THE TRANSCONTINENTAL ROUTES OF ASIA

By WALTER J. KAHLER

The first condition for the economic development of a country and the obtaining of markets for its products is the presence of routes of communication. In the construction of these, three factors have to be taken into account: first, the geographical nature of the terrain and its obstacles, such as difficult mountain passes, precipitous river valleys, arid deserts, etc; secondly, the presence of oases or water holes to be used as resting places; and thirdly, political conditions in the regions through which the road is to pass.

The principal features which give Asia its characteristic appearance are the flat northern steppes of Siberia, the steppes and deserts in Western and Central Asia, and the verdant tropical areas of the south comprising India, Burma, Thailand, and Indo-China. This tropical region is separated from Turkestan and Mongolia by the mountain wall of the Hindu Kush/Pamir/Himalaya massif and by the Tibetan plateau.

These topographical features have determined the movements of the great migrations of peoples in their search for fertile areas as well as the direction of the transcontinental caravan roads. Three principal routes evolved: (1) the trans-Siberian route; (2) the old silk roads leading through Chinese Turkestan; and (3) the southern route via Iran/Baluchistan/India and the Burma Road.

ALEXANDER THE GREAT'S CAMPAIGN

The earliest information about Central Asia came to us through the expedition of Alexander the Great to India. 2,274 years ago he advanced to the Pamir plateau and thence across the Oxus (Amu Darya) River as far as Maracanda (Samarkand). Through him, Greek coins and Greek art were introduced to Bactria (Balkh) and western India.

This journey was started early in 313 B.C. with the campaign against Darius, which was launched from Egypt. After defeating the army of the Persian King at Gaugamela (in the vicinity of Mosul), Alexander conquered Babylon, Susa, and Persepolis. Later on he turned northeastward in pursuit of Darius. He marched via Hecatompylos (Damghan) to Meshed and thence made a detour through southern Afghanistan. In the middle of the winter of 330 B.C. he crossed the snowed-up passes (4,000 to 5,000 meters high) of the Hindu Kush range. In the following years he was occupied with the conquest of Bactria and Sogdiana.

In the spring of 326 B.C., Alexander undertook a campaign against India, starting from Kabul with an army of 120,000 men. After crossing the Punjab, he had a fleet built at Hydaspes and sailed with it down the Indus River till he reached the Indian Ocean. From here he sent one part of his troops by ship up the Persian Gulf, while he himself led the main body of his army through the desert of southern Persia. Three quarters of his army succumbed to the rigors of these marches, dying of heat, privation, and lack of water.

After rejoining his fleet at Susa, Alexander made his triumphal entry into Babylon in the spring of 323 B.C. Shortly afterwards he suddenly fell ill with a fever after a banquet. A few days later he died. He was then barely thirty-three years old. The expedition, during which this great military leader covered a distance of at least 15,000 kilometers, took eight whole years.

THE OLD SILK ROADS

As early as one hundred years before the Christian era, one of the first of those great transcontinental routes developed which traverse the whole Asiatic continent from east to west. These were the old silk roads which connected "Sera," the distant eastern country of silk, with the Mediterranean ports.

Two thousand years before Christ, China was already producing silk, a commodity in great demand in the countries of the East. What vistas of trade opened up should
in the West be found for this highly prized product!

In the second century B.C. the emperors of the Han dynasty (206 B.C. to 220 A.D.), under whom China experienced her most spectacular rise, had expanded the Chinese Empire in the west almost as far as Lake Lob Nor. The neighboring region of eastern Turkestan (now the province of Sinkiang) was inhabited by the Hiungnu or Huns, a restless, predatory nomad tribe which constantly menaced China's borders in the west and in the north.

It remained for Hsia Wu Ti (140-87 B.C.), the greatest emperor of the Han dynasty, to construct the first caravan road to the countries of the West. Emperor Wu Ti first sent General Chang Kien with an embassy to the Yue Chih (the Tokhars)—who had settled in Ta Yuan (now the provinces of Fergana and Samarkand) after the Huns had driven them westward—in order to establish relations with these people and conclude a treaty with them against the Huns. In 126 B.C. Chang Kien returned to his country without having achieved any concrete results, but bringing with him a great deal of valuable information. He gave an account to the Emperor about the foreign peoples in Turkestan, the thoroughbred horses of Fergana, the caravan roads to Syria, and about the mighty Roman Empire whose influence extended at that time as far as the Caspian Sea.

After several other expeditions sent out by Emperor Wu Ti had also ended in failure, Ho Kiu-ping, a young, energetic leader, managed to reach the capital of Fergana with an army of 60,000 men consisting of infantry and cavalry. At the same time, he succeeded in driving the Huns toward the north and in seizing the Tarim basin for China. Thus the greatest obstacle had been removed, and trade connections with the eastern provinces of the Roman Empire could at last be established.

For the safeguarding of the new trade routes, fortified military posts, watchtowers, relay stations for horses, inns, and customs stations, were erected along the roads at regular intervals. Transports were guarded by mounted patrols, and mail was forwarded by mounted couriers.

In 114 B.C. the first caravan started on its way to the west. From that time onward, every month witnessed the departure of long columns of donkeys, pack horses, ox carts, and camels laden with silk, cotton, tortoise shell, spices, pearls, and other valuable goods for the ports of the Mediterranean. They returned to China with amber, corals, woollen cloth, wine, grapes, drugs, legumes, and glass of various colors. Thus two thousand years ago the "silk roads"

Trans-Asiatic Routes

In view of the unusually large number of place names mentioned in the article, the map contains, for reasons of clarity, only the most important ones
developed, of which some sections, gradually following the trend of motorization, are still used today.

**SKIRTING THE DESERT**

The Central Asiatic route forks at Tun-hwang, a town lying in the western portion of present-day Kansu Province. The Yu Men just behind this town is a narrow gorge in the rocky mountains which separate eastern Turkestan from China. This gate owes its name to the yu (nephrite, jasper, or jade) found in the vicinity of Khotan in the rubble of the mountain streams, and transported through this rock gate since time immemorial. At this gate and at the Yang gate to the south of it were the two customs stations at the end of the Great Wall.

The heart of eastern Turkestan is formed by the Takla Makan Desert with the Tarim basin. It is encircled by three high mountain ranges: in the north by the Tien Shan, in the west by the Pamir plateau, whose 8,000-meter-high mountain walls drop precipitously toward the deep Tarim basin, and in the south by the Kunlun Mountains.

The course of the roads was necessarily determined by the presence of oases serving as watering and resting places for man and beast. The South Road led south of the desert past Lake Lob Nor and via the oases of Charklik/Cherchen/Khotan and Yarkand to Kashgar. The North Road followed a course leading via Loulan and along the Tarim River via Kurla, Kucha, and Aksu at the foot of the Tien Shan range to Kashgar. The latter road, being the shorter one, was preferred. It is still in use today, although traffic now branches off from Anhsi toward the north via Hami, Turfan, and Karachar.

This northern branch had already developed shortly after 270 A.D., although it did not touch Hami then. This was due to the singular circumstance that the Tarim River for some unknown reason suddenly shifted its bed toward the south. The river no longer debouched into Lake Lob Nor but formed a new lake, Karako Shun, to the southwest of the Lob Nor. In consequence, the Takla Makan Desert meanwhile grew considerably larger. The drying up of the water simultaneously spelled the doom of the old commercial and garrison town of Loulan on the western shore of Lake Lob Nor. In 1273 Marco Polo passed by a little to the south without being aware of Loulan. It was left for Sven Hedin during his expedition into the Takla Makan Desert in 1900 to rediscover this ancient town buried in the sand. Among the most valuable discoveries made here by the Swedish explorer were—apart from ornamental objects, old coins, wood carvings, bronze spoons, and pieces of woollen cloth with Hellenic patterns—old Chinese writings on wood, silk, and paper. They are believed to date from the year 200 A.D.

**MOUNTAINS**

The highest mountain barrier which had to be surmounted was the Pamir plateau, which is frequently covered with deep snow. The broad valley basins of this desert lie at an altitude of between 3,500 and 4,000 meters, while the surrounding peaks rise to more than 7,000 meters. But this mountain wall also possesses gates through which the regions of the Amu Darya, Syr Darya, and Indus Rivers can be reached.

From Kashgar there were three routes to the west. The northern one, which is still in use today, leads via the Terek Dawan pass (3,900 meters), in the Alai Mountains, and the towns of Fergana to Samarkand. The second route also crosses the Pamir plateau across the Terek Dawan Pass; after following the course of the Surkhan River, a tributary of the Amu Darya, for some distance it joins the road from Samarkand north of Balkh. The third route from Yarkand reaches Balkh south of the Pamins.

India can be reached by a route across the glacier-covered heights of the Karakoram range to Ladakh and Kashmir, and thence over Peshawar to the Ganges, or along the Indus to the ports of Barbaricum and Barygaza near Karachi on the Indian Ocean. This road is also still in use today during the months from July to October when Yarkand caravans with yaks travel along it carrying chiefly yak-hair rugs and hashish from Turkestan to India. Many a pack animal, however, is lost on this journey, which involves weeks of exhausting traveling over the difficult and steep passes of the Karakoram Mountains (the Karakoram pass is 3,574 meters high).

Traffic in the region of the Amu Darya with Balkh—or Bactra, as it was then known—as the chief juncture and trading center was especially brisk. From here merchandise was transported over the passes of the Hindu Kush to Kabul, from where it was sent on to Alexandria Arakhoten.
two stronger ones, intentionally neglect to build traffic arteries in order to make it harder for their neighbors to invade their territory. Other countries, again, close their borders hermetically toward the outer world in order to make it impossible for foreign agents to poke around for oil, coal, minerals, etc., as the presence of such riches generally provides great powers with the first incentive to invade a weaker country.

The Travels of Marco Polo

The Huns undertook several colossal military campaigns in the course of their history. In the third century they subjected the Chinese, and in the fourth they overran all of western Asia. In 375 A.D., they advanced as far as Hungary, and under the leadership of Attila they spread terror throughout Europe. Even more devastating was the second invasion of the nomads under Genghis Khan who expanded the power of the Mongols from the East China Sea to the borders of Europe and united the largest Asiatic empire in history. The armies of this great conqueror terrorized Syria, Turkey, and Poland; in 1241 they even advanced as far as Silesia. History witnessed a repetition of this spectacle one century later when the warriors of Tamerlane ravaged the towns of Mesopotamia and of the Levantine coast.

In the second half of the thirteenth century Genghis Khan’s grandson, Kublai Khan, endeavored to consolidate this the greatest empire which the world had ever seen. He was a peaceful ruler, tolerant in religious matters and a patron of the sciences. Under his reign transcontinental trade between Europe and China also experienced a new revival.

After two papal embassies had succeeded in 1246 and 1253 in reaching Karakorum, then the capital of the Mongol empire in the Gobi Desert, it was the famous journey of the brothers Nicolo and Matteo Polo and of Nicolo’s son Marco which brought new information about the countries of the Far East to Venice.

The three Polos were the first Europeans to have crossed the continent of Asia in its whole length: the barren steppe area of the Near East, the fertile country of Fergana, and the Pamir plateau covered with the bones of animals which succumbed in this wilderness. They traveled along the old silk road on the southern fringe of the Takla Makan Desert and traversed the sandy...
bilows of the Gobi Desert till they reached China, the land of silk. This journey from its starting place at Ayas on the Gulf of Alexandretta to Peking took four years including two stops of a year each at Fergana and Kachnow.

Young Marco enjoyed the special favor of Kublai Khan. He was appointed governor of a province, and in the course of ten years he made extensive tours of inspection in the various parts of the Chinese Empire on behalf of the Khan.

In 1292, after a sojourn of seventeen years in Mongolia and China, the Polo brothers returned by ship via Indo-China, Sumatra, Ceylon, and India to Hormuz on the Persian Gulf. Thence they traveled by land to Trebizond on the Black Sea. In 1295, after an absence of twenty-four years, they finally arrived back in their native city of Venice.

The reports of his experiences which young Polo wrote down during the time of his imprisonment at Genoa in 1298–99 seemed so incredible to the Venetians that he was given the nickname of "Marco Millione," because in their opinion he exaggerated everything a million times. Marco Polo's many observations included some regarding the trade routes. He mentioned the brisk trade in the port of Hormuz (Bandar Abbas) on the Persian Gulf. He described the strange ships, constructed without nails, which brought Kashmir shawls, gold brocade, precious stones, ivory, and other rare articles from Asia and Africa and loaded thoroughbred horses for India. With great admiration Marco described the well-organized courier system already existing at that time in China and the thousands of relay stations to provide fresh and rested horses for the dispatch riders, so that it was possible to carry urgent mail four to five hundred kilometers in one day and as many kilometers at night.

THE CITROÉN EXPEDITION

When after the death of Kublai Khan toward the end of the thirteenth century the Mongol Empire broke up into a number of autonomous states, transcontinental traffic between Europe and the Far East was disrupted again. Not until recent times did an expedition with modern equipment succeed in establishing a new record by crossing the whole of the Asiatic continent from Beirut to Peking with a motor caravan.

In this case, too, it was not so much the geographical obstacles as the political conditions in Central Asia which placed the greatest difficulties in the way of undertaking. It was at first planned to follow the same route which Marco Polo took six hundred years before; but the USSR refused to permit the transit through Soviet Turkestan. As, on the other hand, the crossing of the Himalayas with motorcars appeared technically unfeasible, it was found necessary to split up the expedition. One group was to advance from Beirut toward the east, and the other from Peking toward the west. Kashgar in Chinese Turkestan was fixed on as the meeting place.

The leader of this expedition, G. M. Haardt, had already acquired considerable experience in the organizing and carrying out of motor expeditions during his crossing of Africa from Algiers to Capetown in 1924/25. On April 4, 1931, the Pamir group of the expedition started from Beirut with a staff of scientific collaborators and seven caterpillar cars especially designed for this journey, among them two movie trucks and one radio, one cooking, and one ambulance car. The China group started simultaneously from Peking with nine cars.

The first lap of the journey from Syria to Kashmir, 5,850 kilometers, was covered in eighty-one days without any particular difficulty. Here, however, the expedition was brought to a halt by the mighty mountain ranges of the Himalayas, the Karakoram, and the Pamirs, which separate tropical India from the Central Asiatic steppe and desert area. In the end, the dauntless leader of the expedition, leaving all the other cars behind in Kashmir, started from Srinagar on July 12 with only two caterpillar trucks.

TRUCKS ON MULE TRAILS

The caravan road to Gilgit had until then only been used by mules and yaks, but on the whole it is fairly passable during the summer months. Motorcars, however, are faced with almost insurmountable obstacles by the sharp curves and steep ascents of the narrow mountain path which in some places leads along almost vertical rock walls high above roaring mountain streams and rivers without bridges, at others over ice-covered or snowed-up passes, while at some points it is blocked by avalanches. The two cars had frequently to be unloaded and kept from slipping down the ice-covered
Khyber Pass pierces the rugged and desolate mountain barrier separating Afghanistan from India. For more than thirty miles the road winds its way along a narrow valley through which all conquerors had to pass with their armies.

Once had 30,000 caravanserais of which the above is a splendid replica. But with the advent of motor traffic these beautiful buildings were deserted and are now crumbling to dust.

Tibetan lamaserries are more often than not built on the top of high hills, whence the inhabitants enjoy a good view of the surrounding country.

Bridges are the only means by which travelers in Tibet can cross the icy, charming rivers.

A Chinese guard on a desert fort in Turkesta.ROADS AND TRAILS IN ASIA
Barriers of Rock and Snow

In winter, ice walls six meters high cover the Kandovan Pass (3,100 meters) in the Elbruz Mountains, which separate Iran from the Caspian Sea.

The author's camp at the foot of the Ladakh glacier.

The lovely vale of Kashmir was a favorite place of the Moghul emperors. This is one of their beautiful pleasure gardens at Nishat Bagh.

The author with a Ladakh family in Kashmir. The young girl is wearing a peculiar headress formed like a cobra head which probably derives its origin from ancient snake worship.

Yak caravans bring precious goods over the snowy Himalayas from Turkestan to India. Here we see bags of hashish in the customs yard at Leh in Ladakh.
slopes by means of steel hawser s held by
the coolies, or they had to be pulled through
turbulent rivers. Gilgit was finally reached
after fifty days of exhausting travel. The
expedition even succeeded in bringing
one caterpillar tractor as far as 390
kilometers from Srinagar. An average of
eight kilometers had been covered per day.
The highest pass to be surmounted for the
first time by car was the still heavily snowed-up
Burzil pass (1,590 meters) halfway be-
tween Srinagar and Gilgit.

The cars could not be taken much beyond
Gilgit. The last 1,200 kilometers to Aksu,
where the expedition finally met four of the
cars which had started off from Peking,
were accomplished with sixty Bactrian
camels and eighty pack horses in thirty-
eight days.

The journey of the group from Peking
had not been any less eventful. The trip
through the Gobi Desert made it necessary
to carry along sufficient fuel for 2,000 kilo-
meters. Between Xingsia and Liangchow,
200-meter-high sand dunes had to be negoti-
tated. The road was so bad that this
section of 450 kilometers, which under
normal circumstances can easily be covered
in eight hours, took six whole days. The
expedition had to battle against sand storms
blowing across the dusty steppes of Turke-
stan and choking up the carburetor, and to
endure the icy cold of the Mongolian winter.
The main difficulties, however, arose from
the attitude of the Sinkiang Government.
While the Chinese government gave the
expedition a permit for the journey provided
that it took along a delegation of eight
Chinese officials and scientists, the Governor
of Sinkiang refused to let the expedition
enter unless it left these Chinese members
behind.

TROUBLE IN SINKIANG

When the expedition was about to leave
Kansu Province at the end of July, a revolt
of the Mohammedan Tungans suddenly
broke out. On reaching Hami, the whole
town was found to be in an uproar. Si-
multaneously, the members of the expedition
learned that two supply columns with gaso-
line and spare parts had been plundered
near the border. Destroyed villages and
burning houses were passed on the way.
The corpses of men and horses marked the
direction which the revolt had taken.

In Turfan an order from the Governor was
handed to the expedition commanding it to
proceed at once to Urumchi. This involved
a detour of over 400 kilometers. On their
entry into the capital on July 8 they were
received with military honors, cannon salvos,
and a sumptuous banquet; subsequently,
however, they were prevented for two
months from continuing their journey. On
September 6 the cars were at last permitted
to proceed to Kashgar after the leader of
the expedition had declared himself prepared
to install a radio station at the headquarters
of the Governor.

The last lap of the journey to Aksu was
accomplished in less than one month without
further incident, excepting one difficult
passage at Tokosun just behind Turfan
where within a few kilometers the road
descends 2,000 meters down a rocky ravine.

United with the members of the Kashmir
expedition, the return journey was begun
on October 8. Twenty days later they had
reached Urumchi again. Christmas was
spent with the German missionaries at
Kachow and New Year in Liangchow. On
February 12, 1932, Peking, the destination of
the expedition, was reached. This last
part of the journey from Aksu to Peking,
a distance of 5,000 kilometers, was covered
in 127 days.

It can be seen from this that Marco Polo
as well as the Citroën Expedition—the latter,
by force of circumstance only for part of
the way—followed the course of the old silk
roads, simply because these present the most
convenient connection between West and
East. In the meantime the Russians have
completed the construction of a motor road
across the Terek Dawan passes from Osh
to Kashgar. This road will link up Sinki-
ang with the existing Russian Turkestan
motor roads to Tashkent, Samarkand,
Bokhara, Merv, and Meshed.

Apart from the above-mentioned Terek
passes, there are hardly any technical
difficulties to modern road construction in
the way of changing the ancient caravan road
into a road for long-distance motor traffic
by improving the road foundations and
building hotels, gasoline stations, and repair
shops. The reopening of this old trans-
continental road would have a tremendous
influence on the commercial traffic between
the peoples of the West, Central Asia, and
East Asia. Whereas until now goods de-
tsined for the interior of Asia had to be
brought by ship to the harbors of the south
Asiatic coasts and from there overland
cross the formidable mountain passes of
the Himalayas, they would in such a case reach Central Asia by a direct route. However, this project depends entirely on the willingness of all the states concerned, especially the USSR, to collaborate. The distance of 11,000 kilometers from Istanbul or Cairo to Shanghai could then be covered in forty-two days at an average of only 250 kilometers per day, while the camel caravans in the time of the silk roads required almost ten months for the same journey. A freighter takes thirty days for the voyage from Port Said to Shanghai and an express steamer of the Scharnhorst class twenty days.

THE AUTHOR'S EXPEDITION

When I set out in mid-December 1935 from Berlin on my journey through Asia I had the choice of taking the route either through Turkey or through Egypt. The route via Turkey is still the same by which hundreds of years ago caravans traveled from Bagdad to Stambul; but today it is still in a condition hardly better than during the Crusades. For the motorist, this route is no pleasure jaunt. Apart from the annoying formalities connected with the transit permit, the roads, bad enough at any time, become almost impassable in winter owing to the heavy downpours which convert them into deep mud. On the other hand, the roads through Egypt, Palestine, and Syria are for the greater part paved with asphalt.

Generally speaking, the section Cairo/ Calcutta offers hardly any difficulties worth mentioning to people not averse to roughing it, provided the journey is undertaken at a favorable time of the year, i.e., in spring or autumn, in order to avoid the rainy season and the great heat of summer in the Sinai, the Syrian, and the Persian-Afghanistan desert areas.

Many years ago the journey from Calais to Calcutta (11,000 kilometers) was covered in the record time of thirty-three days by an English motorist. I myself had no intention of racing across the Continent: my idea was to allow more time for making cultural and sociological studies on the way, so that I took altogether six months to reach Calcutta from Berlin.

Shah Reza Pahlevi succeeded in suppressing the bands of robbers which used to make the Kurdistan and Afghanistan border regions of Iran unsafe. He created a strong police force and simultaneously had a large part of the old caravan road widened and converted into good motor roads.

Afghanistan was opened to international transit traffic a bare ten years ago. Until then this area was as inaccessible to Europeans as Tibet or the Hejaz. The country is inhabited by a number of independent tribes, such as the Baluchis, Khorotis, Ghilzais, Pathans, Waziris, and the Afridis, as well as by Turkmen, Tajiks, and Uzbeks in the north—a total of about 12 millions—who are all fanatical adherents of Islam, bold, warlike, and extremely intolerant of those of a different creed.

Politically speaking, Afghanistan is a buffer state between Russia and British India. Climatically and geographically, it is a country of extremes. High, rocky, icy mountain chains and sun-parched deserts form the principal features of the country. More than half of it is occupied by the trackless snow-covered mountain ranges of the Paropamisus and Hindu Kush. South of these the view of the colorless deserts of the Registan is lost in the quiver of vibrating heat waves which hover over the desert wastes and delude the traveler with mirages. A geological curiosity is provided by the rivers of this country which, instead of flowing toward the ocean, dry up somewhwhere in the desert or, like the Murghab and Hari Rud Rivers, debouch into lakes. In spring, when the snow on the mountains melts, they swell into mighty rivers.

ONE HOLDUP

"For Heaven's sake, don't go through Afghanistan," we were warned, when I left Meshed with my companion, "you will never leave the country alive. Not long ago another car was held up and robbed on the way to Duzdab." However, we experienced nothing of the sort, apart from one little holdup which, in keeping with the wildness of the country, was of a warlike nature and landed us in the gloomy dungeon of an Afghan mud fortress. But later, over tea and cakes, our captors were unmasked as perfectly harmless frontier guards.

We had no cause to complain of any lack of hospitality in the country of the Emir. The difficulties we experienced were of a different nature. In May the heat was already so intense during the day time that our tires burst. We were obliged to travel in the evening and at night and to sleep through the day in the vaults of some caravanserais.
The section from Herat via Farah to Kandahar (660 kilometers) is only a caravan trail and rarely used by cars. After Kandahar, however, the road improves. With the widening of the roads, which chiefly wind along river valleys, the forwarding of goods, hitherto taken care of exclusively by caravans—there are no railways yet in Afghanistan—is gradually being shifted to trucks. Steel bridges are being thrown across the rivers, and in the larger cities garages, repair shops, and hotels are making their appearance.

Kabul, the principal junction of the brisk caravan traffic between Baluchistan, Bactria, Turkestan, and India, can also be reached from Herat by a northern route via Balkh and the passes of the Hindu Kush; but this far more interesting route is at present hardly feasible for automobiles.

There is already considerable motor traffic through the Khyber Pass to Peshawar. Since ancient times all great conquerors with their armies have traversed the twenty-eight kilometers of this much-disputed pass. At Fort Jamrud starts the great North Indian trunk road, running via Lahore/ Delhi Benares to Calcutta, an asphalt road about 2,300 kilometers in length.

India possesses an extensive network of roads and railways. Most of the great trunk road from Delhi to Bombay and Madras (2,800 kilometers) with an extension to Madura and Colombo in Ceylon (1,000 kilometers) is also asphalted. Moreover, there are good roads leading to all important places as well as to those of historical interest.

THE MISSING LINK

As for the topography of Burma, the next country to be traversed, I have dealt with that in detail in the article "Burma Trails," appearing in the March 1944 issue of this magazine. Suffice it to say here that, until recently, the only land connections leading from Burma to her neighboring countries were narrow jungle and mountain paths. The upheavals entailed by the present war have served to break through the isolation imposed upon Burma by her natural barriers. The widely discussed "Burma Road" came into existence, connecting Mandalay—lying on the main traffic artery of Burma—with Kunming and the road system of Central China. Furthermore, there is a project for a road to link up Mandalay with Hanoi (1,400 kilometers) which is to lead through the Shan States and Laos.

As little as ten years ago Thailand still possessed a road mileage so negligible as hardly to be worth mentioning. Not until 1937 did the Government begin to open up the country by constructing highways; it started an eighteen-year plan for road construction to be completed in three laps of five, five, and eight years in order to cover Thailand with a modern road system whose center will probably be the new capital Pechabun, 300 kilometers north of Bangkok and 100 kilometers southeast of Pitsanulok. The first part of the program, 4,400 kilometers, was recently accomplished at the expense of 30 million baht (now called baht).

In Malaya and particularly in French Indo-China, both roads and railways are excellent. The "Route Coloniale No. 1" or "Mandarin Road" is a first-class highway which, starting at Langson on the Chinese border, leads along the coast via Hanoi, Tourane, and Saigon to the Thai railway station of Aranya Pradesa, a distance of 2,620 kilometers.

A quarter of a century ago, China hardly possessed any highways at all. During the last ten years, however, the Chinese Government has made great efforts to expand the road system. The old routes were shortened and converted into motor roads. Early in 1937 it was already possible to travel by car from Taiifu to Canton and Shanghai, and from there on to Peking.

Hence there is only the connection between Imphal in Assam Province and Blamo or Mandalay in Burma (700 kilometers) still lacking to span the last gap between the European and North African road systems and the Chinese road network via the southern route.

RAILWAYS . . .

The railway lines run in the same direction as the great highways. The Russian Trans-Siberian railway is up to now the only one connecting Europe with the ports on the Yellow Sea. The train covers the distance of 10,000 kilometers from Berlin to Fusan on the extreme point of Korea in twelve days.

Contrary to the prevailing endeavor of all modern states, the Soviet Union, which occupies half of the whole Asiatic continent, has remained aloof from the community of
nations. There is very scanty information concerning journeys in the interior of the country, its traffic, commercial, and industrial conditions. As a rule, foreigners were only permitted to travel on the Siberian railway and on the line from Leningrad via Moscow and Kiev to the Caucasus. Since Stalin has been ruling Russia, the country has been hermetically sealed to foreign explorers and travelers. Consequently, Soviet Russia cannot be reckoned with in any free transcontinental traffic for the time being.

Another possibility, namely, a railway line from Istanbul across Iran and Turkestan, has not even been seriously considered yet on account of the unsettled political conditions in Central Asia. The southern section via India, however, is gradually approaching completion. During the present war, this project is being promoted with particular energy by the Allied powers, as it provides a strategically important means for the swift transport of troops and material.

The section which still lacked completion until recently in the Bagdad line is now open to traffic. The Iranian railway from the Caspian Sea to Bandar Shapur on the Persian Gulf (about 1,500 kilometers) was completed just before the outbreak of the war in 1938. A branch line which is to connect Teheran with the Turkish railway net at Tabriz is under construction, and so is another line which will connect the trans-Iranian railway via Kerman with the Indian trunk line at Zahidan (Duzdab).

The Indian railway system—attaining a total length of more than 65,000 kilometers—whose principal trunk line reaches as far as Calcutta, extends in the east to the trackless border mountains of Burma which separate this country from China.

... AND PROJECTS

In order to connect the hitherto completely isolated railway lines of Burma and Thailand with those of India and China, the following projects have been considered:

(1) An extension of the Indian railway, which ends at Chittagong on the Gulf of Bengal, along the Arakan coast across the 700-meter-high Taungup Pass to Padaung on the bank of the Irrawaddy River opposite the Burmese railway station of Prome.

(2) An extension from Lashio, the terminus of the branch line from Mandalay, across the Salween River ferry at Kunlong, then south along the Burma Road to Kunming. The French railway line Kunming/Haiphong was inaugurated in 1910.

(3) A railway connection from Moulmein on the Gulf of Martaban to Pitsanulok, the station on the Thai north-south line, 390 kilometers north of Bangkok.

(4) The Japanese project, that has frequently appeared in the press since the conquest of the Malay Peninsula, of connecting Fusan in Korea by a direct railway line with Shonan. This line is to run from Shanghai via Hangchow/Chuchow/Kweilin/Liuchow/Nanning to Lungchow, the northernmost terminus of the French Indo-China railway. The railway system of French Indo-China is to be linked up with that of Thailand, from where a direct connection with Shonan has been in existence for more than fifteen years.

Only two sections of about 500 kilometers each are still missing to make this project, which involves 8,000 kilometers, a reality: the section Liuchow/Lungchow, and that from Tanap via Pakse to Uban, the terminus of the eastern Thailand railway line, unless the existing line via Saigon/Pnom-Penh/Aranya Pradesa is made use of, which, however, involves a considerable detour.

With the opening of this line as well as of the Iranian and Burmese sections mentioned above, it would in the future also be possible to reach the great ports of East Asia from Europe by train via the southern route.

Revenge

A citizen of Cleveland, Ohio, who had been out of work for a long time during the depression and who now has an excellent position in an armament plant, made use of the present shortage of labor to apply for a job. He was offered 20 jobs and gleefully turned them all down.