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### ***The Impossibility of War***

“*The Future of War*,” by M. Bloch, the great Polish economist, throws some edifying light upon the events now transpiring in the Transvaal. The ease with which the Boers have held back the British has called forth universal surprise and contentment, and further emphasized the practical impossibility of frontal attacks on entrenched troops and the seeming impossibility of successful enveloping or flanking. In the stubbornly contested advance of General Buller to the relief of Ladysmith may be noted much evidence in favor of M. Bloch’s affirmation that war is no longer possible—not between the first-class soldiers of first-class powers. In Europe, as he points out, it is conceded to be impossible for the minor states to go to war, except by leave and license of the great powers. They in turn are almost equally matched as to possession of the machinery of war, and in the event of hostilities can mobilize their great armies upon their frontiers before invasion by the enemy.

In such a case, the Polish writer holds, a deadlock will occur, and the side that advances, advances to extermination. With forces approximately equal, all military writers are agreed that frontal attack is suicidal, and, for the same reason, flank attack unwise and impossible.

French statisticians inform us that an attacking body, in order that it shall not be inferior to the defenders when it has got within thirty-five and a half yards (the distance at which it will be able to rush upon the enemy), for each hundred men of the defenders must have six hundred and thirty-seven men; while if it wishes to reach the actual position of the defenders not numerically inferior, it must have eight times as many men.

From the statistics of General Skugarevski we learn that a body of troops double the strength of the defenders, beginning an attack from eight hundred paces, by the time they have advanced three hundred paces will have less than half their strength available against the defense. With equal forces, the defenders may allow the enemy to approach to within a distance of two hundred and twenty yards, when they will only need to discharge the six cartridges in their magazines in order to annihilate the attacking force.

The celebrated Prussian authority, General Müller, declares that in order to avoid total extermination soldiers will be compelled, in scattered formation, and as much as possible unobserved by the enemy, to creep forward, hiding behind irregularities in the field, and burying themselves in the earth like moles.

It is the technical development of the machinery of warfare that has invested the attack with such fatality. Rapidity of fire, greater range, greater precision, and smokeless powder may be accounted the four factors which have brought about this apparently absurd state of affairs. In the last thirty years the soldier’s rapidity of fire has been increased twelve times. With the new self-charging rifle of the Mauser pattern (the six-millimeter gun) a soldier can fire from six to seven times per second. But on account of reloading the magazine, he can fire only seventy-eight unaimed, or sixty aimed, shots per minute. However, this is not so bad. These improved weapons

will inevitably demand the rearmament of the armies of Germany, Austria, Italy, France, and Russia, at an estimated cost of not less than \$754,000,000, a sum which will tax the wits of the parliaments to wring from the groaning workers.

Better explosives and the reduction of calibers have given greater range, and by the leveling of the trajectory of the bullet, greater penetration. At half a mile a bullet will go as easily through a file of men as through the body of one. The Indians in our late trouble in Minnesota, used to the traditional method of fighting from shelter, discovered that even the solid diameter of a tree no longer afforded protection and threw down their guns in disgust. Only a fool would fight under such conditions.

The modern rifle has a range of from two to three miles; for the first mile and a half it is deadly. Because of this, attacks must be made in loose formation, and hence with great armies the line of battle will be extended over an enormous front. No longer is it possible to fight men in masses, nor can battles be opened up at close range; and if an attack be insisted upon, the increase in casualties will be frightful. During the time a body of men are attacking a modern battery across a distance of a mile and a half it is estimated that that single battery would fire fourteen hundred and fifty rounds of shell, scattering 275,000 fragments of death among the soldiers of the assaulting party.

The advantage of smokeless powder has been sufficiently demonstrated in Cuba and the Philippines, but one great disadvantage has been ignored; the battles of the future must be fought without the merciful screen of smoke, which in the past hid the shock of the charges, the wavering and indecision, the ghastly carnage. But in the future, whether it be one man shot down or a division destroyed, it will be open to the eyes of all men. In the old-time battle no private knew how the day went, nor knew, mayhap, that they were snatching victory from the maw of defeat. But in the modern battle, where he may see the play like a chessboard, the effect of even temporary disaster upon the morale of the army may well be imagined.

Armies can no longer come into close contact. The bayonet and cavalry charge are obsolete. Cold steel is no longer possible. Since infantry can no longer drive infantry from a fortified position, the artillery has come to be greatly relied upon. Competent military experts hold that the French artillery has increased its deadliness in the last thirty years one hundred and sixteen times. This has been made possible by the use of range-finders, chemical instead of mechanical mixtures of powder, high explosives, increase of range, and rapid fire. But no infantry will be expected to occupy fortified positions without a good backing of artillery. The Boers instance this admirably. Therefore the infantry will remain quiet while an artillery duel takes place in which the chances are large for the mutual extermination of guns and gunners. With this accomplished the deadlock would still remain unbroken. The zone of rifle-fire, eleven hundred yards wide, a literal belt of death, would preclude either infantry from attacking. Should the artillery on one side be silenced, a gradual entrenched retreat would be in order, the eleven-hundred-yard zone of fire in the mean time preventing the delivery of a crushing blow by the victors. This withdrawal from the artillery range would permit a breathing spell in which the temporarily vanquished could again fortify itself; but the position would be unchanged. The consideration of these facts has brought military experts to the belief that that the decisive battle is no longer possible, and that it is highly improbable that the apparently victorious army can ever by force of arms wrest the spoils of war from the vanquished army.

As regards this question of attack, the written opinions of the great military authorities of the militant nations will bear illuminating inspection. No two agree. For every proposition in the line of attack a counter proposition is put forth for the defense. Every plausible method of attack

is honeycombed by hopeless contradictions. Simmered down and summed up, they can only agree upon a successful assault taking place when the defense has become helpless, panic-stricken, and disorganized. The French expert, Captain Nigote, has drawn a picture of the kind of attack to be expected in future warfare:—

The distance is 6,600 yards from the enemy. The artillery is in position and the command has been passed along the batteries to “give fire.” The enemy’s artillery replies. Shells tear up the soil and burst; in a short time the crew of every gun has ascertained the distance of the enemy. Then every projectile discharged bursts in the air over the heads of the enemy, raining down hundreds of fragments and bullets on his position. Men and horses are overwhelmed under this rain of lead and iron. Guns destroy one another, batteries are mutually annihilated, ammunition cases are emptied. In the midst of this fire the battalions will advance.

Now they are but 2,200 yards away. Already the rifle-bullets whistle around and kill, each not only finding a victim, but penetrating files, ricocheting, and striking again. Volley succeeds volley, bullets in great handfuls, constant as hail and swift as lightning, deluge the field of battle.

The artillery, having silenced the enemy, is now free to deal with the enemy’s battalions. On his infantry, however loosely it may be formed, the guns direct thick iron rain, and soon in the positions of the enemy the earth is reddened with blood.

The firing lines will advance one after the other, battalions will march after battalions; finally, the reserves will follow. Yet with all this movement in the two armies there will be a belt a thousand paces wide, separating them as if neutral territory, swept by the fire of both sides, a belt which no living being can stand for a moment.

The ammunition will be almost exhausted, millions of cartridges, thousands of shells, will cover the soil. But the fire will continue until the empty ammunition-cases are replaced with full ones.

Melipite bombs will turn farmhouses, villages, and hamlets to dust, destroying everything that might be used as cover, obstacle, or refuge.

The moment will approach when half the combatants will be mowed down. Dead and wounded will lie in parallel rows, separated one from the other by that belt of a thousand paces swept by cross-fire of shells which no living being can pass.

The battle will continue with ferocity. But still those thousand paces unchangingly separate the foes.

Which have gained the victory? Neither.

From the consideration of the technical aspect of modern warfare, M. Bloch is led irresistibly to the conclusion that when the nations in their harness go up against each other a condition of deadlock will inevitably result. Neither army may attack; both will play for strategic gains. If one should be smaller than the other, and if it should be on the defensive, it will prevent outflanking by maneuvering on an inner and smaller circle. Clouds of invisible sharpshooters, using smokeless powder, will pick off at from half a mile to a mile the reconnoitering parties of the enemy, and by so doing, constantly veil a constantly changing position. Feeling the enemy’s position by skirmish-lines and by driving in the outposts, presents unsurmountable obstacles. The zone of fire prevents rushing and learning whether the opposing force is a hundred or ten thousand soldiers strong; that is; rushing cannot be accomplished except by means of immensely superior numbers. Such an attack requires time to develop, and gives time for the defense on the inner circle to hurry up reinforcements. In any case the embattled armies will both be stalemated.

Neither can develop a general attack and escape extermination; and it is safe to predict that neither will be very apt to advance to suicide.

This leads to the economic aspect of future warfare. The maintenance of modern armies means enormous expenditure of money. The expenditure of life would correspond should they be unwise enough to even venture partial attacks in isolated portions of the field. Therefore, the question arises: How long will the working populations which are represented by these armies be able and willing to feed them, to furnish them with the munitions of war, and to replete the ranks of the soldiers from the ranks of the producers? It is inevitable, supposing the home political situation to remain unchanged, that the nation with the greater and more available resources, coupled with the tougher and more tenacious population, will be the victor. Famine, not force, will decide the issue.

Future wars must be long. No more open fields; no more decisive victories; but a succession of sieges fought over and through successive lines of wide-extending fortifications. Nothing will be accomplished quickly. The defeated army—supposing that it can be defeated—will retire slowly, intrenching itself step by step, and most likely with steam-intrenching machines. Every retrogressive movement would be protected by the invisible sharpshooters and by the zone of fire, precluding any possibility of rout through a general advance of the victorious army.

In a war between the Triple and Dual Alliance, ten millions of men would be under arms. To feed and keep them going would require \$20,000,000 per day, or 7,300,000,000 per year. How long may such prodigality endure? The increase in the costliness of modern warfare may be best instanced from the navy. The cost of a first-class line-of-battle sailing ship was \$500,000; of the first English iron-clad *Warrior*, in 1860, \$1,850,000; of the German ironclad *Koenig Wilhelm*, in 1868, \$2,500,000; of the Italian *Duilo*, in 1876, \$3,500,000; and of the *Italia*, in 1886, \$5,000,000. Taking the engines, boilers, and coal-bunkers from out a modern cruiser and filling the empty space with water, a frigate of the old time, guns and all, could be floated within, and room would still remain in which to steer a pinnace completely around her. In 1896, Austria spent four and a half times more on her army and navy than an education; Italy in the same year, eight times more; France, five times more; and Russia, twelve times more. Eloquent figures for the intellectual and moral culture of the enlightened nations!

M. Bloch, for 1893, has given the following table of the aggregate expenditures of the six European powers on armies and fleets:—

AUSTRIA-HUNGARY:	72,146,000
GERMANY:	168,737,800
ITALY:	68,858,000
RUSSIA:	249,949,200
FRANCE:	178,041,800
GREAT BRITAIN:	158,406,400
GRAND TOTAL:	896,139,200

The civil population will decide the future war by its capacity for enduring all the privations consequent upon a state of semi-famine when the whole industrial system is thrown out of joint, and by its power and willingness to fill the mouths of the million non-producing soldiers and to furnish them with the sinews of war. At the front will be the chess-game; at home the workers feeding the players. All will depend upon the stamina of the civil population.

And the civil population will have need for all its stamina. Conditions have changed. Modern complex civilization, with its intricate systems of production and distribution, cannot sow and harvest the crops and fight between times. It is very easily thrown out of gear. When M. Burdeau was in the French Ministry an attempt was made to ascertain how the social organism would continue to carry on its functions in time of war,—how, from day to day, the population was to receive its bread. But the military authorities protested and the inquiry was shelved. With dislocation and stagnation of industry, the rise of breadstuffs, and the front, the population must needs be a very patient one, or else the authorities will find much trouble on their hands.

In the event of such a war, securities, which are now held largely by the middle classes, would go tumbling and crashing, rendering it difficult for the government to float loans on a disrupted and frightened market. The disastrous effect to-day of a war rumor on any seat of exchange, is common knowledge. If paper money were issued under such conditions, its depreciation would be instant and great. The rise of the necessities of life will tend to do this and to set into motion the remorseless pendulum of action and reaction. The countries in which more live by trade than by agriculture—the wheat-importing countries—will feel the pinch of famine quickly and bitterly. In the time of the Crimean war, wheat rose in England eighty per cent. The *Alabama*, decades ago, demonstrated how precarious was the sea for carrying. She, a single cruiser, caused a perceptible rise in the price of wheat. The very fear of this, on the sensitive capitalistic system, even with danger afar off, is bound to make the market panicky and to send prices skyward. And under such circumstances speculation is sure to exact its exorbitant penalty. The ravages of the commercial crisis in time of peace are too well known to make necessary further comment on what they would be in time of war.

The interruption of the operation of the productive forces, and the difficulty in satisfying the vital needs of the population, lead up to the political aspect of future warfare. Are the peoples, especially of the European countries, homogeneous enough in their political beliefs to stand in the strain? Labor troubles, bread riots, and rebellion are factors, subversive all, which must be taken into account. The mobilization of a whole working population may lead to unpleasant results, conscription to revolution. There are strong tendencies threatening the present social order which cannot be lightly passed over. Also, a strong anti-military propaganda has grown up. The small protesting voices of the past have merged into the roar of the peoples. The world has lifted itself to a higher morality. The aim of the human is to alleviate the ills of the human. Among all classes the opposition to war is keen and growing. In Germany, one anti-military factor alone is the Socialists. What may be expected of them, three millions strong, when the nation puts on its harness? In the same country, in 1893, those who opposed the new military project received 1,097,000 more votes than did its supporters. Between 1887 and 1893 the opposition to militarism increased seven times. In France, in 1893, the Socialist vote (utterly opposed to militarism), was 600,000; three years later it was 1,000,000. It must not be forgotten that such bodies of men are thoroughly and centrally organized. The discontented rabbles which would inevitably follow their lead swell the numbers to such vast proportions that a Continental nation may well pause and consider before it rushes into war.

Such, in short, is a rapid and incomplete resumé of the facts which have led M. Bloch to predicate the impossibility of future war. From the technical standpoint, the improvement in the mechanism of war has made war impossible. Economics, and not force of arms, will decide; not battles, but famine. And behind all, ready and anxious to say the last word, looms the ominous figure of Revolution.