



Photo.]

[Donatossian, Baghdad.

TYPICAL PASSENGERS ON THE IRAQ RAILWAYS.

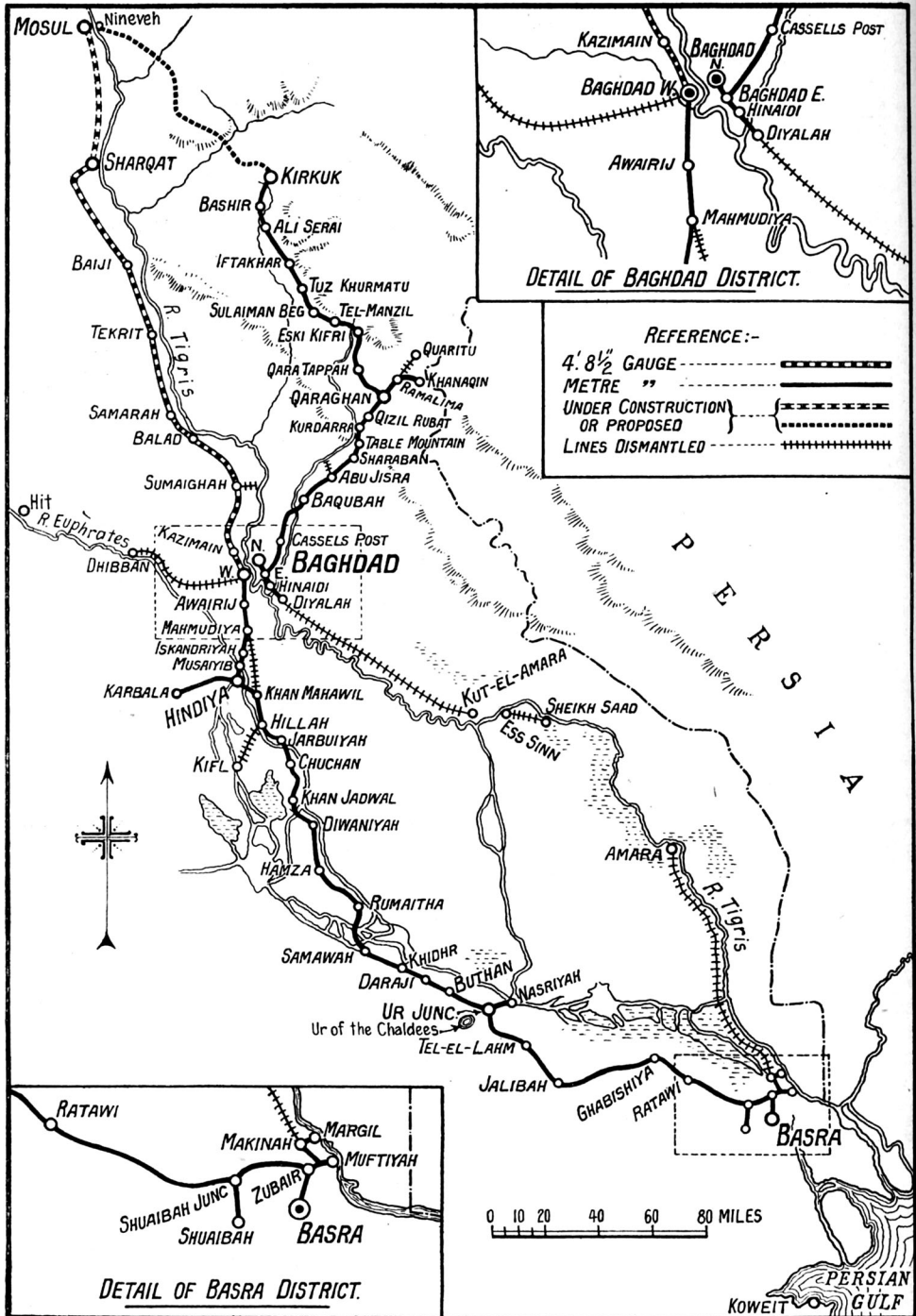
The Railways of Mesopotamia.

By RICHARD COKE.

THE railways of Mesopotamia, technically known as the "Iraq Railways" from the Arabic name of that country, which has now been officially adopted by the world at large, are largely a legacy of the Great War. Before the outbreak of hostilities the construction of only one line had been attempted, that being the Baghdad West-Samarah length of the famous "Bagdad Railway," built by the Germans and opened for traffic in the early part of 1914.

The first railway in Mesopotamia to be operated by the British was the metre-gauge line from Basra, the port of the country, to Nasriyah. This was opened in 1916, and was soon followed by the Kurna-Amara section, built first on the 2-ft. 6-in. gauge and afterwards converted to metre gauge. After the British occupation of Baghdad in March, 1917, new lines followed in quick succession, from Kut-el-Amara to Hinaidi (a military camp

suburb of Baghdad), from Hinaidi to Baghdad East and Baghdad North, and from Baghdad East to Baqubah. All these lines were of metre gauge, the last mentioned being afterwards extended from Baqubah to Quaritu, on the Persian frontier. Through communication with Basra was maintained by a regular service of steamers on the Tigris from the port town to Kut. On the other, or western, bank of the latter river, the existing "Bagdad Railway," which was of standard (4-ft. 8½-in.) gauge, was extended at both ends; on the south to Baghdad South, then the site of the advanced Base military encampment and the principal British aerodrome, and later to Hillah, on the Euphrates; and on the north to Tekrit, and eventually to Sharqat, the site of the ancient Assyrian city of Ashur, and a point within eighty miles of Mosul. The Hillah extension crossed part of the site of ancient Babylon, and for the first time in history the iron horse penetrated within the walls



SKETCH MAP OF THE IRAQ RAILWAYS SHOWING ALSO LINES DISMANTLED.

of that far-famed city. A "halte" was erected at the ruins for the service of military and civilian sightseers, but it was shortly afterwards removed bodily under cover of night by some of the adjacent tribesmen, to be used as firewood. In the cold winter evenings of Mesopotamia, wood is far too valuable as fuel to be wasted on an unattended station building!

A line of 2-ft. 6-in. gauge was shortly afterwards laid from Hillah to Kifl, and a standard-gauge track (afterwards con-

cross-desert mail cars plying between Baghdad and the Mediterranean.

Altogether, by the beginning of 1919 over 1,000 miles of track had been laid, much of which has since been dismantled.

Early in 1918 a beginning was made on the construction of a through line from Basra to Baghdad. This used the old Basra-Nasriyah line as far as Ur of the Chaldees, whence it struck up the course of the Euphrates to Hillah, joining at the latter town the existing line from Baghdad

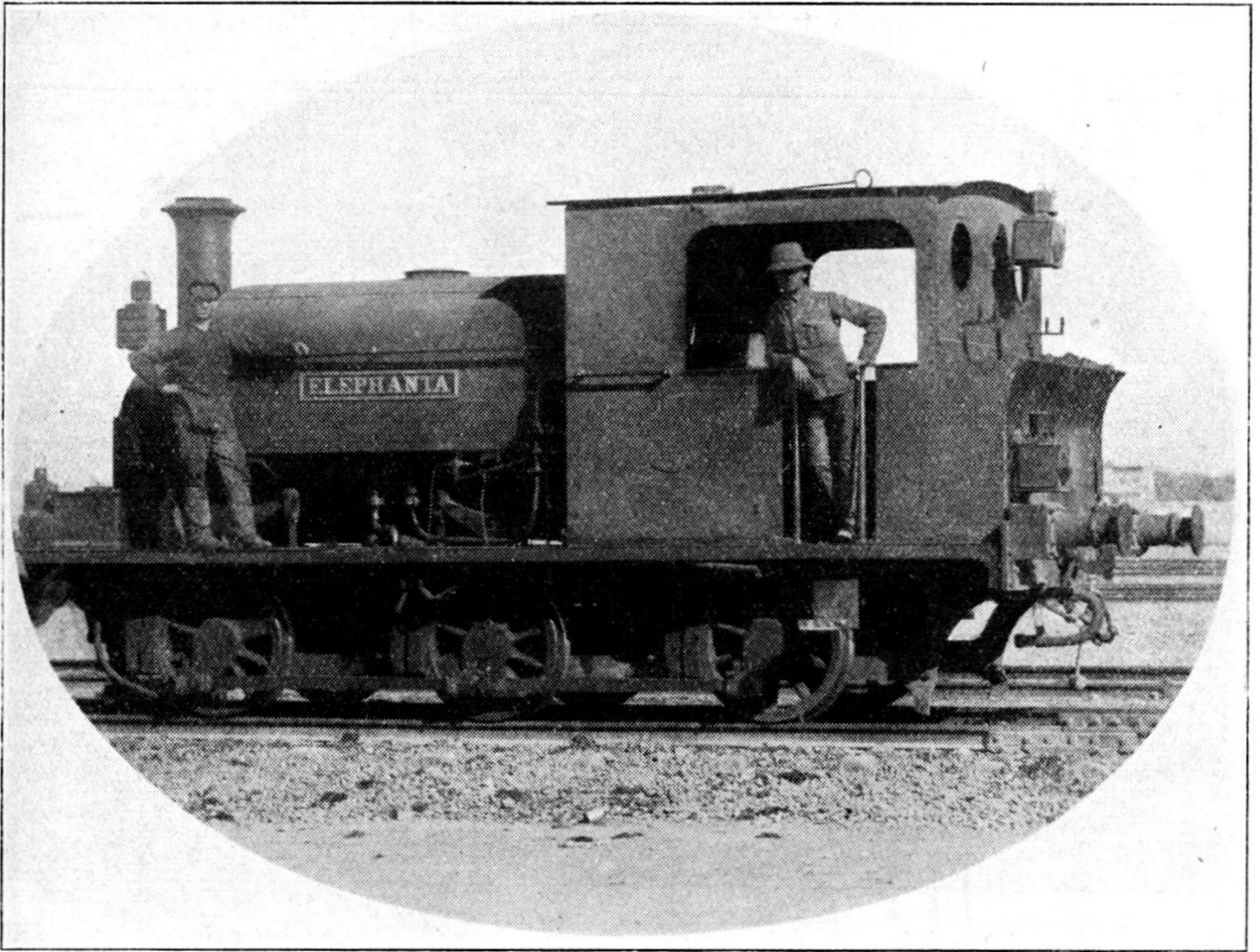


Photo.]

[Donatossian, Baghdad.]

SMALL 0-6-0 TANK LOCOMOTIVE USED DURING AND AFTER THE WAR ON NARROW GAUGE TRAMWAYS OF THE IRAQ RAILWAYS.

verted to 2 ft. 6 in. and later dismantled altogether) from Baghdad South to Fallujah, on the River Euphrates, some distance north of Hillah. Fallujah is, incidentally, the modern representative of the town under whose walls was fought the famous battle described by Xenophon, in which Cyrus the younger made an unsuccessful bid for the Persian throne with the aid of the "Ten Thousand" Greek mercenaries. Much of the route of the dismantled railway is used by the new motor road constructed for the use of the

West. The new line—which, in view of its length and importance, immediately became known as the main line by the public—was constructed on the metre gauge, the existing Baghdad West-Hillah section being converted at the same time from standard gauge to conform with it. Considerable difficulty was experienced in the work of construction, and it was not until January, 1920, that the first train ran through between the capital and the port of Sinbad the Sailor. In July of the same year occurred the rebellion, and

the line was "cut" in several places by the insurgent tribes; it was not until February, 1921, that it came into regular use again, but since that date the flow of traffic along it has been uninterrupted and ever-increasing.

In April, 1920, the administration of the railways was transferred from the military to the civil authorities, and a new policy (temporarily interrupted by the rebellion) was introduced, with a view to establishing the system on sound commercial lines. Hitherto, military policy alone had dictated the construction and

of return loads to Basra, leading to a large amount of empty running.

The five years which followed witnessed a wonderful change. The whole system had been overhauled, and very largely altered. Many of the old lines have disappeared, including the Kurna-Amara and Kut-Hinaiidi sections, and the Hillah-Kifl and Baghdad South-Fallujah narrow-gauge roads. The Persian end of the system has been remodelled, a new line having been opened in 1922 from Khanikin Road to Khanikin town, where a thoroughly up-to-date passenger and goods depôt



[Photo.]

[John Soares, Baghdad.]

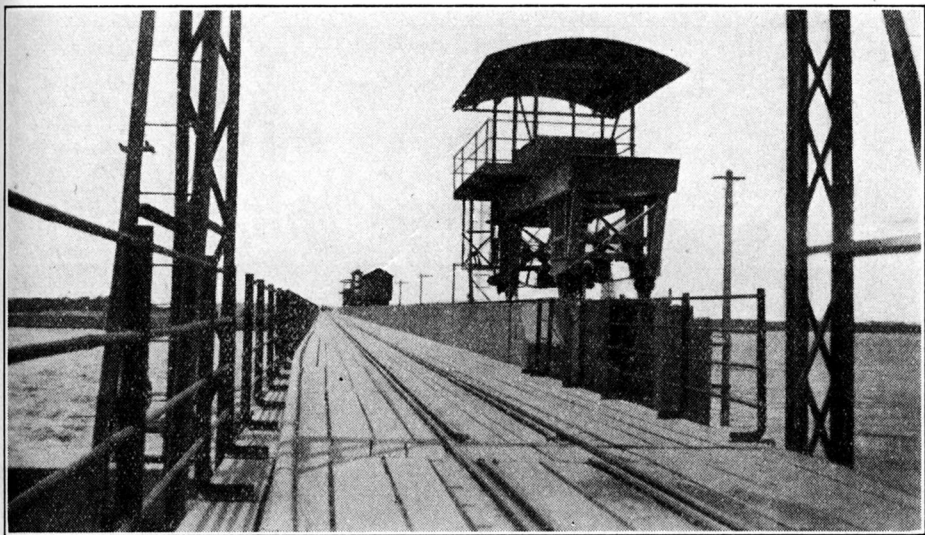
REPLACING AN OLD WAR-TIME BRIDGE BY A NEW ONE.

working of the railways, and their existing lay-out bore no relation whatever to the commercial needs of the country. Great towns, such as Karbala, Najaf, Mosul and Kirkuk, were left many miles from a railway, while much of the track ran through undeveloped and desert land, entirely unremunerative from the traffic point of view. An additional difficulty was that the export trade of the country had been reduced to its lowest ebb by the War, while the import trade, owing to the presence of large numbers of British and Indian troops, was relatively heavy; as a consequence, there was always a shortage

has been constructed for the reception of the Persian traffic. The old line from Khanaqin Road to Quaritu has been closed. The branch from Qaraghan, on the Baghdad-Khannaqin line, to Kingerban has been extended to Kirkuk. This branch will be extended later on to Mosul, thus at last bringing the big northern centre in touch with the railroad. The advantage of this route over the one *via* Sharqat (the proposed route of the old Bagdad Railway) is that, although rather longer, it passes through rich agricultural country all the way, whereas the terrain of the Tigris valley route is largely barren.

On the Western section of the system, the city of Karbala, one of the most important centres in the country, has been linked up with the main line by means of a branch from Hindiya Junction, close to the famous barrage across the Euphrates. The branch actually uses the barrage as a means of crossing the river. The main line itself has been diverted at this point and now runs through Museyib and past the barrage, instead of, as formerly, some miles to the south-east. Though adding a few miles to the length of the main line, the diversion is justified by the fact that it passes more important centres than the

miles); a line from Baghdad West to Shergat (187·66 miles); and, on the other or eastern bank of the Tigris, a line from Baghdad North through Baghdad East to Khanaqin (109·3 miles), with branches from Baghdad East to Hinaidi and Diyalah (11·63 miles), and from Quraghan to Kirkuk (108·15 miles). All the lines are of metre gauge, with the exception of the Baghdad West-Sharqat section of the old Bagdad Railway, which remains of standard gauge as originally built. The two divisions of the system on the east and west banks of the Tigris are connected by a wagon ferry which operates



Pho'o.

[*R. Coke.*

THE HINDIYA BARRAGE FROM ABOVE, SHOWING RAILS OF THE KARBALA BRANCH WHICH CROSSES IT.

old route. The Karbala branch will eventually be extended to Najaf. Both towns are important business centres, and, in addition, as the two holy cities of the Shiah faith, attract a very considerable pilgrim traffic at certain seasons of the year. At the Basra end of the main line, a new branch has been constructed from Makinah, the terminus, to Basra City, thus bringing the railway nearer the heart of the town.

The system as it stands to-day thus consists of the main line Basra-Ur-Hillah-Baghdad West (360 miles), with branches from Ur Junction to Nasriyah (9·25 miles), and Hindiya Barrage to Karbala (22·5

miles) between Baghdad West and Baghdad North, crossing the river about a mile north of the city of Baghdad. The length of the spur line from one station to the other and the ferry crossing is 3·80 miles.

Twice daily services of passenger and goods trains are maintained on all lines except the Baghdad West-Sharqat section and Quraghan-Kirkuk, which each have a less frequent service. Generally speaking, trains are operated as "mixed," though in certain cases passenger and goods trains run independently. The through trains usually leave the termini at night, on the American and Indian model; this system has the advantages of enabling the pas-

sengers in summer to escape the glaring heat of the day and to wile away a portion of the admittedly rather tedious journeys in sleep. It has been found convenient, too, to marshal the freight cars at the various local stations in the evening, ready for attachment to the through train in the night.

Although travel on the Iraq railways is necessarily slow as compared with European standards, the comfort of the passengers is studied in a very thorough manner. New and up-to-date corridor stock, recently built in England to the order of the railways by the Gloucester

The locomotive stock of the system is not particularly noteworthy, the majority of the engines having been imported from India during the War. On the standard-gauge line can be seen some fine examples of modern German 2-8-0 mixed engines, captured during the War, and a locomotive that had obviously seen prior service on the old L. & S.W.R. For some time the premier engines in use on the metre-gauge were the American Mallet compound 0-6-6-0's, built by Messrs Baldwin of Philadelphia. At one time the principal trains were almost invariably "horsed" by one of them, but

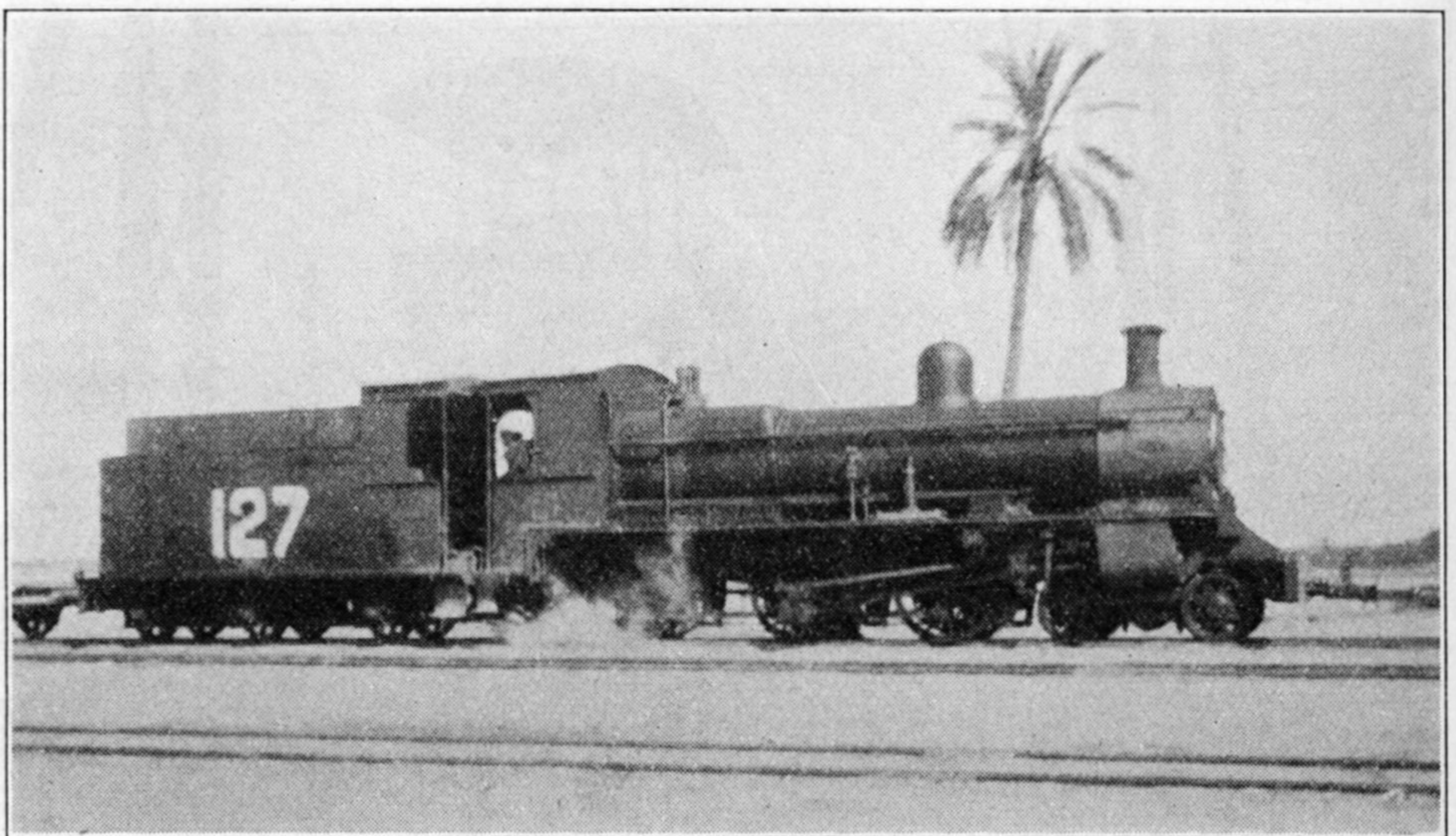


Photo.]

[R. Coke.

4-6-0 BRITISH-BUILT "MIXED-TRAFFIC" TYPE LOCOMOTIVE, IMPORTED FROM INDIA.

Carriage & Wagon Co. Ltd., is in use for first-, second- and third-class on all long-distance trains; dining and sleeping cars run through between Baghdad and Basra. The journey between the two cities takes 21 hours by the mail train and 32 by the ordinary. Sharqat is 15 hours from Baghdad, Khanaqin 10, and Karbala 5. It is claimed by the management that the rolling-stock now in use is the finest in the East on metre-gauge systems. Refreshment catering, which used to be let out to contractors with not very satisfactory results, is now handled by the railway management direct,

their extravagance in fuel deprived them of their honourable position, and they have now been superseded by a series of new 4-6-0 English superheater locomotives, built to the order of the Iraq Railways by the Vulcan Foundry of Newton-le-Willows, Lancashire.

Oil fuel is used exclusively on the whole system, and its high first cost forms one of the major difficulties in the economic working of the system. Fuel oil delivered in Basra costs Rs. 40 per ton, as against an average fuel charge on the Indian railways of Rs. 17 per ton. The comparison is not, however, a complete one, because the fuel chiefly used in India is

coal, and the calorific value of oil fuel is greater than that of coal; but the difference in price is still enough to embarrass the management of a small system in a poor country, strenuously endeavouring to cut costs at every available point.

New locomotive and carriage repair shops are now in process of completion at Salchiyah, a few miles north of Baghdad West station. The old shops, erected during the War at Shuaibah, near Basra, and Baghdad West, have now been closed down and dismantled. The executive offices of

spur line from Makinah leads to Margil, close to the steamer wharves, and is used by the mail train on the arrival and departure of the Indian boats.

The Makinah site was originally selected for the convenience of the great army base camp, and is no longer suitable owing to its remoteness; a new alignment is to be used in the near future with its terminus at Margil, and an intermediate station nearer to Ashar, the commercial heart of Basra.

The territory covered by the Iraq Railways is remarkable for its historical

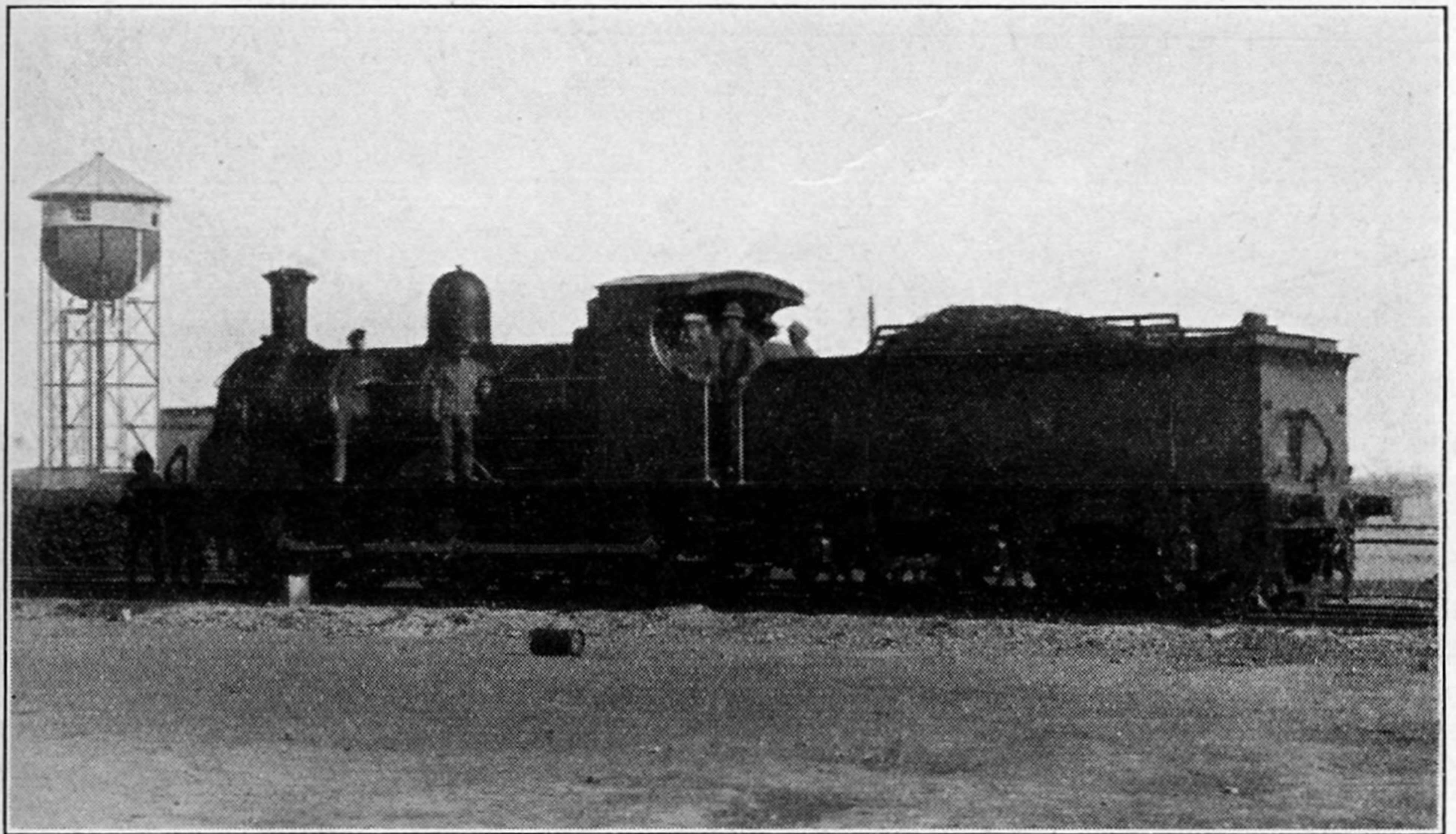


Photo.]

[Donatossian, Baghdad.

L.S.W.R. 0-6-0 GOODS LOCOMOTIVE BROUGHT FOR SERVICE ON STANDARD GAUGE LINES OF IRAQ RAILWAYS DURING THE WAR.

One of this type is still in use.

the system are at Baghdad West. There are "city offices" to deal with town passenger and goods inquiries in both Basra and Baghdad. The principal station on the system is Baghdad West, which consists of high- and low-level platforms some distance apart, the former serving the standard-gauge Sharqat line and the latter the metre-gauge Basra. Baghdad North, across the river, is the terminus for all Persian line trains, which also call at Baghdad East. The main station at Basra is at Makinah, from which a shuttle service is maintained to and from the new station at Basrah City. Another

and archaeological interest. Excavations are now being carried on every winter at Ur of the Chaldees and Kish (near Hillah), both close to the main line, which also runs through a portion of ancient Babylon. The ruins of Nineveh, near Mosul, and of Ashur, are accessible from Sharqat, and the magnificent arch of Ctesiphon is an easy motor ride from Baghdad. The still-existing cities of Basra, Baghdad, Samarah and Mosul all contain imperishable memories of the past; and Karbala, Kufa, and Najaf loom large in early Moslem history and the stirring days of the Arab conquest. The tourist possi-

bilities of such a terrain have not escaped the notice of the management, and an extensive advertising campaign is now being carried on in Palestine, Egypt, Syria and adjacent countries. The well-known firm of Thos. Cook & Son have recently opened a branch in Baghdad, and it is hoped that the winter seasons will see a large number of visitors from America and Europe enjoying the unsurpassed winter climate which Iraq possesses.

The part which has been played by the railways in the agricultural revival of Iraq is a creditable one. Without the railways, it would, indeed, be impossible nowadays

This is, however, only one of the minor difficulties which the management have to face. The high price of fuel has already been alluded to. In Iraq, labour is not only expensive, but extremely scarce, and skilled labour very rare. Many members of the trained staff have to be imported on the indenture system, involving much expense in passage charges, leave money, and extra wages to induce a good class of man to leave his own country for a term of years. The average cost per head of all personnel on the Iraq Railways is necessarily considerably higher than on comparable Indian railways. Staff charges

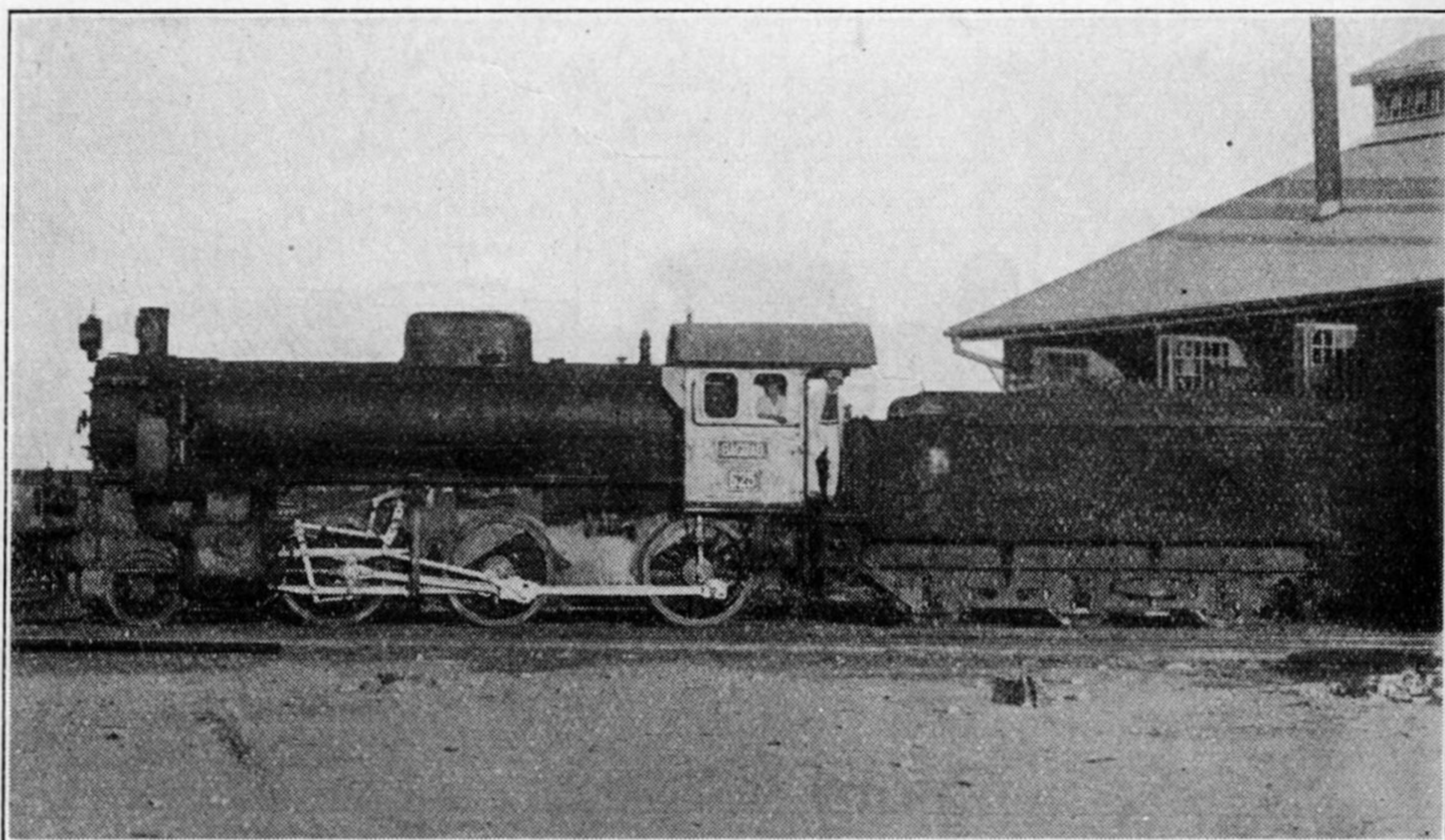


Photo.]

[*Donatossian, Baghdad.*]

GERMAN-BUILT 2-6-0 LOCOMOTIVE CAPTURED DURING THE WAR AND IN USE ON STANDARD GAUGE SECTION OF IRAQ RAILWAYS.

for the grain grower of the Euphrates valley to market his produce in Basra and export it to foreign centres. The new scheme of cotton cultivation on the Dialah and the rich agricultural lands lying along the new Kirkuk branch promise to bring much additional grist to the mill of the railways. Incidentally, the growth of agricultural export is creating for the system the exact reverse of the traffic problem faced a few years ago. Whereas in the old days they were always sure of full loads up country, but had to run empty back, now the full loads are southwards to the port, and the lack of a satisfactory return traffic forms the difficulty.

represent, in fact, a substantial part of the working costs in Iraq. An additional trouble is that, in a country only just beginning to develop in the modern sense, the railways cannot carry nearly as much traffic as they could comfortably handle with no further increases in staff and equipment. This makes the factor of working unduly high. The 48,000-60,000 train-miles a month run at present could easily be increased to 75,000 without any further cost, except for fuel. The costs of staff charges per train-mile are nearly twelve times as large as they are on Indian railways, handling an adequate amount of traffic; if staff costs are deducted from the total working

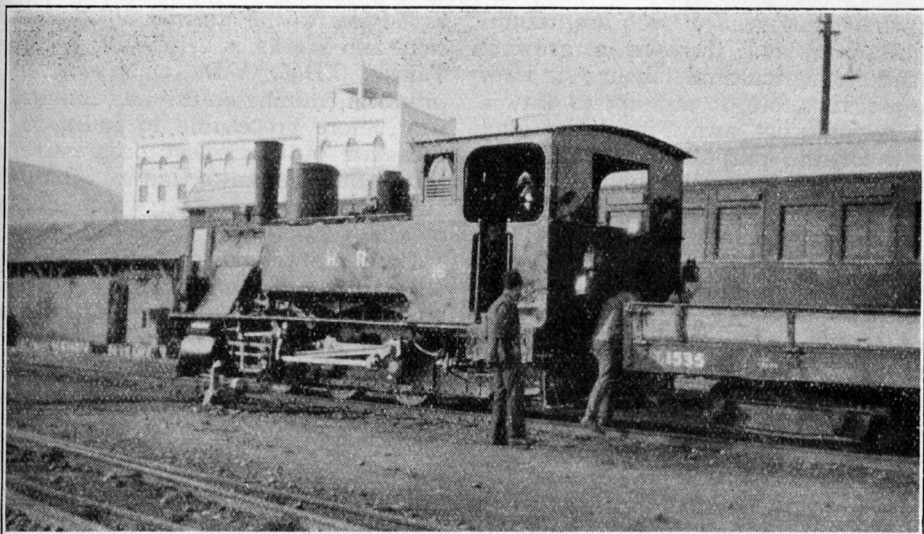


Photo.]

[R. Coke.

HEDJAZ RAILWAY 0-6-0 LOCOMOTIVE No. 16, AT HAIFA.

Used on the Haifa-Acre branch.

costs, the remaining charges work out at nearly twice the figure of India per train-mile, and lastly, if the cost of fuel is deducted, the charges now remaining are only half as large again as India, showing clearly that the two great enemies of economical working on the Iraq Railways are

fuel and labour costs. The former may tend to decrease as the oil fields of Iraq itself are opened up; it is difficult to see any immediate remedy for the latter, owing to the shortage of labour in the country itself, which will only become more pronounced as it is developed. More-

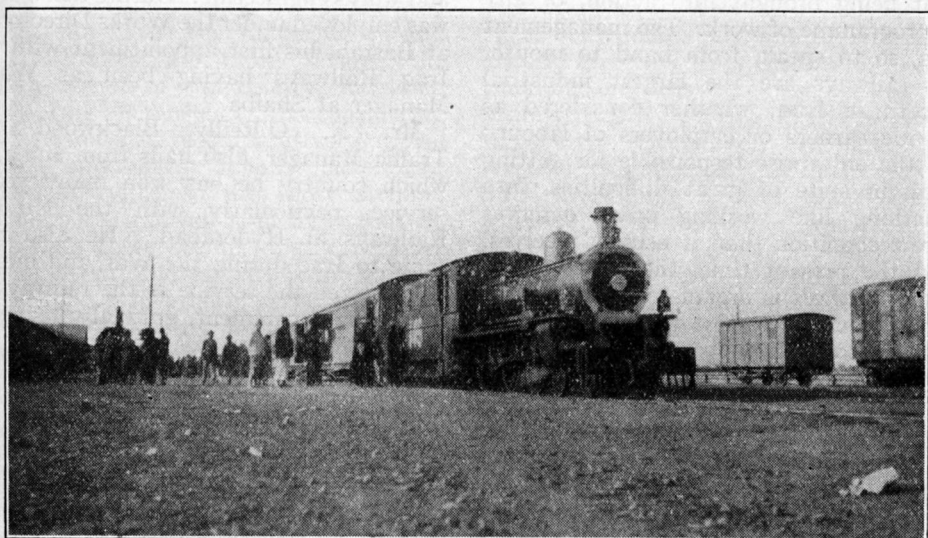


Photo.]

BASRA MAIL TRAIN AT BAGHDAD WEST.

[R. Coke.

British-built 4-6-0 mixed-traffic locomotive.

over, the countrymen of Iraq are natural agriculturists, and there is a growing demand for agricultural labour; it is of little use, therefore, to attempt to draw a good agriculturist away from the land merely for the purpose of turning him into possibly a bad railwayman. Again, much of railway labour is highly technical and technical training takes time; it would appear that it will be many years before the Iraq Railways will be able altogether to dispense with the importation of foreigners for their staff.

Not the least of the difficulties facing the railways is the uncertainty of their immediate future. Under the terms of the Anglo-Iraq Treaty, ratified in July, 1924, the system remains the property of the British Government, though operation is transferred to the Iraq Government. The latter have the option of purchasing the system at any time, on terms to be mutually agreed upon. During the Treaty period (four years), the British Government have also the right to sell the lines to a private purchaser, but only with the permission of the Iraq Government. At the end of the Treaty period, the railways are to be taken over, if still unsold, by the Iraq Government, on terms to be agreed upon with the British Government. The uncertainty regarding their fate effectually prevents any consistent scheme of development being brought into action, or any set programme of work. The management lives, so to speak, from hand to mouth. The railways are the largest industrial concern in Iraq, whether considered as revenue earners or employers of labour; and the enterprise responsible for getting them, in spite of great difficulties, into something like working order deserves more recognition than it usually receives.

At the present time, the management of the railways is organised as a Government Directorate. The present Director, who for some time past has also acted

as Adviser to the Minister of Communications and Works, is Lieut.-Col. J. Ramsay Tainsh, C.B.E., V.D., who received his practical training on the Caledonian Railway before proceeding to India to join the staff of that most progressive and successful Company's Railway, the Bengal and North Western, on which he spent over 20 years.

He came to Iraq in June, 1917, in the R.E. section of the Indian Army Reserve, and was attached to the Works Department as Assistant Director of Works in charge of the Basra Light Railway. Later he was transferred to the Iraq Railways, and was for some time Deputy Director of Railways at Basra before proceeding to Baghdad to take entire charge of the Loco. and Carriage Departments of the then three unconnected sections of the railway.

He assumed the duties of Director of Railway on December 11, 1921, and was confirmed in that post in 1923.

Mr. S. O. Heinemann, the Chief Engineer, has also spent most of his working life on Indian railways. Coming to Iraq with the British forces, he joined the railways in 1919 as Deputy Chief Engineer. He has occupied his present position since 1922. The senior locomotive officer and mechanical engineer is Major D. Yates, who has had a large and varied experience of marine and works engineering. During the War he was employed under the Works Directorate at Basrah, his first appointment with the Iraq Railways having been as Works Manager at Shaiba.

Mr. N. O'Reilly Blackwood, the Traffic Manager, also hails from India, in which country he has seen many years' service, particularly with the Nizam's Railways at Hyderabad. He also first came to Iraq during the War, and originally entered the service of the railways in the traffic department, gradually rising to his present position.