Miscellaneous.

Foreign Correspondence.

LONDON, 20th Feb., 1851.

Various quaint and strange projects are being brought forward to attract attention, with the ultimate object in view of making the *honest* penny out of visitors to the World's Fair. Among other things to be exhibited, *outside*, will be an immense globe by a Mr. Wyld. It is to be located in Leicester Square, in a building fitted for the purpose—the ground having cost the beautiful little sum of $15,000 as a rental merely. The building for it is to be of a circular form, 90 feet across, enclosing the globe of 60 feet in diameter. Corridors for promenade will surround it, and it is to have four covered approaches from the sides of the square. The external elevation at the sides is proposed to be 20 feet high, surmounted by a large bell-shaped roof of zinc. The building itself will be mainly of timber, the inner surface of the globe of plaster of Paris. In the centre of the globe will be a series of galleries, four in number, constructed so as to enable visitors to see every proportion of the model. These galleries, it is said, will afford accommodation for 1,000 or 1,500 persons at one time, and are to be approached by spiral staircases in the centre.

A most wonderful piece of linen has been woven for the Exhibition, in the North of Ireland, near Waringstown, by a weaver named Geo. Haddock. It is a web of fine cambric handkerchiefs. Small print can be read through it, and yet the web is so close and compact that a single thread could not be distinguished without the aid of a microscope, or rather web-glass. The cambric, when held up to the light it looks like a fine and airy fabric. In the production of this beautiful gossamer-looking cambric, Mr. Haddock almost realised what classic fiction ascribed to the performance of Arachine, who, as mythologists inform us, was converted into a spider, on account of equalling that ingenious little architect in her production of fine webs.

A rival has appeared to the file described in my last, by a Danish manufacturer. It is a large flat file with four sides of equal breath, and weighing 10 lbs., ornamented externally with the royal arms of Denmark and views of public edifices of the city of Copenhagen, cut with hammer and chisel after the manner of the great Sheffield file just completed by Hiram Younge. But what enhances the curiosity of this Danish file is the fact of its being hollow and containing a nest of smaller files within its iron sides. In the first place you draw out a large round file, which, in its turn, disgorges several others, all of them hollow and acting as depositories of other files still smaller. There are about a dozen, all embowelled within the parent "rubber," the smallest of the tubular files being an inch and a quarter long. The ingenious fabricator is Mr. J. W. Naylor, a file manufacturer at Copenhagen, the place of his nativity. His father, who died last November, was a Birmingham file-smith, who adopted that city as his place of residence many years ago. The file is got up expressly for the great Exhibition.

A very unique case of cutlery, by a Sheffield house, has also been brought into notice. There are 40 pieces of cutlery, knives and forks and spring knives, made from the solid, and ivory-hafted. The smallest pair is under three-eighths of an inch over-all (from the extreme of the haft to the point of the blade), and can be put into the tube of an ordinary tobacco pipe. The sizes increase gradually up to four inches over all. All these have been made by a Mr. Oliver, some of them 20 years back, and have cost an amount of labor and perseverance inconceivable to any but those acquainted with the minutiæ of such an undertaking. On the right-hand side of the miniature case is a specimen of the knives and forks manufactured 100 years ago—a green ivory China headed round point knife, and spoon shank fork. Antiquated articles they certainly are, and, as compared with the cutlery manufactured at this time, look woefully shabby. On the left-hand side is a specimen of table cutlery manufactured fifty years ago—the knife round-point, and fork straight prong, turned bolsters, and silver pistol-hafted. This was the style in 1800. The top part of the case is occupied by some choice specimens of carving knives in the newest design The first is a set of game carvers, knife, fork, and steel, in fawn's feet, mounted and shod in silver. The fork is a diamond-cut shank and scope prongs. Above these is a magnificent pair of venison carvers set in elephant's tusks, the smallest ever known to have been imported into Sheffield. The tusks are respectively 8, 9, and 10 inches in length. The blade of the carver is 16 inches in length. In the centre of the blade, in gold letters, is the word "venison," enclosed in scroll work.

During the week an immense quantity of goods, chiefly from abroad, has been deposited in the building at Hyde Park, and the arrangements made for the reception, examination, and classification of the goods appear, up to this time, to work extremely well. A great portion of the time of the Executive Committee is necessarily occupied in receiving visitors and answering applications and inquiries, but no fears are now entertained as to the ultimate completion and fitting of the entire building at the time originally specified. The painting of the iron-work externally and internally is very far advanced, and a few days more of the present dry and open weather will see this portion of the work finished. The row of trees standing in this part of the building rises considerably above the level of the glass roof, and the green buds which the late genial weather has somewhat permaturely brought forth, have a curious effect, springing from the glassy bed in which they appear to be growing. At this end of the building facing the Serpentine an entrance is now being made for the use of the refreshment contractors and their assistants, whose labors will be carried on siumltaneously with, but quite apart and separated from the getting up of the objects intended for exhibition. The foundation of a large police station is being laid on the south side, on the left of the entrance gates. This will be merely for the temporary detention of evil doers. The present number of police on duty is 50, and these are relieved occasionally during the day and night. A small portion of the iron railing, by which the building is to surrounded, has been put up on the south. It is placed within eight or ten feet of the building, is about four feet high plain and substantial in appearance.

The labors of the Executive Committee will in future proceed rapidly, undisturbed as they will be by the crowds of sight seers and visitors, who kept up a continuous stream during the last two months, and the total, rigid exclusion of all persons from this period to the 1st of May, will merely serve to whet the public appetite, and impart a greater feeling of novelty and interest to the perfected and fully developed Exhibition.

On Saturday afternoon H. R. H. Prince Albert, the Countess de Neuilly (ex-Queen of the French), and the Duke and Duchess de Nemours, and their suit, visited the new building.

EXCELSIOR.

The New York Organ.

We made a mistake last week in stating that Mr. Brognard edited the Organ—he was part proprietor. Mr. C. Hoover is, and has been, the editor for a number of years. Well, we are glad to find our friend Hoover alive; we had forgotten his name, (our memory does not retain a name but with great difficulty), and when we were told "the Editor of the Organ, Mr. Brognard, was dead," we thought it was our friend and acquaintance Hoover, who was a long time our next door neighbor editor.

The Eating, Drinking, and Smoking Tax of Great Britain.

The revenue derived last year by the Government of Great Britain, upon the eating, drinking, and smoking articles alone, amounted to $150,000,000. This statement was made by Mr. Wood, the Chancellor of the Exchequer, in a recent speech, when presenting his yearly budget to Parliament.

Philadelphia Academy of Natural Sciences.

We learn by the Philadelphia North American, something about this respectable Institution. It has now a library of 12,000 volumes and its museum contains a small but valuable collection of quadrupeds, and an extensive series of comparative anatomy. More than 17,000 fossil organic remains; about 5,000 minerals; 12,000 species of insects; 2,500 species of shells; 1,500 species of fishes and reptiles; an in the herbarium there are about 35,000 species of plants arranged according to the natural system. The collection of birds is not excelled, probably, by any in the whole world. In December of 1847, it numbered 23,000 specimens, and since that date many have been added. It includes the celebrated collections of the Duke of Rivoli; of M. Bounier, and Mr. Gould's birds of Australia, the identical specimens from which drawings were made for his splendid work on the subject.

This collection, which is of inestimable value to the students of natural history, is visited by about 5,000 persons every year; and very many scientific men resort to it and the library, from every section of the Union for purposes of study and comparison.

The purpose of the Academy of Natural Sciences of Philadelphia is to obtain and extend information upon every subject pertaining to zoology, botany, geology and mineralogy. Its library and museum are collected for this purpose, and are accessable to all votaries of science, free of cost. The expenses of the institution, which are very considerable, are defrayed by annual contributions from members the increase of the library and museum depends on donations from the scientific. The prosperity of this institution, the result of private efforts exclusively, is one palpable evidence of the love of science, as well as the liberality of scientific men, found in Philadelphia. It contains a collection of birds, and human skulls from every nation and tribe of the earth, which are not surpassed, if equalled, by any others of the kind in any part of the world.

This institution originated in an agreement made by a few gentlemen, in 1812, to meet at their respective residences in town, once a week, for the purpose of receiving and imparting information on subjects connected with natural history At that period the study of natural history was confined, in this country, to a very few zealous individuals; and although several societies had been organized for concentrating the scientific talent and enterprise of Philadelphia, their duration was for the most part ephemeral. About this period, however, natural history received a permanent impulse from the appearance of Wilson's "American Ornithology," and from the personal exertions and published tracts of Dr. Benjamin Smith Barton.

During the early period of the Academy's existence, collections of natural objects and books accumulated slowly, because "money, *primum mobile* of human achivements, was sparingly at the disposal" of the infant institution. But at this period the Academy found in William Maclure, the pioneer in American geological researches, a truly magnificent patron. Besides contributing largely to the museum and library, he gave not less than $20,000 towards the erection of the present hall; and to his munificence, in time of need, the Academy is mainly indebted for its present prosperity. Although they may not perceive the great utility of the institution, Philadelphians should honor the memory of a man whose labors and liberality contributed so much to the scientific facilities and character of their city.

In 1817 the Academy was incorporated. The same year Mr. Maclure was elected its President, and was annually re-elected till his death, in march 1840.

At the present time the academy numbers about two hundred resident members, and more than five hundred correspondents in every part of the globe. It publishes periodically a journal of "Proceedings of the Academy of Natural Sciences of Philadelphia;' and from time to time volumes of Transactions, which embrace most valuable contributions to a knowledge of the natural history of our own country. The Philadelphians may well be proud of this institution.

Borden's Meat Biscuit Factory.

We learn that Mr. Borden is going ahead with the manufacture of his meat biscuit in Galveston, Texas.

An engine of ten horse power, with two cylinder boilers, constitutes the power to drive the machinery, which consists of biscuit machines to knead, roll, and cut the dough—a grist mill to pulverize the biscuit, a fan to raise the fire in a blast furnace for heating the oven, and "the guillotine," to cut the meat into small pieces.

There are four wooden caldrons or tubs for boiling the meat and evaporating the liquid or broth—the two for boiling the meat, holding 2,300 gallons, will each boil 7,000 lbs. of meat in twelve to sixteen hours. The other two for evaporating will contain some 1,400 gallons each. All the tubs are heated or boiled by steam passing through long coiled iron pipes, supplied at pleasure either from the escape steam from the engine or direct from the boiler.

When the meat is so far boiled or macerated that the liquid or broth contains the entire nutriment, the meaty or corporeous portions are separated by a simple process of filtering, so that the broth goes into the evaporator pure and free from fibrous matter. It is then evaporated to a degree of consistence resembling Sugar House Syrup. One pound of this syrup or extract contains the nutriment of some eleven pounds of meat (including its usual proportion of bone) as first put into the caldron. This extract is then mixed with the best and finest flour, kneaded and made into biscuit by means of the machines before mentioned. The biscuit is baked upon pans in an oven so constructed as to produce a uniform firmness. The proportion is as two pounds of extract are to three pounds of flour, but by baking the five pounds of dough is reduced to four pounds of biscuit,—the nutriment of over five pounds of meat in one pound of bread which contains besides, over ten ounces of flour.

The biscuit resembles in appearance a light colored sugar cake. It is packed in air tight casks or tin canisters of different sizes, part of the biscuit being pulverized by grinding in a mill for the purpose, and thus packed with the whole biscuit.

The War Department being impressed with the importance of the new article of diet presented in the meat biscuit, has determined to make a thorough test of it among the troops on the frontier, and has accordingly ordered a large amount for the purpose.

Georgia Cotton Yarns.

The Augusta Republic says:—We noticed a few days ago, a large number of bales of yarn being conveyed by drays to the Steamer Metcalf, to be shipped to New York, Philadelphia and Baltimore, via Savannah. We understand that there were about 400 bales in the lot, manufactured by the mills on the canal, near this city, and intended for northern markets. This fact speaks volumes in favor of the expediency and pecuniary profit of Southern cotton manufacturers. In time, these establishments will not only supply the home demands for yarns and other cotton fabrics, but come into successful competition with Northern articles. The high price of cotton, recently, has had the effect to check investments in cotton manufactures at the South to a certain extent, but we do not doubt their general introduction at an early day throughout the Southern States.

(For the Scientific American.)

Chain Belts.

I noticed an inquiry concerning chain belts in a late number of the Scientific American, and having used chain belts, I have thought it best to give my opinion from my experience with them. Those I used were mostly the imported, with short twisted links. I have now just put one in operation without the twist, which I think operates quite as well, and requires no more power to drive it than a leather belt. They must be used with a lighter, which should play on the running part, and be weighted. The expense is about one half that of leather belts, taking all things into consideration.

JAS. R. SPENCER.

Moodus, Conn.