

Western Correspondence.

CINCINNATI, Dec. 7, 1847.

GENTLEMEN:—As Southern Manufactures seem to be attracting your notice, I will give you a little note of some West, in a region where the first has just made its appearance, to wit: on the Ohio River, below Louisville, in Kentucky, one hundred and sixty miles distant. Here a magnificent building five stories high, well proportioned, and shewing as near as I could count them between ninety and one hundred and twenty five light windows on one side, and the steam puffing away give signs of a busy scene within. The building is covered with slate. Around it seems a handsome village of white cottages, all new as if they had sprung into existence yesterday. There is also a steam saw-mill, and our boat called at the coal landing near the factory, and took in tow a coal boat having coal on its deck, for which we paid six cents per bushel, or about \$1.68 per ton. This coal is becoming a general steam boat fuel, and I learn the demand cannot be supplied. I learn there is a very extensive coal mine here, the place is culled Boni arbor, and is owned by a chartered Company, called the Bonharbor mining and Manufacturing Company, who have a very large body of land connected with it. One of the owners came on board at a little town just above and travelled with us to Louisville. From him I learnt that great pains had been taken to get up the establishment well with all the modern substantial improvements in machinery, and that with hands newly learnt they were now doing good work, and making goods equal if not superior to any in market. The building I am informed, is calculated for seven thousand spindles is only partially filled, and will be gradually filled as hands can be learnt, and the machinery put up.

The calculation is to make this a western Lowell, they say they have a cheaper power from steam, than any water power; as evidence, one hand can mine more coal than is used by their large double engine and one man is fireman and engineer. The cost of getting the coal from the mines, into which the railroad runs, as the coal is mined out of the side of a hill, is not one quarter of a cent per bushel.

Surely with such cheap power, on the banks of the Ohio, there must be great reason to expect the rise of a large town. The owner aforesaid informed me that he estimated the cost of delivering cotton from the plantations to their factory the same as that of delivering it at New Orleans. The advantages he estimates over the Northern manufacturer are freight of cotton to Boston and Lowell, return freight, of goods to New Orleans, and up the Mississippi, and Ohio, with baggage, storage, commission, insurance, damage, and so forth and so forth constituting a charge of one dollar per hundred and one and a half returning making fifty dollars per ton, and when in full operation they expect to manufacture a ton and a quarter of cotton per day, which in a years work would be a saving of near twenty thousand dollars. That again being along side of the cotton, they can, at any time, in a few days obtain a supply, and make their goods meet their expenses. This is an immense saving of expense; as one evidence, he named, that his last purchase of a very prime article of cotton was at six and three quarters cents; his previous not two weeks before was at ten cents. He only bought from day to day, while cotton was up, but laid in large supplies while it was low. He thinks his proximity to market for buying cotton, and selling goods, fully equal to one cent per yard beside the carriage. This seems rather a heavy estimate if true where five or six thousand yards per day are made, the gain is very great, and when added to the saving in freight, seems enough to attract any amount of capital. Why such an enterprise should have remained to this late day is strange.

A revolution in manufacturing must occur where such advantages exist. Brother Jonathan in New England has hardly greater advantages over John Bull, than brother Jonathan of the West has over him. Her provisions of all kinds are at less than one half Eastern cost.

From Pittsburg I may give you another epistle. A TRAVELLER

Southern Correspondence.

DEAR SCI.—The rain almost without intermission continued to fall during four days, consequently the rivers forming branches of the Ohio, swelled that river to an almost incalculable inundation all along the banks of the river. The Monongahela and Alleghany rivers meet at the fort at Pittsburg, forming the mouth of the Ohio. All the villages and towns situated on the banks of the river, were flooded, Steubenville, Wellsburg, Martinsville, and around Wheeling. Cincinnati was in a terrible condition, and no freshet has ever occurred to the same extent since 1832. A sad catastrophe took place on Saturday morning while the ferry steamer Island Packet, was preparing to leave the island side of the river crossing over to Wheeling, her boilers burst and sad to relate, a son of Mr. Clark's (a very respectable farmer on the Island, a native of Edinburg, Scotland,) was lost in the river, being blown over. Another individual, whose name was unknown, was also lost.—Neither bodies have yet been recovered. The cause of this sad accident is said to have been the want of water in the boilers.

We have had a great freshet along our river, which, thank God, has now fallen, altho' I am sorry to say, not without many sad evidences of its destructive effects.

BRAMBLE BRAE.
Lewisburg, Ky., Dec. 15, 1847.

Spontaneous Combustion.

The Springfield, Mass., Gazette relates the following singular case of spontaneous combustion which is not a little interesting to the lovers of scientific research:—

"A few rods north of the Armory on the hill is a deep hollow or dingle, down the bank of which the waste dirt of the shops (consisting of old woollen rags, and cotton waste partially saturated with oil, particles of iron, &c.) has from time to time for a long period been thrown, until a large quantity of it has accumulated. This mass of rubbish some six weeks since took fire spontaneously, and has been constantly burning since, notwithstanding the late powerful and heavy rains. Wednesday last being the regular monthly meeting of the Eagle Fire Co. No. 1, Capt. Tower determined to try his skill with the devouring element. After throwing on to the burning pile vast quantities of water, which seemed to have the effect to concentrate the heat rather than quench it, it burst forth from the uppermost point, ejecting fire, steam and smoke to a considerable height, giving us a beautiful miniature volcano. It still continues to burn, bidding defiance to the clouds of heaven and Eagle Co. No. 1. On the bank immediately over the burning pile is a magnificent elm, beneath the shade of which in by gone days, many a workman has repaired to refresh himself from the beautiful stream rippling down the bank near by. This burning mass seems to have embraced the roots of the tree, robbing old Sol of his power, warming it into summer life and expanding its buds almost to bursting, and in all probability will soon cover it with a beautiful foliage."

The Happy Girl.

Ay, she is a happy girl—we know by her fresh looks and buoyant spirits. Day in and day out she has something to do, and she takes hold of work as if she did not fear to soil her hands or dirty her apron. Such girls we always love and respect wherever we find them in a palace or a hovel. Always pleasant and always kind, they never turn up their noses before your face or slander you behind your back. They have more good sense and better employment. What are flirts and bustle-bound girls in comparison with these? Good for nothing but to look at; and that is rather disgusting. Give us the industrious and happy girl, and we care not who worships fashionable and idle simpletons.

Reprove not Angriily.

Chide a man for being angry when he is angry, what will you get by it, save some of the foam of his overflowing rage cast upon you? As God is said to have come down in the cool of the day to reprove Adam, so likewise we should come in the cool season of a man's passions, when all is quiet and temperate within, for then there is the greatest probability, of rightly influencing them.

For the Scientific American.
Chemical Formula.

There are what are termed equivalent ratios of chemical bodies which are expressed by numbers. As the mathematician is guided by measurement, the chemist is guided by weight—the former measures, the latter weighs. This constitutes one difference in the method of research pursued in the two sciences. Hydrogen gas being the lightest body in nature, and combining in the smallest proportion by weight with other simple bodies, it has been taken as a standard of comparison. Oxygen has been taken as a standard by some and is represented by 10, and when hydrogen gas is compared with it in equivalent ratio, it is represented by 1.25, the proportion in which it combines with water. If decimals be used, such as 1000, it is thus explained in equivalent ratio; water is composed of one part hydrogen to 8 parts oxygen, therefore,

Oxygen	:	:	.889
Hydrogen	:	:	.111
			1000

There is a great difference between chemical and mechanical mixtures, and yet the two are embraced in the science of chemistry. A mechanical mixture signifies the mixing of one or more substances, such substances being capable of mixing together in different quantities, such as our atmosphere, which is composed of 79 parts nitrogen by measure and 21 oxygen, but these two gases will mix in other quantities. But a chemical mixture is definite in its proportions always—no alteration. Pure water is the unity of 1 part of hydrogen to 8 parts of oxygen always, and all the acids are definite in this relationship. Thus nitric acid is composed of

Oxygen gas	:	:	.858
Nitrogen	:	:	.142
			10.00

and suppose there were the double of oxygen added to this, it would be found that the union of these two gases to form nitric acid would just be in the proportions above; this then is a chemical mixture, while a mechanical mixture is like mixing a drop of alcohol in a glass of water. All salts are combinations of two or more bodies, therefore always in definite proportions, never otherwise, and this is very requisite information to any person.

In making out a chemical formula by decimals, it should be done thus: Nitric acid is composed of 1 volume of nitrogen or azote, and 2½ of oxygen. The relation in which these two stand to one another is 2 of azote to 5 of oxygen; therefore the total is 7 parts.—Take then a volume of this acid represented by 1000 and divide by 7, thus—1000

			142.6
Then 142.6 each part, and azote being 2 and oxygen 5 parts, the result of the formula is—			
Azote	2X142.6=		285.2
Oxygen	5X142.6=		713.0
			1000

The above may appear dry information, but it is positively necessary to all who would wish to be acquainted with chemistry, and to make out a chemical table of equivalent ratios.

Cure for Rattle Snake Bites.

A correspondent of the Nantucket Inquirer saw a man in Georgia who was bitten by a rattlesnake in the foot, and saved his life by taking spirits of turpentine in as large doses as he could swallow them. The poison had advanced up his leg, and gave him excruciating pains before he began to take the turpentine.

We have seen the account of another cure said to be effected by drinking alcohol. It is well known that the poison is more fatal according to the length of time that the reptile has abstained from food, and much depends upon the physical state of the person or persons bitten. Olive oil is said to be good, when rubbed hot on the wound and taken inwardly at the same time. Probably the poison is prussic acid.

By a Report of the New York Charitable Association no less than 2,500 people have received relief and assistance from it last year. The same report brings more and more to light the miserable and uncomfortable dwellings, in which our laboring classes reside. A great improvement is demanded.

Chart of Health.

A complaint of the heart, growing out of an inordinate longing after something difficult to obtain. It generally attacks persons between the ages of 15 and thirty; some have been known to have it at the age of sixty. Symptoms—absence of mind, giving things wrong names, calling tears nectar and sighs zephyrs. A great fondness for poetry and music, gazing on the moon and stars, toothache, loss of appetite, neglect of business, loathing for all things, save one; blood-shot eyes, and constant desire to sigh. Effects—a strong heart burn, pulse high; stupidity, eloquent eyes, sleeplessness, and all that sort of thing. At times imagination bright, bowers of roses, winged cupids, and battered peas; then again oceans of despair, racks, tortures, and hair-triggered pistols. Cure—to get married.—*Ex.*

Surgical Operation.

About three months ago says the Albany Knickerbocker, a little child of Mr. Thomas Gale, 32 Water street, swallowed a cent, or, rather partly swallowed it, for it has remained in its throat ever since.—Numerous physicians have been called in, but without producing any relief whatever—in the mean time the little sufferer was gradually wasting, and in a few weeks more, if relief had not been afforded it would unquestionably have gone to the tomb. Fortunately, Dr. March, the most eminent surgeon in the country, was called in yesterday, and in less than two minutes removed the painful obstruction, and placed the little fellow once more on the road to health and longevity. The instrument the Doctor made use of, was a long slender probe with a hook to it.

Queer Description.

A Western editor says "A violent gale has just passed over us, and nearly destroyed one half of our beautiful village, and turned a great number of our inhabitants homeless and houseless into the streets—many of our old garrets were filled to suffocation by people with their gable ends out.—*Ex Paper.*"

The above description of a gale, is a mate to the description of the city of Albany, which we remember to have seen in Brook's or Spofford's or some other old Gazeteer, in which it was stated, that a number of Dutch houses, and a certain number of inhabitants, all standing with their gable ends to the street.

French and English Row at a Railroad Meeting.

At a meeting lately held in Paris consisting of the stockholders of the Bolougne Railroad there was very near a fight between the English and French stockholders. There were 516 French votes and 417 English opposed to each other. The French endeavored to resist the attempt of the English to address the meeting in their own language.

Political Prudence.

Wise men say nothing in dangerous times. The lion called the sheep to ask her if his breath smelt; she said, 'Aye,' and he bit off her head for a fool. He called the wolf, and asked him. He said 'No,' and he tore him to pieces for a flatterer. At last he called the fox, and asked him. 'Truly, said he I have a cold and cannot smell.'

Jenny Lind.

Mr. Donald McKay of East Boston has contracted to build a ship of 600 tons to be named the Jenny Lind. She is intended for the freighting business, and will hail from Boston.

Barzillia Howard of Portland has recovered \$2,500 damages of a Dr. Grover for mal practice.

A Christian should be like a river, which fertilizes while it runs—carrying ships, and all that floats upon its bosom, along with it to the ocean.

Without female society, it has been justly said, that the beginning of men's lives would be helpless the middle without pleasure, and the end without comfort,

"The last word" is the most dangerous of infernal machines. Husband and wife should no more fight to get it than they would struggle for the possession of a lighted bombshell. *Punch.*