commander of Liège, which was the only French fortress that never surrendered. Then, Carnot had to flee from France, and he died in 1823, in Magdeburg, Germany.

Weaknesses of the Schlieffen Plan

Now, I come to the weak points of the Schlieffen Plan. This is important to understand the superiority of Carnot, and of LaRouche.

The problems of the plan, are the following:

- 1. Lack of use of the very strong German Navy. The German Navy, after 1905, was the second-strongest in the world. But Schlieffen didn't have a plan to use the German Navy against England, to block a landing by the British in France.
- 2. Carnot understood the question of military technology fully—in fact, he started from that. But Schlieffen, although of course he was not a Greenie, didn't see the real importance of it. He made a campaign for heavy artillery, and to make smaller units that are more maneuverable—not army corps, but divisions. But if you compare what he did, to what Carnot did, it was not enough. Consider how LaRouche would think, as a military commander: He would not just use the questions of military flanks, but would also use another dimension, the technological flank. That is Schlieffen's weak point, and the weakness of the German military after 1890, after Kaiser Wilhelm II got into power—the best-loved grandchild of Queen Victoria.

Even the older Moltke understood very well the need for the railway system. For example, there was a war between France and Germany in 1870-71, and Moltke insisted on the buildup of the railway system, to use it for the rapid movement of troops, to outflank the enemy.

Also, Carnot was a political person, which Schlieffen was not. Carnot was a devoted republican, and tried to build up a republican army—not a chauvinistic French army. And he supported Hoche, the most brilliant French general who ever existed, and who was Napoleon's big enemy. When Hoche died in 1798, Napoleon immediately called off the plan for invading England; he then tried this Egyptian operation (which is itself interesting, since it was somewhat based on ideas that Leibniz had in 1676, to outflank the Ottoman Empire and the British).

A lesson from American history

In conclusion, I would like to say something positive about the United States, because it's very important in this context. Look at the American Civil War: Some of the generals were not bad; but it was really *industry* that won the war: the north American steel industry, the shipyards. It was they who won the war against the South and against the British Empire. It was an alliance, especially among immigrants—the German, Irish, Jewish, Italian immigrants—in America, which brought Lincoln into power, and was the heart of industry in the North. It was the little industrial worker who won the war against the British! Because the British, until 1863,

had a plan to attack the United States, in support of the Confederacy. But the Americans, in 1862-63, started an enormous buildup of the Navy; it was a defensive buildup—it could never have allowed for the occupation of Great Britain. It was not that strong, don't overestimate it. But they drew up a plan to destroy the British shipping routes and defend the American coast. And this program was huge: the *Monitor* program, the frigate program, the cruiser program. These were based on industry, and it was this, along with the U.S. alliance with the Russians, that deterred the British from intervening against the North. This is a very interesting example of flanking. And I have the greatest admiration for what the Americans did there.

Schlieffen's view of the Battle of Cannae

The following is the first chapter ("The Battle of Cannae") of General Fieldmarshal Count Alfred von Schlieffen's Cannae, English translation published by the Command and General Staff Schoolpress, Fort Leavenworth, Kansas, 1931.

The army of Hannibal, fronting west, stood on 2 August, 216 B.C., in the Apulian plain to the left of Aufidus (Ofanto) in the vicinity of the village Cannae, ² situated near the mouth of the river, and opposite the troops of Consul Terentius Varro. The latter, to whom had been transferred by the other Consul Aemilius Paulus the daily alternating commandership, had

55,000 heavily armed men, 8,000 lightly armed men, 6,000 mounted men,

on hand and, in the two fortified camps,

2,600 heavily armed men, 7,400 lightly armed men.

10,000 men

at his further disposition, so that the total strength of the Roman army amounted to 79,000 men.

Hannibal had at his disposition only

^{1.} First published in the VI and X annual volumes of the *Vierteljahrshifte für Truppenführung und Heereskunde* (1907-1913), E.S. Mittler and Son, Berlin.

^{2.} Hans Delbrück, "Geschichte der Kriegskunst" ("History of the Art of War"), I.

32,000 heavily armed men, 8,000 lightly armed men, 10,000 mounted men.

50.000 men.

His position, with a considerably superior enemy in his front and the sea in his rear, was by no means a favorable one. Nevertheless, Consul Aemilius Paulus, in concurrence with Proconsul Servilius, wished to avoid a battle. Both feared the superior Carthaginian cavalry to which Hannibal particularly owed his victories on the Ticinus, on the Trebia and at the Trasimene lake. Terentius Varro, nevertheless, wished to seek a decision and avenge the defeats suffered. He counted on the superiority of his 55,000 heavily armed men as against the 32,000 hostile ones, consisting of only 12,000 Carthaginians and of 20,000 Iberians and Gauls who, in equipment and training, could not be considered as auxiliaries of full value. In order to give increased energy to the attack, Terentius gave his army a new battle formation.³ The cavalry was placed on the wings. The lightly armed troops, destined to begin the combat, to envelop the enemy and to support the cavalry, were not much considered by either side.

Hannibal opposed to the enemy's front only his 20,000 Iberians and Gauls, which were probably 12 files deep. The greater part of his cavalry under Hasdrubal was placed on the left wing and the light Numidian on the right. In rear of this cavalry the 12,000 heavily armed Carthaginian infantry were formed equally divided between the two wings.

Both armies advanced against each other. Hasdrubal overpowered the weaker hostile cavalry on the right flank. The Roman knights were overwhelmed, thrown into the Aufidus or scattered. The conqueror turned the hostile infantry and advanced against the Roman cavalry on the wing which, until then, had only skirmished with the Numidian light horse. Attacked on both sides, the Romans were here also completely routed. Upon the destruction of the hostile cavalry, Hasdrubal turned against the rear of the Roman phalanx.

In the meanwhile, both infantry masses had advanced. The Iberian and Gallic auxiliary forces were thrown back at the impact not so much on account of the strength of the attack of the 36 Roman files as on account of the inferior armament and the lesser training in close combat. The advance of the Romans was, however, checked, as soon as the Carthaginian flanking echelons, kept back so far, came up and attacked the

enemy on the right and left, and as soon as Hasdrubal's cavalry threatened the Roman rear. The triarii turned back, the maniples of both wings moved outward. A long, entire square had been forced to halt, fronting all sides and was attacked on all sides by the infantry with short swords and by the cavalry with javelins, arrows, and slingshots, never missing in the compact mass. The Romans were constantly pushed back and crowded together. Without weapons and without aid, they expected death. Hannibal, his heart full of hatred, circled the arena of the bloody work, encouraging the zealous, lashing on the sluggish. His soldiers desisted only hours later. Weary of slaughter, they took the remaining 3,000 men prisoners. On a narrow area 48,000 corpses lay in heaps. Both Aemilius Paulus and Servilius had fallen, Varro had escaped with a few cavalrymen, a few of the heavily armed and the greater part of the lightly armed men. Thousands fell into the hands of the victors in the village of Cannae and in both camps. The conquerors had lost about 6,000 men. These were mostly Iberians and Gauls.

A battle of complete extermination had been fought, most amazingly through the fact that in spite of all theories, it had been won by a numerical inferiority. Clausewitz said "concentric action against the enemy behooves not the weaker" and Napoleon taught "the weaker must not turn both wings simultaneously." The weaker Hannibal had, however, acted concentrically, though in an unseemly way, and turned not only both wings, but even the rear of the enemy.

Arms and the mode of combat have undergone a complete change during these 2,000 years. No attack takes place at close quarters with short swords, but firing is used at thousands of meters range; the bow has been replaced by the recoil gun, the slingshot by machine guns. Capitulations have taken the place of slaughter. Still the greater conditions of warfare have remained unchanged. The battle of extermination may be fought today according to the same plan as elaborated by Hannibal in long forgotten times. The hostile front is not the aim of the principal attack. It is not against that point that the troops should be massed and the reserves disposed; the essential thing is to crush the flanks. The wings ought not to be sought at the advanced flank points of the front, but along the entire depth and extension of the hostile formation. The extermination is completed by an attack against the rear of the enemy. The cavalry plays here the principal role. It need not attack "intact infantry," but may wreak havoc among the hostile masses by long range fire.

A condition of success lies, it is true, in a deep formation of the hostile forces with shortened front through massing of reserves, thus deepening the flanks and increasing the number of combatants forced to remain in inactivity. It was Hannibal's good luck to have opposed to him Terentius Varro, who eliminated his superiority by disposing his infantry 36 men deep. At all times there have been generals of his school, but not during the period when they would have been most desirable for Prussia.

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^{3.} The heavily armed men (templates) would have been formed, according to regulations, in three lines, in close formation, the two foremost lines in equal strength (hastati and principes) with 4,000 men in the front, and a total of 12 files, the third line (triarii) only half the strength in 160 equally distributed columns of 60 men (10 in the front and 6 in depth) immediately to the rear. This formation of 18 files, appearing too broad to the commander, was deepened into 36 files with a front of 1,600 men. . . . Both formations, the broad as well as the deep, required 57,600 men. There lacked, consequently, 2,600 men of the regulation strength.