



Boiler Explosions.

Hon. Edmund Burke, the Commissioner of Patents, has sent in an able Report to Congress on "Steamboat Explosions and their remedies." The scientific part of the report is profound and correct. The Commissioner considers that the law of Congress in relation to the appointment of "Steamboat Inspectors," to be radically defective. He considers their appointment by the District Judges to be wrong, and recommends a rigid examination of candidates to test their ability before permitting them to fill such situations. This is what we call even down honesty in a report. The District Judges are not fit persons to judge of the capability of a person to inspect the qualities of the hull and machinery of a steamboat. He also recommends that proprietors be made responsible for all damages of life and property. This is a bold recommendation, but certainly there is some measure of the kind demanded, and we are glad to see him recommend it so fearlessly.

Postal Arrangement with Great Britain.

Sea Postage 16 cents, paid to the vessel performing the service; English inland postage on letters to or from the United States, 1½d. or 3 cents; inland postage of the United States on letters to or from England, 5 cents; so that a letter from any part of England to any part of the United States, or vice versa, will cost 24 cents—pre-payment or not, at the option of the sender; but, if pre-payment is made, it must be for the whole. Newspapers will be sent in the steamers of either country at a charge not exceeding 2 cents to be prepaid. Pamphlets, periodicals, &c. will be charged for each, not exceeding 2 ounces, 1 penny or 2 cents; over 2 and not exceeding 3 ounces, 6d or 12 cents; over 3 and not exceeding 4 ounces 8d or 16 cents; for all exceeding 4 ounces, 2d or 4 cents each additional ounce or fraction. Closed mails may be sent through the United States to North American provinces accompanied by an agent, at 10 cents the ounce; and 25 per cent. additional for counting by the ounce instead of the single letter. Closed mails of the United States may be sent through the Canadas, or the United Kingdom, upon paying, by the ounce, two rates of the inland postage, and 25 per cent as above.

This is better than it was before but, it must come down a peg lower yet—5 cents is enough for an ocean postage.

Planing Machine and Portable Saw Mill.

Having disposed of the contents of a large Machine shop except one of Daniel's superior Planing Machines and one portable saw mill, we are induced to offer the balance at a great sacrifice to close the concern and save expence of storage. The planing machine was represented in No. 7 of the Scientific American and is an excellent good one, replete with cutters and in order for use. The saw mill is described in our advertising columns as is also the planing machine, and its dimensions are there stated. The saw mill we will sell for \$40 cash and ship it to any address at the risk of the purchaser and the Planing Machine we are induced to offer (for reasons above stated,) for \$200 which is but little more than half its worth. Address Munn & Co. Scientific American Office.

Dick's Anti-friction Press.

The manufacture of Dick's Anti-friction Press, (an advertisement of which will be found in another column) has commenced in the Tribune Buildings, this city. This is a kind of Press constructed upon a principle which combines the simplest and most effective lever power, and is capable of being applied to any kind of press whatever, giving the greatest amount of power in the smallest space and in the most economical manner. It is a beautiful invention.

LITERARY NOTICES.

We are not disposed to recommend to our readers every publication that is issued in the form of Monthly Magazines. In many instances they are wholly unworthy the objects for which they are intended. The want of proper discrimination in the selection of reading matter too often constitutes ground for objection to monthly as well as weekly publications. But we are confident that no person who has had the good fortune to secure the Jan. and Feb. Nos. of Sartain's Magazine, can lay them aside without feeling agreeably entertained and profitably instructed. Among impressive features of the Feb. No. are two fine engravings: The First Appeal, and John the Baptist preaching. We shall rejoice to hear of its wide spread circulation and of Mr. Sartain's deserved success. Dewitt & Davenport are agents for New York city.

The 1st No. of vol. 14 of the Boston Olive Branch has made its appearance in a new Typographical Dress, considerably enlarged and beautified. This truly popular weekly has secured a position among the intelligent of the community, that may well excite the envy of the oldest publication of the day, the secret of the deserved success that has attended the Olive Branch, through its long pilgrimage, can be attributed to the high moral sentiment that has uniformly found place in its columns. The editorial department has ever been conducted with ability, and you can scarcely find an article throughout its whole existence that does not furnish food for an intelligent mind. As a family paper it cannot be surpassed, and we cheerfully recommend it to the attention of our readers, and hope to hear of its still further success. Thos. F. Norris & Co. publishers, Boston, Mass.

Aristocracy in London.

The London Times says that "every young man in the metropolis, if he will only attend to his business, whatever it is, and keep out of scrapes, is a rising man, and has all the honors and prizes of the nation before him, if not for himself or his children, at least for his children's children. There is no reason to complain when this is the case. We have no exclusion of race. Take any dozen men in good circumstances, either at the east or the west end of London; take them in a club in Pall Mall, or in the Exchange, and inquire into their origin. One is an Irishman, another a Scotchman, another a Welshman. Perhaps half of them can show a Celt in his pedigree. The same number can produce an ancestor driven to this country by the edict of Nantes, or a foreigner of still more recent date. So much for race. As for condition, the great-grandfather of one was a laborer; of another a gentleman's butler, of another a weaver, of another a journeyman blacksmith, of another a hair dresser, and so forth. So far from the trade and commerce of London being at all a monopoly, it is notorious that nearly all the tradesmen of London or their immediate ancestors came from the country."

The same may be said about every city. It shows us, that if the right of primogeniture was abolished in Britain, her nobility would be unknown in two centuries.

Another Cure for the Cholera.

The following is Gen. John Barker's cure for Cholera, which he employed successfully in Egypt, while Consul General for England.

As soon as the vomiting and diarrhoea begin, put the patient's legs up to the knees in water, as hot as the hand can bear; throw into it six or seven handfuls of coarse salt; let the legs be rubbed for half an hour by two strong persons, using both their hands. Open the large vein of each foot and let it bleed in the hot water from twelve to twenty minutes according to the sex, age, and strength of the patient. During this time, add more hot water as it becomes cooled; the natural animal heat will return immediately throughout the whole body as well as consciousness. The patient will soon speak and ask for food. He will be perfectly able to resume his ordinary duties after one or two days.

There is something sensible in this plan after all.

Experiments in Gunnery.

The London Sun says that a series of experiments have been carried on for some time past at the Royal Arsenal Woolwich, to ascertain the practicability of employing two shots at one firing in actual service and how far danger was to be apprehended to those employed in working the guns when double shotted.—Captain Chads made several experiments on his principle on board the Excellent, gunnery ship, at Portsmouth, which were most efficient and satisfactory to him, and on submitting the plan to the authorities, the matter was referred to the members of the select committee at Woolwich, who gave instructions that an 8-inch gun of 65 cwt., 9 feet long, should be selected from a quantity recently received from the Low Moor Company, in Yorkshire. The guns selected had been previously tested in the usual way, by firing two rounds with one solid shot and twenty pounds of powder each time; and the experiments were commenced by firing two 50 pounder hollow shot with five pounds of powder each charge, and continued with the double shot and the same quantity of powder up to the 60th round. From the 61st to the 220th round experiments were tried with various charges of from six up to twenty-one pounds of powder ten or more repetitions with each charge. The last ten rounds with the heavy charge of twenty-one pounds of powder, and the gun double shotted each time, were fired next day, and on examining the gun after the experiment, it did not appear to have any perceptible injury, notwithstanding the severe test it had undergone. It is intended to carry on the experiment until the gun is burst, and to add an additional pound weight of powder to each charge after every ten rounds. The firing has already disabled one carriage, and a carpenter attends the experiments in case of injury to the platform by the recoil. The ultimate results is now looked forward to with great anxiety, the test the gun has already experienced having so far exceeded the anticipations of the officers who have witnessed the experiments.

Changes of Vegetation and Climate.

M. Adolphe Brongniart considered everything to prove, on the one hand, that the different vegetable creations which have succeeded each other on the globe, have become more and more perfect; on the other hand that the climate of the surface of the earth is greatly modified since the earlier times of the creation of living beings up to the commencement of the present epoch.

A Cave.

The following account is given of a cave in a lime stone chain of hills not from San Sebastian:—"In the year 1838, a Mexican, Don Juan Flores, perceived the hidden entrance to a cave. He entered, but seeing inside a council of Indian warriors sitting together in the deepest silence he retreated and told it to his companions, who, well prepared entered the cave together, and discovered about 1000 well preserved Indian corpses squatted together on the ground, with their hands folded below their knees; they were dressed in fine blanket made of the fibres of lechuilla, with sandals made of a species of liano on their feet, and ornamented with colored scarfs, with beads or seeds of fruit, polished bones, &c. This is the very insufficient account of a very mysterious burying place. The Mexicans suppose that it belonged to the Libans, an old Indian tribe which from time immemorial has roved and is roving over the Bolson de Mopinie."

The British Museum.

A splendid specimen of mosaic pavement has been placed in the national collection at the British Museum, in the passage leading to the gallery of Xanthian Antiquities. The specimen is about eight feet square—was found in the ruins of Carthage, on a spot assigned as the site of the Temple of Neptune—and was purchased by the Trustees of the Museum.—On reaching the country it was found broken in innumerable pieces; but under the hand of Sir R. Westmacott it has been restored. It presents the head of a sea god, with a flowing beard, and feet of the seashore.

There is a happy and flourishing Scotch settlement of one hundred families in Walton county, Florida, 80 miles from Pensacola.

The Value of Practical Science.

The cultivators of the olive in the south of France—in two years out of three, lost oil to the amount of nearly 6,000,000 of francs annually by the attacks on their olives of the grub of a little fly (*Dacus olea*)—were utterly unable, with all their "practical" skill, to help themselves in any shape. M. Guerin-moneville, though no cultivator, applying his entomological knowledge of the genus and species of the insect and of its peculiar economy, to the case, advised that the olives should be gathered and crushed much earlier than usual, and before the grubs had had time to eat the greater part of the pulp of the fruit; and by their adoption of this simple plan, the proprietors of olives in the years they are attacked by the *dacus*, can now obtain an increased annual produce of oil, which was formerly lost, in consequence of their allowing the grubs to go on eating the olives till they dropped from the tree.

Raccoon in England.

A genuine American raccoon was recently discovered in a field near Tamworth, the residence of Sir Robert Peel. He was immediately attacked by several dogs, but defended himself bravely, throwing himself on his haunches and biting and scratching his assailants so furiously that they were compelled to retreat. He then ran up a tree, and a countryman climbed up after him; but the coon set John Bull at defiance and drove him to the ground with many grievous scratches. The courageous animal was at last brought down by two shots from a fowling piece. He is supposed to have escaped from a menagerie.

Curious Fact.

The Rochester Democrat says that a Mr. Samuel Davidson, of Greece, N. Y. caught 50 small worms, scraping them from the snow which fell on the 5th of Dec. They were about half an inch long and very thin, but came down with the snow in innumerable quantities, almost covering the whole surface and when they were put into warm water they became quite lively.

The Steam Ship Panama.

A short time ago this splendid steam ship smashed her piston and cylinder at sea and had to return to this port. The cause of the accident it seems was a pine block, which, either by accident or neglect, had made its way into the cylinder. The whole damage had evidently been done by a single blow.

Cause of Grey Hair.

The disturbances of the heart produced by sudden misfortunes affect the cutaneous capillaries in such a way as to cause the hair to turn white in a few hours. A recent English medical work contains numerous examples of this fact.

On Christmas morning last, Mr Charles Ellett, jr. the contractor of the Suspension Bridge at Niagara Falls, together with Mr. George Hamlin, drove across the bridge in a canter, and returned on a trot. It would truly appear to be a perilous feat, thus to drive across that apparently frail structure of iron wire suspended 230 feet above the boiling stream, at a rapid rate.

According to the Philadelphia Times, the gold fever is first indicated by an unusual opening of the ears, a singular expansion of the eyes, a yellow cast of countenance, a clutching of the hands, and a thrusting them repeatedly into the trowser's pocket.

Fowls, to which a portion of chalk is given with food, lay eggs having shells remarkable for their whiteness. By substituting for chalk, a calcareous earth, rich in oxide of iron, the color of the egg shell will be of an orange red.

Of the 6100 sailors who man the American navy, 960 are native Americans; the rest are chiefly composed of Irish and English emigrants.

The American, a stern wheel boat, bound from Cincinnati for the Wabash River, burst her fore and aft cross pipes about three weeks ago and scalded severely eight of the crew.

A ship of 500 tons burden is now in course of construction at St. Louis, and when finished she will be sent direct to San Francisco.—Another novelty in navigation.