

INDIA AND RUSSIA.

THE

SCINDE RAILWAY COMPANY:

•

ITS ORIGIN AND POLICY.

BY

HARDY WELLS, C.E.,

ORIGINATOR OF RAILWAYS IN SCINDE.

VINOT VERITAS.

LONDON:

J. & F. N. SPON, 48, CHANCERY CROSS,

1869.

LONDON, PRINTED BY W. CLOWES AND SONS, STAMFORD STREET AND CHURCH LANE

John Steady Esq
From the Author,
with his Compliments and
Respects

EXTRACT.

"I AM strongly impressed with a sense of the great obligation which the Province owes to you for having originated the design of the Railway and of the Harbour improvements, the two great works on which the future commercial prosperity of Sindh must, in my opinion, mainly depend."

JL. BARTLETT M. FRIDRIK,
Commissioner in Sindh.

30th May, 1857.

[Illegible handwritten text]

A LETTER

TO

HIS GRACE THE DUKE OF ARGYLL, K.T.,

(SECRETARY OF STATE FOR INDIA IN COUNCIL,)

&c., &c., &c.

BY HARDY WELLS, C.E.,

Originator of Railways in Scinde.

THE
SCINDE RAILWAY COMPANY.

TO HIS GRACE THE DUKE OF ARGYLL, K.T.,
SECRETARY OF STATE FOR INDIA.

MY LORD DUKE,

It is a duty I owe to your Grace, as Secretary of State for India, and to the Government of India; it is a duty I owe to a province of India in which I laboured hard for the Government for several years with acknowledged benefit to the State; and it is a duty I owe to myself and those dependant upon me, that I should do myself the honour of addressing the following remarks to your Grace in reference to a letter of Mr. W. P. Andrew, Chairman of the Scinde Railway Company, which has appended to it a letter from the Chief Engineer who superintended the surveys to determine upon an Indus Valley Railway, which letters are dated, respectively, the 5th day of June, 1869, and the 1st day of February, 1869.

In 1853, being in the employ of the Indian Government as an Engineer, I first commenced an agitation for the introduction of Railways in Scinde. I had well observed the unsafe navigation of the Indus; I was all for Railways, and nothing but Railways. My proposals got into the hands

of the present Chairman of the Scinde Railway Company, without my consent being asked, and at the first annual meeting in 1856, to my utmost astonishment and surprise, that Gentleman thus laid down *his* policy :—

“I desire, in short, to bring practically into operation the system of Railway communication in India, which I advocated in 1846, in reference to the construction of Railways in another part of the Indian Empire—the Bengal Presidency—namely, to make use of the navigation of rivers when practicable, and as it were to supplement, where water transit becomes defective, the grand natural highways which Providence has made for the use of man by the assistance of the Railway (hear).”

In a book, published the same year by Mr. W. P. Andrew, entitled ‘*Euphrates Route to India*,’ p. 15, the policy is again described in the following words :—

“*Same kind of improved transit alike applicable to the Valley of the Indus and to that of the Ganges.* Turning from the Valley of the Ganges to that of the Indus and its tributaries, I would recommend precisely the same mode of introducing improved transit, substituting Hyderabad for Rajmahal, and Mooltan for Allahabad. The Railway from Kurachee to Hyderabad will, as formerly explained, avoid the dangers and delays of the Delta, and debouche on a point of the river, above which there is permanently open navigation for 570 miles to Mooltan.”

Being the Advocate and Originator of *Railways* in Scinde, I objected to the policy of the Chairman in every way in my

power, because I know such a policy could only end in ruin to everybody concerned. At the second meeting of the Scinde Railway Company, Mr. W. P. Andrew had grown in confidence; he gave a short definition of his "*system*," and proclaimed it was to be known as "Steam by Land and Steam by Water." Mr. W. P. Andrew was not without supporters—his success naturally commanded them—but to him is mainly due, in opposition to my opinions, the introduction of the system that I maintain, and will show, has crippled Scinde and all the countries supplying trade thereto.

While this policy was being pursued in England, it was necessary that an Agent should be sent out by the Company, who would support it in India, and in due course one arrived. He was not long in showing what his policy was to be towards the Projector of Railways in Scinde, and he soon publicly stated he was there as the Advocate of "Steam by Land and Steam by Water"; so on May 7, 1857, he stated:—

"I am well content on the part of the Railway Company with the river trade. It must be remembered that an essential part of the Scinde Railway Company is the establishment of efficient steamers between Kotree and Mooltan. The distance by rail and river from Lahore to Kurachee will be 870 miles, the first-class fares probably Rs.150, and the time consumed, seven days. The distance from Lahore by Mirzapore to Bombay, if there were a continuous line, would be 1600 miles—first-class fares Rs.150, and the time for a person sufficiently strong to bear the fatigues of continuous

travelling, three days. The line to Agra from Bombay is not sanctioned. The line from Delhi by Umballah to Lahore is not under construction, the Company having totally failed to comply with the conditions laid down by the East India Company. Before either of these works is completed, a line of steamers from Kurachee to Suez will decide the preference of easy cabins on board a steamer."

It will be observed the Agent argued upon the *down* trip of the Indus as *five* days. The Consulting Engineer, after all the money spent and improvements made, now gives 20 days *up* and $9\frac{3}{4}$ days *down* as the required time, but with the reserve that it is the "*average*," and in that average is included a *down* trip I made in 1862, which took 26 days, with troops on board.

I am bound to do the distinguished Gentleman, who now occupies the position of Consulting Engineer, the justice to say, if he had been in that responsible position in 1857, the policy pursued at that time would never have been carried out, or, if it had, he would not have held that position now. The Engineer and the Flotilla Agent say, they have got all the river traffic—"very few boats now pass down below Kotree." Is the Company "content"?

All "means" have been given to "command the end"; they have done all that the most lavish expenditure of money could do; steamers, tried in England and approved, have been sent out and condemned; others have been sent out, but never floated on the Indus, but cast away on the Keamaree beach; and yet the Consulting Engineer says the

earnings of the Railway^{*} are only 20*l.* per mile per week. Your Grace may ask, Why should it be so? My answer is, what it was to the Company in 1856,—“*The river is not the route of the traffic of the country!*” •

I based my advice upon personal knowledge and a study of Captain Wood's I. N. reports to Government, in which I found:—“The river Indus, after it passes the latitude of Hydrabad, undergoes an annual elevation in the level of its waters; but the swell does not reach such a height as to produce the effect of inundation in any degree. In this particular the Indus differs from the Ganges and from the Nile, and resembles the Euphrates, or perhaps more closely the Tigris. *Such difficulties have caused the merchants of the country to abandon the line of the Indus, and to transport their goods by the land routes.*”

Before I left Scinde, I begged the Agent, publicly and officially, to condemn the policy of “Steam by Land and Steam by Water,” for if he did not, he would give Mr. W. P. Andrew bitter cause to regret its future failure. I warned him the Indian Government would some day say:—“We wanted you to attract the traffic of the Punjab, the North-West Provinces, and Central Asia; *you refused*; you cannot blame us for not rectifying your error: you have even made your line so as to exclude the trade of Central Asia from it; it keeps its old route, and finds its slow way along the common road. Look at your Mooltan and Lahore Line; it is now an excellent feeder for our Bombay (and Calcutta) Line; it should have been so to your own. You do not

suppose passengers will come across from Aden to Kurachee and be thirteen days ascending the Indus, when they can come to Bombay and proceed in three days to their destination at *less cost; the times have gone by when the public will pay Rs.4 per diem for lodging in a bow at the top of a flat on the Indus.*"

Was I right? What is the result? Mr. W. P. Andrew for six years has been begging in vain for permission to extend Railway communication up the Valley of the Indus. He sees the system almost drifting from his grasp. He has listened to the advice of those who have assisted in the policy *that has not paid*. The Projector of the policy *that will pay* should have been "*sent for*"; in him the Company would have had a true adviser. The Consulting Engineer now states, to confirm my views of 1856:—

"Indeed (with the exception of officers in command of troops), official persons possessed of facilities for travelling along this route appear to shun it, and prefer to go to England *via* Calcutta" (or Bombay).

What more bitter reflection can be cast upon the policy of "Steam by Land and Steam by Water"?

There was still another reason Mr. W. P. Andrew gave in support of his policy of "Steam by Land and Steam by Water." He said it was to be such a *great financial success*; declaring that though he wished a guarantee upon the capital to procure steamers for the Indus, yet such a matter was a mere nominal thing, for the "shareholders might depend the least interest they would receive upon their

venture would be '25 *per cent.*;' and now the very parent of that system, over which Government have spent nearly ten millions sterling, has the boldness to tell your Grace, "*it is feared it will remain a burthen to the revenues of India.*"

The result to me for opposing the policy of the Chairman may be easily imagined. My Lord Duke, my professional prospects were ruined for life: but though poor, while he and his coadjutors are rich and prosperous, it is my *duty* again to advocate my views, and proclaim, *their* policy has wasted millions to the State; and now Mr. W. P. Androw, and those in his employ, wish to avoid the appearance and acknowledgment of failure in the "Steam by Land and Steam by Water" principle, by making out to your Grace that the line laid down from Kurachee to Kotree is a necessary part of an Imperial Line of Railway up the Valley of the Indus.

My Lord Duke, I assure your Grace it is no such thing.

In 1856 the Government of India required me to lay plans before them of such line of Railway as they should consent to. I did so. I stated in my reports:—"If you only wish a *Local Line* to be made connecting the Indus with the Port of Kurachee, then go to *Ohilkya*, the shortest connecting line that could be made with a good river bank. If, on the other hand," I stated, "you want to make part of an *Imperial Line*, which is hereafter to be extended towards the Punjab, and carry the trade of Central Asia, the proper line to make is one from Kurachee to *Sehwan*." I was opposed, as will be understood, to any main line making Kotree

one of its termini. The contract of the Government with the Scinde Railway Company was submitted to the law officers of the Indian Government, and upon the clause which stated the "Line was to go from Kurachee to a place on the Indus to be hereafter determined," gave the opinion the line could be taken to Sehwan or any other place.

The Company was powerless and the Agent was powerless to give orders in India contrary to the wishes of the Government. The Government said:—"Only show us by comparison you propose to go to the best place, and one we can therefore approve, and all will be right." I did so; but when I entered upon the inquiry, I never dreamt or heard of the Chairman having a "*system of his own*."

My position was one of great and unenviable delicacy. When sending my schemes home, upon which the Scinde Railway Company was formed, I most especially begged that a reserve should be made as to the place on the Indus to which the line should go; because I was certain the Government would require a full inquiry into the matter. My Railway propositions were at the time under comparison with a canal scheme being worked up by the late lamented Lieutenant Chapman, R.E., whose very death, poor fellow, should have been a warning, for he was drowned by a native boat he was travelling in down the Indus striking a *sunken snag*. If I had *fixed* upon Kotree, Jerruck, or Chilkyā, there was the canal scheme *against me*. If I had *fixed* upon Sehwan, the advocates of the canal would have

said :—" Oh, this is a greater inquiry than contemplated; let us carry on the canal while it is being carried out." I went upon the great general principle that "*Seinde wants a Railway right through it, to open up the country.*"

In due course my reports came to be reviewed. The late lamented *General John Jacob* was Acting Commissioner in Seinde; he declared I was right, stating, in reference to the *Schwan Line* :—

"I have been along it at all times of the year, and there is nothing to prevent its being made."

General H. B. Turner, R.E., the Chief Engineer and Acting Consulting Engineer, stated :—

"If it is ever intended to extend the Seinde Railway, the line should be taken to *Schwan*, and no other line should be thought of."

General C. W. Tremenhore, R.E., Acting Consulting Engineer, not taking so enlarged a view of the matter as Generals John Jacob and H. B. Turner, with great caution, said the line should go to *Ohilkya*.

The Government of Bombay and the Government of India both approved my recommendations, but it was opposed to carrying out a "Steam by Land and Steam by Water" policy; and my honest convictions and opposition to such a policy have been an irreparable loss to me. Now, the utter break down of the "Steam by Land and Steam by Water" system has been made so apparent even by its Author, it is to be hoped my day of something besides rejoicing has come. The Railway Company will surely *recompense* me for

the injustice done me, and Government will *generously* consider the sacrifice I made in endeavouring to save the waste of public money which has taken place in Scinde.

Mr. W. P. Andrew states, with bewailing blame, in the 13th page of his letter :—

“The greatest disappointment has been felt both at home and abroad at the silence which Government has hitherto observed on this vast and most important subject; and the more so, that the fact of Government having authorized the surveys in 1863, had raised the hopes of all interested in the projected undertaking.

“It is to be deeply regretted that the statesman-like policy which was the motive power of the important steps then taken should not have been adhered to, and that a work which had already been too long delayed should have been thus further deferred.”

There is a strong tincture of injustice in these remarks. Permission was given for the surveys in 1857, as is shown in General John Jacob's letter, at the end of this communication. I might *then* have surveyed the country from Kurachee to Cashmere, or Herat, if I had thought it necessary to determine the best route for an Imperial Line of Railway up the Valley of the Indus. The Persian war *was on*, and there was talk in high army circles of a force going by the Bolan Pass. Who stopped the work being done? Who “*delayed*” the work? Who stopped the “*statesman-like policy*” I wished to pursue, and the Government of India sanctioned? These are serious ques-

tions your Grace must ask, and the answer will quickly occur, —*It was* the policy of “Steam by Land and Steam by Water.”

I fear very much Mr. W. P. Andrew, while he *deeply regrets*, as I am sure he sincerely does, not *now* being empowered to carry out *my* Railway system up the Indus Valley, does not reflect whether the public and the Government think he has been sufficiently in earnest in wishing for a new policy. If, even in 1863, he had boldly acknowledged the faults of his former policy, stopped expenditure on the Kotree Line and the Indus Flotilla, things would have looked differently. There has always seemed to have been a sweet attraction to the Company in the old course, which did not mature in the new one.

Again referring to Mr. W. P. Andrew's advocacy of the “Steam by Land and Steam by Water” system, allow me to draw attention to the following passage of his letter at page 3:—

“I have said that from Kotree to Mooltan the communication is maintained by means of the Indus Steam Flotilla, but in spite of all the efforts which have been made to render this mode of communication with the Upper Provinces as perfect as possible, the shallow, shifting, treacherous nature of the river Indus makes it inefficient, uncertain, unsafe, costly, and—even under the most favourable circumstances—quite inadequate to accommodate with punctuality and dispatch the requirements of Government, the necessities of commerce, and the demands of an important Railway system.”

Your Grace will hardly conceive it possible that the foregoing remarks were written by one and the same person who *forced* from the Government a guarantee of five per cent. upon capital for navigating the Indus, but who now states in his letter to your Grace, that for "fourteen years" he has advocated an Indus Valley Railway. In 1856, directly I heard of the policy then being advocated by Mr. W. P. Andrew, I wrote to him nearly similar words to those I have quoted. My opinions and my warnings went unheeded by that gentleman in his temporary success. "I have a *system*," said the Chairman; "it must produce a wonderful success." I had previously, at a public meeting at Kurachee, presided over by Mr. (now Sir Bartle) Frere, stated that everybody would be ruined who attempted to navigate the Indus at a profit.

The *Indus Flotilla Company* enjoys a five per cent. guarantee; but let the poor ruined shareholders of the *Oriental Inland Steam Navigation Company* say, if my warning was not based on truthful observation.

If the Indus Flotilla Company is a success, why is it not continued to perpetuate the system of "Steam by Land and Steam by Water"? If, on the other hand, it has proved a failure, as I know it has, let it be honestly acknowledged, and some *justice* done *me*.

Assertion is not proof; let me therefore deal with facts, and look into the result of this "*system*" of "Steam by Land and Steam by Water,"—responsibility resting where it is due for the following sad results.

The Scinde Railway stands thus:—A lawsuit with their contractors, fully foretold by me, which has lasted ten years, the expense of which a capable authority has stated must fall upon the Company, with any damages given. A debt of 833,000*l.* for guaranteed interest, with a credit of 190,000*l.* Net annual receipts 23,398*l.*, to pay an annual charge of 101,533*l.*

The Punjab Railway.—A debt of 717,000*l.* for guaranteed interest, with a debit account or loan from Government of 328,000*l.*, making together 1,045,000*l.* Net annual receipts 24,645*l.*, to pay an annual charge of 99,676*l.*, or, with 5 per cent. interest on loan, 116,076*l.*

The Indus Flotilla.—A debt of 151,000*l.* for guaranteed interest, with a debit account or loan from Government of 236,000*l.*, making together 387,000*l.* Annual interest payable 29,038*l.* There is no return of any "*net annual receipts*" for this Company by the Government Director for Indian Railways; it may be assumed, therefore, the Company does not, as I said it never would, *pay its expenses*. If the Government were to offer all the property of the Indus Flotilla Company for sale to-morrow, that which has cost 593,683*l.* would not, I believe on good authority, fetch enough to pay the Government five shillings in the pound upon their debt! This is the Company that was to pay 25 per cent. profit. The foregoing is the result, which cannot be disputed, to the Government, in reference to the Companies representing the system of "Steam by Land and Steam by Water"; but it is not all; it has added

upon the Consulting-Engineer's calculation at least 25 per cent. to the cost of the construction of the Punjab and Delhi Railways above what they would have cost as portions of a through Indus Valley Railway—and they would have been made in one-half the time. In this opinion I was supported by the late Mr. Stevens, Agent of the Punjab Railway. Who is to wonder, with these results, the Government contemplate taking the Railway out of the hands of the present Company, and constructing it under a different system?

But just look at what a crippling effect this "Steam by Land and Steam by Water" system has had upon the trade of Scinde. Between 1846-47 and 1856-57, the sea-borne trade of Scinde rose from 342,700L. to 1,419,187L.—in ten years it quadrupled itself. If we refer to the returns of shipping from 1857-58 to 1861-62, the time during which the Scinde Line was under construction, the average yearly tonnage of sea-going trade was, import and export, 110,000 tons; and between 1861-62 and 1866-67, during which the Scinde Line was open, it had only risen to 128,000 tons, and this includes the tonnage of considerable quantities of material for the Punjab and Delhi Railways. But the earnings of the Scinde Line clearly show that the shipping tonnage is not supplied by that line. It is made up of the trade struggling from the right bank and Central Asia down the common roads.

I consider these results make it clear that the failure of the policy pursued has done more to destroy the future prospects of private Railway enterprise in India than any-

thing in connection with them. In 1856-57 the wishes of the authorities were opposed, with the assistance of the Company's Agent, in the province in which he was going to carry on great works, which, as General John Jacob said, was "poisoning the very sources of success." The Agent opposed the Government of India—look at the result. Mr. W. P. Andrew opposes the authorities in Seinde again in 1869: under advice from his Engineer, he applies for a concession to carry on work which he knows is opposed to the opinions of the most able men now in the country. How stands this matter of the Indus Valley Railway?

The failure of Mr. W. P. Andrew's policy made the Government anxious to know how it could be rectified. In Seinde a commission was appointed, at the head of which was Sir William Merrewether, who has spent nearly the whole of his official life on the frontier, and is now Commissioner of Seinde; he recommends a line of Railway on the right bank of the Indus to Sukkur, and that it should be extended along the Derajat district to Dhera Ghazee Khan and to Mooltan. Here is the head of a province, politically and strategically the most important in India at this moment, one of the ablest military men in India, reporting to the Government upon the most serious question connected with the communications of the country; and Mr. W. P. Andrew, under the advice of the same Engineer, wipes out such an opinion by saying, it is a "gigantic blunder"; give me a concession for something else.

Then a Commission was appointed in the Punjab. No opinion whatever is expressed in their report to bear out Mr. W. P. Andrew's policy of the left-bank line; it only entered generally into the necessity of a Railway, which everybody must acknowledge. The Punjab Government never said the line was to go by Bhawalpoor. The dispatches of the Government of India leave it quite an open question—"They desire at once to cause all necessary surveys to be completed for obtaining a definite and final project." When "*negotiations*" are commenced with the Scinde authorities in reference to a line through Bhawalpoor, it is not unlikely, but rather probable, that the carrying a line throughout our own territory, and at a *saving of fifty miles of distance*, may appear preferable to going through a foreign territory, and may show that Sir William Merrewether and the Scinde Commission did not commit themselves to a "gigantic blunder."

Having then reached Sukkur or Shikarpoor, on the right bank, the line would be extended down to Sehwan, and then—what next? The authorities would choose a line to Kurrachee by a route which for many years has been a wheel-road,—*save another fifty miles of distance* rather than face the construction of a tunnel 6 miles long through the Luckee Hills and other formidable difficulties.

The Government Director has indicated this advisability in his report, when he says, in reference to the East Indian Railway, paragraph 58, "The completion of the Chord Line, which will be opened next year, will shorten the distance

between Calcutta and all places above Luckesora by 70 miles."

I said, and told the Company in 1857, that the system being pursued "would never add to our greatness, our comfort, our welfare, or our political safety in India."

Indeed, almost in Mr. W. P. Andrew's own words, I said, "We should seek to pursue a policy which will at once maintain our prestige, inspire confidence in those we have undertaken to govern, and at the same time forward their social, commercial, and political interests."

It is because Mr. W. P. Andrew did not pursue such a policy, that he has now to come to your Grace as a suppliant, and say, "Nearly every authority of eminence in India has borne official testimony to the importance of this line, on political, strategic, and commercial grounds."

They did so "fourteen years ago," and it was opposed by Mr. W. P. Andrew, or would now have been completed; and instead of writing comparative envious remarks respecting the East Indian Railway, profiting, as it largely does, by the Delhi and Umballah Line, he must know, had my advice been taken, the traffic of that line would now have been streaming down the Valley of the Indus.

The East Indian Railway Company said to Government in 1856, "*Let us push on our National Railway.*"

The Scinde Railway Company said to Government in 1856, "*Let us carry out a policy of Steam by Land and Steam by Water.*"

The two systems stand out, proclaiming the truth of suc-

cess and failure. What would now have been the state of the North-West Provinces, if the system Mr. W. P. Andrew has carried out on the Indus, had been carried out between Rajmahal and Allahabad?

Mr. W. P. Andrew and the Consulting Engineer take a most restricted view of this matter. They must prepare themselves, and the Government must prepare, for a much more serious feature of the case; that is, when the Oude and Rohilkund Line is opened on to the East Indian Line, the East Indian Line will *refuse* to take the traffic off the Delhi and Lahore Line. The trade of the Ganges Valley is in its minutest infancy. 6,000,000*l.* more money *must* be spent upon the main line. In a very few years four lines of rails, in perfect working, will not be competent to transport the produce of the country. It is going, with the aid of the Oude Line, to open up a country, where I *know, have seen, and told* the Government, thousands upon thousands of quarters of wheat and other produce rot on the ground after a run of full harvests—when wheat is selling in Mark Lane at 70*s.* a quarter. This is from want of the means of carriage. Sugar goes unproduced; cotton, growing like a weed, goes unpicked. Some people think it is the want of irrigation; it is not: when this means of getting produce away is perfect, and good common roads made, the Government *difficulty* will be to stop the construction of irrigating works, for then will come agrarian quarrels for the land. The study of Indian Railways by the light of the East Indian Line is a most intricate and tentative one, and requires the closest mental study,

from the multiplicity of its bearings. They are burthened with an inexhaustible blessing to the country, but they may also be laden with injustice. The East Indian Line will soon pay 10 per cent. interest; so would my Direct Indus Valley Line, had it been commenced in 1856, as wished by the Government of India, instead of being agitated for in 1869. As the interest increases, the Government will lower the tariff for traffic; indeed, the Company, without compulsion, will do so. Then we shall find, as now, in a different degree, one part of India favoured with cheap carriage for their produce, and another part with a maximum of charge upon their trade.

The Chairman of the East Indian Line stated in the House of Commons, they refused to construct the Delhi and Lahore Line; he said, "We did not want it; we have quite enough of our own business." In the light of self-interest they were justified in doing so, but certainly not in the light of Imperial policy. If the East Indian Line pays, say 10 per cent., and the Delhi Line pays 4 per cent., but the latter assists to make the East Indian Line pay the Government $2\frac{1}{2}$ per cent. profit above guarantee; how far will the Government be entitled to withhold a proportion of that $2\frac{1}{2}$ per cent., which might make the Delhi Line pay $5\frac{1}{2}$ per cent., and how far is it just that the carriage of the Lahore Line traffic should be only valued at a minimum tariff rate, because by other traffic combined the East Indian Line can pay 10 per cent.? I argue upon the Lahore Line, because I am quite certain the Rohilkund Line will, very soon after being completed, pay a surplus over the 5 per cent. guarantee.

Then, again, if it is going to be tried whether the Lahoro, Punjab, Indus Flotilla, and Scinde can be combined as one capital, the East Indian Line will naturally say, We do not mind being liberal to your Delhi shareholders, and assist the Government to divide with them some of our large surplus earnings; but surely you are not going to ask us to assist in raising your sunken steamers from the Indus.

If my Direct Indus Valley Railway had been commenced in 1856, the Chairman and the Consulting Engineer of the Scindo Railway must know that the two Railways between Calcutta and Kurachee would *now* have "*ceased to be on a different footing*"; and though I do not think the Direct Indus Valley Line would ever have proved as profitable, as a speculation, as the East Indian Line, yet I am satisfied it would have caused no pecuniary anxiety to the Government, as the present system is doing; and I firmly believe the two lines would have worked so harmoniously together, at any time one or the other found it necessary, from any executive cause or otherwise, that shippers would have sent 1000 tons or more to Kurachee or Calcutta, as they might have been asked. What a different picture is the reality; but I fear it will continue, unless Mr. W. P. Andrew and the Consulting Engineer will deal with the subject more in a manner which appears to me a "statesman-like policy."

In page 5 Mr. W. P. Andrew states, "A branch line will be required from Sukkur, *via* Shikarpoor and Jacobabad, to Dadur."

In page 7, in reference to the main line, he states the

routes which present themselves for choice are three in number:—

“1st. Entirely on the left bank of the Indus.

“2nd. Entirely on the right bank.

“3rd. On the right bank from Kotree to Sukkur (about half the whole distance), and crossing the river at Sukkur, thence to Mooltan by the left bank.”

I submit to your Grace that this statement deceives you; there is another route quite independent of all three, and it is the one which should and must be taken if justice is done to the poor tax-payers of India and the traders of Scinde and the Punjab. It is the line I recommended to the Government and Railway Company more than “fourteen years” ago, and which line was approved by the Government of India. It stands well the rub of time. “The line must start from Kurachee (Manora), proceed in the most direct way practicable to Sehwan, thence to Larkhand, where the trade of Central Asia coming through the Bolan Pass will be intercepted, then proceed to Shikarpoor, throwing out branches to Jacobabad and Sukkur, and eventually be carried on to Dhera Ghazee Khan, with a branch to Mittun-Koto to take in the trade coming down the Sutloj River.”

Route No. 3, sketched by Mr. W. P. Andrew, takes the line to Sehwan *via* Kotree, making the distance 197 miles, when by my line it can be reached in 147 miles. But it will be said the line to Kotree is made. Yes, *that* “gigantic blunder” has been committed, and the parents of it wish, therefore, to tax the trade of Scinde and the Imperial

trade of Central Asia with 50 miles of unnecessary carriage, and make a tunnel perhaps 6 miles long on the route. Or if No. 1 route is to be taken, the whole trade of Central Asia is proposed to be passed over the Indus above the Sukkur Rapids by means of a steam ferry. I should have thought the author of such a scheme had had enough of steam ferries over the Indus in the abortive endeavour to establish one at Kotree. Then the traffic, after being transported once across the Indus, is to undergo a repetition of the process at Kotree, by a gigantic bridge at that place, or, perforce, by another attempted steam ferry.

Then an objection is taken to my line between Shikarpoor and Dhera Ghazee Khan, because the line would "traverse a country annually flooded to a very great extent."

If your Grace will refer to page 70 of Mr. W. P. Andrew's book, before quoted, there will be found Mr. (Sir Bartle) Frere's opinion "that not a single engineering obstacle to such extension exists until you reach the hills of Kalabagh."

This was also the expressed opinion of General John Jacob, and it can only have been in utter forgetfulness of the existence and increasing success of the Bombay, Baroda, and Central India Railway, now spoken of by Mr. W. P. Andrew as a *competing line*, that any mention could be made of the "watershed of the mountain ranges."

As to any interruption to this line from the "lawless and unsettled character of the frontier tribes," that is a mere pleasantry. Government know full well they can trust that matter of police to the Scinde Horse and Lahore Light

Cavalry to answer for Mr. W. P. Androw and his Engineer's imaginary marauders. I am much afraid Mr. W. P. Androw's mind must have been acutely sensitive to the fear of the "wild tribes" engendered in the mind of the Engineer in charge of the surveys, for the "wild tribes" appear to have frightened him from surveying the line the authorities consider the best to be taken. In reference to one part where these "wild tribes" are supposed to exist, that is, nearly as far as Mittun-Koto, Colonel Sir Henry Green, in charge of that frontier, states:—"As an example of this (safety) I can state, that during the past year upwards of 20,000 camels, laden with valuable merchandize, passed through this country to and from British India with the loss of only two camels by theft, and these were recovered and the delinquents punished."

But the fear of the "wild tribes," according to the Engineer, has prevented all trade between Shikarpoor and Dhera Ghazee Khan; for he states there "is the certainty of no local traffic of any importance between Sukkur and Dhera Ghazee Khan."

There appears here to have been great, I should be sorry to say intentional, forgetfulness of a place called "Mittun-Koto," the exit port for the trade of the five Punjab rivers. It might be thought Dhera Ghazee Khan was a mere name to an isolated spot on the bank of the Indus, perhaps requiring, in the Engineer's mind, something more than "bush-faggots and rubble-stone" to keep it as secure as Kotree.

Let me, however, explain in the words of Lieutenant (now

Captain) Wood, and Agent of the Sindh Railway Company, and judge whether the Railway is only proposed to be taken into a country of Bozdar robbers :—

“ *Dhera Ghazee Khan* is situated about 4 miles from the river Indus, but in the swell, like most of the other towns upon that river, it has a large navigable canal, by which it may be approached by boats for some months. Dhera Ghazee Khan has, however, advantages that it will be difficult to set aside: the town lies at the foot of a pass in the Sooliman Mountains, that leads both to Cabool and Kandahar, while it is equally central with respect to the Indian routes. It is the largest town on the Indus, and even under the Seikh rule it wears an appearance of increasing prosperity. Its merchants, though they do not speculate largely, have an extensive agency, and a considerable command of money. *The country around yields heavy crops of grain and the staples of cotton and indigo*; while its home manufacture of silken stuffs, such as Gool-buddens, Timorus, &c., is only equalled by the manufacturing marts of Bhawulpoor and Mooltan. When to the above recommendations are added the fairs at Peer-Abdul and Sekh-i-Surwar, I believe that, everything considered, Dhera Ghazee Khan, or rather some spot in the vicinity, will alone be considered as the most eligible place to lay the foundation-stone of an Indian St. Meoreare. By a reference to the map it will be seen that Sekh-i-Surwar and Peer-Abdul are towns in the district of Dhera Ghazee Khan. At each of these places a large mālā or fair is annually kept. That of Sekh-i-Surwar occurs in the Indian month of Wy-

sakh, answering to our March. It is held in honour of the poer after whom the place is named. The fair lasts five days, and pilgrims from India's furthest shores come to prostrate themselves at the tomb of Sokh-i-Surwar; few come from the countries west of the Sooliman Range, and the followers of Brahma outnumber those of Mahomed; the aggregate of both cannot be much under 100,000 souls. Though commerce is not neglected, there is little business done: a Khorassan, or Affghan horse-dealer, may now and then exchange an animal of his stud for the productions of India or the manufactures of Europe; but this *mâlâ* is essentially an assemblage of devotional and pleasurable purposes. But with such a material, and the example of the holy Mecca, it is easy to foretell that, when the fair is established, many individuals in this annual concourse of devotees will become as enterprising merchants as they are now 'zealous and bigoted Fakeers.' "

There is another place higher up on the Indus which would contribute greatly to the traffic—it is *Dhera Ismael Khan*. The loyalty and enterprise of its inhabitants during the Crimean war is thus described in the '*Lahore Chronicle*':—

"*Dhera Ismael Khan* (on the Upper Indus) has not been far behind Lahore in celebrating the fall of Sebastopol. The official news was received with the greatest enthusiasm by all classes, and the inhabitants resolved to have illuminations, fireworks, &c. The bazaars of the city were brilliantly illuminated; every shroff and wealthy merchant displaying

from 1000 to 1200 lamps before his house, and other shopkeepers from 200 to 300 lamps."

As I have quoted Sir Bartle Frere to support the practicability of the northern portion of my line, I may, I think, with advantage quote that distinguished public man in support of the great importance of the cities on the Indus and their trade. He says, in reference to the Lohanee merchants, who I hope the Engineer will not confound with the fearful "*wild tribes*":—

"These men are the great carriers of the Affghan trade. They have their homes about Guzni, where they spend the summer. Since the trade *viâ* Tatta and the Indus was extinguished in the latter end of the last century, these people have supplied themselves with sea-borne goods *viâ* Calcutta. They descend the passes before they are blocked up with snow, between Guzni and the Indus, in vast caravans of eight or ten thousand souls—the whole tribe moving bodily—men, women, children, and cattle—their goods being on camels and ponies. Arrived in the *Derajat*, they leave the aged men, women, and children in black felt tents, with their flocks and herds in the rich pastures bordering on the Indus, while the able-bodied men push across the Punjab, with their goods for sale, either in that province or on the banks of the Ganges.

"Last year (1855) the first of this tribe came down to Kurachee, and told me they would soon all come that way; that they had no idea of its comparative shortness and other facilities. When I met them, they had shipped the wool

they had brought down from Guzni on board river boats at *Dhera Ismael Khan* and *Dhera Ghazee Khan*, and were taking their *unladen camels down to Kurachee*, expecting there to find return loads, with which they could go back to Afghanistan. A string of camels, numbering 5000, occasionally comes from Bokhara to Dhera Ismael Khan on the Indus."

These are the cities, the peoples, and the trade, that Mr. W. P. Andrew, directed by his Engineer, tells your Grace and the public it would be a "gigantic blunder" to go and attract to an Indus Valley Railway. But grant that this is Imperial traffic, and so in their minds beneath consideration, let us look more closely to Government documents to satisfy us there is no local traffic to make Mr. W. P. Andrew and the Government pause before deserting it for 120 miles of Railway through the wretched Bhawalpoor territory. I have not very recent Punjab Government reports, but by one in 1863 I find that in the *Derajat* "the area irrigated in 1859-60 was 68,148 acres; in 1860-61 it was 95,089 acres; and in 1860-61 there were 30,400 acres under cotton cultivation, and that 2,936,000 lbs. of cotton were *exported* of the quantity grown in the district"—double the quantity exported from Mooltan. "The cultivation of indigo in the Dhera Ghazee Khan district has increased so much, that the manufacturing apparatus has been found insufficient for the quantity;" and lastly, there was then a population of 910,696 souls, producing a land revenue of 113,000*l.* annually.

Here was a population one-half the whole of Scinde, through which the Engineer goes to get to Bhawalpoor, a

country the Government have no reason to assist, quite the contrary; and he turns from this garden of the Punjab with an exclamation which he could not have used decently if he had ever been to the neighbourhood of the city of the district, which is "*one of the most lovely spots in all India.*"

But just now your Grace hears a great outcry from Manchester; in that city the manufacturers and operatives call "Cotton, cotton!" "India, India!"

Your Grace might think, a gentleman who had been "fourteen years" learning India would be very cautious how he offended Cottonopolis; but let me see whether Mr. W. P. Andrew, under advice of his Engineer, does not run a great risk of doing so. The Derajat district, through which the Scinde authorities recommend the Railway to go, in 1860-61 exported 2,936,000 lbs. of cotton, which would have paid on my Railway 7300% for carriage to Kurachee. If I take the average increase of irrigated land from 1859-60 and 1860-61, and apply it to the amount of cotton exported, the Derajat district would in 1866-67 export 8,000,000 lbs., which would have paid more than 20,000% for carriage to Kurachee. *The 2,936,000 lbs. exported in 1861 is an official fact!* The Governor of the Punjab, in reference to the trade, stating, "he is himself disposed to think that, if a local demand were to arise, the production of cotton might be indefinitely increased;" and, again, so enterprising in 1861 were the natives of our own territory, that "the Commissioner of Peshawur reports that there is a disposition amongst the people beyond the border to obtain land for cultivation

within our territory. ²This is a satisfactory indication of the gradual change of habits which contact with our more civilized subjects is beginning to effect. Even more encouraging is the project of a frontier Zomindar, in the Dhera Ghazee Khan district—Mussoo Khan by name—to make a small canal from the Indus at his private expence.”

Then we turn to Mr. W. P. Andrew's favoured district, Bhawalpoor, and from his own letter I learn that in 1866-67, *after* the influence of the American War, there was produced “from 2219 acres 960,000 lbs. of cotton”; and among the articles *imported* into the district I find “cotton”!!

Here is, then, the Derajat district in 1860-61 *exporting* 2,936,000 lbs., and in 1866-67 by a generous calculation *exporting* 8,000,000 lbs. of cotton, and Bhawalpoor is *importing* cotton; the former district having in 1860-61 39,400 acres under cotton cultivation, against 2219 acres in 1866-67 in Bhawalpoor.

It does appear to me most incredible that any gentleman sent out to inquire into the direction of an Indus Valley Railway, “in a spirit of perfect impartiality,” and who states his opinions are founded upon “*intimate personal inspection and study of every locality*,” should state the country in which this cotton is produced is a “*desert*.”

“England is crying aloud for Cotton!” * Mr. W. P. Andrew, under advice from his Engineer, echoes back, “*Gigantic blunder!*”

* Minute by the Most Noble the Governor-General of India, 20th April, 1855.

But the Engineer may say, "Why do I not argue upon population, look at the population of the highly cultivated district of Bhawulpoor." So I turn to the report of Captain Minchin, Political Agent at Bhawulpoor, and I find the following facts:—Two-thirds of the district are cultivable; but as it is not very likely there is any population on the uncultivated parts, I find there are 1111 square miles under cultivation, and there is a population of 147 per square mile—making 163,317 in the district! And if we rob our own territory for the purpose of populating a foreign one, it is only capable of containing 261,707 upon the entire cultivable portion, and a very considerable part of that land and population would be found away from the route of the line proposed to be taken by the Engineer.

I think the Engineer who went out to carry on the surveys, and make an inquiry "in a spirit of perfect impartiality," is more to be pitied than blamed. First of all, his appointment was not one that could command confidence in an altogether unprejudiced opinion from him, because, before he went out he had publicly recorded his idea that the line should go on the left bank. Then in paragraph 5 of his instructions he is told:—

"You will bear in mind that the primary object of the survey entrusted to you is to fix, in as short a time as possible, upon the route best adapted for a Railway between Kotree and Mooltan."

A new name had been found and given to this; it was no longer "Steam by Land and Steam by Water," it was now the

“Missing Link,” and well the catch-cry word has been taken to, even by members of the Government. I cannot doubt the Engineer’s determination to forgo this “missing link,” with the aid of his *fourteen European Engineers* and “*any native assistance which he may find necessary.*” No matter, it seemed, where the process was carried out,—on a steam ferry at Kotree, or on the “faggot and rubble-stone” protected abutments of a gigantic bridge at that place; on a steam ferry above the Sukkur Rapids, or in the middle of a 6-mile tunnel in the Luckee Hills,—so long as the “*missing link*” was but forged. If *money* could have found out where the smithy was to be erected, *truly* it was given out by Government without any stint.

My Lord Duke, it is not a “missing link” that is required, it is a “*new chain*” of sound metal, in the shape of a great national highway, that is required to be made by the Engineer, and that “early.”

I recommend this *new chain* now as *I did* “fourteen years” ago, in these words, “to bring down the trade of Central Asia that at present struggles through the Bolan Pass, the pass through the Sooliman Mountains at Dhora Ghazee Khan, and the Kyber Pass. It is also to answer the great national political use of quickly moving up troops from England to defend our Western Indian frontier from the future dangerous hostile encroachments of Russia.”

This line is also strictly in obedience to the policy laid down in Lord Lawrence’s dispatch, dated 9th January, 1869:—

“The completion of the communication between Kurachee

and Mooltan, 'with a line on the other side of the Indus to that occupied by the main line, form one system of lines that seems desirable."

Future inquiry may show the advisability of another line in combination with proposed irrigation works in the Hyderabad district.

I pray your Grace to take a kind of return ticket for Sehwan along this national highway. Sehwan is the most productive wheat district in Scinde. General H. B. Turner, R.E., Chief Engineer in Scinde in 1851, stated:—

"I found at a place called 'Naree,' a few miles above Sehwan, stocks of Government grain of three successive years; it was utterly spoiled, fit only for manure."

How much of this rotting food of man has been carried by the "Steam by Land and Steam by Water" system, after spending nearly 3,000,000*l.* sterling? Let one of poor General John Jacob's favourite Lieutenants state, Colonel Sir Henry Green, in a letter dated 3rd of October, 1868, relates:—

"The valleys of Peshawur, Sarawak, and Mustang, situated at the head of the Bolan Pass, as well as those at Salleo and Cutch Gundava, situated at its foot—all of which the proposed Railway from Sukkur to Dadur would tap—produce during favourable seasons enormous quantities of grain, which *for want of transport is allowed to rot on the ground.*

"In Cutch Gundava and in the countries about the Bolan Pass the same waste was occurring, while the State was paying high prices for grain to export to Abyssinia, and

raising the price of food in the districts surrounding the seaports."

What General Turner saw in 1851, Sir Henry Green saw in 1868. Poor Scinde! Now, it is proposed, after taxing the Sehwan wheat with 50 miles of unnecessary carriage, to take this wheat 100 miles out of its natural route to the sea, and so tax the Imperial trade of the country. The length of line from Kurachee to the Bolan Pass, by the left bank of the Indus and Roree, is 470 miles, with *two Indus River crossings*. By my line from Kurachee *via* Sehwan the distance is 370 miles; by keeping on the western side of the Munchor Lake it can be made shorter. *It has no Indus River crossing!*

I will call attention to another item of Imperial trade—Wool. Sir Bartle Frere states that 18 millions of pounds were exported in 1864–65 from Kurachee, the export tonnage of that year being 41,687, but in 1867–68 that export tonnage had increased to 111,798 tons, so that it is fair to assume—as Sir Bartle Frere at the time anticipated, a "*steady increase*"—the quantity of wool exported was 48 millions of pounds. 1868–69 will show, I am informed, more than an average increase. I will not take advantage of that; if it pleases the Engineer, he may imagine it is produced in Bhawulpoor.

In the annual report of *Mr. Juland Danvers*, the Government Director, to Parliament in 1865–66, that Gentleman states the Great Indian Peninsular Railway Company has removed cotton from the second-class merchandize to

the fourth class "with marked success." So I may safely presume that wool is so classified on the Scinde Railway. To carry this wool at $3\frac{1}{4}$ d. per ton per mile would cost on the left bank 136,380l., while by my line it would cost 107,321l. The argument is equally strong if applied to other articles of trade. In fact, you tax the Imperial trade **25 per cent.** in perpetuity. It has been tried to show the Government that this Bolan Pass trade is a "local trade." Every trade I maintain is Imperial trade which seeks Kurrachee for export, no matter whether it waits at Mooltan, Dhera Ghazee Khan, Bolan Pass, or Sehwan.

Sir Henry Green, in the letter I have before quoted, explains the national character of the trade:—

"With such advantages, all of which must be improved upon, I feel certain that if the Railway were completed, as suggested, with a branch to Dadur, tho' Bolan Pass would gradually become the main channel for the important export trade from Central Asia and the Indian Empire."

I may well append to this, two accounts of Larkhànà and Shikarpoor, the former taken from the excellent Scinde Directory of 1862, and the latter from the Government report of Captain Wood, I.N.:—

"*Larkhànà* is one of the principal grain marts in Scinde; the place derives some commercial advantages from being situated on the great route from Southern Scinde to Cutch Gundava, Beloochistan and Kandahar, through the Bolan Pass."

"*Shikarpoor*.—The large money transactions of its bankers,

and the extensive and skilfully-organized agency by which they are diffused, are known to all interested in these matters, though the advantages of such establishments can only be duly appreciated by merchants themselves." •

But why is this tax of 25 per cent. to be put upon the Imperial trade, which General John Jacob, in his forcible language, when reviewing my reports to Government, explained as arising "from a portion of the earth's surface much larger than all the country watered by the five rivers of the Punjab."

There might be some reason if the Punjab trade was not taken by my line the shortest and best route to the sea; but let Mr. W. P. Andrew give *his* reason:—

"Whichever of the routes between which the choice would appear to lie may be the better of the two appears to me to be a question of very secondary importance; and I do not hesitate to declare that, under the urgent necessity of the case, it would be infinitely better that Government would accord the preference to a route not absolutely the best, than that the undertaking should be indefinitely delayed."

Mr. W. P. Andrew, looking down from his exalted sphere, may think it only of "very secondary importance"; but it appears to a poor humble person like myself, your Grace is here invited to a most extraordinary proceeding. Right cannot be done by perpetuating wrong; surely history is not to tell, that at such dictation the good of your Grace's tenure of office is to be obliterated by its being related you did not take the best line, but that you took any, so that one was made.

While Government hesitate to bridge the Hooghly and connect the supreme Government city with the great network of Imperial Railways, Mr. W. P. Androw cannot expect Government to sanction a bridge over the Indus, which is *quite unnecessary*, the practicability of which appears to rest upon the Engineer staying the advancing waves of that most "treacherous" river, with sovereign contempt, by an erection of faggots and rubble-stones; or will, I think, Government hastily sanction the passing the national trade of the country over the Sukkur Rapids by a steam ferry, until the same gentleman has experimented upon the lower falls of Niagara.

But, on the other hand, when Dhera Ghazee Khan is reached, it may appear practicable to bridge the Indus; at that place, the river has not more geographical water-supply than the Sutlej at Bhawalpoor; it is comparatively close to the hills from which the stone could be obtained, and there the thousands and the tens of thousands who are mentioned by Sir Bartle Frere and Captain Wood would work contentedly, while the Scinde Horse and Lahore Light Cavalry watched the Russian Cossacks in the hills. There is yet another point which seems to have quite escaped the notice of the Engineer carrying on the surveys for an Indus Railway, and that is the facility of getting coal from *Kalabagh*, where it is known to exist, to Dhera Ghazee Khan by a downward water carriage.

Mr. W. P. Androw, at page 8 of his letter, states:—

"I will only remark here, therefore, that the through

traffic would be more effectually conducted by the route on the left bank, that route being *shorter*, as well as safer, than the route by the right bank."

What are the facts from official documents? The route from Kurachee, *viâ* Kotree and Bhawalpoor, to Mooltan, that is the *left bank*, is 622 miles; the distance from Kurachee, *viâ* Sehwan, Larkhànà, Shikarpoor, Dhera Ghazee Khan, that is the *right bank*, is 493 miles. Without entering into any "problematical" calculation whether it is cheaper to cross the Indus 600 miles higher up than Kotree, or whether the river at Mooltan close to the workshops of the Company in the Punjab is easier than crossing the Sutlej in a foreign state, there is 120 miles of additional cost at 11,000*l.* per mile, equal to 1,419,000*l.*, *throwing a tax for ever upon the through Punjab traffic of 70,950*l.* per annum.*

Lord Lawrence gives a very strong reason for taking the right bank, in reference to the expenditure during construction :—

"It will mainly run through British territory and benefit our subjects."

Take the official road-route distance from Kotree to Mooltan, by an apparent shorter route than the Railway is laid out, it is 510 miles, so that my "new chain" is shorter than the "missing link" on the left bank by 17 miles. Take, again, the two points of Rorce and Mooltan; the left bank is 307 miles, while the right bank is only 250 miles. I believe it is only 242 miles as the line would go.

The following table will show correctly the relative distances:—

KURACHEE TO MOOLTAN.		Miles.
Via Sehwan direct—right bank	498	
Via Kotree, Sehwan, Shikarpoor, and Dhera Ghazee Khan		
—right bank	544	
Via Kotree, Roree, Bhawalpoor—right and left bank ..	621	
Via Kotree, Roree, and Bhawalpoor—left bank	622*	

I have no hesitation in declaring, therefore, bearing in mind that the starting from Kurachee has been made and is common to all lines, the Great National Railway recommended by me, and approved by the Government of India, General John Jacob, General H. B. Turner, R.E., and other high officers in India, *has greater political and strategic advantages, can be made cheaper, more expeditiously, and with less scientific difficulties than any so-called "missing link," and that the earnings of the line would be so excessive, that the increased interest upon the money expended, would amply suffice to repay the Government all loss accruing from the "gigantic blunder" of constructing the line to Kotree in the first instance; and the experience of the people employed on the Scinde Line shows, the population, through and near which the line would pass, are more ready to work, and better adapted to the labour required, than the effeminate inhabitants of the foreign states, Kyrpoor and Bhawalpoor, over whom the Government have no control; and that for military purposes*

* I have given the official road-route distances; the post-office distance is 630 miles.

the 3 feet 6 inches gauge will be found best adapted for cheap and expeditious construction. Executive reasons, more important than any I can put forward, will I am sure be pointed out to your Grace and the Government of India, why this line should be commenced "*early*" at all "*points*."

The Government have also to hand, Mr. T. G. Newnham, Chief Engineer of the present Scinde Railway, who, from his great ability and acknowledged high and honourable character, would attract many young military Engineers on to his staff, and ensure an energetic carrying on of the work.

But I am most sincere when I say, I hope Mr. W. P. Andrew will carry out my statesman-like policy; for however much his former policy condemns itself by the results, I am obliged to point to, and however hard I may have been dealt with, I do respect his great ability, and cannot help reflecting what future reward his country would have given him, had he pursued the policy in 1856 he is now advocating in 1869, instead of spending the best years of a useful public life upon an attempt to make a policy pay, which had in it, at starting, the very seeds of rottenness and decay.

There is another point which seems to have been lost sight of by the Engineer. The trade of the Kyber Pass, which comes to Attock, is shipped into boats for Mittun-Kote, and then transhipped into a different kind of boat to descend the river. Now that trade will join a line at Dhora Ghazee Khan, whereas, if a left-bank line were taken, it could not possibly seek Railway carriage until it reached Roreo. It is

idle to think it could bear Railway carriage all round from Attock *via* Lahore to Mooltan.

The policy I recommended "fourteen years" ago I now press most urgently upon your Grace and the Government. I now insist upon it as a duty, and in the interests of the Indian Government, my former generous masters: it was sanctioned by the Governor-General, as may be learnt from a document appended to this letter. It was cast aside with its Author, by Mr. W. P. Andrew, in pursuance of the "Steam by Land and Steam by Water" policy, if such an abortion could be called a policy, which I maintain has enabled Russia to rattle at the gates of India.

When, in 1856-57, I begged the Railway Company not to be diverted from a national policy, I entered minutely into the trade as it would be affected by a line of Railway. I present some of those remarks; they, like the direction of the line, stand the crucial test of time:—

"In 1850-51 we had a trade valued at Rs.62,22,934, while in 1851-52 we had a trade valued at Rs.73,38,480, showing an increase of 18 per cent. Let us see how much the Indus contributed to this wealth. In 1850-51 the value of the trade of the Scinde ports on the Indus was Rs.12,96,797, and in 1851-52 the value of the same trade was Rs.15,67,384, not a sixth of the trade of the province! By Government documents it is shown that to carry that trade it required 30,496 tons. Well, now, if we turn to the land frontier trade of Scinde for the same year, we find on the *right bank*, that is, countries west of the Indus, the value of the trade was in

imports and exports Rs.81,60,420, which would give 60,00 tons of traffic for a through Railway, so that we should actually neglect a trade worth double in value to the Railway to that *we go out of our way* to carry (by Steam by Land and Steam by Water).

"While speaking of Sukkur, I may here mention the value of the trade of that place in 1851-52 was Rs.9,48,136 and the whole trade of Scinde was Rs.71,33,430; and so far from the "classic river" developing our trade, the value of the trade of Sukkur in 1855-56 was Rs.15,00,000, and yet the trade of the province had risen to Rs.123,42,537, showing that in 1851-52 the trade of the Indus was a sixth of the land frontier trade, while in 1855-56 the trade of the principal port of the river was only one-eighth of the entire trade of the province, showing clearly *the river is not the route of the traffic of these countries*, the trade of which is struggling to get to this port of Kurachee."

Mr. W. P. Andrew now states there are 108,000 tons of *Scinde-produced local traffic* on the right bank, which would go by the Sehwan and Kurachee direct line: production has not increased in Scinde to any great degree since I wrote, yet the Agent stated my study of the traffic was "*froth and sound*." When the Engineer reviews the northern portion of my line, he tells Mr. W. P. Andrew the country I go through is a "*desert*," and to go there is a "gigantic blunder." Americans would call this "*ladderly language*"; but I respectfully state it is not argument worthy an important subject, on a right study of which may depend the safety of an Empire.

If Mr. W. P. Andrew had published the report of the Bombay Government, and which in fairness he should have done, I would have verified all these statistics with the trade returns up to recent dates. The report, as well as many other documents from which that Gentleman quotes, are sealed against me. The truth of my calculations, however, is borne out by his own publication of Scinde trade returns, as appears on the opposite page.

I am well informed the results are more startling now, and that even if there is any export production in the 50 miles between Adam Wahan on the Sutlej and Mooltan, which it is hoped is secure against the Engineer's "wild tribes," that trade existed when Mr. W. P. Andrew published his book, and is made to swell the *left-bank* decreasing trade.

There is one party connected with this controversy about an Indus Valley Railway, whose interests I am most surprised has but very poor, if any, advocacy from Mr. W. P. Andrew in his letter to your Grace. The interests of the shareholders appear to me to be placed in a most critical position; they are told by the Chairman of the Company, who they have so complacently obeyed and supported, that their prospects are so poor that he even ventures to think and fear that the great public works he has so persistently advised them to carry out will remain a "burthen to the revenue." But he does not tell them, if the Government decide, as is contemplated, to make the Railway themselves, they will lose all the advantages which have been given to the Great Indian Peninsular, the East Indian, the Madras, and the Bombay,

GENERAL DIRECTION OF THE TRADE, AND ITS VALUE RELATIVE TO DIRECTION, &c.

	Imports.		Exports.		Increase.	Decrease.
	1851-52.	1852-53.	1851-52.	1852-53.		
Affghanistan, Beloochistan, and countries West of the Indus (right bank)	11,88,211	17,64,575	8,80,912	11,08,837	8,04,289	..
Bhawulpoor, Jessulmeer, Marwar, and East of Indus (left bank)	6,51,372	4,36,639	6,81,964	6,22,656	..	2,73,041 !!
Punjab, and adjacent British Possessions	5,42,263	11,58,674	2,22,542	2,79,551	6,71,551	..
Total Rupees	22,82,446	33,59,888	17,85,418	20,10,775	14,75,840	2,73,041

Baroda and Central Indian Railways, by the issue of extension capital. Further, experience shows that in India the first portions of Indian Lines are generally scant in earnings; but the traffic on the upper portions, quite independent of the traffic brought down to the sea, swells the receipts to the advantage of the stock-holders. Moreover, the present prospect threatens them with further ruin, as acknowledged by Mr. W. P. Andrew and his coadjutors, in reference to the Delhi and Punjab Lines; the traffic of which lines is swelling the receipts of the East Indian Line. The Punjab and Delhi Lines, as regards the Scinde Line, is like a man with a fruit tree, laden with fruit, overhanging his neighbour's ground, having no ladder to gather it with, it falls into that neighbour's store. If the shareholders apply to Government to carry out a national policy, they must and will be respectfully listened to, and their interests considered; if, on the other hand, they are led away to support a patch-work policy, they must fail, as the former policy has failed.

In case this letter should be seen by any of the shareholders of the Scinde Railway, I will beg them not to delay waiting upon your Grace and memorializing the Government to let them make an Imperial Line of Railway up the Indus, and offer to deposit the capital in accordance with the policy pursued by other lines in India. I am well aware they have placed themselves in a position to have it said, "You cannot complain; the policy you have supported—that of 'Steam by Land and Steam by Water'—is the one you subscribed for." They must trust to the generosity of the Government, and, *above all, the facts contained in this*

letter. They may rest assured, as I have before said, the receipts and earnings of the line from Kurachee to Dhera Ghazee Khan will compensate them for the loss they will sustain for a time by the Kurachee to Kotree Line and the Indus Flotilla.

I have made it clear in a former part of this letter, Mr. W. P. Andrew, while applying for concession for *his* Indus Valley Railway, which is recommended by *his* Engineer, may be applying to raise money which might be used to carry out a scheme which that Engineer pronounces to be a "*gigantic blunder*."

If I have not interlarded amateur Russophobia politics in this letter, with which to weary your Grace, it is not that I am ignorant of the geography of the Russian encroachments. When in 1856 I advocated this Imperial Railway, I begged the Government to have it made before the Russian army marched from Orenburg to Khiva and Bokhara. It has not been made. I now beg the Government to have it made before the Russian army is encamped at Kandahar. If it is not made, history will tell whether, if my advice had been taken, it would have prevented streams of English blood from filtering through the sandy waters of the Indus.

The soldier who shows his army which way the enemy comes, deserves the thanks of his country; and, perchance, from the humblest ranks may come the man who foretells the way. I have, for nearly twenty years, deeply studied these matters, with the assistance of some of the ablest minds in India. Until these works are completed, the Punjab is not

safe. Think you, my Lord Duke, the Poles want Poland; the Austrians want their recently-conquered territory from Prussia; or that the Seikhs want the Punjab, and as much more as they can get? Would the Englishman want England if it were conquered by a foreign country, and had to see and bear what the bold, sensitive, and warlike Seikhs have to see and bear every day?

I have tried to study the marches of Alexander, Mahomed of Ghuzni, Timour, Baber, and Nadir Shah, who with more or less success invaded India by the way of 'our western frontier. There is now a modern Power marching stealthily along those routes; how that Power works is shown by the following manifesto:—

“Obliged to pursue the enemy through a country without roads, laid waste by the troops which were to have defended it; often opposed by nature itself; exposed to the burning sun of summer, and the rigour of winter,—our brave army, after unparalleled efforts, succeeded in conquering *Erivan*, which was reputed impregnable. It passed the *Araxes*; planted its standards on the top of *Ararat*, and penetrating farther and farther into the interior of *Persia*; it occupied *Tabreez* itself, with the country depending on it. The *Khanate of Erivan*, on both sides of the *Araxes*, and the *Khanate of Malchichwan*, a part of the ancient *Armenia*, fell into the hands of the conqueror.”

If the works I have feebly pointed to the great necessity of, are completed before Affghanistan becomes the tool and vassal of Russia, then the Punjab *will be safe*, and England will draw the red treaty line that will divide the Russian

Bear from the British Lion; if they are not, then Russia will draw that line: be sure, *in time*, I pray your Grace, that line *shall not be* in the middle of the Indus, which position is invited by the advocates of a left bank Indus Railway.

I must not omit to mention the matter of the improvement of Kurachoo Harbour, of the importance of which so much is written. I was the first person to bring to the notice of the Indian Government the fact, that by carrying out simple works, principally of excavation, the capacity of the harbour, both in reference to its anchorage and entrance over the bar, might be greatly improved. My opinions were submitted to the late Mr. Walker, who, without seeing the place, designed works of various kinds. His opinions have been supported lately by the gentleman who originally supplied data for Mr. Walker's report. „

I was strongly opposed to one piece of work, that is, the Keamara Groyne; and whatever remarks it may be thought becoming to address your Grace in reference to the Corps of Engineers in the Bombay Presidency, as to their being "Amateur Engineers," I am well informed the harbour is in a *very critical state now*; and before any more money is spent upon such speculative works as I hear proposed, I do most strongly advise your Grace to order a commission to thoroughly report upon the subject. There is not in India or out of India, a man more thoroughly competent to head that commission than Colonel Tyfo of the Bombay Corps of Royal Engineers,

My advice to the Government now is what it was "fourteen years" ago—excavate all the harbour channels, by manual

labour and dredging, to their utmostth extent, *but leave fantastic works alone*, unless the Government can be assured, *without doubt*, that good effects have actually been produced by them in other places under similar circumstances.

To summarize this letter, I beg to state it appears to me evident, the route for the Indus Valley Railway must be determined by answers to the following questions:—

Is it cheapest to carry the *through traffic* from Mooltan to Kurachoe by a Railway 493 miles in length, or in Mr. W. P. Andrew's language, page 36, "*should the produce of the country be burdened with unnecessary charges from the increased mileage*" of a line 622 miles in length?

Is there most traffic on the right bank or the left bank to be intercepted, *en route*, by an Indus Valley Railway?

Is it cheapest to build a bridge over the Chenab at Mooltan, and one over the Indus at Dhera Ghazee Khan; or to build a bridge over the Sutlej at Bhawalpoor, and one over the Indus at Kotree, weighing, in the latter case, the having then to pass all the Central Asia trade over at Sukkur by a steam ferry or any other way?

Is it most advisable to construct a Railway 493 miles entirely in English territory, or a line 510 miles, 180 of which must be taken through foreign territory?

Or, if the upper portion is alone considered, is it best to construct a line 250 miles entirely in English territory, through a population of 910,696; or to make a line 307 miles, of which 120 miles is through foreign territory, with only about a moiety of a population of 168,317?

Will a right-bank or left-bank line give the best means of

carrying out the political advice of Sir Charles Trevelyan and Mr. Grant Duff, M.P. ?—

“These lines ought to be vigorously prosecuted as Imperial Works, and branches should be made from them to the extreme limits of British territory at the mouths of the Bolan and Kyber Passes, and perhaps, *to one or two other points on the FRONTIER.*

“Above all, we should press forward our Railways towards the FRONTIER, make Kurachee a great port, and complete Railway communication through the whole of the Indus Valley.”

Lastly,—Is a fortified bridge over the Indus at Dhora Ghazee Khan, made capable of passing the trains, a better connection for the Military Stations of the Punjab and North-West Provinces with the “*points*” of the frontier, than a bridge over the Indus at Sukkur, with a span of 600 feet and 70 feet above flood level?

Having placed these most serious questions before your Grace, I meet the Engineer upon his scheme and conduct, in superseding my propositions for the Indus Valley:—

I say, then, at Kurachee he has assisted in, and supported, measures which contract the tidal inlet of the harbour, which must be destructive to its capacity, which he will find detailed at paragraph 137 of my Report No. 1, dated 1st July, 1856.

I believe, upon the evidence of General John Jacob and General H. B. Turner, R.E., two most eminent scientific officers, if I could examine the Engineer's Reports and Plans of the Direct Sehwan Line, I should show he has

exaggerated the difficulties of that life in comparison to its utility. I meet him at Kotree, and say, he has spent 2,250,000*l.* in constructing a line, without, during the five years he[^] was so engaged, publicly stating how far he did so in accordance with the principle laid down in the 6th paragraph of his letter :—

“I would remark, that the construction of any portion of such a line of Railway, without reference to its best adaptation for the conveyance of the ultimate *through traffic*, is manifestly, in every point of view, unwise, to say the least of it.”

Or, if he has done so, why did he spend money on the surveys from Kurachoo to Sehwan, and Kotree to Sehwan? when, in October, 1863, I called his attention to the 130th paragraph of my Report, written in 1856, in which I had detailed the difficulties he brings forward in the 10th paragraph of his letter written in 1869 :—

That his proposition to bridge the Indus at Kotree rests upon an insecure foundation, “*commercially, strategically, and in an engineering point of view.*”

I meet him at Sehwan, where he should have gone to, and say, his proposals unnecessarily tax, and will almost destroy, the finest wheat-growing district in Seinde. I meet him on the 16th paragraph of his letter, where he proposes a preposterous alternative for carrying the right-bank trade on the left-bank line, by placing stations on the canal banks, such canals not being navigable for more than six weeks in the year, and that not with certainty, and at a time of the year when the people of the country are fully occu-

pied in irrigating their land, and producing the agricultural traffic which is markotable when the canals are dry.

I meet him on the 20th paragraph of his letter, and say, the bench marks are no indications of the general height of the country, for they often occur, from being fixed in the cold season, in places accidentally used, and not to show the height of the adjoining country. My view of the case is made out by the Engineer himself, for on the right bank he makes a rise of 5·81 in a distance of 25 miles, while on the next 23 miles he makes a rise of 25·55; on the immediately opposite bank he makes the rise in the first distance 17·41, and in the second 13·69. Those borrowed figures, the Engineer states, are his "unanswerable arguments." What are they worth? What did they cost?

I meet him at Sukkur, and say, though the country, *near the river*, from that place to Kusmore may be flooded equally with the Roreo side, yet the line from Shikarpoor to Dhora Ghazoo Khan is not so flooded, but is perfectly secure.

I meet him on the matter of the floods, "between the watershed of the mountain ranges, and the river which receives the periodical torrents which flow from it," and say, while engineering science, under great difficulties, has grappled with the Nurbudda and Taptee Rivers on the Bombay and Baroda Railway, which rise 20 feet in as many hours, he has only to deal with a rainfall of $8\frac{1}{2}$ inches per annum as a maximum.

I meet him at Dhora Ghazoo Khan, and say, the river Indus at that place, being only one of five rivers, must pro-

sont a more feasible crossing than 600 miles lower down, where the whole flood of the five rivers has to be dealt with.

I meet him at Roroe, and say, any such scheme as the steam ferry is impracticable, or, if it be practicable, it is "*a restrictive incapacity and delay in the means of conveyance,*" and therefore condemned by himself.

I meet him on the score of local traffic, and say, the members of the Scinde Commission were, collectively, better judges of the *fact* than he could possibly be. But I am bound to remark upon the singularly disingenuous "*estimate*" given Mr. W. P. Andrew for the 31st page of that gentleman's letter to your Grace:—*First*, If the left-bank trade of 270,000 tons produces 177,000 tons export trade, then the right-bank of 324,140 tons, in the same proportion, would give 212,000 tons, instead of 198,000 tons. *Secondly*, A considerable part of this left-bank trade is produced from the districts of Mahomed Khan Tanda, Meerpoor, and part of Jerruck, which being to the *south* of Kotree cannot possibly be brought into the calculation as local traffic for a through line.

I meet him on the score of the population, produce, and traffic of the "Desert" of Derajat, and the "highly cultivated districts" of Bhawalpoor, and say, it is self-evident he unjustly, if he did not ignorantly, advise Mr. W. P. Andrew upon the subject, although his special attention was called to it in the 7th paragraph of his instructions.

I meet him at Bhawalpoor, and say, that it is easier to cross the Chenab at Mooltan, than it is to cross the Sutlej, considering the difficulties which have exhibited themselves

300 miles higher up. This is so important a matter, that I feel it right to say, some correct idea can be obtained from the Report to Parliament by Mr. Juland Danvers, the Government Director 1868-69.

By a reference to paragraph 81, I find the most important bridges on the Delhi Line are over the Beas and the Sutlej, being two branches forming into one river lower down.

As regards the latter, Mr. Danvers states:—

“The river which runs through a valley five miles wide, and has for the last 70 or 80 years flowed along the northern side, seems now disposed to change its course to the southern side. It has already so far altered its position as to make it necessary to extend the bridge, which was originally designed for a crossing of 4000 feet, a further length of 2200 feet, involving a cost of upwards of 60,000L.”

Taking one-third of the cost for the Beas, we have close upon 250,000L. to *begin with*, for an estimate; then there must be navigable headway of 15 feet, not required above; this is made clear at page 15 of a very instructive pamphlet by Mr. T. Login, C.E.*

I, lastly, meet him at Mooltan, and ask, in “opening up Railway communication between the land-locked province of the Punjab and its natural port Kurachoe,” why he will transport that traffic 622 miles, when he can do it by a line of 493 miles in length?

In reference to this question I must point out the Engineer makes Mr. W. P. Andrew condemn his own policy, and with

‘Roads, Railroads, and Canals for India.’ By T. Login, C.E. E. & F. N. Spon, 1869.

still stronger arguments condemn his own proposed Indus Valley Railway. In page 43, Mr. W. P. Andrew states:—“I believe it will always derive its chief support from a through traffic. It is only by thus regarding it that a really comprehensive and statesmanlike view of the whole question can be obtained.” A line for the through traffic *can be made* 498 miles in length, why is a line 622 miles long to be taken and Mr. W. P. Andrew's arguments stultified? The trade of the country is not to be taxed *for ever*, because a wrong policy was formerly pursued. The poor people of the country have done no wrong that they are to be permanently punished. The same may be said of the Central Asia traffic. Why are the traders, who have mainly raised Kurachoo to its present commercial importance, to have a black mail tax laid upon their goods of 100 miles unnecessary carriage?

Is not it enough to know that they have for ten years continued to take an account to the inhabitants of Asiatic Russia that we have made a railway little or no use to them, or to ourselves for protecting or defending our Indian Frontier?

The position of the Engineer, who went out with preconceived ideas to investigate the matter of the Indus Valley Railway, is very critical, for, if my *Direct Indus Valley Railway* is proved to be the line that should, after all, be taken, Mr. W. P. Andrew will say:—“Why, you told me it was a *gigantic blunder* to apply for a concession for that line; what possible public reparation can we offer, after the injustice the Projector has received?”

If Mr. W. P. Andrew thinks his Engineer is infallible,

and that the Scinde authorities and myself are wrong, of course he will persist in the policy advised; but I cannot help thinking very seriously the future dealings with the shareholders *en masse*, instead of in divisions, will give rise to difficulties at the present time, which will prove themselves almost insurmountable when Mr. W. P. Andrew has to plead the positions of the various disjointed portions of the present existing system of communications up the Indus.

That it may be all brought into uniformity, with adaptation to an Imperial policy, alike advantageous to Government and the Companies, I have no doubt; and upon that must depend the future satisfaction of all parties concerned, a result to bring about would be a worthy conclusion to the trouble and vexation the heretofore-pursued policy must have given to Mr. W. P. Andrew.

I cannot attempt to lift your Grace's mind above the practicability of statesmanship into the regions of Eastern imagination by such language as appears in the 61st page of Mr. W. P. Andrew's letter; I must ask to be only allowed, in reference to it, to submit a question that your Grace will doubtless seek a practical answer to:—

Why is your Grace asked in 1869 to consider "a more enlightened policy than we (?) have hitherto pursued," when that enlightened policy was pressed upon Mr. W. P. Andrew by me in 1856, and sanctioned by the Government of India in 1857?

The answer to that simple question will tell who has been forced to learn a lesson, through the "*sad and terrible experiences of the past.*"

I have written this letter under a strong sense of public duty; and I close it, feeling conscious of the disadvantages under which I address your Grace, as compared to a gentleman in the position of Mr. W. P. Andrew: "fourteen years" of lucrative employ has enabled him to quote the writings of the many friends whose names so thickly pervade his letter; *I have no such friends*, and no such documents, to assist me in the position I wish to take up in advocating again my *Direct Indus Valley Railway*; but well known to many of them, there was a man, had he lived, would now be called to the Councils of the Nation, and whose opinions would have commanded attention at this critical juncture of affairs, who sleeps the sleep of death in his self-made home in the deserts of Scinde; he would have felt and said I had again done *my duty* in drawing attention to this serious matter, even though it is done with feebleness of health, engendered by the wrong I have suffered for "fourteen years."

I have the honour to be,

Your Grace's

Most obedient servant,

HARDY WELLS, C.E.,

Originator of Railways in Scinde.

CHAPPEL HOUSE, ODHAM,

July 16, 1869.

(COPY.)

SIR,

BUSHIRE, 30th May, 1857.

I HAVE the honour to acknowledge the receipt of your letter of the 13th May, 1857, to my address with accompaniments. With reference to their subject, I beg to assure you that I consider that you have throughout your connection with the Scinde Railway acted in the best possible manner for the interests of the Railway Company, of the Government, and of the public generally. The real interests of these three parties in this matter are inseparable. Having been from official position and personal knowledge well acquainted with your views, proposals, and proceedings, I am quite at a loss to conceive on what pretences the attempt can be made to fix on you a charge of having "obstructed" the work entrusted to you, or of having acted in a manner in any way injurious to the interests of the Railway Company. Such a charge is preposterous unless it be determined that the prospects of success and of advantage to all parties must be "INJURED" by careful and extensive observation, by skillful and unprejudiced examination, by clear and extended foresight, and by calm and wise discussion of the circumstances relating to and likely seriously to affect the work in hand.

I have publicly recorded my opinions regarding the line to be selected for the Scinde Railway to connect the river with the seaport, and I need not here repeat them; but I may remark that I am quite convinced *that TIME will show the soundness of your views on the subject.* While even were it otherwise, and under any circumstances whatever, it appears to me to be certain and self-evident that the truth of the matter could only be ascertained satisfactorily by the inquiry examination and extended survey proposed by you, and this opinion was confirmed by the decision of the Government of

India communicated to the local authorities when I was on the eve of departure from Scinde.

Had you acted otherwise than you have done in this matter, you might indeed have justly laid yourself open to the charge of having obstructed the interests of the Railway Company. But as the facts stand, it is my duty, as the head of the Province at the time, in justice to yourself, to state that I am decidedly of opinion that no man is more worthy of the trust and confidence of his employers than yourself; and it is with a feeling of something like indignation that I learn the unworthy requital which your services have met with from the Chairman of the Scinde Railway Company, and the unjust treatment which such an able, active, zealous, and trustworthy public servant as yourself has now received. I am firmly convinced that the conduct adopted towards you by the Chairman of the Scinde Railway Company in this instance will prove to be as unwise as unjust, and that such proceedings towards their best servants must tend to act most injuriously on the real interests of the Company. Such conduct—as poisoning the very sources of success—must, in my opinion, prove of lasting and most serious disadvantage to the parties who may practise it.

I am, Sir,

Your most obedient servant,

JOHN JACOB,

*General Commanding Forces at Bushire,
late Acting Commissioner in Scinde.*

To HARDY WELLS, Esq.,
&co., &co., &co.,
KURACHEE.



