

A. D. White

May 21st 1868 Frankfurt-on-Main

My dear Mr. Cornell

We left Paris at time mentioned in my last letter and went first via Strasburg to Stuttgart presenting my letter of introduction from Prof. Gangre to Prof. Hering of the Veterinary School I was very cordially received & shown the entire establishment receiving much interesting information. It is not so large nor so splendidly equipped an institution as that at Alfort wh. I had visited the week before but the work is very thorough & conscientiously done and a good number of young men every year are graduated who can do something to save the vast veterinary interest from charlatans &

quacks of various sorts - There
are usually from fifty to
eighty students - Course is
quite thorough - beginning with
a good foundation in Natural
Sciences

Dr Hering was so kind as to give
me a letter to Prof. Rueff of the
Royal Agricultural College
at Hohenheim - which was the
institution I most wished
to see. The ride from Stutt-
gart over the hills - about
six miles was delightful
- vineyards on all sides of
us - & beyond them rich valleys
& grand old mountains -

was very kindly received
at Hohenheim and though
my German had grown
rather rusty from long disuse
was soon able to get along
perfectly well by mixing in a
little French now & then

Hohenheim is an old palace

built on a splendid scale
in the last century - situated
in the midst of a domain of
over five hundred acres.

Like all these old palaces,
it had an immense extent
of stables - pavilions + outbuildings
of various kinds which serve
an excellent purpose now
in fixing all the accommodations
needed in the various depart-
ments of an Agricultural College.
- For example the former riding
hall - a vast saloon decorated
with statuary + rich moldings
- lighted by fine windows set in
a French Mansard roof is
now a barn + partly filled
with hay!

As usual in such visits I got
hold of one of the students
+ got a view of the institution
from his standpoint. - He was
greatly interested + especially
dwelt upon the liberty allowed

Students - here. They study what they please - making out a course for themselves & with one exception he did not know of a student in the institution who abused the privilege. The full course is two years & they think of adding a year - but a student can take less time if he chooses and on going away receives a certificate stating what he has studied (You see I have underscored the points where their practice is a working out of my theory.)

They have also a paper workshop where agricultural machines are made as samples - & where paper models are made for collection in Agriculture &

I was intensely interested in their collection of models of all sorts relating to Agriculture

among the others a complete
 Collection of models of ploughs
 used in all nations & times
 one hundred & eighty-seven in
 number. They were on a small
 scale $\frac{1}{8}$ natural size I think but
 so perfectly made that every
 bolt & screw & even every cord
 (as in the primitive plough) were
 exactly given. From the rudest
 plough used in bible times &
 earlier to the English Howard
 plough & American improved
 ploughs all important modifi-
 cations are given. Some are ex-
 ceedingly curious & some wonder-
 ful samples of misapplied in-
 genuity - but - altogether they
 are very interesting & instructive.

They are the result of the
 studies of Prof. Rau of Hohenheim
 & the mechanical skill of his
 Master Mechanic of the College

There was also the most
 complete collection of horse-

5
-shoes in existence - of all times
& countries for all emergencies
& conditions of the animal.

If anyone had told me
a year or two ago that I could
ever be interested in a collection
of bluffs & horse shoes, I should
have laughed heartily at the
idea - but I have rarely seen
anything of late more interesting

Acting on a hint from the
Master Mechanic at Hohenheim
I started off next day for Stutt-
gart - to Karlsruhe - hunted up
Prof. Rau & found that he had
there his complete collection of
bluff models - even more
complete than that at Hohen-
heim - which he had exhibited
at the recent Paris Exposition.

In about an hour it was
bought & paid for - at 500 francs
less than the set he sold the
French Gov't. I insisted that
one set in the U.S. was
worth a dozen in Europe as
an advertisement - Price paid

were two frames - if you don't like them I will take them off your hands at an advance!

They will be shipped immediately

visited also the Polytechnic Institution at Stuttgart wh. is I think the finest in Europe. How I wished that you were here with me that we might study these collections together & look into the various points in their very successful organization!

visited also the Polytechnic at Carlsruhe wh. boasts the finest collection of models of machines etc in Germany. It was wonderful! but we can do as well!

Spent a day & a half in Heidelberg - delightfully of course - but won't bore you with descriptions ~~but to~~ ~~do~~ made first purchase of Chemical Apparatus. Good people to deal with - gave me 10 p.c. off catalogue price. I added two or three valuable

pieces not on the Professor's list.
- especially a complete Photometer
(Bunsen's) & the famous instrument
for spectrum analysis - complete.
- vastly cheaper than American
prices. & things which we must have
to maintain any standing of a
high sort.

Went to Darmstadt - bought - nearly
a thousand dollars worth of Chemi-
cal apparatus & wares for Labo-
ratory - adding one fine piece here,

visited also the establishment
of Schröder - the most noted maker
of models of all sorts - in Europe.

Here I found among others than
which I had so much admired
at the Technological Institute in
Boston - imported by President Rogers,

selected several samples &
bought a complete collection of
photographs of the entire number
of models - to the number of over
160. Some are in iron - some
in brass - some in paper - some
in wood. (Whell-walk of all sorts -
models of bridges, roofs - arches
towers - spires - steam engines - tur-

Wines, & water wheels, of all 3
kinds -

I have selected also some books ^{on mechanic arts} at Stuttgart & Heidelberg wh. are especially valuable.

I wish here last night and find to my regret that the Consul General my old friend Murphy of Michigan is absent. He telegraphs me from the Kinniger Springs that he will visit me here tomorrow night. So there is nothing to do but to wait. I have been to the Consulate & made out a lot of declarations but find that I must see Murphy to find out how far our goods are free of duty. The law formally declared all apparatus models &c. for institutions of instruction free of duty. but it appears that the Philosophical Instrument Makers of N. Y. & Boston denied to be "protected" & so they got a law passed wh. imposes a duty of 15 p.c. on philosoph. apparatus. Models are free - so are medals casts &c. but a letter wh. I procured from the Dept. of the Treasury at Washington declares that Philosoph. apparatus pays a duty. I suppose that you as an ardent protectionist will rejoice at this. You will be peculiarly glad that

Mr. Amos Pike of N. Y. & Henry
Chamberlain & Ritchie of Boston
are "protected" - even though there
is hardly any of the apparatus we
have ordered wh. they even pre-
tend to make. Some time I shall
give you a regular "going over" about
this. That one or two great interests
- the iron interest for example
needs the hand of govt. between it
& the organized warfare of English
Capitalists & iron masters may be
true - but to impose a duty upon
philosophical apparatus - mulcting
every college & school & institute
in the U.S. to "protect" Pike & Son
whose nature by the way resembles
their name, is sheer scoundrelism.

I shall do what I can to get this
duty off, & I know that Murphy
will do everything for an institution
wh. he can do conscientiously.

By the way it seems to me that
you ought to have an agent in
U.S. to look after your packages.
They will be coming thick & fast
very soon. There will be seven or
eight boxes from Darmstadt alone.

As soon as I get this matter
straightened out here I shall
go on to Erfurt, Leipzig & Berlin.

when also there are benches
to be made of books + apparatus
I ship everything from Germany via
Hamburg. Will write you from
Berlin where I hope to receive
letters from you.

Now as to home matters. First
+ foremost have a good system
of lightning rods applied forth-
with to the university buildings
+ Cascadella. Do not omit this.
Having visited Heidelberg Castle
which was finally ruined as
you know, after its restoration, by
lightning, I became quite restless
over the thought of a like calam-
ity to our institution. I think
the true system to be strips of
copper penetrating deep into
the ground. + at the summit
a thoroughly plated carefully
made point - one for each cham-
ber. Do not omit this. There
is no need of insulation from
the roof + building, however

in such a case is humbug: &
probably worse as you doubtless
are aware.

And now a little joke. Do you
remember our dear friend Bennett
who addressed the Assembly Committee
& proved that you were an unmiti-
gated scoundrel - "robbing the colleges
of the state" & erecting a costly man-
sion - to you our selfishness" &c. &c.
If you do not - Mrs. Corwell does
I will warrant. Said Bennett -
studying in Berlin & is clear "taking
joke" for a proposition at Corwell
University!!

By the way I have been heard whether
the bill was passed transferring Evans
College to Syracuse. How would it look
looking.

Hope to reach Berlin early next week
& arrange regarding Bopp library - &c.
Intend to stay there about a week or
ten days, - perhaps two weeks. Do not
fail to let me know at first moment possi-
ble what I had better do regarding order
of the Chicago model &c. & whether I can
have some \$5000 dollars more for purchase.
How far have you advanced the new
building? - Give me all particulars. I now
think I shall sail from Liverpool on June
27th or July 4th - My white hair is
in hearty regards to you all -
I remain - Ever truly yours
A. D. White

P.S. I received the printed slip containing
notice of our purchase of the Bopp library.
It was well to give the public a hint
that we are working in that direction
but - I sometimes fear that we shall be
thought neglectful of the other parts
of our educational plan on which
so much stress is laid by Congress.

Might it not be well to give a public
hint that in addition to probably the
largest ~~for~~ shipments of historical & scien-
tific books ever made from Europe to America
at one time ~~I have~~ ^{generally} ~~an~~ ^{and} ~~most~~ ^{com-}
plete outfit for the ^{Chemical} ~~Chemical~~ ^{laboratory}
with all the most-improved apparatus
I have purchased the Rare Collection
of models of ploughs 187 in number
made at the Esplanade Agricultural
College at Hohenheim & which attracted
much attention at the late universal
Exposition at Paris - a large number
of the Arzoum models for illustration
in human, & veterinary & comparative
anatomy - and a number of the
admirable models of machines
made by Schroder at Carlsruhe.

[May 25, 1867]

I submit

This idea for the reason that I
have feared lest the men who
are dissatisfied with existing colleges
should be fearful that I am not
doing enough for those special de-
partments which they long to see
established & well maintained

I am more than ever imbued
with the importance of instruction
of the highest grade in Agriculture
& the mechanic arts. No country
presents to me a field for it as
our own and I wish the people
to understand that I attend to
that part of our equipment &
organization not less than those
which it might naturally be sup-
posed I cared more about

W.