

Miscellaneous.

Foreign Correspondence.

LONDON, April 18th, 1851.

On the 14th inst., the foreign commissioners of the exhibition were received at Buckingham Palace, by Prince Albert. The Commissioner General of France, M. Sallanorouse de Lamornaix was deputed by his coadjutors to express to his Royal Highness the sentiments of the Governments represented by those gentlemen. This he did in a terse and succinct address, thanking his Royal Highness, on the part of the Foreign Commissioners, for his gracious reception of them, and for taking the lead in the formation of a grand exhibition of the products of industry of the whole world. "The assembling together the results of the inventive and executive faculties of mankind in one spot, where, nevertheless, sufficient individuality would be preserved to exhibit the nationality of each, was a high philosophic idea, demonstrating depth of thought and practical consideration for the welfare of the manufacturing world, worthy of a great mind. In a political point of view, it was calculated to exercise the most beneficial influence, by increasing the intimate connections between nations and individuals, from whence the most beneficial results might be anticipated, while the manner in which this idea had been carried into execution reflected equal honor on those engaged on it, and on the country possessing the resources which had been called into action. For this, the world was indebted to his Royal Highness the Prince, and to her Majesty who had been pleased to accord her assent and assistance towards its execution. Thanks to this illustrious influence, the era of barbarous wars might be considered as terminated; but new lists for combat were offered to the world, in the struggle of progress and civilization, to overturn by their overwhelming moral force the remains of former antipathies and prejudices."

His Royal Highness listened with attention to their simple but energetic expressions of respect, and replied that he received with much pleasure the spontaneous exhibition of good feeling on the part of Foreign Commissioners; he was much gratified to observe the alacrity and zeal of every country in contributing to the interest of the universal Exhibition, which, from what he had already seen, would, he had no doubt, prove fully worthy of the contributors, and would enhance the reputation of the countries contributing.

The Earl of Granville then presented the Foreign Commissioners severally to his Royal Highness, who addressed a few remarks to each, on the nature of the contributions of the countries represented by them, and the deputation withdrew, much gratified by their reception.

This meeting was what I call "something of a sensible affair." None of your buskined, buckram, jewelled fal-de-rals, but a plain common sense levee, and the sentiments expressed exhibited the right true spirit. It is time that our mechanics stood in their proper boots. This World's Exhibition will do a great deal for their elevation. The mechanics are now beginning to exert a proper influence in Europe. Without their inventions, England would be a poor country indeed. It is time that they were recognized as the equals of men of literature, law, the fine arts, war, &c. Their works at the great Exhibition will proclaim their abilities.

There can be no question of the mighty pageant which will be exhibited in Hyde Park before this appears in the columns of the Scientific American. No less than 7,000 season tickets have been sold already, and the cry is "still they come." To-morrow (19th), is the last day for the reception of goods, and to-day there has been a rushing and a racing worthy of Bartholomew Fair,—and on the first day of May, Victoria, the Island Queen, attended by her nobles, will open the great Exhibition in state. It will be the grandest display witnessed in two thousand years. Our countrymen now here or who may be here at that time, may consider themselves lucky.

Our American exhibitors are "going ahead" with their decorations in true national style, and will make up for the backwardness caused by the dispute about Mr. Stansbury.

The Prince of Wales yacht, belonging to the Greenwich Hospital Schools, is now fitting at Woolwich, and will be ready in the course of a fortnight, when she will be removed to the Serpentine water, in Hyde Park, there to remain during the great Exhibition for the inspection of visitors. This vessel is about 25 tons register, ship-rigged, and fitted as a man-of-war, and will be commanded by Lieutenant Rouse, R. N. Her crew will consist of twenty boys from the schools at Greenwich, and at times she will undergo various evolutions in naval tactics.

The members of Lloyd's have passed the following resolution:—"That during the period when the Industrial Exhibition is open, any foreign visitor presenting a recommendatory certificate from a British Minister, Consul, Vice-Consul, or an agent to Lloyd's, shall have admission to the merchants' room during the hours of business, viz., 9 A. M. to 6 P. M." As foreign visitors will thus be afforded the opportunity of gratuitously perusing the various newspapers of their respective countries, which are received by every mail at Lloyd's, it may be well to have their attention drawn to the easily obtained recommendation which will entitle them to the privilege to be derived by this act of liberality on the part of the members at Lloyd's.

More space is requested for many fancy articles of design, which were prevented from being entered in season, owing to the tardy action of Parliament in passing the new act for the protection of designs.

A new description of fuel for steam purposes, called consolidated coke, has been introduced to the Admiralty, the owners claiming for it superior properties for generating steam, and maintaining the necessary heat with less destruction to fire-bars, &c. The Admiralty have entertained the application of the projectors, and have ordered the authorities at Woolwich to report upon the qualities and applicability of the fuel.

A new article, in the shape of a vest, with water-tight double lining, has just been exhibited by a man on the Thames. It was inflated, and served as an excellent life-preserver. I think it is an excellent idea, and should be happy to hear of its being adopted in America, where it is so often required.

EXCELSIOR.

Astronomical Science.

At a meeting of the French Assembly on the 25th of March, a vote was passed, with only six dissentients, appropriating \$18,000 for mounting equatorially the large telescope at the astronomical observatory at Paris. The appropriation was recommended by a committee of fifteen, of which the astronomers MM. Arago and Leverrier were members. The report which was a very able one, was drawn up by M. Arago, and in it he notices the most remarkable instruments in Europe, and the nations and societies which are striving with the most commendable zeal in making astronomical discoveries. In the course of the report he pays the following compliment to this country:

"The United States of America, which have hitherto appeared to take no interest in the progress of nautical astronomy exclusively, have started of late upon a broader path with great ardor, and if their efforts continue, the day is not far distant when they will occupy a place in the first rank. Already they possess three magnificent observatories—one in Cincinnati, the second at Washington, and the third at Cambridge."

In speaking of the most noted instruments yet constructed, he says: "If we except the observatory of Pulkowa, and that of Cambridge, in America, there are nowhere found object-glasses of more than 32 centimetres (12,598656 inches English) in diameter. The Bureau of Longitude has taken advantage of a favorable opportunity, and purchased with its ordinary funds an object-glass of 20 centimetres in diameter, for the very moderate sum of 28,000 francs, (\$4,812.50). This object-glass,

the good quality of which has been ascertained, is the production of M. Lerebours, and is flint-glass and crown-glass manufactured in the French factories. We have every reason to believe that it will bear a magnifying power of from two to three thousand times; that is to say, three hundred times superior to that of the instrument used by Galileo for the discoveries which have been so much and so justly celebrated."

However great the despatch may be which may be used, M. Arago declares that the mounting of this instrument cannot be completed till some time next year.

New Machine Shop at the Brooklyn Navy Yard.

There is a splendid new machine shop in the course of erection at the Brooklyn Navy Yard. It will contain, amidst other apparatus, mills for rolling copper, with steam and trip-hammers and slotting-machine. The building is three hundred feet long by sixty-four feet wide, with walls twenty-eight inches thick. At its highest central elevation it will contain three stories. It is intended to be covered with a copper roof, supported at equal distances of five feet on either side, by light stays of a peculiar construction, resting on iron braces one and a quarter inches diameter. The rafters are composed severally of two long plates of iron, running parallel. The new roof already extends over the engine-house, presenting with its burnished surface and light supports, an elegant appearance. The elevation from the apex is fifteen feet. The dimensions of the compartment are sixty-four by fifty feet. This engine-house is probably the most complete of the kind in America. Two elegant tiers of iron arches in the gothic style rise on either side of a central passage to the roof, where they are mounted by ornamental entablatures running transversely from side to side. The floor is of cast iron covered with star work; and the visitor sees from the large open space on which he stands the engine on an elevated platform. It is an engine of 400-horse power, 240 of which applied to the emptying of the adjoining dry-dock will exhaust it in two hours. The diameter of the piston is fifty inches, with 12 feet stroke. The working beam is a solid cast, and weighs 15 tons. The diameter of the fly-wheel is 25 feet. The pistons of the two pumps, connected with the dock by descent into a well sixty feet deep, have eight feet stroke. This well is encased with metallic plates, fastened by copper bolts, and descends five feet below the level of the dock.

Steam Pleasure Yacht.

We learn by the Philadelphia Ledger that a clipper propeller yacht is now building in Philadelphia, for Capt. R. F. Loper, (the well known inventor), for a pleasure yacht. It is 82 feet keel and 92 feet over all, 16 feet beam and 11 feet deep. Her power is to be supplied by two beautiful low pressure direct action engines of Loper's patent, with cylinders of 18 inches diameter and 14 inches stroke, in progress at the Penn Works of Messrs. Reaney, Neafe & Co. Her boiler is on a new plan perfected by J. B. Bloodgood, Esq., of that city, which is believed to possess many advantages over the usual form of tubular boilers.

This yacht is to be named the Col. John Stevens, to commemorate the valuable aid afforded by that distinguished man, during his long and useful life, in bringing railroad and steamboat travelling to its present perfection. The late Col. Stevens (the father of the Messrs. R. L. E. A. & Jno. Stevens) was engaged as early as 1803, at his country seat at Hoboken, in experimenting with a submerged wheel for steamboats, and only abandoned his idea on becoming connected with the celebrated Robert Fulton in adopting the paddle-wheel for river navigation, it not being contemplated at that time that steam could be adapted to traversing the ocean.

Col. Stevens also made the prediction, long since verified, that by crossing Jersey by railroads, (then unknown in any part of the world) and the use of the steamboats for the rivers, the travellers between the two cities might breakfast in Philadelphia, dine in New

York, and return again in time to sup at the point of starting, all in the same day. The yacht is to be propelled by the original Stevens' scull, with the Loper improvements, which is most appropriate to his vessel, named in honor of the inventor of the first submerged wheel. Her rig is to be that of a pilot boat with three masts, and all concerned in her construction have determined to render her a perfect "skimmer of the seas." She is to have a trunk cabin, replete with every comfort and convenience.

This is the first American steam yacht, and we throw up our cap to Capt. Loper.

Singular and Startling Phenomenon.

A scientific gentleman of this city—whose name at this time we are not permitted to make public, without a breach of confidence—has within the last six weeks, at various times produced animal life solely from action of certain chemical preparations on each other, in such a manner as leads him to the conclusion that a more perfectly developed process, aided by further scientific discoveries, will produce results miraculously astounding to the world! The specimen of life produced as above, did not exist more than twenty-four hours in either instance; but the simple fact of life power being thus manifested and attested, as it is by the personal examination of five or six eminent physicians, may lead to something of which the world of science, as at present, may look forward with awe and amazement!—Cincinnati Nonpareil.

[A very startling phenomenon no doubt, but qualified, we perceive, with the necessity of "further scientific discoveries," to produce the wonderful results anticipated.]

Rivers of Alabama.

The rivers of Alabama present a highly interesting and important feature in its physical geography, and their improvement has been the subject of a report by Professor Toumey to Gov. Collier. The Alabama is navigable to Wetumpka, a distance, from Mobile, by the windings of the river, of 386 miles, and the Warrior, for more than half the year, is navigable to Tuscaloosa, a distance of 356 miles. The Tombeckbee is navigable to Aberdeen, in Mississippi, 460 miles. The navigable character of these streams is due, in a great measure, to what at first sight appears a defect—their tortuous meanderings, which, while they increase the length of the rivers, diminish their velocity.

Force of Waves.

It is difficult to conceive of the immense force which is exerted by the waves of the sea, when driven on by a strong wind. The late catastrophe at Minot's Rock, gives us some idea of this tremendous power, and shows us how feeble are the strong works of man when opposed to the fury of this element. At the last meeting of the British Association, Thomas Stevenson, civil engineer, gave the results of his observations on the force of the waves, made by means of the marine dynamometer.

The greatest result registered in the Atlantic Ocean, was at Skerryvore Lighthouse, during a westerly gale of the 29th of March, 1845, when the force was 6,093 lbs. or three tons per square foot. The greatest result registered in the German Ocean was 3,013 lbs. or about one and a half tons per square foot. On the 20th of November 1827, in a heavy ground swell after a storm, solid water rose at the Bell Rock Lighthouse 106 feet above the level of the sea, irrespective of the depth of the trough of the wave. Such an elevation is due to a head of water of the same height. The force then, which urges the lower courses of Bell Rock must have been nearly three tons the square foot, a force which, when exerted upon a large extent of surface, becomes almost inconceivably great.

THE AMERICAN PORPOISE A NEW SPECIES.—Professor Agassiz has determined that the common porpoise of our waters, which has generally been regarded as identical with the Phocoena Communis of Europe, is a distinct species, and hitherto undescribed. Professor Agassiz proposes as a name for this new species, that of Phocoena Americana.