

Selected from the Railway Magazine.

SCIENTIFIC NOVELTIES.

STEAMING ACROSS THE ATLANTIC.—This great problem has been solved, and in a manner that leaves no doubt of a steam communication being able to be maintained with America under all circumstances. The *Sirius* of London, and the *Great Western* of Bristol, have had the honour of first accomplishing this great object, and nearly simultaneously.—The *Sirius* left Cork, April 4th, and reached New York the 23rd, having accomplished the voyage in 19 days. She encountered some severe gales; her average rate was $8\frac{1}{2}$ miles per hour; with wind fair, 12; in moderate weather 10. Out of 453 tons of coal, she consumed 431, and 43 barrels of resin, which was mixed with coal-ashes. Her tonnage is 700, and engines 320 horse-power. On her return, she left New York May 1st, and arrived at Falmouth May 19th, in 18 days. The winds were generally against her and rough. Her daily rates of sailing were:—153, 193, 155, 90, 106, 131, 152, 180, 225, 220, 176, 156, 172, 181, 182, 200, 227, 119 miles to Scilly. The Captain says, had he had good coals, he could have reached home three days earlier. New York to Cork is 3,300 miles; to Falmouth, 3,400.—The *Great Western* left Bristol April 8th, and reached New York the 24th, having been fifteen days and five hours in her outward voyage. Her daily rates were:—240, 213, 206, 231, 212, 218, 241, 243, 185, 169, 206, 183, 192, 158, 230 miles, and 50 to harbour, making a total distance of 3,223 miles. Out of 600 tons of coals, she used only 450, having used no resin, and steamed all the way. Her mean daily rate was 215 miles, and hourly 9, with unfavourable weather, and strong head-winds. Reducing to the same distance, she beat the *Sirius* by four days and a quarter. She left New York on her return May 7th, and reached King's Road the 22nd, at 10 A. M. Her tonnage is 1,340, with 450 horse-power engines. It has been computed, that two barrels of resin are equal to one ton of coals; and thence that, at the same expense of fuel, the *Great Western* has performed nearly double the work of the *Sirius*.—The *Great Western* consumed, as given us by a friend, near thirty-three tons of coal per diem in her outward trip, which was fifteen days, and twenty-seven in her homeward, which was fourteen and a half.—Too much praise cannot be given to the spirited proprietors of these vessels, whose names, and all those connected with the great performance, will be handed down to posterity with honour. The palm, however, of superiority is due decidedly to the enterprising genius of Bristol. Not only is the *Great Western* every way a superior vessel to the *Sirius*, whether we regard her tonnage or her sailing, but she is far more economical in the work that she does.

THAMES TUNNEL.—Mr. Brunel has given an account of the new poling boards which he is employing for the effectual protection of the shield at the Tunnel. These constitute a system of panelling, of which every one, though it can be easily moved, is secured to its neighbour. Thus the boards cannot be displaced, and a most efficient auxiliary is provided against the loose portions of ground in front of the shield. The application of these appears to have added every thing that was wanted to render the shield a perfect protection in all operations of a nature similar to those which are now going on at the Tunnel.

ASPHALTIC MASTIC.—The asphaltic mastic is obtained from Pymont, near Seyssell, and brought down the Rhone: it is a compound of a carbonate of lime and mineral pitch. After being roasted on an iron-plate it falls to powder, or may be readily pounded. By roasting, it loses about one-fortieth of its weight. It is composed of nearly pure carbonate of lime, with about nine or ten per cent. of bitumen.—When in a state of powder, it is mixed with about seven per cent. of a bitumen, or mineral pitch, found near the same spot. This bitumen appears to give ductility to the mastic. The addition of only one per cent. of sulphur makes it exceedingly brittle. The powdered asphaltic is added to the bitumen when in a melting state; also a quantity of clean gravel, to give it a proper consistency for pouring it into moulds. When laid down for pavement, small stones are sifted on, and this sifting is not observed to wear off. The mass is partially elastic, and Mr. Simms has seen a case in which a wall, having fallen away, the asphaltic stretched, and did not crack. It may be considered as a species of mineral leather. The sun and rain do not appear to have any effect upon it; it answers exceedingly well for the floors of the abattoirs of the barracks, and keeps the vermin down; and is uninjured by the kicking of the horses' feet. It may be laid down from eight-pence to nine-pence per square foot.

ASTRONOMY.—Sir John Herschel has returned, after near four years' sojourn at the Cape of Good Hope, to observe the accurate positions of the stars in the southern hemisphere. It is said he has brought home with him a large mass of valuable astronomical and other observations, which will shortly be arranged and published.

GREAT WESTERN RAILWAY.—This splendid line was opened to Maidenhead on Monday, June 4th. To Reading and Didcot it will be opened next spring, and between Bath and Bristol at the same time. Every precaution is taken to ensure regularity and punctuality, as far as plenty of power will do it. Nine engines are now ready for working this first part, that is at least

double the number which is needful. The present intermediate stations are to be at Ealing, West Drayton, and Langley Marsh.

NORTHERN AND EASTERN RAILWAY.—The works from Tottenham-mills northward are proceeding rapidly. Five miles are completed at the Tottenham end, and the remainder to Broxbourne will be ready in the autumn. Active preparations are in progress beyond Broxbourne to Bishop Stortford. Instead of proceeding by the expensive route to Islington, a line is to be carried from Tottenham-mills road to unite with the Blackwall line, and bring the terminus to Fenchurch-street. It is computed that £400,000 at least will be saved by this means, as well as the tunnel avoided at Clapton hill. This junction line, which is computed to cost £120,000, may be completed in less time than the extension could to Islington. The terminus will thus be brought into the heart of the city, near London Bridge, where steam-boats are plying to the west, we believe, every quarter of an hour, and eastwards to all parts of the world.

RAILWAY ACCIDENTS.—By the evidence of Mr. Moss before the House of Commons, it has been shown, that of 3,300,000 persons carried thirty miles, and during a period of some years, only two fatal accidents to passengers had occurred, one of which happened in a fog just after the opening of the Liverpool and Manchester Railway, and the other by the culpable negligence of the engine-man. What will the advocates for stage-coach safety say to this? With an equal number of persons, will this make one per cent. of the accidents by stage-coaches?

RAILWAY IN HOLLAND.—A decree of the 30th of April directs a railway to be made from Amsterdam to Arnheim by Utrecht, to be prolonged, in case of need, from Utrecht to Rotterdam, and from Arnheim to Prussia. Loans to the amount of 18,000,000 of florins, or £1,400,000, at $4\frac{1}{2}$ per cent., to be contracted for to meet the expense. This railroad, if the subscriptions fall short, is to be executed at the private expense of the king.

THE PEARL.

HALIFAX, FRIDAY EVENING, AUGUST 24, 1838.

RURAL CEMETRIES.—As supplementary to the eccentric article in our last number on "The Inhumation of the Dead in Cities," we intend to offer a few remarks on Rural Cemeteries.

On hygienic considerations, the propriety of having the cemeteries of towns at some distance from the inhabited portions, seems to be generally admitted. Among medical writers a variety of opinion exists on the production of malarious disease by animal putrefaction, but all are agreed that air, charged with the products of animal decomposition arising from bodies confined in a small place, as in the case of private vaults when first opened, may, so powerfully affect the nervous system as to produce high nervous disorder, and that when such miasmata are absorbed by the lungs in a concentrated state, they may excite putrid disorders of the most dangerous description. Among other instances in proof of this latter view, we are informed by Baron Percy, one of the eminent army surgeons of Napoleon, that a Dr. Chambon was required by the Dean of the Faculty of *Medecin* of Paris to demonstrate the liver and its appendages before the *Faculte*, on applying for his license. The decomposition of the subject, given him for demonstration, was so far advanced, that Chambon drew the attention of the Dean to it, but he was required to go on. One of the four candidates, Corion, struck by the putrid emanations, which escaped from the body as soon as it was opened, fainted, was carried home and died in seventy hours: another, the celebrated Fourcroy, was attacked with a burning eruption; and two others, Laguerrenne and Dufresnoy, remained a long time feeble, and the latter never completely recovered. "As for Chambon," says M. Londe, "indignant at the obstinacy of the Dean, he remained firm in his place; finished his lecture in the midst of the commissioners, who inundated their handkerchiefs with essences, and doubtless owed his safety to his cerebral excitement, which during the night after a slight febrile attack, gave occasion to a profuse cutaneous exhalation."

But, setting aside all considerations of health, do we owe no respect for the dead? And does not nature point out to us the duty of selecting a spot, remote from the din and bustle of life, surrounded with evergreens, and beautified with shrubs and trees, wherein may repose the ashes of our friends? In many places the loss of the ground so appropriated is an object of the first consideration, but Halifax abounding with unoccupied land has no such impediment in the way. A number of the towns in Great Britain have their rural cemeteries, and it is not hazardous too much to say, that ere long none will be without them. The beautiful cemetery of Pere La Chaise, near Paris, is an object of attraction, to every intelligent traveller, and in the United States there are two cemeteries which almost vie with it in point of loveliness. One is the Laurel Hill cetry near Philadelphia, and the other Mount Auburn, near the city of Boston. We had the pleasure of visiting the latter in 1836 and a sweeter spot we never beheld. You enter this sylvan retreat by an Egyptian Portal of a chaste and hallowed appearance, with its appropriate inscription, "Then

shall the dust return to the earth as it was; and the spirit return to God who gave it."

Having passed a neat cottage on your left and in which resides the keeper of the grounds, you proceed a short distance along a carriage way, until some beautiful walk induces you to turn aside. So many are there of these walks, and branching out as they do in all directions, that it is not long before you find that you are in an almost endless labyrinth. Still as you continue you are gratified at every new turn by some simple yet elegant surmounting to a tomb, which makes its appearance and summons your attention. All of these tombs are remarkable for their simplicity, and yet amongst them, there is a great diversity of pattern and design, many of the most polished marble, and evidently requiring in their formation, much skill and taste. Affection has here and there surrounded them, with flowering shrubs, and has otherwise marked the place by the careful preparations with which the love that survives the tomb is oftentimes expressed. Many of the paths and avenues wind through romantic recesses, and what adds greatly to the interest of the place, they are all designated by different trees, shrubs and vines. There is, among others, the Sweet briar path, the Hawthorn path, the Beech avenue, the Sumac path, the Ivy, Hazel and Woodbine paths, and the Larch avenue. Many of these walks admirably correspond to your associations with the name of the tree, shrub or vine. There is the Hemlock path, a name so often found in connection with "Night-shade," and a gloomy spot it is. And so of most of the other names. Nearly in the middle of the grounds is a large pool of water, which with its margin of turf, is quite an ornament to the place. Mount Auburn, the garden of graves we visited twice, and yet the second time it seemed more interesting and beautiful than the first, and we lingered on the sacred spot with the most intense delight. It was a lovely place and we venerated it as a repository of the dead. And greatly would Halifax be enhanced in our estimation with her rural cemetery, commanding, as it might, a beautiful view of our noble harbour, and embellished in a manner creditable to the taste and liberality of our townsmen. Shall we never be favored with such a hallowed place—

—the port of rest from troublous toyle,
The world's sweet inn from puine and wearisome turmoyle.

THE SEASONS AND CROPS.—On all sides we are favoured with accounts of the exceedingly fine weather of the season, and of the abundance of the fruits of the earth. "The earth is the Lord's and the fullness thereof;" and abounding gratitude should be felt towards Him who giveth rain in its season, and causeth his sun to shine for the benefit of man. We extract from the *New England Farmer* the following piece on the weather, and by which it will be seen that in New England the article of potatoes is very abundant. In Nova-Scotia there is too general a failure of this useful article, owing as we believe, to the antipathy which exists against planting them whole.

"The season, we believe, has not, within the memory of any man living, been surpassed for the fineness of its weather and the luxuriance of its vegetation. The sun-shines and rains have come in such regular and beautiful succession; and the temperature has been so precisely what it seemed desirable that it should be that even habitual discontent has found no room for complaint; and the most fastidious imagination has not been able to say how matters should be improved. Hay is coming in abundantly; and the season has been as favorable as it ever was for securing it. Rye and wheat, and barley and oats, are looking extremely well. Potatoes promise profusion, and Indian corn, the best treasure of New England, never presented a more healthy and brilliant appearance. There is really nothing to be done; but to shake our heads with sorrow, and cry; "it is too much trouble to gather all these good things. We shall never get through with harvesting and husking. O sad! our neighbors' crops are as good as ours. We have got too much, too much; prices must come down; prices will be low; the poor will have enough this time;" and other complaints as grateful and as benevolent, of which there is always in our community *quantum sufficit*."

THE LADY LILFORD, a very fine ship of 600 tons, built by Mr. Lyle, for Messrs Canard & Co. was launched from the ship yard at Dartmouth, on Tuesday morning at 9 o'clock. The beautiful weather in addition to the interest of the sight, induced a large number of persons to visit Dartmouth on the occasion. The harbour in the vicinity of the yard was studded with boats, and every eminence around was crowded with spectators. Most gracefully did my Lady Lilford glide into the water, amid the plaudits of the multitude, and having been ceremonially named by Miss Canard. Built for the purposes of commerce and civilization and not for those of destruction, as we gazed on the ship we were forcibly reminded of the peace words of Mary Howitt—

And the blessings of a thousand lands
Upon our ship shall lie!
For she shall not be a man-of-war,
Nor a pirate shall she be;
But a noble, Christian merchant ship,
To sail upon the sea.