

WAR ROADS TO A NEW WORLD

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CONSIDER certain changes that have been effected on the world map during the war years as the result of pick and shovel, bulldozer, mechanical dumper, concrete mixer and roller.

In the far north of the American continent stretches now a significant line that did not exist before: the great new road from Edmonton, Alberta, to Fairbanks, Alaska, which might almost be regarded as the dream of the North-West Passage equipped with a hard surface at last: similarly a straight black line is now engraved from one end of Africa to the other, that new North-South Highway which is the sudden war-time consummation of the old Cape-to-Cairo dream.

Then Australia sees its dead heart brought to life by a sudden road; the Levant has its shores properly opened by arterial highway after a thousand years of neglect; New Zealand can now journey through its most remote areas of hitherto impenetrable bush; even the British Isles have revealed new potentialities under the purposeful tools of the road engineers. And, above all, the Asian map displays, in the remote, contiguous regions of China, India and Siberia, certain new marks which may represent the most notable feats of construction in history.

Roads and wars have always run together. But the outstanding feature of this war, the reliance of the adversaries on mechanical transport and fighting vehicles for swift movements of manoeuvre, has promoted an unprecedented extension of existing routes and building of new ones. Formerly the strategists would have studied such a territory as New Guinea and said "No, it is impassable, and we had better fight elsewhere." Now, thanks to mechanical transport and improved means of road construction, they say "Yes, we will run a concrete strip right through that jungle"—and another great region once denied to "civilized" man is opened to his restless spirit and powers of destruction.

Much is made of the air age, but when the history of this war is eventually written in perspective, it will probably be found that the pattern of events was traced by the road engineers. Tomorrow air transport may cease to be earthbound; to-day it is still dependent on an elaborate ground organization. Why was that Alaska Highway built? The superficial observer might consider that a few aerodromes could have been con-

structed—in British Columbia, the Yukon, Unalaska and the Aleutians—and without further ado a continuous stream of heavy bombers could have assaulted the backdoor of Japan. But aerodromes cannot be constructed in desolate areas without large quantities of heavy equipment, great gangs of men and their supplies, while aerodromes in such places are useless to aircraft unless they are constantly provided with fuel, ammunition, stores of all kinds. Without the Alaska Highway it is doubtful whether the Aleutian Islands could have been used for military purposes, or, at least, used so soon. The road had to come first.

The same has applied to mechanized armies, which, no matter the degree of their "tractorization", must have hard communication lines before they can advance seriously. Theoretically our forces in North Africa should have been able to move at will in any direction. The desert was open; some units were completely self-contained; large numbers of fighting vehicles were fitted with tractors. It was soon found that not only the power to take the offensive, but also the actual size and weight of the tanks that could be used, was governed rigidly by the condition of the available roads. General Montgomery's final victorious advance was primarily made possible by the work of the construction engineers.

Not only did the enemy undermine by every means in his power the single main road from Alamein to Tunis, but other circumstances conspired to make the narrow highway unsuitable for heavy traffic. After prolonged duststorms the previous summer, torrential rainfalls were experienced in the winter and throughout the greater part of the Eighth Army's advance. These swelled the wadis and sapped at the foundations of bridges and culverts. Finally the R.A.F., pounding at the enemy's retreating convoys, contributed a meed of pot-holes.

Light tanks, ordinary vehicles and light artillery could proceed slowly across hastily-repaired stretches of the road or make desert detours. So could the 31-ton "Sherman" and the heavy "Churchill" tanks in some cases—but not in all. There would be particular damaged parts of the road that those indispensable monsters would be quite unable to pass till full repairs had been effected. Then the main Army might get through and make contact with the enemy, but have to mark time or suffer serious losses till its heavy support was provided with a firm passage.

The main credit for the speedy clearance and reconstruction of the Eighth Army's road was assigned by many observers to the South African Engineering Corps. Originally recruited from the entire staff of the Natal public road-making department, all highly-paid experts in civil life, this had already blazed a pioneer trail from Kenya to Addis Ababa and Amba Alagi, then had been transferred to the Western Desert and enlarged, especially with pioneer and labour corps of Basutos, Swazis, Bechuanas, Mauritians, Indians and other races. "We don't hope to produce the perfect road, but we are confident of building and maintaining one along which the convoys can travel at 40 miles per hour without breaking springs instead of the present 10 to 15 miles per hour," said the young director of the unit at the beginning.

Then each division of the Eighth Army had its complement of Royal Engineers equipped with mine detectors, bulldozers, autograders, scrapers and other ingenious "contraptions." They advanced with the foremost troops and cleared the road and subsidiary tracks of mines, filled in gaps, made deviations, and built temporary bridges. The South African Engineering Corps took over as the forward troops passed on.

Dynamite to shift the road-blocks of the enemy and to obtain stone from new quarries in the nearby hills, those remarkable mechanical excavators and levellers, and the great bands of coloured labourers assisted by Arabs bribed with food and suits of battledress, were the principal weapons of these all-important pathmakers. As a result of their skill and hard work, there was never an occasion when the Eighth Army's heavier vehicles and weapons lagged far behind. The "Sherman" tanks and concentrations of artillery which won the decisive battles here and in Tunisia, the aircraft which reduced the Luftwaffe and Regia Aeronautica to impotence, could not have been brought to bear on the enemy in time but for those engineers and their roads.

The battle passes and there is a great emptiness:—the roads remain. So war again has some value after all, apart from its immediate salvation of certain ideas and races. Thus it is believed by many authorities on Africa that the work of the engineering units just described will in due course have a more profound effect upon the "darkest continent" than all the schemes of colonial reform. From South Africa straight through the wild lands of Tanganyika, Kenya, Abyssinia and the Sudan

to Egypt there is now a wide motor road, and this continues round the North African coast without break to Algiers. Built in a hundred days during 1943, a modern highway now skirts the Lebanon coast and, linking with other new roads round the shores of Palestine and Syria, will convey the African traveller of the future swiftly to Europe.

Meanwhile French engineers from their West African colonies have constructed a network of strategic roads, which, including secondary routes, now cover some 15,000 miles and link West Africa with East through the Sudan and Kenya. Then the old pilgrim track southward from Damascus towards Mecca has been transformed into a first-class road for 150 miles of its length, while a new highway runs east and west across Transjordan from Haifa to Baghdad. Persia has just been provided with new land arteries from the Gulf to the Caspian, and from the heart of this long-dormant land to India. Is it impossible for the imagination to paint a picture of the future social and economic invigoration of all this part of the world, hitherto overlooked by modern material progress, when the war is finished and these new roads can carry peaceful traffic like an injection into their sluggish bloodstreams?

Yet all the roads of this war may appear insignificant beside the remarkable highways upon whose construction and defence the safety and future of distant China so momentously depends. The famous "Burma Road" has been sufficiently discussed, and is still closed at its vital Burma end: attention is now directed towards the pathways that are successfully taking its place. First, there is "The Eternal Road", that ancient caravan route described by Marco Polo, which throughout recorded history has traversed the Gobi Desert and the Turkestans and eventually reaches Russia after 2,500 miles of fantastic going. The war and China's needs have provided this with a modern surface at last, so that three-ton trucks can regularly make the trip from the new skyscraper city of Alma Ata in Soviet Kazakstan to Chungking in a fortnight, bringing armaments and other vital materials. But Russia with her own pressing demands was unable to supply all China's needs: moreover, she was not fighting Japan: so it became necessary for Britain and the United States to reopen a land route between China and India.

Work was begun in December, 1942, by a truly international army of engineers and labourers, Chinese, Indians, Americans,

British, even negroes and tribesmen from the wildest Himalayan foothills. The highway was projected from a point in North-Eastern Assam, where there is a railway to central India and Calcutta, so that it will eventually join, somewhere in Yunnan, the direct road to Chungking which formerly ascended from Burma in Allied hands. Already this path extends for hundreds of miles through the virgin jungle, across the deep rivers, and over the harsh mountains. The most modern mechanical implements, operated and assisted by coolies and directed by engineers formerly engaged on the Alaskan Highway, have enabled the work to be done at high speed—and this is no rough, military track, but a wide trunk road with room for four lines of heavy traffic throughout.

It is true that simultaneously a brave air route from Assam to China across the Tibetan spurs has been pioneered and has enabled large quantities of the more urgent supplies to be transported, but this could not cope with the traffic that must enter China if a large-scale Allied offensive is to be mounted there, and, once again, the aircraft could not have been operated without the road, which carries the heavy material for their ground organization and aerodromes.

China has been awakened by her bitter war. She also has been overlooked by modern material progress, and offers the largest field of all to the agents of development. Thus it can be foreseen that the two great roads into China which have been brought into being by the forced draught of events, that from Russia and that from India, may eventually carry not only a varied trade but also infusions of perhaps competitive cultures. It would be better if this did not occur, but there may well be this struggle for the soul as well as the trade of China, and the two roads might directly promote such a development.

Thus if the present war has often reproached great empires with their undeveloped resources, it has also stimulated the constructive energies of our peoples. The Alaska Highway may lead to-day to the backdoor of Japan, but at the same time it is directing North Americans towards the hitherto unexploited wealth, particularly in oil, of the sub-arctic regions. South Africa now has a permanent means of modern access to the interior of her great continent; and the other two Dominions, Australia and New Zealand, have been equally well served by the war-time roadmakers.

Until now, Australia's immense central and northern territories were regarded as nearly useless, partly because of the

arid climate, but also because there was no swift means of linking mines and cattle stations therein with the centres of population and the ports on the coastal fringes of the country. A light railway ran part of the way across the "dead heart", then stopped. When the Japanese came into New Guinea, it was realized that a means must be swiftly developed of transporting troops and supplies to Darwin on the Australian north coast. Roadmakers set off from the central railhead at Alice Springs, and within a few months had constructed a fine highway with a bituminous surface across the several hundred miles of the "desert gap".

Similarly Queensland had no roads of any strategic importance till the war came near; while large areas of New Zealand, particularly in the South Island, were not served by adequate highways and consequently remained undeveloped. Constructed at record-breaking speed in the face of the then constant threat of enemy landings, thousands of miles of roads covering the length and breadth of Queensland were laid down; and in New Zealand some important works were undertaken through areas previously known only to the occasional forestry party, the sheep farmer and the deer-stalker.

The effect of these new lines of communication will be to make settlement possible after the war, and to tap mineral resources that previously represented a hopelessly uneconomic proposition. And, if that is not enough, Australia and New Zealand will have vast new territories to develop in New Guinea and the Pacific Islands, where the "corduroy" roads pushed by bulldozers through the jungle have already become concrete highways "opening up" these regions as the railroads once opened North America.

Even in Europe there will eventually be one good consequence of the work of that otherwise reprehensible Todt organization: great areas which remained poor and undeveloped, because they were inaccessible, will be able to receive the means of rehabilitation and of an eventually higher economic status along the highways which once conveyed German militarism through them to its doom.

Two thousand years have passed since the Romans discovered that roads were the instruments of their kind of civilization. During that time many forms of transport have waxed and waned, but roads have remained that same potent instrument, and in this most universally damaging of wars they may have been the chief product of permanent value.