

FRENCH ARMOR: Its Creation and Role In the Great War

Volume 1

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Cover art: Saint-Chamond tanks in combat.

All in all, many of these questions had finally resulted in an increase in the work that fell on the assault artillery of the Armies. The park section, established in April, would not have been enough for the task, if it had not been constantly reinforced by the S.R.R. present at Champieu. In addition, with the first displacement of the groups, from March 15th to 20th 1917, it had become manifest that the difficulties in maintaining the tanks in operating condition would be larger as soon as the vehicles moved away from the camp. The presence of a S.R.R. with every groupement in operations was essential. Based on an experiment, and the example of the British Army, the Commanding General of the Assault Artillery asked, on 24 March 1917, that the number of S.R.R. be increased from four to eight, a figure equal to that of number of groupements envisaged. Moreover, it was necessary to reinforce the S.R.R. with crawler-mounted equipment, so that they could ensure resupply on the battlefield.

The Ministry answered at once that this increase was impossible. In its eyes, the example of the English was not convincing; separated from their factories by the sea, they were obliged to reinforce their manufacturing capacity on the Continent. It was not the same for the French Army which had the factories of the interior behind it. But despite this claim, how often had it been necessary for the changes to be made at Champieu! The second argument employed to refuse an increase in the number of S.R.R.s was even more surprising: the supply of the spare parts necessary to equip these S.R. R. would delay the delivery of new vehicles. This clearly said that the Ministry was less interested in the inoperable vehicles with the armies than they were in the delays of the delivery of new equipment. The cheaper solution was to fix and upgrade the vehicles in the field than to produce new vehicles, but that consideration did not arise in the Ministry.

Despite the obvious needs and the increase in the work being pushed off onto the armies, the requests of the assault artillery were obviousness and the increasingly large increase in work to be made with the armies; these requests were given the lowest priority.⁵ On 18 August 1917 the Ministry said that the repair units were adequate for the needs of the Army. It was only in January 1918 that their number was increased. Throughout the summer of 1917 they were committed to fixing problems, not repairing combat damage. Meanwhile the assault artillery was about to undergo another test.

On 23 October 1917, the battle of Malmaison was fought.

Various operational projects were successively outlined during the summer, but nothing was done. As of at the end of July the possible co-operation of tanks in the projected operations with the VI Army was being considered. It was a question of starting by a penetrating attack on the Chemin des Dames Front where the battle had been continuous since April, to occupy the Malmaison Plateau with the idea of bringing flanking and enfilading fire on the German positions along the Dames crest and into the Ailette Valley so as take from their ability to observe activities in the direction of the Aisne. Reconnaissances were made between the Bessy Ravine and the Bovettes Farm, which determined that the ground close to the Pantheon Farm

⁵ Translator: In the command economy system of the former Soviet Union the same problem existed as production credit was given only for completed whole units, and spare parts were scarce, because the bureaucracy did not understand the need to maintain the units in the field. Bureaucratic stupidity is quite possibly part of this problem, but it is also possible that there was corruption in action here and that the factories were paid more for completed tanks than they were for the production of spare parts. In reading all these comments and comparing them to the us in WWII, we find that in 1942 alone the us produced 2,591 Stuart tank variants, 15,720 medium tanks, tank destroyers, and self-propelled guns, for a total of 26,608 armored vehicles, plus the spare parts needed to support them. In the last three years, 1942-1944, of the war the us produced 84,163 tanks, tank destroyers, and self-propelled guns. The French produced, through the entire course of the war, only 3,870 tanks.

was unsuitable for the use of tanks, because the ground between the French and German lines had been heavily cratered by months of artillery fire. This area was thus eliminated; but the action of the tanks was envisaged along the rest of the front.

A Schneider groupement, consisting of the 8th, 11th, and 12th Groups, and a Saint-Chamond groupement, consisting of the 31st and 33rd Groups, were designated to participate in this operation, under the command of Lieutenant Colonel Wahl. The Schneider groups were uniformly composed of 12 tanks each, divided into four batteries of three tanks each. The Saint-Chamond groups contained 14 tanks each, consisting of four unequal batteries of either three or four tanks each. A S. R. R. was to accompany each of these groupements. From 25 August, detailed reconnaissances were executed by the officers and commanders of the tank units, in the zones where they were destined to operate. The various assembly positions, holding positions, and the line of departure were determined, as were the itineraries to follow and the work to be executed to support the movement of the tanks. Everything was carefully studied. The attacking troops were designated and the commanders of the tank units began liaison with the commanders of the regiments and battalions with which they were to operate. Fourteen of these battalions moved to Champlieu and exercised with the tanks, exercises that were useful for both parties, which had been so limited before 16 April. They were organized so as to better assure the perfect unity of operations, to completely subordinate tanks to the infantry battalion commanders that they were to support. Two battalions of the 8th and 11th Cuirassiers à pied were chosen to be accompanying troops and they were cantoned at Champlieu from 27 August and they received special instruction. Each squadron of cuirassiers [i.e. platoon] was trained with the tank group to which it was assigned for the coming battle. The liaison was equally tight between the assault artillery and the various echelons of artillery. Finally, aerial photographs, regularly gathered by reconnaissance aircraft, served to study the routes to be followed in the German lines. Nothing that could be anticipated was overlooked.

On the other side of the barbed wire the Germans not only expected an attack, but anticipated the use of tanks. They had taken special defensive measures founded on instructions from Ludendorff and the lessons learned after the actions of 16 April 1917. The preponderant function of the distant batteries on this day had led to the almost entire elimination of forward placed guns. All orders had been given to the forward observers; a triple barrage was prepared. A great role was thus reserved for special detachments of elite machine gunners, provided with special S.M.K. ammunition, which were intended to place the tanks *hors de combat*. The Germans were completely confident in their preparations. The High Command expressed itself thus: "they are very vulnerable, despite their armor. There is no reason to fear them, if the defense is well organized. Experience proves it."

In the days of 16 and 17 October, the assault artillery groups were transported by rail and reached their assembly points without incident, in the vicinity of Vailly and Monlin-Saint-Pierre for the Schneider groups which were placed at the right-hand side of the attack, and in the area of Braye and Vuillery for the Saint-Chamond groups which were to operate on the left. The tanks, newly camouflaged, were also covered with camouflaged covers which concealed them from sight. Starting a few days prior to their movement, the accompanying squadrons had arranged the routes.



THE BATTLE OF MALMAISON.
COMBATS OF THE MENNEJEAN AND COLOMBE FARMS.

The tanks were designated to take part in the attack of the 11th, 21st, and 14th Corps. On the right, the 12th Group, in the zone of the 11th Corps, was to support the 38th Infantry Division, which was charged with capturing the destroyed Fort Malmaison and to capture the line from

Chavignon to Many Farm. In the center the 8th and 11th Groups were assigned, by the 21st Corps, to join the 43rd and 13th Divisions, respectively. The objective was to reach the Bellecroix Forest, on one hand, and the summit of the peaks on the north of the Montparnasse plateau, on the other. Finally, towards the left, the Saint-Chamond tanks were attached to the 14th Corps. The 31st Group was to cooperate with the 27th Infantry Division on the front Moulin-de-Laffaux—Les Gobineaux, in the capture of Hill 170, by encircling the Fruty quarries; the 33rd Group was to march with the 28th Infantry Division and was to support its advance on Allemant.

Despite all the precautions taken, the bad weather which had softened the ground, the German counter-preparation fire, and the pounding of the German lines by the French artillery, which had gone on for six days and six nights, had created difficult circumstances for the tanks. During the night of 22/23 October 1917, the tanks moved forward at various hours, based on distances traveled and anticipated delays, to go to their positions. Stops and breakdowns delayed their movement and many arrived at their jump-off positions only a few minutes before H-Hour (5:15 a.m.). It was necessary to resume movement for many of them without taking a moment to catch their breath.

The attack was led by the assault waves of the Moroccan Colonial Infantry Regiment and the 4th Zouaves. It advanced over ground that had been torn up and the tanks of the 12th Group marched against the Germans. They assisted in the occupation of the Bohery quarries. They pushed past Chemin des Dames and then moved, with the infantry that surrounded them, towards Fort Malmaison and watched the vicinity of that position until they were organized for the next movement. However, one after the other they sank into shell holes. Of the six tanks of the left column of this ground, which was to climb the Mairaines Plateau, only one had succeeded in reaching it and it was quickly immobilized. Also, at H-Hour, where the infantry was to march out, the stopped group could not take part in the attack on the second position.

In the center, the experiences of the tank forces were very different. During their approach march, two batteries of the 8th Group were taken under a violent interdiction fire, in the vicinity of Toty Farm, and were immobilized. Of these six tanks, only one succeeded in moving in time to join the infantry at H-Hour (9:15 a.m.) and march with them in the second phase of the action. Assisting in the capture of the Oubliettes Trench, the southern edge of the Hoinets Wood, turning the Bousseux Ravine to take the German position in the rear, it showed what one could expect from the tanks if they were more numerous. A tank from another battery, leaving in the rear two of his companions that had been stopped by artillery, joined, about 7:30 a.m., the leading company of the 149th Infantry Regiment, which was already installed in its first objective, and, during the pause that was imposed on it, it destroyed an annoying machine gun, dispersed a German counterattack which was being prepared in the vicinity, then returned at H-Hour, where it preceded, by 500 to 100 meters, the assault wave, cannonading the edge of the Bellecroix Wood, attacking a small quarry where it took a dozen prisoners, captured a machine gun, and, around 11:00 a.m., captured the northern edge of the Chavignon Plateau. The reserve battery, engaged to replace the first two immobilized batteries, rejoined the infantry at the time of the second attack and, preceded it throughout the advance and at 11:00 a.m., reached the Honets Wood, in the center of which a tank took up position, while another held the Bousseux Ravine under its fire. At this moment the order to withdraw reached the two tanks, which returned to their assembly point. It was also in this phase of the battle that the 11th Group successfully acted against the Germans. Two tanks, making contact with their supporting infantry around 8:30 a.m., crossed the Loutre Trench a bit before H-Hour and put to flight the gunners of two 77mm field gun batteries that were placed on the southern edge of the Bellecroix

Wood. They then swept the trench, destroying or neutralizing a series of machine guns, and escorting the French infantry to the entrance to the woods. Another battery of tanks, preceding the French infantry before the Lezard Trench, swept the Dennewitz Trench, south of the Vaudesson Ravine, and supported with its fire the progress of the infantry, which captured that village. Two other batteries, assigned to the groupement of the 20th and 21st Chasseur Battalions, preceded the troops at H-Hour and reduced the machine gun nests that blocked the infantry's advance. Released around noon or 1:00 p.m., the tanks that remained in an operable condition withdrew in the evening to the agreed upon position.

In this part of the battlefield, the advance of the French troops had been great and a certain number of tanks had usefully collaborated with them.

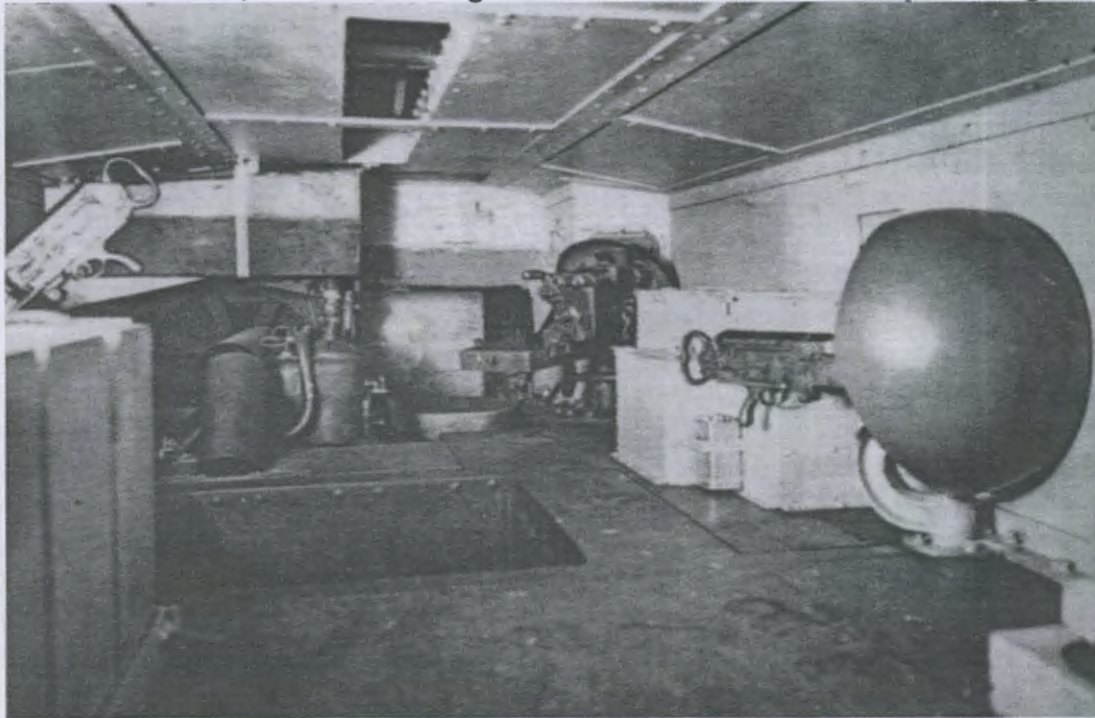
The Saint-Chamond tanks of the left wing, despite the numerous accidents so ordinary with these vehicles, had also rendered several services. In the 31st Group, two tanks of the 1st Battery had stopped at the first trench, but the third had moved below the Gobineaux Quarry, from where it destroyed a machine gun. Another, having put in flight, by its presence, the crews of a machine gun near the Eboulis Trench, had then turned by Vaurains, arriving on the Saint-Guilian Plateau, where it destroyed a cannon, three machine guns, and for an hour had covered the installation of the French infantry. The tanks of the other batteries had barely moved beyond the highway to Maubeuge. The 33rd Group found before it particularly bad ground, softened by the night's rain and covered with deep and linked shell holes. Also the tanks were quickly stopped, but not before having helped the infantry to reduce several machine guns. One tank took 15 prisoners after breaking down on a defense. The occupants, surprised by the collapsing soil, could do nothing but surrender. The tanks, liberated by the infantry, successively returned to their assembly points in the course of the day.

Two batteries of Saint-Chamond tanks, one from each group, were designated to take part in the action that the 14th Corps was to undertake on 25 October, in the direction of Pinon, in order to expand the success obtained on the right. In the night preceding the attacks, the first of these batteries, moving with great difficulties on a ground made worse by the continuous rain that fell in abundance, broke down completely to the southwest of the La Motte Château. In the other, only a single tank reached, around midnight, Haute-Pie, and was able to link up with the 21st Chasseur Battalion. Leaving with the assault wave, it reduced to silence a machine gun, crossed the first German trench, derailed⁶, rejoined and then definitively derailed. The infantry, otherwise, did not encounter any serious resistance in its advance.

On the whole, on the wings where the ground was completely plowed up, the tanks were still able to provide some assistance and helped with the capturing of the primary goal and covered the infantry while they established themselves in the captured trenches. In the center, the tanks, arriving too late to participate in the first phase of the attack, had been able to, in the second part of the action, after they had come out of particularly difficult terrain, to operate in an intimate liaison with the infantry on the spurs that descended to the Ailette, destroying the machine guns they encountered and at times, German gunners, avoiding all long stops, preventing by their rapid advance, the Germans from launching counterattacks, and thus saving many French lives. Despite the unfavorable circumstances and too frequent accidents, despite the too limited number of tanks which had actually intervened in the action, the effectiveness of the assault artillery in the action cannot be denied. Everywhere that they appeared, the tanks had

⁶ Translator: My guess is that by "derailing" the author means that the tank threw a tread, but none of my French military dictionaries have a translation for this phrase other than derailing.

acted, first by their presence, to spreading trouble into the spirit of the Germans and confidence into the French troops, then, by the effectiveness of their fire, at very close range. The German machine gunners were safe in their bunkers and holes when the silhouettes of the tanks suddenly appeared on the horizon, and the German gunners abandoned their cannon upon seeing the tanks.



INTERIOR OF SCHNEIDER TANK.

The losses, in personnel, were equal to their losses in tanks and for the accompanying soldiers. They lost 38 dead, including four officers, 7 missing, and 119 wounded, including 15 officers. Their total losses were less than 10%.

The losses in material were also relatively low. Only six tanks were destroyed by German artillery, in part because of the French counterbattery fire, which was very active and partially because of the persistent fog which had not permitted German observers to direct fire on the French tanks as they advanced. In addition, the withdrawal of the Germans favored the recovery of the bogged down and broken down vehicles. All the tanks that had not returned on the day of the battle were gathered up and returned in the following days. As a result, the groups returned with all their equipment to Champieu, even more they also brought back six further tanks, which were in bad condition and had been abandoned on the battlefield since 5 May.

The results obtained showed the value of the combat tactics adopted following the operations carried out during the summer at Champieu. They were founded on the need for an intimate link with the infantry, ensured before the action by a few days of shared life and operations, and, during the action, by the placing of the battery of tanks under the orders of the commander of the attacking battalion. The imperfections of the existing materials required that each battery was accompanied by a section of hard-working combatants, from whom were taken the three elite men charged to guide the tank in the difficult circumstances. The role of these men required a very careful preliminary instruction, and a prolonged contact with the crews of the tanks; that of the accompanying infantry platoons was also largely facilitated on the battlefield by the experimental work that was carried out. As the Commanding General of the Assault

Artillery wished that, from this moment, there be a permanence in the assault artillery camps between the companies involved in this work, so that the tanks were always able to intervene in attacks for which one had not had months of preparation.

The experience of battle showed the reality of the improvements made to the Schneider tank since the experience of 16 April. Acoustic communication tubes placed inside had rendered great services. The electric starters had functioned well; the suction pipes had functioned satisfactorily; there were no more broken hinges. Ventilation was very good and the crews had not been inconvenienced by heat. Lastly, two tanks had received shells head on which had ruptured the fuel tanks, but neither tank caught fire. On the other hand, the V-shaped cleats added to the shoes of some of the tanks had not served well and made it difficult to turn. A more serious thing was that the engines were shown to sometimes be insufficient. It was necessary, from now on, to reduce their output after a certain number of hours of service. This insufficiency, as well as the existence of the *avant-bec* [the heavy bow], which too often dug into the ground, had been the causes of the majority of the mechanical breakdowns. The Saint-Chamond, which was afflicted with an even more awkward *avant-bec*, had shown its already well-known defects again, of their rate of rolling. The after carriages all subsided and the forward carriages were always distorted if the tank threw a tread. The dissymmetrical widened caterpillar tracks improved the movement on soft ground, but increased the number of the thrown treads. The driving motors had behaved well; but seven oil pans had all cracked from vibrations. Two tanks had been set fire to by German projectiles; however the personnel had been able to escape, without being injured by the fire. Lastly, the camouflage applied to the tanks had been very useful in that it concealed the aiming slits. To the contrary, the false slits appeared to have attracted the fire of the machine guns. Two crewmen had suffered superficial wounds while inside the tanks, which had been caused by bits of bullets penetrating through the view slits.

On the whole, the use of the tanks, on 23 October 1917, had been crowned with success and had given confidence to the troops in the value of these new combat machines. German prisoners stated that all the measures they had taken to deal with the tanks had failed and that the tanks, which they thought could be easily destroyed, had caused much distress. In the eyes of informed people, the experience of Malmaison confirmed the results of the preceding engagements. It was necessary for all to improve movement capabilities of the tanks as their poor movement performance had come home in a striking manner. As a result of the problems they encountered on the shell torn terrain they had not been able to render as great a service in the first part of the action and they had only arrived in time to take part in the second because the infantry had stopped its advance for three hours between phases. Of the 63 tanks engaged, 27 had not moved beyond the French first lines; 15 others had broken down in the first German position; only 21 had played a truly useful role in the battle. Thanks to the depth of the advance, all the tanks had been recovered without serious difficulties and returned to the rear; but if the German artillery had not been disorganized by the rapid French advance, most of those broken down tanks would have surely been destroyed and the increase in material losses would have been much higher.

Thus, the success of 23 October 1917 had produced the same conclusions as the failure of 16 April. It was necessary to give the tanks more flexibility and more endurance. This is where the French assault artillery wanted to go, in preparing all its forces for the future battles with the light tank.