the Prussian artillery here is evident from the mounds of earth that mark their resting place—"man and horse in one red burial blent." The three leading batteries were met by the fire of four *mitrailleurs*; but concentrating their whole fire on the nearest, there remained nothing but wreck after a single round. The second and third were treated to a similar dose of concentration, and the fourth retired precipitately to avoid annihilation.

This concentration of fire, to be produced in the heat of battle, must be inculcated and practiced in peace. The whole 84 thus concentrated on the French guns, silenced them in succession. This sort of advance of the right men, at the right time in the right place, was in a great measure due to the excellent maps served out to artillery commanders by the Prussian War-Office. I was favored with the loan of one of these that belonged to a captain of artillery; it was a photograph-copy of the map of the French survey. They were turned out in Prussia

by thousands long before the war; and, though it folded up so as to fit the pocket, it was so clear that by its aid any average artillery commander could act with trenchant certainty. Among the sayings of soldiers worth remembering is that of Marshal Saxe, that "the first requirements of an army were legs, the 2nd logs, and the 3rd logs." It is equivalent to that of Wellington, who reiterated "boots;" with us it might possibly be "snowshoes." Prussian officers reiterate "maps"—accurate maps distributed to squadron-leaders, and battery commanders. The infantry working in larger units, do not require so many, except on outposts. The French resisted every assault, until as usual outflanked by the Prussians—the Guards and Saxons—whose artillery, occupying the hill at St. Privat, at right angles to the French position, enfiladed it, and rendered possible the steady advance of the infantry. It is worthy of note that the isolated attempts of German artillery to advance in the open to close range, 600 yards, against infantry in shelter trenches, resulted in artillery destruction. On one of these occasions, a single gun, one officer and three gunners alone remained; and when ordered to retire, the young subaltern's reply, from the midst of his dying comrades, was: "Tell General Steinmetz, that where guns have advanced, there also can infantry; let him send supports to me; I will not retire to them; rather will I die on my gun-carriage and rest here with my comrades." He was as good as his word: he did not retire from his position until he had expended his last shot, and brought his gun, which he had worked with the assistance of his three gunners, safely out of action, for the infantry did not come forward until much later.

The final catastrophe of Sedan was the greatest triumph of the German artillery. When that fatal morning dawned the unfortunate French saw, from every gentle hill of the amphitheatre that surrounded them, the white puffs that showed the trial shots of the German guns. Their concentrated fire was unendurable, and enfiladed each face of the old fortress situated in a basin; and thus a fortress and an army fell before the field guns of an army wielded with strategic skill. Of course we must not forget that it was political interference that dictated a movement on a line that ended in a fight with a neutral instead of a friendly territory in the rear.

Not much artillery incident of value is to be gained by following the struggles of the brave but ignorant and undisciplined levies, *en masse*, who organised by eloquent *avocats*, tried in vain to oppose the national army of a people who for half a century had patiently practised the art of war in peace, and were not too effeminate to ignore the duty of personal service without exception, for peasant, peer or prince.

(To be continued.)

POWER OF THE PRESS.—I love to hear the rumbling of the steam power press, better than the rattle and roar of artillery. It is silently attacking and vanquishing the Malakoffs of vice, and Rodans of evil, and its parallels and approaches cannot be resisted. I like the click of the type in the composing stick, better than the click of a musket in the hands of a soldier. It bears a loaden messenger of deadlier power, of sublimer force, and surer aim, which will hit its mark, though a thousand years pass away!—*Chapin.*