I HAVE been asked to carry further some of the themes with which I have dealt in my past writings, in particular to consider whether my strategical concept of a "Heartland" has lost any of its significance under the conditions of modern warfare. In order to set the concept into its context, I must begin with a short account of how it originally came to take shape.

My earliest memory of public affairs goes back to the day in September 1870 when, as a small boy who had just begun attendance at the local grammar school, I took home the news, which I had learned from a telegram affixed to the post office door, that Napoleon III and his whole army had surrendered to the Prussians at Sedan. This came as a shock to Englishmen, who still moved mentally in the wake of Trafalgar and the retreat from Moscow, but the full effect of it was not realized until some years later. Britain’s supremacy on the ocean had not yet been challenged, and the only danger she saw at that time to her overseas empire was in the Asiatic position of Russia. During this period the London newspapers were quick to detect evidence of Russian intrigue in every rumor from Constantinople and in every tribal disturbance along the northwest frontier of India. British sea power and Russian land power held the center of the international stage.

Thirty years later, at the turn of the century, von Tirpitz began to build a German high seas fleet. I was busy at this time setting up the teaching of political and historical geography at the universities of Oxford and London, and was noting current events with a teacher’s eye for generalization. The German movement meant, I saw, that the nation already possessing the greatest organized land power and occupying the central strategical
position in Europe was about to add to itself sea power strong enough to neutralize British sea power. The United States was also rising steadily to the rank of a Great Power. As yet, however, its rise could be measured only in statistical tables; although in my childhood someone had already been impressed with American resourcefulness, for I remember in our schoolroom a picture of the battle between the *Merrimac* and the *Monitor*, the first armored ship and the first turret ship. Thus Germany and the United States came up alongside of Britain and Russia.

The particular events out of which sprang the idea of the Heartland were the British war in South Africa and the Russian war in Manchuria. The South African war ended in 1902, and in the spring of 1904 the Russo-Japanese war was clearly imminent. A paper which I read before the Royal Geographical Society early in the latter year, entitled "The Geographical Pivot of History," was therefore topical, but it had a background of many years of observation and thought.

The contrast presented by the British war against the Boers, fought 6,000 miles away across the ocean, and the war fought by Russia at a comparable distance across the land expanse of Asia, naturally suggested a parallel contrast between Vasco da Gama rounding the Cape of Good Hope on his voyage to the Indies, near the end of the fifteenth century, and the ride of Yermak, the Cossack, at the head of his horsemen, over the Ural range into Siberia early in the sixteenth century. That comparison in turn led to a review of the long succession of raids made by the nomadic tribes of Central Asia, through classical antiquity and the Middle Ages, upon the settled populations of the crescent of subcontinents: peninsular Europe, the Middle East, the Indies, and China proper. My conclusion was that,

... in the present decade we are for the first time in a position to attempt, with some degree of completeness, a correlation between the larger geographical and the larger historical generalizations. For the first time we can perceive something of the real proportion of features and events on the stage of the whole world, and may seek a formula which shall express certain aspects, at any rate, of geographical causation in universal history. If we are fortunate, that formula should have a practical value as setting into perspective some of the competing forces in current international politics.

The word Heartland occurs once in the 1904 paper, but incidentally and as a descriptive and not a technical term. The expressions "pivot area" and "pivot state" were used instead, thus:
THE ROUND WORLD

The oversetting of the balance of power in favor of the pivot state, resulting in its expansion over the marginal lands of Euro-Asia, would permit of the use of vast continental resources for fleet-building, and the empire of the world would then be in sight. This might happen if Germany were to ally herself with Russia.

In conclusion, it may be well expressly to point out that the substitution of some new control of the inland area for that of Russia would not tend to reduce the geographical significance of the pivot position. Were the Chinese, for instance, organized by the Japanese, to overthrow the Russian Empire and conquer its territory, they might constitute the yellow peril to the world's freedom just because they would add an oceanic frontage to the resources of the great continent.

At the end of the First World War, my book, "Democratic Ideals and Reality," was published in London and New York.1 Clearly the "pivot" label, which had been appropriate for an academic thesis at the beginning of the century, was no longer adequate to the international situation as it emerged from that first great crisis of our world revolution: hence "Ideals," "Realities" and the "Heartland." But the fact that, even when additional criteria were brought to bear, the thesis of 1904 still sufficed as the background for an estimate of the position fifteen years later, gave confidence that the formula sought had been found.

II

We turn now to the main object of the present article — the drafting of an interim estimate of the value of the Heartland concept in a survey of the world preliminary to the coming settlement. It must be understood that I am dealing with strategy, which, of course, is effective in peacetime no less than in wartime. I do not presume to join in the wide-sweeping debates already in progress which look forward over generations to come; I center my thoughts on the years during which the enemy is to be held down while, in the language of Casablanca, his philosophy of war is being killed.

The Heartland is the northern part and the interior of Euro-Asia. It extends from the Arctic coast down to the central deserts, and has as its western limits the broad isthmus between the Baltic and Black Seas. The concept does not admit of precise definition on the map for the reason that it is based on three separate aspects of physical geography which, while reinforcing one another,

1 A new edition, with text unaltered, was published last year by Henry Holt and Company, New York.
are not exactly coincident. First of all, we have in this region by far the widest lowland plain on the face of the globe. Secondly, there flow across that plain some great navigable rivers; certain of them go north to the Arctic Sea and are inaccessible from the ocean because it is cumbered with ice, while others flow into inland waters, such as the Caspian, which have no exit to the ocean. Thirdly, there is here a grassland zone which, until within the last century and a half, presented ideal conditions for the development of high mobility by camel and horse-riding nomads. Of the three features mentioned, the river basins are the easiest to present cartographically; the water divide which delimits the whole group of Arctic and "continental" rivers into a single unit does isolate neatly on the map a vast coherent area which is the Heartland according to that particular criterion. The mere exclusion of sea mobility and sea power, however, is a negative if important differential; it was the plain and the grassland belt which offered the positive conditions conducive to the other type of mobility, that proper to the prairie. As for the grassland, it traverses the whole breadth of the plain but does not cover its entire surface. Notwithstanding these apparent discrepancies, the Heartland provides a sufficient physical basis for strategical thinking. To go further and to simplify geography artificially would be misleading.

For our present purpose it is sufficiently accurate to say that the territory of the U.S.S.R. is equivalent to the Heartland, except in one direction. In order to demarcate that exception — a great one — let us draw a direct line, some 5,500 miles long, westward from Bering Strait to Rumania. Three thousand miles from Bering Strait that line will cross the Yenisei River, flowing northward from the borders of Mongolia to the Arctic Ocean. Eastward of that great river lies a generally rugged country of mountains, plateaux and valleys, covered almost from end to end with coniferous forests; this I shall call Lenaland, from its central feature, the great River Lena. This is not included in Heartland Russia. Lenaland Russia has an area of three and three-quarter million square miles, but a population of only some six millions, of whom almost five millions are settled along the transcontinental railroad from Irkutsk to Vladivostok. In the remainder of this territory there are on the average over three square miles for every inhabitant. The rich natural resources — timber, water power and minerals — are as yet practically untouched.
West of the Yenisei lies what I have described as Heartland Russia, a plain extending 2,500 miles north and south, and 2,500 miles east and west. It contains four and a quarter million square miles and a population of more than 170 millions. The population is increasing at the rate of three millions a year.

The simplest and probably the most effective way of presenting the strategical values of the Russian Heartland is to compare them with those of France. In the case of France, however, the historical background is the First World War while in the case of Russia it is the Second World War.

France, like Russia, is a compact country, as long as it is broad, but not quite so well-rounded as the Heartland and therefore with a rather smaller area in proportion to the length of boundary to be defended. It is encompassed by sea and mountain, except to the northeast. In 1914–18 there were no hostile countries behind the Alps and the Pyrenees, and the fleets of France and her allies dominated the seas. The French and allied armies, deployed across the open northeastern frontier, were therefore well defended on either flank and were secure in the rear. The tragic lowland gateway in the northeast, through which so many armies have surged inward and outward, is 300 miles wide between the Vosges and the North Sea. In 1914, the line of battle, pivoting on the Vosges, wheeled backward to the Marne; and at the end of the war, in 1918, it wheeled forward on the same pivot. Through the four years’ interval the elastic front sagged and bent but did not break even in the face of the great German attack in the spring of 1918. Thus, as it proved, there was space within the country sufficient both for defense in depth and for strategical retreat. Unfortunately for France, however, her principal industrial area was in that northeastern sector where the unceasing battle was waged.

Russia repeats in essentials the pattern of France, but on a greater scale and with her open frontier turned westward instead of northeastward. In the present war the Russian army is aligned across that open frontier. In its rear is the vast plain of the Heartland, available for defense in depth and for strategic retreat. Away back, this plain recedes eastward into the natural bulwarks constituted by the “inaccessible” Arctic coast, the Lenaland wilderness behind the Yenisei, and the fringe of mountains from the Altai to the Hindu Kush, backed by the Gobi, Tibetan and Iranian deserts. These three barriers have breadth and sub-
stance, and far excel in defensive value the coasts and mountains which engird France.

It is true that the Arctic shore is no longer inaccessible in the absolute sense that held until a few years ago. Convoys of merchant ships, assisted by powerful icebreakers and with airplanes reconnoitring ahead for water lanes through the ice pack, have traded to the Obi and Yenisei Rivers, and even to the Lena River; but a hostile invasion across the vast area of circum-polar ice and over the Tundra mosses and Targa forests of Northern Siberia seems almost impossible in the face of Soviet land-based air defense.

To complete the comparison between France and Russia, let us consider the relative scales of some parallel facts. Heartland Russia has four times the population, four times as wide an open frontier, and twenty times the area of France. That open frontier is not disproportionate to the Russian population; and to equal the breadth of the Soviet deployment Germany has had to eke out her more limited manpower by diluting it with less effective troops drawn from her subject countries. In one important respect, however, Russia began her second war with Germany in no better position than France occupied in 1914; as with France, her most developed agriculture and industries lay directly in the path of the invader. The second Five Year Plan would have remedied that situation had the German aggression been delayed a couple of years. Perhaps that was one of Hitler's reasons for breaking his treaty with Stalin in 1941.

The vast potentialities of the Heartland, however, to say nothing of the natural reserves in Lenaland, are strategically well placed. Industries are growing rapidly in such localities as the southern Urals, in the very pivot of the pivot area, and in the rich Kuznetsk coal basin in the lee of the great natural barriers east of the upper Yenisei River. In 1938 Russia produced more of the following foodstuffs than any other country in the world: wheat, barley, oats, rye and sugar beets. More manganese was produced in Russia than in any other country. It was bracketed with the United States in the first place as regards iron, and it stood second place in production of petroleum. As for coal, Mikhailov makes the statement that the resources of the Kuznetsk and Krasnoyarsk coal basins are each estimated to be capable of supplying the requirements of the whole world for 300 years.\footnote{M. Mikhailov, "Soviet Geography." London: Methuen, 1937.}
policy of the Soviet Government was to balance imports and exports during the first Five Year Plan. Except in a very few commodities the country is capable of producing everything which it requires.

All things considered, the conclusion is unavoidable that if the Soviet Union emerges from this war as conqueror of Germany, she must rank as the greatest land Power on the globe. Moreover, she will be the Power in the strategically strongest defensive position. The Heartland is the greatest natural fortress on earth. For the first time in history it is manned by a garrison sufficient both in number and quality.

III

I cannot pretend to exhaust the subject of the Heartland, the citadel of land power on the great mainland of the world, in a short article like this. But a few words should be devoted to another concept to balance it.

From Casablanca there came lately the call to destroy the ruling German philosophy. That can be done only by irrigating the German mind with the clean water of a rival philosophy. I assume that for, say, two years from the time the "cease fire" order is given, the Allies will occupy Berlin, try the criminals, fix frontiers on the spot and complete other surgical treatment so that the older generation in Germany which will die impenitent and bitter cannot again misrepresent history to the younger generation. But it would obviously be worse than useless to set alien teachers to work in Germany to inculcate the theory of freedom. Freedom cannot be taught; it can only be given to those who can use it. However, the polluted channel might be swept clear very effectively if it were controlled by strong embankments of power on either hand — land power to the east, in the Heartland, and sea power to the west, in the North Atlantic basin. Face the German mind with an enduring certainty that any war fought by Germany must be a war on two unshakable fronts, and the Germans themselves will solve the problem.

For this to happen it will be necessary in the first place that there be effective and lasting coöperation between America, Britain and France, the first for depth of defense, the second as the moated forward stronghold — a Malta on a grander scale — and the third as the defensible bridgehead. The last is no less essential than the other two, because sea power must in the final
resort be amphibious if it is to balance land power. In the second place, it is necessary that those three and the fourth conqueror, Russia, be pledged together to cooperate immediately if any breach of the peace is threatened, so that the devil in Germany can never again get its head up and must die by inanition.

Some persons today seem to dream of a global air power which will “liquidate” both fleets and armies. I am impressed, however, by the broad implications of a recent utterance of a practical airman: "Air power depends absolutely on the efficiency of its ground organization.” That is too large a subject to discuss within the limits of this paper. It can only be said that no adequate proof has yet been presented that air fighting will not follow the long history of all kinds of warfare by presenting alternations of offensive and defensive tactical superiority, meanwhile effecting few permanent changes in strategical conditions.

I make no pretense to forecasting the future of humanity. What I am concerned with are the conditions under which we set about winning the peace when victory in the war has been achieved. In regard to the pattern of the postwar world, now being studied by many people for the first time, it is important that a line should be carefully drawn between idealistic blueprints and realistic and scholarly maps presenting concepts — political, economic, strategic, and so forth — based on the recognition of obstinate facts.

With that in mind, attention might be drawn to a great feature of global geography: a girdle, as it were, hung around the north polar regions. It begins as the Sahara desert, is followed as one moves eastward by the Arabian, Iranian, Tibetan and Mongolian deserts, and then extends, by way of the wildernesses of Lenaland, Alaska and the Laurentian shield of Canada, to the sub-arid belt of the western United States. That girdle of deserts and wildernesses is a feature of the first importance in global geography. Within it lie two related features of almost equal significance: the Heartland, and the basin of the Midland Ocean (North Atlantic) with its four subsidiaries (Mediterranean, Baltic, Arctic and Caribbean Seas). Outside the girdle is the Great Ocean (Pacific, Indian and South Atlantic) and the lands which drain to it (Asiatic Monsoon lands, Australia, South America and Africa south of the Sahara).

Archimedes said he could lift the world if he could find a fulcrum on which to rest his lever. All the world cannot be lifted
back to prosperity at once. The region between the Missouri and the Yenisei, with its great trunk routes for merchant aircraft between Chicago-New York and London-Moscow, and all that the development of them will stand for, must be the first care, for it must be the fulcrum. Wisely the conquering of Japan waits for a while. In due course China will receive capital on a generous scale as a debt of honor, to help in her romantic adventure of building for a quarter of humanity a new civilization, neither quite Eastern nor quite Western. Then the ordering of the Outer World will be relatively easy, with China, the United States and the United Kingdom leading the way, the last two each followed by its trail of a commonwealth of free nations — for though their histories will have been different the result will be similar. But the first enterprise undertaken in economic rebuilding will surely have to be in the area within the desert girdle, lest a whole civilization should deliquesce into chaos. What a pity the alliance, negotiated after Versailles, between the United States, the United Kingdom and France was not implemented! What trouble and sadness that act might have saved!

IV

And now, to complete my picture of the pattern of the round world, let me add, briefly, three concepts to the two already visualized. For the purposes of what I see described in American writings as "Grand Strategy," it is necessary to build broad generalizations in geography no less than in history and economics.

I have described my concept of the Heartland, which I have no hesitation in saying is more valid and useful today than it was either twenty or forty years ago. I have said how it is set in its girdle of broad natural defenses — ice-clad Polar Sea, forested and rugged Lenaland, and Central Asiatic mountain and arid tableland. The girdle is incomplete, however, because of an open gateway, a thousand miles wide, admitting from Peninsular Europe into the interior plain through the broad isthmus between the Baltic and Black Seas. For the first time in all history there is within this vast natural fortress a garrison adequate to deny entry to the German invader. Given that fact, and the defenses to the flanks and rear which I have described, the sheer breadth of the open gateway is an advantage, for it provides the opportunity of defeating the enemy by compelling him to make a broad deployment of his manpower. And upon and beneath the
Heartland there is a store of rich soil for cultivation and of ores and fuels for extraction, the equal — or thereabouts — of all that lies upon and beneath the United States and the Canadian Dominion. I have suggested that a current of cleansing counter-philosophy, canalized between unbreachable embankments of power, may sweep the German mind clear of its black magic. Surely no one is going to be mad enough to set foreign teachers to exorcize the evil spirits from the soul of the conquered German nation. Nor, after the first inevitable punitory years, do I have sufficient trust that the conquering democracies will maintain garrisons of the necessary spirit and number _stationed in the vanquished lands_; for there is no use in asking democrats to persist in an attitude contrary to the very spirit and essence of democracy. The cleansing stream might better be released to flow from some regenerate and regenerating German source, between the embankments of power I have named, the one within the Heartland and the other within the territories of the three amphibious powers, American, British and French. The two friendly forces facing one another across the flow of the canal would be of equal power and should always be equally ready for necessary action. Then Germany would live continuously under the threat of immediate war on two fronts should she be guilty of any breach of the treaties which prohibited either physical preparation for war or the misleading of youth which is another way of preparation for war. The democratic garrisons in their home countries would be, by force of example, the teachers.

On this proposal follows my second geographical concept, that of the Midland Ocean — the North Atlantic — and its dependent seas and river basins. Without laboring the details of that concept, let me picture it again in its three elements — a bridgehead in France, a moated aerodrome in Britain, and a reserve of trained manpower, agriculture and industries in the eastern United States and Canada. So far as war-potential goes, both the United States and Canada are Atlantic countries, and since instant land-warfare is in view, both the bridgehead and the moated aerodrome are essential to amphibious power.

The three remaining concepts I shall do little more than sketch, and only for the sake of globular completeness and balance. Girdling the twin unit just described — Heartland and the basin of the Midland Ocean — there appears on the globe the mantle of vacancies, constituting a practically continuous land-space
covering some twelve million square miles — that is, about a quarter of all the land on the globe. Upon this vast area there lives today a total population of less than thirty millions, or, say, one-seventieth of the population of the globe. Airplanes will, of course, fly along many routes over this girdle of wilderness; and through it will be driven trunk motor roads. But for long to come it will break social continuity between the major communities of mankind on the globe.

The fourth of my concepts embraces on either side of the South Atlantic the tropical rain-forests of South America and Africa. If these were subdued to agriculture and inhabited with the present density of tropical Java, they might sustain a thousand million people, always provided that medicine had rendered the tropics as productive of human energy as the temperate zones.

Fifthly, and lastly, a thousand million people of ancient oriental civilization inhabit the Monsoon lands of India and China. They must grow to prosperity in the same years in which Germany and Japan are being tamed to civilization. They will then balance that other thousand million who live between the Missouri and the Yenisei. A balanced globe of human beings. And happy, because balanced and thus free.

*Some day, incidentally, when coal and oil are exhausted, the Sahara may become the trap for capturing direct power from the Sun.