

Lindonderry July the 22nd 1828

Dear Brother your letters arrived in as short a time as formerly. The precious time of their arrival I do not just recollect. This answering two letters at once feels rather weighty on me at present; for I feel as one always does after harvest: that I cannot or rather should not work, at least at any wearisome task and that letter writing has always been to me. We took in the most of our Oats yesterday and to-day not being suitable for to take in the remainder, I thought I would do as well to answer your letters. We commenced mowing on the 17th of June and finished on the 29th and harvesting on the 30th and finished cutting on the 4th day of July and haying on the 14th having made 42 loads of hay of .28 acres and took in 698 dozens of Wheat 510 of Rye off 34 acres of the first and 18 of the last. The wheat and Rye on some farms was as good as that of last year but not generally so; nor nothing like it as you may know by ours. Present Prices are Flour 4.75 Whiskey 20 cents, Wheat .85 Rye 33

Corn .37^{1/2} cents Oats 25. The weather during the fore part of the spring was very favourable: being warm and pretty wet, but towards the latter end proved rather cold: the frost killing all the peach and cherry blossoms particularly on the limestone lands, and pinching the Rye when it was shot to such a degree that the Rye fields looked fairly white and made some farmers think their Rye was partly destroyed: but it affected it but tritice. During haymaking the weather was past common fine being dry and almost hot, but in harvest cool and somewhat rainy. Wages per day .50 to .62^{1/2}. Paul^r son John was with us two days, the 3 & 4 of July he was on his way home having come from New Orleans to New York and from thence to Philadelphia he left William and family well, and was and has been in good ^{health} for a considerable time past: he intends leaving home about the first of August to go to Cincinnati, for to follow his old business of trading down the Ohio: for a year or two more ~~so~~ that he may acquire more wealth and then be in a better condition to settle himself and take a wife. He is of all Uncle Paul's sons the best endowed by nature either in body or in mind. Of the rest of our relations I know nothing; except of Cousin Eliza Weekly and husband who I called to see when I was in the spring going to Shippensburg with the moving of the widow Wilson and family: they were in good health and have two of a family both daughters: they keep a tavern a thing they are noways qualified to do. I think very little of either of them. Your acquaintances are all or nearly all as they were when I wrote last: no marriages have taken place: the Betsy Richard^s affairs has driven McCurdy from the parts, and left all the girls behind; a thing I wish he had not done: we are all heartily tired of Miss McClure. The Doctor had Miss Sawyer and Miss Carr and a number more of the ladies of the country in the fidgets about his lovely person. another person I must mention

that is the honorable Doctor Wilson who was expelled from College for disorderly conduct: and dare not show his face among decent people at home having given two grafts videlicet some of that ill brew ^{right} mentioned by Burns that make women take a second growth; and one them as ill looking as any street trollop. This I might have let you know before but forgot. In your operations you must be careful not to overrate your ability to pay all demands that may be brought against you at any time: you ought not to proceed with your grist mill any further at present than is absolutely necessary to the fixing of your saw mill in its proper place: so as that it may be no hindrance to the building of the grist mill; at least no further than to the erecting of the shell and ^{that} should be with the superintendance of a mill wright least you might have to take down some of it to make the inside works suit properly. The reason that I caution you against going on too rapidly with your mill building is that I think you are not altogether aware of the great cost of Mill gearing I think it will cost you and Robert ^{two} labor as much as you are worth to erect a mill from first last with but a pair of stones which is too few in any mill; especially in a mill that has as much water at command as yours will have: no mill ought to be less than three stories high leaving the nether millstone standing with its upper face level with the second floor! You and Robert can and may do as you please but I would recommend the plan of building your mill shell spacious enough to receive two water wheels and four pair of stones and I would recommend one or both of you to go to New York and see some of the newly constructed grist mills and then with the assistance of the operative mechanic you might build yours correctly. And another I don't wish that you would lay too much ^{claim} to my coming to Michigan: I would rather you would proceed on independent of that consideration; not that I don't intend to come ^{if} and health will permit but that from this that there is so many up and down in this world that the thing might not come to pass: which might prove from a loss to you ^{which} will be avoided by proceeding otherwise. If Uncle James offers his assistance I would make him do it so that you would be independent of his heirs & assigns; making the money refundable only when you are in a condition to do so ^{without} a sacrifice of any interest or advantage whatever: lest his heirs or assigns ^{have to be} none of the generous. You have paid Botoford well for the water right. J. Stouffer paid J. Wilson 300 dollars for a complete water right. J. Wallace is broke down to the ground with 16,000 dollars debt on top of him. The Union Canal is doing well and I think will continue so to do. The presidential question agitates the public mind greatly and I think Adams is gaining ground. Father and I are still Jacksonians and a majority of County and towns bip are so. There is and has been considerable noise made about the Morgan affair this six months past: a goodly number of Morgan pamphlets are circulating and it and Freemasonry is becoming the subject of newspaper controversy. I saw the first number of a newspaper entitled the Anti Masonic Herald printed in New Holland Lancaster County a short time ago; and I make no doubt it will receive

support; if it does not interfere with the incidental question which it is thought it will and the adaman men ^{calculate} that it will act powerfully in their cause. I know it is asserted a mason. Let me know what kind of materials you intend to lay your foundations with. When I get to understand a little about striking I will let you know as much as I can about it, and the machinery. I intend to leave home the 4th of August but cannot tell you where to direct it at present if you write without the receipt of a mother letter you will direct to the old place. You ask my opinion on a subject that Philosophers differ widely upon: and it is nothing strange that you & Uncle should do the same: your opinion of the origin of springs and rivers is altogether original in my opinion or as far as I can learn from that of others. As for the idea that ought to be attached to the word stratum I think there can be no dispute about it: that the earth may become so either above or below the surface in certain places and at all times: is a reasonable conclusion; but that it is so at different depths across the whole earth; so as to be the occasion of the formation of springs and rivers is a paradox. It may I think be taken for a fact that the streams under the earth move in the same direction that those do on it: and that this is owing to there being a summit level to all streams or a high point ^{of land} where the water moves in opposite directions; and this summit level or high point of land is where all streams take their rise; and that this is owing more to the properties propensities & qualities of water than to the earth being saturated or the adhesive ^{power} of matter. Water falling on an inclined plane will move by the ^{force} of gravity along that inclined plane if the inclination be greater than the permeability of the stratum of earth that it passes over: if it fall on a level plane it will move in two directions towards the centre of the earth. From the same cause: that is in a perpendicular and inclined direction. A stratum of clay may be saturated and at the same time water may be passing through it: the particles of that stratum may have imbued as much water as they are capable of and the interstices be also filled up; yet if there is a permeable stratum below this saturated and a quantity above it I think it is reasonable that it would pass through and the clay remain as it was. This you may set down as a Paradox also if you choose. There is streams of water at all depths in the earth and the greatest portion of them are independent of the water that falls on the earth: all the water that falls in rain is by Philosophers considered insufficient for the support of vegetation: and that the springs and rivers are supplied from other sources for the most part. A certain Philosopher speaking of the origin of springs and rivers, says this is another theory to account for their origin, which refers this to a great abyss of water occupying the central parts of our globe. He asserts that all the phenomena of springs are chiefly derived from the vapours rising and issues of this great abyss into which they are all returned; and that a perpetual circulation and equality is kept up: the springs never failing, and the sea by reason of its communication with the subterranean waters never overflowing. It is a fact that a stratum of matter that is dry will if it be placed above or below a moister one become equally as moist as the other for what one loses the other gains: so is it with the earth, the sun rays falling on it carries of the humidity of the upper strata; which is again supplied by those from below and thus a continual action is kept up; the sun endeavouring to make the surrounding atmosphere equally as humid as the earth and the earth water in the earth. The water that is carried off by the streams of ^{it} is according to a certain author to that that falls on its surface as 65 is 27. Your finding a stratum of clay of ^{s.} adhesive as nature ^{is} in the digging of a cellar in Michigan is not to be permeable by water that there is at a greater or less distance

under the surface of the earth every where such a stratum ~~every where~~ ^{at} and that at
times and places this saturated stratum is above the level ^{of the} creeks and rivers: so as to
compel the water to flow or ooze in that direction and form those streams; and in support
of your hypothesis you ask why then has rivers marshy banks, as if the water coming
from the most elevated point of your saturated bed of clay to the least elevated one con-
tinually as it moved along made the whole quantity of the earth above it moist and mois-
ter, till it arrived at the banks when it became so moist as to form a marsh: a reasonable
conclusion truly; you might as well have asked why your water ponds have moister
clay immediately around them at some distance from them which is the case when the
pond is on a hill. The marshing of river banks is wholly owing to the situation and no
soaking out of a higher body of ground than the banks themselves. If you place a vessel
of water in the ground or on a table the air or earth that closely surrounds it will be af-
fected by it rendering it more humid than that further off: which is not owing to a body
of moisture moving toward the vessel. Perhaps I may write a letter to you shortly about this
last matter. We are all well and have been as since our last. Farewell.

To John Geddes

William Geddes



Campbellton Pa.
Aug 24th 1828

Mr. John Geddes

Ann Arbor

Michigan Territory