Sully. Alg. May 7. 1878

And Matt



Fart Vancon May 7. 1878

Den Sene

Otherk Ju for you taid offer. My The Sidench tom any me of those accordes of my dea fever. I have Satoma pour Since 9 has in fornice and the lash was larger & mon Sim then usual. The fer has lithe me have but has left the very weak When the Searce is a little Juthe advand I interd to apply for a Sick have to with Sema plan on the Court when I can be quick In a few weeks. To try if the Sach air will not

afond me ten havy Mich

Jun with hach

Auf Sury

1. Juc Howard hra

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1 "

18m Mashington cliquy 8. 1838. elly dian general, and and and In our tounding Hospital re find owselves camped for want of a working majority the Bog brindens. At a meeting last night it was thought best to supply the places of those Quetons who had moved anay, with others resident here I instead of declaning the places vacant thought it best to ask the resignation of such as had removed. I come you will see the propriety of this & well not conclude it cames with it any designat - loe all moved

Ir m Stickney. much prefer je remaining on the Board, but a there is no compensation, not sien handing rep. it is too for the point come I have written a form wh vill answer the purpor. We are in The mart of warm weather - a sight of Old bord would to us all good But this we forego. Do Ance tate will at to is and To enjoy tous les jours -Jon as her the tichnung any demander - the all would

116 THEO. F. GATCHEL & CO., REAL ESTATE AND INSURANCE. LE DROIT BUILDING,

Corner of 8th and F Sts.,

Washington, D. C., May 8 1878

Ann Jewel for Shell? Swas delaged sound in getting information that secure reficiently definite Shedt has a good gue al & classical Scheation and as I before replained the Calibre attrefo and reperience of a first Claf typing man, but would bane to learn the spicially of topographical drawing. My fing join the in third love topor ad your July presents.

7000 A 1202740 . 9. 0275054 & 60., TRATES LATE LA DROIT HUMPING, Corner of 8th and F Sta., Washington, Det, Mc Have for been any things Shald ! Oferra delaged and ma farm lete thing superantion that spean a definite. Street has Clapical Su for Explained the Calalies Eferience of a girst Cla Enero Ken I t & aran, lent would I leave to "The Specelly of topographical form the in Burgel Con

Di Find of a stringer that is, a side beam of my bridge. Be pleased to note the following ideas. 1st The horizontal part is a specimen of what I claim namely the time tube tension beam, apparently a very small, & to many an incomprehensible matter get the germ of the great results which I claim? Suppose a steet wire miles in length hanging in the curve form y such such tubes, especially if entering one another would straighten the curve, I fling it from the a weak form of a beam to a stronger & when the enclosed wire was put into tension into a much stronger beam, & when the pushpower 22 Objection. The pushing braces on a mammath Scale would be impracticable. Could I have afforded it, the pushing braces might have been much stronger with much lefs weight. my principle applies to the stanting beams as well as how outat only meeting and modifications at the ends. Then to strengther the modifications at the ends. Then to strengther the it should have pushing & upholding braces above & tension braces below, & where too low to be braced to the apposite side of bridge, tension truls have at each side. In short the pushing braces would as skeleton braces, be much stronger than in the solid condition, & might be miles in length ~ b pushing have h to be the hat 3 notice the onbreme very small weight of the horizontal beam contrasted with its great power when combined with the braces within having These wire taken then put in tension, that some toneion braces below could be easily pushed average a chasm of some hundred feet, without being pulled from the other side - One after another could be

be pushed accross parallel to each other. Then tension traces could be added below untile any amount of strength is obtained. To be soremed into one another so as to make I-a continuous power. On for wire there might be cords carried & on horse back. The idea is to have a bridge which soldiers can carry on their backs - on on horse back with a few horses, without having to make wagon wads, & carry pontoon & other heavy arrangements. 4th I will send (DV) in a few days also by mail such a beam as I mention at the foot of page 4th - I will send it loose, & put you to The trouble of putting it up, which I hope you will excuse, because this will develope the of the principal advantages I claim namely, early hansportability, I easy construction. 5th The later on the model I have sent are soft mood - The wire is inferior in quality not steel - It the wire damaged by a former beak down, owing to a person of 15 the standing on it in the middle & spring "ap when the nut-flew off. 6th Be pleased to be cantions in testing it. Let the my spece be carefully sustained exactly perpendicularly to the middle of Let the weight, be hung educfully from the middle only, & let the tite of the middle have a wrapping fleather on coarse cloth on it as the word is soft a might be crushed to pieces on the wire. twing to the tukes not entering into one another " boing soft more) I is a very poor suddel. a weight of the hiddle is equil to this a much distribute

Philada May 10. 1848 14/2 My dear pience Howard Your postat ourd came duly to hand, in hunning us of your safe arrival at Portland; The much have been a joyful securion with you dear family after the severe treals you have gove through; You interview with you aged Mother must have been full of affection. In none love more purely and lasting than a good Mother other relatives and fiends May became cold a forsake, but a mother never. Falle B'continues about the tame, the tucklings on her neck Neither increase monodecrease in fire, She is cheerful and makes few conflamts, Days the welling, give her no pain but are Somewhat meon receicut as they prevent her moving her head aspec by as the desires; I have to expostulate with her in her being sufficiently careful of her health, The is a general favorite and her Dociety Much com ter more moury invitations to entertainments flue the and Suppers, this with church offairs and Do cicty business, theep her in a state of excitament prejudicial to be health, luckely the has a tobush

Constitution, and as Summer time is hearing when there will be a cenation of these calls upon her, The will no doubt emprove and I trust c. "sely reque. Hannahis little daughter Fanne stil "...... food does not remain on her Stomach, other means are taken to keep life in her, the doctor Days that the may live Several weeks a may die at any mo ment; the has always been a pail little mat & see mingly too etherial for this world. Edum and Many are in Pairs, we receive a a Ma from Many (Eduin does not write) statis that Eduin improves very stadoly, he deeps to en, enjoys his meals, does not avoid but rate courts society; these are encouraging sig. . as the contrary was his condition when he left the ountry; The all rejoice that the hits brought again in have been decided in your favor and that form is who Dought you win have been to Signally de Jeated. May God ever motion for. The all Send love to for any family July Jun Friend Odwin Stable

Dan blaine 2 tors D: Finend Sent by mail two days age a specimen of the wire tubular beam with pushing braces - will send to-day or tomorrow a wire beam with a tension trufs below and as soon afterwards as I can a cord instead of a nine beam. you will be pleased to notice that, as I mentioned, that in the case of the resisting haces, the apex should be exactly in the same perpendicular plane with the horizont zal beam, So and the tension brugs below should be perfectly in the same per-= pendicular plane with the beam in order to a correct testing of the idea. 2) Be pleased to notice again that my wire beam in all cases is the strongest popule beam because provided the two ends are firmly located then the iron tension fibers or nices are the much stronger than the natural fibers of the same beam, & have a more powerful action in straighters ing, & keeping straight the beam-That is in strangthening the beam 3 The wire beam with the tension trufs has its ends firmly located without doing violence to the pier. It is the specified as having the ends lying in indentures or cavities in on the surface of the pier so that they slip to either side. and

they are bound downwards by the ends of the tension trufs so that they cannot tilt-up. The ends being thus firing locates, the tension material is like a powerful rivet binding the two ends of the beam together in a rectitional directness approxim: sating to the nearest of any physical or material action to a mathemat-= ical straight line. As in a great length, say of miles (as I claim my beam will budge without piers) there will be some bending of the rigid envelopes, that is easily resisted & Then, as I formerly said, if steel wire can be hung 7 miles them a in a curve, then I can certainly span 6 miles, & bear a considerable burden even before adding the tension trufs, & the power of the tension trufs action is so great & so easily applied that with that addition there is almost no limit to the burden bearing capacity. and this very long & very power -ful bridge can be evidently built with very great rapidity, this rapidity & one of the elements of its great cheapness - with regard to a defined line of action, in which, as you express it you may afsist me I want no afsistance that I might even when to comptemance the idea that

I am a petitioner for help towards carrying into practice any holby of self interest. Let the third stand simply on its basis. If you will only take an interest in the concern of am very milling that you should have an interest vastly dis proportionate to the amount of the aid afforiced, because I regard you with very much respect on account of what you have done * suffered in the cause of liberty, & on "common salvation" I proposed terms in my last, I would now add that a fer only to caveat to begin with do My nephen Trank Newland, is the son in law of Sharon once reputerly unmensely rich, non having lost-greatly through Ralston: I am perfectly convinced there are more millions in pushing these ideas than in Sharons mines. If he could once be convinced of this no doubt he would help me for the sake of his own interest. my nephero is to sensitively proud to take a dollar for Sharon except as he would from any one else in a purely commercial may on the grid pro gris idea. His brother Lames newland's was in the Patent Treasury department. I made as de

an application for a patent some gyears ago. My Lames nephen James interviewed the Examine who declared there was nothing new in the ideas except and thing which he said was ofno importance. If he meant the tubes mistaken. The tube is the germ idea which makes popule the very great results I have reasoned and the which changes the arcutas expensive curve to tower sucpension to mine, so much cheaper, & so much ho more powerful. In my letter I built & tester a model & feet long. 10 lbs weight encluding braces which bore, an aforstant that ght, 2000 lbs I was willing to call 121500 lbs. Properly constructed it would have born up to 4000 lbs. The braces should not here been be considered much in the estimate of neight because they are self- supporting from the file whow's down violence to the file & I should ever be born in mind that neither the braces above on those below add an onnee of weight to the how at al beam - How, then, otherwise how of the try could the berg light her very strong former which is the initiative demant of the bridge

Ean blance 11 May I wish to amplify for clearer illustration the idea of last sentence in preceding letter. It although, I have no doubt you it is self endent to you. Objection. Oh! the pushing braces are no moretty & they are the where they are used the supporters of the bridge answer. Who ever saw on heard of long pushing braces: These braces preshipping an intrative elementary stringer beam. It is not difficult to use them in combination with a short beam But what beam has yes been mented that has can be pushed on party pushed The wire take beand, is the only on with some tension trups below, is the only one that can meet that condition And mitiatize beam not come above 3 ton tooils be thatanced by the same weight on "the bank, & rolled on rollers a corofs. Gr suppose you undertake a 6 mille span on the supposition that you steel when hing up to I miles. Then your toad of more than Sphaled and a tons. Then a current being thing immediately above on below the one which is to form the begins with a moreable bas ket if for a moreal then flatform if which ing for below the tubes formed of semi -tubes boltes could be applied all the may: If imagination reels under the idea of what readon clearly reveals namely the "miles span, yet it would absolute

which donce asily & rapidly for that 10 there is no find grantic howen the mile the braces. - as before, the inter tube is the beam because of the its strength & lightness, & capabelletter other nice bridges of indefinite incress ment in the burden bearing power. 2° It is self evident that while the beam with the tension trufs combine = ation is have addening in the interior of the interior of the addening it is a strong enough no tension trufs can act without ag to resist the tension, but as before, no beam can be formed for any great length strong enough but the Butenough in the mean time. J.B. But it is well to keep in view the fact that a wire ourse can be hung for miles, & that the tubes confer much more burden bearing power than they abetrast by their weight. you can easily test this as I did. I took a 4 feet rod of in 14 inch thick tested what it could bear, then enveloped it in spice bore 3 times as much as before Sam account this was probably much lefs than one another as my plan is. Now on what the combination of iron a wood can a configuration hunden beering planer be so much a so & rapidy strengt

Di Finind I hope you will excuse my writing so much to you for I do not know how else I can bring matters to the point expressed by your self namely to give suggest some definite line of action which you may consider for my aforstane" One way would be for me to construct models the make ready the parts of models of the make ready the parts of models of such & such a size here, box them up & coprep them to you at such an (which would be easily done) construct the parts & test them. If you are not satisfied with the model as do, where sent, I my statement about the & fost model as deciding the thing for all sizes. Then send me un order for a beam of the 20 or 40 feet to be capable of bearing to * so, & Inile = prepare it & tend it boxed up. But when I think on this, on the expense that it will put you to although the expense after all will be very small - get an expense needlefs, because you have the wood at Portland - can have it bored. there as well as here it than there there are the enperte of the brief 200 for in \$8.00, the Blacksmithing a trifle, the weight

the power up to 30 tons. But the whole matter is so simple especially if go over once more in a few times the minute details, that I do not see why you would not prefer superintending it your = setty thus gain a little expert zience in a matter which I should while you must perceve it to be of Emmense importance, would be of human ofter the fatigues also be to your after the fatigues of war, and interesting amusement. yes ty marked for you a model (very ill made) a beam with a tension trufs below. It is so The constructed that when a load is laid on upon it is constructed that when a load is laid on upon it this I put one that a tension high the link of chipe inte soithe down and action of the bridge bengen to prove the link might help the beam is think inter the spanning has of the beam is think inter much life them 2 onnees. And if the = ming part of the beam that is the germon cardin all idea from invention together with the times portatility of the parts, & care & capitity tension trips the freshing operative that the tension trips the freshing operative that the grain of might to the space how on the spanning that of the bear hidge. I that you can perceive that the model verifies the main dea freat into that the model verifies the main dea freat into that the model verifies the main dea freat into that the model verifies the main dea freat into that the model verifies the main dea freat into that the model verifies the main dea freat into that the model verifies the main dea freat into that the model the important brings above the we take the important trups above the interverifies the important trups above the interverifies the important trups above the

66 Part of road way of bridge, to bib, b, b are beams or sets of beams (3 meach set) Till shetched - should be Jequal with) I s is a space between two sets of beams to let rain pals through ... 222 to are 2000 of iron binding the all the beams together below of The tension truf below of conce con the seen ont See . other side

10 The enveloped sinces have been been bad metal, & generally the models and & very pour specie. =mens of the specifications intended. I am confident that if I could only afford the two dollars on so herefsay for a steel wire model I could sen? you one everything only one once that would bear 500 lbs, 2 feet long. T.B. 10

pp . h 20 6 1. 6 1. 8 B 13 6 es a spar line 1. The part & on 1 - the 1 he 666 That nepr ich there

masonry that is hove industriately The part B B rests upon marmoth bear of eron b'b' which bridges accross the afore .. At l'I dente a 1. owerful link encompajain the beam of the going under the 6' 8' an as the ong of the time touts down the beam, to the per.

No North and 94/14 healdsburg Academy. PRINCIPAL, - Gilbert Butler, F. S. A. HEALDSBURG, Sonoma Co., Cal., May 114187 8. General O.O. Howard. Portland, O. my dear, dear Lir and Bro. in Christ, The converted gere can't but trouble you again, after a long silence with a few lines. Will you please send me the adress of mr. Meyer a converted 50 Jen, of your town, to whom you once referred." How are your. Is the Lord still precious to your saul? Thank Lod that the grace of our Lovel Jesus Christ is annugh for me! I am teaching in the above school. I have still many trials

may 12. 1878. but I am not better than, Job, Paul or my blessed Lord. I save by the papers that some do not like your, but the Love is your liker. General Low and I are suldiers of a better army than That of this world. Let us Trust in The Lord and do grad. Kupe que are mele. Best regards to jun and Capt. Wilkinsun (?) Please write suris Yours in the great hund of God, Christ and Keanen Prof. Robert Nathaniel Teck. MAY 20 187R 0.0. 1. File

Farleman Mr. S.f. May. R. 1878.

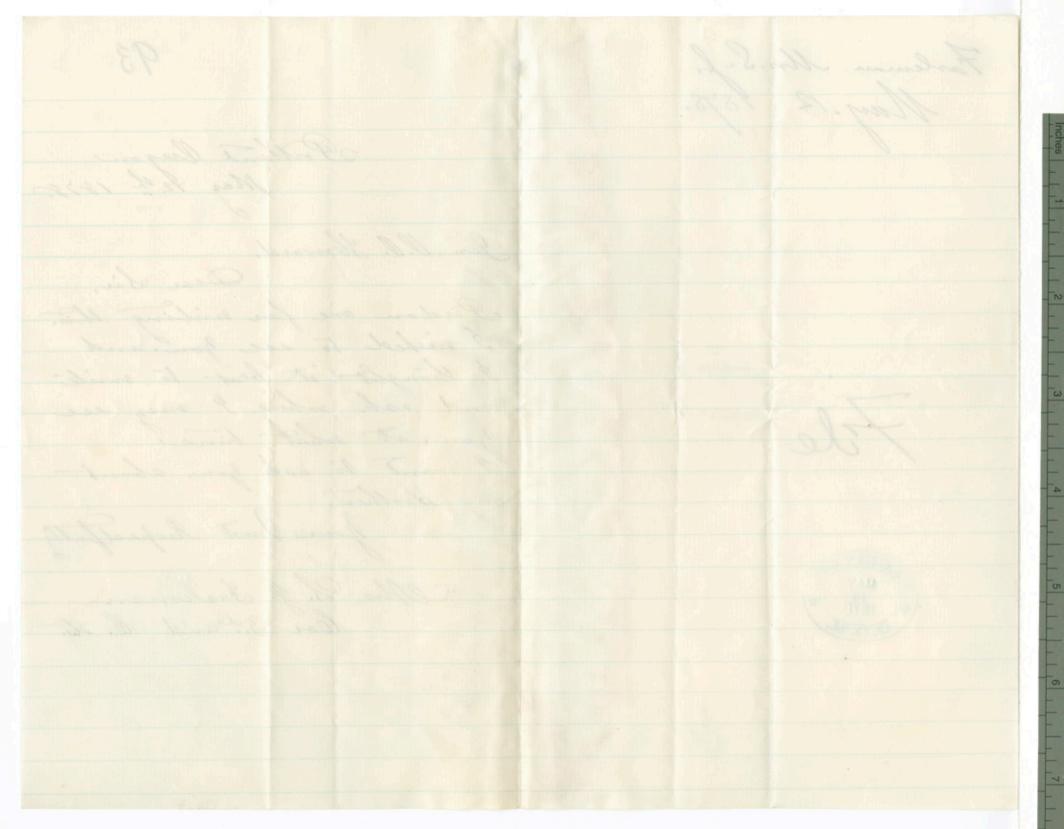
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Portland Cregon May 12th 1878. Jen, U. a. Howard. Dear Sir, Pardon me for writing this. I siched to see you and 9, thought it beat to write and ask where I may see you, at what time ! I want to ask you about my Grother. yours most Respectfully

93

Alle S. J. Farleman. Cor 3. dand C. st.



183 Challis Idaho May 12-1818 Dear General I fust received a letter from Captain Bainbridge It Stall Idaho Which reads as follows, Sin I have the honor to enclose herewith a letter with endorsements in regard to the Springfield Rifle which was turned over to gove Aug 15- 1877 and which you failed to return to me, If you have any explanation to make why the money value of said Rifle should should not be charged against gove please communicate with me al-once (Sgd) Augustis A. Bainbridge leafet - 14 Infi-Cound'y Post-I received the Rifle as stated by leapt Bambridge and on the evening of any 22 nd at leamp learn (below Stenry Lake North fork of Snake River)

I exchanged Said Rifle with one of your afficers for a carbine (for convenience in rideing through timber) On the 8th of Sept- near head of blacks fork while you halled bermand at noon the Office that I had exchanged guns with asked me for his carbine and on acking him for my gun he told me it had been sent to It Ellis Mont. I referred the matter to you, you also totel me that the gun had been sent to Ellis with escaped prisoners from Joseph. (mann or Cowen I think I then acted you what I had to show at It Hall for the gun whereupon you told some one (ft Fletcher I think) to give me a receipt for it which receipt I handled to Capit Lambridge when I returned to It Hall. Now Dear General if you can call the above circumstances to mind please come to my aid. The kind interest you took in my welfare while in your service makes me free in asking you to bother your seff with my affairs. It is notto save the price of a gun but I would not have anyone think that I would be quilty of trying to steal a son gun. I also got a Carbino of

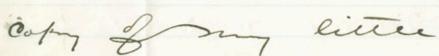
21 Fletchen when I started home that seems to be noissing all I can say in reference to it is this. When I got back to It Stall I went - among the Indians (Bannocks) and gathered up all the Gov guns I could (exceptsome that they claimed as private property) and turned them over to leapt Bainbridge togathen with receipt from you for Rifle, which was satisfactory at the time. but since it appears I am two guns short. Excuse my for writing you so long a letter I deemed it necessary to explain matters and by and vindicate myself Challis Via Salmon leitz Delaho J.S. I feut in claim against - Gov for horses and articles lost while in your service as requested by you" but have heard nothing from it get-

Farrow Ed. S. May 13. 1578 And. Zott. MAY 14 1878 0.0. M.

H Vancomin W.M. May 13' IFTE.

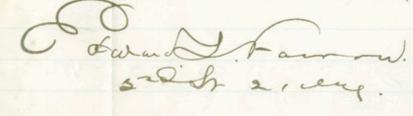
Den Vennal 1

Please acept



book " West Point."

Very honey for The dear her vank



\$ low and dy Ber a early to Citte Cot 7 E tood

951/2 Dayton 1. J. May 13- 1878 Gen? U. U. Howard Commanding Defit. of bolumba' Portand bregar Dar; Sunday" or Big Thunder" a head man of the Valore came to see me day before yester. day informing me that the sumors, that Mores" and other leading Indians in the affur country, new contemplating an out: - hears this summer, was unfounded an originated with inexponsible Indians and While men. of this I ouppose you have been anau as well as myself. Sunday" was esc = Tremely desirous I should comminicate his clords to you, at the time expecting I Anned visit Perseand this week his, an com-= pelled to go to Securition and Take the liberty of communicating by letter. Sunday" further stated the Indians referred to ver

anscious to remain in their present lo · calilies. Sunday" has taken our his fuit papers and is a good man. He escented haniself lase year in quieting the appro-- heusions of settlers in the Talouse country, mafering to assist them in protecting their' stock and cropes. I have the hour to be my respectfully your most obedient Allan

95 Portland, May 13" 78 Les, Arword, Alcor Sir; Will you fordow me for policiting a favor at your hands . I am making an effort to secure the place of prote seculary to the ground parce. Mr C.C. But. maw. und will be most grate ful for any asstislance you may kindly ful dis pared to sender me in that behalf. Your social and " " ficial position will make your foor of the highest - value to me. I have completely record fram the meanity I muse, and earnestly desire to be so placed. that I can rise in life again. The position " to which & have referred would enable me to pursue my literary studies under better auspices than I have hertafor experienced I think the Busiman is now in the city. It will make letter Sufference whether you

are personally acquainted with him a not. as your public fame will give any ap plication you may denne proper to make sufficient weight. Please do not allude to The - - · · · · · and the second infinity , I am Taking lime by the 1 . 17 . 2 forelack in the matter, because such things are usually anticipated Lea. O. Howard, Very Respectfully yours, a - i - that you for and Portland 3 Som, L. Simpson Oregan of I have and consistly desire to be so placed