



#### To our Contemporaries.

To Editors generally, we extend our warmest thanks for their complimentary notices of the Scientific American, we should gladly make room for them all, but the crowded state of our columns will not allow us the pleasure. We are highly gratified with the manner in which the "Prize Essay has been received by them, and it speaks well for the journals that have copied the suggestions made by the author (Mr. Maher) inasmuch as it manifests their willingness to benefit that class of individuals whose efforts demand the earnest co-operation of legislators. Our object has been to awaken a more general interest in behalf of inventors, and if possible to create a reform in the existing Patent laws. If we have contributed in any degree to accomplish this required reformation, we shall feel abundantly rewarded.

There is not a paper published in this country that has not more or less subscribers, who feel a deep interest in mechanical improvements, and we take it upon ourselves to say that any suggestions upon this subject will be read by them with satisfaction and profit.

We advise mechanics in every village to hold meetings and be prepared to present petitions as soon as Congress assembles in December and not trust their interests in the hands of a few demagogues whose sole object is to secure some lucrative office under the Government. Any petitions sent to us (post paid) will be promptly forwarded to Washington as soon as Congress assembles. Now is a good time for action and we shall be pleased to hear from as many as may deem these suggestions worthy of notice.

GRIFFIN, Geo. May 1st 1848.

Messrs. MUNN & Co.

GENTLEMEN.—Enclosed I send you the amount of another year's subscription to your valuable journal. I assure you, I wish the Scientific American to obtain a wide spread circulation, I wish it as well for your advantage and for the benefits it must yield to all classes, and particularly to those for whom it is more expressly designed. I am not a mechanic nor an inventor, yet I feel a lively interest in all the improvements and discoveries of the age, besides I have in several instances derived actual profit from the perusal of your paper, in the various articles of domestic economy. We see in almost every newspaper of the day receipts for various purposes, which when tried are seldom found to succeed, I am happy however to say that those which come approved by the Editors of the Scientific American may be invariably depended upon.

I am, Gentlemen, yours truly

J. C. M.—

(The above is from one of our oldest subscribers, and is but a stereotype of letters received by us weekly.—Eds.)

#### Hydraulic Engine.

The Glasgow (Scotland) Citizen, says: "In noticing the hydraulic cranes at the General Terminus Railway Company's Wharf, some months since, we staved our conviction that the time was not distant that the new power or new application of power—the pressure of water in air tight pipes—would be made largely available as a motive force. We have now the satisfaction of stating that there is no longer any doubt as to the applicability of this power to machinery. We have had the pleasure of inspecting a model engine in the office of the Corbals Gravitation Water Company, Portland-Street—and which is the most beautiful and simple contrivance we ever saw.—The model is about one-horse power, with a horizontal cylinder, and having a twelve-inch stroke. The water, which here has a pressure of about 201 feet, is introduced to it from a common house-pipe; and such is the simplicity of the machine, that a child could work it and regulate its speed at pleasure by

the mere turning of a handle. The great advantage of this engine consists in the fact that it can be put up in any flat of a house of any street,—wherever, in fact, there is a water-pipe. It takes up very little room; it registers the quantity of water it used (which by the way, may be again available for several purposes, as it leaves the engine as pure as when it entered;) and it may be erected in those localities in cities where steam-power is prohibited on account of danger and nuisance from smoke, and without raising the rate of insurance. It will be much cheaper in every respect than a steam-power engine. The model has been constructed by Messrs. James Steel and Sons, Dundee. In all processes requiring engines of from two to six or eight horse-power such as coffee-grinding, baking, turning, letter-press machine printing &c., the gravitating water-power engine must speedily come into general use."

The engraving and description of an hydraulic engine, will be found on page 213. vol. 2 Scientific American, invented by Mr. E. Bishop. We have heard that there are two such engines in operation in Liverpool, England, and in some other places. They are in successful operation, and might be very useful in some parts of our country.

#### New Electrical Instrument.

M. Chevalier, a French gentleman who has paid some attention to electric phenomena, has brought to perfection an apparatus, which early as the days of Franklin was suggested by some of the experimentalists, by whose means an electric shock can be conveyed at a considerable distance, even through a whole line of individuals. It is of so small a compass that it can be carried in the pocket; by means of a string thrown from amidst a flock of sheep twelve fell down. And the shock may be so violent as to cause instantaneous death without the hand of the perpetrator being visible or recognized. The discovery is rather a mischievous than a useful one.

[The above we copy from an exchange and know not the one from which we took it. The fact of prostrating the sheep we consider to be equal to any feat ever accomplished by the famous Munchausen.]

#### A Curiosity.

An English paper states that there has been exhibiting at the Egyptian Hall London, a full length miniature of a female discovered by Mr. Eades in a block of marble which he was preparing for an obelisk; discovered perfect in itself. Mr. Eades thus describes it:

"This unprecedented phenomena of human nature is a most mysterious and truly astonishing full length miniature of a lady, three inches in height, in the costume of the aristocracy of the present time: possessing the most accurate and pleasing features, graceful figure, beautiful ringlets—upon the head of an elegant cottage bonnet, to which is attached a superb veil; under her arm she carries a fashionable muff, which has the appearance of one of the most recherche of the Hudson Bay Company. The incomparable miniature has been examined by several eminent antiquaries, scientific gentlemen, first rate artists, and numerous distinguished ladies and gentlemen, who have unanimously pronounced it to be the finest specimen beheld, and may be challenged against the world!—so perfectly uniform in every particular, combining grace and elegance that it appears a production of Mr. Martin's or some other celebrated artist."

#### Weather, Fruits, &c.

In Ohio, the horticulturists say the Fruit, owing to its backwardness, has escaped the late frosts without injury. Accounts, however from Georgia, South Carolina, Alabama, and a portion of Florida, generally agree that the Wheat crop, and that portion of the Cotton crop which was up, have been almost entirely destroyed. The Corn has suffered great injury also, but this can be remedied by replanting. If the weather has been so severe in Mississippi, Louisiana, Texas and Arkansas, as it was in Georgia, it must have the effect of greatly curtailing the cotton and wheat crops, and consequently of raising prices.—There is not Cotton seed enough in the country to replant the crop, but the injury to the Wheat may, in some degree, be repaired by planting more largely of Corn.

#### Great Seizure of Counterfeiting Apparatus.

In the vicinity of Blazing Star, New Jersey, Officers Brown and Leonard of this city made a most extensive seizure on the 1st, inst of an immense coining apparatus for coining counterfeit Mexican dollars and American quarter and half dollars. The apparatus was contained in 16 boxes. There is among it a powerful screw press; the lever used in operating with it is eight feet long, and has at each end a 32 pound cannon ball. The rest of the apparatus seized consisted of a bed-plate milling apparatus, crucibles, a large quantity of tools, chemicals, &c. and some boxes of counterfeit coin in a finished and unfinished state. The dies were not found, but the officers have impressions from them which exhibit the highest degree of perfection in their manufacture. The coin cannot be detected either by sound or weight from the genuine. The place where the counterfeiters carried on their operations was built by a man named Sweet and his accomplices, and was so constructed that it afforded abundance of light, and at the same time, the operators could not be seen or heard from without. One man started for California a month or two since, it is supposed with a large quantity of the counterfeit coin in his possession, intending, no doubt to speculate with it. The Government have dispatched an agent there to arrest him, but it is feared he will have disposed of a large amount of the coin before the officer arrives.

#### Pineapples in Florida.

A writer in the Savannah Georgian says that one gentleman set out 46 slips of pine on the 20th of August, 1843, and they ripened to fruit July 10, 1845; he has now 3,500 plants, half which will bear next July. The apple does as well at St. Lucia, if not better, than in Cuba; the fruit is larger and better. About 18,000 pines can be produced to the acre.—This fruit from the pine plants of South Florida need not be plucked till it has quite matured, when it will come into market in a better condition, and of finer flavor than any other. The average value of the pine then will be at least 5 cents, and an acre will yield \$800 or \$900, while the produce of the orange is about \$750 per acre.

#### Medical Convention at Boston.

In the American Medical Convention, in session at Boston, on Wednesday, last week, Dr. Nathan R. Smith, of Maryland, read a long report from the Committee on Surgery, most unequivocally defending the use of chloroform. The report says:

"It has been administered to millions of subjects, and we have but fifteen cases of authenticated deaths supervening from its use. Alarm, therefore, on the subject is needless. Much more cause is there for alarm, much more reason to apprehend a fatal termination in taking an ordinary railroad journey, than in inhaling chloroform, at the hands of a judicious and careful practitioner.

"It is admissible to proceed with a surgical operation in dangerous cases, without the use of chloroform, because safety and immunity from pain are secured. It should not be used where there is a disease of the heart; and in inhalation care should be taken that atmospheric air be mixed with the chloroform. Inhalation should stop the moment that insensibility is attained. Professor Simpson has published his opinion that one hundred lives have been preserved by the use of chloroform where one has been lost by it. He further says that the mortality, where chloroform is used, is much less than in similar cases where it is dispensed with."

The Committee on Obstetrics also reported decidedly in favor of the use of Chloroform, and the "wonderful advantages" Obstetric practice has gained through the introduction of Anæsthetic agents. Etherization has now been used in thousands of cases, and in no one instance has the slightest injury resulted to the mother. It is added that anæsthetics may not only be given in all cases of labor, but that they may not rightfully be withheld.

The funniest article yet, is a patent iron shirt with precision collars. It never wears out, and by touching a spring, a new collar jumps up, until a half-dozen are exhausted.—A patent sheet-iron neckcloth accompanies it.

#### A New Poison.

In the last number of the Medical Examiner, there is a description of a new poison which was discovered in 1847, by Sobrero, a Spanish Chemist. Dr. W. F. Jackson, of Maine, has made a number of experiments with it, and the article in the Examiner is taken from an address of the Doctor.

The poison is obtained by a process similar to that for procuring gun cotton, with the exception that instead of cotton, the liquid called glycerine, the well known sweet principle of oils, is exposed to the reaction of a mixture of strong sulphuric and nitric acids, refrigerated. It is an oleaginous, honey-like substance, which sinks in water, but is soluble in alcohol; and it was the alcoholic tincture (the strength not mentioned) which Dr. Jackson employed in his experiments.

The general properties of this substance, which as yet has no name, are those of a most powerful excitant or stimulant, the effects being exhibited by the violent action of the arteries and brain. One-third of a drop was always found sufficient to quicken the pulse, within sixty seconds, from sixty-five to ninety-five and even one hundred and twelve beats a minute, causing intense headache, protruding eyes, and scintillating vision, with disturbed heart, &c., symptoms which subsided in about half an hour. A larger dose produced similar effects, only of a more violent character; the pulse being raised to one hundred and twenty-four beats and becoming hard and almost incompressible.

Three drops of this poison killed a cat in two minutes.

#### The Benefit of a Strong Beaver.

Parson Brownlow, of the Jonesborough whig was attacked at night, while returning from church, and struck down by a club in the hands of John Ryland, whom he had published as a deserter in Mexico. The Rev. Editor after 15 days' confinement from his injuries, comes down on his assailant in a column of invective and characteristically says, in conclusion, "I owe my existence, under God, to a strong beaver hat I had on at the time.

The parson's hat is equal to the famous one of George Buchanan. Perhaps he carries a sheet iron crown in it.

#### Heavy Damages for Breach of Privilege in Partnership.

By the proceedings of the Superior Court lately held in this city, Judge Sandford Presiding, we see that Mr. A. G. Bagley, the Gold Pen Manufacturer, was awarded a verdict as plaintiff of \$7,500, for damages for a breach of the articles of co-partnership by G. and E. Smith, his former partners.

#### The Canal Locks at Lockport.

The combined ten Locks at Lockport, in this State, were completed last week, and they are justly considered as monuments of engineering and architectural skill. The Locks are in two tiers, 5 in each tier. Each lock has a lift of nearly 8 feet. There are 31,020 yards of masonry in the work and the cost of the whole has been about \$600,000.

#### Propeller Sarah Sands.

The propeller Sarah Sands on her last voyage from Liverpool broke the piston rod of her engine when she was five days out. The accident was occasioned by the screw getting foul of something in the water, and she had therefore to make the rest of the voyage by her sails, the screw at the same time acting as a drag to impede her progress.

#### Gas Works Explosion.

The Gas Works at Rochester, N. Y., were completely destroyed by explosion on the 23d. The explosion was occasioned by one of the workmen going into the building and lighting a match. The gas exploded on the instant the match was lighted. Two of the workmen belonging to the works, were seriously injured by the explosion, one very badly burned and the other had his leg broken.

Some oil cakes, from Holland, were examined recently at the London Custom House, which proved to be snuff. As there were sixty tons, and, as the duty on snuff is now six shillings sterling per pound, the government would have been defrauded to the large amount of £40,000.