



Hunt Institute for Botanical Documentation
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About the Institute

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

From Marcus ^{his only sister} to Carrie Jones
when in Berlin 1874

#1

Well Cal.

I suppose you have been waiting for a letter like the bride of Lockiel, but the letter will come eventually. That sickness of mine was not real congestion of the brain, for I can study now just as hard as ever. I had been working very hard up to the week that school commenced and had got a great deal of mucus and blood, more than was necessary for study purposes, so when I commenced study the extra blood went to my head and produced a temporary congestion. I was out of school a week and so have had a week's lessons to make up, which has kept me busy. To day is Saturday I forgot to mention.

Father and the boys are just going up down on
the buggy with pumpkins and squashes.
We've sold several loads of pumpkins
and got two dozen more to sell. Fine
gathered two and a half bushels of hickory
nuts (result of my congestion).

Now Susan I'm going to bore you by some real
verses:

O. A.

1874

Fame with her gaudy thimble,
And Truth of more sombre hue,
Stand at the porch, waiting,
A good head of life's carmine.

Fame with her shining fingers
Points to her way before,
Showing the my kind beauties
Seeming to crowd it o'er.

But Truth that faithful soulless,
Says "Just beyond your sight,
Her road leads down to darkness
And everlasting night.

And though Truth's road is rugged,
And jagged rocks rise round,
I'll lead us to the mansions
Where joy and peace abound.

Now you can criticise lettrinsins.

We just got your postal tonight. Nebelwilde
means mist-, fog-, or cloud-maker.

Orilda was over this morn. I'm getting fatter.
I weigh 142 lbs. My mousetackler is
awfully lopsided viz:  . .

and it is October something or other. We have had two hard freezes (ice 4 inches thick) which have changed the appearance of things some, though the trees look very beautiful. The morning glories in front of the house look like "the hall of a past world." It is very smoky this morning. The lady principal has come at last. She is a more scholarly lady than Mrs. F. F. Parker; she is a splendid teacher. She is older than Mrs. Magoun and used to be her teacher. Grace Greenwood and Mrs. Jones are to deliver a reading Friday night. The oratorical contest came off a week ago. The competitors were Woodward, St. John, Sloan, Hassell, Fairbairn, Dodge. Hassell won the first prize, Woodward the second. Just after Commencement I found that my health would not stand the strain, so I did not try. I had went up to Marshall duck hunting day before yesterday and will not be back till next week (father is going

up there with a load of onion). It is at home now. The Marshall town folks are in California now. Thursday we received two packages from Jeff. containing accounts of the golden wedding. Ach! Biddy, ain't it 'wible to think of livin' in one state four fifty years an' near goin' out. It can be ⁱⁿ Chicago, or Niagara, or Yosemite, or Burke, or — or — or —: fath' an' to be jaded an' I'd rather live in a state that I could live out of sometime, an' not be in per-
ennial bondage.

The leaves are falling thick and fast as feathers from the wing of Time. How is that for Looney? I've got to write an essay to day, yet. Essay I guess I've got essay on the brain, I meant to write afternoon. I went down in the green this am. and got some grapes (good) and found a hornet's nest a foot wide and a foot high it's in the hutchin now. Just as I wrote 'essay' mother prepared to make some doughnuts if I'd askem.



WRITE THE ADDRESS ON THIS SIDE—THE MESSAGE ON THE OTHER



Mr Marcus P. Jones
Salt Lake City
Utah.

1[#]
aSilver City, 1st April, 1881.

Dear Sir: Your card of Mch 22 is in.
I never sell specimens at less than \$10. per
100. but I make them perfect, send out
nothing without both flower & fruit. Yet
all the specimens I can make go off readily,
though I never advertise. My largest set are
not large 350 sp. I could not now, at
this late date make up a parcel of more than
100. I have no list, nor time to enter one
out for you, P. L. Greene.

2nd

UNITED STATES OF AMERICA
Territory of Utah.



By virtue of the authority vested in this Commission by an Act of Congress of the United States, entitled "An Act to amend Section 5352 of the Revised Statutes of the United States, in reference to bigamy, and for other purposes," M. E. James is hereby appointed a ~~Judge of Probate~~ ~~Deputy Registration Officer~~ for Ball's 2nd S. City Precinct, Salt Lake County, and is hereby authorized and directed to perform the duties of said office in the manner prescribed by law, during the pleasure of this Commission.

By order of the Utah Commission, this 2nd day of Feb 1888

W B Carlton

Chairman.

Attest my hand and the Great Seal of the Territory

W A Hall

Secretary of the Territory, and Ex-Officio Secretary of the Commission.

TERRITORY OF UTAH,

COUNTY OF Salt Lake

ss.

I, Marion B. Jones being duly sworn (or affirmed), depose and say that my full name is Marion B. Jones; that I am thirty nine years of age; that my place of business is Salt Lake City; that I am a (single or) married man; that the name of my lawful wife is Anna B. Jones; that I will support the Constitution of the United States, and will faithfully obey the laws thereof; and especially will obey the Act of Congress approved March 22, 1882, entitled "An Act to amend Section 5352 of the Revised Statutes of the United States, in reference to bigamy, and for other purposes," and that I will also obey the Act of Congress of March 3, 1887, entitled "An Act to amend an Act entitled an Act to amend Section 5352 of the Revised Statutes of the United States, in reference to bigamy, and for other purposes," approved March 22, 1882, in respect of the crimes in said act defined and forbidden, and that I will not, directly or indirectly, aid or abet, counsel or advise, any other person to commit any of said crimes defined by Acts of Congress as polygamy, bigamy, unlawful cohabitation, incest, adultery and fornication; and I further swear (or affirm) that I am not a bigamist or polygamist, and that I have not been convicted of any crime under the Act of Congress, entitled "An Act to amend Section 5352 of the Revised Statutes of the United States, in reference to bigamy, and for other purposes," approved March 22, 1882; nor under the act amendatory thereof, of March 3, 1887, and that I do not associate or cohabit polygamously with persons of the other sex; and I further swear that I will faithfully perform the duties of Judge of Election ~~Deputy Registration Officer~~ for Valley Second Precinct, Salt Lake County.

Subscribed and sworn to before me this

6th

day of

Feb1888A. L. WilliamsDeputy Registrar & Sec Salt Lake Precinct

ELECTION RETURNS.

ENCLOSE ONLY

Tally Sheet and Abstract,

For _____ Precinct,

In _____ County,

UTAH TERRITORY.

ARTHUR L. THOMAS,

Secretary of Utah Territory,

Salt Lake City,

Utah.

WM. C. HALL,

Disbursing Agent of the Utah Commission,

Salt Lake City,

Utah.

#2a Salt Lake City ^{Utah}
April 12, 1889

It is hereby agreed between
Henry Buhring and Marcus E.
Jones that should the latter be
the means of securing the sale
of any mining property which
the former may have bonded or
shall in the future secure a
bond upon, or if the said Marcus
E. Jones shall secure the sale of
any other mining property for the
said Henry Buhring, or shall
introduce parties to him to whom
he shall sell mining property, the
said Marcus E. Jones shall
have one half of all the proceeds
from such sale or sales and the
said Henry Buhring shall
have the other half.

Witness Marcus E. Jones
Henry Buhring,
Steve Coaton

April 20 / 889

Quartz Missoula Co
Montana

Mr Marcus E Jones Dear Sir

I Received your kind letter and was
Glad to hear from you I have seen
Mr Sishes from Winfall property
But he will not give the Bonds no
longer untill the first of June But
after the first of June perhaps we
can arrange it for a longer time
Thais is a nother Party Wants to buy
it he left to day to see his partne
rs to get the Bond signed We get
it for Eight thousand the main
man What We get over twelve thousand
We have to pay him one thousand out
of that for him self and i have
to sign an agreement with him
So When you write up to me Say
if your Satisfied and dont Say
no for it is good property

70-18-1889
Free Buhring
I think the best thing is not to ask
more then twenty thousand and if
We haf. to come down on the price
let us doe soe. They think if We hold
it to hight That We may not make
the sail it is better to make the
Sale and make some thing out of
it. now send your man rite up
~~er~~ i wish you could come with him
and let me no when you are
Loming. I Will send the Bond next
Wensday but dont wait for that.
I Sined your agreement and that
is all rite. The sail must be
Lash for the property
All Well hoping you the same
Write soon yours truly
Henry Buhring
Every thing loopes well up here }

Quartz Mountain Co
Montana

4
April 26/889

Marcus E Jones

Dear Sir

I Will send you the Bond and be
quick With your Parties We Will only
have the Bonds untill the first of
June thair is another Partie after
it ask Eighteen Thousand Cash down
no less for the Parties Wishes is to ask
that the Company has got too Miles of
land in lenth by 300 feet Wide and
25 feet deep it Will go from 75^{cts} to
one dollar Per yard 40^{feet} Wide 12 in lenth
25 feet deep Will go \$400. thair is a bout
Plenty of Water as dry as it Was
this year you can have too ditches one
half mile long and good Oliging you
Can have to hydrolic and the Dump
is ever lasting a bout \$4000 Will fix
Every thing in good shape
thair is a clear title to the claim and
Water rite get your Party and come up
then we Will fix it up all rite
things may be better then i have said
yours truly Henry Buhning

The Report is left you of the Property
you can go say that and it is still
Better then that

Holden June 19 1889

& Mr. Jones

Dear Sir I send you
Some Tin of all kinds
& Gallers Those in Small
Sack is that Shining Stuff
I was Seeking about when
I was at your Place
The White Substance
in the Sack I understand
can be melted & run
into any Disirable
Shape I have quite a
large quantity of it
if it is of any use

Yours Truly
George Bull

FRANKLIN

Springville June the 25th 1888

Marcus F. Jones Esq.
 just recd your letter and was sorry
 to hear that you did not find the alum
 I left with Mr. Cleghorn 2 or 3 lbs
 it is in a back room in a barley or sugar
 sh. but if it cannot be found please
 call on H. S. Kendall of the
 National Beer Hall I think he has
 some of the alum and has had some
 of it tested his place is 165 Main St.
 The alum is a thickener near Stargel
 and on the Sevier river we have
 plenty of it to all appearance located
 last December as to what I am
 going to do with it I cannot say at
 present
 Yours Truly
 Levi Smith

early
mining
interests

Buckingham

7 #

Maritz Winzauer Co. Minn.

Aug 16 1889.

Prof Marcus E. Jauch.

Dear Sir,

I enclose herewith a bag of
mining property on Cedar Creek.
This property is situated on the
upper part of Cedar Creek. I have
just returned from a trip during
which I prospected the ground.
I also send you a sample of the
gold from three pans of dirt
from bed rock - that I panned
myself. You can weigh it and
see how it is. I have prospected
the top gravel and it prospects
well - The ground is 20 ft deep
and slow bed rock - all fine
gravel - ~~the~~^{almost} every boulder
will go through flume -
The channel is about 400 ft
wide divided about equally
by a bar run - I know the

ground in early days since 1870.
In 15 miles of this ground between
6 & 7 millions of dollars have
been taken out. The water is abun-
dant - I have just recorded some
additional water rights - I have
inspected all the ground - the prop-
erty is operated by two claims that
can be bought seasonably -
They are mining 2 1/2 above this
property and the main feeder
comes from that point to this
ground. I think it the most
promising piece of property
that I have seen in the Territory.
The flume and every thing is in
A1 condition. The property is
owned by four persons who
can't agree hence their unwilling-
ness and desire to sell. If you
can find anyone to take hold of
this let them send along their
offer. I shall be glad to show them
the ground - Yours very truly

With reference to this property
and our agreement about sale
of bonded and other mining
property I have to say - that in
this property there are other parties
interested - I think if you can
sell the mine at the figures of
the bond \$3000. you can get
1000. for your trouble perhaps
more - The bond has not
long to run. so that we shall
to be expeditious -

Your share of profit will
be handed over as soon as
payment is made.

Henry Burking,

Please give me an early reply -
13

OBERLIN, OHIO, 24th, 1897

Mr. Marcus E. Jones,

Dear Sir:--

I am under much obligation to you for your appreciative letter of the 8th inst., and also for your "Contributions to Western Botany," just received.

Your brother is of much assistance to me just now in identifying the locality from which our boulders have come, by comparing them with specimens of Canadian rock which I obtained last summer.

^{Some of} The Geological Survey men and Holmes have put their foot in it in rather of a humiliating manner in trying to discredit all the evidence of glacial man in America, and in trying to make the world believe that all the world agrees with their theories. Where as the truth is that the better half of Chamberlin's assistants agree with me, and of the other geologists of America and Europe, the larger number and the abler portion interpret the phenomena nearly as I do. Nikitin of Russia is one of the latest to express himself upon my side. I send you some documents which perhaps you may not have seen.

Yours truly,

G. F. Wright

9[#]
American Museum of Natural History,
Central Park, (77th St. & 8th Ave.)

Department of
Mammalogy and Ornithology, New York City, Jan. 12, 1894.
J. A. Allen, Curator.
Frank M. Chapman, Ass't Curator.

Mr. Marcus B. Jones,
Salt Lake City,
Utah.

Dear Sir,

Your letter of some
days since in relation to papers
on North American Mammals
is rec'd. In reply I send the
enclosed circular. I may add
that most of the papers on N. Am.
Mammals will be found in vols.
II to V. About one third ~~of~~ one
half of the matter in these
volumes relates to mammals

and birds, & the most to insects
and fossils. We have so
many requests for separates
that we find it impracticable
to meet them. If you desire,
however, to exchange small
mammals for a set of the
Bulletin I think the matter
can be arranged.

Very truly yours
J. A. Allen

UNITED STATES DEPARTMENT OF AGRICULTURE,
DIVISION OF BOTANY.
WASHINGTON, D. C.

10 #

February 21, 1894

Mr. Marcus E. Jones,
Salt Lake City, Utah.

Dear Sir:-

I send you herewith your commission as a field agent in the Division of Botany at a salary of \$100.00 per month, from March 1 to December 31, 1894.

Your letter of February 14, stating the details of your proposed route, was duly received. The work seems to me well laid out, and the territory to be covered, namely the country bordering the Colorado river from Grand Junction, Colorado, to Eldorado canon, Nevada, large enough for one season. The east Humboldt mountains, the Sierra Nevada, and the Blue mountains are too far out of your course to be thought of this year. The Charleston mountains it would pay you well to visit, for I saw them only when covered by snow. Practically therefore they have never been visited by a botanist. You can reach them easily from the Vegas ranch, but you must be guided by the urgency of your other work and the question of expense. The course which you have designated in Utah and as far into Nevada as Pahrnagat valley meets with my full approval. On the south side of the Colorado river, however, you should increase your prospective area of work. The lower part of the Colorado Chiquito for a hundred miles at least is an unknown country

botanically, but water is pretty scarce. You can reach this country from Lees ferry. If practicable the edge of the plateau north of San Francisco mountain along the Colorado should be worked reaching that country from the Colorado Chiquito. The western portion of the plateau south of the Colorado may be reached from Stones ferry. You will get some handsome novelties from this part of the Grand canon. Do not try the San Francisco mountains, as we have good material from that place.

Now if this area roughly outlined is finished by the last of June, as you expect, and if you still desire to do work on higher ground, go into southwestern Colorado into the headwaters of the San Juan, which is a good country, and of high altitude.

Your commission ends December 31, and it will be necessary, therefore, for you to leave the field early, earlier than I had intended. This area which you propose to cover affords opportunity for one of the finest pieces of work ever done on local western botany, a fact which you doubtless appreciate, and I want you to show the eastern botanists that you can handle it.

Finally let me urge you to take the greatest care in the preparation of your material. You do not make as good specimens as you should, and as our best collectors do.

Your letter of instructions will be sent at an early date.

Four hundred driers are sent to you by mail to-day. We have not specimen sheets on hand at present, but I shall be able to supply them to you later, provided I can connect with you at some convenient post-office.

Yours very sincerely,

Frederick V. Coville

Botanist.

OK
C. O. D. Jr

United States

Department of Agriculture,

Washington, D. C., February 17, 1894.

Mr. Marcus E. Jones, ^{Territory} of the ~~State~~ of
Utah, is hereby appointed

a Field Agent
in the Division of Botany
in the United States Department of Agriculture at a salary of
One Hundred ^{Dollars}
per month, to be paid from the lump
sum fund of that Division.

He will take the Oath of Office immediately and file the same, together with
a statement of Legal and City residence and necessary record, with the
Appointment Clerk in the Office of the Secretary, and report for duty
to the Chief of the Division of Botany.

This appointment to take effect on March 1, 1894, and
terminate with December 31, 1894.



John H. Hunter
Secretary

Dear Marc: -

1895⁵ Plano Ill. Jul. 22.

11⁰

Your short letter of the 13th came last week. I was glad to get a word from you.

Your suggestion as to a smaller stop may be a good one. I used the smallest stop I have, which is F 60. This certainly seems small enough for good work, but often I find the edges of my negatives fuzzy all around, just on the extreme edge.

I send you a sample of a photo on a new scheme I tried. What do you think of it? It strikes me very favorably, because it works just the same on everything I have tried, as far.

The negatives are from the Standard plates, of the price list I sent you 45¢ - 50¢ a dozen. I like them

very much indeed. I get better
results than from Eud., & they
are not so frail in handling.
film is tougher & works better.
They are also developed with
Hydrochinon. Couldn't make
diagonal work. H. is much
cheaper, for me, also.

Church work progresses slowly.
Before you wrote, I started a series
of discussions Sunday Eves., on
such questions as - The Being of God.
"Inspiration" The SS. a revelation
from God. - Object. is to prove these
questions. Interest is growing
among the men, & I am catching
a new class of people. Doit know
how it will eventually pan out.
Everybody talks & asks questions
who wants to, & I put the main
points bro't out & proved, on a
black-board I made.
yes, I go along just the same, but
some of those in the church whose
place it is to help me, do it help,
& I feel like sitting down on them.
They want me to carry the whole
thing, when it is their place to
do it. The folks are working fairly
well, however, & as long as they will
work at all, I will stand by them,
but they must do their part, & move

me to do it, or sneak out + leave me to do it. They will find themselves left some fine day, unless they come up + do what they know is their duty. Every man is made in the church, & there is no excuse for wilfully neglecting + shirking their work. 22-VII-1895

Prospects for church growth are brightening, if those prospects are improved as they should be.

I am glad your Summer school is progressing so nicely. I hope you will make a little cash out of it.

I expect to return to Seminary in a few weeks now.

All are quite well. Have had some glorious rains the last two weeks, & the crops + garden are booming.

Eyr will be thro' here in about 2 weeks I expect.

Angie sends love to all.
Ester is just making a little.

with some & keep no posted.
I will send photos off & on to
let you judge of mistakes, &
offer advice, & see if any
advance is made in my work.
From "would-be" customers, I
have paid for all my material
so far, or nearly so - so my
"experimenting" in learning has
not been very expensive!
I take immense satisfaction
in the work. It is delightful.
I must close.

Good-bye. -

Love & all -

Antonia

*The only thing I want to say is something more about
the old journal and the old letters.*

Grinnell, Iowa, July 30, 1895

Dear Brother,

It is a long time since I
rec'd your good letter, and there has
hardly a day passed but I have
thought I would surely get time
to answer it. I am forced to admit
that I am not very well, and am
so drowsy and stupid at night that
I can not write. My neuralgia still
stays by me, which shows something
is wrong. I have just taken 2 dozen
3gr quinine pills, but seem to be no
better. Now I am trying a sample of
Hoorlick's Malted Milk. If it helps me
I shall keep on using it.

I went up to Iowa river - near Montour
- with the Tallmans and had a very
pleasant time. We only stayed over
one night. Lynde, Kelara, Leo & Art

went too. We only caught a few fish but had elegant clam soup. Art and Lynds got 400 for the Collage but Norris didn't take all of them so they had clam soup at home. We found any quantity of wild gooseberries - the spring ones, such as we had in Ohio - and choke-cherries. I made 5 glasses of jelly and a quart of jam from the gooseberries & picked. I only had enough chokecherries for one glass of jelly, but Frank liked that so well that he and the girls went over to the grove and got a lot more, so I made over 3 quarts of jelly.

Early plums are getting ripe now, so are the wild grapes. All of our fruit so far is 3 weeks earlier than common. I hope that doesn't foretell an early frost.

We have had three fine rains lately and corn is just booming. Oats looked well; but no one here has

threshed yet so we don't know what they do yield. They are only 16cts a bushel as we are thankful that we only have 10 acres. Frank sold a team of colts today for \$125.⁰⁰ We are getting rid of our horses slowly.

Lynds and Clara expect to start for Plano tomorrow night. I wish they could stay longer, but Lynds thinks he must get back and to work. They stayed here a week & a half and were here all day Sunday. I enjoyed their visit very much. Lynds is getting gray like you and me, otherwise he didn't seem changed. Clara is a little thinner that is all. Her is not very well. Her and Art rode their wheels up to the River. Art seems well. Her is keeping house for Prof. Main's folks while they are off on their vacation. Her is going north this week.

Did you get the paper I sent to you, with an account to Mack's death?

move.
I will send you a cabinet of Fannie
when I send this letter. It doesn't look
as if she had much done on but
she did - the white silk one Anna
helped me make. It is quite good
we think only she looks too sober.

You spoke, in the Circular, as if you
might leave Salt Lake City when Utah
is admitted as a state. Have you any
idea where you will go? Frank
always says he is going to wait till
he sees where you settle before he
makes a move!

I am very glad indeed to hear of
Mabel's progress. I hope she will
be a comfort to you in many
ways. I suppose Howard and Milledge
have grown so I would hardly know
them. The children grow up so quickly.
They will be gone before we know it.

Plans, Ills. Aug. 12-95

Dear Brother Marc:-

13th

Your last letter came just before Eyn & Clara arrived, & so I have neglected to answer it till now. E. & C. went home Thursday. They were real well, & quite rested, tho Eyn was somewhat tired yet. He has been working much too hard, is afraid, & is running down physically. We had a very enjoyable visit. Neither of them seem to have changed any, scarcely, but to me, at least, are the same home folks they always were. People don't change much, after all.

I will enclose a print of a snap I took of Eyn & Clara & Angie, while they were here. - also the first one I have tried of myself - or Angie rather. She didn't give it quite long enough exposure, as the plate was a little old.

We were very much shocked at your accident, Marc.. We cannot feel too grateful to the Lord for His wonderful providence that spared you all to us.

I can't express my sympathy, but you can understand it. But don't let the ~~the~~ ^{the} thought of the recurrence weigh too heavily on you. I know it off as much as possible. It is done now, & cannot be helped, & there is no use thinking over what might have been, under other conditions. You'll be down with nervous prostration if ~~don't~~ ^{you don't} get rid of it.

I am getting along doubtfully, in some respects, with my church work. a couple of the influential members have disintegrated on account of some lying scandal that the young high-flyer who boarded with us started about no other she left, & are creating, or trying to, all the opposition they can. I told them once that I should resign, but the real solid members of the church, who are the shoulders under it all - president & trustees & treasurer & workers in church generally, - ~~pleased~~ ^{pleased} with me.

M. G. J. furnished information on Lake needed for building Lucien Cuttall. 279B.
Salt Lake City, Utah.

(20-00-150M.)



Rates quoted by this Company are for immediate use unless otherwise stated; when named on commodities in carloads will base on minimum weight of 60,000 lbs. but not to exceed full space or weight loading capacity of car, exceptions noted, and are subject to change without notice except the pricing and posting of tariffs as provided by law.
Load 10 per cent above weight capacity marked on sides of cars when space permits.

2 T. G. 51 B.

IN REPLY REFER TO NO. _____

SAN FRANCISCO September 21st, 1900.

Professor Marcus E. Jones.

Dear Sir:

Your letter of August 20th, 1900, is received, with diagram pertaining to oscillations of water level of Great Salt Lake.

I note that the information is not to be made public by us. We have no idea of making it public and shall not do so.

Your figures are not very different from those of our own observations.

I note that the zero point of Garfield Beach Gauge is 4209.12 feet above sea level. I am not clear if the zero point of this gauge is at the same elevation as the arbitrary zero point you mention as having been established by the U. S. Geological Survey years ago, which zero is about $1\frac{1}{2}$ feet "below the present level of the lake". My records showed that the lake in 1869 at the head of Spring Bay was 12.9 feet above zero, this note being taken during the construction of the C. P. R. R. from its level datum, without reference to the Garfield Beach gauge and subsequently reduced. I had planned to make the top of the ties (base of rail) of the railroad across the lake an elevation of 16.65 feet above the zero point of Garfield Beach gauge. What would be your views as to the safety of this height. Your note of extreme height of lake above the zero you refer to is 14.0 feet or

1.1 feet higher than our observations in 1869, if your zero and Garfield Beach zero are the same, hence it is important for us to know if they are the same or not.

As to storm waves, I note that storm waves are given by you as 6 feet above normal or 12 feet from tip to trough. I am not clear as to whether this was in very deep water (we know of some water 35.1 feet deep below the zero of Garfield Beach gauge) or if the waves were observed in water of less depth. It is quite important to know as to where such observation as you mention of high waves was taken and as to the probable accuracy of the observer. I judge from your note that the hardest storms come from the north that such very high waves must have been near the south end of the lake where the reach was greatest. We found very old drift on Promontory Point at the following heights above Garfield Beach gauge zero, viz:

On southwest side of end of Promontory Point.	14.4 feet.
---	------------

At extreme south end of Promontory Point	15.4 feet
--	-----------

which drift appeared to have been thrown so high by the run of the waves on the old beach rather than by a general water level of that height.

It may interest you to know (or probably you do know) that near to and north from the mouth of Weber River there are standing in the lake many stumps of a diameter of from 6 to 8 inches, or stumps of trees probably 10 to 15 years old at points where the bottom of the

lake is eight inches above the zero point of Garfield Beach gauge. It would seem to me that to have had the saline matter ~~have~~^{leach} out of the soil enough to admit of the growth of these trees that the lake water must have been for a long period at a level of at least sixteen inches below the zero of Garfield Beach gauge and perhaps lower, which would be something over three feet lower than the lake level in July and August of this year.

I am inclined to be a trifle skeptical as to wave hights unless very carefully observed by competent observers. For instance, at Port Los Angeles in heavy winter storms on the Pacific Ocean I have had waves reported as twelve or fourteen feet high that were in fact from accurate observations in 33 feet of water but 5.8 feet high from trough to crest. It is an important subject as affecting our construction across the Lake.

Yours respectfully,

Chief Engineer.

— OFFICERS —
W. B. JONES, PRESIDENT
JNO. A. LLOYD, VICE PRES. AND TREAS.
D. JEWETT DAVIES, SECRETARY
MINES LOCATED IN
WHITE PINE COUNTY, NEVADA

— DIRECTORS —
PROF. M. E. JONES, SALT LAKE CITY, UTAH
W. B. JONES, VAN WERT, OHIO
OWEN PRITCHARD, YOUNGSTOWN, OHIO
D. JEWETT DAVIES, COLUMBUS, OHIO
JNO. A. LLOYD COLUMBUS, OHIO

The Cambrian Copper Company

212 SCHULTZ BUILDING

Columbus, O., 12 / 13 / 1906

14th

Prof Marcus E. Jones

Dear Sir & Friend

I arrived home last Sunday. I have been very busy trying to explain matters. In the Directors meeting I explain about the Texas Claim & the Kalamayoo water. and finally they agree to buy them & pay you the amount. But they made objection to my paying J. E. Gale Bill, & castin Olsen. They said those bills was contracted under your Management, and that I had no right to pay for hauling the articles that belong to you. I told them that you and me, had talk the matter over, and that I was sure you would pay your share, as soon as you would get your account from the Railroad and Olsen. Mr Lloyd ^{said} that you told him that there was about \$25.00 due on Ore Bucket that is was return, and that they had not recived them so far. I told Lloyd that I did not know anything about that, and that maybe that you had forgoten about the matter, but that I was sure you would do the right thing. So I trust that you can settle these accounts soon, before the Company turns the books over to the auditor. I also told them that you would like the ranch to be

off your hands as soon as possible, but they have not decided
to what party they will rent it yet. They elected a young
business man, and a bright Lawyer, as well, to be a Director
in your place. Now Mr Jones being that they hold me
responsible for them bill I paid to Gale & Olsen, and them
Ore Buckets. I hope that you & me will be able to settle
them as soon as possible. So you can address the letters to
me to the Office, or to 475 Vermont Place, Columbus
Trusting to hear from you soon. I remain Yours Truly
Owen Pritchard

P. S

They ask me for how much I thought the Mine could
be sold. I told them I did not know. That you told me
you would take the Mine & pay \$25,000.00, but they said
if they would sell the Mine, they would like to sell it
for a big enough amount that it would cover all the
Money that has been expended on it so far, about \$30,000.00
So if you know of any buyer that we could get that much
please let them know. Yours, O. Pritchard

One shifted

1795.97 per freight 222.61

net 1575.36.

Second fruit ear 1756.66 per b. ~~222.61~~
1547.24 198.45

Cambrian 1844 per b. Rec. 6.00.

Salt Lake City, Utah, 11-21-1906

M. C. Jones, 277 West So. Temple

BOUGHT OF

THE MINE & SMELTER SUPPLY CO.

24	10 oz R. N. Flasks
2	M. T. acid Bottles
6	Evap. Dishes 5" Dia.
3	Length Hard glass Tubing
12	1/4 Goch Crucibles

THE MINE AND SMELTER SUPPLY CO.,

NEW YORK CITY.
DENVER COLO.
EL PASO, TEX.
SALT LAKE CITY, UTAH.
CITY OF MEXICO.

MACHINERY AND MINING SUPPLIES.

121 TO 125 WEST 2ND SOUTH ST.

CABLE ADDRESS: MINTERPLY
CODES USED:
WESTERN UNION,
A B C and A I.
LIEBER,
BEDFORD McNEILL.

P.O. BOX 1358.

Salt Lake City Utah

NOV 20 1906

Sold to

M. E. Jones,

TERMS:

city.

24 16 oz. R. N. Flasks		4.20	
2 M. T. Acid Bottles		.20	
1 6" N. Tube 3 bulb & Side Neck,		.30	
1 8 " " " " "		.40	
6 Evap Dishes #8 5" R. M.		2.10	
1 sq. ft. Brass Wire Cloth		.45	
3 lgths. Hard Glass tubing	1#	.35	8.00
			<u>360</u>

THE MINE AND SMELTER SUPPLY CO.,

NEW YORK CITY.
DENVER COLO.
EL PASO, TEX.
SALT LAKE CITY, UTAH.
CITY OF MEXICO.

MACHINERY AND MINING SUPPLIES.

121 TO 125 WEST 2ND SOUTH ST.

CABLE ADDRESS: MINTERPLY
CODES USED
WESTERN UNION.
A B C and A I.
LIEBER,
BEDFORD McNEILL.

P.O. BOX 1358.

Salt Lake City Utah,

NOV 20 1906

Sold to

W. E. Jones,

TERMS:

City.

12 1 $\frac{1}{2}$ " Gooch Crucibles

.30

3.60

THE MINE AND SMELTER SUPPLY CO.,

MACHINERY AND MINING SUPPLIES.

BRANCH HOUSES:
DENVER, COLO.
EL PASO, TEX.
NEW YORK CITY.

121 TO 125 WEST 2ND SOUTH ST.

CODES USED:
BEDFORD, McNEILL,
A. B. C.
WESTERN UNION TELEGRAPHIC CODE.

P. O. BOX 250.

Salt Lake City Utah,

MAY 26 1906

Sold to Marcus E. Jones,
Muncy, Nev.

TERMS:

2	Coils close barbed galv. fence 207#	3.85 cwt.	7.97
1	set taps & dies $\frac{1}{2}$ to $\frac{3}{4}$ #103		8.35
1	Bar Norway iron 2# 5.40 $\frac{1}{2}$ "		.11
1	" $\frac{1}{2}$ " Norway iron 5# 4.80		.24
1	" $\frac{1}{2}$ " " 44# 4.60		2.03
1	" 1 " 42# 4.50		1.69
1	#8 Monkey Wrench		.60
1	#12 " "		.70
1	Bicycle geared grindstone		4.00
200	ft. 7/16 Manila Rope 15# 16.60 cwt.		2.49
3	flat padlocks & keys 10# ea.		.50
3	pre. 10" strap hinges 25# pr.		.75
1	only wire stretcher		1.00
5#	lamp borax .12		.60
8	Nuts & Washers 21# 13# lb.		.53
1	saw set ordinary		.45
1	rip saw hand		1.90
3	#9 Ore buckets 4.50 ea.		13.50
3	10" P. B. Files 2.27 doz.		.57
6	6" slim taper files 1.00 doz.		.50
1	Pr. Hoof Pinchers		.75
1	" Nail "		1.35
1	" Urd. 14" R/S hand tongs 21# 20# lb.		.50
1	only " B. S. Shoeing hammer		.50
1	" hoof knife		.45
1	set #3 horse shoes		.35
1	" #5 " "		.40
1	Box #6 horse shoe nails 5# 15# lb.		.75
1	" #7 " " 5# 15# lb.		.75
2	set common toe calks 9# set.		.18
1	Coil $\frac{1}{2}$ Manila Rope 117# 15.35 cwt.		17.96
25#	staples 4# lb.		1.00
1	Gal. Coal Tar & can		.25
1	only hoof rasp		.50

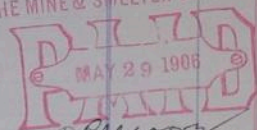
Freight, to Cobar

73.87
{ 4.22
4,

82.09

Shipped by freight Nevad Northern R. R. Co.
S. P. R. R. via Cobre and Curries.

THE MINE & SMELTER SUPPLY CO.



Per

List of Provisions etc.

34 lbs	Rice	2.04	12.64
4 "	Oatmeal	.65	2.60
31 "	Flour		
4 "	Tapioca	.20	+.10
5 "	Beans	1.40	+.40
20 "	Rye Flour		
1 1/2 Box	Prunes	3.15	+.75
3 1/4 Box	Vermicelli	.40	
1/2 box	codfish (lacks 1 lbs.)		
9 cans	Lye	1.95	+.20
6 cans	Honey	5.50	+.50
1 case	"		+.20
9	Phys. Soda	.65	
10 "	Seeded Raisins	.90	+.10
2 "	Starch	2.10	+.10
7 "	Tea		
2	Barb Soven Soup	1.60	+.50
17	cans Corn		
12 "	Yeast	2	+.50
1	case Peas	2.10	

1/2 case Tomatoes 1.18 + .50
 10 cans Plums 1.40 + .20
 6 lbs. Mustard .90 + .15
 1 Keg Vinegar 1.50 + .50
 1/2 " Pickles .70 + .25
 18 lbs. Coffee 3.60 + .35
 6 bu apples 3.00
 400 lbs. Potatoes 4.00
 25 cavats, etc. 25.
 250 butts 2.50

Cambrian Geology Co.
Tools etc. on hand
6-2-1907

- 600 lbs dynamite
- 9 shovels
- 19 pick handles
- 1 coil 2 inch rope
- 1 " " " "
- 4 ship blocks
- 12 spoons
- 3 axes
- 2 handaxes
- 1 Powder chest
- 1 large conflag
- 13 Picks
- 4 Rod Picks
- 6 8-lb. hammers
- 7 4 " "
- 1 rock hammer
- 1 6 lb. "
- 1 B. Nelson's

- 1.6-ft. saw.
- 2 hand saws.
- 1 square
- 1 5 gal. gasoline
- $\frac{1}{2}$ box candles.
- 20 fuse coils
- 1000 cphs.
- 3 monkey wrenches
- 3 hammers
- 1 screw driver
- 1 T ch.
- 1 bit set
- 1 nut bits
- 1 resp.
- 1 digging knife
- 5 candle sticks
- 2 cold chisels

2 lanterns ³ forgo
 20 gals. gasoline
 1 can Oil or black paint
 1 large hammer
 2 lanterns
 May outfit
 2 logs
 2 blacksmith hammers
 2 axes - handles
 steel 48 ft.

80
 6
 7
 120
 261 ft.

1/2 dozen buckets
 3 pair hinges
 1/2 barrel nails
 100 ± screws
 gunstone

6 barrels

THE TAYLOR & BRUNTON ORE SAMPLING CO.

WEIGHT AND MOISTURE CERTIFICATE.

Lot 1

CAMERIAN CU CO Ore

CU Class

INTO CAR	GROSS	TARE	NET	FROM CAR	
NYC 95516	77630	36030	41600	SP 81220	

Wet Weight of Ore, 41600 lbs.

Moisture 4.3 % 1789 lbs.

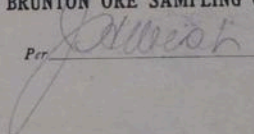
Dry Weight of Ore, 39811 lbs.

~~Sampling @ 50% ton 410.40~~

Salt Lake City, Utah.

November 30th 1906

THE TAYLOR & BRUNTON ORE SAMPLING CO.

Per 

15th
Salt Lake, April 21, 1907

Dear Marcus,

Yours recd. I wrote you
at the place you said and
hope this will reach you there
also. It will be about April 25.
Your birthday. So I send you
birthday congratulations and best
wishes and will keep your
birthday present here for you
till you come home. Because
I don't know where to send it.
and be sure it will reach you.
I guess I'll keep it as a
surprise we not tell you
what it is till you get here.
55 years old. Its a long time
since college days and yet
it seems only a little while.

ago.

A letter came from Mr. Pritchard saying that Walt will only stay there till you come & sell out, so the ^P must get some one else for the ranch.

It is cool today. I feel sick enough to go to bed but have to keep up & wait on table. Maybe feel better in a few days but it is the old pain I have when I overdo and it brings on a peak headache.

I must mail this now. I think there is no other mail of importance to you till you get home.

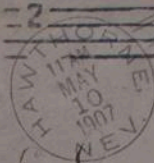
I hope you will get this on the 25th. With love from us all.

Yours Anna

Yes Peacock cares just as much his eyes are troubling him.

This is a letter from mother
to father 201 which he had kept
among his things. I found it
with 1928-30 letters. M. J. B.

SALT LAKE CITY,
UTAH,
APR 23 1230 P. M. '07



Prof Marcus E. Jones
Salt Lake City
Southwestern Utah
Henderson

Robinson, Utah, March 28, 1910.

Prof. Marcus E. Jones,

Salt Lake City, U.

Dear Friend:

At a regularly called meeting of Robinson Congregational Church held today, you were unanimously called to act as pastor of this church, and I have been instructed to inform you of the action of the Church. We will expect to see you again on Sunday, April 10.

Sincerely,

Mrs. C. H. Kristine.
clerk.

Copy. of Beccari's letter to Wright

Florence

Royal Museo Via Romana 19

Nov 8 1911

16th

My dear M. Wright

On my return to Florence
I have examined the fruits
which you have sent me,
under the name of *Erythra elegans*
Franceschi, & to tell you the
truth they resemble those
of *E. armata*, at least they
correspond exactly to all
the fruits which I have
received with this latter
name.

The fruits of
Erythra elegans which Dr
Franceschi himself sent
me have a form distinctly
pyriform. If you cultivate



as *E. elegans* the plant which
produces the fruits which you
have sent me, I would be
curious to see those of your *E. armata*

of mature plants are really
as thorny as in *armata* or
Brandegeei. The palm
is of exceedingly slow growth
& bears fruit when only 3 or 4
feet in height, which seems
to indicate a very dwarf
palm at maturity.

The flowering spadices are
carried erect & well above
the crown, only drooping
when weighed down by the
growing fruits. The fruits
are hardly to be distinguished
from those of *E. armata*.

It is supposed to be native
of Sonora, but has never to
my knowledge been reintroduced
& all now growing in California
are from the Buddington Palm.

J. Harrison Wright

17th

Marcus E. Jones,

Gold Hill, Utah.

DEAR SIRS:

We enclose the following certificates of stock transferred as per your instructions of May 3d, being in exchange for Black Jack Cons.Mng. Co. stock:

Cert. No.	Shares	NAME
692	315	Marcus E. Jones

Yours very truly,
EMPIRE MINES COMPANY.

Secretary.

Reg-E.

INCORPORATED UNDER THE LAWS OF THE STATE OF UTAH

NUMBER

692

SHARES

315



EMPIRE MINES COMPANY

Capital Stock, \$150,000 3,000,000 Shares Shares 5c Each

THIS IS TO CERTIFY that *Marcus E. Jones* is the owner of
THREE HUNDRED FIFTEEN Shares

OF THE CAPITAL STOCK OF
EMPIRE MINES COMPANY

*transferable only on the Books of the Company on surrender
of this Certificate properly endorsed*

In Witness Whereof the President and Secretary have hereunto subscribed
their names and caused its Corporate Seal to be hereunto affixed at Provo,
Utah this MAY 7 1917



Wm. H. Jordan
SECRETARY

Jesse Knight
PRESIDENT

CERTIFICATE
NUMBER 692



FOR

SHARES
OF THE
CAPITAL STOCK
OF

Empire Mines Company

Dated _____ 19__

For Value Received _____ *lawfully sold, assigned and transferred*
unto _____
Shares of the Capital Stock represented by the within
Certificate, and do hereby severally constitute and appoint
to transfer the said Stock on the books of the within named
Corporation with full power of substitution in the premises

Dated _____
in presence of _____

19__

Salt Lake City

3-2-1917.

My Dear Sir:-

Your favor is at hand, and clears up some things so that I will surely send you a big bunch of things right away.

The mining proposition has been a very bothersome thing but has not hindered me except that it has left me in a state of uncertainty so long. In addition the Montana flora has taken my time so that I could not get at your work. Then the bad weather has given me colds that knocked me out.

The University of Montana in 1908 through my friend Prof. Elrod got me to take charge of the botany and geology at the summer school for three seasons, and in one of my foolish fits of generosity I agreed to write a flora of the Flathead region and Glacier Natl. Park, supposing I would have to spend only three months or so at it. Well it took a year and I was to do it for nothing. Then the university fell down on the money for publication and Elrod has been trying ever since to get it out. In the mean time other trips in the region made a revision of the MS. desirable to bring it up to date as many species were added to the flora known then. Then a few months ago Elrod wrote me that the new President of the university was very anxious to get it out and if the Legislature would give him any chance at all he would get it out this spring, and he asked me if I would get it read. So I have spent a great deal of time in putting the finishing touches on it and the diacritical marks etc. necessary for the printer's use. Now everything is ready but amplifying a key or inserting a species here and there. I presume a few days or week would settle it.

Then on top of this comes a big lawsuit and chemical analyses. I completed my testimony yesterday and hope to get the first of the analyses done tomorrow, and can get the others done later on. So you see that I have been up against it.

I had a session with the president of the mining company today and he

Digitized by the Hunt Institute for Botanical Documentation

is still up in the air, but hopes we can go the first of next week. So I will plan to have at least two days next week for your sets, and I will neglect the Montana work now till I know for sure that they are going to get it out.

about N. of Montana work.

3-2-17

Wien, 13. Sept. 1912.

#178

Hochgeachteter Herr Professor!

Ich kann mir zu meinem größten Bedauern
hier nirgends die Original-Beschreibungen
die von Ihnen in den Contrib. to W. Botany
veröffentlichten neuen Arten von Nyctaginaceae:

Acleisanthes nummularia, Boerhaavia
ramulosa u. intermedia entl. Abronia

fragrans elliptica (u. phorocarpa) u. Abronia
nana lancifolia verschaffen. Würden Sie

mir nun den ungemein wertvollen Dienst

erweisen und mir gütigst Abdrücke der
Diagnosen zukommen lassen. Ich möchte mich
durch Einsicht in dieselben gegebenenfalls am besten
vor dem systematischen Werte der von Ihnen
veröffentlichten ^{Arten und Formen} Mitteilungen, da mir die Angaben
in Handley's bekannten Arbeiten nicht genügend
erscheinen. Wäre ein Bröckchen von Acletoanthus
nummularis erhältlich?

Verzeihen Sie dem Monographen der *Nyctagi-*
naceae die Belästigung, welche er hervorruft
und empfangen Sie in vorliegendem den ergebensten
Dank

von Ihrem hochachtungsvoll
unterzeichneten

Prof. Dr. Anton Heimel,
Austria, Wien, $\frac{XIV}{2}$ Radikgasse 34

UNIVERSITY OF CALIFORNIA
DEPARTMENT OF BOTANY
BERKELEY

Berkeley, California,
Dec. 13, 1918

Professor Marcus B. Jones,
Salt Lake City,
Utah.

My dear Professor Jones:

Your large sack of samples and the package of herbarium specimens have both been received. The samples are now in the hands of the chemist and the herbarium specimens will be studied as soon as I can get around to them.

I am putting a bill through for \$60. to reimburse you for the six days work and feel very grateful to you for doing additional work at odd times without including it in your bill. We shall always look upon your part in the investigation as one which was undertaken because of your interest and desire to help us out since the \$10. per day would scarcely more than pay for the use of your machine and other expenses. Since you intimate that you have now done about all that can now profitably be done this year I am not making any allowance for work in Utah. Two of our assistants are going into Oregon and Nevada during the Christmas vacation and I shall work in Eastern California.

Your letters settle some questions in my mind and raise some others, but I shall not discuss this point until I have had further opportunity to go over your material in detail.

Very sincerely yours.

H. M. Hall

The Clearing
Friday, New Hampshire

3 September, 1919.

Prof. Marcus E. Jones,
Salt Lake City, Utah.

My dear Prof. Jones

Your kind favor was duly received two or three days ago and Pres. Widd-
see's letter of inquiry reached me this morning. I have replied as per enclosed
copy, which I trust you will find satisfactory.

I sympathize fully in your wish to get your collection where it will be safe
and well cared for and I sincerely hope that you will get matters arranged to your
satisfaction.

Please let me know when any decision is reached.

With kind regards, I am

Sincerely yours,

B. L. Robinson.

Letter from B. L. Robinson
Gray Herbarium - Harvard
to Pres. Widener about
Jones Herbarium

The Clearing
Jeffrey, New Hampshire

3 September, 1919.

President John A. Widtsoe,
University of Utah,
Salt Lake City.

My dear Mr. Widtsoe:

Your kind favor of the 25th ult., forwarded from the Gray Herbarium, has just reached me here. It is very pleasant to hear from you and, I assure you, always gratifying to learn that one of my students has distinctly made good and has attained a position of high responsibility and honor.

I am glad to answer your questions to the best of my ability. While I have never had an opportunity to see Prof. Jones's herbarium in its entirety, I applied to him about three years ago to lend me his material of the large genus *Brickellia* which I was engaged in monographing. He was so kind as to forward it to me and I found it not only very helpful but surprising in extent, in the discriminating collecting which it showed, and, for a private herbarium, the careful organization, general excellence of the specimens, and their good condition.

There is no reason to suppose that the genus in question was not a fair average sample of the whole collection. Judging by it I should say without question that Prof. Jones's herbarium must be the largest and scientifically most important botanical collection still in private possession anywhere in America.

The large private herbariums, of which twenty-five years ago there ^{were} perhaps a dozen, have now nearly all passed by purchase, gift, or bequest into the possession of public museums or educational institutions. Thus the Chapman Herbarium of the southern states was purchased by the New York Botanical Garden, the valuable collection of Mr. John Donnell Smith has been given to the National Museum, the herbariums of Bebb, Prof. Coulter, H. N. Patterson, and Elihu Hall have all been purchased by the Field Museum in Chicago, the Pringle Herbarium was bought by the University of Vermont, and the extensive and valuable collection of T. S. Brandegee has passed into the possession of the University of California. It is needless to multiply examples.

Prof. Jones's herbarium has the unusual importance of representing in great detail a large region, the Great Basin and adjacent states where relatively there has been less intensive collecting than in most parts of our country. It has therefore become the most valuable source of information regarding the diverse vegetation of its region.

I will say frankly that I should be only too glad to acquire Prof. Jones's herbarium by purchase for the Gray Herbarium of Harvard University if only we were in a financial position to make him an offer which he would find satisfactory, but I fear this is out of the question. Furthermore, while of course it would be a decided advantage for us eastern botanists to have a collection of such extent and scientific interest find its ultimate resting place in our region, where it would be far more readily accessible for reference by the botanists of the Atlantic Slope, still it is only fair to recognize the fact that it is likely to have far greater usefulness if kept in the region it so fully represents, namely the Great Basin. It would be there that it could be further built up along the lines of its previous development.

I have no doubt if acquired by the University of Utah it would be liberally administered; that is to say would be kept accessible to specialists and monographers in systematic botany, and would be in charge of some trained professor of botany or curator who could, as occasion required, give information needed as to the nature and identity of Prof. Jones's type-specimens.

As you doubtless realize, the presence of important scientific collections at a University is a great aid to instruction and stimulus to research and publication.

You may be interested in the present position of the leading herbariums in America. Of course, the Gray Herbarium of Harvard University is one of the oldest and most carefully organized. The United States National Herbarium at Washington is very extensive and growing rapidly. The Herbarium of the New York Botanical Garden is also very large and excellent and has a staff of energetic workers. Next in importance to these three I should place the Herbarium of the Missouri Botanical Garden

(3)

at St. Louis, the Field Museum in Chicago, and in the west the herbariums of the University of California and the University of Wyoming. Probably nine-tenths of the American publication on systematic botany comes from the establishments I have just mentioned. The University of Vermont has the Fringle Herbarium very rich in Mexican plants. Leland Stanford University has recently acquired the Parish Herbarium especially rich in the flora of the southwest.

While botany has long been regarded as a cultural subject of considerable interest, it is becoming increasingly significant in a practical way as it is more and more generally recognized that a precise classification of plants forms the only secure foundation on which such applied subjects as horticulture, pharmacy, forestry, and certain phases of agriculture can be built.

If I have not covered the ground desired do not hesitate to ask for further details.

As a Harvard man you must occasionally return to Cambridge. Do not fail to let me know when you are there. It would give me much pleasure to show you something of the organization and equipment of the Gray Herbarium, which might be suggestive as to methods in case your institution is facing similar opportunities and problems.

Sincerely yours,

Signed

B. L. Robinson

II-16-1911.

Dear Willson,

Dear Sir:-

After my talk with you, I had a conference with Claude Barnes in regard to circulating certain people, and on the subject in general, as to publicity. He intimated that he did not think that the papers would take the matter up again as it was no longer news, the Tribune having given a column to it some time ago.

He thinks also that to send a letter to each of the names on the list included will not get results, but some suitable person should visit them personally. I know of no such person except it be ^{Alfred} E. KENNEDY and I do not know at this time whether he could be got to do it. I met him today on the street and he stated that he thought Barnes was right, but I did not have time to broach the matter of his taking it up, as he was on the way to a funeral.

I can do very little more without creating the impression that I am governed by a mercenary motive in helping it on, when the fact is I can get more for the herbarium outside of Utah than I am asking for it here. If I felt that it would not be used here to form a botanical museum and keep Utah the botanical center I would prefer it to go elsewhere, but I am convinced that Utah will eventually lead all the intermountain region in scientific activity, and to have a great herbarium here which all workers in botany must consult will redound greatly to the credit of the state. To think this is one thing and to make the business men think as is another and for my part I am going to give them a fair chance to take advantage of it and if they do not take it no one will be to blame but themselves.

I went down to Provo Friday to see the Knights but Jesse was sick and his son was in Salt Lake, but I wrote Will J. Knight today stating the case fully and asking him to consider the matter and let me know.

The only reason that I am offering to dispose of the herbarium is to

THE EXTENSION DIVISION

F. W. REYNOLDS, DIRECTOR
E. NORDVALL, SECRETARY

THE UTAH EDUCATIONAL REVIEW
L. E. COWLES, EDITOR



UNIVERSITY OF UTAH
SALT LAKE CITY

November 22, 1919.

Prof. Marcus E. Jones,
270 West So. Temple,
City.

Dear Professor Jones:

I have thought many times that I would extend to you an invitation to submit an article for publication in the Utah Educational Review. This little paper is the official organ of the Utah State Teachers' Association and goes to every teacher, superintendent, and school board member in the state. I believe that the teachers of the state should benefit from the extended experience and careful study of such men as you. I believe that you gave a paper some few years ago before the Utah Academy of Science on "The Early Botanists of Utah." Would you not like to submit an article along the same line for publication in our paper?

The article should not be over about 2000 words and should be written for the popular rather than the scientific reader. If you can favor us in this way, we shall be very glad to receive pictures to accompany the article. I believe that you will know what kind of an article will be most appreciated by our public school teachers.

If you can favor us, will you please let me know within a short time, and also inform me as to when we might expect the article. It should be in our hands by the 20th of the month if it is to appear in the issue of the month following.

Yours very truly,

LEC/S

L. E. Cowles

North Easton, Mass., September, 15, 1920.

My dear Prof. Jones:

Your letter of June 20 with its sad news of Miss Gertrude Norton's death came to me promptly, but was temporarily misplaced. Miss Norton sent me specimens of orchids for determination and I have several letters from her that showed a keen interest in the plants of Retz. It is too bad that the ranks of our amateur collectors have to be depleted.

I am unable to help you with regard to the *Cypripedium* you describe. If you have more specimens I, upon they would be most welcome and perhaps enable me to give you an opinion as to the identity of the whole plant.

Next year I hope to publish some account of our U.S. orchids and every scrap of material that will throw light on distribution ought to be secured. So you have reason to believe that your material represents a new species. I would welcome an opportunity to study it.

Yours very truly,
Charles Conner

Salt Lake City

22a

April 6th. 1920.

Pres. Widtsoe, State University,

Dear Sir:-

Your brief talk with me Saturday, and the large number of deaths in the City this winter, have impressed upon me the necessity of my putting in writing what we both fully understand as to my herbarium.

The herbarium is at the University through the courtesy of the Regents who have very generously allowed me space for it in the interest of science,

Last fall I made the offer which the Regents accepted to sell the herbarium to the University on an annuity of \$1500 a year, to begin Oct. 1st 1919. Since then an effort has been made to raise the sum required and this effort has failed. You have informed me that you did not think that the University had any moral or other claim on the herbarium and that I was free to dispose of it in any way I desired. This is the situation today.

So far I have made no serious effort to dispose of it outside of the state and shall not do so unless other means fail to raise the money required to complete my work. I cannot at this time make any statement as to what my ultimate action will be, but I hope to raise the money so that I can continue my work with the herbarium. When my present book is off the press I hope to have time to work in the herbarium and to have it open for study while I am there.

My children are much opposed to disposing of the herbarium on an annuity basis, claiming that it hampers my work and prevents me from realizing the freedom that I should have to get out my books soon. For this reason I think that I will terminate the offer to sell on an annuity basis, but if the University can raise the sum of \$30,000 I will consider the offer at any time before I dispose of it elsewhere.

Very truly yours,

Marion E. Jones

New York Botanical Garden,
Bronx Park,
New York City.

23[#]

June 21, 1920.

Mr. Marcus E. Jones
Salt Lake City, Utah

My dear Mr. Jones:-

I take pleasure in sending you the first part of my studies on the Scrophulariaceae of the Central Rocky Mountain states. While the treatment of *Penstemon* will appear radical and includes a surprising number of new species, I am convinced that you will find the characters indicated constant and the species each restricted to a definite native region. Indeed, the study has been to me a revelation of a genus divided into sharply marked species, each characteristic of a definite region. I have taken pleasure in referring to your work and valuable collections from southern Utah and have noted your interpretation of the zones of vegetation of that unique country. I shall be glad for any additional information or criticism which you care to give.

With kind regards

Sincerely

Francis W. Pennell

12-13-1920.

Dear Mr. Redfield:-

I was interested in your brochure on The Vigor of Hybrids.

I agree quite fully with all you say except the first three paragraphs. The doctrine of the inheritance of acquired characters is a necessary corollary of all you say by way of illustration of your argument, and this is only another way of saying "selective death rate".

I see no reason why offspring cannot inherit more as well as less vigor from parents, all depends on your definition of parental vigor. If you mean vigor at birth or acquired vigor. Vigor at birth of course means what we get from parents. Acquired vigor means what we get by our own observance of the laws of nature. But our children do not come into the world at our birth but after we have matured, and they inherit more or less than we just as we have drawn on our capital or added to it by right living. Everyone knows that human life has been lengthened by modern methods, or to state it in other words our children inherit more vitality than we had at our birth. I can give you an example in my own life. There was tuberculosis on both sides of my family. I was born full of tuberculous glands, was booked to die before I was twenty years old. But I also had Irish blood in my veins, and when an Irishman is not scrapping he is dead. So I went at it to beat Nature out of her quarry and I won out. My first child was born when I was 28 years old and she had some tuberculous glands in her neck. My second child was born when I was 33 and he had none. My children are all vigorous and full of pep because I transmitted it to them, and though I am now about 69 years old I am as full of pep as chili sauce. There is not a shadow of doubt that blood will tell. All the work of plant and animal breeding proves it. The more vigorous survive and the less vigorous die. It is Nature's law. Greece lived and grew because she observed the laws of intellectual growth and physical vigor, and she died because

Digitized by the Hunt Institute for Botanical Documentation

who neglected the moral laws on which all being is conditioned. Some rose and fell in the same way. Christianity conquered the world because it was conditioned on the great moral laws, and it is now losing its grip because of the growth of doubt about religious fundamentals.

As to the origin of species which is hinted at in your remarks about the preservation of acquired characters in hybrids you may be interested in my discussion in my new book soon to be out on *Astragalus* in which I ^{not due} propound the new idea that species originate from stress and to natural selection.

Since I agree quite fully with all your main conclusions I would commend to your attention my amendments, and feel that a reexamination of your arguments may lead you to modify them as suggested.

With the kindest of regards I am Yours,

enable me to devote my entire time to completing my books. For this reason I stated that the sum must run from Oct. 1st. of this year, the time when I made the offer to you. I cannot let it run on and the university begin to pay it when they raise the money, for I am losing extremely valuable time to me in not having this matter settled now, for I can do nothing with my work till this revenue starts. For I have to spend my time on other work to meet my expenses. Then the element of age and the enfeebling of my powers as I grow older requires that I hasten the matter along. I can do my work now and effectively but no one knows how long it will last.

To day I received a request from one of the three most desirable institutions to which I would like my herbarium to go to give them a price, a large sum that I would take for the herbarium and they would try to raise. So this is an additional reason for haste in the matter.

When the matter is definitely settled as to where the herbarium goes I can spend the bulk of my time at the university helping to create a spirit of investigation along lines with which I am familiar. My familiarity with every part of Utah botanically and geologically ought to be of great service to students in these sciences, but I am not a millionaire and cannot devote all my time to the work that is nearest my heart. But to spend part time earning a living in one profession and the rest on another has become so exasperating that I am determined to end it. If the state of Utah wants to benefit by my labors and not spend more than \$50,000 in duplicating my work which is already done they have the chance. It is up to them. But my work covers not only Utah but all the other intermountain states as well. To get the data that are already in my possession would take years of continuous labor (not vacation labor) on the part of several workers and would cost a very large sum of money.

I want again to express my obligation to you for offering asylum for the herbarium at the U. and I sincerely hope it may remain there, and I think that I have done everything that could be done to keep it there, but if there is anything else I can do to help it along I will do it. But time

THE MISSOURI BOTANICAL GARDEN

ST. LOUIS

OFFICE OF THE DIRECTOR

January 29
1921

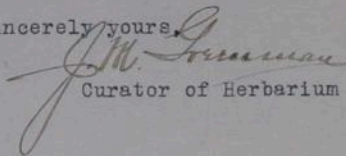
Mr. Marcus E. Jones,
270 West South Temple Street,
Salt Lake City, Utah

Dear Sir:

In connection with the taxonomic revision of the genus *Thelypodium* and its immediate allies by Mr. E. B. Payson we would like very much to have additional information about your species *Thelypodium deserti* from Nevada. Would you be willing to loan the type specimen to the Garden for a few days? Even a mature fruit or a typical leaf would be a great help to us. May I also ask if the growing plant shows the pod to be reflexed and if the leaves are uniformly sagittate.

There is just a possibility that I may be in Colorado for a few weeks next summer, in which case I hope it may be possible for me to extend the trip to Salt Lake City, and to give myself the pleasure of a call on you.

Sincerely yours,


Curator of Herbarium

JULY
ELEVENTH
1921

Thomas L. Woodruff
% Producers Oil Co.,
Salt Lake City, Utah

Dear Sir:

Following your instructions, I have finished my examination of the oil property under your control in the Sanpete Valley, from Moroni and Spring City on the north to three miles below Ephraim on the south embracing according to your map, 32,000 acres.

The geology of this section examined is in the upper Cretaceous which is the oil bearing formation of the Intermountain Country. In the Middle Cretaceous over lying the Mancos shale occur the largest coal veins. All of these coal veins were originally vast peat bogs several hundred feet thick which in the slow progress of the ages were decomposed by pressure into coal and this process of decomposition produced enormous quantities of hydro-carbons in the form of gas, oil and asphalt. These being lighter than water would naturally be accumulated in the upper Cretaceous overlying these coal beds.

A cross section of Sanpete Valley running north and south through Ephraim is a general monocline reaching its apex where the railroad passes out of Sanpete valley to the north.

The geological section of this monocline shows the Mancos shale on the surface south of Ephraim near Manti then the oolitic sandstones running up north of Spring City and the red shale from there to the top of the apex.

A few miles north of Ephraim there rises from the valley slightly tilted beds of oolitic sandstone running north and south near the eastern edge of Ephraim. These beds break off in a sharp escarpment which runs parallel to the valley then east of this escarpment is another area a mile or so wide and then a second series of similar beds which go high up on the mountains to the eastward, breaking off in a similar escarpment which is over 500 feet high. Coming out from this escarpment and running far up on the Wasatch Plateau are large beds of shale and sandstone which go up to the top of the mountain and bend slightly towards the eastward forming a vast anti-cline.

It appears from examination of the country that your two wells you are now drilling, are sunk on the western slope of the oolitic sandstone beds, which seem to have strata of oil at the base of this area.

H-VII-1921

The condition of the well at this time is such that my own examination is not a conclusive one. What I actually found was apparently asphalt or paraffine oil in small globules coming from the bottom in the bailer approximately at a depth of 300 feet. From hearsay evidence the tools, when the well was first driven, were covered with oil at a depth of about 370 feet. In casing off the water, the hole was found to be crooked and in straightening out this hole they were then drilling at a depth of about 300 feet. The water, however was coming up from the old hole and since there was about 260 feet of water in the well, all I can say is that oil must have been struck at about 370 feet, but the quantity is not yet determinable until the water is cased out.

A peculiar situation is revealed in the Paulson well which is located 900 feet south of the well above referred to. This, it appears was driven over 600 feet and struck an oil stratum above that depth but was driven beyond the oil, where an extensive flow of alkaline water was found. The well is now full of this water, which is a dark yellow color and contains relatively a large amount of oil in solution which might be called saponified, that is made into soap by the alkali in the water, which on account of its alkaline nature has dissolved a considerable quantity of hydro-carbon gas in excess which when released will ignite. The character of this water indicates clearly to me that there is oil above where this alkaline water occurred.

From the geological structure of this region, it is not to be expected that any gas except in pockets will be found and that the oil which will occur in these two seams will not rise very high in the wells, so that shallow wells in this structure will be pumping propositions. The evidence so far presented does not show the quantity of oil that will be found but it is enough to say that if there is oil anywhere in the Cretaceous, it will be found here and the fact that enormous quantities of oil are now locked up in the oil shales above which justify us in assuming that considerable oil would be found in this formation.

You are doing the proper thing in sinking these wells in this formation. If oil is found in paying quantities it is an almost certainty that still larger quantities of oil will be found at suitable places in the underlying Middle Cretaceous.

The location of your oil field has a great advantage over any other supposed field in Utah on account of being on two railroads and with splendid automobile roads running through it. Your location being in the center of the State would make it a logical place for the erecting of refineries for turning oil into commercial products.

A factor not to be overlooked is the local market and immense territory lying south which would afford a market beyond competition of other fields.

Yours very truly,

State College Station, Raleigh, N.C.

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Sunday evening, Feb, 26, 1922.

Dear Uncle Mark:

Your letter came over a month ago and I have just finished reading it for the third time. Every bit of it is interesting to me. Until I re-read the letter again just now I did not plan to send you a copy of that statement of ideas about religion which I mentioned in my former letter but I have changed my mind and am enclosing a copy of the statement. When you have read the statement you will see that I am quite radical in my views and pretty materialistic - enough so that probably if my views were known here I would be expelled for my thots. Do not feel under obligation to reform me, because I feel that that would be a hopeless undertaking and besides I do not want any one to worry themselves about me; I am not worrying about myself and do not feel the need to do so. I would be glad to have any advice or information you have to offer but cannot promise to accept it or agree with it and I want you to realize that any efforts of yours on my behalf are liable to be pearls thrown to the swine. Our attitude and personalitys as well as our experiences are so divergent that it seems improbable that we could agree, even about the most fundamental things concerning religion.

I have the notion that you misunderstood what I meant by the "juicy date" I mentioned in my last letter. I thot about that expression after I wrote it and wondered whether it might be misinterpreted. No, I have always played square with the girls.

Speaking of girls, I did not know that Thelma was married. I hope she found someone worthy of her.

I am not yet sure what I will be doing this summer. I may work for the government on a crop disease survey as I have done other summers or I may possibly work on an ocean liner. In either case I intend to go to Oberlin

first. The visit to Oberlin will be quite a treat for me because I have not been there for two years and have not seen my brothers or sister in that time. My older brother is to be married in June and that with the Oberlin College commencement certainly ought to give me enough diversion for a little while.

Things have been going very well here. The more I teach the better I like it - probably because with practice I feel more proficient and self-confident. I am planning to come back here next year and then to go to some place like Cornell the following year and do work for a doctors degree.

I have two chums with whom I have taken a good many hikes on Saturdays and Sundays and with whom I have most of my good times. One of these chums and I are on the junior faculty (younger faculty) basketball team which has won all its games and has beaten all the class teams of the college. We have had a game or two a week and have had a lot of fun as well as good exercise out of it. The other chum and I are both quite interested in birds and have spent a good deal of our free time in studying them.

Dr. Wells, Mr. Shunk and I have been putting a good deal of our time this spring in concocting a local flora. We have it pretty well rounded up now but because of the fact that our freshman class seems to be unusually slow we have decided not to use it until next year in the hopes that next years freshman class will be brighter. There is some reason for hope in this direction because next year more rigid entrance requirements are to be enforced.

I am enclosing a couple of pictures which were taken recently. Because of the fact that I am sending pictures ("Every picture tells a story") and since I am enclosing that six page child of my brain I will end my letter with this sheet.

With best regards,

Allee.

P.S. Please excuse, if you can, my selfishness in sending you a carbon copy of the statement and keeping the best copy for myself.

3-4-1922.

Dear Alec.:-

Your letter is at hand.

I will write of your statement of belief at the end.

It will be fine to get back to Oberlin again and see your folks and renew acquaintances again, but college is a dismal place to me, the changes are so many and so rapid. It depresses me to miss the old faces.

It is absolutely necessary for an athlete in college to keep up his physical activity after graduation if he is to keep from getting stale. I was one in college. We did not have any games but baseball, but I played on the nine, and took all prizes as sprinter and running jumper. Now I keep up by playing tennis. Never tried handball, and have no chance to play basketball, though I have coached teams.

It requires considerable hard work to get up a local flora. When I was at Grinnell I collected 625 species which was about all known to exist in the region, as well as a number not before reported.

I got a letter from my brother, the other day, saying that they planned to take the Little Zion trip again this year and wanted to know if I would again head the party from here. I did not seem to be able to convince him that he could get more ecology out of it than he could possibly get at the north, but now he agrees with me, and George wants to take the trip again.

I got a nice letter from Charlotte recently. I presume she will take the trip again, from here at least. There is a sweet little girl here also who wants to go.

Now as to your creed.

Every man stands alone with God in accountability, and is judged as he obeys the laws of his being. He is saved or lost according to his own thinking and living. I agree with you that there is so much of rubbish clustered around the matter of religion that it is hard to be understood,

and so I will try to clear it away first. To be saved is to live in harmony with God, or if you please to state it differently, with the laws of your being. To be lost is to be in discord with him. Punishment is as certain as life so long as one continues to exist in a state of ~~the~~ discord, or as the Bible states it ^{for} "The wages of sin is death". Sin is a disobedience of any law physical, mental or spiritual. As to a world of future physical punishment all depends on whether there is a resurrection of the body. The Bible clearly teaches a spiritual life without mortal bodies, and this seems to be sound if such a life of consciousness exists, and in that case punishment must be a state of opposition to the laws of that state. I am not interested in the matter for I am trying to live right, and if there is a God (as I believe) I shall see him and know him as he is and that is enough for me. Happiness is a state of living in harmony with all the laws of our being. Then all things come our way. We skim the cream of life and are robbing no one. We are in top form all the time, and all nature smiles. Whether we are transplanted to other worlds and live again with the same consciousness as here but in a higher state, as the transmigrationists think, is speculatively interesting, but too vague to interest me. You can make a million guesses, but guessing is not scientific. What we want is to get at the meat of life, and make the most of the one we are living, and make as few mistakes as possible. The great question is Is there a God, and what is he, and what does he want of us?

Scientists have to assume certain things as axiomatic, such as consciousness, free will, accountability (which is a corollary of free will, for if there is no power to choose there can be no accountability), intelligent force, that is, a creative directing first cause. I say "intelligent" because we are intelligent, and the law of the conservation of force demands it for it is fundamental that "ex nihilo nihil fit", from nothing ^{nothing} can come. Now when we come to analyze this great intelligence which of necessity must be greater than all humanity combined because the cause must be greater than the effect, and when we see this intelligence making

and governing the Universe with infinite precision, and at the same time using the same care in making the beauty of the lily, and the hyacinth, and the butterfly's wing, and in caring for them day by day, and even peopling them with worlds of bacteria and other forms of life, all living their own life cycles, we begin to see the immensity of this first great force which the Christian calls "God". We can if we choose befog our minds with chatter about natural laws governing all these, and guess that in some unaccountable way it is all brought about by some blind force, and that after all there is no intelligence about it, but all this is nothing but chasing the dog around the stump and reasoning in a circle. We have to come back to the fact of a great planning willing first cause who made it all and directs it, and without whom nothing can exist. For law at last analysis is only a statement that the great force always acts in a certain way under certain conditions, such as the law of chemical affinity, gravitation, and the like. We with our limited intelligence occupy a little piece of infinity as if suspended in space like a string floating in the air, and we neither see the beginning nor the end. Our ears are attuned to hear vibrations from 16 a second to several hundred thousand per second, and are deaf to all others; our eyes are likewise attuned to other vibrations and blind to all others. We have discovered certain chemical laws and ^{are} ignorant of all others. Astronomy tells us that the Universe seems to be made up of the one primary element hydrogen and that all others were derived from it, but how? We are like men walking in a fog, we can see a little way, and that near us, and all else is lost in haze, but we are ever rising upward, and what shall the end be? No one knows and it is useless to speculate. But still one great question confronts us "How can we make the most of life?" Jesus's answer is clear as noonday, which is do the duty lying nearest and do it because you love to. This is the talisman, to the mariner the lodestar, and you will come out into the light by and by. You can live alone like the coyote, and chase something and eat it and lie down and sleep, and get up and do it over again, or you can utilize

all the forces of nature and live like the greatest man in the world surrounded by all the comforts of life, all depends on how many of the forces of nature you harness in your behalf, how many of the laws you use. You can say there is no gravitation because you cannot explain it or understand it, you can deny the rotation of the earth like Voliva, you can laugh at X-rays and electrons, you can sneer at the conception and birth of a baby and so never marry, you can deny that there is any love in the world and so deprive yourself of the joys of home and children, you can stand aloof from all the good things of life if you wish, and --- take your punishment. You can ~~deny~~ God because you cannot comprehend him, or you can be a real scientist and test him out to see if he exists and will direct you day by day, and your success will depend on whether you live close enough to him to get his guidance. You can say to him that if he will do so and so you will believe in him. But this is not scientific. Our method should be to find out how God does things. We have hosts of theories about evolution, ecology, plant physiology, nutrition, assimilation, but we would laugh at any one who would say that nutrition must take place in just such and such a way, and evolution had to take place in just our way. Real scientists try to find out how God (or nature if you choose to call it) does things, not to tell him how to do them, and yet when we try to find out the nature of God we leave behind us all our scientific methods and go back to barbarism and tell God he has to show himself to us in our way or we ~~must~~ ^{won't} believe in him, and ---- we get nowhere, and lose all our anchorage and drift into infidelity and sin.

I know all about it, Alec., for I have gone the whole gamut of human experience. I have suffered the agonies of hell: seen nearly everything that was dearest to me go to the devil. I know the Bible from cover to cover, have studied it all my life, and read it through a dozen times. I know every doctrine, and all that it teaches, and the whole system of ecclesiasticism and all it stands for, and how the simple teachings of Jesus have been clothed with the fog and stupidity of men till we have begun to

doubt if it is any good. I personally believe that we have come to the parting of the ways and will have to scrap the whole ecclesiastic system. If it was ever any good it is now so encrusted with barnacles as to become about useless, and yet the Christian church has been the bulwark of civilization. But the minister of today is a barnacle, a fossil, has no mission nor message, nor authority, nor sanctity. He must reform or go. And why? Because he has taught for truth the figments of men, and has little or no spirituality, and is so hidebound that he cannot see the truth as it is. And yet must we give up Jesus's teachings because the ministry has failed? Must we abandon godly lives because we have false guides? God's laws are eternal. Those who live by them swing out into the light and reap joy and success in the highest sense. Those who don't, fail. And what of the Bible? Inspiration? Divinity of Christ? Does the Bible fail as a spiritual guide? Inspiration can be nothing but that of thought, the phraseology is that of men. No one would say that the Bible is an unsafe spiritual guide. As to the divinity of Christ to us it is historic, and in the nature of things cannot be proved except through his teachings. Can you find any serious fault with his teachings? If not where did they come from? The same law holds, ex nihilo nihil fit. It would take a lot of guessing to find any other source than God. To me Jesus shows the ^{way to} right living. As to details of his relation to God I am not so particularly interested, but I do want to know how to live, and he shows the way.

To me God is a spiritual personality, whether with form or not I do not care or know. But he is ever present and ready to help when and only when I have done my best. When he helps, things come in such natural ways when I am up against it and cannot see the way out, and at the psychological moment when I must have help. Accidents do not come that way. I know I am just an ignorant child in his sight, but if I only knew more of God how much more happiness I could have because I could be much more useful than now. To me prayer is the great means of getting in touch with God.

Now it is evident that all your unbelief and mental distress is due to lack of personal experience, that is, answer to prayer. Now why are you

you have properly aligned yourself with God? When things do not go right with me I first ask myself "Am I at fault?". Hang on. Be scientific and get at the bottom facts of life, may be you will find a leak somewhere. You say you have never had any answer to your prayers. Now isn't it possible that God had something to do with your casually writing to me about your change of faith? Why should you mention it? You did not know that I was a Christian. Was there any guidance, and did my letter do you any good? Why did you not pass up my request for a copy of your creed? You did not have to pay any attention to my request, and you did not intend to, and yet you did and I knew you would soon. When your ^{first} letter came I saw in it at once an appeal for help, and yet you did not ask for help. I sat down and wrote you just as faithfully as I knew how. And ^{why} do you say that "every bit of the letter is interesting" to you, and you have read it over three times? I am not asking these questions to get an answer, but simply to remind you that this is the way God deals with us, the way he leads us into the light. It may be that my letters will only lead you to something better or give you a hunch to get what you want of someone else in settling your religious status. Sometimes it is a long way to the light with aggressive and self-contained men, for we don't seem to be able to listen to the "still small voice", to recognize the little leadings of God through our fellow men. My daughter was telling me yesterday of one of her girl pupils who also went to Oberlin and came back all unsettled in her religious belief, and reached such a state of desperation that she contemplated suicide, the most cowardly act a person can commit, but at last came out into the light. Of course you can say all this is only self-delusion, and explain it away by a hundred suppositions, but scientific men have no right to guess, and you can in the same way do this with any other experience in life. You can say that love, hope, and fear are only figments of the mind, but you can't convince the happy mother of it when she hugs her baby to her breast and thanks God for her baby. You can't ^{not eat} your cake and still have it. You can't dissect life with a scalpel and keep it alive also. Philosophizing is like

Tuning up a fiddle. It may help to get ready to do something, but you never get anywhere with it, for it has no vitality. It reminds one of the Greeks who spent their time in doing nothing but to hear or tell some new thing. But life is intensely practical. We want to make the most of it, but how is the great question. To me the teachings of Jesus lead the way, and God stands behind ready to boost. It is up to us to go it alone and fail, or to walk with him and win.

Since God is not material, and the physical side of us through which we get the impressions which we call evidence is material he has to approach us through physical sources, that is, through nature and our fellow men. The spiritual side of us seems to be ^{sensed} sensed only when the physical is at rest, namely sleep, and influences acquired then are called dreams. But our experience is such that scientific men discredit dreams. As a result nearly all our uplift comes through some person whom we meet. We "accidentally" meet ^{him} ~~them~~, ^{he is} ~~they~~ are moved to say or do something that helps us at that psychological moment. He cannot explain how or why he did it, would say it was just an accident, but the act is a world of life to us. Thousands of things occur which amount to nothing and mean nothing. People chatter, but these hunches, where do they come from? Is it reasonable to say that a great God who so exquisitely clothes the lily will not look after man, his highest creation on earth, to make him most effective? It is not scientific to assume ^{any} such thing, there must be a motive behind these "accidents" that they should happen at the psychological moment. I think that if you will be more alert and watch events, looking them square in the face, you will come to see that "All things work together for good to those who love God", that "There is a divinity which shapes our ends rough-hew them as we may", and that "In all ~~things~~ thy ways acknowledge him and he will direct thy path." (Prov. 3 6).

You seem to regret that you have to be a heretic because your allegiance to the truth compels it, to doubt what you once believed, and yet you cannot see any other course open to you, but you forget that God ~~will~~ will

allowed twenty millions of people, men, women, and innocent children, to die in the late war, often under the most cruel conditions, just to teach men that they must do their own thinking, you would call it a frightful punishment, and that no just God would allow such a thing, and you would not believe in any such God. Well, what does that amount to him, he has his own ideas of sin which seem to be quite different from ours. What we call a mistake he punishes with death. We are very prone to laze along and let some aggressive mind think for us while we sleep, and this has been the cause of all the infamy of ecclesiasticism, political corruption, wars, and persecutions that have cost billions of lives, and now we begin to see why God looks upon the sin of not thinking for ourselves as the greatest sin of humanity except perhaps idolatry, which as a matter of fact is the same thing only in another garb. And yet you seem to think other will criticise you for doing the very thing ^{God} demands, namely, thinking for yourself.

You ^{warn} ~~warn~~ me not to try to reform you, nor worry about you, nor expect that you will heed what I say, and trying it will be like throwing my pearls before swine. Now all this is no concern of mine, it rests between you and God. But I am a brother man and it may be that God wants me to lay before you a better way. It may be that I have trod the same path a little before you, and my experience may save you loss, who knows? I may be wrong but I would regard it as a privilege to show you the way out, if by chance I might be right. I owe an incalculable debt to those who have gone before which I can never repay to them. It must be true that God intended you to be effective and happy all your life, and to live in harmony with him, and do all the good that he made you for. But if you are perfectly content with things as they are, and fully agreed that you are fulfilling your mission in life then it is a waste of time to speak further, but I have a sneaking suspicion that things might be better.

Now would it ~~do~~ do any good to remind you that God is ever present, that he is not only infinitely just but equally ~~loving~~ loving, and thinks

being, that he will demand obedience to all his laws, and reward you as you obey and punish as you disobey, that he is ever ready to boost when you have done your best and cant get by, and that you must look to your fellows and your experiences for answers to your calls for help, and so must scan more closely every event in your life to see what it has for you, and throw your worries to the winds. Life should be a round of loving service for others. Your happiness comes in the doing. You have a right to enjoy every experience, the flowers, the rocks, the winds, the clouds, the waterfalls and brooks and birds, your association with your fellows, what you wear and eat and drink. You can just as well walk on your toes with your head in the clouds, as crawl on your belly in the dirt. I own the Earth, you can too, there is room for all.

You know the ten commandments. Are you obeying them? Do you use the Sundays for self-gratification? Or do you use them for making moral inventories of yourself and acts. Honestly are you really trying to keep in touch with what you know God must be. A person cannot expect to get much guidance from him without at least trying to keep the inside of his house clean. Of course by the word "clean" I am not ^{meaning} ~~making~~ any special kind of moral cleanliness, but ^{the} same kind of mental attitude that you would expect a student of botany to exhibit if he wanted to get anywhere as a botanist, namely love for the study and desire to get at fundamentals. As a scientist you are always taught to be exact, judicial minded and fair, and to face every problem squarely and without bias. Now isnt it fair that you should approach the most momentous thing in life with the same fairmindedness? This is what I did three years ago when I came to see that I must have more proof of Christian fundamentals as my faith in them had failed because I had lost faith in the Christian church and all its ordinances, and I found that I was on unstable ground in accepting the miracles, which depend on history for verification, which of course is not evidence to me. I saw that there was only one way out and that was to give God a fair test by cleaning house and praying as I had never prayed before, for my reason told me that God must exist and there was no reason why he would not care for me and help

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me, if I tried to obey all his laws. This is not the first time I have prayed. I was converted when I was thirteen years old and have been ^{an} active Christian all my life and sought God's guidance always, and could relate innumerable events where he has saved me from evil, but somehow I still felt that I was not properly in touch with him, and I was drifting onto dangerous ground. It was simply the culmination of the sorrows I went through with my wife before she died. I never could see why he let those things come upon me when I had ^{always} ~~always~~ tried to live right. So I bought me a bound blank book. Stated my religious belief exactly as it was, just as you have, and I never intended it for mortal eyes. Then I stated that the only way out was by prayer, and if that failed I would give up my Christian faith. I dated it, so that there could be no juggling with dates. Then I wrote down what I was praying for, what I needed and must have. Then I dated it. There were times when I came within twenty four hours of giving up, but help always came at the psychological moment, in some way or other, and I walked out into the light and began singing. There have been many dark days since, but for the most part I have been walking on my toes. There was a dark time when I began to write this letter to you, but light came yesterday or I could not have finished this letter. All this is not evidence to you any more than the reputed miracles of the Bible. Now you can hardly blame me if I believe without hesitation the miracles, because God has done just as wonderful things for me. But it is not evidence to you so Alec. why not get a book and do as I have done. Write in it what you think you have a right to ask for and what you do ask for and date it. Then keep track occasion by occasion, perhaps not daily, what good or evil comes to you and write it down and date it. Check up once in a while to see how things are drifting. Readjust yourself now and then as you get light as to what is right for you to ask for, that is, what is best for you, and ~~don't~~ ^{don't} think that anything is too small for God to notice. After a while you will be amazed at the number of "accidental" things that happen in your favor. By and by your experience will give you that faith that you now lack, and you will speak less confidently of the foolishness of miracles, you will have

too many experiences of your own to keep you guessing as to how they could have occurred at such opportune times, and you will see that in all ages God has done for his and will do for them what they cannot do for themselves. Most of us drift along like a leaf floating in the wind, in a happy-go-lucky way, self-deceived, not even knowing ourselves till it is all over and we are gone, and people wonder why we never got anywhere.

I feel that I know your condition perfectly, yours seems a duplication of my condition forty years ago. A human dynamo, tireless, glorying in your strength and only wanting a clear track, ready for any experience, feeling capable of hewing out your own destiny, and seeking no help. Before I was married my mother used to say "Marcus if I could only tell you some things" I said I did not want to know, wanted to learn for myself. Well, I did learn for myself and got it in the neck, and lived in hell for twenty years because of it. If I had not been so aggressive and was more teachable and willing to follow the experience of my elders I could have started where they left off and not at the bottom as I did. This tremendous creative impulse that God has given us can be an ~~xxx~~ awful engine of destruction, or a magnificent power for good just as we use it. Young men lack humility, old men have more for they have learned their limitations. Young men are theoretical (from lack of experience) and inclined to tell God how to do things, and to set up their own standards of divine conduct, and say that they will not believe in him unless he plays on their back door. He pays almost as much attention to them as a cyclone would. They can get in his way and die, or get out of the way and live, he is not worrying.

There are two ways of repairing an auto. You can assume as most of us do that the maker was a bonehead, and we go ahead to find out the trouble. We pull out the carburetor, take it to pieces and put it back another way, then the timer, and the ignition in the same way, then when Lizzie wont make a wheeze we knock the maker again and give it up and get a real mechanic who promptly puts things back as they were, and when Lizzie still refuses to kick he looks in the tank and finds we are out of gas. This is about the way we study God and nature. We assume no intelligence and no

personality, and yet intelligence is everywhere in nature, and the law of the conservation of force and transmutation points unerringly to one great directing personality. The forces of nature are only different ways in which ^{the} Creator acts, and natural laws are only statements of the different ways in which he acts under different conditions. We are ever trying to separate God from his laws, as though there could be such a thing as the Creator sitting way off somewhere in the Universe asleep while the machinery runs without him. That would be a human god, for humans can set machinery going and go off and let it run because they are not the forces which they use. But God is not only the maker ~~XXX~~ but the force that makes it run, and this is why the bible says of God that he is the one "in whom we live and have our being". Now true scientists in studying nature assume ^{they} at the outset that everything is in harmony with its environment, but ~~he~~ rarely stops to think that this is only another way of saying that God is good, and that harmony is the first law of nature. So when we find plants growing thriftily on a seemingly barren desert we try to find out the reason for all the intricate adjustments to those hard conditions, and we call this ecology. In the end we discover the laws, and with this information we turn back to agriculture and "make two blades of grass grow where only one grew before", we raise better grain, better vegetables, better fruit, and then only the sap-headed farmer blesses the crazy weed crank. And so it will be with the scientist himself when other men try to find out God by carefully putting two and two together, marshaling all the facts of nature and correlating them, finding that all nature sings of God, and why she sings. Then the rustling leaves, the bird songs, and the cooings of the babies are only different ways of praise for the privilege of living. Then religion becomes an integral part of life, as much as eating and drinking. It sweetens everything, gives a motive, makes us effective, keeps us balanced and in top form, keener because we are free, and because we know the great Father is behind to help in ^{your} emergency, and so we go singing through life. This is the fountain of youth that Ponce de Lion sought and never found.

Perhaps I ought to say a word about prayer. It is of course talking with God. We always have a right to demand guidance from him, for we are his offspring, creatures of his making. When it comes to asking for help in specific things like money to pay our bills, more friends, better treatment from others, more opportunities to work, etc. the personal equation comes in. We have to do our best, for we cannot expect help when we loaf. Then we often want what would prove a detriment to us. But I hold that God always answers prayer if sincerely made, and in a way that is best for the one who prays though he may not recognize it as such. We do not always get what we want but we do get something better, and we get it by the slow method that characterizes human action. If we all acted at once on the hunches that come from the Greater our fellows would never have to complain of slow answers to prayer, we take our time, and the recipient suffers. You may say that a great supreme God would be foolish to act this way when he could just as easily drop us a bag of gold twenties at once and end it. But experience shows that he thinks it better to do things through our fellows so that both the receiver and giver may get equal benefit. It is our business to find out the way God does things and adjust ourselves to it just as we adjust ourselves to his methods nutrition, assimilation, growth. He could just as easily make fruit full grown, corn and potatoes the same, but he does not. I have long ago decided acumin enough to all the intricacies of life, and am content to follow the method of trial and error, or as we sometimes call it the rule of thumb way. That is to try a thing out and if it gives results be content to follow it. This is why I have adopted testing out God through prayer. It is the only scientific way. You will find it gets results if you use the same accurate methods you employ in scientific research. Now I have said my say. What will the harvest be?

Very truly yours,

25[#]

SIX HOUR TRIP TO THE FAMOUS COTTON WOOD CANYONS
For the Delegates to the Convention of the
AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,
Salt Lake City, Utah, June 24, 1922.

--oOo--

Committee in Charge of Trip.

County Commissioner, E. L. Burgon
Dr. George W. Middleton.
Dr. Frederick J. Pack. Professor of Geology, University
of Utah.
Mr. Le Roi C. Snow

Log furnished with Compliments of
County Commission of Salt Lake County

(Note) Automobile drivers will kindly set their odometers at zero when the trip begins and make corrections occasionally as the trip proceeds. It will be well to have some individual in the car call out the odometer readings at the various points of interest.

Leave Hotel Utah at 8:00a.m. sharp.

Distance from
starting point
in miles.

- | | |
|----------------|--|
| 0.0 Hotel Utah | Go east to 9th East on South Temple Street,
south one block to 1st South Street, east four
blocks to 13th East Street. Turn to right and
go south on 13th East. |
| 2.8 | At right, East Side High School, one of the
finest and most modern high school buildings in
the intermountain region. Cost \$1,000,000,
attendance 150 |
| 4.2 | Westminster College. |
| 4.6 | At left, Utah State Prison. Turn to right
on 21st South. |
| 4.8 | Turn to left on Highland Drive. You are now
passing through Sugar House addition, one of the
many active suburbs of Salt Lake City. |
| 6.9 | Wasatch Lawn Cemetery. |

9. 0 Holliday. This is the home of the famous Baldwin Radio ear phones. This Utah inventor has devised a telephone receiver said to be seventy times more sensitive than the ordinary telephone receiver.
11. 6 Turn to the left on 72nd South. Follow the road in a southeasterly direction up Big Cottonwood Canyon. At left and ahead, shore terraces of ancient Lake Bonneville. The highest terrace is 1000 feet above the present level of Great Salt Lake.
13. 4 Old Paper Mill. In May, 1869, Charles John Lambert, under direction of Brigham Young, began manufacturing paper, for which he was paid three cents per pound.
- In the late seventies a new mill was built near the mouth of Big Cottonwood Canyon, and in 1882 entirely new machinery was installed. The cost was \$8,500. Mr. Lambert was in charge of this paper mill for twenty years. There is still in Salt Lake City a Lambert Paper Company controlled by the Lambert family.
13. 5 Big Cottonwood stream.
14. 3 The great Wasatch Fault with an aggregate throw of more than 10,000 feet. The escarpment shown

at this point is 75 feet high and was formed by faulting in post-Pleistocene times.

- 14.6 Salt Lake City water works System. From a portion of these mountains, comes a water supply unequalled in purity, for unfiltered water, in any section of the country.
- The country rocks at this point are of Algonkian age.
- 16.4 Turn around at the water works and retrace the road down the canyon. This hydro-electric power plant is one of the oldest in the West.
- 17.4 The "Stairs". Algonkian slates and quartzites.
- 20.1 Turn to the left at the mouth of the canyon and run almost south. A portion of the Salt Lake City Water works system.
- 20.4 Crossing over the Wasatch fault terrace.
- 20.9 Stop Butlerville point. Continue along the road toward Little Cottonwood Canyon, going south.
- 21.6 Entering the famous rift valley, caused by post-Pleistocene movement on the Wasatch fault surface. Observe escarpments on east and west.
- 23.0 Entering another section of the rift valley. Escarpment at left 100 feet high, in terminal moraine of Pleistocene glacier. Note erratics on hillside indicating height to which glacier reached.
- 23.3 Narrowest and deepest point of rift valley.

- Escarpment on both sides. Observe nature of morainic material. Gray quartzitic boulders show striations. Granite boulders have undergone exfoliation.
- 23.6 Cross Little Cottonwood stream.
- 23.9 Stop. Rift valley, glaciated canyon.
- 24.2 Look to left. Excellent view of rift valley.
- 24.3 Stop. All who wish may climb to the top of moraine.
- 25.2 Mormon temple made of granite quarried at this point (remnants at left). Hauled to Salt Lake City largely by ox teams.
- 25.3 Country rock is pre-Cambrian quartzite and granite. Latter probably intruded during late Cretaceous times. Note granite-quartzite contact at right. At left of roadside are xenoliths of quartzite in granite.
26. 1 Wasatch, at one time widely known as a summer camping place. The Alta mining district is ten miles farther up the canyon . The State Capitol building is made of granite quarried from mountain at left. Luncheon at this point. (note) Return trip begins at 1:00 p. m. Retrace road going back down canyon to its mouth.
28. 1 Take lefthand road going straight west.
33. 2 Jordan High School on right. Go north on State Street.

- 33.6 Slag dump of the old Mingo Smelter.
- 34.0 The town of Sandy on the right.
- 35.2 The town of Midvale on the west in the distance.
 See great smelter stacks also to the left.
- 38.1 Murray City high school.
- 38.3 Lead smelters, American Smelting and Refining Co.
- 38.8 City of Murray.
- 41.2 Granite Stake Tabernacle. The Granite Stake is one of
 eighty-seven Stakes of the Mormon Church. Besides these
 Stakes at home, the Church has missions in nearly every
 part of the world.
- 42.9 County Infirmary on the right.
- 45.9 Turn left at corner of South Temple and State Street.
- 46.0 Hotel Utah.

THANK YOU, COME AGAIN.