East Saginaw March 30/64

H Mack Esq.

Dear Sir

I Saw Mr.

James Munn = (a Well borer)

Yesterday = he requested me to Say that he would go to Ithaca and Make a hole as deep as you wanted it at 20/- per foot = You putting up the Drill House and power.

He has three wells under way Now which he Says will be finished in about two Months when he will be ready to go. - if he can Know that he is wanted Soon or before a takes More work here

Mr Munn has been here. I am told about 2 Years. Engr

engaged in boring and
has been Verry Successfull
geting into but one bad
Scrape during the time
and is a Verry likely Man
Yet Shaughter would be
My first Choice if he can
be got

Resp^ly Yours

J E Shaw

J E Shaw
Mch 30 1874

H. Sibley
30. Mar 64

St Nicholas Hotel March 30/64

Hon E. Cornell

My Dr Sir

Your message rec'd You say "Keep cool & lay your plans deliberately"

I think I am not excited or likely to make any rash move

Our undertaking is a great one & I feel the responsibility of the undertaking & have therefore preferred to let the Stockholders act for themselves in the Matter

You do not suggest any better or other way to get wire on to the Pacific than ship round the Cape

We propose to ship wire to Portland thence by Steamers to "Fort Walla Walla" & there divide up the Lewis River to Lewiston & up the Columbia to Preests rapids By this mode we

Shall get our wire along the route by water & for less for Hundred than we can get it to this End of the Pacific line "Brown Ville" —

By looking at a good Map You will see how these two Rivers branch off in the direction of our route from Walla Walla

The line will diverge from the Pacific line at or near South Pass Thence to the "Big hole mines" in Idaho & then cross wind river mountains & run west to Ft. Boyce. Thence to Fort Walla Walla & thence to Reeds Rapids on the Colombia about 400 miles up the North Branch of that Province

If You can think of a cheaper way to get the wire transported You beat me. I think it wise for us to build at once for the Local Business on that route & we reach all the rich mining district of Idaho

We have done nothing to occasion alarm in the way of Buying Ships

I have thought it best to consider the plan of Buying & fitting out a Whaling Vessel & crew & send to Beherings Straits a Party to Explore & Build a log Station on both Sides & remain than through the winter

The Vessel could be occupied in fishing which generally pays independant of other uses & One winter would test the practicability of wintering our men at that Point & the Extent of the danger from Indian depredation

We need all the wisdom & Experience of all our Directors & I hope You will not fail to think & talk on the Subject

giving us explicitly your views upon all the plans you may think best to adopt

It is not enough that you advise me to "keep cool" I need & expect more definite counsel from one of your age & experience

I am here to meet the newly appointed Governor of Sitka the Capital of Russian America is owned & controlled by the "Russian American Company" and I hope to interest him actively & Recessively in our Enterprise and Mr Collins is now drawing up a proposition to be submitted by the Governor to their Directors at St Petersburg for the construction of that portion of the line between Sitka & the Straits about 1500 miles This section has been regarded as the most difficult

If we can induce that company to cooperate with us with all their men & vessels it will aid us much. I go to Washington tomorrow night to get legislation Yours truly H. Selby

Ithaca March 30/64

Hon E. Cornell

Dear Sir

I inclose another draft for the Appropriation for 1863

Respectfully Yours

O. B. Curran

Binghamton Mar 30th 64

Hon E. Cornell

Dr Sir

Your favor 28th enclosing Dft $2112 25/100 and Deed was recd & contents examined & compared with records.

We find it all right & I have handed over the Dft to Messrs Stone & Sampson. and have deposited Deed in Clerks office for Record. When recorded will send to A. B. Cornell. The avails of the note are received. Business promises excellent. I want you to come here, but suppose it out of the question. after Legislature closes would do- Yours Truly

P. A. Hopkins

Toledo March 30th/64

Dr Sir -

Yours Recd - Will you please write me soon as you can in regard to the Ansign stock giving your opinion Do you think it would be a safe investment for a person of small means I would like very much to get some good stock that I can hold & feel that I am not in danger of losing my little all — I am very glad to hear that your health continues good I hope it may continue so for many years to come — Am very thankfull to you for many past kindnesses Hope I may be able at some time to reciprocate -

Yours Truly
W. A. Peck

Hon E. Cornell
Albany —

Albany Mar 30. 63

Dear Alonzo

Your favor of 27th came duly to hand, I have not thought much about investment — I have let Prew have $3000. and hope he wont bother me further but will be able to get his own living — I paid $2,100. for a lot in Bar for Shapley, Hopkins & Robbins to build a shop on this will be a good 7/per ct investment —

I have in bank here some $16,000 to $17,000. and shall probably loan Emery Bro $10,000

It will be a safe 7/per ct investment — Mattison has bought 50 Acres for me with Ston House at Crowbar point — at $70. this will take $3,500. It will make a capital fruit farm — I think you had better buy some 7/30's as you may think best —

I dont hear about dividend
It will be 2 and may be 2½
per ct— I think it best to take
the Russian stock or at least
500,000— which will require
$25,000 to pay first installment—
I think we will be home
Friday morning, as I want
to see how the front of the
library looks. I have written
to Sweet about it but learn
nothing—
Have you rec'd $1700. from
O. A. Palmer for the last 10 shares
I sold to Mr Conville—

I sold to Selyn	100. shares	@	$17,000
McConville	40	"	6800
Rosalsky & Son	100	"	20,000
Munger	450	"	90,000
McConville	10	"	1,700

The bill reviving Old Sodus
Canal Co, passed Senate to day,
Yours Respectfully
E Conville

A B C

Lummis Bro's & Sutton,

No. 64 READE STREET.

New York, March 31st 1864

Hon Ezra Cornell
Albany N. Y.

Dear Sir

Our Mr Wm W Lummis is unable to attend your City he being confined to his House with the Rheumatism which has detained within doors ever since he returned

It was his intention to have been in Albany to day but as yet is unable to leave his room

Yours truly
R. P. Cunningham
for Wm W Lummis

Morley March 31. 1864

Hon Ezra Cornell
Senate

Dear Sir

I thank you for sending me copy of Senate Bill no 277, duly received.

On examining it there does not appear to be anything objectionable On the contrary as one of the Bondholders I hope the bill will pass.

There is one little matter in it however that seems at first sight hardly fair. It provides (Section 2 line 37 &c) for payment of a commission to the retiring Trustees, to be calculated on 30 per cent of the principal of the second mortgage say 30 % of 3'770'000 or 1,131,000 dollars which if the commission be one per cent will give the three Trustees eleven thousand three hundred and ten

as I suppose & always have understood dollar. Now the facts, are that the three Trustees have all through their management of the road received regular annual salaries. In the second place Mr Wheeler has all along since the passage of the act of Mar 31. 1857. been urging his Co-trustees to terminate their Trust under that act and the decrees of the Supreme Court but his Co-trustees uniformly opposed him and for no other reason but because they would in that case lose their salaries. In the third place Mr Wheeler residing at Malone the head quarters of the road has always done all the work and the places of the other Trustees have been Sinecures. Indeed A. C. Brown was notoriously foisted upon the concern only to give him the salary and the other man in Boston has never that I ever heard had anything to do with the management. William C. Brown was put in the place of his father A. C. Brown deceased about a year since. He was not wanted, but I suppose he was very willing to pocket the salary.

The present excellent condition of the road and equipment and its economical management are owing entirely as I understand the matter (and I represent all these things as I understand them from common report and Conversation with other interested parties and I may be in error though I fully believe I am correct,) to the care and good judgment and honesty of Hon Wm A. Wheeler Trustee and

George V. Hoyle Superintendent. I should be very glad to see a handsome commission paid to Mr Wheeler but I think it will be a shame if the other two get any more of our money.

Yours very respectfully
T L Harison

T. L. Harrison
31. Mar 64

Albion March 31st 1864

Dear Ezra

Your letter of 28 inst to Phebe is at hand and came very opportune for she had a letter written to you asking the very questions which you have answered in full.

We shall notify the secretary of W. & R. that we will take the Russian stock indicated by the resolution of the board although it looks like a pretty big load to shoulder. Our W & R stock now is $21700. and consequently the Russian script will be $10800. setting aside the odd hundred as they propose

The share of E & M stock from E. T. Mott which has not been transfered yet and the 20 per cent for the Pacific line will add considerable to our W. R. stock, but I suppose we cannot get it issued in time to claim any more of the Russian stock. It would have to be done previous to the 16th of May. Mary has $1800. of W. R. Stock and will take the amount of Russian stock assigned to her. I think I had better go to Rochester and take the evidences of transfer of E & M stock & see if I cant get that matter settled.

I contemplate some alteration of our house this spring which will occupy some time but not a great deal of money.

The weather here is cold and wet and the roads as bad as I ever saw them. We dont pretend to get out of town. Robert & Arlina is visiting at Grand Rapids and we expect them here tomorrow. He starts back on the 4th April.

Mr J. L. Hance called to see me yesterday and while here sold the house & lot you let him have for $625. He went on to Ill.

Nothing further about oil in particular. Vague rumors about big sales of land but nothing definite

Yours Respectfully
M B Wood

perfection - It is said they have spent a quarter of a Million Sterling in perfecting it & have fortified themselves with U.S. Patents so thoroughly that the perfect thing cannot be had without their permission & mulcting their right - Preparatory to leaving for the States, I have inaugurated a negotiation for the permission to use their apparatus & if I succeed shall at once send over a couple of Engines & the apparatus for ploughing, harrowing &c - At the same time I propose sending over a wheat Thrashing & cleaning machine, to be propelled by Steam Power - The Engines will be self propelling of course. The cleaning & thrashing by Steam is almost as important as the Steam Plough - & at least highly so & can I think be introduced to great public advantage & private profit - That is to say

73 Great Suffolk St.

Hon W. Cornell
Senator - State of New York
Albany

Sir - I observe in the Tribune that you have introduced a Bill to incorporate the Steam Agricultural Co - Having had my attention recently drawn to the subject of Steam Ploughing & am so well satisfied of the immense advantage it would be to any Country (at this time particularly) to adopt it, that I would like to take Stock in the Co you propose to charter, if the Charter is a liberal one & the Concern starts under such auspices - under the lead of yourself & the Honble George Geddes, I would take as much Stock as I could conveniently pay for - There is one Concern here that has brought the operation to a state of great

3 J. G. Winter Mar 1864

the Farmers would give an Engine & Thrasher liberal Compensation for its services — as in connection with the Steam Plough, I should suppose that in the Wheat region of New York, profitable employment could be had all the year round, for a great number of Engines Ploughs & cleaners —

I have the pleasure of being acquainted with Professor White & Hon Geo Geddes of Syracuse (a neighbourhood) & Thurlow Weed Esq of your City — To whom I beg to refer you —

I would suggest that there should be a privilege of enlarging the Capital of the proposed Co. to a Million — It will do no harm & may prove necessary — Yes every two Millions — For example, I believe that so soon as law & order shall have been restored on the Missa Rio, the Steam Plough will

entirely supercede the Horse Plough, in the Culture of Sugar, Corn & Cotton, on the alluvial lands of that Stream. It is not extravagant to anticipate that it will be used most extensively on the Prairies in the West. If the system should ever become general in its use, a manufacturing establishment which could turn out half a day in Engines a day, would not meet such general demand — Therefore a provision which will permit the enlargement of Capital, to cover all possible Contingencies, will at least not be an unwise one —

The establishment engaged here in the Manufacture is a very large one, but yet entirely inadequate to supply the demand with any degree of promptitude.

Yours respectfully
John G. Winter
of Georgia

Ithaca Apl 1. 1864

Hon E Cornell

D Sir

My commission as Notary Public expires today - It would be very convenient to me if I could be continued in Office - Do what you think proper in regard to it

Respy Yours

Alfred Wells

L. M Skeldon
Apl 1. 64

Geneva April 1st /64

Hon. Ezra Cornell
Albany

Dear Sir

I should be glad to take the pasture at Ovid, upon the same terms as last year, if you have not otherwise disposed of it.

I have about 20 cattle, young and ~~old~~, that I must sell if I should not obtain that pasture, I have had a very good offer for them and can sell them to a good advantage now, I should therefore like to know as soon as possible whether I can have it or not.

In case I should get the pasture, I would not sell my cattle, it will make but little difference with me either way, except I should like to be able to decide the matter either one way or the other very soon.

If you will give this matter your earliest attention, I should be much obliged, I am sorry to trouble you about so small a matter.

Yours very Resp.
Lucius M. Sheldon

Rose Apl. 1. 1864

My Dear Sir

I can hear nothing from Albany except what comes through the Daily papers

Is it possible that your Bill has failed in the Senate - -

And what is Genl Adams prospect is - If he should get a Charter do you suppose he would sell out - or could it be made available to connect Clyde River is And would it not be best to introduce a Bill or

have Mr. Williams do so.
declaring the Clyde River
and such parts of Cayuga
& Seneca Outlets as may
want to be used Public
Highways. so that
they may be used.

I was in hopes Matters
of defence would be
adjusted so that we
could go on and have
all the funds of the
project pull together

Hoping to hear from you by
return mail I remain
Yours Respectfully
E. N. Thomas

Hon E. Cornell

26 East 20th St. N.Y.
April 2nd. 1864

Senator Cornell

Dr. Sir

I received a letter from Dr Williams a short time since telling me that the "Act to prevent the adulteration of milk" had passed the "House" and was now before the Senate. This is the Act upon which you laboured so earnestly the Session before last, with simple explanations so as to make the bill intelligable to the comprehension of our Judges. May I earnestly beg of you to give it your zealous and personal attention

Yours respectfully Sam R. Percy M.D.

7, South Street,
Hurlbe Square,
Brompton,
London, April 2nd 1864.

Hon. Ezra Cornell, &
Col. B. P. Johnson,

Some months since I acquainted Mr Holmes with my determination to introduce the English method of Steam Cultivation into the United States. He entered heartily into my views, and kindly undertook to bring the matter to the favorable notice of some of his friends. He mentioned your names especially as those who could and would do much to forward such an undertaking.

Through him I also learn that you have taken steps to procure from the State of New York a special Act of Incorporation for a Company, &c. — I have, for a number of years, been engaged in constructing Engines & Machines, involving principles, in many respects, identical with those used in Steam Ploughing. During these years, I have had my attention more or less directed to the progress of Steam Cultivation. For the last year or two, (while in England,) it has been something like a specialty. But, until within a comparatively short time, I have not been able to decide upon any

method of my own, or others, that would fully meet your wants in the U.S.—

The different kinds of apparatus which are used here, appear to us Americans as too heavy, clumsy, complicated and expensive. I think that this external appearance has prevented us from investigating the subject sufficiently, to understand the real merits of the system. There are certain formidable difficulties to overcome, in harnessing Steam to the Plough in such a way as to compete with the horse & the ox. It turns out, upon investigation, that each indispensible operation has been as simply and cheaply done as is possible, or at least consistent with the present state of the Arts & Sciences, and that the whole apparatus taken together, will do a given amount of work at a cost of 50 per cent less, does not cost more for repairs, first cost, is no more considering the large amount of work it represents when measured by cattle and the ordinary implements. In the abstract, Steam is as well used in ploughing as most other purposes to which it is applied. I therefore see no reason why it will not succeed in the U.S.

With the most of American Engineers I have been in favor of the power being moved over the field in direct connection

with the diggers, spades or ploughs. But I have, reluctantly, come to the conclusion that the enormous consumption of power incidental to this plan, has been and will continue to be a formidable difficulty in the way of its introduction; at least until some better means of generating power is discovered. I also think that the objections to this method are apparent when viewed in contrast with other systems of Steam Cultivation, or the cost of the present or old system. Besides the great cost, the machinery is of such a nature as to require a too high order of skill and intelligence to work it successfully. I will mention one more of many objections that could be urged, which of itself is sufficient to condemn the whole system, and that is the effect of the great weight that must necessarily pass over & press down the soil. - Facts borne out in these conclusions by the results of ten years actual experience of parties in this country. - The plan that I propose to introduce is one which comes under the general classification or title of Rope Traction. This general title includes several different varieties. - At least three of these plans may be claimed to be successful in most respects, each being superior to the old method, (of Animal Power) both

as to amount of work done for a given cost per acre, and the quality of work as shown by the increased products. There is, of course, considerable difference in the real merits of these various applications of the one leading principle, showing thereby the large margin that really exists in favor of steam. The present successful machines are the results of over 240 years of slow & laborious progress; ploughing by rope having been tried about 1620. I find, as the result of my reading, that there are now on record in England, something like 300 patents bearing, more or less, directly upon Steam Cultivation, but the number now in force that are in any great degree necessary to the present methods, can be counted on one's fingers. It is probable that a successful plan could be adopted that would steer clear of all patents that are now in force either in England or the U. S.—

I do not, however, think it advisable to undertake to do so. The best & leading features of the most profitable apparatus are patented, and I do not know of any plans, tried or untried, that are likely to supersede, or even equal the patented machines. Besides time is of great importance, because the results of any experiments are arrived at but slowly

being determined yearly, rather than daily or weekly, as is the case in many undertakings.

It is perfectly safe to take things as we find them here. There are now over 500 of Steam Apparatus of the different kinds in practical use in this country, and worked with satisfactory results, with very few exceptions. There are, I believe, no cases where farmers have gone back from Steam to Animal power.

I have made such arrangements as will secure the exclusive use of all the desirable patents that are used here, & patented in the U.S. Several of the patents are leading, & quite necessary to get up the best apparatus.

The arrangement is principally with Mr John Fowler, whose name, I dare say, is familiar to you in connection with Steam Ploughing. The arrangement is of such a nature as will permit new improvements and patents which I have no doubt will be numerous & valuable. I expect that our people will do more, by way of improvement, in three or four years, (in proportion with what is left to be done), than has been done here in twenty years.

Mr Holmes has been of opinion that the "Roundabout", or Howard System, should also be taken over, for the reason that farmers

that now have portable steam Engines will be able to adopt Steam ploughing at a much smaller outlay, than if they were compelled to purchase an Engine, in addition to the other portions of apparatus. But I consider it evident that the Fowler System of giving off power & anchorage is superior as, applied, to the Roundabout system. ~~[illegible]~~

The various or rather numerous competitive trials made have settled definitely the comparative value of the different plans. The superiority of the Fowler plan is admitted in some respects by all parties. The same is admitted with regard to the Roundabout system as adopted by Smith & also by Howard. I will give a few samples to indicate the great range that an investigation must take in order to arrive at anything like correct conclusions with regard to the relative merits of the rival claims.

Fowler, to a furrow 300 yards long, would use about 620 yards of rope. — The Roundabout system, (Howard's) for the same furrow, would use over 1300 yards, or more than double that length. The rope in each

case being equally well supported by Porters, Fowler's will require 3/4 cwt. to draw it, while the other will require over three cwt. To offset this loss, the friends of the Roundabout system claim that the power required to move the anchor & engine along the headland, will more than compensate for the load by long rope.

On the other hand, it is claimed by Fowler's friends that 600 yards of rope ~~is~~ subject to less than half the wear of the 1300 yards while plowing the same quantity of land, and that they also employ one man less.

Howard's friends urge that the strain produced by Fowler's slack-gear on the rope (5 cwt) is avoided in their case. Fowler claims that his clip-drum saves the rope, as it avoids the grinding wear on the ~~drum~~ winding drums produced by the tendency of the rope to ride the last coil while winding. Howards say that the grinding in their case is not so destructive to the rope, as the pressure to which it is subject in the clip-drum. One would naturally ask why not take account of the amount of rope worn out to cultivate a given number of acres? The fact is that there has always been some one or more circumstances connected with any set of samples, so that an accurate analysis could not be made, much

after all being left to conjecture. As for example, the ropes might be of different make, and one better in quality of material, or more judiciously handled in the process of making. If the ropes were nearly alike, one might have had better care than the other; one may have been well supported by posters, while the other had been but indifferently cared for in that respect. Or one may have been subject to a much greater strain than the other, in consequence of the difference in soil, or the kind of implement used, — and so on, until one is fatigued with the glimpse of hosts of other contingencies to come. I will however mention one more fact, which has, up to the present time, been quite sufficient of itself to prevent satisfactory conclusions.

I allude to the various & important improvements in the rope itself which is common to all systems now under consideration.

It is probable that no one thing connected with Steam Plowing has undergone so complete and rapid changes. A few years ago all parties were using iron-wire rope at a cost of from 3/- to 7/- per acre.

Now, steel-wire rope is used, of nearly three times the strength of the old rope, & from four to six times its durability. The

last improvements, (giving the proper temper or hardness) have been so recently made, that there is not yet sufficient data to say precisely what the wear of rope costs per acre.

It is claimed by some that it is now reduced to ~~three~~ pence per acre, for work done. Although there are not sufficient facts to prove this estimate too low, the contrary is not proved. I have myself seen several ropes that have each plowed over 1000 acres; one that is paid to have plowed 1700, and still appear to have much service left in them. It is usual to place porters or supports about 40 yards apart, but this will not keep the rope off the ground unless the slack is well taken up. To do this without taxing the power of the engine, or complicating the machinery & subjecting the rope to other chafing & wear about as bad as being dragged in part on the ground, has been one of the most difficult problems to solve. The Howards, & others of the Roundabout system, meet the matter by a retarding influence on the paying-out drum, (which costs engine power) in connection with a three-pulley block, that prevents the paying-out rope from going faster than the other comes in. But this is not sufficient to meet all contingencies, and make sure that the rope is always tight,

it being found in practise necessary to use considerable friction. Fowler's implements are provided with what is termed slack gear, so arranged that the forward draught to move the implement is partly transferred to the back or slack rope. It is done in such a way that the strain does not go back to the engine, but acts the same as tightening a common belt, the whole apparatus being entirely on, & a part of, the plough or other Implement used. Plans for disposing of the slack rope in connection with the means of getting hold of it so as to realize the required resistance to transmit the proper amount of power to move the implement, are very numerous & the subject of many patents. I know of no plan that so effectually disposes of the whole matter, as Fowler's. The objections to it are of a trifling nature, perhaps scarcely of sufficient importance to be mentioned. About 20 per cent is added to the strain on the rope, which, of course, adds proportionably to the strength & cost of the rope.

The slack gear is carried on the implement, together with (sometimes) 440 yds of surplus rope, which adds to the weight, all of which is a constant load on the implement, & compels a constant expenditure of power to haul back & forth, and also adds something to the bad effects of the wheels upon the soil.

Fowler's Anchor is clearly superior to all and every device that has been brought forward. It is applicable to all systems, except when two engines are used, one on each headland. The Anchor used by the Howards & Smith is limited in its weight and resistance (to the drag of the implement,) to what can be handled by one man, and it is therefore difficult to get sufficient hold of the ground to work more than 2 or 3 ploughs. The Fowler anchor will stand against the pull of a 25 Horse power engine, and is easily managed by a third class man, while the other kind requires a man of great physical power and considerable judgment. The cost of the two men would probably be as 2½ to 4.

The plough & Cultivator are superior in most respects. One proof is that the Messrs Howards undertook to make a balance plough that would avoid Fowler's patents, and have spent over £4000 defending themselves, but have been beaten every time. Fowler has always taken the first prizes, in the face of the fiercest competition. He is now making more apparatus than all the competitors put together. His Establishment now covers upwards of 3 acres of ground, works 400 men, and is almost ready to add largely to that number, and run up the production to 6 apparatus per week, valued at £650, per apparatus. One fact that should have some weight

is that the Howards are now modifying their plans so as to avoid the Roundabout system, and Fowler's patents, and work direct with an Engine on each headland. They of course do this because they cannot hold their own with Fowler as they have been going.

It is not my intention to write a treatise upon Steam Cultivation, but I will remark generally, that notwithstanding all the difficulties alluded to, there is less room for improvement, than might be supposed. I believe it is a tolerably well ascertained fact that in ploughing a 175 yard furrow, 14 per cent only of the power of the Engine is consumed in moving the rope & implements to & fro, including the friction of the implement. The balance, or 86 per cent, is left to move & rend the soil. So far as an economical application of power is concerned, this is quite satisfactory. I expect that much may be done to cheapen, lighten and make the apparatus what we call more "handy."

The main object in writing to you is to secure your early ~~co-operation~~ co-operation and advice. I have, to this end, stated in a cursory manner, some facts & some of my views with regard to the present state of Steam Culture in this country. I will now make some remarks upon the course I propose to take to introduce it into the United States.

I shall take a complete set of Fowler's Double Apparatus, consisting of 2 Seven H.P. Traction Engines (nominal) arranged to work on opposite head-lands; one large four-furrow plough; one-three or two-furrow do; one large Cultivator; one self-moving headland Anchor, and 2000 feet of steel rope, together with a suitable supply of duplicates to meet all ordinary breakages, wear & tear &c. The whole will cost here about £1400, and will be subject to a duty of 30 per cent, unless some arrangement can be made with the Government to cancel the duties on such Apparatus. A further sum will be immediately required to operate and exhibit the Apparatus. At first, I propose to take contracts for ploughing at a per acre price, as the best way to exhibit the operations of the System at the lowest cost.

Ultimately, I hope to get up a Company with sufficient capital to manufacture, and at the same time be interested in Royalties that may be realized from other parties, for in a short time no one or two Establishments will be able to do justice to the introduction of Steam Ploughing. — But, first of all, it will be advisable to give practical demonstrations of the profitable working, for there is not now, any well formed demand for the use of the patents, manufactured machines, or contract work.

All is to be created. Some farmer, (or two) who will pay for having his land Steam cultivated, can, no doubt, be found or selected in the most wealthy and populous districts where the land is of such a nature as to be favorable for the purpose. The fields should be as large as possible, (say from 200 to 500 yards wide) and clear of stones and roots. It is best to select with care, for there is no present need of meddling with difficulties of that kind, when there is such an immensee amount of land that is in every respect what could be desired. The heavier the work to be done the better. But some light soil should be worked, as the Apparatus is adapted to either. For heavy work I propose to use an Engine on each headland, and run the Implement back & forth between them. For light soil where it is difficult to manage an Implement of sufficient breadth to absorb the power of two 7 Horse Power Engines, I propose to work one in connection with an Anchor moving on the opposite headlands, which is the usual course here. — I have thought some of the Wheat growing region of the State of New York as a desirable neighborhood in which to commence operations.

I have been told that the Genesee country lands

London

are somewhat clayey, and that the farmers there are aware of the benefits of deep ploughing. The object will be to demonstrate the profitable working of the system to as many persons as possible, and over a wide extent of country; therefore after it has been exhibited there, it may be advisable to take it to the Western Prairies, and worked upon the most favorable terms that can be obtained. The winter should be spent South to save the time that would otherwise be lost, in consequence of the severity of the Northern frosts. It is probable that enough can be charged for ploughing to pay all expenses except the extraordinary charges for removals at great distances. It is a well settled fact that ploughing can be done in this country for from one third to one half what it costs to do it in the old way with cattle. - It is true that with us coal & labor cost more, and the products of the farm are worth less, - but after all there is a large margin in favor of Steam, and it will be practicable for capitalists to farm upon a large scale, as they will be able to command power for all the heavy operations, including harvesting.

The present high prices and uncertain sup-

=ply of labor, render extensive operations about impossible. I did not intend, at the commencement of this letter to say so much, or I would have brought forward Statistics, instead of Assertion. For the present I will content myself by saying that the foregoing statements are justified by my own observation and that of other persons who are entirely reliable. I have secured, upon what I think favorable terms, all the patents that appear to me to be worth having, and I shall be glad to make some arrangement to secure your co-operation and some capital. I am not prepared to make a definite proposition, but would be glad to hear from you first. I believe that Mr Holmes made some proposition for himself & Mr Taylor & myself which was, so far as I am concerned, premature. — I have recently had some conversation with him upon the subject, and I understand that he & Mr Taylor do not wish to risk anything in the business, but would be willing to engage under a salary, and a good arrangement, no doubt, can be made with them as soon as needed. Mr Holmes is aware of my writing you now, and will, I presume,

himself, write, and make some explanations. I have made such arrangements as will enable me to plough on contract, and take my chances for a slow campaign, but would prefer to operate with yourselves and associates.

It is a slow business at best, and will require an immense amount of power of one kind and another to make it go (safely) at an American pace.

I should like to hear from you before I leave for the U.S. — I do not now set a time for leaving, but there is no doubt but that I shall be here until the middle of May.

The Apparatus is promised to be in New York by the latter part of August.

I am perfectly willing to operate with Mr Holmes and Mr Taylor. In case some arrangement is made to enter extensively into manufacturing, their assistance will be desirable and valuable. But I am perfectly satisfied that the Howards have no patents that are worthy of notice. I have no fears of any persons being able to compete, if they use any of the rival methods that have as yet been brought forward.

They have been measured with Fowler over

and over again, and always found wanting by the most able judges and Engineers in England.

Fowler has won upwards of 40 first prizes. His home & foreign trade is now ten times greater than that of all others put together.

Hoping to hear from you as soon as possible,

I remain,

Your Obt Servt

W. Lee.

Hon Ezra Cornell—

Dear Sir,

Acknowledging the receipt of your letter of the 25th ult I reply as follows;

1st The taxes of lands in question become due about 1st of May in every year and if not paid lands are sold the next year and if not redeemed within three years thereafter the buyer has the title by law, which has been upheld by the Courts—

2nd The taxes are payable at the Treasurer's office at Sparta Monroe Co Wisconsin.

3rd. These lands were sold three years ago and are redeemable by me 1st of May next for sale of 1861 which I wish to provide for so as keep the title — part of which were kindly re—deemed by you for me last year —

In brief I am owing this year (about the sum paid by you for 1860) for the redemption of sale of '61 and shall owe like sums for 1862 & '3. and these being paid the cost of Acres will be much lighter — & saving expense of sale and 25 per cent interest: so that three times the sum you paid last Spring will clear the lands. A much larger sum would be due if the owners not knowing their lands were sold had not paid taxes for my benefit.

Monroe Co lies very handsomely and I find on inquiry that all lands there are prospectively of much value—

I have just received two dolls cash per acre for one lot from Barker who wrote you I believe in regard to it and he is informed — was glad to pay it. I have written to—day to Sparta for information in respect to these several lots unre—

deemed and shall communicate the result to you —
I have deeds Oct 61 of 35 lots — and deeds May
'62 of 38 lots — and deeds of May '63 to you of
30 lots all of which I will pledge for a loan to pay
off redemptions —

In the meantime I shall be pleased to give you
all information I possess,

And remain, dear,
Your obedient Serv
A. Babe
Pr & BB —

No 229 Broadway
New York April 2 1864.

A. Babe
April 2, 64

April, 3, 64.

Dear, Sir.

Your favor of the 28th. of last month, has — received a few days since, You say it is sometime since you have heard from us, it is, and I had given up the idea of hearing from you again, as I received no reply to my last, rather lengthy missive, in reply to your brief note of enquiry, of our welfare, and whereabouts, and as I had opened communication, I took it for granted you had replied to my first

from politeness, & had
neither time, or inclination,
to continue the correspondence
perhaps you had left Albany
ere my messenger reached
~~you~~ there.

My leige Lord is still
engaged in Military Telegraph
Business South, Telegraphed
me yesterday to direct to him
Louisville, Ky, he said he glad
to receive a line from you,
he makes us a visit about
in Six, or seven Months, & you
perceive I am still a widow,
with but faint hopes of a reunion
My husband is wedded heart,
and soul, to his business, in which
he is doing better at present than
ever before, his salary $160, per
month, & found, he was presented

a few weeks ago with a beautiful present by the men in his employ, and a chain by sup of officers, as a mark of respect, & esteem. Myself & boys quite well, we are keeping house, & doing as well as a woman & children can do, without a strong arm, and stronger heads.

Mr Speed has married nearly a year ago, and has moved to Philadelphia and is now in his fathers employ I believe doing well, his father presented him with funds to commence housekeeping. I believe I have replied in full to your queries, I should be pleased to hear from you again, in

which case it will not be
so long ere you hear from
us. Yours, Very Respectfully.
L Palmer.

Vestal April 4/64

Hon E Cornell

Dr Sir

Will you please to send me the Transactions of the N.Y. State agricultural Society for 1862 & 63, also Trans, of the american institute, for 62, & 63, I would very much like the above books, & as I do not know how to get them unless you will be kind enough to send them to me, Hon L Truman has sent me the books each year, & I hardly know how to do without them now,

Very Truly Yrs

J. L. Closs

Vestal

Broome Co

N.Y.

State Library, Albany,
Ap. 5.

Hon. E. Cornell,

Dear Sir,

Allow me to express my fear that the Supply Bill as it passed the house, in making extra provision for clerks &c. employed in Albany, omitted to include the "Curator of the State Cabinet" as one to be allowed an appropriation.

As you are acquainted with the old usage

Veteran, Col. Jewett,
I thought you would
be interested to have
me remind you of
the fact, and to secure
him his place — say —
just after the Librarians —

Very respectfully
and sincerely yours
H. A. Homes.

H. A. Holmes
State Library
Apl 5, 1864

Morley April 5. 1864

My dear Sir

Since I wrote to you the other day on the subject of the bill No 277. I learn from a freind at Malone that the clause giving a commission to the retiring Trustees was objected to and opposed by Mr Wheeler the active Trustee but it is desired that his name should not appear.

I learn to day from Mr Hoyle the Superintendent of the road that the trustees of the 2d Mortgage when they purchased the road under the foreclosure received a commission of 1% on their bid of three millions say $30000 and that they have since been allowed annually 1% on the gross earnings of the property.