NEW YORK, JUNE 9, 1849.

The Cholera.

This terrible disease appears to be a native of Asia, and is generally confined to the tropical regions of that continent, and those of Europe and Africa which belt its unhealthy borders. It seldom travels beyond its pestilential precincts and we may say it never does, unless some more than common cause pollutes the gale that wafts it across the steppes of the Don down to the plains of Sarmatia, across the British Channel and then away to us here over the wide Atlantic. History informs us that Europe has suffered at various times from awful plagues. The plague which in 1665 swept off 100,000 of the inhabitants of London, was a terrible disease. It was no doubt a species of cholera. The plagues which used to visit Europe at intervals during the dark ages, left both cities and villages a wilderness of death behind them. In modern times its ravages does not appear to be so severe.—This may be attributed in cities to well paved streets, better ventillation, and greater skill in our physicians to treat it.

War seems to be the grand pestilential mother of this disease. The course of the disease which is now among us may be traced from the Rio Grande to the Punjaub in the East Indies, where the atmosphere was polluted by the corpses of 30,000 men who fell in battle before the ambitious army of England. The typhus fever was engendered in the hospitals of Russia, during the retreat of Napoleon from Moscow, and it stopped not till it had polluted the whole earth, and it is still among us as a terrible monument of man's most baneful passions.

The cholera seems to gloat upon the weakest and most miserable of the human family. There are exceptions, but this is the rule.—This is certainly strong evidence, that health is the handmaid of virtue, peace and plenty, while pestilence is the attendant of war and famine. The Apocalypse represents the terrible scene of war, by death on the pale horse, followed by gaunt famine and withering pestilence. These scourges should not afflict the human family to no purpose. When will men learn the full meaning of that divine expression, " Peace on earth, good will to men."

The cases of Cholera that have already occured in this great city, have been of a kind not calculated to excite any general apprehension. New York is more healthy according to her resident population than any City in the World. When a pestilence of this nature visits a city, it should be met at once, by the healthy bracing themselves up to fulfil the offices of good Samaritans to their more unfortunate neighbors. During the great plague in London, it is recorded of a gentleman that he was the means of saving a great number of lives, by his attentions, and he was prevented from running away to the country when his carriage was at the door, by hearing his negro servant ask " if his massa's God lived in the country." Various remedies have been proposed and who can tell which is the best. It has been found that chloroform rubbed on the body relieves the cramp. We believe that the following is a good solution to be taken and people would not be the worse of having it in their houses. Gum camphor one drachm; gum Arabic and white sugar, each two drachms; water, from five to six ounces; spirits of lavender compound, half an ounce; laudanum, sixty drops. Of this, take a table spoonful occasionally.

No sooner was the Cholera announced to have broken out in our city, than the streets were deluged with flaming handbills of quack preventatives, but it was pleasing to know that but few were frightened. With our plentiful supply of water, our city will exhibit as clean a bill of health this year as it did the last. This we are glad to know is the prevailing opinion among our citizens.

Supplying Albany with Water.

It is well known to many that Albany, the capital of this State, is miserably supplied with water. The more elevated parts of the city have to depend on rain water for domestic use, and frequently in droughts, this supply fails. When this is the case, there is great suffering. A number of projects have been brought before the city for a better supply of water, and this question formed a leading motive of action between opposing parties at the late municipal election. One party was for bringing in the Mohawk River by tunnel from above the Cohoes Falls, and the other party was opposed to this measure, only on the ground of too great expense. The latter party was victorious, and no doubt, right in their success. Owing to the great fire in Albany last year and the great amount of taxes arising from that and other causes, the inhabitants can now but ill afford to enter into new and expensive, although it may be beneficial enterprises.

We see that the City Surveyor, George W. Carpenter, Esq. has lately presented a Report of a mode of supplying the city with water from the Hudson, by steam power, and estimates the total cost for reservoirs, engines, &c. at $324,000. One reservoir is to contain 4,000,000 million gallons and the other 6,000,000 gallons, sufficient to supply 80,000 people with 25 gallons per day for nearly a week.—

This plan of supplying Albany with water was communicated to us last year by Mr. S. McElroy, of Albany, assistant surveyor, and a young and rising man. His estimate was something less than the above, but his views were sound and exhibited an acquaintance with the subject. Were the inhabitants of Albany capable of entering upon the enterprise of bringing in the Mohawk by gravitation at present, we would be glad, but as they are not, the plan of supplying it with water by steam power, is the next best, and no doubt a good one. Many cities have been thus supplied exclusively with water, and some of them largely engaged in manufacturing. The city of Glasgow, in Scotland, the greatest manufacturing city in the world, with the exception of Manchester England, has been supplied for thirty years with water forced a distance of 5 miles by five huge steam engines. These engines supply 300,000 inhabitants with filtered water, and also supply bleach works, dye works, foundries and factories innumerable besides. The water is carried to the tops of the highest houses, and families are supplied with ten times more water than the inhabitants of Albany are at present, and for one-sixth the price. Let the Albanians put up a good, powerful low pressure engine and they need not calculate, we think, the annual expense of two engineers as embraced in Mr. Carpenter's Report.

Dyeing Straw.

The French pursue a method of dyeing straw for hats, to open it up when in a damp state and roll it out between a pair of cylinders. For light, delicate colors, this process is always pursued in new straw. To dye blue, common chemic (sulphate of indigo) to which has been added a little potash, is employed.—It will do very well, however, without the potash. This composition is used for various shades. A copper vessel is brought to boil and such a quantity of chemic added to the water, as will dye the shade desired; the fire is then removed and the straw put in and kept immersed until it is deep enough in shade. It is then taken out, washed in cold water and dried. This plan will dye the lightest and darkest shades of blue according to the quantity of the sulphate of indigo used. Yellow color can be dyed on straw by boiling it in a weak solution of yellow oak bark and alum, but the muriate of tin is better than the alum. Green can be dyed on straw by employing a bath of *turmeric* and sulphate of indigo, but it is best to dye the straw yellow first with oak bark and then give it the sulphate of indigo, which should be neutralized of its acid by the sugar of lead. This makes a *very fast green*. Lilac may be dyed on straw, by first dyeing it a light blue and then a pink color on the top.

Pink is dyed by steeping the straw in a weak hot solution of cochineal and sulphuric acid, or instead of sulphuric, use the muriate of tin and some cream of tartar. This makes a very beautiful color.

Red colors may be dyed on straw by using a very strong solution of the cochineal and muriatic—no sulphuric acid. Every shade of drab on straws may be done in this way by using a greater or less depth of blue or pink on the straw, but it is best to dye the pink shade first and then dye the light blue on the top.

Fine reddish browns on straw are dyed with catechu, the sulphate of iron and the chromate of potash. The straw must be immersed in three separate vessels containing these three stuffs, commencing with the catechu. Wash the straw well when dyed before it is dried. Black is dyed on straw by a strong solution of hot logwood, into which the straw is steeped for about 10 hours. After this it is immersed in a weak solution of the sulphate of iron and *sumac*, and then washed and dried.

The above modes of dyeing straw will be found useful to many; and from the hints given, any person may branch out freely into all the shades, from gray to violet and deep brown.

Fire Brick.

Mr. T. S. Mackay, one of our valued subscribers in Pennsylvania furnishes the following account of Fire Brick: " I have been thinking of sending you a few fine brick, as samples manufactured at Queen's Rua in Clinton Co. Pa., on the west Branch Canal of the Susquehannah. As samples of these bricks have lately been examined by the most competent judges, and pronounced in every respect equal, if not superior to the best English brick. They have been used for several years in some of the largest furnaces in this State, and are considered the very best. The Queens Rua Company I understand have orders for uywards of 250,000 for this season; they are also engaged in mining and shipping some of the finest and purest bituminous coal to be found in this State, a sample of which I also send you. I am in no way interested in this business, only as a Pennsylvanian, and an American, and should rejoice to see every article we can produce supply the place of foreign especially when of an equal or superior quality."

Very Important Patent Cases.

On Friday the 1st inst. in the United States Circuit Court, Philadelphia in Equity, before Judges Grier and Kane, the important patent case of Woodworth's and Barnum's Planing Machines, Wilson vs Barnum, was decided, and the opinion of the Court given by Judge Kane, and an interlocutory injunction granted, according to the prayer of the bill until hearing by a further order of the Court.

We make no comments on the above, only we should like to have heard the curious opinion of the Court. An engraving and description of Barnum's machine will be found in No. 18, this vol. Scientific American. It may explain something about this decision when we say the able Hon. W. H. Seward was Mr. Wilson's counsel in the case.

BLANCHARD'S PATENT.

On the same day on which the above decision was made the case of Blanchard's Gun Stock Turning Patent vs. Joseph Brown, was decided on the motion for a new trial. The opinion was delivered by Judge Grier, and the motion refused, and single damages allowed in each case, in accordance with the verdict of the jury.

Charcoal for Wounds or to prevent Contagion in Hospitals.

Charcoal acts upon gases by condensing them in itself, often in proportion of more than thirty times its volume. Charcoal saturated with any kind of gas cannot condense another without giving up part of that with which it is saturated. Charcoal purifies putrid water by condensing the gases generated by the decomposition or putridity of matter in the water. The charcoal employed for this purpose absorbs the putrid gas by the atmospheric air quitting the charcoal with which it has been saturated. Charcoal absorbs the effluvia arising from wounds and also destroys the pestilential effects of such effluvia—let it arise from disease and decomposition in any shape. As it is a good absorbant, it must be a good preservative ag inst contagion. The charcoal of hardwood has the faculty of absorbing a greater quantity of gas than the kind made from light soft wood. It is best to use the charcoal for such purposes in a fine powdered state.

Death of an Ingenious Mechanic.

Mr. Frederick Frœlich, an ingenious Swiss mechanic, employed at the Navy Yard, near Washington, was found drowned last week. It subsequently appeared that he had been shamefully beaten by some persons at the house where he boarded. It is supposed that he was laboring under the effect of an aberration of mind from the injuries he had received, at the time he wandered off and drowned himself. Some persons in the house where he boarded have been arrested. Mr. Frœlich was the author of some very ingenious inventions, and had taken out some patents while residing in France before he came to the United States. One of his inventions was a new mode of ventillating steamships in combination with a new condensing apparatus. Another was a new cut-off, called the *Maltese cross cut-off for valves.*

American Hand Cut Files.

Mr. John B. Cochran has lately engaged in the manufacture of all kinds of Files, at his shop on the corner of Raymond and Willoughby streets, Brooklyn, N. Y. We have examined the files made at Mr. Cochran's establishment and consider them unsurpassed—they are all warranted equal to the very best imported English files, and superior indeed to any that can be made by convict labor. He has got some of the very best file makers in his employ and takes great care to produce none but articles of a superior quality. We like this. Our mechanics are taking great pains now to have good tools—this is as it should be.

Quackery.

Dr. Skinner of Vermont, proposes as a remedy for the enormous evil of quack medicines, to supply the public with medicines in a popular form. Well, we don't like to see medicines prescribed in a popular form. If quack medicine does so much evil in a popular form, what will become of the public when a trade is made by the profession in the popularity of their medicines.

The only way to put down quackery in medicines, is the way we do with erroneous receipts, expose the nature of them and give correct ones in their place.

Remington's Bridge.

A correspondent enquires of us where the assignees of James R. Remington reside, and what are the conditions of the sale of rights for his improvement in Bridge Building, secured by patent about six years ago. Can any one give us the information?

Snakes in New Orleans.

The overflow has brought large numbers of snakes and other reptiles from the swamp up into the streets. Conger Snakes, the most venomous known in this country, had been seen in the water in several places and a little girl, while wading in the water in faubourg Treme, was bitten by something which she did not see, and died in a few hours afterward.

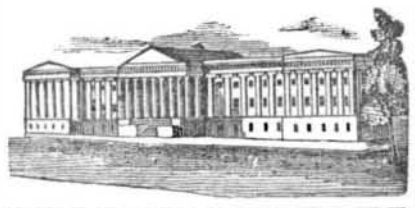
There are now in the course of construction in Newark N. J. two Magnetic Machines for separating iron ore from earthy mixtures. One was finished last autumn and taken to the iron mines in the western part of the State where it performed admirable.

The Egyptian Government has closed its paper mill in the citadel of Cairo, and has intimated to the managers of its other manufactories that it intends to discontinue those establishments.

Our London Patrons.

We are happy in being able to inform our English patrons that such arrangements have been completed with the London Patent Office that the Scientific American may hereafter be found there. Messrs. Barlow & Payne are agents at 89 Chancery Lane, and will receive remittances on account of the Scientific American from those who may desire to subscribe.

Terms—3 dollars per year and postage paid out of the United States.



LIST OF PATENTS.

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending May 29, 1849.

To Daniel Dunham, of Pawtucket, R. I. for improvement in Cooking Stoves. Patented May 29, 1849.

To Horace Halbert, of Oneida, N. Y. for improvement in Cooking Stoves. Patented May 29, 1849.

To Charles Perley, of New York City, for Direct and Counter-motion Winch. Patented May 29, 1849.

To Charles Rogers, of Bridgewater, Mass., for improvement in machinery for cutting Welts for Shoes Patented May 29, 1849.

To D. N. Ropes, of New Haven, Conn. for improved method of attaching the tang to the handle of Table Cutlery. Patented May 29, 1849.

To Devolt Stetlemeyer, of Hancock, Md., for improvement in Bedstead fastenings.. Patented May 29, 1849.

To Wm. H. Willcox, of Tarrytown, N. J. for improvement in Boring machines. Patented May 29, 1849.

To L. Augur & J. L. Lord, of Chester, Conn. for improvement in stops for Carpenters Benches. Patented May 29, 1849.

To G. W. Fulton, of Baltimore, Md. for improvement in Pumps. Patented May 29, 1849.

To John Wilson, of Gentsville, S. C. for improvement in Looms. Patented May 29, 1849.

To Lorenzo Smith, of Easton, Mass, for improvement in Gates. Patented May 29, 1849.

Precious Metals.

From Comstock's "History of Gold and Silver," we take the following "estimated amount of the consumption and use of the Precious Metals in the United States for other purposes than coin :

Silver tea spoons,	$36,000,000
Silver table spoons,	27,000,000
Silver table forks,	4,500,000
Plate dining service,	5,500,000
Gold watches at $16,	16,000,000
Gold watches at $8,	8,000,000
Silver watches at $2,	4.000,000
Communion silver,	1,229,416
Gold pencils,	2,000,000
Silver pencils,	1,200,000
Silver spectacles,	150,000
Silver thimbles,	450,000
Gold spectacles,	2,000,000
Gold watch keys and seals,	150,000
Silver pitchers and tea pots,	2,000,000
Silver sugar bowls and tumblers,	1,000,000
Waiters' coffee pots,	1,000,000
Gold finger rings,	16,750,000
Gold bosom pins,	14,000,000
Gold chains,	12,000,000
Gold beads,	4,000,000
Gold thimbles,	1,250,000
Gold bracelets,	3,000,000
Gold lockets,	1,000,000
Gold pens,	250,000
Gold leaf,	404,000
Gold foil.	180,000
Total,	$165,013,416

New Inventions.

Who can count 'em ? Who can number the hours of labor saved by them ? Who can measure the stretch they have made in articles of comfort, of necessity, and luxury.

Without the least surprise we hear of worlds which have never been seen or never can be, and we presume to affirm their exact position. We talk with our friends, while thousands of miles intervene, and query when the telegraph to Europe will be contrived. We never think of being astonished at seeing a man's shadow caught and fastened to a metal plate, so as to be visible a whole life-time.

Who would have dreamed of this twenty years ago.

The "Ten Hour System."

MESSRS. MUNN, & Co.

As the tone of your paper for the past year evinces, you must be included amongst the advocates of the ten hour system. You at one time recommended a convention of manufacturers to meet and unite upon a plan for adopting this system throughout the country ; and it would have been well had your suggestion met with a prompt response.

The utter folly of Legislation on this subject, without the decision of such a convention as the basis of action must be apparent to any one who has reflected at all upon this question. Whenever a law becomes coercive in its provisions, to the prejudice of parties most largely interested in its operations ; it fails of every beneficial effect.

A law should regulate, not control public sentiment. And how can the sentiments of the laboring classes, regarding the ten hour system be properly known and expressed? Certainly not from brawling demagogues, who wish to make political capital out of their pretended sympathy for the working man, neither can they be gathered from the acts, or expressions of the ringleaders of a "turnout" for these are generally British operatives, who have brought to this country all the venom which a long system of oppression and mismanagement have engendered in the bosom of the employed against the employer, and which is constantly belched forth until every mind in contact with them becomes poisoned with their false sentiments.

A convention of manufacturing Agents and Superintendents could alone fix upon the proper plan to give universal satisfaction, and which could be generally carried out. What a sublime spectacle such a convention would present ! When we see the employers meeting to discuss measures for securing the comfort and well-being of the employed, in connection with the profitable management of their business, we may expect to find much of the unnatural jealousy existing between the two classes done away with.

The high wages hitherto paid to operatives in this country have kept us comparatively free from such collisions between them and the owners of mills as have taken place at different times in the manufacturing districts of Britain.

But we cannot blink the fact, that there has been a tendency towards the same unhappy state of things in our own manufacturing towns and villages.

This, as already intimated, may be partly owing to the influence of British operatives scattered amongst our manufacturing population, but principally we conceive to the real evils of the British manufacturing system, insinuating themselves constantly, but by gradual and imperceptible degrees into all our establishments.

The worst feature of the British manufacturing system is the entire dependence of the operatives upon their wages in the mills for subsistence, and the consequent necessity of their compliance with all the arbitrary regulations of the owners, especially in regard to the number of working hours. But the law of the land steps in and protects the operatives in this particular. The hours of labor in all manufactories have long been limited by act of parliament to 69 per week. And recently the ten hour system has been adopted with entire success as far as we have been able to learn. The hours of labor in the Eastern States of this country are 73½ per week, and in the Southern and Middle States many of the mills work 82½ hours per week. Yet in the face of these facts our operatives have always compared to advantage with those of Britain. An explanation of this apparent contradiction is to be found in the fact that our mills have hitherto been principally operated by farmers' sons and daughters who have always had good homes to which they could go in case of any dislike to the factories, or at which they could spend a few weeks or months in each year recruiting impaired health, without expense. I am confident that the girls in our Eastern mills have never averaged 10 hours per day through the year. The demand for factory help having always been greater than the supply, all who felt inclined to give up their places in the mills, have been sure of finding employment whenever they might choose to return.

Such a system would be more desirable than a ten hour system, but the dependency of our operatives upon manufactories for the means of subsistence is constantly increasing ; immigration as well as natural tendency of things contributes to the separation of the manufacturing and agricultural population. And the more complete this separation becomes, the more is the former dependent upon employment in our manufactories. Had the laws of Britain not interposed for the benefit of her manufacturing population they would have had to endure suffering with which those now experienced are not worthy to be compared.

Yet the very same evils, to avert which the laws of Britain in regard to the hours of labor were enacted, are staring us in the face, and the question with every candid person interested, is not whether our hours of labor shall be limited to ten per day—but how shall this be effected without demanding an unreasonable sacrifice of the capital embarked in manufactures. It were mere presumption for any one person to answer this question with confidence. It needs the united wisdom of our best men from all the States of our Union assembled in convention, to determine this question. What has been effected through the acts of parliament for the British operative, cannot be done under our peculiar government where every State is independent of another in the operation of local laws. And the manufacturers of one State running their mills 10 hours per day, can never compete with those in a neighboring State running 12 hours per day. It would not be expedient to introduce the 10 hour system suddenly into our manufacturing establishments. It ought to be brought on gradually during a period of at *least* four years, diminishing the hours where 12 is the usual number one half hour each year. Even this plan would be unwise in the present depressed state of manufacturing business. It could only be introduced in the event of adequate protection under a wisely framed tariff law.

W. M.

The Use of Lime in Building.

The following is an extract from the address of P. A. Browne, Esq. before the Society for the Developement of the Mineral Resources of the United States in Philadelphia, and published in the Ledger of the 1st. inst.

1st. From the time that the lime is drawn from the kiln until it is slacked, it should be kept in a dry and tolerable close place. The reason is this, the burnt lime being anhydrous has a constant tendency to abstract moisture and perhaps carbonic acid gas, from the atmosphere, and by so doing, to undergo a premature chemical change.

2d. A practice has been introduced into this city and elsewhere, particularly when about to make plaster, of suddenly drowning the lime in an excess of water, instead of gradually supplying that liquid as the operations of slacking slowly goes on, and of limiting the quantity of water to that which is sufficient to form a paste of consistency of clay prepared for the potter's wheel.

Some of the best writers upon cements condemn this practice of drowning the lime and suddenly checking its temperature, in unmeasured terms ; and it is confidently believed that if our architects, builders, bricklayers, and plasterers, would exercise a little of that good sense for which our operatives are so justly renowned, that it would soon be abolished.

III. Of the mixture of the slacked lime with an inert substance to form mortar.

The inert body ought not to be added to the lime until (the lime,) is entirely slacked, which may be known by it becoming cool.—So far as my observation goes, the sand or gravel are often added while the lime is yet hot.

1st. The inert body should be of a good quality.

2d. It should be supplied in a due proportion.

Of the abuse of the first, we have a striking example in the use of sand from the sea shore the moisture of which holds in solution the chloride of sodium.

After the great fire in New York, it was the subject of general remark that, the bricks of many of the walls which fell or were pulled down, were as free from mortar as the day they were drawn from the kiln ; and persons of knowledge and experience attributed it to the morter having been made with salt sand. This doubtless, was one cause, but there may have been others, viz : that the bricks were too dry when laid, and the lime of a bad quality.

The rule laid down for the proportions of lime and the inert body, in order that the mortar may be of the best quality, appears to be a very sensible one. It is this, that so much and no more of the lime must be used as is sufficient to fill the interstices between the grains of the inert body. If too much lime is used the particles are not allowed to come into that complete contact, which, as it is believed, is best suited for their crystallization. If there is not lime enough to fill the interstices entirely, the mortar will be porous and weak. I am informed that the practice, in this vicinity, is to mix 1 1-4 bushels of lime with 1-4 of a team load of gravel, (a team load being 39 square feet) and 2 bushels of lime to a one-horse load of sand, i e. to 21 square feet. What is the rationale of this practice? Those who follow it do not seem to be well informed ; but it would be easy and exceedingly useful to experiment upon the subject. In the mean time, by filling a vessel of a given capacity with the gravel or sand about to be used, and then pouring into it, from a graduated measure, as much liquid as would exactly fill the interstices, a tolerable idea of the quantity of slacked lime that it would require, might be obtained.

[Houses should never be built in frosty weather. The best way to slack lime, is to gather it in a heap, wet it gradually with water and keep covering up the sides with sand, like a charcoal pit, and when it has received as much water as will reduce it to powder, then it should be entirely covered with the sand and left undisturbed for about 10 hours. After this it should be mixed with the sand by water as it is required to be used. This we know to be a good plan but it is seldom followed after in our city.—[ED.

An Iron Stomach.

The following story purporting to be an extract from a work published some time since in London, entitled 'The principles of Medical Psychology,' is rather singular though it appears quite indigestible :

"Urban Fedad was a lunatic confined at Gratz, in Germany, One of his morbid conceptions was, that the stomach must always be strengthened with iron. He was seized with violent inflamation of the œsophagus, which nearly proved fatal. He recovered however as soon as he could speak, asserted that he had swallowed the blade of a knife, which was not credited. In November 1829, he was again taken ill, and died on the third day. On opening the body there were found 7 oxidated lath nails, each 2 1-2 inches long ; 33 nails 2 inches long, some blunted by oxidation, some pointed and large, and 49 smaller nails and rivets ; 3 pieces of wound up iron wire ; an iron screw one inch long ; half a knitting needle ; two iron tobacco pipe cleaners ; a brass hat buckle ; part of the blade of a knife 3 inches long, which was quite blunted on the edges and at the point by oxidation ; and lastly a roll of lint about the size of a hazelnut. The total number of articles amounted to 100, and weighed about twenty ounces. The stomach was very much drawn down, but not perforated. Judging from the state of oxidation, it was concluded that many of the above named contents had been retained a couple of years in the stomach, and that probably many pieces of iron had passed through this man's body."

Pyramids of Egypt.

The pyramids of Egypt are supposed to be more ancient than 3000 years. The largest of these is 499 feet high, and has 693 feet each side, at its base, the foundation forming an area of 480,000 square feet or 11 acres of ground. The building of the pyramids is supposed to have employed upwards of 300,000 workmen for more than twenty years, and they have always been ranked among the wonders of the world.