

## Letter to Joseph B. Braithwaite, 26 January, 7 February 1860

*Livingstone, David, 1813-1873*

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[0001]

River Zambesi 26<sup>th</sup> January 1860.

My Dear Friend

I recieved your welcome letter March last a few days ago, and thank you for the of your friend from Leeds. the defects we unfortunately experienced in the Ma Robert or the "Asthmatic" are so numerous that it require a treatise as long as a lawyer's of any simple subject to give you idea of them, and they have inflicted so much toil a feeling of sickness comes over me when I to them. the only feasible explanation of the of the contractors I can see, is that probably Zambesi Expedition and the Great Niger Expedition alike, ~~Will~~ all must either perish or be so ill to be unable ever to notice any defects.

"works which will last a few months will do all - require". "why waste time on works so soon to perish."

Steel Plate is a failure. this is no fault of the Lairds. is excessively hard, does not wear at all by friction, decomposition sets in universally on both , and ~~hard~~ black scales, strongly magnetic, formed with surprising rapidity. In twelve our Funnel, Furnace - Deck & bottom made like sieves even though the plates well protected by Peacock's Patent paint. vessel was formed pretty nearly on the proposed by your friend. in 75 ft. - coupled below. The below

being a bolt which simply slipped into a hole in another The least wear in the or hole such as

actually took place in the week, allowed of a pumping action the compartments and perpetual in the cabin was the consequence.

[0002] would not blame any one for this either. the calculation of displacement was according M<sup>r</sup> Macgregor Laird that she should draw 13 only and if loaded up to two feet she could from "ten to twelve tons" of cargo. We lately her, without water in the boiler or fuel, or crew provisions or tools, and in salt water she 23 inches. She drew 19in. at Liverpool without house or hatches on - and with her crew small stock of provisions, and one days fuel board she draws 31 inches. The water being only 5 inches from the paddle shafts.

The form - an imitation of Niger canoes - is long & turned up at the ends. this to make her quickly! It is followed by the negroes because trees will not allow greater breadth, and the up end allows them[canoe] to slide up a bank instead giving a shock. Here canoes are often made crooked trees & the craft being bent like the stock which it is hollowed - some future contractor spend other people's money in Zambesi canoe vessels as if it were the best adapted for round corners.! We drew more water M<sup>r</sup> Laird following the "Niger canoe form" your friend's model would do, from so having been bent up, and have derived no whatever from the use of the steel plate. have no idea of what our wretched vessel from the photograph. That is not a photograph a vessel, but the photograph of a picture. suspects a photograph of telling lies? No . You will be able to look on your photograph a new light I discovered before I left Liverpool. form of vessel is most unmanagable for she touches at all it is on the middle compartment rests and she goes round on a pivot rather move off, unless she has way on her cannot turn but by a long circuit

[0003]

The engine was beyond doubt made for some purpose. M<sup>r</sup> Laird denies this, but his own stated this to be the case. [to M<sup>r</sup> Rae, our engineer]. The cylinder is a pressure one applied to a high pressure This large recess shews what is stated. the pipe is considerably smaller than

the pipe, and the valves of the pump being India rubber are perpetually going wrong. she was tried at Liverpool two were employed constantly working pump. The boiler tubes are much too and situated all at one side, and chiefly the level of the fire. The draught being to clear them, ashes fall [back] from furnace, and choke the half of the tubes a few hours steaming - until the is generated from one side the other remains cool. the hand may be held in the from right hand cock while the other scald. the bridge made of bricks is continual nuisance by breaking down with the best wood on the river - Lignum dried, we cannot move up the river so as a man can walk. A ton of this will not give 7 hours steam. We tried a of ebony this week and it did not give hours, our speed being scarcely a mile hour against a three knot current. It is breaking work I assure you. We spend more time in wood cutting than steaming can she tow. We were obliged to leave pinnace at Senna a few days ago because held her back so much. Yet we were ten or rather over ten knots.

[0004]

So long as we had coals we did pretty well but no sooner the Pearl leave than I saw that we had been . With common wood we could not food for our crew. Any canoe beats us we are going down stream. No one will believe the toil we have been put to in wood . the quantity consumed is enormous & cannot get sufficient for speed into the furnace was only a dogged determination not to be beaten carried me through. Of late we have been spending time tinkering which might have been in doing good service to the cause of in Africa. But all will come right at last. We are not alone. though we deserve not His Presence he encourages trust that it is granted by the word. I am you always even unto the end of the world.

I have thus mentioned some of the defects our wretched punt. Unfortunately a mail was lost on the bar off Kongone lately & we know whether we are to get a vessel lieu of that which Bedingfeld for his own got me to reject. But I wrote to my James Young of Glasgow to get me out of my own money if £2000 do it. We want one for the Lake . that is the slave market and the seems fair of cutting out a large of the supply from the slave ports the East coast by the introduction of gospel and lawful commerce on Nyassa. I think the object a worthy one employ the money which Providence lately into my power. I do not touch on funded for my family. We want one which be capable of being unscrewed into pieces of 500 lbs each

[0005] plate will not do. We send home M<sup>r</sup> Rae who knows all our wants and what would be . M<sup>r</sup> Tod of Glasgow has been thought for making the vessel proposed. We require - little draught of water & power equal least to the heavy lumbering canoes of this . A condensing engine of forty horse at least, furnaces proper for burning wood. We M<sup>r</sup> Rae will be able to see that we get the thing. if the Government grants the means one boat it will be a help for we require establish a communication with the Cape is impossible for you to concieve how every thing is here. and the Portuguese are to be depended on. their establishments only small penal settlements, and as no women sent out the state of morals is frightful. The disease universal either hereditary or acquired. only chance of success is away from them. would prosper in their vicinity.

Baines our artist was left at Tette in order to him exposure to malaria and he fell before moral atmosphere of the place - was dishonest -  
- diseased &c and we were obliged to send him . Very likely he may turn round & blame me

he begged to be allowed to remain without before I had spoken a word about his . Bedingfeld tried all he could to incite Portuguese against the Expedition as soon he returned, and even wrote letters to the Boletim Mozambique to damage us - This may appear to our friends at home as they have no idea often the same things happen even among . M<sup>r</sup> Moffat brought two young men him from England. One did nothing for four , and after spending a good deal of money was off to Canada. the other sat down in a

[0006] house & garden and not even the Directors dislodge him till lately. After all I have seen I am that were Christianity not Divine it would trampled out by its propagators. Among Portuguese

Baines' example will do no harm, for they are the of the low. I tried to give him the benefit of a as to his sanity but it would not do. All the i.e. D<sup>r</sup> Kirk, M<sup>r</sup> C. Livingstone & M<sup>r</sup> Rae with 2 sailors do well. I do not remember whether mentioned that Thornton the geologist failed. An entire of energy set in after our arrival. I tried him eight months - talking seriously to him & warning that should his inactivity ~~prev~~ continue I must his pay. D<sup>r</sup> Kirk & M<sup>r</sup> C. L. did the same. We could get him to work. In eight months he did not 8 days geology. His salary ran on at £1 per day. This money is supposed to be by me, so I had to cut him off. He then away with a half caste trader towards Zumbo, if he works now it is more than he would while with us. He belongs I believe to Bradford in Yorkshire.

we are now on our way up the river to the Makalolo country, but must go overland from Kebrabasa or in a whaler. We should be able to plan our course had our letters been lost. We have never been idle do not mean to be. have been trying to get the Portuguese Government acknowledge free trade on this river. but for long delay in our letters - the might have been far advanced hope Lord John Russell will help in this and then we must have a small or missionary & mercantile settle-If this our desire is granted

[0007] is probable we shall have no cause to lament our toil & detention here. My wife's letters too were so I dont know how or where she is. separation and the work I have been engaged in were contemplated but they have led to our opening a into the fine cotton field in the North. you will that the discoveries of Burton & Speke confirm respecting the form of the continent and its . It is an immense field. I crave the honour establishing a focus of christianity in it, but it not be granted will submit as most . I have written M<sup>r</sup> Venn twice from yours I see something is con-in Cambridge. You did not send copy of the lectures there because you thought others do it. We always believe that [to be a] great law of "What everyone is likely to do no [one] does", and a laugh in finding each of our friends saying one is sure to send you so & so. I did not a volume from the lectures but thought M<sup>r</sup> Murray would issue a cheap edition. it does good its all right. If young men come this country they must lay their account doing every thing for themselves. they must not expect to find influence at once all the countries near to the Portuguese been greatly depopulated. We are now this river without vegetables living on salt beef & pork. Slave trade has its work for formerly all kinds of pro-could be procured at every point & the cheapest rate. We cannot get anything either love or money in a country the of which is truly astonishing

[0008]

As a finish to the subject of this vessel I give the notes the brothers Laird " Hamilton Square Jan<sup>y</sup> 16 /58

D<sup>r</sup> Livingstone's launch will more exceed the ten knots than fall of it when kept in proper trim. appears admirably adapted for what was proposed for, the Upper Zambesi "Tete" If she is heavily laden stores her speed will of course diminished as her draught of is increased. As they are putting engine together it is impossible alter the power - even if desirable, it is not.

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(on another subject - the Niger)

D<sup>r</sup> Livingstone may calculate one ton for every inch Depth the Launch, and as in the he may safely load her 2 ft from ten to twelve tons be available for stores and . As to space the plan sent shews accurately the Room

X XXXXX

Macgregor Laird

4 Jan<sup>y</sup> 1859

It was with feelings of & regret that read the extract from

D<sup>r</sup> Livingstone's letter in the Times Friday & now by yours Saturday.

Some of the remarks are calculated to the public & one positively untrue.

In meeting these it is well remember that the was designed perform a particular , which was to as a dispatch or craft but few and little luggage her draught of was to be 12 to 14 and not to exceed

18 inches

After trying to prove that the failure was owing to being loaded up to 2 ft 6, he adds, there is one statement ~~which I must deny~~ about the being an old one originally cast for a low pressure , which I must deny. and curious enough I made pair of engines from the same pattern for a yacht built for the Duke of Leeds which have given the satisfaction during the whole season. It is John Laird. Ours is a low pressure notwithstanding, and "Ten to Twelve tons" of people not "a few" nor is a mile an hour great dispatch

David Livingstone