

## Miscellaneous.

Special Correspondence of the Scientific American  
Facts, On Dits, and Matters Connected with  
the Crystal Palace.

LONDON, July 28th 1851.

Her Majesty the Queen has been very industrious the past week, in examining the deposits with a view of making purchases, and the result of her investigations has been quite gratifying to the exhibition. The Prince Consort, too, with his characteristic liberality, has purchased a number of valuables from the different nations, either as presents to his royal lady or his noble children. The Queen has purchased the brooch exhibited with the Queen of Spain's gems, also a magnificent bracelet set with diamonds, valued at five hundred guineas, from an English jeweller. Among other articles purchased is the statue of Andromeda, some Paisley shawls, Spitalfield's rainbow silk of a peculiar quality; a splendid chandelier from France, a variety of bronze castings from France, a pair of splendidly cut crystal candelabra, a pair of large stock vases worth \$2,500; for the royal children, two cages of mechanical singing birds, similar to those exhibited in the French collection, and a lot of Turkish towelling, which has a plush-like face on both sides, which, it is said, gives it an absorbing power. As yet the Prince has made no purchases in the American department, but, as the saying goes, we fancy he has "got his eye" on one or two articles which may grace Buckingham Palace yet. We shall see.

We must not omit to mention here the interest universally created among the visitors of all nations, by the salamander safes deposited by Silas C. Herring, of New York. The metal of the safe consists of the stoutest and toughest wrought bar and plate iron, the space between the inner and outer surfaces being filled with a composition, of which plaster of Paris is the principal ingredient. Several attempts have been made here to burn this safe, but after laying in the fire for forty hours, red-hot, the contents came out uninjured. The experiments were highly satisfactory, and we quite agree with an eminent English journal, which says, "Herring's Salamander Safes" are the most durable and essentially fire-proof in the Exhibition. This is one point gained in the American department, at least, which the coldest Englishman freely admits.

Lord Campbell, in the House of Lords, has repudiated the idea of retaining the Crystal Palace as a winter garden. He quoted from a writer in the "Quarterly Review," who said, "were the Crystal Palace to be kept up in spite of rather strong pledges, and as some prophecy, to present us by and by with a wilderness of walks meandering through bowers of exotic bloom, it would be the most insalubrious promenade in London." And again: "If ever our odorable house of glass becomes a strong, steaming, suffocating *jardin d'hiver*, it will be a capital thing for the apothecaries: such a vigorous crop of coughs, colds, and consumption will be raised that it will be the walk if not the dance of death to frequent it." His lordship seemed to be of the opinion that it had better be converted into an enormous shower-bath, as during a rain it was almost impossible now to walk through it without getting drenched to the skin. We think his lordship is slightly in error in this respect, as an umbrella entirely does away with this emergency; it is quite clear there is some lurking prejudice in his mind. Mr. Paxton has addressed his lordship a letter, correcting the misapprehensions under which he appears to labor respecting the stability and suitability of the Palace to be retained as a permanent building.

The Royal Commissioners and Executive Committee of the Exhibition, partook of a dinner on the 12th, on board the steamship Atlantic, Capt. West, at Liverpool, per invitation of W. Brown, Esq., the member of the House of Commons for South Lancashire. Mr. Brown is represented as a kind, charitable, worthy member of society, and his affair passed off with much eclat and satisfaction. The chair was occupied by the worthy host himself

and the vice-chair by Capt. West, the commander of the ship, who is unquestionably the most popular captain that sails across the Atlantic ocean—a position he has won by his uniform courtesy, kindness, and integrity of heart.

Among the guests were Earl Granville, M. Zohrab, the Turkish Commissioner, Mr. Rowland Hill, Mr. Locke, Member of Parliament, Mayor of Liverpool, Mr. Cole, M. P., and other gentleman of distinction. After the usual loyal toasts, the chairman proposed the "President of the United States," and "begged to associate therewith the name of Mr. Davis, the Charge d'Affairs for that country. Mr. Davis, in acknowledging the honor done to the President of his country and to himself, could have wished that the task had devolved on some one higher in the diplomatic circle. They had been told that the products of America were meagre in the Crystal Palace, but let those who said so come and look at Liverpool—let them look into the docks and warehouses, as the Royal Commissioners had done that day—let them see what produce there was from America, and the ships floating on the Mersey under her flag, and they would behold what the descendants of Englishmen had done in so short a time, and what vast obstacles they must have encountered and overcome since they separated from the mother country." In conclusion he thanked Mr. Brown for proposing the health of the President while sitting under the American flag, and the company for the handsome manner in which they had received the toast.

Earl Granville, who responded to a toast of the American Commissioners, among other things said, "Mr. Davis had reminded them that they were under the American flag; he might say that they were meeting in the middle of Liverpool on American ground. It was a subject of rejoicing that this occasion had given Mr. Davis the opportunity of making those happy expressions of opinion in regard to the two nations which they had just heard." After the dinner the company separated and about nine hundred of them passed a most agreeable evening at the Town Hall, by invitation of the worthy Mayor, John Bent, Esq., who is one of the most popular and efficient officers that Liverpool ever had.

In regard to the juries, the subject of the award of prizes has at last assumed a more definite and favorable aspect. The Times says, "We rejoice to hear that the system organized for determining the awards begins to act more harmoniously, and that there is every prospect, at last, of a satisfactory escape from those broils and contentions in which, but a few days ago, the conduct of some foreign jurors threatened to involve us." H. H. P.

## The Inventor of Railways.

Mr. Richard Lovell Edgeworth, an English gentleman and an author, has published an "Essay on Railroads," of which he claims the invention. He states that in 1768 he presented models to the Society of Arts, for which he received their gold medal. He recommends an experiment to be made which shall demonstrate their advantages beyond the possibility of doubt or cavil. He proposes four iron railways to be laid on one of the great roads out of London, two of them for carts and waggons, and two for light carriages. To accommodate coaches and chaises he would have cradles or platforms, with wheels adapted to the railway, on to one of which each carriage would drive up an inclined plane erected at the end of the road for that purpose. The carriage would then be drawn, not upon its own wheels, but upon the wheels of the platform or cradle. He calculates that a stage coach, with six inside and six outside passengers, would travel at the rate of six miles an hour with one horse. Gentlemen's carriages, with two horses, would go at the rate of twelve or fifteen miles an hour; and, if a railway were laid from London to Edinburgh, the mail coach would go in thirty hours. Even at this great speed the most timid female might trust her delicate frame with most perfect security, for the carriage could not possibly be overturned. Any obstruction from hills would be easily overcome. Mr. Edgeworth proposed to

plant a steam-engine at the top of every hill, which would move forward the carriage by a chain, which they would be connected to or detached from at pleasure.

The above is from the Leeds Mercury of Aug. 21, 1802.

## Diamond Slab.

Dr. Berk recently read a paper before the British association 'On a Diamond Slab supposed to be cut from the Koh-i-Noor,' of which we find the following brief notice in the London Athenæum:—

"It appears that, in 1832, the Persian army of Abbas Meerza for the subjugation of Khorassan found, on the capture of Coocha, among the jewels of the harem of Reeza Kooli Khan, a large diamond slab, supposed to have been cut from the Koh-i-noor; it weighed 20 carats, and showed the marks of cutting on the flat or largest side. The only account that could be obtained of it was the statement that it was found in the possession of a poor man, a native of Khorassan, and that it had been employed in his family for the purpose of striking a light against a steel; and in this rough service it had sustained injury by constant use. The diamond was presented by the Prince of Persia to his father, Futteh Ali Shah. The Armenian jewellers of Tehren asked the sum of 20,000 tomanas, (about £16,000 sterling) for cutting it; but the Shah was not disposed to incur the expense. These particulars had been forwarded to Dr. Berk by his brother, Mr. W. G. Beke, late colonel of engineers in the Persian service and Khorassan campaign."

## The Telegraph in Europe.

Mr. Faxton (Telegraph proprietor) thus writes from Europe:

"Telegraphs in England are mostly built on the railroads, and in some instances a railroad company will build a telegraph line and give the use of it to a company, and as an equivalent, the telegraph lends its aid to expedite the business of the railroad. The telegraph company between London and Liverpool gets £1,000 a year for doing the business of the railroad company, and the railroad people afford them all facilities for repairing the line, even so far as sending an extra engine, without charge, when there is not a regular train going out soon; and every man employed on the railroad is under instructions to report immediately to the nearest telegraph office anything he may find to be out of order on the line, in fact, a line of telegraph is almost considered an indispensable part of the equipage of all well-regulated railroads in England. The press of England use the telegraph but little, and pay heavily for what they do get by it. The London Times pays £1,000 a year for a certain amount daily, and in addition, they pay for all extra communications of importance.

The telegraph in France is also a different thing. It is under the control of government officers, and all the government business is done by signals, understood only by those who are in the pay of the government. There is another method of telegraphing by an instrument invented by a M. Brequet, called the Printing Telegraph, but very different from House's.

## Electricity.

It has now become very well known that the electric fluid pervades all nature, and that its properties are in many respects analogous to those of light and heat. It is probably identical also with the attraction of gravitation, and some have even supposed that it is one and the same thing with the vital principle. Electricity and magnetism are also one, and the opinion that it is the one universal force, of which all others are merely modifications, is rapidly gaining ground. The velocity with which the electric current travels along metallic wire is prodigious. Further observations may probably show that light and electricity are altogether identical.

The electric fluid pervades all matter, all bodies, and all space. The earth is full of it—some objects, such as metals, being better retainers of it than others. Some human beings are fuller of it than others, and possess the property of giving off sparks of electricit

when in particular states of health. Many animals are highly electric—the cat, when rubbed before a fire, becomes an electric machine, and there are fishes and eels which communicate a smart electric shock when touched. They often use it to stun their prey or defend themselves against an attack.

## Extension of Steam between Glasgow and New-York.

In addition to the influential company lately formed for establishing a line of steamships between Glasgow and New York, and whose fine steamer, the Glasgow, of 1,850 tons and 400 horse power, is fast approaching completion, in the former city, we learn that another screw-steamer, of somewhat smaller dimensions, being about 1,400 tons register and 300 horse power, is now in course of construction at Dumbarton, intended for the same trade. This vessel is expected to be ready to take her berth about the 19th March, 1852. The public will soon have no lack of steam accommodation between the Clyde and Hudson, as monthly sailings will thus be at once insured.

## Chemical Freezing Agents.

In the hotbed of wonders, the chemist's laboratory, great degrees of cold are procurable by using highly volatile liquids for evaporation. A man may be frozen to death, it is said, in the extreme heat of summer, simply by keeping himself drenched with ether. By the assistance of liquid sulphuric acid, water may be frozen in a red hot vessel. But that remarkable substance, liquid carbonic acid, takes the highest rank of all known freezing agents. In drawing it from the powerful reservoirs in which it is necessarily kept, it evaporates so rapidly as to freeze itself, and is then a light porous mass, like snow. If a small quantity of this is drenched with ether, the degree of cold produced is even more intolerable to the touch than boiling water—a drop or two of the mixture producing blisters, just as if the skin had been burned.

## The Secret of Taming Birds.

We have no direct means, says Wm. Kidd, in the Gardeners Chronicle, of divining the "why and because" of certain predilections, and prejudices, observable in birds and other animals. We daily see actions among them for which we cannot in any way account. Thus, for instance, if a dog enters a room full of company, you shall presently observe him make a careful tower of the apartment, sniffing first at one and then at another of the assembled guests. Towards some, his tail will be seen to wag with every symptom of kindness and good-will; whilst towards others, he will, with tail deflected, show unmistakable signs of suspicion, perhaps of disgust. Depend upon it, the animal's discernment is rarely at fault. I would willingly be guided by such a mentor. Just so is it with the feathered race. Some masters and mistresses can never get them to be on terms of intimacy. The cause is evident. There are no feelings of affection in common between them. They do not love their birds. The latter know as much; and are assuredly aware that they are kept simply for the sake of furnishing amusement. I have noticed the same unerring sagacity with all my squirrels. They would instantly detect any person who might be preparing, or wishing, to play them off some practical joke, and would, to my great delight, fasten on them at once—paying handsomely, and in full, for all favours "about to be" received. It was, however, impossible for me to anger them. They too well knew the friendliness of my disposition—seeing what merry romps and gambols we had together both by day and night; up stairs, down stairs, and in the garden. No doubt it was a wise provision of Nature thus to endow our little friends with instinctive powers of deception. The face is the index of the mind. They read our characters when they catch our eye.

The Lawrence Courier speaks in high terms of the locomotives manufactured at the Essex Works in that city. The Erie Railway Company have ordered some of these fine engines; when this order is filled up, the locomotives on this road will number 200.