



NEW YORK, DECEMBER 19, 1846.

Perpetual Motion.

[We find the following unanswered letter in a periodical, and lest some of our readers should fall into a similar error, we give this an insertion for the sake of answering it.]

To the Editor.

Although I am aware it is generally stated, that this much sought for result can never be obtained, in consequence of friction, sooner or later, bringing my machine in motion to a state of rest; still I am inclined to think that this difficulty might be overcome, if some force could be employed to produce motion in such a way, that the force should always continue the same, and have the same power of resisting friction. After the apparatus had been a length of time at work, as it had when the machine was first set in motion. It appears to me that something of this kind might be effected by means of a syphon. It is well known that if a bent tube, having one end longer than the other, has its shorter end inserted in a vessel of water, and that other end hung over the side, if the air be sucked out of the tube, from the longer end, the water will begin to flow through it from the vessel, and run until the water is on a level with the end of the tube on the outside. This is stated to be in consequence of the column of water in the longer end, being heavier than that in the shorter, and therefore drawing it down. Now it has occurred to me, that if the longer end of the syphon was made of twice the diameter of the shorter one, that it then need not be much more than half the length of the short end, and might therefore hang over the water, and instead of drawing it from the vessel, deposit it in it again: thus there would be a perpetual motion. I have never had the opportunity of putting my proposition to the test; but as, perhaps, some of your readers may have done so, or, at least, they may be able to inform me whether they see any objection to it in principle, I shall feel much obliged if you will find a corner in your interesting Magazine for this letter.

I am, Sir, yours most obediently,

Enquirer.

The grand error evinced by "Enquirer" consists in his having overlooked the fact that the water in the large end of the tube, would, like the short end of a lever, be restricted in its relative velocity; for every inch of its descent, it would be required to raise the column in the small end or section, four inches; and the influence of preponderating bodies is always in proportion to the relative motion as well as the weight of such bodies. Suppose the current reversed, and the water in the small end of the tube would be allowed to descend four inches while that in the large end would ascend but one; thus affording an equally rational argument in favor of this reversed current.

The Anodyne Vapor.

We have hitherto said but little on this subject for the reason that we are averse to drugging or artificial stimulus of any sort; but this mode of rendering people unconscious during painful operations, appears to be already in successful practice by several surgeons and dentists, and is said to produce no unpleasant nor deleterious effects. But it is sickening to think of the vile purposes to which this art will be applied as soon as the conscienceless rowdies get hold of the secret thereof.

Explosive Cotton.

The celebrated gunpowder manufacturers, Messrs. Dupont & Co., of Delaware, have succeeded in making the explosive cotton of the best quality. These gentlemen are of the opinion that in the cases where cost is of secondary importance, it may be used to advantage; but in regard to its use in fire-arms it is too costly and dangerous.

The Triumph of Science.

The discovery of Leverrier's new planet is perhaps the greatest triumph of science upon record. A young French astronomer, in his study, sets himself at work to ascertain the cause of the aberrations of the planet Herschel in its orbit. Going upon the supposition that it must be owing to the influence of some other body, he first examines, and finds that it cannot be caused by the attraction of any of all the known planets. Pursuing his investigation further, he finds that another planet of a certain size placed at near twice the distance of Herschel from the sun, and revolving around that body in a given time, would produce precisely the same effects that are produced. From these elements he not only decides in his mind that such a planet exists, but calculates its size, distance from the sun, annual revolution, and actual place in the heavens, with such precision, that astronomers both in Europe and this country, and at different times, by taking his tables, and directing the telescope to the point in the heavens where its place for that evening is indicated by them, have all succeeded in finding it, and thus adding the proof of observation to the demonstration of science. This is, indeed, a most wonderful triumph.

The Explosive Cotton.

The Washington Union says that another series of experiments were made at the Arsenal in that city, in the presence of several gentlemen, under the auspices of Captain Alfred Mordecai, who has devoted much attention to the subject, and written a work on gunpowder and projectiles. The gun cotton was tested fully as to its projectile force for small arms, and partially for cannon. The firing from a musket barrel, suspended on the ballistic pendulum, proved that sixty grains of well prepared cotton, were equal to one hundred and twenty grains of the very best gunpowder.—The residuum after the discharge was very inconsiderable. After eight discharges from the same gun, there was scarcely any perceptible heat. With the 24 pounder, one pound of gun cotton was nearly as strong as three pounds of ordinary powder; but it did not keep the proportion: as the charge was increased, two pounds of cotton were about equal to four pounds of powder. A shell which required several pounds of powder to burst it, was filled with less than two ounces of the cotton, and upon being discharged it exploded most beautifully.

An Extraordinary Book.

It is a rare thing to see a book, which, while it is replete with useful instruction of immense importance, is written in such a style as to be highly entertaining, even to those who read only for amusement, and without regard to any benefit to be derived from the instruction therein contained. Such, however, is the character of a volume of 320 pages, just published by an eminent physician of this city, on the preservation of health, and the prevention, especially, of consumptive, and other diseases of the lungs. This work abounds with anecdotes and interesting historical incidents, and contains many interesting embellishments, and is afforded at the low price of 75 cents. We have a few copies bound in style for the mails; and any person remitting one dollar, will be furnished with a copy postage paid.

Raulet's Architect.

The December number of this unrivalled work contains the most splendid designs and picturesque views of cottages, elevations, and plots for gardens, walks and shrubbery, that has ever been published in the United States. In short, we can give no description that will enable the reader to appreciate without examining the work. Published by W. H. Graham, Tribune Buildings;—price 50 cents a number.

The Whitney Railroad.

Ex Senator Henderson of Mississippi, expresses a very high opinion of this project, and that the entire expense would be reimbursed to the Treasury in less than twenty years, and in the same time add fifty fold to the wealth of the nation. We are anxious to see the subject acted on by Congress, and to know who, in that body, would oppose the enterprise.

Effect of the absence of Sun and Air.

Dr. Moore, the eloquent and amiable author of "The Use of the Body in relation to the mind," says—"a tadpole confined in darkness would never become a frog, and an infant being deprived of heaven's free light, will only grow into a shapeless idiot, instead of a beautiful and reasonable thing. Hence, in the deep dark gorges and ravines of the Swiss Valais, where the direct sunshine never reaches, the hideous prevalence of idiocracy startles the traveller. It is a strange melancholy idiocy. Many citizens are incapable of any articulate speech: some are deaf, some are blind, some labor under all the privations, and all are misshapen in almost every part of the body. I believe there is, in all places, a marked difference in the healthiness of houses, according to their aspect with regard to the sun and that those are decidedly the healthiest *ceteris paribus*, in which all the rooms are, during some part of the day, fully exposed to direct light. It is a well known fact that epidemics attack the inhabitants on the shady side of a street, and totally except those of the other side; and even in endemics, such as ague, the morbid influence is often thus partial in its action."—*Mechanics Jour.*

Steamboats and Locomotives in France.

The *Moniteur Industriel* gives an account of the number of steam vessels and locomotives in France, by which it appears in 1844, 238 steamboats were employed for the following purposes:—81 to carry passengers; 2 to carry goods; 100 to carry both passengers and goods; 44 to tow; 1 to tow and carry passengers; 6 to tow and carry goods; 4 to tow, and to carry both goods and passengers. The number of engines was 382, of 12,789 horses' power, equal to 38,367 draught horses, or 28,269 boat haulers. Of these 382 engines, 254 were low pressure, 28 high pressure. The average power of the low pressure engines was 33.48 horses; and of the high pressure 32.96 horses. If to the weight of the goods carried, which was 1,081,511 tons, be added that of the passengers, which may be estimated at 230,000 tons, allowing 154 lbs. for each passenger and his luggage, the total weight carried will be 1,311,571 tons. In 1843 the total number of locomotives in France was 256, of which 127 were of foreign manufacture. In 1844, the total number was 294, of which 124 were foreign manufacture.

A City in the Air.

A mirage, or *fata morgana*, was lately witnessed at Stralsund, in Pomerania. At half past three o'clock, A. M., it appeared on the sea shore, about a quarter of an hour's walk from the town of Stralsund, not reversed, as is usually the case in phenomena of this kind, (and always so in the Straits of Messina, where the appearance is known by the name of the *fata morgana*), but exactly as the town appears to persons placed on that coast. The image was of a deep blue color, and stood out on a brilliant opal-colored ground, with extraordinary clearness and precision. What was most admired was the *facade* of the great and ancient Gothic church of St. Mary,—which was reflected with such exactness that it appeared to be a daguerreotype design; so that all the lines and contours of the innumerable ornaments which cover this facade, were distinguished with ease. This magnificent mirage lasted about 20 minutes, at the end of which time the sun seemed to emerge from the Baltic.—*Artizan.*

Temperance in Foreign Navies.

An extract from a letter in a late London paper, gives the glad intelligence that the Temperance Society, is having great influence over the sailors of the navy of Sweden and Norway. Out of the 444 men forming the crews of the Norwegian frigate *Freea*, and the Swedish sloop, the *Nordsternen*, which have just left Christiana for the Mediterranean, 302, that is more than two thirds of them, have desired to receive rations of tea and coffee instead of brandy.

A Great Printing Machine.

We perceive by a London paper that Messrs Dryden, the celebrated engineers, are now employed in the construction of a printing machine for the London Times, warranted to produce 12,000 impressions per hour, or the inconceivable number of 3 sheets per second!

A Railroad Smash.

The Holydaysburg Register contains the particulars of a frightful accident and miraculous escape which occurred on Plane 10 of the Portage. On Friday last a section boat was crossing the mountain on trucks, and being under headway on the descending grade, it was discovered that the breaks of the trucks were out of order and entirely useless. Those on board now saw that to run to Holydaysburg at a fearful speed, and a smash at the end of the journey, was inevitable. Two or three leaped off, at imminent risk, but the captain, his wife, and a boy remained aboard. Onward sped the boat with increasing velocity, until, opposite the United States Hotel in the borough, she struck a train of six cars standing on the track. The first was instantly dashed to atoms, leaving not a wreck behind, and the other five were stove and destroyed. The boat was also considerably injured, but remained on the trucks; and strange to say those on board escaped without injury.

Religious Societies in France.

The Evangelical Society of France, of which Jno. Andre is President, received into the Treasury last year 231,077 francs, and expended 229,270 francs. The Evangelical Missionary Society, of which Rev. Mark Wilks is President, received 104,173 francs, and expended 162,035. The French and Foreign Bible Society, of which Count de Gasperin is President, received 46,934 francs and expended 46,945 francs. The Society for the Encouragement of Elementary Instruction among the Protestants in France, received 59,500 francs and expended 58,600 francs.

Mount Vesuvius.

This celebrated volcano, which vomited forth lava after the earthquake in Tuscany, is still active; eruptions occur so frequently that at night the crater seems all on fire, and at day the smoke forms a huge pillar. Great rains and inundations have taken place in the districts at the foot of the mountains, causing great loss of life and property.

Iron in Tennessee.

The first iron manufactured in Tennessee, has been made at the Tennessee Valley Works, about fifty miles from the mouth of the Cumberland. The articles have been pronounced by competent judges to be of very superior quality. These works have been built on an enlarged scale, combining all the advantages such an establishment can possess.

The Right Sort.

They have a clergyman in Louisville, who has built a church at his own expense, and preaches to his people for nothing and finds himself.

Negro Sale.

One hundred and fifty negroes were sold at Charleston, S. C. a few days since, for \$46,144. The plantation on which they worked commanded only \$3,500.

Tachimathy.

What has become of Dr. Clowes? According to our system of Mnemonics, we were to have been favored ere this, with not only a visit, but certain illustrations of the new and improved tachimathean system. We hope for some intelligence soon.

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