

No. 43. Read the following Extract from the Proceedings of the Acting Superintending Engineer, Northern Circle, in charge of the Central office of Public Works, dated 14th February 1857, No. 10300.

Read the following letter from WILLIAM FRASER, Esq., Civil Engineer; to Colonel C. E. FABER, Chief Engineer, dated Camp Pallaoor, Coimbatore 20th January 1857.

SIR,

Not wishing to add to the expense of my Establishment, I have not up to the present time, made official application for a Medical Officer, although we have been very much in need of one. Now however, I deem it would be injustice to the party working with me, to refrain longer from making such application.

We have been but a short time working in this jungle, and already several of my party have got fever, Mr. Conroy, one of the Surveyors you lately sent me, I had to send into Coimbatore yesterday, as he was so ill, I was unwilling to continue treating him myself, my Maistry too is very ill, and I am thus deprived also of his services, which just now are very valuable, this loss and inconvenience would be much prevented by the presence of a skilful Dresser, and I would also have less difficulty in providing coolies to come into an unhealthy jungle, if they know that in case of sickness, they would be promptly and skilfully attended to.

I have therefore to request that you will send a skilful Dresser, or such other Medical Officer as you may deem necessary, but unless he be a person of some skill and experience in treating the ordinary diseases, incident to places of this kind and work like ours, he would be of little use to me.

On a former occasion when writing to Major Lawford, I stated that to be relieved from the responsibility of treating Medically my party &c. I would willingly pay one half a Dresser's salary I would of course, rather not be obliged to do that, but should it remove any difficulty in granting my request now, I am still willing to do so.

Should my application be acceded to, I hope there will be no delay in sending the Dresser with a supply of the necessary Medicines, as every day adds to the number of sick, and looking after them, occasions a serious and painful occupation of my time and attention.

Should this request be granted, it would probably save both time and expense, if Doctor Sanderson, were referred to, as he might be able to transfer, from the Railway Department, some one already in this neighbourhood.

P. S.—I regret to have to state, that since writing the above, Mr. Kowen the other Surveyor has been attacked by fever, and I shall probably have to send him away too.

It is to be regretted that men more experienced in their business, and with constitutions somewhat seasoned were not selected to assist me. I work myself from daylight until 10 or 11 o'clock and again in the evening from 3 or 4 o'clock until dark. Of course I require those who are with me to do the same, but young men like these, no matter how willing they may be, are not able to accomplish this, and I do not like to press them to it, knowing that the sacrifice of their health would be the probable result.

I do not therefore expect that either of these young men, notwithstanding their desire to be useful; will be able to give me the assistance you intended.

Resolved to forward to Government, for information, copy of the foregoing letter dated 20th January 1857, from W. Fraser, Esq., Covenanted Civil Engineer, applying for the services of a Medical man, and to recommend that an experienced Native Dresser, be appointed, and a supply of medicines furnished for the use of the establishment employed under the orders of that Gentleman.

(Signed) C. C. JOHNSTON, Captain,
Acting Superintending Engineer Northern Circle.

Fort Saint George, Public Works Consultation of 10th March 1857.

No. 44.

ORDER THEREON, No. 422; dated 4th March 1857.

There being no Medical Subordinate available for detached duty, the Chief Engineer is requested to suggest to Mr. Fraser that he should obtain the services of a pensioned Dresser, and charge in a contingent bill the remuneration he may consider necessary. The entertainment of the Dresser will be sanctioned only during Mr. Fraser's employment in unhealthy places.

(Signed) H. FORBES,

Acting Secretary to Government.

N^o 10300
Extract from the Proceedings of the Chief Engineer
in the Department of Public Works

Under date the 14th February 1857

Read the following

Memorandum at Pallavoor

Coimbatore

From. 20th January 1857
William Fraser Esq

To Civil Engineer.

Colonel. Faber

Chief Engineer

Sir,

Not wishing to add to the expense of my establishment, I have not up to the present time, made official application for a medical officer, although we have been very much in need of one. Now however, I deem it would be injustice to the party working with me, to refrain longer from making such application.

We have been but a short time working in the jungle, and already several of my party have got Fevers. Mr. Conroy, one of the Surveyors you lately sent me, I had to send into Coimbatore yesterday, as he was so ill. I was unwilling to continue treating him myself. My Assistant, too is very ill, and I am thus deprived also of his services, which just now are very valuable. This last end inconvenient would be

much prevented by the presence of a skilful Dresser, and I would also have been difficult in providing food to come into an unhealthy jungle, if they know the no case of sickness, they would be promptly and skilfully attended to.

I have therefore to request that you will send a skilful Dresser, or such other medical officer as you may deem necessary, but unless he be a person of some skill and experience in treating the ordinary diseases, incident to places of this kind and work like ours, he would be of little use to me.

On a former occasion when writing to Major Lawford, I stated that to be relieved from the responsibility of treating medically my party, I would willingly pay one half a Dresser's salary, and would of course rather not be obliged to do that, but should it remove any difficulty in granting my request now, I am still willing to do so.

Should my application be acceded to, I hope there will be no delay in sending the Dresser with a supply of the necessary medicines, as every day adds to the number of sick, and looking after them, occasions a serious and painful occupation of my time and attention.

Should this request be granted, it would probably save both time and expense, if Doctor Sanderson were referred to, as he might be able to transfer, from the Railway Department, some one already in the neighbourhood.

I have &c
J. W. Fraser Esq. M.D.

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I regret to have to state, that since writing the above, Mr. Flower the other Surgeon has been attacked by Fever, and I shall probably have to send him away too.

It is to be regretted that men more experienced in their business, and with constitutions somewhat hardened were not selected to assist me. I work myself from daylight until 10 or 11 o'clock, and again in the evening from 3 or 4 o'clock until dark. Of course I require those who are with me to do the same, but young men like these, no matter how willing they may be, are not able to accomplish this, and I do not like to press them to it, knowing that the sacrifice of their health would be the probable result.

I do not therefore expect that either of these young men, notwithstanding their desire to be useful, will be able to give me the assistance you intended.

Signed J. W. Fraser
21 Jan 1857

Resolved to forward to Govt for information, copy of the foregoing letter dated 20th Jan 1857, from W. Fraser Esq. Commanded Civil Eng, applying for the services of a medical man, and to recommend that an experienced Native Doctor be appointed, and a supply of medicines furnished for the use of the Establish. employed under the orders of that Gentleman.

W. H. Weston Esq. Capt.
The Sec to Govt P.W.D. R. Sub Singh M. M. C. O. of P.

The following table shows the results of the regression analysis for the dependent variable Y (in millions of dollars) against the independent variable X (in millions of dollars). The regression equation is $\hat{Y} = 0.8X + 1.2$. The coefficient of determination is $R^2 = 0.95$.

X (millions of dollars)	Y (millions of dollars)
1	2.0
2	2.8
3	3.6
4	4.4
5	5.2
6	6.0
7	6.8
8	7.6
9	8.4
10	9.2

The regression line is shown in the graph below. The x-axis represents X (in millions of dollars) and the y-axis represents Y (in millions of dollars). The data points are plotted, and the regression line is drawn through them.

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