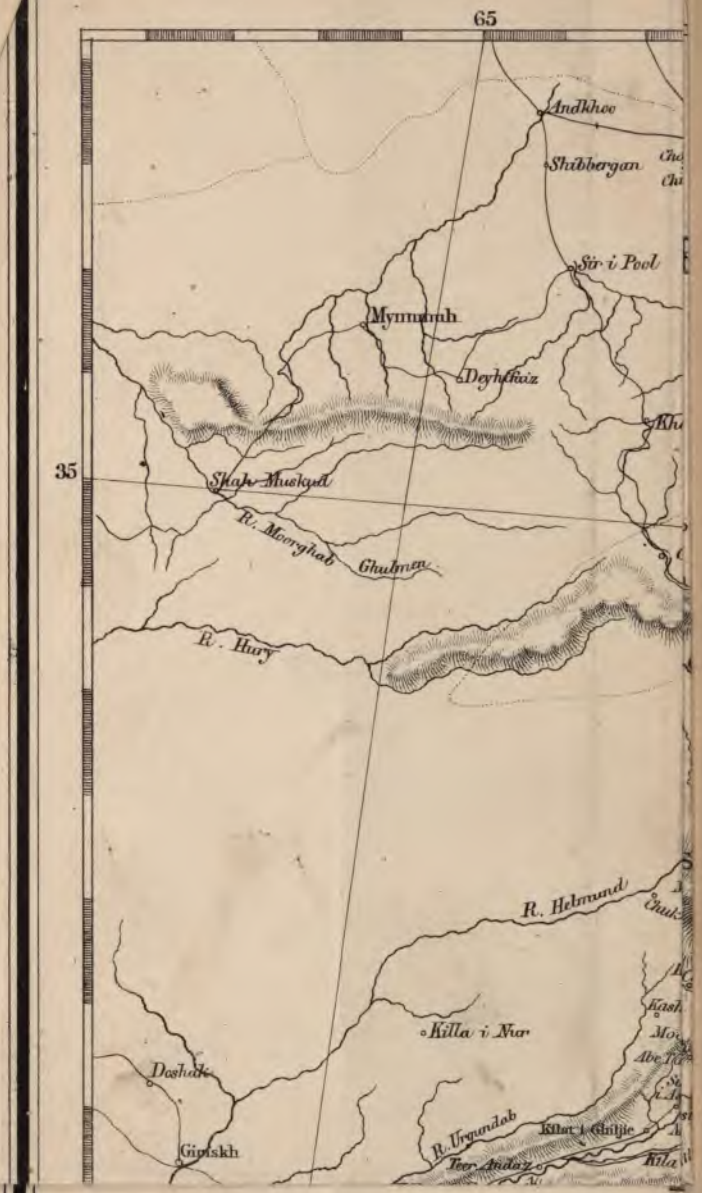
SECOND REPORT

OF THE

DIRECTORS

OF THE

SCINDE RAILWAY COMPANY.



J & C. Walker, Lith.

MAP

to accompany a Work entitled

SCINDE RAILWAY,

AND

ITS EXTERNAL RELATIONS:

by

W. P. ANDREW.

1856.

THE SCINDE RAILWAY COMPANY.

Offices: Gresham House, Old Broad Street, City.

BOARD OF DIRECTORS.

Chairman.

W. P. ANDREW, Esq., F.R.G.S. (26, Montague Square.)

Chairman Euphrates Valley Railway and European and Indian Junction Telegraph Companies.

Ex-Officio Director.

SIR JAMES C. MELVILL, K.C.B.

SIR HERBERT MADDOCK, M.P., late Deputy Governor, Bengal, Director Euphrates Valley Railway Company.

J. EDMUND ANDERDON, Esq., Director of the Bank of London, and Euphrates Valley Railway Company.

HARRY BORRADAILE, Esq., late Bombay Civil Service, Director Euphrates Valley Railway Company.

THOMAS WILLIAMS, Esq., Director Euphrates Valley and other Railway Companies.

Auditors.

ALEXANDER MACKENZIE, Esq. Director of the Oriental Bank Corporation.

MAJOR JOHN A. MOORE, F.R.S., Director National Provincial Bank of England.

Engineer.

T. A. YARROW, Esq.

Bankers.

Messrs. SMITH, PAYNE, and SMITHS.

Solicitors.

Messrs. MARTEN, THOMAS and HOLLAMS.

Secretary.

THOMAS BURNELL, Esq.

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REPORT.

SECOND REPORT OF THE DIRECTORS of the SCINDE RAILWAY COMPANY to the Proprietors, submitted at the First Half-Yearly General Meeting, held on the 4th day of November, 1856, at the Offices of the Company, Gresham House, Old Broad Street, City.

THE First Half-Yearly General Meeting has been convened in conformity with the Act of Incorporation of the Company.

The Directors have the satisfaction to report, that since their last meeting with the Proprietors, such an addition has been made to the staff of the resident engineer as to enable him to complete the survey of the country through which the Line is to pass, and that they have recently received through their agent in India, the resident engineer's report accompanied by plans and sections in reference to various surveys prosecuted at the requisition of the Bombay Government.

The Directors await the decision of the authorities as to the selection of the exact route the line should take from Kurrachee to Hydrabad, to enable them to proceed with the construction of the railway

In their first report, the Directors announced that they had contracted for thirty miles of permanent way material, the shipment of which, is nearly completed. Contracts have also been entered into upon favourable terms for the material for a further thirty miles of railway.

The importance of having improved means of communication along the valley of the Indus, is every day becoming more apparent. Sir Justin Sheil, late British ambassador in Persia, has recently advocated the great political advantages to be derived from " a railway running the whole length of the left bank of the Indus."

For commercial and social, as well as State purposes, the improvement of the transit along this ancient line of communication has become a necessity.

Holding as we do, the Indus from Cashmere to the sea, we have a power which, if " well understood and wisely improved, puts us in possession of the key to the whole commerce of Central Asia, which cannot be pursued without adding to the prosperity and productiveness of our new territories (Scinde and the Punjaub)." *

The resources of modern science judiciously applied to this line of communication would be of inestimable benefit to our own provinces, and the enterprising European merchants, now resident at Kurrachee, would soon afford a medium for extensive shipments from the Punjaub and provinces to the north-west of Delhi and the distribution of our manufactures to the remote valleys of Afghanistan as far as Herat, and in Balkh, Khiva and Bokhara.

The local authorities, especially Mr. Bartle Frere, the Commissioner in Scinde, and Sir John Lawrence the Chief Commissioner in the Punjaub, concur in the necessity of

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* The Economist.

affording to the provinces drained by the Indus and its tributaries a free access to their port of shipment. The latter of these distinguished gentlemen, in a recent dispatch to the Government of India, makes the following forcible remarks :—

"*Indeed, these two essentials, viz., the railroad and the steamers, may be said with truth to be the crying wants of the Punjaub in the department of public works. These provided, the commerce and produce of these territories will be turned to their due course, viz., the Indus and its feeders, and to their natural outlet, viz., the Port of Kurrachee.*"

"For the railroad the face of the Doab offers an unusual equality of surface, while it possesses few or none of the requisite resources for metalling a road. For the rivers, it were preferable, instead of improving the navigable stream, to concentrate all efforts on the provision of powerful steamers of the smallest possible draught. The Chief Commissioner, while deprecating any general extension of the public works department in the Punjaub for the present, would yet beg most earnestly to press these cardinal objects on the attention of the Government. He believes that, if carried out, they would effect more for the development of the resources of those territories than any other work, or number of works, that could be devised."

A railway from Mooltan to Lahore and Umritser would not only afford an outlet to the impeded traffic of the Punjaub and neighbouring territories, but would of necessity greatly enhance the importance and value of the line from Kurrachee to Hyderabad. Scinde and the Punjaub (including the States under control), cover an area of 130,000 square miles, with a population of nearly twenty-five millions. The flower of the European and native army occupies these provinces, and numbers 70,000 men, more than 15,000 of whom are Europeans.

This Board having received official information that the views long entertained by them, as to the best mode of introducing improved means of transit along the line of the Indus, had been approved by the local authorities, they addressed to the Court of Directors of the Honourable East India Company the following letter :—

"SCINDE RAILWAY COMPANY,
GRESHAM HOUSE, OLD BROAD STREET,
"SIR, 14*th March*, 1856.

"The Directors having received a communication under date the 26th January, from their agent in India, submitting for the sanction of this Board, in compliance with a suggestion of the Government of Bombay, a proposal that surveys should be made by the Scinde Railway Company (enclosure 2), with a view to the extension of the line of railway towards Lahore, and enclosing correspondence with the Government authorities relating thereto as noted in the margin; copies and extracts of the same, being annexed for the information of the Honourable Court.

1. From the Commissioner in Scinde to the Governor and President in Council. Bombay, dated 12th Dec., 1855.

2. Extract of letter from Secretary of the Governor of Bombayto Commissioner in Scinde, dated 2d July, 1855, par. 1 and 3.

3. Letter from the Agent to the Chairman, dated 26th Jan., 1856.

4. Extract from letter of Resident Engineer to Agent, dated 16th Jan., 1856.

5. Letter from Resident Engineer to the Commissioner in Scinde, dated 14th Dec ,1855.

"2. I am requested on behalf of this Company, to state their readiness to undertake the necessary surveys of the line from Mooltan to Lahore and Umritser under the direction of the Government consulting engineer; should it be the pleasure of the Court to have them proceeded with, and that all the expenses occasioned by the surveys should be placed to a separate account, and be appropriated hereafter according to the arrangement that may be ultimately entered into.

"3. Should the Honourable Court concur in the views expressed by the Commissioner in Scinde (enclosure 1), the Chief Commissioner of the Punjaub (enclosure 7), and the Government of Bombay (enclosure 2), as to the great importance of the extension of improved means of transit along the Valley of the Indus, this Board is of opinion, that

instead of making a through communication by means of a railway between Kurrachee and Lahore, as appears to be recommended by the agent and resident engineer of the Company, in their letters (enclosures 3 and 4), that the present is a favourable opportunity for introducing the economical and easily established system of communication, combining steam transit by land with steam transit by water, so long advocated by their Chairman.

6. Extract from letter from the Commissioner in Scinde to the Chief Commissioner in the Punjaub, dated 21st Sept. 1855.

7. Extract from letter of Secretary of Chief Commissioner in the Punjaub to Commissioner in Scinde, of 23rd Oct., 1855, par. 2 and 4, with Extracts of Letters from Chief Commissioner in the Punjaub to Government of India.

"4. For instance, the lower portion of the line from Kurrachee to Hyderabad, by the railway already sanctioned, which will avoid the dangers and delays of the Delta, from Hyderabad to Mooltan by steamers of improved construction, resuming the railway from Mooltan to Lahore and Umritser.

"A reference to the letters (enclosures 6 and 7) from the Commissioner in Scinde, and the Chief Commissioner of the Punjaub, will show that these views are approved of by the local authorities.

"I have the honor to be, &c., &c.,

"(Signed) W. P. ANDREW,
Chairman.

"SIR JAMES C. MELVILL, K.C.B.,
&c., &c. &c."

The Directors have the satisfaction to report, that the East India Company have authorized the survey of the country between Mooltan, Lahore and Umritser, by this Company, and in conformity with which, a superintending engineer of ability and experience, with a carefully selected staff of six engineers, left England for India on the 4th of September.

The Directors have much gratification in stating their cordial and entire approval of the conduct of Mr. J. NEVILLE WARREN, the agent and representative of the Company in India.

W. P. ANDREW,
Chairman.

Proceedings of the First Half Yearly General Meeting of the Shareholders, held Nov. 4, 1856.

The first half-yearly general meeting of the Proprietors of this Company, was held on Tuesday, Nov. 4, at their offices, Gresham House, Old Broad Street, Mr. W. P. Andrew, the Chairman of the Company, presiding.

The Secretary (Mr. Burnell) having read the advertisement convening the meeting, and the seal of the Company having been affixed to the register of shareholders, the report was taken as read:—

The Chairman observed that the Directors had informed the Shareholders in their report that they had sent out the material necessary for the first thirty miles of the railway, and since then they had contracted for the material for another thirty miles, making sixty miles for which they had provided all that was requisite for the construction of the permanent way. When he last had the honour of addressing them, he stated that he and his colleagues from the first took up this project as a link in the great line of communication which they proposed to carry on to and through the Punjaub. Subsequently they had received the sanction of the authorities to send out a superintending engineer with a competent staff of assistants for making the necessary surveys for carrying out that line. The authorities themselves were taking measures for adding considerably to the steam flotilla now on the Indus, and by recent accounts from the Punjaub and from Scinde it appeared that the traffic of those two provinces was increasing in a most extraordinary degree, so much so,

indeed, that the existing steam flotilla was found altogether inadequate for the conveyance of even the Government stores. Under these circumstances, the Company were proceeding, under the authority they had received, to make the necessary surveys, but the terms upon which the line would be constructed remained for future adjustment.

At the last meeting of the Shareholders, some gentleman expressed an opinion that, if eventually they undertook the construction of any further portion of the through line, the accounts for the Scinde Railway proper should be kept distinct [hear, hear]. Having, as they had, a considerable and rapidly growing port, at one end of their line, and a large and populous town, the emporium of the cross-trade of the country, at the other, it was natural that those who had embarked their capital on the faith of those advantages, should desire to retain them, and not allow the money subscribed for a specific purpose, to be mixed up with other railway projects, which, in their view, might not be equally productive. He stated, at the time, that he concurred in that idea, and he had now to repeat that, if the Punjaub line were entrusted to this Company, the capital account would be kept separate and distinct from that of the Scinde Railway.

In respect of the line from Kurrachee to Hydrabad, they would have the guarantee of 5 per cent., on whatever capital might be required to complete it, and, by that line, they would secure the spout of the funnel through which all the traffic of the Punjaub, and the Upper Provinces would be brought down to Kurrachee (the natural port) for shipment.

He had at the last meeting, spoken of the great influence which a line of railway along the valley of the Euphrates must necessarily have, upon any line running through the valley of the Indus. Since he referred to that subject, he (the chairman) had been in communication with gentlemen connected with the English Government, and with others who

belonged to the Turkish Government, and he was happy to say that nothing could be more gratifying than the manner in which the project was entertained by both. [Hear, hear]. To Lord Clarendon he was under a deep debt of obligation for his courteous, prompt, and powerful support; and the Turkish Government had also evinced every desire to promote the object in view. Only yesterday he had received a letter from his gallant friend General Chesney, from Aleppo, who with Sir J. Macneill and his staff was there as a deputation to survey the line from Seleucia, by Aleppo, to the Euphrates, stating that everywhere the proposed railway was favourably regarded, and, what was still more important, that the Arab tribes had sent to felicitate the deputation on their arrival, and to express their anxious desire to see this improvement carried out by Englishmen, because by them they knew they would be treated with justice and liberality.

They were aware also that an important movement was making for the establishment of a system of telegraphic communication between England and India, along the Euphrates valley to the Persian Gulf, and which would, at Kurrachee, unite with the Indian telegraphic system. By the last mail they were informed that the Indian Government had issued orders to lay down a line from Lahore to Kurrachee, which would place Kurrachee in telegraphic communication with all the presidencies—Calcutta, Madras, Bombay, and throughout the North West frontier. All, therefore, he had said at the previous meeting about the importance of Kurrachee as the European Port of India, he had reason to reiterate. The commerce of that port was increasing enormously, and its capacity to receive ships of large burden was now beyond doubt. At present, however, the arrangements of the port were insufficient for the increasing demands of its commerce, but the government, which was sending out very large quantities of stores, had also sent out instructions for ob-

taining an efficient force of pilots, and steam tugs, whereby all difficulty of taking vessels safely to and from the port would be obviated. In a recent note he had received from his distinguished friend, Mr. Frere, the Commissioner of Scinde, it was stated that Colonel Jacob, who was acting for him in that Government, had reported that the total exports for the year 1855-6 were 50 per cent. in excess of those of the previous year, the previous rate of increase having been 20 per cent. per annum. The most remarkable increase had been in oil-seeds, and wool, which had been respectively 900 per cent. and 60 per cent. during the last year.

Colonel Jacob estimated that the quantity and value of the articles suitable for British consumption exported from that province *viâ* Bombay to the English markets was 18,000 tons, and £38,000 in value, to which was to be added about 15,000 tons flax that would come down from the northward, making 33,000 tons and £500,000 in value of exports suitable for British consumption from this province. He mentioned this, and more especially the article wool, which was of excellent quality, and the staple produce of the valley of the Indus, as showing how important this portion of India was likely to be to the manufacturing interests of this country when the proposed railway system was completed. The commerce of the Punjaub also was very large. That of Umritser alone was estimated at from £2,000,000 to £3,000,000 a year, and that of Lahore and Mooltan was also large; but at present, the trade which flowed from these great emporia of the commerce of Europe, India, and Central Asia, went down the Ganges instead of the Indus; but the moment the railway communication was completed, they would go by the valley of the latter river, which was their natural route. He might also mention, that the soil of the Punjaub was particularly favourable for the formation of railways, though it was entirely unfitted

for common roads, which made the railway a commercial necessity.

Again, the famous *Khalsa* who fought against us with such resolute valour, were now directing their attention with all that energy which belonged to their race, to the cultivation of the soil, as peaceful husbandmen; but the absence of roads made it impossible to do so with profit, and not only was a large proportion of the produce lost, but by being left to rot on the ground, the excess of production beyond the wants of the people actually became injurious. A railway to the port of Kurrachee would bring cotton and other produce down for shipment, and, both socially and politically, the whole country would be benefitted. He might here also take the opportunity of stating, that the undertaking would in no wise interfere with the system of irrigation which was being so earnestly promoted, but, on the contrary, the railway system was essential to those efforts, inasmuch, as without the railway there would be an enormous excess of production without the means of transport. In addition to all these considerations, he might mention that a new trade had recently sprung up between Kurrachee and the Mauritius, and also between Kurrachee and the Persian Gulf, which would contribute to the traffic of the Scinde and Punjaub lines. He hoped they would excuse him for introducing so many topics, but they all had an intimate bearing upon the great object to which, for so many years, his attention had been directed, namely, the communication of Central Asia with Europe, by railway and river transit, making the railway supplemental to the natural highway of the country [hear, hear]. At present, the existing trade from the Euphrates to the Mediterranean was large, but what would be the result if they had a railway running from the head of the Persian Gulf to the Mediterranean, and another along the valley of the Indus from Kurrachee, to

the confines of Central Asia, it was impossible to estimate. The commerce which now existed along the route of the Indus, would be sufficient to pay an ample return upon the proposed capital, but when the whole system was carried out, and the commerce of those ancient countries watered by the Indus, the Tigris, and the Euphrates was resuscitated, there was reason to believe that the advantages to the world would be beyond the most sanguine anticipations.

It was with feelings of the deepest regret he referred to the death of his esteemed colleague, Mr. Francis Horsley Robinson, on the 14th of last month, at Constantinople. Mr. Robinson went out as Commissioner to the Turkish Government, representing the European and Indian Junction Telegraph Company, and was engaged in negotiations with the Turkish Government at the time of his death. He had spent many years of his life in India, where he acquired not only fortune, but a high and unblemished reputation, and he died while promoting the welfare of that country, by endeavouring to place it in telegraphic connection with Europe. By his death, he (the chairman) lost a warm friend and faithful counsellor. To fill up the vacancy at the Board, the Directors had appointed Mr. Harry Borradaile, and as Mr. Borradaile had previously acted as Auditor of the Company, there necessarily arose a vacancy in the latter office, which it was for the Proprietors to fill up. He regretted that Mr. Frere, who took so great an interest in the prosperity of Scinde, was not present at the meeting, being, at that moment, in a remote part of Scotland, but Mr. Ellis and Mr. Bellasis were there, both personally acquainted with the country in which their operations would be carried on, who would be happy, he was sure, to afford information upon any subject connected with the country of the Lower Indus, and he himself would be glad to answer any questions in his power, but although he had been in

India, and on the banks of the Sutlej, he was not fortunate enough to be personally acquainted with the "happy valley" of Scinde [hear, hear]. The honourable gentleman concluded by moving the adoption of the report.

Sir Herbert Maddock, M.P., (a director) seconded the resolution; and alluded to the rising importance of Kurrachee, which was formerly a mere village, but which he believed was destined to become one of the greatest ports of India! The traffic of Central Asia and the Punjaub was immense. The military force in the Punjaub alone numbered more than 70,000. He spoke from personal knowledge of India, of the importance of the intended lines of railway, combined with steam communication across the Persian Gulf, by means of which, the commerce of Central Asia would be diverted from Persia, Turkistan and Russia, and find its way down the Valley of the Indus to Kurrachee, which was destined to become the greatest commercial capital in India, whilst the manufactures of England would seek that channel in exchange for the produce of India. In the mere matter of insurance of cargoes alone, he understood that a saving of at least 25 per cent. would be effected by the introduction of this line of 110 miles in length from Kurrachee to Hydrabad [hear, hear]. This was an indication only of the general advantages to be secured.

A Proprietor wished to know whether the Chairman could give them any idea when they would commence operations.

The Chairman said, that the plans and sections of the line had been prepared and lodged with the local government. He believed they were now under the consideration of the supreme government, and the moment they decided upon the exact route which should be followed, ground would be broken.

The Proprietor asked, whether the line would be a long time in construction?

The CHAIRMAN said, he did not consider that the line would take a long time in construction; the ground was particularly favourable; there were no heavy cuttings or tunnels, and only two bridges of any magnitude. Orders for the rolling stock were about to be given; so that they did not anticipate any unnecessary delay. He might mention, that they hoped speedily to open a short portion of line connecting the harbour with the town and the cantonment, which would be of great importance for local traffic and conveyance of materials.

In answer to a question as to the surveys in Upper India, The CHAIRMAN said, he believed the report which would be made was rather a matter of form than otherwise—namely, whether the route proposed was favourable for a railway. Colonel Napier, the Chief Engineer of the Punjaub, and Sir John Lawrence, who was at the head of the government of the province, had spoken favourably of it, and he did not anticipate, therefore, any difficulty on the part of the supreme government. The country had been surveyed with a view to the revenue settlement, and nearly mapped; so that no staff of engineers could meet with greater facilities for their work. He begged to repeat, also, his previous remarks as to irrigation. The promotion of the railways in no manner would interfere with the extensive system of irrigation proposed in the Punjaub. He might also further state, that the government had not the slightest idea of suspending the construction of railways, as had been done in the case of other public works.

There was another point of great interest which he would notice before he sat down, namely, the production of native iron, and the practicability of its manufacture and applicability to engineering works. The Proprietors would, no doubt, have observed in the Morning Papers the reprint of a document issued by the Court of Directors of

the East India Company on the subject. The manufacture of native iron for rails was second only in importance to the construction of railways themselves in India. From the researches of his indefatigable friend Colonel Drummond, who, for more than twenty years, devoted himself to the subject, there was now no doubt that iron, in every way suited for rails, might be raised in any quantity at the foot of the Himalayas, where iron ore was lying in vast masses, and there was also abundance of fuel for smelting, lime for flux, and clay-stone for furnaces, with the advantage of thirty or forty miles of a good road to river transit. Thus, the great difficulty and expense of procuring materials from Europe for Indian railways, he hoped, would be avoided; and he looked forward to the day, and that not distant, when the railways of the Punjaub would be made of native iron, and wrought by native manufacturers. *Railways could never be constructed in India on the extensive scale demanded by the wants of that country, until Indian rails were made of Indian iron* [hear, hear].

Sir H. Maddock, upon this last point, observed that thirty years ago, when he was governor of an Indian province, iron was dug, smelted, and converted into bars in that province, and a suspension bridge in the Saugur-Nerbudda district still existed which was constructed out of those bars, across a river 200 feet broad. Financial considerations, under the Governor-generalship of Lord William Bentinck, interposed to prevent the prosecution of the iron-works, and the construction of similar bridges over other rivers; but the fact he had stated settled the question of the existence of iron in India suitable for rails and other engineering purposes [hear, hear].

A Proprietor remarked, that satisfactory as was the assurance of Sir Herbert Maddock as to the applicability of

native iron to engineering works, it was discouraging to reflect, that all this was proved thirty years ago, and no progress had been made since in that direction. He hoped they were not going to wait for thirty years more! (a laugh.)

The report was then put and carried: and Major John Arthur Moore having been proposed by Mr. Ellis, late Assistant Commissioner in Scinde, and seconded by Mr. Bellasis, late Collector of Hydrabad, was unanimously elected an Auditor of the Company in place of Mr. Borradaile; a vote of thanks was then unanimously passed to the Chairman and Board of Directors, for their zeal and ability in promoting the interests of the Company.

Mr. Andrew, in acknowledging the compliment, thanked the Proprietors for this mark of their continued confidence, and expressed the determination of the Board to spare no exertion necessary for the successful prosecution and establishment of a comprehensive system of steam transit along the valley of the Indus, connecting the emporia of the Punjaub and N. W. Provinces with the sea at Kurrachee, the European port of India, and the natural outlet of the important and extensive countries drained by the Indus and its tributaries; this was a great undertaking, which they regarded as not only essential in a commercial and social, but also in a political, point of view (applause).

The Meeting then separated.

LONDON:
W. LEWIS AND SON, PRINTERS, 21, FINCH LANE, CORNHILL.

(DIRECT ROUTE TO INDIA.)

THE EUPHRATES VALLEY RAILWAY COMPANY, LIMITED.

(FROM THE MEDITERRANEAN TO THE PERSIAN GULF.)

Offices, Gresham House, Old Broad Street.

TO BE INCORPORATED BY ACT OF PARLIAMENT.

CAPITAL £1,000,000, IN 50,000 SHARES OF £20 EACH.

Chairman.

W. P. ANDREW, Esq.,

(Chairman of the Scinde Railway and European and Indian Junction Telegraph Companies.)

Directors.

PHILIP ANSTRUTHER, Esq. (Late Secretary to Government, Ceylon,) Deputy-Chairman Ceylon Railway Company, and Director of the European and Indian Junction Telegraph Company.

SIR FREDERICK L. ARTHUR, Bart., 4, St. James' Street, Director of the European and Indian Junction Telegraph Company.

HARRY BORRADAILE, Esq., Hadley (Late Bombay Civil Service), Director of the Scinde Railway Company, and Director of the European and Indian Junction Telegraph Company.

BARROW H. ELLIS, Esq. (Late Assistant Commissioner, Scinde).

THE HON. J. CADWALLADER ERSKINE, Chairman of the London Eastern Banking Corporation, and Director of the European and Indian Junction Telegraph Company.

CAPT. B. KINGTON FINNIMORE, (Late Commissary of Ordnance, Kurrachee and Hydrabad, Scinde.)

CAPT. H. B. LYNCH, C.B., I.N., (Late commanding on Euphrates and Tigris), Director of the European and Indian Junction Telegraph Company.

SIR T. HERBERT MADDOCK, M.P. (Late Deputy Governor of Bengal), Director of the Scinde Railway Company.

MAJOR J. A. MOORE, F.R.S., 19, Portland Place, (Ex-Director of the Honourable East India Company), Director of the National Provincial Bank of England, and Director of the European and Indian Junction Telegraph Company.

THOMAS WILLIAMS, Esq., Director of the Scinde Railway Company, and Director of the European and Indian Junction Telegraph Company.

Consulting Engineer.

MAJOR GENERAL CHESNEY, R.A., D.C.L., F.R.S., & F.R.G.S.

Engineer in Chief.

SIR JOHN MACNEILL, L.L.D., F.R.S.

Auditors.

LIEUT. COLONEL H. B. HENDERSON, (Late Officiating Military Auditor General, Bengal.)

HARRY G. GORDON, Esq., (Chairman of Oriental Bank Corporation.)

Agents in Syria and Mesopotamia.

Messrs. STEPHEN LYNCH & Co.

Bankers.

Messrs. GLYN, MILLS & Co.

In India.	In Turkey.
ORIENTAL BANK CORPORATION.	OTTOMAN BANK.

Solicitors.

Messrs. MALTBY, ROBINSON & JACKSON.

Secretary.

L. W. RAEBURN, Esq.

PROSPECTUS.

This Company is established to connect the Mediterranean and the Persian Gulf by a railway from the ancient port of Seleucia by Antioch and Aleppo, to Ja'ber Castle on the Euphrates, of eighty miles in length, and afterwards from thence by other towns, to Bagdad, and on to the head of the Persian Gulf. Thence by steamers communication will be established with all parts of India.

From arrangements now in progress, it is intended to carry the electric wire along the Euphrates Valley, and connect the telegraphic system of Europe with that of India.

The country through which it is proposed to carry the railway, was by command of his Majesty William IV. examined and surveyed, with the view to the introduction of improved means of transit by that distinguished officer, Major-General Chesney, R.A. and F.R.S., who reports that there are no serious difficulties to contend with; and subsequent scientific investigations under Captain Lynch, C.B., and Commander Campbell, both of the Indian Navy, have confirmed the accuracy of General Chesney's opinion. Dr. James Bowen Thompson, who lately died at Constantinople, spent many years in the East collecting data, and obtained for the project the favourable consideration of the Sublime Porte, Her Majesty's Government, and the British Ambassador at Constantinople.

The effect of the proposed contract to be entered into between the Sublime Porte and this Company will be,

that the Ottoman Government guarantee a minimum dividend on the capital required at 6 per cent. per annum for 99 years.

The Ottoman Government grant a lease of the land necessary for the Railway and works for 99 years, free of charge.

On the opening of the Line, all nett profits, exceeding the rate of dividend guaranteed, are to go to the Ottoman Government in liquidation of the dividends they have advanced. When this advance is repaid, the entire surplus goes to the Shareholders.

No call will be made until the concession has been secured, by the Firman of the Sultan, and the other arrangements contemplated by the Directors completed.

At the expiration of 99 years, the land with the Railway and works pertaining thereto, will become the property of the Ottoman Government, who will at the same time purchase the rolling stock at a valuation to be settled by arbitration.

The Ottoman Government guarantee the Company against all competition from works of a similar character —And grant the right of land, woods, forests, and quarries, the property of the State, at a certain distance at each side of the line.

It is only proposed at present to execute the first section, about eighty miles of railroad, from the ancient port of Seleucia on the Mediterranean, to Ja'ber Castle on the Euphrates; below which point, there is water communication by the Euphrates and Tigris to the Persian Gulf.

Mr. John Laird, of Birkenhead, has undertaken to supply the Sublime Porte with steamers to navigate the Euphrates, capable of carrying a large amount of passengers and merchandise, at a good rate of speed.

A steam route being thus established between the Medi-

terranean Sea and the Persian Gulf, the shortest and most rapid means of communication between the capitals and emporium of the West and East would be at once open for political and commercial purposes. The future sections of the Line will be gradually carried down the valley of the Euphrates, from the right bank opposite Ja'ber Castle to Phumsah, the ancient Thapascus. Crossing into Mesopotamia at this suitable place, the railway will be carried along the valley of Anah and Hit to the environs of Bagdad; and thence by Babylon and Hillah to the confluence of the Euphrates and Tigris at Kurnah, where there is sufficient depth of water for the largest steamers, with a branch line by Shuster to the Persian Gulf; or to Bussorah, thirty-seven miles nearer the head of the Persian Gulf than Kurnah, where an extensive trade is already established, and where there is ample accommodation for square-rigged ships of large tonnage.

The grand impediment to the improvement of the Sultan's dominions is the want of the means of intercommunication, and no line would promote more effectually their good government and prosperity than that which would lay open to the energy and capital of the West the expansive and fertile plains of the Tigris and the Euphrates.

To England, the possession of an alternate short route to India is of inestimable value, and more especially when the actual lineal distance will be reduced by more than a thousand miles, and where rich fields are offered to the genius of her statesmen, and the enterprise of her merchants, by giving back to commerce, through the civilizing influence of steam, "countries, the cradle of the human race, and the theatre of the most important events in the Jewish, Pagan, and early Christian histories."*

* Expedition to the Euphrates and Tigris, by General Chesney.

The traffic by the existing route of the Red Sea must always be confined to large and powerful steam vessels, being impeded by rocky islands, coral reefs and the nature of the prevailing winds, whereas in the Persian Gulf, there are no physical obstructions whatever to its free navigation by vessels of all classes.

"The substitution of land carriage for water carriage, or rather, the substitution of overland cuts for long sea circuits," is, as *The Times* stated in a leading article some time ago, "the one simple principle of the present undertaking."

The importance of the Euphrates as a second and more expeditious route to our Indian possessions is daily forcing itself upon the public mind, and as the whole of Northern India and Central Asia, from the banks of the Oxus to the gates of Delhi, will shortly have an outlet to the sea by the Scinde Railway from Hydrabad to Kurrachee, relieving commerce from the dangers and delays of the Delta of the Indus, such a route would seem to become imperative.

"The sea stages of the present route to India," according to *The Times*, in the leading article before referred to, "exclusive of the trip across the Channel, are two: one from Marseilles or Trieste to Alexandria; and the other from Suez to (Kurrachee) Bombay, or Calcutta. These stages constitute by far the longest part of the journey, being 5,075 miles, performed by steamers; from which an average speed of some ten miles an hour is all that can be expected. The longer again of these two stages is that from Suez to Hindostan, as it includes a circuit round two sides of the triangular territory of Arabia. The first object, therefore, is to get rid of the detour by Aden; and this is to be done by carrying the passengers to the mouths of the Orontes, instead of

the mouths of the Nile, and forwarding them across the Turkish territory to Bussorah, at the head of the Persian Gulf. The railroad required for this purpose would run along the Euphrates Valley, and its length would not exceed 900 miles;* whereas, its completion would reduce the distance from London to Calcutta by more than *one-half*,—by twenty days in fact out of thirty-nine! This project, it is conceived, could be accomplished in five years' time; and the route would then lie through Ostend, Trieste, by the Mediterranean Sea, to Orontes, thence to Bussorah, and by the Persian Gulf to Bombay (or rather to Kurrachee), where it would meet the Indian railroads now actually commenced, and by that time completed to Calcutta."

The advantages of the port of Seleucia were placed before Government by Captain, now Major-General Chesney, in 1832, (see pp. 63 and 64 of Euphrates Reports), and were subsequently advocated by that competent authority, Captain Allen, R.N.. According to the latter officer, it is capable of being made one of the finest harbours in the world. Both these officers considered that from £20,000 to £30,000 would be sufficient to clear out the greater part of the ancient basin, and repair the massive works of the Romans, many portions of which require merely to be relieved from the mud deposited upon them. The importance of Seleucia will be apparent, when it is borne in mind, that there is no other port for commerce along the whole coast of Syria better than the open roadstead of Beyrout, or the pestilental harbour of Alexandretta. Seleucia is not only capable of being made a most efficient port, but by a small additional out-

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* From sea to sea by railway, according to General Chesney, 660 miles.

lay, the existing great Mole might be extended so as to form a harbour of refuge.

By the existing road, Antioch is eighteen miles from Seleucia, and stands on the Orontes, the valley of which is throughout fertile and populous.

Aleppo is forty-two miles from Antioch, contains a population of about 90,000, is one of the most opulent and best built cities in Syria, and the chief emporium for the trade of the country.

Ja'ber Castle, thirty-miles,* distant from Aleppo, is on the Euphrates, which "gives a water communication with Syria, Asia Minor, and Asia Major, (their central parts,) also the South of Persia and Kurdistan."

"The Pachalic of Bagdad produces (and the greater part along the Euphrates,) wheat, barley, Indian corn, rice, millet, honey, dates in great quantity, and other fruits, wine, (from Kerkook and the banks of the Tigris,) cotton, some silk, tobacco, gall-nuts, and wool in great quantity, from the different Arab tribes, each of which has extensive flocks; also ambergris, sal ammoniac, leather, buffalo hides, oil of naphtha, bitumen, salt-petre, salt, borax, and glass, made at Bagdad; where are manufactured coarse coloured cottons, and fine handkerchiefs of silk and cotton for the Arabs.

"Bagdad was the centre of a considerable caravan commerce previous to the late disturbances, when it sent annually even as far as Erzeroum, 2,000 mule loads of pearls, silk, cotton, stuffs, shawls, coffee, gall-nuts, indigo, &c., and still more to Mosul, Diarbekir, Orfa, &c, and to Aleppo even at this moment, from 3 to 6,000 animals yearly, but 80 years ago, this number was said to be 50,000.

* By railway, the entire distance from Seleucia to Ja'ber Castle is estimated at 80 miles.

" Bagdad, from its matchless situation, would, with the slightest fostering care, become a grand centre of English, Arab, Persian and Eastern commerce; and nothing is wanting to distribute it widely, and increase it greatly but the estabishment of steam."

" The imports to Bagdad are from the Persian Gulf; pearls and fish.

" From Persia: Silk, woollens (coarse), saffron, sulphur, nitre, dried fruits, shawls of Cashmere, Kerman and Yezd; stuffs, cotton, gum-rahabat, fur-skins, tobacco and pipe sticks.

" From India: Muslins, porcelain, indigo from Bengal, Guzerat, and Lahor; cottons, pepper, spices, cinnamom, nutmegs, Java and other sugars; musk, cardamons, cotton and silk from the coast of Coromandel, aloes, camphor, &c.

" From Turkey: Soap, cotton, linen, silks, embroidered stuffs, opium, and copper, about 450 tons annually.

From Arabia: Incense, myrrh, galbanum, resins, gums and other precious drugs, also Mocha coffee, in quantity across the Peninsula, to go on to Constantinople and elsewhere.

" From Europe, Egypt, &c.: (A part across the Desert from Damascus, but chiefly by way of Aleppo.) Bagdad receives cotton twist, grey cloths, and prints, grey-calicos, long-cloths, Greek-stripes, power loom sheetings, jaconets, cotton handkerchiefs, all English,) fine French or German cloths; cutlery, lead, tin, and St. Domingo coffee, also indigo, and cochineal, velvets, satins, taffetas, mercury and drugs.

" The chief outlets from Bagdad as a depôt are to Constantinople: — Cashmere shawls, aloes, ambergris, musk, pearls, coffee, tobacco, spices, pipe sticks, and Indian muslins.

"To SYRIA AND ANATOLIA: Are forwarded silk, tobacco, shawls, gall nuts, coffee, stuffs, and drugs.

"To PERSIA: Diamonds, rubies, emeralds, pearls, European stuffs, brought over the desert from Aleppo and Damascus: also Aleppo cloths, coral, paper, jewellery, cochineal and indigo.

"To ARABIA AND INDIA: Silver, gold, copper, dates, horses, and oil of naphtha for painting.

"Thus it appears that imports continue to a considerable extent notwithstanding all the difficulties and distance by which they are transported with caravans, and as there are pretty ample returns, it is evident that if ever the noble stream should be used instead of a caravan transport, there will be an increase and consumption proportionate to the comparative cheapness of the supplies, and the great facilities offered for placing depôts, by water, at every convenient spot: this done, a few years will most likely see the Arab's wants increased to something like those of other people; and in making larger purchases, they will discover how to reimburse the expense, by cultivating cotton, grain, wool, &c., more extensively than they now do."

"It is worthy of the consideration of government, whether the proposed attempt should not be made, not only with a view to Mesopotamia chiefly, but the trade of Persia, now carried from Bushire to Erzeroum, more than 2000 miles; whereas by attending to Erzeroum as one great centre, dependent on Trebizond and the inlets of the Euphrates and Karoon, we shall increase it prodigiously; and command the profits, which if neglected will flow into the coffers at Tiflis; where they are building extensive manufactories expressly to force goods into Persia, and attract its trade towards Russia."

"With this Power and her persevering endeavours to

grasp at commerce, we can also compete, as regards Persia, by another line, viz., that of the Indus."*

The official returns of the existing commerce of Mesopotamia, demonstrate that there is a most promising field for commercial enterprise.†

In the statistics of the ancient and modern commerce of these countries, contained in the second volume of General Chesney's work, on the Euphrates Expedition, will be found ample materials for the satisfaction of our merchants, as to a certain rapid and extensive increase of their operations.

The trade of Turkey-in-Europe, Asia Minor, Mesopotamia, and all along the proposed Line to Bussorah, is of great importance, and only requires a ready means of transit for its rapid development. The success of the English and Austrian Steam Companies on the line between Constantinople, Smyrna, and the coast of Syria and Egypt, is a strong proof that the resources of these countries merely require an outlet. The Mahommedans are now quite alive to the importance of rapid locomotion—be it by railway or steamers. The tedious mode of transit by caravan is nearly at an end, whenever a quick mode of transport is available.

The countries to be traversed by the railway are rich in minerals, but have as yet been only partially explored with a view to their development.

This enterprise possesses in the opinion of those personally acquainted with the country and its resources all the elements of a highly remunerative character.

1st.—From the country presenting great facilities for

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* Report of Captain Chesney in 1832, addressed to Sir Stratford Canning, G.C.B., Ambassador at Constantinople.

† See pp. 674—686 Vol. II. of the Expedition to the Euphrates and Tigris, by General Chesney.

the construction of a railway, being a succession of extensive plains traversed by low hills, between Antioch and Aleppo, and from Aleppo to Ja'ber Castle, a distance of thirty-nine miles, a perfect level.

2nd.—From the neighbouring mines of Marash having supplied iron of excellent quality to the Euphrates expedition. From an inexhaustible supply of timber of the finest quality for building purposes, sleepers, &c., being obtainable from the forests near the old Port (Seleucia) and Scanderoon, and from there being also large quarries of stone on different parts of the line, with an abundant supply of bitumen and timber for fuel.

3rd.—From the first section of the line being of moderate length, and complete in itself, having a port on the Mediterranean at one end, and a terminus on the Euphrates at the other.

4th.—From the line from Seleucia to Ja'ber Castle, forming of necessity the most important portion of any system of improved transit, which shall follow the course of the valleys of the Euphrates and Tigris.

5th.—From the country below Ja'ber Castle to the head of the Persian Gulf affording every facility for the extension of the railway.

6th.—From the clearly proved statistical returns of the former trade and commerce of the country, its vast natural resources and manufactures, and the extensive transit trade which was formerly carried on between China, India, Persia, Armenia and Arabia with Europe, and especially with Great Britain, which has been greatly diminished by political causes, but which would speedily be revived, and from the conviction that the commerce of Great Britain with Central Asia, China, &c., instead of seeking, as at present, a costly and circuitous route by the

Volga and the Caspian, would return to its natural, its more direct, and its most ancient channel.

From the obvious political and commercial importance of this, the most direct route to our Indian possessions, the Directors have reason to believe that they will receive from Her Majesty's Government, and the Honourable East India Company that countenance and co-operation, which is essential to the carrying out, with success, a means of communication which would reduce the time occupied in the journey by nearly one-half between this country and its empire in the East.

THE

EUROPEAN AND INDIAN JUNCTION TELEGRAPH COMPANY LIMITED.

(FROM SELEUCIA TO THE PERSIAN GULF.)

(Uniting the Lines of the English and Continental Telegraph Companies with the electric cable of the Honourable East India Company, from Kurrachee to the head of the Persian Gulf.)

Offices, Gresham House, Old Broad Street.

TO BE INCORPORATED BY ACT OF PARLIAMENT.

CAPITAL £200,000, IN 20,000 SHARES OF £10 EACH.

(Deposit, 10s. per Share.)

(WITH POWER TO INCREASE.)

The Directors feel assured of obtaining a Concession from the Ottoman Government, with the necessary powers and privileges. From the arrangements now in progress, a settled income may be expected on the Capital of the Company.

Chairman.

W. P. ANDREW, Esq. F.R.G.S.,
Chairman of the Euphrates Valley Railway and Scinde Railway Companies.

Directors.

WILLIAM AINSWORTH, Esq., F.G.S., & F.R.G.S., late Geologist and Mineralogist to the Euphrates Expedition.
PHILIP ANSTRUTHER, Esq., late Secretary to Government, Ceylon, and Deputy Chairman Ceylon Railway Company.
SIR FREDERICK L. ARTHUR, Bart., Director of the Euphrates Valley Railway Company.
HARRY BORRADAILE, Esq., late Bombay Civil Service, and Director of the Euphrates Valley Railway Company.
SIR JAMES CARMICHAEL, Bart., Chairman of the Submarine and Member of Council of the Mediterranean Telegraph Company.
GEORGE B. CARR, Esq., 5, Lawrence Pountney Place.
COLONEL A. COTTON, late Chief Engineer, Madras.
THE HONOURABLE J. CADWALLADER ERSKINE, Chairman of the London and Eastern Banking Corporation.
CAPT. H. B. LYNCH, C.B., I.N., late commanding on Euphrates and Tigris.
SIR JOHN MACNEILL, LL.D., F.R.S., Engineer-in-chief of the Euphrates Valley Railway Company.
SIR T. HERBERT MADDOCK, M.P., late Deputy Governor of Bengal, and Director of the Scinde Railway Company.
MAJOR J. A. MOORE, F.R.S., Ex-Director of the Honourable East India Company, and Director of the National Provincial Bank of England.
THOMAS WILLIAMS, Esq., Director of the Scinde, Euphrates Valley, and other Railway Companies.

Auditors.

G. G. MACPHERSON, Esq., Director of the Agra Bank.
J. EDMUND ANDERDON, Esq., Director of the Bank of London.

Bankers.

MESSRS. GLYN, MILLS, & CO. | THE OTTOMAN BANK.

Solicitor.

J. A. M. PINNIGER, Esq.

Secretary.

L. W. RAEBURN, Esq.

PROSPECTUS.

The Honourable East India Company has determined to lay a telegraphic cable from Kurrachee to the head of the Persian Gulf.

The Austrian Government has established a Company with the requisite capital, paid up and guaranteed by the State, for constructing and laying down a Submarine Electric Telegraph, in connection with its land lines, from Cattara, or Ragusa, on the coast of the Adriatic, touching at Corfu, Zante, and Candia, to Alexandria, and thence by Jaffa and Beyrout to Seleucia; and have just concluded a contract for the immediate execution of the work.

The Austrian Company gives to the English Government and the East India Company a priority over the public in transmitting their messages.

The European and Indian Junction Telegraph Company Limited is established with the view to continue the electric communication from Seleucia, along the line of the proposed railway, by Aleppo, Ja'ber Castle, and the valley of the Euphrates, to the head of the Persian Gulf, thus completing the only remaining link between India and England.

The English Government will soon be able to communicate with Malta and Corfu, by a line to those islands from Cagliari in the Island of Sardinia, to which point the Mediterranean Electric Telegraph is advanced.

From Cagliari, the French and Sardinian Governments will have direct telegraphic communication with Alexandria and the East.

All parts of India are or are about to be brought in telegraphic communication with Kurrachee, and the cable from thence of the East India Company, to the head of the Persian Gulf, with the wires to be laid down by this Company will bring India by nearly 2,000 miles nearer England and the continent.

When the Submarine and Indian systems meet at Seleucia, the connection between the East and West will be complete, and England, the Continent and India be in hourly communication.

From the arrangements contemplated, it is certain that the best and safest telegraphic routes will be secured to this country.

The Austrian Government has most strikingly evinced its interest in this great undertaking, and its desire to maintain the position as the medium of communication between other nations, by undertaking the completion of so large a portion of the line.

The British Government and the Honourable East India Company duly appreciate the power of supervision and control put into their hands by the telegraph, binding together in one the isolated and distant dependencies of the Empire, and are prepared to extend their countenance and support in a fair and liberal spirit.

The merchant and the ship-owner are well acquainted with the inestimable value to them, of the power of imparting and receiving prompt information. It is well known that heavy loss has been suffered by the Indian mercantile community, through the non-receipt of immediate news of the adoption of the Austrian propositions for peace. The heavy contracts made in Calcutta and Bombay in January last for oil seeds, jute, and saltpetre, would have been prevented by a single message.

But the grand source of revenue will be derived from the

constant desire to communicate which is felt by members of families when at a distance from each other; and when it is considered how many thousands of families in England have some near relative in India, the revenue, it is believed, from this source alone, will be very large.

From the most reliable data that can be collected, the Directors feel confident that, besides the pecuniary assistance that may be expected from Government and the Honourable East India Company, a highly remunerative return may be expected on the capital embarked.

The Directors have the satisfaction of stating, that they have secured the valuable co-operation and assistance of Mr. John Watkins Brett, the inventor and projector of the Submarine Telegraph.

Mr. O'Shaughnessy, superintendent of telegraphs in India, having already laid down in that country 4,000 miles of electric wire with extraordinary economy and success, and as the cable in connexion with the Indian system is about being carried from Kurrachee to Kurnah at the head of the Persian Gulf under his supervision, an application has been addressed to the Court of Directors of the Honourable East India Company with the view to secure the advice of this eminent and successful officer to this Company, so as to insure uniformity of design and management throughout, from Calcutta and Peshawer, Bombay and Madras to Seleucia. The Honourable Court have already intimated that they "would have no objection to the experience which he (Mr. O'Shaughnessy) has acquired in India being made available for the line through Asiatic Turkey."

"The electric telegraph is the most beautiful and surprising invention of the age, and nothing is more interesting than to learn its rapid progress and wonderful results. The telegraphs of America are surpassed in length, solidity of construction and cheapness of working, by those which

within the last few years, while we at home have been debating and fighting on the Eastern question, have been carried over the length and breadth of India. From Calcutta to the Indus, to Bombay, to Madras, the messages of Government and individuals are speeded in a few hours at a cost comparatively trifling. Ceylon is to be united to the mainland, and the time is already looked upon as near when the telegraph will cross the Mediterranean, run along the Red Sea and the coasts of the Indian Ocean (or rather by the Euphrates and Persian Gulf), and unite London and Calcutta in hourly communication. We cannot doubt that this work will be soon achieved, and that no very long period will elapse before the wires extend to Canton and Shanghai, and perhaps, running from island to island, will stretch on to Sydney and Melbourne, and the great settlements of the antipodes."—*Times, June* 16, 1856.

No call will be made until the concession has been secured by the Firman of the Sultan, and the other arrangements contemplated by the Directors are completed.

From WILLIAM AINSWORTH, Esq., F.G.S. and F.R.G.S., to W. P. ANDREW, Esq., Chairman of the European and Indian Junction Telegraph Company.

13th August, 1856.

DEAR SIR,

I have much pleasure in transmitting to you my ideas upon the subject of telegraphic communication from Seleucia to the Persian Gulf, along the Valley of the Euphrates.

In doing so, I must premise that my acquaintance with the countries to be traversed is not only derived from explorations made as Geologist and Mineralogist to the Euphrates expedition under General Chesney, but also from opportunities subsequently afforded to me when in charge of an expedition sent to the same and neighbouring regions by the Royal Geographical Society.

In the first place, then, it is to be premised that there exist no physical obstacles whatsoever to conveying an electric chain between the two points proposed. The country is throughout comparatively level, easy for access, with most of the materials of labour at hand. The utmost elevation of the line of watershed between the Mediterranean and the Euphrates, along the line of levels carried by the officers under the command of General Chesney, was 1,750 feet, with a very gentle ascent; and the height of the bed of the Euphrates, at the termination of the same line of levels, was 550 feet.

The rise of ground on the direct line to Aleppo is still less. There is a tract of hard limestone to cross on the line to Aleppo; but there are no mountains, rivers of any magnitude, ravines, or any other obstacles that are worthy of notice, to be overcome.

It is almost needless to add, that once the Valley of the Euphrates attained, there is an almost continuous and uninterrupted gradual descent to the Persian Gulf, The soft and friable rocks approach the river at but few points, and, with the exception of the basaltic ridge at Zelebeh, and a patch of hard limestones on the left bank at Annah, never attain an elevation much exceeding 100 feet; and the basalts leave a river-margin wide enough for several lines of railway.

Throughout, the same circumstances which give such unusual facilities to the prolongation of a line of railway along the Valley of the Euphrates, naturally also apply themselves to the prolongation of a line of telegraphic communication.

The difficulties which present themselves are solely such as may be anticipated from the semi-barbarous condition of the people inhabiting the country, and these I believe to be very generally exaggerated.

Almost all possible accidents would be anticipated, were proper precautionary measures adopted.

The precautionary measures I allude to would be, first, the support of the Ottoman Government, and of the local authorities; and secondly, the countenance of the Arab Sheikhs, which could be obtained by a very trifling subsidy, to be paid so long as the wire remained intact, and to be withdrawn or forfeited when it was injured.

This would be the cheapest kind of surveillance that could be obtained in the countries in question.

It would be further essential to explain to the Arab Sheikhs the nature of the objects proposed.

They would explain the matter again in their own way to their followers, and it is a great mistake to suppose that the Arabs would not be open to such an explanation (although not expected to understand the *modus operandi* any more

than a European peasant), and that they would not be influenced by the moral obligations imposed upon them.

The immediate object of such explanation would be to more particularly do away with all suspicions or superstitious ideas, which might otherwise be associated with the laying down of a line of telegraphic communication.

There is every reason to believe, however, that the simple statement, that the Electric Telegraph was used to convey the messages of the Sultan, would protect it from all accidents.

Once the valley of the Euphrates attained, the population of its long banks are for the most part pastoral and agricultural.

The country is certainly exposed to the inroads of the Bedouin Arabs, but even then I do not believe the Arab to be wantonly destructive.

The existence of so many and of such extensive remains of olden times scattered over their country, attest to the contrary.

There are medieval castles in the Valley of the Euphrates claimed by no one, and untenanted, yet which are in part inhabitable to the present day. Nesjm Kalah is a remarkable instance of this kind. Inscriptions on dry mud have existed untouched from the days of the Caliphs. The habits of the Arabs leading them to disdain stone for building purposes, edifices of olden time are much less injured among them than they would be elsewhere. In what other country would a Palmyra be found abandoned to the first comer, yet almost unscathed?

The Euphrates Expedition left two or three guns at Port William, in 1836. The natives respected them so far that Hafiz Pacha used them in the defence of Birijik in 1839.

I have seen a small collection of Roman coins, in an Arab tomb, at Balis. The people had found them; they did not know what to do with them; yet they did not wantonly

throw them away. They had belonged to some departed race, they would consecrate them then to their dead. Examples of this kind might be almost infinitely multiplied.

In case the system of subterranean wires is adopted, it would require the same precautionary measures to be taken as in the case of a line upon posts, but it is evident that the wires would be far less exposed to accidents.

A line from Seleucia by Aleppo to Balis would connect itself by the Valley of the Euphrates with the projected Railway at Ja'ber Castle, at Aleppo, at Seleucia, and, if deemed advisable, at Antioch, so as to answer all the purposes of the Railway; and for the remainder of the distance along the Valley of the Euphrates and Tigris, it would probably follow the same route.

A third plan of carrying an Electric Telegraph presents itself along the Valley of the Rivers Euphrates and Tigris, different from those before alluded to, and that is along the bed of the rivers.

The advantage gained in distance by saving the bends of the river, and which would amount to probably about one-fifth of the whole distance, point to a line of Telegraph on posts, or to a subterranean cable, as being preferable to a fluviatile one. The soil of the Valley of the Euphrates is peculiarly adapted for the latter system, being for the most part river alluvium, and when not so, composed of soft and friable rock formations (marls, gypsum, and red sandstones), easily cut, or through which tunnels could be bored with great facility.

There is nothing, indeed, in the Euphrates Valley that will compare for a moment with India or other countries through which Electric Telegraphs have been carried, dependent or independent of Railways. Nature has positively left there a great open gap, with almost unexampled facilities for all such undertakings, whether Railway or Telegraph.

From the parallel of Aleppo there are no glens, ravines, or narrow, precipitous, rocky passes whatsoever. Rocks abut upon the river at a few points, but only so as to leave a margin for many lines of Railway or Electric Telegraph.

It is to be presumed that the Telegraphic cable, upon reaching the alluvial plains of Babylonia, a little above Felujah, will be carried across that plain to Bagdad, in consequence of the importance of that place as a commercial emporium.

For this brief distance no more difficulties would present themselves than elsewhere to a line on posts or to a subterranean cable.

But whether the Valley of the Euphrates is followed south of Felujah, or that of the Tigris, south of Bagdad, it may remain a question if it will not be advisable to carry the cable thence forward along the bed of either river, on account of the existence of extensive tracts of marsh, which would necessitate a line of posts, or a subterranean cable being carried at certain points at a distance away from the banks.

In the latter case the Tigris presents some slight advantages over the Euphrates, in having for the greater part of its course firmer banks.

In conclusion, however, as far as my own experience goes, and after a careful consideration of the subject in all its bearings, I do not see any reasons why, under ordinary circumstances, a common Electric Telegraph of insulated wires, suspended in the air upon posts or standards of wood, iron, or stone, should not be adopted for the whole length of the line projected.

I have the honour to be, &c., &c.,

(Signed) WILLIAM AINSWORTH,
F.G.S. and F.R.G.S.