

ried the enemy's strong works by assault they went under fire more resolutely the second time than the first. Bad soldiers, if unconscious of the impression which the reality of war will produce upon them, are apt to rush into the fight with as much daring and resolution as veteran troops, and once engaged they will sometimes continue to behave well, but experience makes them timid, and their courage fails them afterwards, when called upon to face a danger they have learned to appreciate. On the contrary, participation in those dangers, the loss of their comrades, the sufferings and hardships of the war were to strengthen the courage and increase the self-possession of the volunteers whom a patriotic duty had taken from the occupations of civil life."

"If the check of Bull Run," adds the author further on, "demonstrated the inexperience of the American soldiers, it also proved that the people to whom they belonged possessed that manly temperament which gathers strength from adversity, and that constancy which, after many delays and fruitless efforts, succeeded at last in rendering available resources ignored by their adversaries. It is an error, we believe, to attribute the honor of this quality exclusively to the Anglo-Saxon race; we shall rather attribute it to the working of free institutions. A people living under such institutions do not prepare for war after the manner of conspirators; hence the frequent checks that are experienced at the outset; but they profit by experience, their courage increases in proportion to the magnitude of the struggle, they persevere in it because they have voluntarily assumed its responsibilities, and every citizen, making it a personal matter, sustains the common cause with a zeal which develops the national strength at the very moment when a despotic government would already have been struck powerless before a wearied and unsympathizing republic."

#### TOPOGRAPHY OF EUROPE AND AMERICA CONTRASTED.

We have dwelt at some length upon these opening chapters of the Comte de Paris' work, as in some respects the part of most interest to our readers, and, at the same time, that which can be more easily condensed within the limits of this article, than the connected narrative of military operations which follows. The opening chapter of Book III, treats of the part which the great highways of communication, rivers and railways, bore in the strategic movements of the war. Before we judge men, the author urges upon his European readers, and compare what they have done with what might be accomplished in any stated part of Europe, we must consider the conditions imposed upon them by the physical characteristics of the country in which they had to operate. What strikes the observer at first is the simplicity of the geographical configuration of the United States. No great natural divisions are to be met between the foot of the Rocky Mountains and the Atlantic borders. There is but one solitary range of mountains to be seen—that of the Alleghanies, of great length, but deficient in altitude, extending from north west to south west, and consequently not presenting diversities of climate; intersected by numerous rivers of considerable size, divided throughout its whole extent by large and fertile valleys, but without the snowy crown of the Alps and the Pyrenees, and devoid, therefore, of all that can render a chain of mountains a real barrier and a political boundary. The American rivers, slow and deep, easily navigable, instead of being an obstacle, are so many open highways for war as well as for commerce.

The general aspect of America, therefore, is grand and imposing, but singularly monotonous and uniform and very different from that of Europe, where Nature and man have varied with each other in producing striking varieties of form. It is a country possessing an even surface, covered with forests, and, except among the Alleghanies, with no clearly defined divisions of waters, no large table lands nor open spaces, no deep depressions so that on nearing the Atlantic the level of the ground gradually lowers, until land and sea become interlaced; the smallest valleys are transformed into estuaries and the faintest undulations into long peninsulas. No artificial frontiers divide the States, and by a truly providential coincidence, the day when the immensity of her domain might have weakened the bonds of her unity, railways were introduced which averted the impending danger. Thanks to them, New Orleans is today nearer New York than Marseilles was to Havre forty years ago, when France could count as many inhabitants as constitute the population of the United States at the present time. It is wrong, therefore, to suppose that the extent of their territory is an obstacle in the way of their commercial development and a cause for political dissolution.

But in a military point of view the distances, the nature of the country, and the condition of its settlements, interpose extraordinary difficulties to the great movements of armies and their manoeuvres on the battle field. In the States which were the theatre of war there are neither large cities and villages, small towns are scarce, the chief country place being designated by a solitary building, generally situated at the intersection of two roads, and the Federal armies had frequently to march for many long days, without meeting with more than four houses together in the same clearing. Turnpikes are few and poorly kept. The roads, laid out at random from clearing to clearing, over a rich soil easily softened, become impassable at the first rainfall. Magnificent rivers roll their unexplored waters through the great shadows of the virgin forest, as in the days when the canoe of the Indian was gently wafted upon their currents. There were no maps, or at least bad maps, which is even worse yet for the purpose of war. It appears that the drawings made by Washington during the leisure hours of his youth still constitute the best topographical charts of Virginia, and the only ones which possess correct drawings of land surveys are those most recently admitted into the Union, which, as Territories, were for some time under the jurisdiction of the Federal government and surveyed by Federal officers.

#### THE LOGISTICS OF OUR ARMY.

Another capital difficulty in the way of military operations arose from the fact that the products of the Southern States, especially during the early stages of the war, were not adapted for the subsistence of armies.

The vast blockade in which the North held them shackled during the war compelled them at last to make their own soil yield them the necessary means for sustaining life. Cotton, sugar, and tobacco, having lost their value, gave place to cereals, the cultivation of which, contrary to many predictions, spread and prospered as far as the warm plains of Georgia. It was alone owing to this change in the cultivation of the soil that the Confederate armies were able to subsist, but, at the same time, it deprived the South of one of her strongest defences, by rendering invasion easier. Sherman understood this, and attempted, in 1865, that

decisive march which, all other things being equal, he could not have undertaken two or three years before, across these States then exclusively devoted to the cultivation of cotton. And yet his example affords no proof that an Army can subsist in America upon the resources of the country it occupies. It was only by avoiding all stoppages, by always marching on, and constantly occupying a new section of country, that Sherman was able to get along for some time without the supplies forwarded from the Northern States. When the large American armies, proportioned not to the density of the population, but to its entire number, found themselves, with all the requirements of a refined civilization, in the midst of a country yet so little cultivated, they encountered difficulties unknown in our European wars, and which Washington, Rochambeau, and Cornwallis had formerly escaped, owing to the small number of their soldiers. The population is too limited to supply, out of its husbanded resources, the wants of such masses of men gathered together within a narrow space by the chances of war.

The author estimates, that "at the beginning of the war the American soldier consumed nearly three pounds of food per day, if to this we add ammunition of every kind, personal accoutrements, and all that is necessary for the maintenance of troops, it will be readily admitted that the average weight of articles to be transported for the necessities of a large American army is about four pounds daily to each man, without counting the food for horses and mules, which amounts to about twenty five pounds for each animal." He allows 2,000 pounds to a six mule wagon, which, allowing for going and returning, would supply 500 men every other day, or 250 men every day a day's march from the depot. According to this computation, 800 wagons would be required to supply 100,000 men two days' march from their base, 800 more for the daily forage of 16,000 cavalry and artillery horses, and 152 more to transport the food for the wagon teams themselves. Thus, allowing twenty wagons for general purposes, "we shall find that 2,000 wagons, drawn by 12,000 animals, are strictly necessary to victual an army of 100,000 men and 16,000 horses at only two days' march from its base of operations. In the same proportion, if this army finds itself separated from its base of operations by three days' march, 3,750 wagons, drawn by 22,000 animals, will be found indispensable for that service. This calculation does not take into account the difficulties in the way of transportation; for if these wagons are necessary to convey the materials as far as the depots of the division, the others are required to distribute them afterwards among the regiments; an army, in fact, is obliged to keep a number of such wagons constantly with it in order to secure a certain degree of mobility and to be able to send a few detachments forward, accompanied by a wagon train carrying several day's provisions. Thus an American army of 100,000 men with nearly 4,000 wagons, from 2,000 to 3,000 of which pass and re-pass over three or four parallel roads, the distance of two days' march, or about forty or fifty lieometers, had established for it, during the war, the utmost distance to which it could venture from its base of operations, while continuing to receive its supplies from that source."

By advancing its base of operations on the same line, or by changing from one line to another, the wagons were relieved of two trips; and by taking them along loaded with provisions, it doubled the number of days during which the troops could march