tri d, they have proved a valuable manure. Their *property* is to attract carbonic acid from the air, they are applied without preparation, and the spring is the proper season; and forty bushels to the acre is the common quantity on all soils.

Peat ashes are common manure in all countries where peat bogs are found; their value usually depends on the blackness & density of the peat, & the neighborhood of Newbury in Berkshire supplies the best: the usual *quantity* of these is ten or twelve bushels to the acre, but of other kinds from twenty to forty bushels have been used; their effect is the greatest on dry soils.

Coal ashes are used all over the kingdom, from fifty to two hundred bushels to an acre; they are most effective when spread on clover, sainfoin or seeds, in the spring, and are beneficial on grass lands and green wheat. The effect on them is considerable on the dry chalk lands of Herefordshire. The knowledge of their *properties* is very imperfect.

Peat dust, if the peat be black and solid, is resolvable into a greater portion of hydrogen gas than most other manures; it is also strongly attractive of humidity, which renders it very advantageous on dry and sandy *soils*. The use of it as a manure is not general, but it is well known, and much esteemed, in Bedfordshire and Herefordshire.

Soot is composed of oil, volatile alkali, carbon and earth; no wonder, therefore, that it should be found a very powerful manure. Its component parts are so minute that they may be washed into the ground by a single shower, and become the immediate food of plants. Twenty bushels to the acre is the common *quantity*, & the *season* of application is the spring. Green wheat and clover are much benefited by this manure, the effect of which is great on *moist soils*, but least upon strong or wet clay.

Potash waste is a powerful manure; and ten loads, or three hundred and fifty bushels, are commonly applied to an acre. Much good is produced by it on low meadows, and in general on all grass lands.

Sugar-Bakers' waste is supposed to be a powerful manure, but its effects are not known from experiment; it can be procured only at five or six places in the kingdom.

Tanner's bark, if useful any where, ought to be so on calcareous soils; mixed with lime it has been beneficial. But as the tanning principle is in all cases hostile to vegetation, whatever benefit is derived from tanners' bark must arise either from the lime or the animal impregnation.—Experiments do not recommend it.

Malt dust has been used with success wherever it has been applied.—Particular experiments have proved its value, if laid on from fifty to sixty bushels to the acre. It gives great improvement to cold grass lands, and is consistent with all kinds of *soil*.

Rape cake has been common in Norfolk for more than half a century, and the quantity was usually half a ton to the acre; an advance of price has however now compelled the agriculturists to lessen the quantity, and Mr. Coke makes a ton do for five or six acres by drilling it with turnip seed—When ploughed in with wheat, it has been found more forcing to the crop than either dung or fold; but the turnips after the wheat have not been so good as after those manures. Malt dust and soot were found equal for wheat, but rape dust better than either. The operation of this manure is assignable to a very obvious theory; for all oleaginous bodies abound greatly with hydrogen and carbon, and their utility consequently must be great.

These manures are all vegetable substances and their *nature* and *properties* do not differ from the vegetable substances in the first class; the most beneficial *quantity* has been mentioned under each.

Among fossil manures coal ashes might have been classed, but for obvious reasons they are mentioned with other ashes: lime has also been treated of in the part of the essay; there only then remain to be noticed salt and gypsum.

Salt, by various experiments and by observations made apparently with care, has been decided to act as a manure in some cases to a degree that proves its excellence, when properly applied, but other persons have reported unfavorably of it. The knowledge of this manure is yet in its infancy, but experiments have generally shewn it to be beneficial, but more especially when added to any dung or dunghills; and it probably acts as an assistant to putrefaction.

Gypsum is scarcely known at all as a manure: the reports of those who have made experiments with it are very contradictory. In this state of our knowledge both of this and the preceding article it is wise to accept the favorable reports, and attribute the failures to soil, season or some unrelated circumstance. The *quantity* of gypsum usually applied has been about six bushels to the acre.

Experiments on mixtures of composts, are extremely difficult, and must be very unsatisfactory. If composts be resorted to, to promote putrefaction, that is inconsistent with the idea that putrefaction should be retarded till the manure be applied to the land; they may be useful to get rid of an evil, as to mix pot-ash, or lime, or chalk, with pond mud to destroy its sterility; but here it seems is to end the benefit of composts.

The *food of plants* deserves much consideration in the application of manures. From experiments extremely numerous, & observations made by eminent chemists, it appears that the two substances which play the greatest part in vegetation are hydrogen and carbon (the presence of light and heat is always to be supposed): those manures, then, which supply the greatest proportion of these, must be most beneficial in promoting vegetation.—Theory has furnished many conjectures on this subject, but experience has confirmed few facts; and the enquiry belongs rather to chemistry than agriculture.

FROM THE PITTSBURG COMMONWEALTH OF AUG. 30, 1809.

PROSPERITY OF THE WESTERN COUNTRY.

A cursory view of the principal manufactories in and adjacent to Pittsburg.

We feel a peculiar pleasure in taking this hasty glance at our rising manufactories, whose increase and success we sincerely pray for, believing it the surest and most solid basis on which our country can rest its future independence and happiness: not throwing out of view, by any means, the culture of our forests, and the requisite improvements in agriculture; for these, with manufactures, like man and wife, must go hand in hand. Let the agriculturalist and manufacturer, therefore, join hands, and bid the jarring world defiance: let them sit down together under their own vine and fig tree, and enjoy the fruits of their honest labors; whilst the maddened nations of Europe are destroying each other, & spreading death and desolation over some of the fairest portions of the globe.

We should like to have taken a more extended view of the manufactures of the Western country, had our information been adequate, or the contracted nature of our limits permitted. We must content ourselves with what follows, and beg indulgence for any miscalculations or errors which we may have undesignedly committed.

Glass works.—Of these we have three in handsome operation, and the fourth at New Geneva, 50 miles up the Monongahela river. Two of these in town make all kinds of flint glass, tumblers, wine-glasses, decanters, &c. to the amount of about $ 30,000 annually. The other two make green bottles, window glass, &c. to the value of, say $ 60,000 annually. Stone or pit coal is their fuel, which costs five cents per bushel.

Cotton Mills.—We have two, one works 90 and the other contemplates working shortly 230 spindles. They manufacture cords, chambrays, jeans, dimities, checks, tickings, girthings, &c. to the value of about $ 20,000 annually. The machineries are set in motion by the power of horses. Both have wool, carding and picking machines under the same roof. There are a few smaller cotton mills through the country, and increasing; wool carding machines are numerous, some going by water and others by horses. Cotton from the Mississippi country brought to this place, sells at 20 cents per pound. [We are informed that 557 spindles are at work in Shippensburg, (Pen.) which spin about 88 doz. or 44 lbs. of cotton yarn daily.]

In Lexington (Ken.) there are several cotton cloth, duck and bagging manufactories on large scales, which, it is said, work up 800 tons of hemp into bagging annually, besides vast quantities of fashionable cotton wares. One was erected in Frankfort, but it was unfortunately burnt down, and has not been rebuilt, notwithstanding the generous offers made for that purpose by the mechanics and others of the place. The one at Louisville was also consumed, but by the generous exertions of the mechanics of the town, it has been rebuilt, and is in complete operation again.

The Legislature should endeavor to prevent by exemplary punishments, the conflagration of established manufactories.

Buttons.—We have a manufactory of white metal buttons to the extent of 40 or 60 gross per week, and can be extended. Of the buttons made at this manufactory, one of our merchants tells us he expects to sell 2000 gross in the course of this year.

Iron grinding mill.—One has recently got into operation for grinding flat irons, axes, scythes, chissels, &c. and being attached to the air foundery, will be a considerable saving in the carriage of heavy articles from the sea ports.

Ironmongery.—Of this there is about 12 or $ 15,000 worth made annually of chissels, claw hammers, Steelyards, shingling-hatchets, drawing-knives, cutting knives, shovels, tongs, hackles, gimblets, augers, squares, door handles, jack-screws, files, stocklocks, spinning-wheel irons, axes, hoes, chains, kitchen ware, &c. Scythes, sickles and augers, are made in great numbers throughout the country.

From late experiments it has been found that butt-hinges, and anvils can be made here to advantage. The face of these anvils are cast on a thick, cold iron plate, which renders them as hard as the steel faced anvils, and at less than one third of the price of wrought anvils. They are called stock cast anvils. Our smiths begin to use them, and highly approve of them. Ingenious and well contrived iron bark mills are cast at our air furnace, together with large quantities of Hollow ware, mill irons, &c. and lately cast 70 tons of cannon ball for the U. States. We have seen a handsome small field piece of its casting. Blistered and Crowly Steel is made at Bedford in this state; the extension of this manufacture, and a spade and shovel manufactory is much wanted in this country. ☞ We have seen neat penknives made here, and we believe as good and as cheap as those imported of the same patterns.

Nails.—We have several manufactories of these in town, which make about 300 tons of cut and wrought nails of all sizes annually. The manufacture of nails is considerable throughout this country, Ohio and Kentucky.

Bridle bits and stirrups.—A manufactory of these has been recently established in town, and bids fair to do well.

Tin, copper and japanned wares.—We have six manufactories briskly carried on, which are supposed to manufacture wares to the value of about 30,000 dollars worth annually. Copper stills, a very heavy article in this line, are made in numbers. Copper and tin wares are manufactured considerably in Brownsville, Charlestown, &c. and more or less in Ohio and Kentucky.

Wire weaving.—This business is carried on to a very considerable amount. Sieves, riddles, screens, &c. could be made we should suppose, in sufficient quantities to supply the whole western country. Was wire drawn here, it would be attended with considerable advantages. There is also a wire weaver at Brownsville.

Glass cutting.—This business has been recently established by an ingenious German, (Eichbaum) formerly glass cutter to Louis XVI. late king of France. We have seen a six light chandelier, with prisms of his cutting, which does credit to the workman, and reflects honor on our country, for we have reason to believe it is the first ever cut in the U. States. It is suspended in the house of Mr. Kerr, innkeeper, of this place.

Increase of weavers.—In the year 1800, there were but 5 looms in Pitsburg; in 1807 there were 13, and at this time (1809) we have 44. It is calculated they weave about 52,900 yards annually, of linsey woolsey and cotton and linen mixed, which is worth upon an average 65 cents per yard, amounting to $33,848. There was also considerable quantities of rugs, table-cloths, rug carpets, coverlets, &c. woven.

Linen.—About 80,000 yards of flaxen linen, coarse and fine, brought to the Pittsburg market yearly, averaging from 25 to 40, and some at from 75 to 100 cents per yard, (the two last qualities are increasing in quantity) besides about 10,000 yards of cotton and linen mixed, and 5000 yards of linsey-woolsey; all made in this and the neighboring counties, by the industrious families of farm houses.

We feel a pleasure in having seen a fine piece of linen made by a lady of this place—it spun 6 dozen cuts to the pound, and is 1600 in quality; it sold for one hundred and fifty cents per yard. We have seen another piece spun by another lady of Allegheny county and wove by her husband, beautiful in quality and texture. If we had a few spinsters, such as these ladies, our country would soon be relieved of the heavy expence of importing linens from Europe. There is no doubt but we have hundreds, nay thousands of excellent spinsters, but they are as lights under a bushel, hid for want of encouragement to shew themselves: now is the time—let them throw off the mantle; their country calls for their noblest exertions. Let it no longer be foolishly and roundly asserted, that the American flax will not make, nor can the American women spin, fine linen. The assertion is a libel on our country

Fine thread.—We are happy to find that fine and beautiful thread is now brought to our market. We have seen some of 12 dozen cuts to the pound, about the quality of No. 28 imported.

Woollen cloth.—We have seen a beautiful piece of fine black cloth made by Mr. John D. Bassa, of Zelenople, Butler county, Pen. a German gentleman of emerprize. It was was made from his Merino sheep, and will bear a comparison with imported cloths, such as we buy from our merchants at from 8 to 9 dollars per yard. We have also seen a piece made by Col David Humphreys, of Connecticut, which does honor to the patriotic exertions of its worthy manufacturer; a man whose name will be engraven on the minds of his fellow-citizens, for his noble labors in the encouragement of the domestic manufactures of his country, particularly his rapid improvement of the breed of sheep, by the introduction of the Merino breed. There is a good deal of the coarser woollen cloths made by our farmers for family use. Some flannel is also manufactured.

The Philadelphia Domestic Society, we are informed, have for sale, very handsome woollen cloths, calicoes, and all kinds of cottons. Our western merchants we should suppose, ought to give this society, and all others of the kind, every encouragement.

Rope walks.—We have but one, and this on a small scale; there is one at Brownsville and one at Wheeling, on a tolerable large plan. In Lexington, and at Louisville, Falls of Ohio, there are several on a very large scale. At Cincinnati, Ohio, there is a rope walk whose proprietor advertises for 500,000 lbs. of hemp, at five dollars per hundred cwt.

Snuff & Segars.—There are 5000 lbs. of Rapee and Scotch Snuff, and about 800,000 segars manufactured here annually, principally of Kentucky tobacco.

Flour & Whiskey.—Of these articles, a vast and unknown amount is made throughout this country. There is, however, too little foreign demand for the former and too great a home consumption of the latter, for the good of the inhabitants.

A house full of machines.—At the lower falls of Big Beaver creek, there are, an oil mill, fulling mill, a mill for boring and grinding gun barrels, a wool carding machine, a nail factory, and a mill for sawing whet-stones, *all under one roof.* At the same place, are a cotton carding machine and spinning jenny, an ingenious machine for cutting and forming at one stroke, cotton card teeth, a machine for cutting large screws for tobacco presses and fulling mills, and one for making fullers shears. The greater part of the above machines are made by DAVID TOWNSEND, an indefatigable and ingenious mechanic, and one of the firm.

Boat & ship building.—Kentucky and New Orleans boats, keels, barges, skiffs, &c. are made in great numbers on all our rivers. And there now is a vessel of 150 tons building on the Allegheny river about ten miles above this place by Mr. Robbins. Considerable ship building has been carried on at Marietta and other places on the Ohio, but the business has been slackened by the change of our commercial affairs with Europe, whose system of commerce seems to be that of war and plunder, our's peace and justice. These principles are now at issue, (and time they should be) and the great dispenser of events only knows where it will terminate.

Pipes and queensware.—We have a pipe factory in town, and there is a good kind of queensware made at Charlestown, Brooke county, Vir. together with stone wares; stonewares are also made at Wheeling and other places. Earthen potteries are numerous.

Woollen and cotton cards.—There is a factory of these at Brownsville, and one for cotton cards is now erecting at Eddyville, on the Cumberland river, (K.) by Matthew Lyon.

Paper.—We have two extensive paper mills, one on Big Redstone and the other near the mouth of Little Beaver creek, which manufacture good paper of different kinds to the value of about 25 or 30,000 dollars worth annually. But they do not supply as much as the market stands in need of. Much of this article is yet brought over the mountains. There are six paper mills we are informed in the state of Kentucky, one of which goes part of the year by the force of steam—☞ We sincerely admonish our good housewives and their little daughters to save all clean linen and cotton rags, for without these no paper can be made, and without paper books cannot be printed. A good price will be given for them by all the printers of this place.

Steam mill.—A mill of this kind has been recently erected in town, and of a construction and mechanism that does honor to human invention. It is calculated for three pair of stones, which it is expected will make 100 barrels of flour in 24 hours. The running gears are all of cast iron, of which there is near 10 tons about it. The two cylindrical boilers, which are of wrought iron, are 26 feet in length and 27 inches in diameter; they consume about 20 bushels of coal daily, which costs one dollar. The mill is owned by Owen and Oliver Evans of Philadelphia, and has cost them, it is said, $14,000.

Salt.—There are 300,000 bushels of salt made annually at the Onondago salt works, in the state of New-York. The two works on Big Yellow Creek, Ohio, make about 3000 bushels a year. The salt works below Chillicothe, say 3000 bushels. In Kentucky there are 15 licks, at which are made about 60,000 bushels. King's salt works, bordering Tennessee, make, say 25,000 bushels. The saline works in the Indiana territory, 15,000 bushels a year. The works newly set into operation in Butler county, (Pen.) by Thomas Collins, Esq make about 2,000 bushels; amounting in all to about 420,000 bushels of an annual internal supply. And it is thought double this quantity could be made, were these works carried on to their full extent.

A report of *Albert Gallatin*, of January last, says 'The annual average of imported and consumption of salt, is almost 3,000,000 bushels, weighing each 56 lbs. equal to 75,000 tons, and requiring in fact, 125,000 tons of shipping for its importation.'

Bar iron and castings.—Our country is rich in furnaces and forges. Within 60 miles of this place there about 4000 tons of bar iron, 18,000 tons of pigs & castings, & 400 tons of slit iron, made annually. Exclusive of what is made at these forges, about 500 tons of rolled and bar iron come to our market annually from forges in the mountains.

Shot.—There is an old factory of this article at the lead furnace in Louisiana territory, and we understand a factory for patent shot is about to be erected there on a very large scale. [There are two patent shot factories in Philadelphia, which make vast quantities of this article.]

Powder.—We have several powder mills in this country; but their supplies are not equal to the consumption. Considerable quantities are brought from the manufactories over the mountains.

Saddlery.—This business is carried on briskly; to the value of about $ 40,000 worth of saddles, bridles, &c. are manufactured here annually; and in Kentucky, we are informed, it is still more extensive.

Cheese.—This article is made in New Connecticut, Ohio, to a very considerable amount, and exported to Kentucky and to this place. Considerable quantities of good cheese is, however, made by the industrious farmers in this neighborhood and disposed of in our market. Mr. Robbins, about a mile from town, it is supposed, makes in three dairies, 9,000 pounds annually, at 12 1-2 cents per pound, is $ 1125

Boots & shoes.—These are made in this place to the amount of about 35,000 pairs of shoes, and 15,000 pairs of boots annually. The most extensive manufacturer in this place is Mr. James Riddle, whose annual sales are considerably above $ 7000. Women's shoes, however, are not made to any considerable extent. A considerable shoe factory is carried on at Harmony, Butler county, (Pen.) a handsome village settled by Germans.

Hats.—We have a great internal supply of hats manufactured throughout the western country. Mr. Abraham Watkins, is allowed, by the best judges, to manufacture hats equal to any in the U. States, or perhaps in the world.

Stockings.—But few of these are made, except those knit in private families, and these of the coarser kind of woollen stockings and socks—they are, however, increasing.

WASHINGTON CITY.

MONDAY, SEPTEMBER 11.

MR. JACKSON, the British Envoy, arrived in this city on Friday last.

It will be seen, by the news under the Baltimore head, that the verbal account of the victory gained by the French over the Austrians is confirmed. Hamburg papers to the 19th, and Danish papers to the 21st have been received at Baltimore by the Eutaw, from Sylt. There are no bulletins in these papers.

Several seamen having deserted from L'Africaine frigate, which brought Mr. Jackson, and is now lying at Annapolis, seven of these persons were apprehended in Baltimore by John Hunter, sheriff, and imprisoned; but when brought before judge Scott on the 8th inst. they were discharged on the ground of their having been detained without a legal commitment. Their commitment excited considerable indignation among the people of Baltimore, and a large concourse of people attended their release.

These seamen inform that the following American citizens, having been impressed, are now on board L'Africaine, viz. Edward Swaine, John Ferguson, George Wilson, John Butler, John Williams, Ambrose Cross. The three last are men of color.

MERINO WOOL.—By the latest accounts from England, Merino wool was selling at 26s. sterling per pound. The cause of this increase of price is that the intestine war in Spain has so far destroyed the breed of Spanish sheep as to render the wool very scarce. What few of the sheep remained having been mostly transported to France, England, and perhaps other parts of Europe, it will be some time before they are brought to that perfection in any other country to which they had arrived in Spain previous to the Revolution. The farmers of America have now a fair object of competition with any other country, in endeavoring to exceed in the breed of sheep, and consequently to command a market for their wool when more shall be raised than is necessary for the consumption of this country: which will not soon happen, however, as the home manufactures in this article are daily encreasing. They have every incentive, both of patriotism and interest, to induce them particularly to attend to this object.

There are now several imported Merino Rams in this country. Col. Humphreys of Connecticut, Robert R. Livingston of New-York, and Mr. Dupont of Wilmington, Del. each possess one Mr Dupont imported his ram in 1801 or 2, and of course has been breeding from him seven or eight years. Mr. R. Livingston and Col. Humphreys have been crossing the breed from their rams perhaps the same length of time; so that although it is but a very few years since the first of the breed was imported into this country, there are already many of the half, three-quarter and full bred Merinos owned by the best sheep breeders in the northern states. Every industrious and careful farmer should endeavor to obtain sheep of that breed, and it is within the power of almost every one. The benefits of breeding from this description of sheep have already been fully shewn in Mr. Livingston's statements.

ERRATA in the National Intelligencer of the 4th inst. in the article of Gun-Boats.—In the 4th column 3d line, for *solitary* read *saintary*, and in the 6th, for *union-frontier*, read *iron-frontier*.

The following piece was offered for publication on Thursday last, but too late for insertion in Friday's paper. As our correspondents do not appear likely to convince each other, it is to be hoped that they will close their controversy. Some expressions in the following piece, deemed too harsh for publication, have been omitted or changed.

TO MY NEIGHBOR X.

I was in hopes that after having received a gentle and amicable rebuke for your misrepresentations in regard to this city, you would, at least, not have repeated them. I am however disappointed, and shall take the liberty, although I am one of those plain mechanics whom you say you addressed the other day, of being perhaps a little harsher than I was in my first reply. In this, I presume, I shall be justified by all who now see and hear you perversely declaring that you will maintain all the points you before stated as true, excepting as to the lighting of Georgetown. It is impossible that this can be the effect of ignorance only; it is either an indecent disregard of truth, or at least a combination of the two. You have accused me of personality. I know not where you find it. Surely not in the incidental mention which I made of the names of two or three gentlemen without the slightest indelicacy either in word or thought towards them. I never before knew that the mentioning of names constituted '*personality*' and rendered '*the freedom of the press nuzatory!*'—We must not say then that Washington, Franklin, &c. were the benefactors of their country: that Hampton, Poydrass, Carroll, &c. are wealthy men: that 'Young, Laird and Barlow are monied gentlemen.' I confess I always supposed that 'personality' resulted from, or depended on, the *manner* in which names were used, and the *matter* applied to the bearers of them.

By undertaking to serve the new bank, you profess to mean to serve the city. The public confidence is of all other things most important to the city: and you, forsooth, proceed to state that the city is 'languishing' and 'in ruins,' in order to serve the bank! What effect pray has this picture on public confidence, or the opinion of the world? Under pretext of administering a dose of medicine, you infuse a deadly poison. In order to do us a partial good, you do us an universal, or at least a general, evil. Or, to make a comparison familiar to myself, you act as my carter would do, if he were to harness a treble team of horses to the back of his cart, whilst he has but one poor half-starved animal in front. It has lately leaked out amongst us mechanics, that this is not the first attempt you have made to injure the city, notwithstanding your boast that "there is not an inhabitant in the city who in his very limited sphere has labored more for its welfare!" And I now think it my duty thus publicly to pronounce both your publications *injurious libels* upon the city. It will not benefit you here to complain of my having left unnoticed an important sentence in your first publication. To give to it all the force which even you now demand, it would merely go to contradict, in part, or to neutralize the general contents of your libel. Then you mean to prove and disprove the same thing, at the same time! We are 'languishing & in ruins,' and our 'improvement is progressing!' But, besides that this *neglected* paragraph is incorrect in fact, inasmuch as we had the advantage of the branch bank of the U. S in our most untoward and unprosperous times, it is evidently but a miserable shift dragged in at the tail of your piece not to cover its deformity, but for another purpose. It may, if it be consistent with the rules of rhetoric and composition, of which I am no judge, be called a spur to prick us up. Because one bank has done something, *ergo* the new bank must do every thing! But as "the subscription is now full & overflowing it is not worth while to say another word upon the subject!" Really! then your only object was to *establish* a bank, no matter what becomes of us afterwards! I pray you to take us poor mechanics under your protection. Do not disregard and throw us by, the moment you have our money. Recollect you are "acquainted with many mechanics of skill and industry, some of them having families, who came hither between 1793 and 1794 who have expended the substance and youth they brought hither, and are now too poor to get away, and too much decayed to be benefited by our grow-