



NEW YORK, JULY 22, 1848.

**Gas Engines.**

We see it noticed in a number of our exchange papers that a Mr. Jagu has lately proposed at a meeting of the Academy of Sciences in Paris, to construct Locomotives to be propelled by carbonic acid, the principle of which is not to lose the gas, but after it has served to work the pistons, be made to return without loss, into a vessel similar to a portable gas-holder, to be placed in the hinder part of the locomotive, and thus an apparatus, so charged at a station, he says, might be made to work for years, until required to be repaired.

This is not a new invention, it has already been tried. In 1827, Mr. J. Brunell, secured a patent for a carbonic acid gas Engine, but it was laid on the upper shelf, and is now useful in furnishing a theme for Mr. Jagu to dilate upon before the Academy, and a paragraph for the newspapers. We have no more idea that carbonic acid will drive out the simple steam engine, than we have of gunpowder being a better and cheaper propellant than water. The carbonic acid will have both to be heated and cooled, as well as water, and although it exerts a force of 40 atmospheres, at a heat of 120 degrees Fah., yet it is far more dangerous than steam, as the fatal accident at the Polytechnic School of Paris, whereby a cast iron cylinder, as strong as a cannon, was shattered to pieces like the fragile vessel of a potter, was a sad evidence.

**Young Men.**

It is the misfortune of every mind that it commences existence in the same state as that of our rude forefathers and that the accumulated experience of the past—the knowledge gained while living by the mighty dead, must be learned over again by the youth who would strive to wear a crown of immortal renown. It is only then in civilized countries where men can be properly educated and fitted for the noble actions of a life of true usefulness. But even in a civilized land—a land of Universities and Bibles, we too often find men committing crimes worthy of the savage and not of the intelligent virtuous man. The great fountain that sends forth virtuous men and women, is a virtuous education. It is needless to say that this begins at an early age and within the walls of childhood's home. The school and the college may draw out and expand the powers of the mind, the education of the family may be said to make the mind of a good or bad quality—either to gather honey like the bee or distil poison like the wasp. True as this is, it is no less true that many young men are educated and trained up in virtue's ways who forsake them when they come to the years of maturity. This is particularly true of young men—mechanics and artisans that come into our cities from the country to learn their trades, who are apt to fall into evil company and spend their evening hours in idleness and dissipation. The end of these things is dishonor and disgrace.

We point to evils that have an existence in order to direct attention to duties that are incumbent upon our young men. This is a land famed for freedom, religion and intelligence. It is the only beacon light of Republican freedom. On us as a nation, the eyes of the world are fixed—and according as we behave ourselves (we use a homely phrase) so is our influence felt by the rulers and inhabitants of other lands. To our young men we would say, upon your shoulders the future weight and glory of the republic must rest. Oh, then prepare to exhibit a noble and sublime example of self-government, and let the *model republic* continue to shine forth in the horizon of freedom as the sun of the system.

Young men, you must be virtuous and intelligent if you would be an honor to yourselves and your country. Those of you who

come to learn trades in our cities, or to fill situations in commercial houses, we bid you beware of spending wastefully your spare moments—*spare* moments are the golden sands of life, barter them not away in the pursuit of folly but in the pursuit of wisdom and true knowledge. If you fail to do this, you are recreants to virtue, your country and freedom.

**Outrage upon Inventors' Rights.**

BOSTON, July 12th, 1848.

Messrs. Munn & Co.

RESPECTED SIRS.—Messrs. Elbridge Webber and Charles Hartshorn having finished a model of a new machine for turning Lasts and other irregular forms, I, along with them, started for Washington last Monday. After we arrived in Boston and had deposited the model on board the railroad cars, by some means Mr. Blanchard found out the nature of our journey to Washington with the model, and went to the United States Marshal and got him to attach and take possession of the model for infringement of his rights. So we are obliged to change our course and go home. We intended to call on you and have a cut of the machine in your paper, but you see Mr. Blanchard assumes to have power to prevent our carrying a model to Washington for the purpose of obtaining a patent. Now is it possible that he can obtain influence enough to sustain himself in such outrageous insults upon those who have equal rights and privileges granted by the Laws and Constitution of our land? If so, it seems useless to attempt to make improvements when it interferes with the interests of some privileged men. The machine was not made for sale or offered for sale, nor has it been used for turning any irregular forms, no farther than to operate the model to be certain that it operated as was intended, and never was intended to be used, but to be deposited in the Patent Office for the purpose of obtaining a patent. Mr. Blanchard never saw the machine until after it was taken by the United States Marshal.

N. O. MITCHELL.

The above letter will no doubt surprise our readers. We believe that the act of the U. S. Marshal was a high-handed piece of illegality. Allow such acts to be legal, and the most intolerant and cruel injustice might be done to all poor inventors by those who are wealthy. Tolerate such acts and improvements in mechanism will soon be numbered with the things that were. Just reflect for a moment upon the injustice done to these men. They had made a valuable improvement on a machine for turning irregular forms. They constructed a model, left the village of Gardiner, in Maine, on the 10th, and had reached Boston on their way to Washington. An inventor residing in Boston, who has had his patent twice extended, heard of the model being in the cars, and apparently fearful that his invention might be superseded, determined to prevent the model reaching the Patent Office. The U. S. Marshal with great energy and courage captures the model, and having taken it a prisoner from those who made it, "sheathed his sword for lack of argument," and smiled over this display of his patriotic prowess.—The scheme for preventing that model reaching the Patent Office has been successful for the present, but there is a day of reckoning coming. The inventors after incurring innocently much expense, have had to return to their homes; but have returned with a deep sense of the injustice done them, and a stern hatred to the despotic influence that robbed them of their property. Were such conduct legal, an inventor coming from distant Iowa to Washington with some new machine, might be stopped in his journey at this city by some sensitive patentee and made a ruined man—this is a logical inference deduced from the above letter. A model is not the infringement of an invention. The use even of a patented article for philosophical experiment, would "not be considered an infringement," and certainly a model of a new improvement cannot be an infringement. We should like to know what representations were made to induce him to take the model out of the inventor's hands, as it appears to us he could not and would not do so without an injunction granted by the District Court.—EDITOR.

**Pumps for Vessels.**

A correspondent of the Boston Daily Advertiser brings to our notice the great importance of having good pumps for all sea-going vessels. He says that "during this present year, and principally within a few weeks, there have been two barks, one brig and two schooners reported in distress from bad pumps, one of which, the bark Agnes, was abandoned at sea with a cargo of guano; another, the Golconda, from New York to Ireland, returned to New York with five feet water in her hold, with a cargo of corn; the brig Mary and Jane from New York to Jacksonville, in ballast, was knocked down in a gale, ballast shifted, sprung a leak, pumps choked, several feet water in her hold; succeeded in getting into Nassau, N. P., and was obliged, under the direction of a survey, to have her ceiling taken up so that the dirt could be removed to allow the bilge water access through the timbers which were badly clogged. The schooner Marblehead, from a southern port with corn and flour for Boston, sprung a leak in a gale, and her pumps became so badly choked that it became necessary to run her ashore on Gloucester beach to prevent foundering. The schooner Fair Play, from Philadelphia to Barbadoes, cargo corn and flour, was fallen in with abandoned Feb. 22, 1848, with several feet water in her hold and choked pumps, and the new and elegant steamer Hermann, was recently obliged to deviate from her outward passage to England and make a harbor at Halifax with choked pumps in addition to other damage suffered in a severe gale."

No person who pays a visit even to our best ships can fail to be impressed with the old "stuck to the past" miserable ship pumps.—In fact the majority of our ships have pumps that any of our farmers would be ashamed of. They are inefficient, clumsy, and easily rendered useless. The above list of vessels that suffered from defective pumps, should be enough to convince any man of the necessity of adopting a more simple and efficient water pump.

The rotary pump of Mr. Cary, described on our first page this week, appears to us to be admirably adapted for vessels. There is no fear of choking and if any thing goes wrong, it can all be repaired above. The whole machinery is upon deck, contained in the inside of the cylinder, easy of access and easily repaired. All that is required to adapt it for vessels is simply to erect it on a stage on deck and connect the suction pipe with the well by means of leather hose, like that of a fire engine. There is nothing that will wear out. The packing may have to be renewed once every voyage, and the commonest seaman can do that.

**Shipbuilding in this City.**

Shipbuilding is very dull in this city at present, but there are ten ocean steamers in process of construction, some of which are already launched, and will soon be ready for service. Two are building for E. K. Collins's Liverpool line. They are larger than any of the American steamers, and no expense or labor is to be spared in ship or machinery that can improve their adaptation to the service for which they are destined. There are two for Sloo's line to Chagres; three for Howland & Aspinwall's line of Pacific steamers from Panama; two for the New York and Savannah line, and one, the Franklin, for the Bremen line. The keel of another will shortly be laid to run with the Crescent City to New Orleans, and two more are to be built to run with the Northerner and Southerner to Charleston, constituting a semi-weekly line.

**Suspension Bridge.**

Mr. Ellett, the distinguished Engineer, who has issued a pamphlet on the subject of a suspension bridge across the Connecticut near Middletown, makes a very fair offer, and very important one.

He proposes to build the bridge for the sum of three hundred thousand dollars; and he agrees to finish it so that the first class Engines may run across it at full speed, before he receives one cent on the contract. If he does not succeed, he receives nothing.

He goes farther; and offers to place in the hands of the Company, a reasonable sum of money in advance as a guarantee that his contract shall be fulfilled.

**Cheapness of Foreign Railroad Iron.**

The price of railroad iron, at the places from which the greatest supplies are derived, is a matter of great interest to all who are about to engage in the construction of railroads. This article has been gradually falling in its principal producing market,—Wales—from its highest point, \$63, down to \$24 50 per ton at the shipping ports, which is about as low a price as it has ever reached. The Liverpool Times of June 17, remarks that the "demand for British iron for home consumption continues on a very reduced scale, and for many kinds lower prices have been submitted to." The price of freights from the shipping ports in Wales to New York, varies from \$2 40 to \$4 80 per ton. Railroad iron cannot long remain at its present low price abroad. It is much more likely to advance than to decline in price.

**The Cotton Trade.**

It is said that some of the Manufacturing Corporations of Lowell have within a week or two made a further reduction in the wages of their operatives, and that in consequence a number who have homes had quit work. The cause assigned for the reduction is, that the Companies cannot sell their goods for a profit in the present state of affairs, and that their warehouses in Boston are filled to overflowing.

**Coal Trade.**

The coal trade of Boston has become so important that the proprietors of the Merchants' Exchange, commenced, a fortnight ago, to keep upon a separate book a record of the vessels that arrive loaded with coal, together with the amount. From this book we learn, that during that period over 100 vessels have arrived, bringing nearly 25,000 tons of coal. The arrivals are chiefly from Philadelphia.

**Fatal Test.**

William Dotch of St. Louis, killed himself recently by drinking a few drops of the oil of bitter almonds, to prove it was not poison, which oil was used by a distiller in the manufacture of liquors.

**Interesting to our Readers.**

We are happy in being able to announce to our readers that that we have procured the services of a celebrated German chemist of this city, who will in future have the charge of preparing practical receipts for each number of this paper. The expense that accrues from this new feature is considerable and we hope the project will produce enough subscribers to pay us for the extra expense it incurs. The receipts which we publish can be relied upon as purely practical, and if any one will follow the rules therein given, and use good materials, they may rest assured of producing the effects desired.

**Unprecedented Demand for Old Papers.**

At the commencement of the present volume of the Scientific American we had nearly one thousand complete sets of the preceding volume on hand. Since that time we have had 500 copies of those sets bound, and the balance have been ordered by mail and sent in sheets. We are now obliged to inform our patrons that we are unable any longer to furnish complete sets in sheets, and that we have but fifty more copies left, which are bound. The price of the remaining fifty copies which are left will be hereafter \$3 per copy (neatly bound,) or we can furnish a few more copies in sheets, minus Nos. 1, 10, 16, 17 and 46, at \$2 per set. All the numbers of the third volume can be had yet, at the subscription price.

**THE SCIENTIFIC AMERICAN.**

Persons wishing to subscribe for this paper have only to enclose the amount in a letter directed (post paid) to

MUNN & COMPANY,

Publishers of the Scientific American, New York City

TERMS.—\$2 a year; ONE DOLLAR IN ADVANCE—the remainder in 6 months

Postmasters are respectfully requested to receive subscriptions for this Paper, to whom a discount of 25 per cent will be allowed.

Any person sending us 4 subscribers for 6 months, shall receive a copy of the paper for the same length of time