M.R.O. 14—18,000—27-9-54

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 3424 — Press ~~Mis.~~

333.335

Dated 19-12- 1866.

Not to be folded or roughly handled

M.8

Proceedings of the Madras Government, Revenue Department, 19th December 1866.

Read the following papers:—

No. 333. From the Superintendent Government Central Museum, to the Secretary to Government, Revenue Department, Fort Saint George, dated Madras, 13th June 1866, No. 119.

1. In obedience to the Order of Government, as per margin,* I have the honor to submit the following summary of what is known regarding the probability of finding coal in the Madras Presidency.

* Dated 7th May 1866, No. 1,091.

2. The Home Government, I observe, requires only such information as may have been obtained since the date of Dr. McClelland's Report, dated 11th July 1845. That Officer's report is not in the Museum Library, but there are reports of the Calcutta Coal Committee, of which he was Secretary, the last of which is dated 4th April 1842. In these reports no mention is made of coal in this Presidency.

3. The eleventh Volume of the Madras Journal of Literature and Science contains (at pages 230—243) a paper by the late Lieutenant T. J. Newbold on a carboniferous stratum at Beypoor. He states that not far from the travellers' bungalow at the foot of the cliffs near the river bed, and washed by the tide at high water, is a seam or stratum of carbonaceous shale passing into a black clay, from the saline moisture to which it is constantly exposed, and imbedding carbonized branches, leaves, and trunks of trees. The bed varies from a few inches to five feet in thickness, dipping about 4° towards the north-east, and can be traced about half a mile in an easterly direction up the northern bank of the river. Its structure is obscurely laminar. Some portions seem to consist wholly of carbonized woody matter, and have a tough elastic feel under the hammer. The carbonized branches, leaves, and trunks of trees lay in a horizontal position in the black shale. Some fragments were brown, heavy, tough, and woody, others brittle, with a brilliant fracture resembling a jet, light and bituminous.

4. The same paper contains some observations by the late Lieutenant-General (then Colonel) Cullen, on a carboniferous deposit in Travancore, near the village of Vorkully, about fifteen miles south of Quilon, and in the cliffs immediately on the seashore. The carboniferous bed here, he observes, is very conspicuous; it was quite insulated, and of a lenticular form, five or six feet thick at the most. A somewhat similar deposit was accidentally discovered on the seashore at Cannanore in February 1830, but was very superficially examined, in consequence of the Colonel being unwell.

5. In a subsequent paper (pages 248 and 249 of the same volume) Lieutenant Newbold recommends boring through the strata in favorable situations between the abovementioned localities, with a view to ascertain whether there is a continuous carboniferous bed or basin.

6. In the year 1848, Dr. Walker reported the discovery of a coal formation at Kotah, near the junction of the Prunheeta and Godavery rivers. In 1856 the late Court of Directors sent to Madras Mr. Philip W. Wall, a Mineral Viewer; this gentleman was directed to examine the ground in the neighbourhood of Kotah, and for this purpose he left Dowlaishweram on the 7th February 1857 with a small party of Sappers and Miners, supplied with boring apparatus. He did not arrive at Kotah until the 13th March.

7. The boring commenced on the 18th of March, and on the 6th May it had reached a bed of red sandstone at a depth of 111 feet. The bed proved to be about five feet in thickness, and was succeeded by blue clay and sandstone alternately. The boring was continued until a white sandstone was reached at a depth of 145 feet 8 inches. He nowhere perceived the slightest traces of coal.

8. In boring through the lime-stones and succeeding clays some fish remains (? fossil fish) were discovered, and although no indications of coal were discovered in the boring, bituminous shale and fish remains were found in beds posited above those through which the boring was made, and in their immediate neighbourhood.

9. In the Tal river, a small tributary of the Godavery, and running into it near Singala, Mr. Wall, on his return journey, observed the debris of a slaty coal, not in isolated masses, but thickly scattered over the river bed; it had been washed from its position in the banks or in some of the nullahs of that river. He observes that it was unfortunate this material did not come to his notice earlier, as it would have been very desirable to make some examination of the district through which the Tal runs. The monsoon rains, however, had commenced on his arrival there, and rendered an expedition into this unexplored district impracticable that season; he adds that Mr. Tuke, in his survey of the Sebbery river, mentions the fact of a report that coal exists up that valley. As the Tal river runs into the same line of country, that report seems to be confirmed in probability by the finding of the material in the Tal.

10. Thus ended Mr. Wall's search for coal on the Godavery. To me, it appears the search was ended where it ought to have begun. Mr. Wall, I think, returned to England in 1857; but if he had remained in India, it is unlikely the search would have been immediately renewed, disturbed as the country then was. I think it can hardly be considered that his report has finally disposed of the question of coal on the Godavery.

11. The foregoing is all the published information regarding coal in the Madras Presidency that I have been able to find after a prolonged search. I have next to mention some researches for coal undertaken by Major F. Applegath of the Staff Corps, in the neighbourhood of Juggiapettah, (named Battavole on the map,) a village on the Pallair river, situated a short distance above its junction with the Kistna. Having long been aware that this gentleman firmly believes in the existence of a useful coal in the above neighbourhood, I considered it my duty to place myself in communication with him. The following is the substance of his reply:—

The distribution of the coal strata in Bengal is somewhat different from that on the Kistna; the dip and strike quite different. There the dip is generally towards the south on the Kistna it is generally towards the east.

The great prevalence of water all over the Kistna strata is quite sufficient to stop an amateur search for fossils. I do not know a single place on the plain where he does not come to water after excavating to a depth of four and a half or five feet, so that without boring apparatus or good pumps a man has no chance.

12. He gives the following brief description and comparison of the strata on the Kistna with coal-bearing strata in Bengal:—

1*st*. The blue and grey shale found on the Kistna is similar to that found in Bengal, when it is coal-bearing.

Proceedings of the Madras Government, Revenue Department, 19th December 1866.

2*nd*. The arenaceous shale with fibre-like impressions of plants found on the Kistna contains coal in Bengal.

3*rd*. In Bengal coal is occasionally found where the fossils are not carbonized.

4*th*. The greenish conglomerate found on the Kistna is very similar to that in Bengal.

5*th*. Black argillaceous shale, with ironstone in great profusion, is found at the foot of Norna Condah hill on the Kistna. The same occurs in the lower Damoodah rocks in Bengal.

6*th*. Thin bedded grey micaceous shale, found on both banks of the Kistna, is also an accompaniment of coal in Bengal.

The Kistna specimens resemble the Nagpore coal-bearing rocks in the following particulars:—

1*st*. The smooth, light-brown colored, sandstone of Nagpore with peculiar markings, which markings are exactly similar to those on the Kistna rocks.

2*nd*. An altered siliceous sandstone.

3*rd*. Yellow sandstone passing into shale.

4*th*. A compact slaty sandstone.

5*th*. A pale-buff, fine-grained limestone containing small cavities.

13. He suggests that the following researches should be made:—

1*st*. To collect specimens of the black shales, especially out of the banks of the Pallair river.

2*nd*. To collect specimens of the thin brownish-black shales found on the road between Juggiapettah and Dondaverum; also from the ground east of the limestone basin.

3*rd*. To search carefully all the nullahs (small ravines) for an out-crop of coal, especially the nullah where a small piece of coal was found attached to a piece of trap.

4*th*. To examine carefully for fossils, or marks of grass stems, the black-shales found in the vicinity of the Brahmin village Agrarum, near Juggiapettah.

5*th*. To pump out and deepen the pits he (Major Applegath) had commenced.

6*th*. To pump out the well near Juggiapettah tope where the brown sandstone is found, also the two square wells sunk in flagstone, near the village of Vadadry.

7*th*. To collect specimens of the white porcelaneous looking substance to ascertain if it is not burnt coal. It is found south-east of the village of Vadadry.

8*th*. To continue excavations in the white clays found in three different spots.

9*th*. To search for more of the round amber-colored fossils in the grey shale in the Pallair river.

10*th*. To collect specimens of the Lepatalia sandstone, west of the town of Juggiapettah.

11*th*. To collect the ironstones (three kinds).

12*th*. To collect the seeds from the hard grey shale.

14. As Major Applegath did on one occasion collect and burn several heaps of coal, he is quite satisfied there is coal on the Kistna, although he is unable to say

to what extent ; he expects at least twenty square-miles. He says the indications give promises of a good coal. Further, he believes that the town of Juggiapettah is either placed over a bed of coal, or else very near to one.

15. This question has been discussed in private circles for several years. The impression left upon my mind is that there is sufficient probability of finding a useful coal to justify the expense of a thorough search, and I think it very desirable the question, coal or no coal, should be authoritatively answered as early as possible. It is quite unnecessary for me to say anything about the great value of a good bed of coal to this Presidency, while we want coal for gas, coal to smelt our iron, and to drive our railway trains, and river and coasting steamers, and we shall very probably in a few years require it to cook our food. A good coal mine would be almost as valuable to Madras as a gold mine. More valuable perhaps to the people at large.

16. The following are the situations on the Map of the several places mentioned by Major Applegath :—

The mouth of the Pallair river about 16° 49' N. Lat. and 80° 9' E. Long.

Juggiapettah, named Battarole on the Map, 16° 54' N. Lat., 80° 9' E. Long. Durmaverum about two miles south-east, and Agrarum about the same distance south of Juggiapettah. Vadadry about 16° 48' North Lat., 80° 11' E. Long.

No. 334. From the Secretary to the Board of Revenue, to the Secretary to Government, Revenue Department, Fort Saint George, dated Madras, 15th August 1866, No. 5,708.

1. With reference to Government Order dated 7th May 1866, No. 1,091 requesting to be furnished with reports on the coal resources and production of the districts, I am directed by the Board of Revenue to submit the accompanying file of replies from the Collectors on the subject, from which it will be seen that there is nothing on record to shew that traces of the presence of coal have been discovered in any district of this Presidency.

2. The Acting Collector of the Kistna District, however, observes that Major Applegath, late Paymaster of Pensions at Masulipatam, stated that he had found coal, which easily ignited, near the junction of the Munneru and the Kistna. But there is nothing recorded on the subject in the Collector's Office.

No. 335. ORDER THEREON, 19th December 1866, No. 3,424.

Miscellaneous.

Ordered that copies of the above report be forwarded to the Secretary of State, and communicated to the Superintendent Geological Survey.

(True Extract.)

(Signed) J. D. SIM,
Secretary to Government.

To the Superintendent of the Government Central Museum.
,, the Board of Revenue.
,, the Superintendent of the Geological Survey.

Rxd. S. T. Augustin.

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No. 3,374.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 15th May 1866.

Read the following Proceedings of the Madras Government, dated 7th May 1866, No. 1,091, Revenue Department :—

Read the following Despatch from the Right Honorable the Secretary of State for India, (Public,) to His Excellency the Right Honorable the Governor in Council, Fort Saint George, dated India Office, London, 24th March 1866, No. 10 :—

1. A collection of papers has been lately laid before Parliament, being reports from Her Majesty's Missions abroad on the coal production of foreign countries ; and it is now the intention of Her Majesty's Government to instruct the Queen's Representatives to report further upon this subject, in order that their reports may be laid before Parliament in 1867.

2. I have to request, therefore, that you will issue directions to your officers in the several Districts of your Presidency, to furnish reports on the coal resources and production in the Districts under their charge, supplemental to the Report by Dr. McClelland of the 11th July 1845.

ORDER THEREON, 7th May 1866, No. 1,091.

Ordered to be communicated to the Board of Revenue, the Superintendent of the Geological Survey, and the Superintendent of the Museum, who are requested to furnish the report called for in paragraph 2 of the foregoing Despatch.

(A true Extract.)

(Signed) J. D. SIM,
Secretary to Government.

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1. Communicated to all Collectors for early report.

2. The Board are not aware that the existence of coal in any District of this Presidency has been established.

(True Extracts.)

(Signed) W. HUDLESTON,
Secretary.

(True Copy.)

(Signed) W. SCHARLIEB,
First Assistant.

To All Collectors.

Exd. J. Wright.

From the Honorable D. ARBUTHNOTT, Collector of Salem, to the Secretary to the Board of Revenue, dated 21st May 1866, No. 70.

With reference to the Proceedings of the Board of Revenue, dated 15th instant, No. 3,374, I have the honor to report, for the information of the Board, that there is no coal in this District.

Ed. J. Wright.

1866. Department.

No.

PROCEEDINGS OF THE BOARD OF REVENUE.

To All Collectors.

Dated 15th May 1866.

Despatched

Received

No. 3,374.

Communicating Despatch from Home Government, and calling for early report on coal in the Madras Presidency.

5/

From C. W. READE, Esq., Collector of South Arcot, to the Secretary to the Board of Revenue, dated Cuddalore, 21st May 1866, No. 94.

1. In acknowledgment of the Government Orders, communicated with the Board's Proceedings of the 15th instant, No. 3,374, I have the honor to state that coal is unknown in this District.

2. In former days, search was made for it, I believe, under the direction of Mr. Heath, but with entire failure.

Exd. J. Wright.

From G. A. BALLARD, Esq., Collector of Malabar, to the Secretary to the Board of Revenue, dated Calicut, 21st May 1866, No. 154.

Adverting to the Board's Proceedings of the 13th instant, No. 3,374, I have the honor to report, that no coal has been found in this District. Gneiss, at no great depth, appears to underlie the whole of Malabar. It is occasionally pierced by granite on the higher ranges. Elsewhere, it is overlaid by laterite of varying depth, but very similar character apparently throughout, seldom covered with any depth of soil, Carboniferous measures, consequently, seem hardly likely to find place.

Exd. J. Wright

From H. E. SULLIVAN, Esq., Acting Collector of Kurnool, to the Secretary to the Board of Revenue, dated 22nd May 1866, No. 116.

In reply to the Board's Proceedings, dated 15th instant, No. 3,374, I have the honor to state that no coal has been discovered in the District of Kurnool, so far as I have been able to ascertain.

Sd. J. Wright

From W. S. FOSTER, Esq., Acting Sub-Collector, in charge of Bellary, to the Secretary to the Board of Revenue, dated 23rd May 1866, No. 105.

With reference to the Proceedings of the Board of Revenue, No. 3,374, dated 15th May 1866, I have the honor to report that in this District no coal has yet been found.

Ed. J. Wright.

From P. GRANT, Esq., Collector of Coimbatore, to the Secretary to the Board of Revenue, dated Ootacamund, 23rd May 1866, No. 132.

In reply to the Proceedings of the Board of Revenue, dated the 15th instant, No. 3,374, I beg to report that I have never heard of the existence of coal in this District.

Exd. J. Wright.

From J. W. B. DYKES, Esq., Collector of Nellore, to the Secretary to the Board of Revenue, dated 23rd May 1866, No. 146.

I have the honor to acknowledge the receipt of the Board's Proceedings, dated 15th instant, No 3,374, and state that, so far as I am aware, no coal has ever been known in this District, but the Geological Survey of the District having been made, correct and reliable information will be available on reference to that Department.

Exd. J. Wright.

From V. H. LEVINGE, Esq., Collector of Madura, to the Secretary to the Board of Revenue, dated 23rd May 1866, No. 171.

In reply to the Board's Proceedings, No. 3,374, dated the 15th May, I have the honor to report, no trace of coal has been discovered in this District.

Ex' J. Wright.

From C. N. POCHIN, Esq., Acting Collector of Trichinopoly, to the Secretary to the Board of Revenue, dated Camp at Perambalur, 24th May 1806, No. 101.

In reply to the Proceedings of the Board of Revenue, No. 3,374, dated the 15th instant, I have the honor to inform you that no coal is produced in this District.

Exd. J. Wright.

From G. BANBURY, Esq., Officiating Collector of Tanjore, to the Secretary to the Board of Revenue, dated Vellum, Tanjore Taluk, 25th May 1866, No. 123.

With reference to the Proceedings of the Board of Revenue, dated 15th May 1866, No. 3,374, I have the honor to inform you that the existence of coal never appears to have been even suspected in this District.

Exd J. Wright.

From D. F. CARMICHAEL, Esq., Collector of Vizagapatam, to the Secretary to the Board of Revenue, dated 25th May 1866, No. 412.

In acknowledging, No. 3,374, Board's Proceedings of 15th May instant, I beg to state that we have no coal here.

Exd. J. Wright.

From A. MACGREGOR, Esq., Acting Sub-Collector, in charge of Tinnevelly, to the Secretary to the Board of Revenue, dated 30th May 1866, No. 207.

With reference to the Proceedings of the Board of Revenue, dated 15th instant, No. 3,374, I have the honor to report that no coal is known to exist in this District.

Ezd. J. Wright.

From J. FRASER, Esq., Collector of the Godavery District, to the Secretary to the Board of Revenue, dated Cocanada, 31st May 1860, No. 115.

1. I have the honor to acknowledge receipt of the Board's Proceedings, dated 15th instant, No. 3,374.

2. From a pamphlet in my office, which was received on 23rd March 1858, containing the Report on the reputed Coal formation at Kota on the Upper Godavery river, by Mr. Philip W. Wall, Mineral Viewer at Madras, it appears that he followed the course of the river from Dowlishweram beyond Badrachellum, but found no traces of coal anywhere.

3. Neither have traces been found anywhere else, so far as our records show.

Exd. J. Wright.

From T. A. N. CHASE, Esq., Acting Collector of the Kistna District, to the Secretary to the Board of Revenue, dated Masulipatam, 31st May 1866, No. 174.

With reference to the Board's Proceedings, No. 3,374, of the 15th instant, I have the honor to report that I am not aware of the existence of coal in any part of this District. Major Applegath, late Paymaster of Pensions at this station, was very sanguine on the subject, and stated he had, in company with three Sappers, found coal which easily ignited, near the junction of the Manneru and the Kristna, in the Nundigamah Taluk. There is, however, nothing recorded on the subject in this office.

Rad. J. Wright

From G. S. FORBES, Esq., Collector of Ganjam, to the Secretary to the Board of Revenue, dated Chetterpore, 1st June 1866, No. 1,091.

Adverting to paragraph 1 of the Board's Order, contained in their Proceedings of the 15th ultimo, No. 3,374, requesting early report on the coal resources and production in this District, I have the honor to intimate that no coal has ever been discovered in Ganjam District.

Exd. J. Wright.

From H. G. SMITH, Esq., Collector of Cuddapah, to the Secretary to the Board of Revenue, dated on Circuit at Muddenpully, 4th June 1866, No. 82.

With reference to the Board's Proceedings of the 15th May 1866, No. 3,374, I have the [illegible] to report that from the inquiries I have made. I am given to understand that there is no [illegible] in this District.

From W. M. CADELL, Esq., Collector of South Canara, to the Acting Secretary to the Board o
Revenue, dated Mangalore, 6th June 1866, No. 96.

1. With reference to the Board's Proceedings, dated the 15th May 1866, No. 3,374, I have the honor to state that so far as I am aware, there appears to be no probability of coal being found in any part of this District.

2. I would, however, observe that the mineral resources of this District have yet to be thoroughly examined, in order to ascertain the existence, or otherwise, of any mines capable of producing coal.

Exd. J. Wright.

From E. G. R. FANE, Esq., Collector of Madura, to the Secretary to the Board of Revenue, dated Cuttiwak, 7th June 1866, No. 167.

In reply to the Board's Proceedings, No. 3,374, of the 15th May 1866, I have the honor to report that there are no coal mines in this District.

Exd. J. Wright.

From J. D. ROBINSON, Esq., Collector of North Arcot, to the Acting Secretary to the Board of Revenue, dated Palmanair, 17th July 1866, No. 194.

Adverting to their Proceedings, dated the 15th May last, No. 3,374, I have the honor to state, for the information of the Board, that so far as my own observation and limited knowledge of Geology, and the reports of the local officers enable me to judge, there are no traces of the presence of coal in any part of this District. Mr. Price, in writing of the valley of the Palar, which lies within his Division, observes that the strata are post tertiary, and might probably be found to contain some lignite, but in such small quantities as not to be worth working. The fact that the north-west and south-west lines of railroad traverse from end to end the two principal (the Nageri and Palar) valleys of the District, and that no question of the presence of coal veins have (that I am aware of) ever arisen out of the operations connected with them, would appear to set the matter at rest, so far as it concerns this part of the country.

Rad. J. Wright.

Contains a letter from the Secretary to the Board of Trade dated 15th August 1666 & Nº 5708.

NEW: 2666/66.

Recd 19th Dec. 1666
Read 234

Regarding Coal.

19th Decr 66

Nº 3424.

Letter is accompanied by copies of the report of the Select

The first of the party of civil engineers under the direction of Mr Stephenson

General report of the proceedings of the first division of the party

... [illegible] the Castle Coote

... [illegible] Mr Mitchell

... [illegible] the Lieut of the State. It at the same received a letter from Colonel Colby on the subject of further

a copy of the letter of Colonel Colby will not be necessary at this time all such but can scarcely be avoided. I think Mr P. should

... [illegible] that it would be better that the question

... [illegible] or near the

... [illegible] of sent - which considering the local difficulties

Explanations in the Report of the Select Committee on the Survey for an Railway from Dublin to Belfast

2 Copies to the Lords of the Com. Treasury
Despatch
1 Mr Reed
1 Lords of the Geological Survey

Office

Copies of the papers referred to in Capt Mitchell's letter to be filed & must form part of the Report

Revenue 1866 Respecting
Revenue for December

Proceedings of Court for December

Respecting Coal Lands
in Dumfries Virginia.

Pa No. 143-407-6-66.

No 3424

Proceedings of the Meeting Court
held 19th December 1866.

Letter from the
Judge of Coal Lands
of the Madras Presi-
dency ordered to be
communicated to the
Secretary of State.

No 3933-35