Recollections of the Paris exhibition of 1867
Eugene Rimmel
GIFT OF

JAMES STURGIS PRAY
CHARLES ELIOT PROFESSOR OF LANDSCAPE ARCHITECTURE

JULY 11, 1916

To be kept in the main collection of the College Library
Bird's-Eye View of the Paris Exhibition.
RECOLLECTIONS
OF THE
PARIS EXHIBITION
OF 1867
BY
EUGENE RIMMEL,
Member of the Society of Arts, the Royal Horticultural Society,
the Nice Horticultural Society; Juror and Reporter,
Exhibition 1862,
Assistant Commissioner, Exhibition 1867;
Author of the "Book of Perfumes," &c.

PHILADELPHIA:
J. B. LIPPINCOTT & Co.

LONDON:
CHAPMAN & HALL,
193, PICCADILLY

PARIS:
DENTU, 17 & 19, GALERIE D’ORLEANS,
PALAIS-ROYAL.

TO BE HAD ALSO OF THE AUTHOR,
96, STRAND; 128, REGENT STREET; AND 24, CORNHILL, LONDON
17, BOULEVARD DES ITALIENS, PARIS.
INTRODUCTION.

The Paris Exhibition has been more than a "nine days'" or even a "seven months' wonder." It proved, without a doubt, the most brilliant, the most complete, the most original of those interesting displays called "International Exhibitions."

That it should have been superior to its predecessors was only in accordance with the natural progress of man's genius, but its chief attraction was the introduction of totally new features, such as the "Park," with its foreign denizens and habitations, and the "Gallery of the History of Labour," illustrating the various phrases through which human industry has gradually passed, from the rude age of stone to the present period of refinement.

We might perhaps, on former occasions, by viewing the products of various nations, and calling to our aid what we had heard or read respecting them, conceive some idea of their manners and customs, but never had we before such an opportunity of studying their every-day life in its most minute details. Without undertaking long and perilous journeys, without running the risk of being frozen in the North, or melted in the South; we have seen the Russian drive his
introducti0n.

troika drawn by Tartar steeds, the Arab smoke the narghilé or play the darbouka under his gilt cupolas, the fair daughters of the Celestial Empire sip their tea in their quaint painted houses; we have walked in a few minutes from the Temple of the Caciques to the Bardo of Tunis, from the American log-hut to the Kirghiz tent.

And when, tired of the present, we wished to dive into the past, we have been able to scan at one glance, the accumulated treasures of the public and private museums of all the world, and to inspect such a collection of rarities and antiquities as was never brought together before.

Now that I have descanted on the merits of the Paris Exhibition, I may say a few words of its faults. Those were chiefly to be attributed to the manner in which the funds were raised to carry out the undertaking. French Exhibitions had been hitherto promoted and supported by Government; this time it was deemed advisable to have recourse to public subscription, or guarantorship, as it was done in England. The Imperial Commissioners, thus becoming the trustees of the Guarantors, resorted, through an excess of zeal, to every device for making money. They obtained large sums from the Restaurants, and every other species of contractors, and the exhibitors themselves had to contribute towards the expenses. The natural result of these exactions was, that the Exhibition assumed a shabby appearance. Surrounded with tawdry stalls, like noble cathedrals in old provincial towns, and defaced by unseemly shows, it became a huge bazaar, and deserved in more senses than one, the name of the "World's fair.

It may also be said, that the Paris Exhibition was too large
INTRODUCTION.

and comprehensive. Fine Arts, Industry, Agriculture, Horticulture, all huddled together were too much at once. People who had but a limited time at their disposal to visit it, were literally bewildered, and saw nothing. Each of those branches would have made a complete Exhibition of itself at different periods, and such will probably be the scheme adopted, if, as I believe, the experiment is repeated in a few years. Many people, it is true, pretend that this will positively be the last International Exhibition, but the same was said on former occasions, and I see no reason why the rising generation should not wish to renew the contest.

Be this as it may, and doubting whether it will be my lot to witness another Exhibition, I have made it a point to study this one in all its bearings. In order to be compelled, in a manner, to examine it thoroughly, I undertook to write a description of it, for two newspapers, the Courrier de l'Europe and the Patrie. These articles, for which I received the valuable assistance of several French and foreign Commissioners, and of some of the exhibitors, I published in Paris in the form of a book, under the title of "Souvenirs de l'Exposition," with numerous engravings, principally borrowed from the excellent Illustrated Catalogue, issued by Mr. S. C. Hall, in the Art Journal, and dedicated to H. M. the Emperor of the French.

It is an English version of this work which I am now offering to the public, with the hope that it may recall to those who have seen the Exhibition, some of its salient points, and give some faint idea of its marvels to such as have not had the good fortune of viewing this great International Peace Tournament.

E. RIMMEL.

1st January, 1868.
RECOLLECTIONS

OF THE

PARIS EXHIBITION.

CHAPTER I.

GENERAL OUTLINE.

The origin of these periodical collections of the works of human genius, which are termed exhibitions, is to be traced to the annual displays of new inventions, which were first devised by the Society of Arts and Manufactures, in 1751, and continued for a whole century, till the year 1860.

To this Society we are also indebted for the original idea of an International Exhibition, which was so ably and so successfully carried out in 1851, under the enlightened patronage of the lamented Prince Consort.

We must observe, however, that the annual Exhibitions of the Society of Arts were always of a semi-private character,
being only accessible to its members, and their friends, and that to France is to be ascribed the merit of having held in 1798, the first public Exhibition. This Exhibition took place, as did the last, at the Champ-de-Mars, but with this difference, that in 1798, the exhibitors amounted only to 110, while sixty years later their number was increased to 42,000, and might have been doubled, had space been granted to all who applied for it.

From 1798 to 1867, the Exhibitions which succeeded each other at irregular intervals, showed (with a single exception) a gradual progress, as will be seen from the following figures.

<table>
<thead>
<tr>
<th>Year</th>
<th>Exhibitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1798</td>
<td>110</td>
</tr>
<tr>
<td>1801</td>
<td>220</td>
</tr>
<tr>
<td>1802</td>
<td>540</td>
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<td>1806</td>
<td>1,444</td>
</tr>
<tr>
<td>1819</td>
<td>1,662</td>
</tr>
<tr>
<td>1823</td>
<td>1,642</td>
</tr>
<tr>
<td>1827</td>
<td>1,695</td>
</tr>
<tr>
<td>1834</td>
<td>2,447</td>
</tr>
<tr>
<td>1839</td>
<td>3,281</td>
</tr>
<tr>
<td>1844</td>
<td>3,960</td>
</tr>
<tr>
<td>1849</td>
<td>5,494</td>
</tr>
</tbody>
</table>

International.

<table>
<thead>
<tr>
<th>Year</th>
<th>Exhibitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1855</td>
<td>28,954</td>
</tr>
<tr>
<td>1867</td>
<td>42,237</td>
</tr>
</tbody>
</table>

We give also by way of comparison, the statistics of the two Exhibitions held in London.

<table>
<thead>
<tr>
<th>Year</th>
<th>Location</th>
<th>Exhibitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1851</td>
<td>Hyde Park</td>
<td>13,937</td>
</tr>
<tr>
<td>1862</td>
<td>South Kensington</td>
<td>28,653</td>
</tr>
</tbody>
</table>

We will now begin our task, adopting the present tense for the facility of narration.
THE PARIS EXHIBITION.

The Champ-de-Mars, as is known to many of our readers, is a large square, which extends from the "Ecole Militaire" to the borders of the Seine, facing the "Pont d'Iéna."

The Exhibition building is of an elliptical form, and occupies about half this space; it is divided into zones and sections. Nine-tenths of the part looking eastward are occupied by France and her Colonies, and crossed by passages designated as Rue d'Alsace, Rue de Normandie, Rue de Flandre, Rue de France, Rue de Lorraine, Rue de Provence, and Rue des Pays-bas. On the other side of the latter are Holland and Belgium, which are bounded by the Rue de Belgique, one of the largest arteries abutting on the "Allée d'Europe," which leads to the "Ecole Militaire."

The west side of the Exhibition contains the other foreign nations, classed in the following order: Prussia, the German States, Austria, Switzerland, Spain, Portugal, Greece, Denmark, Sweden and Norway, Russia, Italy, the Roman States, the Danubian principalities, Turkey, Egypt, Tunis, China, Siam, Japan, Persia, the United States of America, the Central and Southern American Republics, and last, not least, Great Britain and Ireland, and her Colonies, which are separated from France by the "Grand Vestibule," adjoining the "Grande Avenue," leading to the Pont d'Iéna. The second part is traversed by the following passages: the Rue de Prusse, Rue d'Autriche, Rue de Suisse, Rue de Russie, Rue d'Afrique, Rue des Indes, and Rue d'Angleterre.

The Exhibition palace covers a surface of 139,268 square metres, (or 153,194 square yards), divided in the following manner.
RECOLLECTIONS OF

<table>
<thead>
<tr>
<th>Country</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>61,314 metres</td>
</tr>
<tr>
<td>Great Britain</td>
<td>21,653</td>
</tr>
<tr>
<td>Prussia</td>
<td>7,880</td>
</tr>
<tr>
<td>Austria</td>
<td>7,880</td>
</tr>
<tr>
<td>Southern Germany</td>
<td>7,879</td>
</tr>
<tr>
<td>Belgium</td>
<td>6,881</td>
</tr>
<tr>
<td>Italy</td>
<td>3,249</td>
</tr>
<tr>
<td>United States</td>
<td>2,867</td>
</tr>
<tr>
<td>Russia</td>
<td>2,853</td>
</tr>
<tr>
<td>Switzerland</td>
<td>2,691</td>
</tr>
<tr>
<td>Holland</td>
<td>1,897</td>
</tr>
<tr>
<td>Sweden and Norway</td>
<td>1,823</td>
</tr>
<tr>
<td>Brazil</td>
<td>1,808</td>
</tr>
<tr>
<td>American Republics</td>
<td>1,808</td>
</tr>
<tr>
<td>Spain</td>
<td>1,644</td>
</tr>
<tr>
<td>Turkey</td>
<td>1,426</td>
</tr>
<tr>
<td>Morocco, Tunis</td>
<td>1,030</td>
</tr>
<tr>
<td>China, Japan, Siam</td>
<td>792</td>
</tr>
<tr>
<td>Greece</td>
<td>713</td>
</tr>
<tr>
<td>Denmark</td>
<td>751</td>
</tr>
<tr>
<td>Persia</td>
<td>713</td>
</tr>
<tr>
<td>Rome</td>
<td>554</td>
</tr>
<tr>
<td>Danubian Principalities</td>
<td>554</td>
</tr>
<tr>
<td>Egypt</td>
<td>396</td>
</tr>
</tbody>
</table>

The building is 490 metres long and 38 broad; its circumference is 1,500 metres, or about a mile.

The external appearance of the structure is far from attractive; much as the Exhibition of 1862 was open to criticism, its two noble domes atoned for the heaviness of the edifice, whilst in this instance the monotony of the grey dull building is but poorly relieved by the meagre flagstaffs which form its only ornament.

The interior of the Palace is not more striking than the exterior; its continual curves so fatiguing to the eye, do not offer at any point those long vistas which usually form the beauty of this species of building; the only spot which really
THE PARIS EXHIBITION.

presents a pretty aspect, is the central garden, whence the
different courts radiate.

It may not be unnecessary to explain for what reason this
elliptical form, so unsuccessful in its results, was adopted.

International Exhibitions have had, since their origin, one
great difficulty to contend with, namely, that of classification.

Ought the goods to be classed according to their nature, or
should they be grouped according to their place of production?
The first plan facilitates the comparison of the similar
products of different countries, the second allows a more
complete survey of the particular wares of each nation.

The latter has hitherto been the plan adopted, as the former
has the great disadvantage of increasing considerably the labours
of the foreign Commissioners, by scattering their exhibitors in
all directions.

They attempted this time to combine the two modes of
classification, by dividing the countries into sections, and the
industries into zones, so that by remaining in one of the fractions
of the ellipse, one could examine all the products of a nation,
or by walking round it, go through any particular kind of
manufacture; this arrangement would have been excellent, if
the idea could have been carried out, but the clever engineer
who planned it, forgot that each nation could not supply the
same proportion of exhibitors in each zone. Let us place
for instance, Great Britain by the side of Portugal; in the
former, the zone for manufactured goods will be filled to
excess, while that of the other remains empty, and on the
other hand, in the section of wines and alimentary substances,
Portugal will be crowded with exhibitors, who in the British
section, will be few and far between.
To remedy this mistake, which was discovered rather late, the objects exhibited were formed into ten groups, but they were often composed of the most heterogeneous materials.

Among the raw products we find classed pêle mêle corkscrews, india-rubber baths, fishing tackle, and even pills.

Fire-arms were placed with clothing, perfumery with furniture, whilst in many small States all sorts of goods were jumbled together; in fact the zone remained a myth, at least as far as the foreign nations were concerned. To this new and fruitless attempt at classification is owing the elliptical form of the building, of which we have shown the inconvenience; if, instead of following this idea, they had simply traced a large parallelogram of the same shape as the Champ-de-Mars, surrounded with an open space of sufficient dimensions to place all that should remain al fresco, they would have obtained a more useful result with a greater effect. They could have run through the building a large gallery, wherein would have been placed all the trophies of art of every nation, the effect of which would have been magnificent in the extreme. One of the sides could have been given to France, and the other to foreign countries, divided by sections, each opening into the Grand Avenue.

By this means they would have constructed for the same price (the elliptical form being very expensive), a splendid edifice of much larger dimensions, which, affording more room, would have given greater satisfaction to the exhibitors, who all complained of the small space allotted them. However, de mortuis nil nisi bonum, let us proceed.

Each zone represents a group; the exterior zone, and consequently the largest, is that for machinery; this zone is also
higher than the others. We find then in succession the zones of raw produce, clothing, furniture, materials for liberal arts, fine arts, and lastly the Gallery of the History of Labour, which is separated by a portico from the central garden; a large pavilion raised in the middle of the latter contains a collection of the coins and weights of all nations.

The enclosed ground surrounding the palace is transformed into a beautiful park, of which we will give a description in our next chapter.

Farming implements and objects relating to agriculture are chiefly shown in the Island of Billancourt, near Meudon.

The opening of the Exhibition took place on the 1st of April, as was announced, although, as is always the case, the arrangements were not half completed.

It was a very simple affair, the Emperor and Empress walked round the building, saluting as they passed the Foreign Commissioners who had placed themselves before their different sections. Mr. Van den Brock represented Holland; Mr. Dupré, Belgium; Mr. Herzog, Prussia; the President of Steinbeis, Southern Germany; Chevalier de Schöffer, Austria; Mr. Feer Herzog, Switzerland; Mr. de Echeverria, Spain; M. de Santos, Portugal; Mr. Calou, Denmark; Mr. de Fanhehjelm, Sweden and Norway; M. Robert de Thal, Russia; Mr. Giordano, Italy; Viscount de Chousy, Rome; Mr. Chauvin, Turkey; Mr. Alessandri, Roumania; Mr. de Lesseps, Egypt; M. Graham, Siam; Mr. Beckwith, the United States, Count de Penedo, Brazil; Mr. Herreau, the American Republics; Mr. Owen, Great Britain.

The great ceremony was the distribution of awards, which
took place on the 1st of July at the Palais de l'Industrie, the site of the Exhibition of 1855, in the Champs Elysées.

At one end of the Nave was erected an orchestra, at the other a flight of steps, descending from the entrance of the commissioners, jurors and exhibitors who were to join the cortège. A magnificent throne occupied the centre of one of the sides.

In the middle of the Nave stood ten trophies representing the ten different groups. The first one, that of the Fine Arts, was surmounted with a statue of Napoleon I.: the second, that of Liberal Arts, was composed of books and musical instruments, above which was placed a terrestrial globe. The trophy of Furniture, which came third, contained some very tasteful objects with a beautiful Algerian onyx statue in the centre. The group of Clothing was supported at the four corners by figures representing the costumes of various French provinces. The other groups contained nothing remarkable.

The walls of the Nave were decorated with the flags of the various nations contributing to the Exhibition. The glass roof was hung with a white velarium, studded with golden stars, whence depended streamers of various colours.

In fact, the hall was fitted up with great taste, and when it became filled with brilliant court dignitaries, elegantly dressed ladies, and distinguished personages of all nations, it recalled the splendours of the opening of the London Exhibition in 1851.

At half-past one, the exhibitors entitled to the highest rewards, and the commissioners, descend the great staircase,
divided into ten sections, each preceded with a banner, and they gather round their respective trophies.

At two o'clock, the imperial cortège enters and takes its place on the throne. The Emperor has on his right the Sultan, Abdul-Azziz-Khan, the Prince of Wales, the Duke of Cambridge, Prince Teck, the Prince of Orange, the Prince of Saxony, the Prince Imperial, the Grand-Duchess Marie, the Duke d'Aoste, Princess Mathilde. The Empress has on her left the Prince of Prussia, the Princess of Saxony, Prince Humbert, Mohammed-Mourad-Effendi, Princess Clotilde, the Duchess d'Aoste, the Duke of Leuchtenberg, Prince Napoleon, Prince Hermann of Saxony, Abdul-Hamid.

Behind the Emperor and Empress are grouped; Youssouf-Izeddin-Effendi, son of the Sultan, Prince Tou-Kougavva, brother of the Tycoon, Prince and Princess Lucien Murat, Prince and Princess Joachim Murat, Prince and Princess Napoleon Charles Bonaparte, Prince Achille Murat, with the great officers of the Crown and the attendants on foreign princes, forming the back ground. Such a gathering of sovereigns and princes had probably never taken place before.

Opposite the throne, on the two lower benches, extends a perfect rainbow of foreign uniforms, constellated with all the orders in Christendom. We need not add that this is the diplomatic body. Lord Cowley's scarlet coat contrasts with the immaculate white of the Austrian; Prussian blue elbows Russian green; the great lions of the group, however, are two Hungarian noblemen who, with their velvet cloaks lined with fur, and richly braided coats, seem the observed of all observers.

As soon as the Emperor and his noble guests have taken
their seats, the orchestra strikes up Rossini's hymn, composed for the occasion. A religious silence prevails, and all ears are strained to lose nothing of this last effusion of the Swan of Pesaro. But alas! disappointment is soon depicted on the faces of the listeners, for this long expected piece, dedicated to Napoleon III. and his valiant people, falls very short of the proverbial excellence of the Swan's last song, and seems quite unworthy of the author of Guillaume Tell and Semiramide. To a long dull recitative succeeds a noisy chorus, and the whole winds up with the tolling of bells and booming of cannons. Well might the maestro terminate his programme with the favourite expression of the fun-loving Parisian street-boys, Excusez du peu! This, and the comical mixture he introduces into it of high-priests and vivandières, lead one to believe that the facetious Italian intended the whole as a practical joke.

The words are quite in keeping with the music. Soldiers and wounds, deaths and battle-fields, are the appropriate subjects chosen to illustrate the festival of union and peace.

Mr. Rouher having delivered a long address in inaudible tones, the Emperor pronounces the following remarkable speech in a sharp, clear voice, which is heard in every part of the Hall.

"After an interval of twelve years, I come for the second time to distribute rewards to those who have distinguished themselves in the works which enrich nations, embellish life, and soften manners.

"The poets of antiquity used to celebrate the solemn games in which the different people of Greece came to dispute the racing prize. What would they say now, could they
witness these olympic games of the whole world, where all nations, vieing with each other in intellect, seem to rush together in the endless course of progress towards an ideal which is constantly approached without being ever attained.

"From all points of the earth, representatives of science, arts and industry have eagerly flocked, and it may be said that both people and kings have come to honour the efforts of labour, and crown them by their presence with an idea of conciliation and peace.

"In those large gatherings, which appear to have only material objects in view, a moral thought always springs out of the concourse of intellect, a thought of concord and civilization. Nations, by drawing together, learn to know and esteem each other; antipathies become extinct, and this great truth acquires more and more credit, that the prosperity of each country contributes to the prosperity of all.

"The Exhibition of 1867 is justly entitled to be called Universal, for it combines the elements of all the riches of the globe; by the side of the last improvements of modern art are displayed the products of the most remote times, so that it represents at the same time the genius of all ages and of all nations. It is universal, for besides the marvels engendered by luxury for some, it provides for the necessities of a greater number. The interests of the labouring classes have never awakened a more lively sollicitude. Their moral and material wants, education, conditions of cheap living, combination of associations, have formed the subject of patient researches and serious studies. Thus all improvements proceed on a par. If science, making a slave of matter, enfranchises labour, the
cultivation of the soul, by conquering vices, prejudices, and vulgar passions, enfranchises humanity.

"Let us congratulate ourselves on having received among us most of the sovereigns and princes of Europe, and a host of anxious visitors. Let us be proud also to have shown them France as it is, great, prosperous, and free. One must be deprived of all patriotic faith to doubt its greatness, be blind to evidence to deny its prosperity, ignore its institutions, which even sometimes tolerate licence, not to see its liberty.

"Foreigners have been enabled to appreciate this France, formerly so agitated, and throwing back its agitation beyond its frontiers, now laborious and calm, always rife with generous ideas, appropriating its genius to the most varied wonders, and not allowing itself to be enervated by material enjoyments.

"Attentive minds will easily conceive that, notwithstanding the development of wealth, notwithstanding the desire for comfort, the national fibre is ever ready to vibrate when honour and country are at stake; but this noble sensitiveness cannot be a subject of fear for the rest of the world.

"Let those who have resided momentarily among us, take back home with them a just opinion of our country; let them be persuaded of the sentiments of esteem and sympathy which we entertain for foreign nations, and of our sincere wish to live in peace with them.

"I thank the imperial commission, the members of the jury, and the different committees for the intelligent zeal which they have shown in accomplishing their mission. I also thank them in the name of the Prince Imperial, whom I
THE PARIS EXHIBITION.

have been happy to associate, notwithstanding his youthful age, to this great undertaking, of which he will cherish the remembrance.

"The Exhibition of 1867 will, I hope, inaugurate a new era of harmony and progress. Assured that Providence blesses the efforts of all those who, like ourselves, wish to do good, I believe in the final triumph of the great principles of moral and justice, which, by satisfying all legitimate aspirations, can alone consolidate thrones, elevate the people, and ennoble humanity."

After a thunder of well deserved applause, the exhibitors favoured with special rewards advance in turns towards the throne to receive them; the Prince Imperial presents, with infantine grace, to his father the prizes awarded him for his labourers' dwellings.

The imperial cortège then descends from the throne and marches round the Nave. The Empress resplendent with grace and beauty, and attired in a magnificent robe of white and silver, heads the procession, walking between the Emperor and the Sultan.

Prince Napoleon follows, leading the Prince Imperial by the hand. The Prince of Wales, the Duke of Cambridge and the Foreign Princes and Princesses come immediately after. The brother of the Tycoon of Japan, a youth about twelve years of age, attracts general attention by his dark complexion, and the assortment of huge sabres under which he is almost buried.

After promenading round the Nave the imperial cortège retires, and the public soon follows their example, gladly escaping from the stifling atmosphere.
It would be impossible for us to give a complete list of the rewards given to exhibitors; which form of themselves a large volume; we shall merely record here, in the order of the different groups, the great prizes which were awarded either for a marked superiority in fine arts, for important discoveries or for notable improvements effected in industry.

**FINE ARTS.**

Cabanel; France.  
Gérôme; France.  
Ernest Meissonier; France.  
Théodore Rousseau; France.  
Guillaume de Kaulbach, Bavaria.  
Knaus; Prussia.  
Leys; Belgium.  
Ussi, Italy.  
Perraud; France.  
Drake; Prussia.  
J. Dupré; Italy.  
Angelot; France.  
Ferstel; Austria.  
Waterhouse, Great Britain.  
Alph. François; France.  
J. Ketter; Prussia.

_Eugène Guillaumé; France._

**AGRICULTURE AND INDUSTRY.**

Alfred Mame and Son; Tours; Books and binding.  
Japan, Paper; Industrial arts; Japan ware; Silk.  
De Jacob, St. Petersburg; Application of galvanoplasty to the arts.  
Garnier, Paris; Engravings.  
Adolphe Sax, Paris; Brass instruments.  
J. L. Mathieu, Paris; Surgical instruments.  
Father Secchi, Rome; Meteorological works.  
Brunetti, Padova; Anatomical instruments.  
Eichens, Paris; Astronomical instruments.  
Fourdinois, Paris; Furniture and tapestry.  
Klagman, Paris; Works of art.  
Baccarat Crystal Company; Crystal.  
The City of Lyons; Institutions created to encourage the Silk trade.  
Krupp, Essen, Prussia; Cast Steel.  
Petin and Gaudet, Rive-de-Gier; Cast Steel and Iron.  
Schneider & Co., (two prizes), Le Creuzot; Cast Steel, Sheet Iron, &c.  
Japy Brothers, Beaucourt; Hardware, Locks, &c.  
Bessemer, London; Steel.  
Triana, Bogota, New Grenada; Collection of plants.
Algeria; Cultivation of Cotton.  Ottoman Empire; Cultivation of Cotton.
Brasil;  Ditto.  India;  Ditto.
Egypt;  Ditto.  Italy;  Ditto.
Hoffmann, Berlin; Discovery of Aniline colours.
Kind and Chambers, Saxony and Belgium; Processes for well-sinking.
C. W. Siemens, London; Gas furnace.
C. F. Hirn, Logelbach (France); Telodynamic cables.
Farcot and Sons, Saint-Ouen; Steam engine.
Whitworth and Co., Manchester; Tool machines.
P. Meynier, Lyons; Silk-loom.
P. Vignier, Paris; Railway signals.
Cyrus Field, United States; Transatlantic cable.
Hughes, New-York; Printing telegraph.
Suez Canal Company, Paris; Models and plans of the works.
F. Hoffman, Berlin; Brick-klin.
English Life-boat Institution; Life-boats.
R. Napier and Son, Glasgow; Models of ships.
J. Penn and Son, Greenwich; Steam engines.
Pasteur, Paris; Process of preserving wines by warming.
H. Marès, Montpellier; Application of sulphur to vines.
H. M. the Emperor of Russia; Improvements in the breed of horses.
H. M. the Emperor of the French; Labourers' dwellings; Model farms.
Genevese Committee; Assistance to wounded soldiers.
United States Sanitary Commission; Appliances having served in the war of 1861.
Henri Dufresne, Paris; New process of gilding on brass and on silver without any danger for workmen.

A series of prizes was also awarded to establishments having provided for the welfare of their workmen, besides which a great number of decorations, above nine hundred gold medals, four thousand silver medals, and a vast number of bronze medals and honorable mentions were distributed among the exhibitors.

Notwithstanding this great quantity of rewards, which amounted to above twelve thousand, or more than a quarter
of the number of the exhibitors, there were as usual, and perhaps more than usual, a great many that were dissatisfied.

Some complained, and with good reason, that jurors began their work as soon as the Exhibition was opened, when all, or nearly all, was in a state of confusion, and finished by the end of the month, whilst many of the cases were still incomplete; others that they had been examined by incompetent judges.

To the first complaint it may be answered that if exhibitors were not ready in time, they should suffer the penalty of their want of punctuality, but in many instances it was not their fault. The show-case makers having more work to do than they could perform, kept them waiting for weeks and weeks, and prevented them from unpacking their goods.

As to the second ground of dissatisfaction, it was also frequently justified. The jurors were certainly all distinguished and educated men, but the axiom of "the right man in the right place" had been but little followed in appointing them. Eminent noblemen had to judge manufactures with which they were totally unacquainted, and learned doctors to pronounce on the merits of fancy articles, which all their science did not enable them to appreciate.

The selection of the British Jurors was tainted with the same faults. It had been announced that they would be nominated by the Assistant Commissioners, chosen for that purpose, but their votes were generally disregarded, and the appointment, which carried with it the fifty guineas' fee, went, like "kissing", by favour. Had the post been purely honorary, as it should have been, it would no doubt have been much better filled.
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To crown all, the Jurors were originally mis-informed as to the time when they would be wanted; then they were hastily summoned by telegrams, but in many cases they could not alter previously made arrangements, and they arrived in Paris when the examinations had taken place, which, circumstance, if the Jury regulations were strictly carried out, debarred them from having a voice in the awards.

The natural result of this mismanagement was the paucity of rewards obtained by British exhibitors, which gave rise, as everyone knows, to loud complaints, and angry correspondence at the time.

Making every allowance for exaggerated expectations, and consequent disappointments, it cannot be denied, that the Jury awards were as a whole, open to great censure. To conceal their general want of knowledge of the articles they had to judge, Jurors were too apt to grant the principal rewards to old established and well-known houses, feeling that their verdicts had thus every chance of being sanctioned by the public, and to totally ignore more obscure, but more deserving exhibitors, whose merits they were not able to discern. In acting so, they totally failed in accomplishing, what ought to be the ends of an Exhibition, namely, to make known and recompense the efforts and improvements of rising men.

We may add, that certain classes were much more favoured than others, in the allotment of the chief prizes. Thus, wines received ninety-one gold medals, although soil and climate have a great deal more to do with its excellence than the talent of the growers, and the cleverest man in the world would have some difficulty in raising a choice vintage on Hampstead
Heath; chemical products had *sixty-one* gold medals, mathematical instruments *twenty-one* — a fact easily accounted for, by the number of *servants* who formed part of the Jury, and who were naturally prone to reward the things they could best understand.

If we now turn to the really industrial part of the Exhibition we find *twelve* gold medals given to silks, *nine* to wools, and only *five* to the pottery, earthenware and porcelain of all nations, although this branch of manufacture requires perhaps a greater amount of art and industry combined than any other.

Great dissatisfaction was also expressed by the exhibitors in reference to collective medals, which reward every body without doing good to any one, as none of the individuals thus grouped can claim the prize for himself.

There was, however, one redeeming point in the system of rewards adopted this time, and that was giving prizes to *cooperators*, or in other words, to foremen or workmen who had contributed to the success and progress of a house.

We shall now commence our review in the following order: we shall first examine the French section of the Park, the External Gallery, the whole Exhibition of France and her Colonies, and the Island of Billancourt; and we shall then review each foreign country in turn, taking it as it is placed in the Palace.
CHAPTER II.

THE FRENCH PARK.

The Park is formed, as we have said before, of the enclosed space which surrounds the Exhibition Palace. In this level sandy plain, hills have been raised, lakes have been sunk, verdant bowers have sprung up, winding alleys have been traced, and when this desert has been, as if by magic, transformed into an Eden, it has become, with no less marvellous promptitude, studded with rich kiosks and graceful chalets, with every specimen of architecture, from the gaudy mosque to the puritanical meeting-house, from the sumptuous palace to the humble labourer's dwelling.

The Park is divided into four equal sections, in its length by the Allée d'Europe, in its breadth by the sides of the building which nearly reach the enclosure.

The first of those sections on the left, entering by the Porte d'Iéna, nine-tenths of the second, and a certain portion of the two others, are occupied by France; the remainder is divided between foreign countries.

We shall only examine the French part of the Park in this chapter; the others will find their place in the description of the countries to which they belong.
On entering we see on each side monumental fountains, one erected by Barbezat, the other by Durenne. The latter is surrounded with some fine cast-iron groups of animals.

Turning to the left we find a gothic church, erected by Mr. Lévêque, of Amiens, in which have been assembled the principal objects used in Roman Catholic worship.

We first remark a grotto by Champigneulle, representing the Tomb of Christ; the painted life-size figures grouped round it are well executed.

There is a large collection of altars of every style and period; a stone altar of the twelfth century by Bonet; one of the thirteenth century in carved coloured oak by Chovet; a white marble gothic altar by Jacquemin, and two cast-iron ones by Ducel & Son and Durenne.

The grand organ by Cavaillé-Coll, with fourteen stops and two key-boards, is worthy of a cathedral; the harmoniums exhibited by Alexandre, Debain and Rodolphe, are well suited to village churches, being full in tones and at a low price.

The art of painting on glass, which was supposed to be lost since the middle ages, but was evidently only slumbering, has now revived enriched with the new colours discovered by chemists. Among the most remarkable specimens shown in the windows of this church, we shall mention the Nativity and the Assumption of the Virgin by Laurent Gsell, which are ably conceived and finely executed; we may add that for correctness of design and harmony of colour, this artist stands unrivalled. We notice also the Flagellation by Jacquier, the Wheel of Fortune by Ottin, and a large grisaille by Lévêque,
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which deserve commendation. We shall find other exhibitions of painted glass in the Palace.

We must not forget, before leaving this church, the brilliant chandeliers and candelabra of the Meyenthal glass-works, some fine ivory carvings by Garnot, Froc-Robert's Mater Admirabilis, three beautiful wax figures of saints by Talrich, and the splendidly printed and bound missals of Adrien Le Cler & Co.

On issuing from this building we come to the Maternal School where Mr. Gosselin explains his system of spontaneous instruction for the deaf and dumb. To the usual signs employed hitherto to converse with those unfortunates, the inventor substitutes a phonemimic alphabet which consists in a very animated pantomime expressing by turns admiration, horror, fatigue, laughter, tears, or representing some animal, a wolf, a serpent, a cat, a dog, a cow. This mode of communication is more rapid than the one now in use, inasmuch as each motion represents a word.

On the banks of the miniature lake close by, rises Lepaute's light-house, an immense cast-iron tower crowned with a light extending to a radius of thirty miles; it is intended to be put up on the island of Bréhat, near the coast of Brittany.

We now turn towards the banks of the river passing under a bridge made of Bessemer steel, and we come to the 'Human Aquarium.' What can that be, will some of our readers exclaim? Has the race of Tritons reappeared on this globe? Let us approach and solve the mystery.

At the bottom of a large round réservoir we faintly discern through some glazed apertures a fantastical being gambolling in the water. He soon rises to the surface and shows his
huge brass-bound head, his goggle eyes and his shiny skin. It is not a marine monster after all, but an ordinary man who, thanks to his diving dress, seems quite at home in the liquid

"Aquarium Humain."
element, eats, drinks, smokes, plays dominoes, &c. Another diver performs his experiments in the Seine, and plunges now and then in the middle of the stream, betraying only his presence under water by the bulbs of air which escape from his respiratory apparatus.

To contrast with the *Aquarium Humain*, we have at the other end of the bank the *Enfer Humain*. From water we jump into fire.
This formidable name simply designates a very useful invention due to Mr. Galibert, which enables people to remain a long time in the midst of the most intense smoke. The operator, his head covered with a helmet, his nose pinched to prevent breathing, and his mouth placed in communication with an air-bag, shuts himself up in a small pavilion filled with smoke, and issues thence half an hour after without appearing indisposed by it in any way.

It is easy to conceive what services such an apparatus can render for extinguishing fires at their commencement, or for saving lives. Mr. Galibert has been rewarded for his humane idea with the Monthyon prize, and a number of medals.

Among the principal objects of interest we find by the river-side, we may mention the Empress's caïque and gondola, the Viceroy of Egypt's dababadié, or state-barge, an immense screw propeller for a first-class iron clad frigate, a steam-yacht by Gouin, fitted with one of Lloyd's vertical engines, a collection of all that relates to yachting and boating, and a complete chemical laboratoire.

On returning to the Park we meet on the left a long shed occupied by the Creusot iron-works, and coal-mines, the largest establishments of the kind in France, the extent and favourable position of which may be estimated from the plans in relief exhibited. The two most remarkable objects in this shed are a large engine intended for the ship Océan, and a fine express locomotive ordered by the English Great Eastern Railway Company.

It is somewhat novel to see England, who used to supply the world with locomotives, find now an advantage in buying
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them abroad. This is one of the results of trade-unions and strikes which, by exacting unreasonable wages from home manufacturers, render them unable to compete with foreigners.

A little further we see a fine fall of water produced by one of Cognard’s turbines, which would be a great improvement to the scenery of Swiss Saxony, for water being rather scarce in that locality, they turn on the cascades with a key when tourists pass by.*

The exhibitions of the Imperial Navy and War Offices come next. In the former we observe the colossal engines constructed for the Friedland, an iron-clad now being built at Lorient. The latter contains an assortment of pieces of ordnance of various sizes and loading in different ways. In the centre is a model of the camp at Châlons, with the Imperial tent, the field-altar, &c.

By the side of war, humanity occupies a small place in the shape of hospital tents and waggons, which tend their services alike to the conquerors or the conquered, and whose modest flag bearing a red cross on a white ground, is respected by both parties.

A little further, famished promenaders eagerly devour delicate little loaves which are served to them all but by the Army Bakery, and admire at the same time the ingenious system for utilizing the steam which heats the ovens to work the kneading machinery.

If after that they wish to refresh themselves, they may call at the Châlet of MM. Mignon & Rouard who, by a singular antithesis, obtain large rolls of ice by means of steam applied

* Travelling reminiscence of the author.
to ammonia to volatilize it and cause congelation. We give a plan of Carré’s apparatus which is used for that purpose.

Among the many wild schemes engendered by the Exhibition, was that of an International Theatre, where all countries were to give us by turns specimens of their dramatic performances. Shakespeare, Schiller, Lopez de la Vega, Alfieri, were to be interpreted by actors of their own country.

How any one in his right senses could imagine that it would pay to build a theatre for six months, it is hard to guess; but built it was, and very handsomely too, as might have been expected; no manager, however, was mad enough to run the chance of bringing at a great expense a Foreign Company to play perhaps to an empty house. The consequence was that, after having tried as a substitute comic songs, and met with a dead failure, this unfortunate theatre,
which could have accommodated 1,500 spectators, and seldom saw more than 50 together within its walls, resorted to a sensational entertainment given by a tribe of Arabs. These wild children of the desert certainly performed some wonderful antics; they danced the most exhausting steps, chewed burning charcoal, licked red-hot shovels, and swallowed with apparent gusto a variety of indigestible ingredients such as cactus leaves, scorpions, lizards, and even yatagans, but all those exciting scenes were insufficient to draw an unappreciating public, and the spec came to an untimely end.

Returning to the "Grande Allée," we find on the left the Emperor's pavilion which is intended as a resting place for the Imperial family when they visit the Exhibition. It is an elegant building of moorish architecture, and contains some remarkable specimens of parisian decorative art, but as the profanum vulgus is not admitted into the sacred precincts, we must remain satisfied with a peep through the windows.

Diving into the lateral parts of the Park we meet with a small house of sober appearance, occupied by the Society for the Protection of Animals, who exhibit sundry inventions specially devoted to the benefit of the brute creation. From the sentences inscribed in large letters on the wall, it would seem that this Society places man somewhat below the level of other animals. They may not be so far wrong, after all.

Still we cannot blame their neighbour, the Crèche Ste-Marie, for taking care of the poor infant specimens of this wretched humanity, and attending to their comforts with as much tender solicitude as if they actually belonged to the upper class of animals.

A gay peal of bells, moved by machinery, strikes our ear
and reminds us of those good old-fashioned Flemish towns or of the holy city of Moscow, where bells are tolling day and night. If, however, this peal is intended, as we understand for Buffalo, why not make them play, instead of *Partant pour la Syrie*, the air de circonstance

Buffalo gals come out to night.

Opposite rises on a mound a feudal half-ruined tower from the base of which rushes a cataract of surging waters. This pseudo-relic of antiquity, which seems ill-matched with its modern neighbours, is simply the réservoir which feeds the water-works in the garden.

A large Swiss chalet, built by Kœffer, looks down with apparent scorn from its carved balconies on a lowly cot across the road. Yet the latter, which is a model labourer's dwelling, received one of the great prizes; it is true that the exhibitor's name is Napoleon, and one does not see every day an Emperor compete with simple mortals.

We become here somewhat bewildered, for it is impossible to follow anything like a regular plan in the intricate maze of alleys which divide the interior of the Park. We must therefore mention in a lump, as worthy of remark: an exhibition of photo-sculpture, a new art applying to relief what has hitherto been done on flat surfaces, a gallery of transparent portraits by Mr. Maréchal, a very convenient system, by the bye, of seeing through your friends, Leroy-Durand's stearine manufactory, Roseleur's galvano-plastic apparatus, Chaudet and Thuillier's wool-washing machines, and some fine specimens of enameled stone-ware by C. de Boissimon of Langeais, which are particularly suitable for exposed monuments and ornaments, as they unite the hardness of stone to the trilliancy of majolica.
We now cross the covered way which separates us from the second quarter, passing on our way two fine equestrian statues, one representing Charlemagne and the other Dom

Flower-stand and Fountain, by Clovis.
Pedro, Emperor of Brazil, and we reach the reserved garden which occupies nearly the whole of that part of the Park.

A large conservatory, built on a mound, and containing tropical plants, commands a fine view of the garden, which with its mimic rocks, waterfalls, meandering brooks and quaint bridges has a somewhat Chinese aspect. Other conservatories of smaller dimensions are devoted to roses, orchids, cacti, &c.

Near the entrance is displayed a collection of different articles relating to horticulture, among which we remark a pretty flower-stand by Clovis, with a fountain in the centre worked by atmospheric pressure.

The greatest attraction of the reserved garden, however, consists in its two aquarium, one filled with sea water, the other with fresh. They are placed in grottoes ornamented with stalactites and arranged with much taste. We may well fancy we are paying a visit to Neptune's realms, for we see fishes gambolling in all directions, even over our head. It is there we find the hideous pieuvre or cuttle fish, rendered so celebrated by one of Victor Hugo's last works.

We cannot conclude this short notice of the garden without paying a well-deserved compliment to Mr. Alfand, who designed it, and Mr. André who executed it. To have turned an arid waste into fairyland in such a short time, they must have possessed the wand of a magician.

Crossing over to the third quarter, we find a medley of model farms, cheap earthenware, tents, aviaries and wire-work of every sort, in fact it may be termed the lumber-room of the Exhibition.

A greyish erection labelled "Roquefort cheese cellar," initiates us into the mysteries of manufacturing the French
"Stilton;" we rather wish it had not; for now that we know

this celebrated dainty is made of sour milk and mouldy bread,
we shall find it less appetizing. We cannot in this instance say with the poet:

Felix qui potuit rerum cognoscere causas.

In a large shed a little further we find a variety of industrial and agricultural implements, such as a wine-press, by Petit and Robert, a very ingenious apparatus for making and bottling sparkling wines, by Hermann-Lachapelle and Glover, a sulfur injector for preventing cidalion in vines, by Peltier, a steam thrashing machine, by Gontreau, an improved oven, by Biabaud, a mechanical kneading trough, by Goudot, and a portable steam engine, by Cumming.

A dairy close by, belonging to the Count de Kergorlay, affords a specimen of the excellent milk supplied by the small-made, but prolific cows of Brittany.

There is but little belonging to France in the fourth quarter of the Park. The Cercle International, a large building skirting the roadway, was intended as a club, wherein the exhibitors and visitors of all nations were to meet and fraternize. It turned out, however, as great a failure as the International Theatre, and after several fruitless attempts at realizing its original purpose, it fell back on Johann Strauss and his band, as being the only harmony it could procure to cheer its deserted halls.

Opposite the Cercle, we find the French Biblical Society distributing their religious pamphlets; and the iron-works of Petin, Gaudet & Co., surmounted with an electric apparatus which sheds at night its blinding light over the whole neighbourhood.

We must not forget, before leaving the Park, Raveneau's ingenious irrigating apparatus, used for watering the grass-
Hermann-Lacharpelle and Cloët’s apparatus for making and bottling sparkling wine.
plots. The head of the apparatus, fixed at the end of a long india-rubber tube, stands on two iron legs, which, propelled by the force of the jet slightly checked in the mouth, progress and waddle on, whilst the head of the pipe turns rapidly right and left. This contrivance serves, no doubt, a very useful purpose, doing its work without requiring any attention, but it produces at the same time a most comical effect, and looks like some amphibious dragon, snorting water and dragging his long tail after him.
CHAPTER III.

THE EXTERNAL GALLERY.

Not content with showing us the arts, industry, and habitations of various nations, this Exhibition has undertaken the task of instructing us into their ways of "feeding the inward man."

To this purpose is devoted the external gallery which runs round the Palace, one part containing articles of food and beverages, the other eating and drinking establishments of divers countries.

The former part, which displays long rows of bottles of wine, and jars of preserved provisions, offers but little attraction to the public, who are unable to test their merits by the simple inspection of the label; the latter, on the contrary, were constantly crowded, especially during the first months, when visitors could sit al fresco under the verandah, enjoying their meals, and amusing themselves, at the same time, with the sight of the gay crowds which passed and repassed. Unfortunately, a Mr. Bernard, who had purchased at a high price the monopoly of the sitting accommodation in the Park and Gardens, finding that this open-air refection proved a serious opposition to his trade,
obtained, in a Court of Justice, a verdict compelling the restaurants to withdraw their tables and chairs into the interior, which decision half-ruined them. This was one of the many unpleasant consequences of that system of exactions, which led the Imperial Commissioners to sacrifice the interest of many to those of a few.

On proceeding round the gallery, on the left from the Grand Vestibule, we meet first three French Restaurants, Rouzé, Gousset, and the "Dîner Européen," who worthily sustain the reputation of Parisian cookery.

"Man is an animal that cooks for himself," said a philosopher; these rivals of Véfour and Very endeavour to prove, that, in this respect at least, the French are the first of men.

We next come to a series of saloons, decorated with the pompous name of "Salons français," and which the lessee, who paid for them the modest rental of 200,000 francs, (£8,000) intended for toilet, conversation, reading-rooms, &c. Finding it however a most disastrous spec, he was fain to turn his space into the most motley assemblage, from a cheap beef-soup shop to a theatre ticket-office, from a toy warehouse to shows, such as that of Chang the Chinese giant, and the so-called Decapitated Head, although, by the bye, how a head could be decapitated would puzzle a scholar to explain.

After that, we see a permanent and public tasting office, displaying a tempting array of ruby and amber bottles, then an open bar for the sale of Strasbourg beer, ornamented with the arms and signs of the principal brewers of that city, a shop for Algerian produce, served by bright-eyed Arabs of dubious cleanliness, and a Dutch estaminet, where buxom
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Frisonnes, decked out with the national head-gear of gold plates and lace, dispense curacao and maag-bitter.

We shall pass unnoticed the Prussian and Bavarian restaurants, which offer nothing remarkable.

Austria has done more to distinguish herself in the gastronomic contest. A Viennese brewer, named Dreher, besides the space he occupies in the gallery, has erected in the Park an immense Bier-Hall, which recalls those which are to be met with so frequently in the suburbs of Vienna. There one can enjoy curious Austrian and Hungarian dishes, washed down with Buda or Voslauer wine, or with the excellent beer brewed by the proprietor. Blue-eyed maedchen in national costume, attend on the visitors, and contribute to add to the couleur locale.

Near the Bier-Hall, there are a cafe, a wine-shop, and a bakery, where longing crowds press in turns to buy those delicious little loaves for which the Viennese stand unrivalled.

The Swiss restaurateur had not, unluckily for himself, the good idea of following his neighbour's example; had he substituted to his sable-clad garcons, Swiss girls in the picturesque costumes of the different cantons, he would no doubt have thrived better than he did.

The same may be said of the Spaniard next door, who simply painted on his blinds smartly dressed senoras, which but poorly atoned for the absence of the living models in the interior of the posada. We did once, it is true, having lost our way in the Park, stumble upon an horchateria valenciana, where real Spanish damsels offered us real bebidas, but for some reason unknown, they have placed them in a spot where it is next to impossible to find them.
The Swedes, depending more on the attractions of costume, than on those of their black bread and smoked fish, have imported a couple of fair lasses, who, with their flaxen hair, snowy cap, and light-blue boddice, attract some attention; but the great lion of the eating world is without a doubt, a Russian rejoicing in the name of Koretschenko, who gives us a perfect image of a Petersburg traktir, or restaurant. Two handsome Muscovites freely displaying their white arms and neck, sit at the counter, adorned with the graceful head-dress, which was formerly worn by all Russian women, but which now is only patronized by wet-nurses (carmilitzas), or, singular to say, by the Empress on great state occasions. The waiters, or tschelaveks, arrayed in white, blue or pink tunics and pantaloons to match, half buried in their large boots, cause also a great sensation, and many visitors, in order to have a nearer view of the denizens of the place, venture to dive into the horrors of Russian cooking, and swallow with apparent resignation, a tschtschi made of bacon, cabbage, vinegar, and sugar, or an ice-soup called batbuynia, the contents of which have hitherto baffled the most patient analysis. Others less bold, or less wealthy, content themselves with staring in through the windows.

The Italian disdaining all external allurements, rests on the merits of his Neapolitan macaroni, and of his Milanese risotto, which seem fully appreciated by his customers.

We were to have also specimens of Eastern cafés, but the greater part of those establishments not meeting with success, were soon turned into tobacco and pipe shops, and cheap French restaurants. Tunis alone kept its individuality, and offered us to the last its muddy coffee, and its strange musicians,
whom we shall further describe, when we come to the Palace of the Bey of Tunis.

Chinese and Japanese eating-houses had been likewise announced, and anxiously were we waiting for the tripangs, swallow-nests, puppies stewed in castor oil, and other promised culinary delights of the far-east, but we were doomed to disappointment, for the so-called Chinese restaurant in the Park boasted of nothing better than vulgar beef steaks and mutton chops.

We now come to the American bar where dexterous bar- men mix and dispense, with wonderful celerity, the various drinks known by the quaint names of sherry-cobbler, mint julep, brandy smash, gin cock-tail, thunder and lightning, pick-me-up, &c., which foreigners imbibe with great relish without making the slightest attempt to understand their denomination.

We terminate our review with the English refreshment contractors, Spiers and Pond, Bertram and Roberts, and Trotman, who vie with each other in the elegance of the fittings, the comfort of the arrangements and the excellence of the fare. A legion of blooming Hebes minister to the wants of a host of thirsty Jupiters, and largely contribute by their bright looks and flowing tresses to the attractions of the place.
CHAPTER IV.

THE MACHINERY GALLERY.

In all Exhibitions, the Machinery Department, notwithstanding the deafening noise which assail the ears and the nauseous smell which pervades the atmosphere, is a great centre of attraction. Men and women, old and young, rich and poor, seem alike interested in studying these wonderful achievements of men's genius which make up for his weakness, to watch those iron arms which are never unnerved by toil, those stalwart giants who defy all resistance, in fact those wonders of mechanism which have replaced the fatiguing and irregular action of hand-work by the uniform and productive labour of machinery.

There is besides about this spot the great allurement of "things in motion" compared with the stillness of other parts of the Exhibition. In the latter, people can see what has been done, in the former they are shown how it is done. At one end of the machine they watch as it enters a rough unshaped mass

Rudis indigestaque moles;

at the other end they see it issue a bright perfect object of utility or ornament.

As we said before, we shall first examine the French section in this and other departments, and the foreign sections will come after, under the respective head of their countries.
The Machinery Gallery occupies the outer zone, and comprises twenty classes (47 to 66), consisting of all kinds of mechanical appliances, carriages, railway stock and marine implements. In the middle, are machines in motion, on the sides, various plans and products belonging to the same category. A platform of about twenty-five feet high, raised along the centre of the whole length, allows the visitors to take a bird's eye view of the contents.

At the entrance in the Grand Vestibule opposing Great Britain are erected two huge trophies of the metals most useful to man, brass and iron. The former is a perpendicular cluster of pipes, somewhat resembling the organ of a cathedral or the basaltic rocks of the "Montes dos Orgães" which rise behind Rio de Janeiro. The latter has a somewhat mournful aspect, not unlike the gates of a prison, but as Virgil says

O formose puer nimium ne crede colori!
do not trust too much to colour, for these dingy looking rails are the connecting links between the people, the humble tools of harmony and civilization.

The first object of interest we meet after passing this portico is an ingenious felting machine, invented by Mr. Vouillon of Louviers, to whom is due in a great measure the credit of the many useful applications of this waste material.

Stehelin & Co. of Bischwiller, exhibit a large frame of cotton cards, acting by George Risler's system, and an automaton winding machine.

Troyes is the Leicester of France, and Berthelot & Co.'s improved looms show that French hosiery has made great progress during the last few years.

M. Cauchefert of Longchamps has a weaving loom for
cashmere shawls, which works with a single set of patterns instead of two, thereby effecting a great saving.

An apparatus, by Barrès, for unwinding silk out of the cocoons, excites great attention. It is very curious to watch the cocoons leaping about in their hot-water bath, hung by a slender thread which rapidly winds round a bobbin suspended above, and seldom breaks although as fine as a spider's web.

Our space will not allow us to describe all the machines exhibited in this section, but we may mention among the most remarkable a wool-combing machine, by Flécheux-Lainé of Rouen; a power-loom, by Sixte-Villain of Lille; a loom for weaving ribbons, by Jayot of Paris; a wool spinning loom, by Rys-Catteau of Roubaix; and a web-loom, with electrical apparatus, by Radiguet & Lecène of Paris, which all exhibit some decided improvements.

A steam engine of 120 horse-power, by Powell of Rouen, and another one of less power by Le Gavrian & Son of Lille, set all this machinery in motion.

By the side of these machines, which are worked by the agency of steam, we see others where man has simply called the science of mechanism to his aid to increase and direct the labour of his hands.

We notice among those the curious hand-loom used by the Lyon workmen to manufacture silks, for it is well-known that this city does not possess any large manufactory, each artizan working at home, and being generally assisted by his wife and family. The average price of these looms is from £16 to £20. A great quantity of the hosiery made at Troyes is also made with hand-loom.

Harding-Cocker of Lille, a French house with an English
name, exhibit a complete series of cards, combs, and other implements used in the preparation of flax, hemp, cotton and wool.

Bernard and Genest have erected two large pyramids, one of hemp ropes and the other of metallic ropes. Cerizier of Louviers make a variety of things out of aloe fibre, from a ship cable to a cap.

The first striking object in Class 50 is a gigantic apparatus by Savalle & Co. of Paris, for distilling alcohol from wine, beetroot, potatoes, corn or molasses. By means of numerous plates placed in a high cylinder it operates on large quantities at a time.

Their neighbour, Mr. Egrot, has also an interesting apparatus for continuous distillation. The liquid whilst falling on the plates is met by a current of steam which divides the molecules *ad infinitum*, and soon disengages the alcohol from them.

Mr. Champonnois is an inventor to whom French agriculturists are particularly indebted. He has found the means of making beetroot serve two purposes; he first extracts the alcohol from it, and the residue of the distillation forms excellent food for cattle, having lost none of its nutritious properties in the operation. The apparatus he uses for that purpose is simple and inexpensive, and it is now to be found in almost every farm in the North of France, where beetroot is largely cultivated. We give as a specimen his centrifugal cutter, where rotative force is cleverly applied to procure a more rapid and complete action.

Mr. Linard exhibits a plan to carry the beetroot juice to
long distances, by means of subterranean canals, where it cannot be distilled on the spot.

Champonnois' centrifugal Beetroot cutter.

Beetroot is largely manufactured into sugar in France, an industry which owes its origin to the continental blocus during the First Empire, when a substitute had to be found for the no longer procurable sugar-cane. Farinaux-Boudet of Lille show a large pan for baking this beetroot sugar.
Cail & Co. have effected great improvements in their machinery for making cane-sugar, such as rollers, cutters, presses, pans, &c.

The manufacture of aerated waters, the consumption of which is daily increasing, has given rise to some very ingenious machines, among which we shall mention that of Mr. Cazaubon, with a wire-guard to protect workmen against explosions caused by the introduction of carbonic acid; and that of

François' apparatus for manufacturing Aerated Waters.
Mr. François which can be carried about and fixed with the greatest facility.

A less happy invention is that which consists in opening champagne without noise or effervescence; just as if this merry artillery and overflowing froth did not afford the best part of the enjoyment!

To gourmands who wish to know how their favourite sweets are made, we recommend Devinck's chocolate machine, which crushes, rolls, mixes, weighs, shapes, and wraps up this precious condiment; also this large copper which rolls like a ship in distress, whilst the almonds contained therein, receive, from above, a shower of snowy sugar, which transforms them into dragées.

Among the many improvements of modern industry, we must mention stearine candles, which give a steady brilliant light at the same cost as the running evil-smelling dips, and smoky lamps of our forefathers. Mr. Morant has a clever apparatus, which in a single operation moulds these candles, cleanses them, and cools them with a ventilator. This ventilator, however, gives but a light zephyr by the side of Mr. Eusére's forge bellows, which seem anxious to justify their master's name, by blowing a perfect hurricane.

This aerial subject naturally leads us to centrifugal pumps, the vertiginous rotation of which is intended to cause an immediate evaporation of all aqueous parts. Levy's pump which we represent here, is moved by hand and gives 2,200 turns in a minute.

The Imperial Manufacture of tobacco, which has the monopoly of that trade in France, exhibits models of its dry-
ing rooms, ventilators, cutters, rollers, &c., all worked by the agency of steam.

Printing is rather poorly represented: Dutertre's typographic press for printing two colours at once, Voirin's lithographic press, and Leboyer's machine for printing address cards in a few minutes with moveable types, are the only objects worthy of notice in that section.

Levy's centrifugal pump.

Caselli's system for reproducing all sorts of writing or designs, by electric telegraph, attract more attention. A needle travelling over a cylindrical die, communicates, by
means of a wire, with another needle, which repeats the design, in all its details over a cylinder covered with vegetable paper.

The exhibition of the Imperial Admiralty comprises a great variety of models, among which we remark, an iron-plated coast-guard vessel or monitor, somewhat resembling two ships turned over each other; several iron frigates, some with revolving towers, others armed with the terrible ram; a floating battery which is sunk almost to the water's edge; a cavalry transport ship, with stables for five hundred horses, and a very complete plan of the Mediterranean and Atlantic Dock-yards.

The Ministry of Public Works has also some designs and models of great interest to engineers.

A plan which requires less special knowledge to be understood, is that of the aerodrome, invented by a Mr. Borie, who, not finding Parisian houses sufficiently high, proposes to give them a dozen stories with suspended gardens, like those of Babylon, placed mid-way. This gentleman, who dreams of life in nubibus, has evidently very elevated notions, but he ought to have completed his ideas with a series of balloons, allowing the weary twelfth story lodger to make an easy ascent to his aerial dwelling.

There was a time when French railways procured all their engines from abroad, but they have now so far progressed, that they not only supply their own wants, but are able to send their plant to foreign markets.

Among the many fine specimens exhibited, we may mention a locomotive of the Orleans Railway for goods train with ten coupled wheels and deviating axletrees, enabling it to
ascend a continuous incline of one inch per yard, whilst
describing marked curves; and another of the Eastern Railway,
with a tender-motor increasing the power in ascents, and
neutralizing it in descents.

The comforts of travellers have also had their due share of
attention, and if all the improvements exhibited are realized, a
man may soon expect to find himself quite at home in a rail-
way carriage, and enjoy his drawing-room and bed-room, as
if he were at home. Neither have the poorer classes been
disregarded, for the upper stories which the French are so
fond of placing over their carriages, are now closed in with
windows, instead of being open as heretofore to all the
winds of heaven. This would delight Alphonse Karr, who
justly complained in one of his books, that the people who
were the least warmly clad were always the most exposed to
cold.

There is a plentiful show of steam-engines of every system
and shape; but without attempting to describe them all, we shall
merely cite Berendorff's tubular boiler containing moveable
tubes, which can be taken to pieces and cleaned with the
greatest ease, and Bréval's portable vertical steam-engine, the
whole machinery of which rests on the boiler, rendering it
simple and inexpensive.

Quétel Trémois has some ingenious machines for sawing,
planing and cutting wood, which work with a regularity not
to be expected from hand labour, and which offer a great
saving of time.

Noël's soap-mill is also worthy of attention; it chops up
the soap, and grinds it into a fine paste, to receive the necessary
colour and perfume.
There will come a time, no doubt, when artificial locomotion will entirely supersede the antiquated custom of being drawn by quadrupeds, but awaiting this happy age, when my Lord Duke will drive his steam curriage to the Park, and when horses will only be found in museums, classed as "extinct animals," let us cast a glance on the ordinary carriages still depending on equine traction.
The art of coach-making has made great progress in France of late years. Instead of the heavy lumbering vehicles of twenty years ago, we have now light elegant carriages, quite able to compete with those of London or Vienna.

Noel's Soap-Mill.

Among the finest specimens, we may mention a state-carriage made by Kellner, for Ismail-Pacha, Viceroy of Egypt, which is lined with quilted satin, relieved with dark blue
fringe and silver ornaments; another carriage for Prince de Talleyrand-Périgord, by Ehrler, ornamented with princely crowns, and bearing the motto of the family, *Re que Dieu,* a brougham, by Labourdette Brothers, with a drawer containing a looking glass, and all implements appertaining to a lady's toilet, and a miniature barouche, by Binder Brothers, which would exactly suit Queen Mab for her excursions.

We also remark a stylish brougham lined with white satin, by Rothschild, (not the banker) a carriage with a tent above it, like a Turkish *araba,* by Bouillon; a dashing *break,* by Bail; a neat *victoria,* trimmed with flowered silk, by Treffil; and a family omnibus, by Dufour Brothers, which reminds one of the *tartanas* in which the black-eyed *señoras* of Valencia parade along their dusty *alamedas.*

An annex outside contains carts and saddlery, which offer nothing worth noting.

Following our course in the gallery, we find some interesting plans of the mines of Grand'Combe, and Douchy, and of the port of Denain, where by means of a sliding waggon, they can shift the coals brought out of the pit either into a railway truck, or into a barge lying at the quay.

We must not leave unnoticed a handsome monument made of *similipierre* and *similimarbre,* which are excellent imitations, the former of stone, the latter of marble, and seem to possess all the qualities of the original at a much lower cost; and a splendid organ, by Mérkelin Schitte, which fills the air with its vibrating harmonies.

We now come to a very interesting part of the gallery,

* Nothing but God.
where they have assembled a variety of handicrafts, which are mostly unknown to the public, although their results are in common use.

There we find the Bayeux lace-makers, who seem to play with bobbins over a velvet cushion, on which is placed their work, whilst they keep marking out the pattern by means of pins; artificial flower-makers, stamping, gumming, and mounting their gauzy materials; fan-makers, painting their leaves, and joining them to the sticks; comb-makers baking the shell until it has required the necessary softness to be brought into shape; pipe-makers carving the meer-schaum and fixing it on the amber mouth-piece; leaden sculptors who beat out the metal, and finish the ornaments with wooden chisels; diamond-cutters who grind and polish the precious bauble; and copper-engravers who, bent on their plate with a magnifying glass in their eye, seem to bestow much pains on producing an impression, which in another part of the gallery is accomplished in an instant, by means of electricity.

The most attractive stall, however, is that of Mr. Haas, a hatter of Aix, which is constantly beset by a crowd of curious spectators.

There is a story told of a Yorkshire manufacturer, who, having some friends on a visit, showed them at breakfast time a sheep quietly grazing in a paddock, and offered them on the same evening at dinner a leg of the animal, whilst he wore a coat made of its wool, which had been shorn, washed, carded, spun, dyed, woven, and made into a garment within a few hours.

Mr. Haas does rather more. You give him a rabbit, and an hour after he returns you a felt hat. Had he completed
his idea by serving you at the same time with a stew, he would have beaten the Yorkshireman hollow.

This is the way in which he proceeds: He weighs four ounces of rabbit's hair and places them in a pneumatic apparatus which blows them with great force through a slit over a revolving cone drilled with small holes. By means of an internal aspiration, this hair adheres to the surface of the cone and when the layer is sufficiently thick, it is covered over with a wet cloth, compressed with a brass mould, taken off and dipped into hot water to make it adhere together. After that it is dried on hot plates, pressed and moulded into shape, braided and lined.

Here we must take leave of this interesting gallery which would take a whole volume to describe it properly, but as we have said before, our limited space will only allow us to notice what we consider the most salient points.
CHAPTER V.

RAW MATERIALS.

The section of Raw Materials possesses but little attraction for the general public, yet it contains immense and varied sources of wealth.

In the first room, we find some interesting specimens of the various woods produced by France, exhibited by a Government Institute called Ecole Forestière, and a plan of one of the Vosges forests, showing a schlette or rail-track, by means of which one man can bring a heavily loaded truck down a steep hill.

The next room contains a large collection of seeds from Vilmorin-Andrieux; tobacco of all sorts from the Imperial Manufactory, and samples of honey, wax, resins, wools, oils, and hops from different departments.

Flanders and Picardy had at one time the monopoly of flax and hemp, but Normandy and Brittany are now competing with them, and the specimens shown by Rouxel of St. Brieuc, Leconte of Morlaix, Larible of St. Aubin, and Moutardier of Thilleul, seem quite equal to those of their rivals.

Silk-worm cocoons are sent from divers parts, but the most remarkable exhibition of that kind is supplied by M. Guérin-
Méneville who has made some interesting and successful experiments at the Imperial Domain of Vincennes for acclimatizing new breeds, principally from China and Japan. Those with which he succeeded best are the ailante, (*Bombyx cynthis*) the oak silk-worm, (*B. yama-mai*) the castor-oil worm, (*B. arrindia*), and the plum-tree silk-worm (*B. seccocopia*), which all thrive well in the North, where the mulberry tree, on which feeds the usual sort, does not grow. M. Guérin-Méneville is now trying to introduce another species, the *Bombyx Atlas* of the Himalaya mountains, which produces splendid cocoons and engenders a butterfly measuring no less than eight inches across the wings.

Some cotton gathered on the shores of the Mediterranean, in the moving sands of Pirols, does great credit to the ingenuity and perseverance of the grower, Mr. Régis, being, we believe, the first ever produced in France. We also notice some new textile materials, one extracted from the mulberry tree by Cabanis, another from clover root by Caminade.

We should like to know, however, under what pretence they have classed among raw materials, an assortment of curtains and other fabrics made of so-called Japanese felt, but in reality of stamped gummed paper, which might go to the wash, but would certainly never return.

The curriers and leather-manufacturers occupy the next room, and we remark that they have nearly all received gold medals, or decorations; the well-known axiom, "there is nothing like leather," seems evidently to have guided the Jurors in their awards.

We now come to the most, or we might say the only brilliant part of this somewhat dull gallery, the chemical pro-
ducts which vie with each other in bright colours and dazzling crystals.

We shall first mention the important manufactory of Camus and Sons, which under the clever management of Mr. H. Le troublon produces irreproachable wares. Their exhibition forms a perfect landscape with mountains of acetate of lead, trees of arseniate of copper and streams of wood naptha.

The numerous colours obtained by the decomposition of coal-tar form an interesting feature.—The Lyonnese Company "Fuchsine" principally show red and pink shades, Poirier et Chappaz, violet, Usèbe aniline green, &c.

Sea-weed which was allowed to accumulate on the shore for so many centuries has now found some useful applications.—Numerous factories established on the coasts of Britany gather it and have it dried and chopped up to replace hay in packing, or extract from it jodides, bromides and chlorides, leaving a residue which forms excellent manure.

Mineral oils are also a new branch of trade, and the "Mar- seilles Petroleum Company" prove by their specimens that our transatlantic cousins have not been the only ones successful in "striking oil."

Mr. Coupier, an industrious chemist, shows some new combinations of aniline which he calls toluène and xylène, and some paper pulp extracted from various sources, such as reeds, oats, barley, jute, &c.

The Dieuze Manufactory recovers sulphur from the residues of soda; Ramondin & Venot make very good manure out of the resinous products of the Gironde; Deiss extracts soaps out of suds by means of sulphuret of carbon; Souffrifice & Co. collect fatty matters from the waste of
stearine works; in a word, we notice laudable efforts everywhere to turn to account that which has hitherto been considered useless.

We must briefly sum up the following as having some claim on our attention: Guimet's ultramarine, Lefebvre's white lead, Delacretez & Clouet's yellow and red chromates of potash, Desespingalle & Moreau's phenic and gallic acids, Moulin's salts of tin, Kestner's tartrates and Kuhlmann's silicates of potash and soda, which serve to protect walls from decay.

We may also mention Ménier's, Dubosc's and Poullenc & Wittmann's chemical products for laboratories, photographers, &c., Leperdriel's medicine chests which are very complete, De Milly's stearine candles, and some very fine paraffine from various makers.

Marseilles had at one time the monopoly of household soap; which was manufactured with olive oil, but since various vegetable oils have been substituted to the latter, the so-called Savon de Marseilles is also made at Amiens, Paris, Dijon, &c. A few houses, however, still uphold the ancient reputation of the Phocean city, such as Estrangin de Roberty, Jourdan, Roux, Millau, Arnavon, &c.

Mineral waters are plentiful in France, and are largely consumed either pure or mixed with wine; Vichy, Plombières, Luxeuil, Condillac, have sent specimens of the produce of their springs.

We now come to the section of metals where we find some very tempting cakes, though rather hard to bite; one weighing upwards of four hundred weight, and worth
£2,280; another valued at £5,800; both of auriferous silver.

The Denain, Montataire, and Panchot mines exhibit their ores of iron and copper, as well as those metals in bars and sheets. A wire-maker, to show the tenuity he can give to his work, shows a wig made of brass-wire, a very economical thing, no doubt, as it would wear out many heads.

The French Government have a very interesting collection of all the minerals found in the country, symmetrically arranged with labels describing their composition and place of production.

Japy Brothers, who are large manufacturers of culinary utensils, display a huge pyramid of saucepans, cullenders and coffee-pots.

Mr. Oudry's system of bronzing metals is worth noting; he covers pieces of cast-iron with an impalpable copper powder by means of electricity, and obtains thereby a perfect imitation of bronze free from the clogging usually produced by other processes.

Mr. Zégut, disdaining all deception, presents us with cast-iron statues and ornaments in their natural crude colour. His most remarkable piece is a bust of the Emperor of Austria, made in thirteen days from a photography, and nevertheless an excellent likeness. It was presented to Francis-Joseph on his recent visit to Paris.

Messrs. Ste-Marie-Dupré Brothers, who succeeded M. Dupré, the original inventor of metallic capsules, show a very fine assortment of these ingenious coverings which are largely used by wine-dealers, pickle-makers, perfumers, &c.

We pass through the section of furs which seems guarded
by a wolf, with ferocious looks and sharp fangs, *quærens quem devoret*, and we come to the last department of this Gallery, which contains stoves, fire-guards, and *chenets* or fire-dogs. The latter are used, as our readers probably know, to support the logs of wood usually burnt in French chimneys. The protruding ends were formerly made to resemble a dog, hence the name. They are now, however, shaped in various fancy ways as will be seen by the accompanying illustration representing a *chenet* by Clavier, one of the best manufacturers in that line. This chimney furniture which appears so strange to the eyes of an Englishman, was in use in this country before the discovery of coals, but it has long since been replaced by our commodious graters which are much better suited to the requirements of the climate.
CHAPTER VI.

CLOTHING.

That part of the Clothing Court which faces the Grand Vestibule is composed of handsome glass cases wherein are displayed the most elegant novelties of wearing apparel from the principal Parisian drapers and silk mercers; it need scarcely be added that this spot possesses a particular charm for ladies who crowd round to contemplate these costly fabrics, richly embroidered dresses, and gorgeous Court costumes. We must confess, however, at the risk of appearing a barbarian in the eyes of our fair readers, that the place has not a similar attraction for us, and we shall even question the propriety of admitting as exhibitors people who manufacture nothing, and whose natural exhibition is their shop-windows which can be seen every day.

We may perhaps be told in answer to our objection, that these establishments represent Fashion, and that this capricious and despotic sovereign has a perfect right to a place in a department over which she holds her more than usual sway. If it be so, we bow in humble submission and pass on, contenting ourselves by mentioning as one of the greatest eccentricities a dress representing a peacock, the tail forming
the train; we wonder though, who will be the woman courage-ous enough to brave the allusions to which she will be exposed by assuming the garb of Juno's favourite.

Penetrating into the interior of the Galleriès, we find everything classed with great method and taste; nevertheless the public loiter but little here, for the study of Ardèche raw silk, Tours reps, Saint-Etienne ribbons, Amiens velvet, Rheims woollens, Troyes hosiery, Sedan and Louviers cloth, Tarare muslin, Rouen cotton prints, possesses no interest but for people in that particular branch of trade.

We must, however, make exception for the damask linen of Mr. Casse, of Lille, which represents different subjects treated very artistically, and for the magnificent silks shown by the city of Lyons which defy all rivalry for beauty of material, brilliancy of colour, and variety in design.

Paris, Saint-Quentin, Saint-Pierre-lez-Calais, compete successfully with Belgium for their tulles, lace and embroidery. There is among other wonderful things, a dress of Point d'Alençon which is said to have cost ten thousand five hundred days' work. Just imagine, ten thousand five hundred girls giving each a day of their lives to adorn one single individual, and yet France pretends to be the land of equality!

Pariat-Laurent, of Paris, excels in trimmings, an article of no small importance with the present style of dress, and his exhibition is very tasteful and complete. The straw hats of Durst-Wild, Aginellet Bros. and Chaumonot & Co., show great progress, and are worthy to rank with those of Italy; as to bonnets they are reduced to a mere shadow, a tiny gauzy cloud floating on the head. Of the hats of the sterner sex we
can only say they are very ugly, and that they will continue so until another form is substituted for the hideous Chimney-pot which men will persist in donning, though inwardly protesting against the absurd fashion. While they still adhere to this inconvenient head-gear and do not muster sufficient moral courage to lay it by in a museum of antiquities, together with the long-tailed coat, they are hardly entitled to criticise crinoline and other extravagances of female attire.

Passing from top to toe we come upon the charming little boots and slippers of A. Petit of the rue St. Honoré, whom we do not hesitate to place above the others for style and finish, although the jury only awarded him an honorable mention, which he naturally refused to accept. We will also mention Pinet, who manufactures ladies' and children's shoes on a large scale; Mr. Meyer who represents the four seasons on his slippers by roses, poppies, grapes and holly; and Mr. Deleuil, whose hunting boots are made to resist the roughest weather.

After having given our praise to these exhibitors, we may be allowed to venture on a slight observation: how is it that among all these bootmakers there is not one who seeks to imitate the natural form of the foot? this unfortunate limb is condemned by fashion's decree to assume a shape sometimes pointed, sometimes rounded, sometimes square, but always different from that of nature. Place for instance the boot of an élégante by the side of the foot of the Venus de Medicis, and judge if we are right. When will they adopt the system of dressing the foot like any other part of the body, following its outlines instead of compressing them in a narrow case? There will then be an end to contracted toes, corns,
bunions, &c.; walking will become a pleasure instead of a fatigue, and everyone will rejoice at the change excepting chiropodists.

We might also make the same observation with regard to corsets, but we prefer not entering into these minute details of the toilet, and shall pass on at once to its accessories, such as gloves, fans, parasols, &c.

The well-known supremacy of France for kid gloves is worthily sustained by Cheilley, Jouvin, Courvoisier, Fortin, and Jugla, of Paris; Tréfousse & Co. of Chaumont; Francois of Grenoble, whose elegance in cutting and neatness in sewing are irreproachable. Cloth gloves are equally well represented by Salles & Co. of Lyons, Maigron-Veyret and Francois of Paris.

The manufacture of fans is quite a Parisian speciality, Spain even comes to buy her best fans in Paris, for the Malaga and Valencia makers supply only a cheaper class.

A special glass-case has been granted to Alexandre to show his fans which are certainly very artistic, but what one admires in them are the paintings of Vidal, Ingres, and Baron, the fan makers' share in the work is but trifling.

We also find some beautiful specimens in the cases of Meyer, Toupiier & Lepaut, and Vanderwoorde; we must confess, however, that for harmony of colour and beauty of design we give the preference to Mr. Guérin Brécheux, who possesses one of the most important houses in this branch (1, Boulevard de Strasbourg); we may also mention that the fans exhibited by him have been nearly all bought by the Sovereigns who visited the capital. The one which we represent here is mounted on gilt burgos, inlaid with pearl,
the painting is extremely beautiful and the whole in perfect unity; it was sold to the Queen of Portugal. The same manufacturer exhibits a tortoiseshell fan inlaid with pearl,
and mounted with black Chantilly lace, representing two cupids swinging in a hammock; another of a very bright mauve pearl with silk top of the same colour, ornamented with lace; and a third of rich point, which was sold to the Viceroy of Egypt.

The parasol is not only intended to protect the delicate complexion of a lady from the too ardent rays of a summer's sun, but it must also throw a pleasing shade on the face. Albert Gruyer, Achille Gruyer and Charageat have studied this double effect, and nothing can be more coquettish and more becoming than the parasols they exhibit.

The industry of artificial flowers is one which is also carried to great perfection by Parisians; not contenting themselves with rivalling nature they seek to surpass her, as we may see by the magnificent bouquets which surround us, and which have all the freshness of the flowers of the parterre without their transientness. Where everything is perfection it is difficult to show a preference; we will, however, say that Javey, Baulant, Delaplace, D'Ivernois, Baquet, and Favier distinguish themselves particularly in this art; nor must we forget the charming flowers of the Countess de Baulaincourt, and the head-dresses formed of _buprestes rutilants_ and other exotic insects, which possessing metallic reflection produce a very beautiful effect.

If we are uncertain as to who shall bear the palm among the artificial florists, what shall we say with regard to the jewellers who, great and small, exhibit such marvels of art and value. How can we make a choice amongst these diamonds, rubies, sapphires, opals, pearls, &c., all these treasures dragged from the bowels of the earth or the depths of
the sea, and which in their rich mountings dazzle us with a thousand lights.

We cannot attempt a description of this *Aladdin's Cave*, but shall simply note the names of the exhibitors whose show is the most striking: such as Messrs. Froment-Meurice, Rouvenat, Weise, Mellerio, Duron, Massin, Fontenay & Boucheron. The accompanying illustrations may give some faint idea of the artistic shapes of these *bijoux*, if insufficient to do justice to their colour and brilliancy.

We notice also as a great novelty some *electric* jewels, representing heads, and forming brooches, pins, &c.; a wire connected with a galvanic pile, which is carried in the pocket, causes the eyes to move and the mouth to open, making all sorts of grimaces. To what will electricity lead us?

We must not forget the steel ornaments, these *diamonds of the poor*. Mr. Bourgain, Jun., excels in this style of work; his parures, necklaces, brooches, &c. display great taste and ingenuity.

If jewels have the merit of attracting the fair sex, fire-arms,
which are placed in their immediate neighbourhood, possess similar allurements for men. Here they can admire at their ease the beautiful displays made by Lepage, Lefaucheux, Doye, Lagrèze, &c., and compare together all the novel systems. Can they, however, decide at a glance whether French guns and pistols excel those of Belgium, America or England? It is scarcely probable, as they must be tried to be judged, and theoretical explanation teaches us very little of their merits.

As another instance of the irregular system of grouping, we find toys by the side of fire-arms, both being classed with clothing, under the plea no doubt that a gun appertains to the costume of a man, and a doll forms part of that of a girl.

A trophy composed of a negro playing the flute, a rabbit beating the tambourine and of other me-
chanical pieces, by Thérèoude, forms the centre of this section, which contains some dolls very coquettishly dressed, and a great variety of elegant toys which must make children dream.
of fairy-land. We also find in this gallery specimens of popular costumes, although belonging to another group

Peasant woman of Brittany.
Peasants of Alsace.
THE PARIS EXHIBITION.

This collection of costumes of different provinces of France is very interesting, and would have been perfect had they thought proper to give a natural colour to the faces of the figures wearing them, but by leaving them of a deadly white hue the effect was spoiled. Foreigners were better inspired, and their national specimens have such a life-like expression, that one feels tempted to address them, as persons have often done to wax figures, when strolling through Madame Tussaud's Rooms.

We have selected the three costumes represented here as being the most interesting. Brittany and Alsace have preserved more than any others the habits and the traditions of the past; in the former the celtic element still strongly predominates; the latter has remained thoroughly German, if not in sympathies, at all events in manners, language and garb.
CHAPTER VII.

FURNITURE.

The art of internal decoration has made great progress in France of late. Museums and palaces have been ransacked to procure handsome models, and with the assistance of clever artists and ingenious workmen it has been a comparatively easy matter for French manufacturers to bring their furniture to its present state of perfection. Not so light would be our task to convey by words to our readers some idea of these refinements, and we shall consequently call illustrations more than once to our aid, to replace or complete our description.

First in this gallery stands Mr. Fourninois, and first also did he stand in the estimation of the jury, who granted him, and
THE PARIS EXHIBITION.

very deservedly too, one of the grand prizes for his superb pieces of decorative furniture. We regret our space will not allow us to illustrate his splendid ebony cabinet, which is his master-piece; but the arm-chair represented here will serve to show what taste and elegance he imparts to all his works.

His neighbour, Mr. Hunsiger, has also a very fine cédence inlaid with ivory, in the style of Louis XIII., which attracts general attention; and a little further we find a magnificent cabinet, executed for the Empress of the French by Mr. Grohé, from the designs of Mr. Joseph Chéret, a young sculptor full of promise.

We may also mention as worthy of great commendation the furniture exhibited by Messrs. Diehl, Racault, Allard & Chopin, Lemoine, Roudillon, Guérét, Loremy & Grisey, Brun, Mercier, Beurdeley, Gallois, Pecquereau and Géruzet; the latter has some charming pieces decorated with Pyrenean marbles happily blended with oak carving.

Algerian onyx, a stone which was much prized by the Romans, and which has lately been re-discovered after laying hidden for many centuries, is now brought into a variety of uses by Messrs. Viot & Co., who show vases, clocks, cups, &c., all mounted with great perfection. Their finest work however, is a pair of gigantic figures holding candelabra, from the models of Carrier-Belleuse; the peplum of onyx produces a pleasing contrast with the flesh made of oxydised silver, and with the gilt bronze ornaments.

The sculptured marbles of Mr. Cordier also abound in these striking contrasts; his Fellah woman, his Indian, his Negro all bear the same stamp of original merit. A bassorelievo of tinted marble representing the Nine Muses, with
their names above in Greek letters, deserves some explanation. Mr. Cordier having arrived one day at Missolonghi, in the course of his travels, was visited by nine young Greek maidens; inspired by their number and their beauty, he consigned their features to posterity under the form of the Nine Muses.

Mr. Tahan excels in those elegant *petits meubles* and knick-knacks which form the ornaments of Parisian houses. He exhibits, among other things, a finely sculptured cabinet ornamented with a medallion representing a landscape, and a *bénitier* worthy of the oratory of a Princess.

Mr. Latry has the speciality of *bois durci* or hardened wood,
a composition with which he manufactures some charming coffers, trays, &c.

Before leaving this department, we shall venture to make a remark: How is it that these artists in furniture are satisfied with imitating the styles of the past, the Egyptian, the Pompeian, the Renaissance, and the four Louis. Will they not
once give us something of their own, and inaugurate the style of the nineteenth century?

Tray of hardened wood, Latry.

Tapestry is an art that has been long practised in France, to wit the celebrated Bayeux tapestry, wherein Queen Matilda depicted the exploits of her husband, William the Conqueror. The national manufactories of Gobelins and Beauvais have done much to uphold and improve the character of French tapestry, and their example has been worthily followed by private makers, as we may judge from the "Pastorales" by Braquenié, the "Fables of La Fontaine" by Réquillard, Roussel and Chocquard, and Duplan's "Wolf attacked by dogs," which have all the brightness and finish of real pictures.
THE PARIS EXHIBITION.

Carpets, which we have borrowed from the East, and which replace the layer of "sweet rushes" of our forefathers, have also attained in France a rare perfection.

Carpet, Mourseau.

We may quote as specimens the magnificent productions of Aubusson, which may be termed a model manufactory, and Mourseau's carpets of various patterns which all exhibit great taste.

What the Gobelins have done for tapestry, Sèvres has accomplished for porcelain. Supported by Government, totally regardless of gain, and making every sacrifice to procure the best artists, the great Sèvres manufactory has attained an excellence never surpassed if ever equalled. Its mural tablets
RECOLLECTIONS OF

painted by Yvon, its great vase designed by Nicole, its cups modelled by Solon, Gély, Barriot, its relief figures of *pâte sur pâte* command general and well deserved admiration. We regret that our space will only allow us to illustrate a small specimen of this splendid display.

Limoges has evidently preserved some of the traditions of Bernard de Palissy. Messrs. Gibus, Haviland, Alluaud, Labesse, Sazerat, have done their best to follow in the track of their celebrated townsman. We may also mention as highly commendable the manufactures of Pillivuyt & Co., Nevers, of Hache & Pépin-Lehalleur, Vierzon, and of Geoffroy-Guérin & Co., Gien; and as novelties, Macé’s ceramic chromo-lithography, Collinot’s Persian potteries (from A. de Beaumont’s designs), and Deck’s imitations of Japanese porcelain.

Until the Treaty of Commerce came into operation the importation of foreign earthenware into France was totally prohibited; and the natural consequence was that this branch of trade, like an infant stifled in its swaddling clothes, was
stunted in its growth. Since it has been stimulated by a healthy foreign competition it has achieved great progress, and can now successfully compete with its rivals. The best specimens of this kind are displayed by Messrs. Lebœuf, Milliet & Co., who possess two large manufactories, one at Montereau under the direction of Mr. Frontier, and one at Creil managed by Mr. Barluet.

St. Louis and Baccarat are the two principal establishments for crystal, and their exhibition is of the most dazzling description. In the centre stands a gigantic candelabrum,
which we remember to have seen in 1862, and on the sides an immense variety of cut glass, among which we remark some very elegant *aquaria* serving at the same time for flower-stands.

The Clichy crystal works although of less importance are also worth noticing, but their imitations of ancient Venetian glass are very inferior to those of Dr. Salviati in the Italian department.

We find here gold and silver plate, which although often manufactured by jewellers have been classed in a separate group.

The central piece in this court is Christofle's magnificent *surtout* belonging to the City of Paris, and representing the ship accompanied with marine attributes, which this most *inland* of capitals has chosen for its emblem.

Christofle also exhibits a rich toilet with statuettes by Carrier-Beleuse and
ornaments by Chéret, which is intended for the Empress; and some plated tea and other services of exquisite workmanship.

Ganymede, Veyrat.

Mr. Veyrat is a perfect artist, whose productions can rival
Christofle's in every point. His Ganymede is beautifully executed, and is worthy of a place at the banquet of the gods.

Mr. Odior's exhibition quite justifies the reputation of that eminent house. It comprises among other things a magnificent cup, presented to Mr. Petin, of Rive de Gier, by his workmen.

We shall not attempt to describe the beautiful cups, ewers,
flagon, coffers, jewel boxes, &c. shown by Mr. Rudolphi, Mr. Fannièrè, and Mr. Coffignon. We prefer illustrating a few specimens of the talent of these modern rivals of Benvenuto Cellini who add to metals already precious in themselves, the far greater value of the work bestowed upon them.

Renaissance Jewel box, Coffignon.

The manufacture of bronze is one in which the Parisians excel; under their skilful handling it assumes all shapes, either useful like clocks, lamps and candelabra, or purely ornamental like statues, vases and cups.

The leading house in that trade is Barbedienne, whose splendid show on the boulevard, some of our readers may probably have had occasion to admire. His exhibition, placed
under a gigantic canopy, comprises among other things, a handsome cabinet in the Moorish style; a Renaissance mirror with a frame bronzed, gilt, and silvered, two excellent busts of Voltaire and Rousseau, a clever reduction of the "Florentine musician" of Dubois, a bronze coffer with a new sort of gold and silver mosaic, and many other marvels of good taste fit for princely mansions.

Among the remarkable pieces shown by other manufac-

Egyptian Vase, Lemaire.

urers, we may mention an Egyptian vase by Lemaire, a
clock by Houdebine, a candelabrum by Lerolle, and a vase of flowers by Matifat, the merits of which can be judged by the accompanying illustrations.

Whilst admiring these fine bronze works, however, we must admit that their necessarily high price places them beyond the reach of some classes, and the love of art has now spread to such an extent throughout the people, that the poorest like to adorn their dwellings with some object
pleasing to the eye, and harmonious in its proportions. It is to supply this want that galvanized zinc, euphoniously

Bronze Candelabrum, Lerolle.
termed *artistic bronze*, has been created. Numerous manufacturers now devote themselves to this new branch of trade, and by dint of perseverance they have succeeded in producing perfect imitations of bronze in every respect at about one-fifth of its cost. We give here specimens from Boy and Lefèvre, the two largest houses in that line.

We find here again Durenne and Barbezat, whose fountains we have noticed in the Park. Here they exhibit cast-iron statues, fountains, lamp-bearers, &c., which are all highly finished.

We may remark here, by the bye, that this is the fourth section where we find cast-iron statues; another instance of the defects of the classification adopted.

We have already noticed clocks, but only as far as the outside case was concerned; we must now speak of the real clock-makers, of those who give life to this body.

We must grant the first place to Leroy & Son, of the Palais Royal, 13 et 15, Galerie Montpensier, whose reputation dates from upwards of a century, and who are so confident in the superiority of their work, that they have not feared to compete with the well-known excellence of
Lampbearer, Boy.

Lampbearer, Durenne.
English watch-makers by establishing a branch in London, 211, Regent-Street.

Their master-piece is a clock which marks not only the hour, but the day and the month; it also serves as a barometer and thermometer; they have likewise a very curious watch with a double dial, indicating the time of two coun-
tries where the longitude is different; the seconds are

independent, and with double hands, which are made to stop or go by pressing a spring, a valuable arrangement for making observations; this fairy watch shows besides the
year, the month, the date, the day of the week, and the phases of the moon.

Mr. Oudin's and Mr. Detouche's clocks deserve also a special mention. Mr. Detouche, who has one of the largest establishments in Paris for the sale of watches, clocks and jewellery, exhibits some very remarkable pieces among which we notice a regulator with compensated equations and pendulum, an all the year round clock showing the date by means of shifting cards, and some highly chased silver cups and statuettes, for presentation or racing prizes.
Mr. Detouche is likewise a clever mechanician and the turnstiles used to admit visitors to the Exhibition were devised by him in such a way as to afford an exact check for the numbers entered and perfect security for the money boxes.

The moderator lamp, the first specimen of which we remember brought into London, and by the bye mercilessly snubbed at first by all the dealers, has now made its way into the world and very nearly superseded all other kinds. Among the many specimens of this industry, which has remained
specially Parisian, we notice Schloßmacher’s lamps as being those which combine the greatest perfection of mechanism with the most artistic shape.

The various vases used in Roman Catholic worship, form a rich and brilliant exhibition, among which we distinguish Thiery’s manufactures as being particularly tasteful and chaste in design.

There are however some poor village churches which cannot afford the luxuries of gold or silver ornaments. To these, Mr. Paul Morin offers his aluminium bronze which has the exact appearance of gold, and costs considerably less. This new metal is composed of equal quantities of chloride
of aluminium and potassium melted in a porcelain crucible. It is also largely used for dinner table services and for mounting jewellery.

We shall leave unnoticed the cutlery and leather-work as containing nothing very new or remarkable.

At the end of this Gallery we find the Perfumery Court which is very tastefully arranged and which offers to
ladies the double attraction of a soft resting divan, and of a balmy atmosphere. There, in plain but neat glass cases, the leading Paris perfumers, such as Piver, Violet, Guerlain, Chardin, Legrand, Gellé, Pinaud, display their tempting wares, and many are the wistful glances cast by the fair visitors at those dainty bottles, those elegant sachets, those brightly coloured soaps, of which the look is the least merit. In another compartment are the distillers from Nice, Cannes and Grasse, whose products do not appeal so much to the eye, although they are the sources whence flow the streams of sweet odours. Among the latter we shall mention D. Séméria & Co., of Nice, who make agoodly show of the balmy treasures which they cull in that ever-flowering Eden.
CHAPTER VIII.

THE MATERIALS FOR LIBERAL ARTS.

This rather vague title comprises articles of the most varied nature, from literature to false teeth, from musical to surgical instruments.

At the entry of the gallery in the grand vestibule stand two pavilions ornamented with rich hangings; one belongs to Hachette & Co., whose name is of more than European renown; the other to Mame & Son, of Tours, to whom was awarded one of the grand prizes. These two houses show their magnificent editions of the Bible, Dante, Architecture de la Renaissance, &c.

The Imperial printing-office worthily fulfils its mission which is to encourage and execute fine typography, and to print gratuitously works of science and literature, when, in consequence of their special and exceptional nature, they would not find a remunerative sale; their Evangiles, Histoire de César, Palais de Fontainebleau, containing beautiful plates, and their Livre des Rois, (Schab-Maneh), a poem by Aboul-Kasim-Firousi, translated by Mr. Mohl, may serve as patterns to all printers.

The distinctive merit of the Imperial printing-office, however, is that of its graphic types for which it is probably unrivalled. The immense variety of foreign alphabets which
they show proves the hollowness of the compliment often made to polyglots, that they know every language. There are there idioms, the very names of which are unknown to many of our readers, such as estrangbolo, barman, binyarite, magadba, tifsnag, pa-sse-pa, &c.

The geological map of France executed on a very minute scale, does also great credit to the Imperial establishment, and is on a par with the best German charts.

Among the printing editors we shall mention as the most remarkable, Mr. Plon, to whom was confided the commercial edition of l'Histoire de César, Mr. Delalain who publishes classical works, and Mr. Armengaud, whose Galeries publiques de l'Europe, Les Trésors de l'Art, &c., merited more than the silver medal which was awarded him, and which he refused as did many others.

Mr. Firmin Didot appears to rest on his laurels, and to be satisfied with his ancient celebrity, for he does not attempt to shine in the contest.

There is, however, a house of at least equal antiquity, for it dates as far back as 1676, which still perseveres in the path of progress. Mme Berger-Levrault, of Strasburg, besides typography and lithography, exhibits a new sort of copper engraving which can be produced cheaper than wood engraving, and set up with ordinary letter-press.

The best specimens of typography are shown by Mr. Claye (who printed the French edition of this book), Mr. Lahure, who works principally for Hachette, and Mr. Victor Goupy who, next to the Imperial printing-office, has the largest collection of foreign type.

Mr. Bourgerie-Villette, with the aid of litho-chromy, imi-
tates oil paintings with a perfection which we only find equalled in Austria. Messrs. Kugelmann & Graff distinguish themselves by reproducing old missals with all the finish of the originals, and Messrs. Bry & Son exhibit splendid lithographies, including illustrations to Dante’s poems, from Yvon’s designs. We may also notice some finely executed steel engravings by Goupil, some maps engraved on stone by Ehrard-Schieble, Lemercier’s engravings and lithographies, and Barbat’s illustrated New Testament, with a different ornamental border round every page, which certainly deserved something better than the honourable mention he received.

There are other lithographers, such as Rognard, Romain & Palyart, Appel, Reibel-Feindel, who work chiefly for commercial houses, and whose tasteful labels and show-cards are worthy of commendation. Guesnu’s fancy papers are also remarkable for their bright colours and variety of patterns.

The raw material of all this, paper, does not offer much attraction to the visitor, yet it is one of the notable industries of France, and the samples shown by Bécoulet, Breton, Blanchet, may compete with those of the best English and German mills.

We may mention, before leaving this department, Mr. Prignot’s designs of furniture for which he received a gold medal, Mr. Engel’s rich bindings, and Messrs. Blanzy, Poure & Co’s metallic pens which procure employment for many hundred work-people of both sexes, at Boulogne-sur-Mer, where their manufactory is established.

France may justly lay claim to the invention of photo-
graphy, this science which has now almost become an art. As far back as 1824, Mr. Niepce de Saint-Victor, calling the sun into partnership, had found means to fix a transient image on a tin plate. Twenty years after he succeeded in making this fugitive impression adhere to a glass by means of albumen. Others taking up the idea found a way to transfer this negative proof to paper, and now Mr. Lafon de Camarsac, going a step further, renders the picture everlasting by protecting it with an enamelled coating.

One of the most useful inventions, however, is that of Mr. Garnier who, by fixing the negative on a steel plate, allows any quantity of copies to be drawn from it; for this discovery he received one of the grand prizes.

By the side of all these improvements Mr. Niepce de Saint-Victor exhibits his first attempts, and it is rather curious to compare them with the perfection of modern productions.

It would be difficult for us to notice all the photographies exhibited, their name being legion; we shall merely mention as the most striking some fine coloured portraits by Pierson, some life-size heads by Alophe, landscapes by Jean-Renaud, and copies of pictures by Bingham.

We regret not to find here our friend Nadar, of balloon celebrity, who manages to impart some of his wit to the heads which are brought under his objective.

Musical instruments will next claim our attention. To those whose education has been slightly neglected, there is a piano of Debain's we can recommend. By simply turning a handle with the right hand, and inserting with the left a
series of perforated planks into the key-board, like slides in a magic lantern, they will become at once as clever as Liszt or Thalberg.

To those who object to this barrel-organ performance, but whose rebel fingers cannot execute properly a *pizzicato*, here is an instrument by Guidon, which will do the work for them by pressing a pedal whilst holding the note.

A little further there is a *transposing* piano which, by winding up a machine, will raise or lower the tone to the proper key without having to battle with a formidable array of flats and sharps.

Now here is the *multum in parvo*, a quartett piano which is a whole orchestra in itself and imitates all at once the violin, alto, violoncello, and bass. What a treasure for a country theatrical manager with limited means!

After mentioning these eccentricities, we are bound to add that there are also some instruments, whose only claim on public attention is their excellence, such as Pleyel's and Herz's pianos which are worth a little fortune in themselves, Alexandre's, Rodolphe's and Debain's organs and harmoniums, Sax's brass instruments, including the *saxophone*, this leviathan of music, and some violins of Gand and Bernardel, of which Stradivarius would have been proud.

We now come to mathematical instruments which would be very instructive, no doubt, if they could be appreciated, but being mostly enclosed in glass cases and accompanied with a meagre description, the public can only guess at their merits.

We may, however, quote as the most remarkable pieces of that collection, Ruhmkorff's electrical apparatus, Thénard's
mercury pneumatic machine, Bréguet’s aneroid barometer, Nachet’s microscopes, Dubosc’s optical instruments, Brunner’s telescopes, and Deleuil’s automaton scales.

We may also notice as novelties Thomas’s *Arithmometer* to enable uneducated persons to calculate, an idea apparently borrowed from the Chinese, and Koenig’s acoustic apparatus to decompose sounds by means of manometrical flames.

The most interesting exhibition of the medical section is that of Dr. Auzoux, who demonstrates in its most minute details the anatomy of man and animals with plastic models. The bones, muscles, arteries, viscera are taken to pieces and replaced like the works of a clock. It is certainly very useful to know where our organs lay, were it only to avoid the error of that individual in Molière’s play, who placed the heart to the right, but after having seen the learned doctor undress a man in this way, one cannot help finding that our poor humanity is very ugly inside, and agreeing with the poet that *Beauty is but skin deep.*

We scarcely know what to say of the other objects which meet our view in this department; of these eyes which persue us with their glassy look, of these teeth which grin at us, of these arms and legs which seem to wait for a body; all these sights are far from enlivening, and the same may be said of those beautifully polished and dreadfully sharp surgical instruments, which one cannot look at without involuntarily shuddering at their destination.

Let us wind up with a more cheerful theme. Some time since, a paragraph went the rounds of the English papers announcing that an addition had been made to the already long list of female artifices. Some ladies in France, displeased
with the size or shape of the ears allotted them by Dame Nature, had adopted false ones made of india-rubber, which were worn over the others. Now while terminating our examination of this gallery, we discovered the origin of this libel on the fair sex; it is simply an ear-case made of pink india-rubber, into which the ears are inserted, as into a snug over-coat to keep them from cold. It is therefore entirely proved to our satisfaction, and we hope also to that of our readers: that no French ladies possess Midas-like ears requiring concealment, and that the impugned artifice was a simple and innocent covering.

Having now settled the cause of the ears, we shall advocate that of the nose. Can nothing be done for this poor advanced guard, so useful always, and sometimes so ornamental? Shall we not also provide a case for him to prevent his being frost-bitten?
CHAPTER IX.

THE FINE ARTS.

The Fine Arts are divided between the Central Garden, which contains the greater part of the statuary, and the last Gallery but one where the pictures are exhibited.

Entering the garden we find first of all a statue of Carrara marble by Dubray representing the Empress Joséphine, who seems placed there to preside over the Arts of which she was so fond.

The infancy of Bacchus, by Perraud, is a pretty group which obtained for its author the medal of honour in 1863. The little god climbing on the shoulder of a fawn is pulling his ears, and threatening him with his thyrsus.

The death of Abel, and Chactas at the tomb of Atala, by Gruyère, are two touching scenes very well executed.

The Florentine Singer of Paul Dubois, an eminently characteristic work of the modern school, was one of the greatest attractions, in the Salon of 1865.

The Neapolitan Fisherman, by Carpeaux, is a charming composition, which has nothing of the affected style of the Italian school; but the chief piece of this great artist is the group of Ugolin surrounded by his children, which for boldness of conception and vigour of design is worthy of the chisel of Michael Angelo. We must, however, confess after having done
The Empress Joséphine, by Dubray.
justice to the merit of the work, that we do not like these two figures thrust so violently in the corners of the mouth; this unhappy man who devoured his children to preserve them a father, as said a wit, seems to be making strange efforts to swallow the rest of his family, who are clinging to his knees.

Mr. Aimé Millet presents us with an Ariadne, so seductive, that it is difficult to believe any one could have had the bad taste to abandon her.

The Angelina of Carrier Belleuse is full of that feminine grace which this celebrated sculptor knows so well how to express, and which fully realises the poetic ideal of Ariosto; very different as regards subject and treatment, but equally beautiful is his Virgin showing the infant Saviour to the world, a sublime face beaming with celestial rays.

Mr. Carrier Belleuse is no less successful in his busts; the portraits of Théophile Gautier, and Pauline Viardot, are life-like in form and expression.

We may mention also as very remarkable, the heads of Enfantin, by Millet; Auguste Comte, by Etex; and Cobden, by Oliva. The busts of Napoleon I., taken at every epoch of his life, from Brienne to St. Helena, are grouped around his full length statue by Guillaume, and form a very interesting collection.

Before we pass to the pictures, we will say a few words respecting a novel kind of coloured basso relievo, or as we may term it, inlaid marble, representing biblical subjects, which are intended for the Wolsey Chapel at Windsor.

This new style of work named by its inventor, (the Baron Triqueti), tarsia de marbre, consists in cutting out the outline and shades of the figures, the cavity formed being
filled up with cement, to which can be given the most brilliant colours.

The first painting which attracts our attention is a *Sale of slaves in ancient Rome*, by Giraud; the background is perhaps a little hard, but it serves to throw out the profile of the young patrician, who is examining with a mixture of indolence and curiosity the human merchandise which is offered to his view.

The *Flowers* of Kreyder are of a ravishing freshness, and their perfume is all that is wanting to deceive another sense. The sorry jade harnessed to a cart, by Schreyer, is painfully real; we prefer, however, his *Artillery train*. *Le Réveil en musique*, by Walker, is of a good colour, but the personages in the second plan are not sufficiently defined.

*The temptation of St. Anthony*, a worn out subject, and therefore very difficult to render, is ably treated by Vibert.

Laurent is not quite so successful in his *Snow scene in the Caucasus*. It is possible that such a thing has occurred, but it is difficult to associate in one's mind minarets and camels with frost, and these snow flakes on the broad landscape give it somewhat the appearance of a chocolate cream.

---------- *Paulo major canamus!*

Entering the principal room, we see the magnificent twin pictures of *Yvon*, representing the taking of Malakoff, two old friends that we cannot tire of admiring; a little farther on we find by the same artist, a touching episode of the Italian war, a convoy of wounded bearing its sorrowful burden across the hot dusty country.

How is it, we may ask, that this artist who so distinguishes himself as a painter of battles, who is so true, so
energetic in all his creations has not received one of the
prizes of honour?

The *Battle of Alma*, by Pils, does him much more credit
than his *Reception of the Emperor at Algiers*, which is but a
feeble production.

The seven pictures of Bellangé are so many master-pieces,
and make us feel still more vividly the blank his death has left in
a style in which he shone so much. *The Review under the First
Empire* has all the finish of a miniature, and *The Battle of
Waterloo* is a living illustration of Victor Hugo’s beautiful
recital; it is however, in dramatic expression, that this great
painter excels; his *Retreat of Russia* is a heart-rending
scene, and the *Two Friends* laying on the field of battle
clasping each other in a last embrace, excite the greatest
emotion.

Et tels avaient vécu les deux jeunes amis,
Tels on les retrouvait dans le trépas unis!

Meissonier’s paintings are great in genius, if not in dimen-
sions, and combine as much merit as can be crammed into
such a small compass; they would not, however, suit those
who buy pictures by the square yard, for covering every
inch of the canvass with gold, would be far from paying for
their value.

The works of Gérome have been so often reproduced in
engravings, that they are probably known to our readers, we
shall not therefore attempt to describe them, but merely say
that his *Duel after a Bal Masqué*, *Gladiator*, *Phryne*, *Alméé*,
*Two Augurs*, *Cleopatra* and *Death of Cæsar* are shown
side by side; we need not add that the public crowd con-
stantly round this magnificent collection.
They also seem attracted by Cabanel's *Venus*; nevertheless, we must admit that we do not admire this puffy body, which seems incapable of making the least impression on the pasteboard sea over which it lays.

We find by the same artist, a portrait of the Emperor, which according to our opinion, does not equal that by Flandrein. The former, however, carried off the prize; it is true that he was on the Jury, and knew probably the proverb: *Charity begins at home*.

Hamon is one of the deities of the day, and we might be taxed with heresy did we not sing his praises in concert with the rest; his *Boutique a quatre sous*, his *Volière*, and above all, his *Aurora*, a light sylph drinking dew from the calix of a flower, possess undoubted merits, but we think this artist has remained too much what he formerly was, a *Sevres painter*, and his pale monotonous colours appear to have been exposed to a shower of rain.

Mademoiselle Rosa Bonheur is the La Fontaine of painting, and knows how to make *animals speak*; so much life and expression does she give them, that one expects to hear her lambs bleat, and her oxen bellow.

*The 8th of April at Warsaw* is the subject of a magnificent painting, by Tony Robert-Fleury, which created a great stir in 1863; a terrified crowd of unarmed people are kneeling round the column of Sigismund, on the Castle place. The Russian troops are firing on these unfortunates without pity for the suppliant looks of the mothers who are anxiously sheltering their children in their bosom. This picture unhappily so real, obtained for its author a silver palette, which was presented him by the Polish committee.
Charles V. at the Monastery of St. Just, by Robert-Fleury, father of the latter artist, is an excellent illustration of the romantic school, of which he was one of the first apostles.

The Prodigal Child, by Dubufe, is a picture in three acts; there are some, no doubt, who find the second act the most agreeable.

The paintings of Leleux are very spirited and of a true colour; his Funeral in Brittany is an excellent illustration of the habits of old Armorica.

We may pay the same compliment to Jules Breton and Millet's scenes of rustic life. Their heroes are not Watteau shepherds with satin vests and ribboned crooks, but true peasants roughly dressed, and bespattered with mud from top to toe.

The Sisters of Charity, by Mrs. Henrietta Browne, which we admired so much in 1862 show again here their saintly faces and the suffering child lying helplessly in their lap, with its fevered limbs and languishing upturned eyes.

Forbidden Fruit by Toulmouche, is a charming scène de genre. Some curious young ladies are eagerly devouring the pages of an unallowed book, while another, fearing intrusion, is keeping watch at the library door.

Let us also notice The Osteria, by Baron, full of Italian brio, Old Women at Prayer, by Tony Robert-Fleury; Sea bathing at Etretat, an amusing sketch by Poitevin; an enticing Dubarry by Caraud; and hunting scenes by Troyon.

Among the landscape painters we shall mention Rousseau, who transports us from Fontainebleau to the plains of Poland; Lamiinet who makes us travel with him on the course of the Yvette; Daubigny by turns cheerful and severe; and
Corot, who renders so truthfully matutinal fogs and day-break vapours.

We feel we must pass by many that are deserving of notice, but what can we do where everything or nearly everything is beautiful; we will, therefore, end our condensed survey by naming in a lump as most remarkable *The Bookworm*, by Hielmacher; *The Village Barber*, by Guillaumin; Brion's *Saint Odile*; Fromentin's *Kabyle Shepherd*; *The Fish Market*, by Ph. Rousseau; *The Banks of the Nile*, by Tournemine, *Military Scenes*, by Protais; *The Fellah Woman*, by Landelle; *Roman Peasants*, by Hébert; *Love Secrets*, by Jourdain; *Christ walking on the Sea*, by Jalabert; *Saint Vincent de Paule*, by Bonnet; *Eleonore d'Este*, by Comte; *The Return from the Chase*, by Luminais, and the *Battle of Solferino*, by Beaucé, given by the Emperor to Marshal Niel.

We were about to forget Courbet, the realistic painter, who not content with the space which was awarded him, constructed an exhibition *extra muros* for himself alone, and sent nothing remarkable here but a pretty well lighted landscape.

We must also mention, before leaving the Gallery of Fine Arts, a painting on enamel by Claude Popelin, representing the principal *literati of the Renaissance*, which reminds us much of the style of Henri Golzius; some pretty drawings of Alex. Bida, illustrating the works of Alfred de Musset, and the water colour drawings of Eugene Lami and d'Ouvrié, which can almost rival those of England.

Although painters on glass were not ranked among artists in the official classification, we will name them here where they appear to us to have the greatest right to a place.

We have already had occasion to speak of the stained win-
dows in the Chapel of the Park; those of the large Gallery are placed very much too high to allow them to be duly appreciated. Mr. Didron and Messrs. Goglet, Quesnoux and Pouillé exhibit some large compositions of stained glass of a beautifully decorative style, which would no doubt gain by a closer view. The restorations of Mr. Caffetier and Mr. Oudinot are not without merit as far as regards fidelity of execution.

Mr. Lusson has a well executed Virgin, on a blue ground, in the style of the 14th century.

We regret not to find in the Great Gallery, Mr. Laurent Gsell, a true and conscientious artist, whom we had occasion to admire in the Chapel of the Park; his paintings on glass merited a better place than that which was assigned to them in one of the small entrance Galleries. Not only does Mr. Gsell possess great talent, but he has the still rarer tact to choose well his cooperators; we may mention among the latter Mr. Castellani, a young spirited painter, who displays great originality in his ideas, Messrs. Steker, Moreau, Mend, Weber, e tutti quanti. It is no wonder that with such a staff, Mr. Laurent Gsell can execute extensive and remarkable works.
CHAPTER X.

THE HISTORY OF LABOUR.

One of the happiest ideas of the Exhibition of 1867 has been, as we said before, to show the progress of industry by illustrating chronologically the different phases through which it has passed before attaining its present state of perfection.

This collection, placed in a Gallery denominated the "History of Labour," enables us to study the products of man's genius at different periods and at various places, supplying at the same time good models to practical men.

Museums, churches, learned bodies and amateurs promptly obeyed the call of the commissioners in assisting them towards this object, and their united contributions form the most unique assemblage of curiosities that has ever been, or perhaps ever will be seen.

This collection is divided into ten parts:

1. Gaul before the use of metals.
2. Independant Gaul.
3. Gaul under the Romans.
4. The Franks to the coronation of Charlemagne (A.D. 800).
5. The Carolingians from the beginning of the 9th to the end of the 11th century.
6. The Middle Ages, from the beginning of the 12th century to Louis XI. inclusive.
7. The Renaissance from Charles VIII. to Henry IV. (1610).
8. The reigns of Louis XIII. and Louis XIV. (1610 to 1715.)
9. The reign of Louis XV. (1715 to 1774.)
10. The reign of Louis XVI. and the Revolution, (1774 to 1800.)

We shall review successively each of these epochs, but when we state that the number of articles exhibited in the French section alone amounts to above five thousand, we need scarcely add that our notice of them will be very brief.

The first period comprises the Two Ages of Stone; metal being then unknown, man employed stones, first simply split, afterwards cut and polished, for arms and tools. The hatchets which are shown in the case facing the entrance by the Grand Vestibule, belong to the first age of stone, and proceed nearly all from the excavations made at Saint Acheul, near Amiens in quaternary alluvium. During this period the hippopotamus, elephant, rhinoceros, hyena, musk ox, reindeer, bear and large cavern cat inhabited France, as is proved by fossil remains, and different things made of their teeth, bones or horns which are found in the departments of Dordogne, Charente & Allier; one might perhaps conclude from this that the climate of the country has altered since that time, but on the other hand one may also suppose the nature of the animals to have undergone some change, since the reindeer, which now inhabits icy regions, lived then by the side of tropical species.

At the second epoch of the age of stone we find axes, and
knives of different stones very well polished, and even some fragments of pottery; many of the specimens shown come from the valley of the Seine.

Metal then makes its appearance, and feminine coquetry, which is of all ages, seizes upon it for ornamental purposes; here are bracelets and necklaces of bronze made by the Gauls long before their intercourse with the Romans. Stones are also used for jewellery, as we see by the rings and beads of jadéite, dug from the Dolmen of Manné—er A'rock (Morbihan.)

The Gauls, civilized by the Romans, next employ bronze to make helmets, shields, swords, daggers, lances, statues, seals, coins, locks, chariot wheels, and a host of utensils, gold and silver being reserved for circlets, arm-bands, fibulae, and other ornaments. They also strive to imitate the beautiful Etruscan and Grecian vases.

Normandy, Brittany, and the South of France furnish some very interesting specimens of these different objects.

The fourth period brings us the Franks, with their semi-barbarian customs. The scaramasaxes of the Boulogne Museum give a very good idea of the arms in use at this period, when bronze was replaced by iron, and Roman art exchanged for the rude work of the North.

Jewellery savours much of this retrograde state, the mounting is rude, and the stones are of little value.

The chief part of these jewels come from the cemeteries of Uzelot and Hardenthun (Pas-de-Calais), and are lent by the Boulogne Museum.

With Charlemagne we return to civilization; one feels that the light of the East has penetrated the obscurity of the West, and dispersed its gloom.

The churches are furnished with handsome shrines, and
the palaces with elegant lamps, fantastically carved chests, red earthen vases, perfumed hanging cassolettes, &c.; the

most interesting piece of this period, however, is an
equestrian statue of Charlemagne, clothed in a mantle, and
crowned. It was shown in olden times at the Cathedral of
Metz, during the service said on the anniversary of the death
of this sovereign.

The Middle Ages offer us statuary, furniture, bronzes,
coins, seals, jewellery, arms, manuscripts, inlaid enamels,
pottery, tapestry, and beautiful sculpture in ivory; it is the pe-
riod of diptyques, triptyques, and polyptyques, all works of patience
which modern art merely looks upon as a loss of time.

The miniatures on parchment are as bright in colour as if
the artist had but just traced them. We shall mention among
other specimens the psalter of Bonne de Luxembourg, wife
of King John, who died in the year 1349; it contains the
legend of the three living and the three dead; the annexed page
shows the three living riding; the three dead are on the oppo-
site page in the original.

We also remark in this room a magnificent polyptyque, re-
presenting Christ and the Virgin surrounded by saints, the
shrine of St. Taurin, a curious relic of the thirteenth century,
of chased silver inlaid with rubies and emeralds, and a very
complete series of weights and measures of the period.

In the collection of the Renaissance, we find with the pro-
ductions of the Middle Ages perfected by progress, new
industries, such as clocks, glass, bindings, &c. There
also the ceramic art really commences; there we find the
tankards, salt-cellars and cups of the Oiron manufactory,
known as the Henry the Second's ware; a little further
are Bernard de Palissy's celebrated vases, and the admir-
able enamels of Léonard Limousin, Pierre Reymond and
Courteys.
Vase, Bernard de Palissy.
The Nevers and Rouen earthenwares find their place in the following period as well as the St. Cloud china, carved and gilt wood furniture, marqueterie mounted in bronze, watches in enamel cases representing subjects from sacred history or from mythology, clocks with allegorical figures, lackered harpsichords with Chinese paintings, ivory fans, high-heeled shoes, and other interesting knick-knacks.
The ninth period comprises the showy but not always tasteful objects in fashion under the reign of Louis XV. Besides the Sévres, Chantilly and Vincennes porcelain, and the

Moustiers, Brittany and Normandy earthenware which form the principal part of the collection, we remark a great variety of chimney ornaments, clocks, plate, jewels, bon-bon boxes,
Fontenoy Vase, Sèvres.
arms, Beauvais and Gobelins tapestry, stuffs, laces, &c. The
vase represented here was made at Sèvres to celebrate the
battle of Fontenoy, of which it illustrates an episode.

The last room brings us to the commencement of this
century; to the rocaille style succeed the exquisite produc-
tions of the reign of Louis XVI. which will long remain as
standing models for artists. The Buhl furniture, bronzes,
biscuit figures, coffers, enamelled boxes, miniatures, fans, all
partake of this happy renovation. Among the curiosities we
may mention a lock bearing the name of the royal maker,
Louis XVI. Versailles, 1778.

Here we must terminate our brief survey of this in-
teresting gallery, our chief excuse for its incompleteness being
that the catalogue consists of no less than 650 closely printed
pages. We should be, however, failing in our duty, were
we not to mention a few of the amateurs to whose kindness
and zeal the public is indebted for this rare treat, and this
unique opportunity of inspecting the treasures of their
museums. The principal exhibitors are Barons James,
Alphonse and Gustave de Rothschild, Duke de Mouchy,
Princess Czartoryska, Duke of Mecklemburg, Marquis de
Vibraye, Marchioness de Fénélon, Counts de Pontgibaud,
d'Armaillé, and Chauveau, Viscounts Ponton d'Amécourt,
de Saint-Pierre, and d'Aigneaux, and Messrs. Davillier,
Fillion, Delamarre, Barry, Gréau, Firmin Didot, V. Gay,
F. Fould, and Dr. Garrigou.

A collection of architectural designs is placed in the open
gallery surrounding the garden, and in the centre of the
latter rises a pavilion containing a very instructive series of
the coins and measures of all nations.
CHAPTER XI.

ALGERIA.

Resuming our rambles in the so-called Machinery Gallery, we meet with a number of trophies surmounted by palm trees waving aloft their graceful branches. We are in Algeria.

To the marvels of mechanism succeed the simple products of a primitive people. This is exactly what we had foreseen when we spoke of the impracticability of zones.

The Algerian Exhibition however is extremely interesting, thanks to the pains taken by Mr. Teston, the eminent director of the Algerian Museum, in classifying it. It consists of two distinct parts, the produce of the soil, which is of great prospective importance, and native manufactures whose sole merit is their originality.

Algeria is rich in minerals, but although many concessions have been made, a few only are in a working state, for want of funds or a sufficient result.

Among the mines in full operation we may quote that of Mokta-el-Hadid, near Bone, which exhibits a block of magnetic iron weighing seven tons, and whose annual yield is about two hundred thousand tons; that of Gar-Rouban, Province of Oran, which annually produces one thousand eight hundred tons of argentiferous lead, and that of Oued-Merdja which gives excellent copper.
We also see some fine specimens of mercury from Ras-el-Ma, near Jemmapes; some antimony ores from Hammimat-Arko, and a sample of argenti-auriferous earth from Kef-oum-Theboul.

Africa used to supply the Romans with some of their most precious marbles. Those quarries became neglected during the occupation of the Arabs, but they are now worked again with great success. That splendid onyx, which we admired in the Furniture Court, comes from Ain-Tekbaleh, in the Province of Oran; and the Filfilia and Bougie marbles possess the richest and most varied shades.

Forests are very numerous in Algeria and produce timber, fancy woods, cork, resins and tanning materials. Two sorts of oaks, the Quercus mirbeckii and the Quercus castanea folia, both abundant in the Province of Algiers, yield the finest timber. The fancy woods mostly used by cabinet-makers are the thuya, which is beautifully veined, and the pistachio, olive, cedar, juniper, jujube and lemon-tree. Cork is gathered principally in the immense forest of Edough, near Bone, and is equal to the finest Spanish. The Aleppo pine, which is very plentiful, gives a resin as transparent as the American. The barks of several species of oaks form excellent tanning materials, and if the tannic acid could be extracted, to reduce carriage, it would form a profitable article of export.

The Eucalyptus globulus which has been brought thither from Australia, appears to thrive admirably, and when duly propagated will prove a valuable addition to their sylvan riches.

Three plants which grow abundantly in Algeria deserve
special notice; they are the *alfa*, the *diss* and the dwarf palm. *Alfa* is the tough grass which covers the dusty plains of Spain, and is called there *esparto*; it serves to make sandals, mats, sacks, &c., and can also be turned into paper pulp. *Diss* is generally used for the same purposes, but in barren localities it is given as fodder to cattle. From the dwarf palm they extract those filaments known under the name of *vegetable hair*.

Algeria, already famous in the time of the Romans for its crops, produces a large quantity of corn, besides rye, barley, oats, rice, maize, and a sort of millet named *doura* by the Arabs. A Chinese plant called *sorgho*, has lately been introduced and yields an excellent alcohol, the residue of which serves as food for cattle.

The climate of this country is particularly favourable to aromatics, and flowers and plants are largely grown there for perfumery purposes. Mr. Simonnet, a chemist at Algiers, was one of the first to distil an Essential Oil from Rose Geranium (*Geranium capitatum*) which grows wild in great abundance. This essence forms still the chief one among the perfumery materials, but others are also extracted from rose, orange, jasmine and cassie (*Acacia farnesiana*), although is must be acknowledged they do not equal in fineness those made at Grasse or Nice.

Coral is found on the Algerian coasts, near Oran, whence it is brought to Italy and carved and shaped into a thousand different graceful forms.

The tobacco trade is a very flourishing one in Algeria, principally owing to the perfect liberty which it enjoys. Every
one can grow, manufacture and export what he likes without restraint.

The cultivation of tobacco, which was already practised by the Arabs, has received great extension since the French occupation. Plants have been introduced from Havana, Maryland, Java and Manilla, but the indigenous species termed chebli succeeds best. It is mostly bought by the Imperial manufactory to make halfpenny cigars, the consumption of which in France is enormous.

The annual production of tobacco may be estimated at ten thousand tons, besides fifteen hundred tons of cigars manufactured at Algiers and Oran by smart cigaritas, imported from Seville and Madrid.

When the French took possession of Algeria, they found cotton cultivated there by the Arabs in the plains of Habra and Sig. In order to stimulate this branch of industry, Government granted for the first years a prize of twenty thousand francs to the best cotton grown in the Colony. This system has been discontinued, but the colonists require no such stimulants, for they produce excellent cotton, chiefly sea-island; and their exports which now amount to eight thousand bales, tend to increase every year. M. du Mesguill exhibits the best samples; after his, we may name those of Messrs. Dubourg, Guyonnet, Herzog & Co., and Lescure.

Flax and hemp grow spontaneously in Algeria, two species of the former are largely cultivated, the white-flowered Sicilian for its seeds, and the blue-flowered Riga for its filaments.

The populations of Northern Africa have at all times considered their flocks as their principal riches. The merino
sheep is indigenous to the country, and was introduced by the Arabs into Spain. Now model-farms have been established at Laghouat and Ben-Chicoa to propagate pure races, and the result is that the exportation of Algerian wool has reached an annual average of fifteen thousand tons, at a price of about three pounds per hundredweight. We remark several natives among the chief exhibitors, such as Ablerrahman-ben-Gondouz, Ben-Mira-ben-Messaoud, and Moucel-Akba-ben-Taieb, who are all large sheep-owners.

Silk has suffered of late years owing to a disease raging among the worms. It is to be hoped this will soon disappear, as there are enough mulberry trees to feed a much greater number of worms.

The Colony produces several textile plants: one called *asclépiade*, gives a sort of silk; the *abutilon indicum* produces tow; the *corchorus textilis* is used to make sacks, and useful filaments are extracted from the agave, the banana, and the *urtica nivea* or China-grass, which grows luxuriantly.

Oleaginous plants are equally numerous and comprise colza, castor-berries, ground nuts, rape-seed, cameline (*myagrum sativum*), poppy, sesamum, *madia sativa* from Chili, and the oleiferous radish of China.

We shall close the list of the products of the soil with white and red wines, brandy and liqueurs which are exhibited in tolerable quantities.

Among Algerian manufactures, those due to the natives are much more interesting than those which come from Europeans, for the former have preserved their original stamp, whilst the latter are only imperfect imitations of what is done elsewhere.
The Algerian Commission anxious to show us not only what is made in the Colony, but also how it is made, have brought over some Arab workmen and have installed them in gaudily painted stalls where they excite much attention by their costume, their odd looking tools, and their curious way of proceeding.

Some embroider leather slippers, purses, &c., with gold or silver thread, others weave carpets, or silks with a most primitive loom, others again make fancy baskets by blending together reeds, gold threads, and pieces of bright coloured cloth.

Weaving among the Arabs is not a particular trade, it is a simple household occupation like sewing or embroidering is with us. A couple of posts, two cross-bars, two reeds, and a comb are all the implements required, and with this simple apparatus the Arab woman weaves the woollen cloth which serves to make her husband's burnous, her own baïk or tunic and the fuschia or blanket which covers them.

As to Algerian silks, they were once, like the Tunisian, in great repute, but being unable to compete with the Lyonnese, which imitate their light texture and graceful streaks at a much lower cost, they have now nearly become "things of the past."

The number of Algerian shops lately opened in London and Paris render it almost needless for us to describe Arabian jewellery. We may, however, for the sake of those who do not inhabit those capitals, mention that it consists in diadems, chains to go round the head and fix on the temples, earrings, armlets (mekias), ankle rings, baïk pins and buckles, all of the most antique form, and bearing a strong resemblance to the Jewish ornaments described in the Bible.
If the Arab woman places all her pride in her jewels, the man shows an equal fondness for his arms, and his highest ambition is to possess a richly mounted sabre, or a gun inlaid with gold or silver.

Before the French occupation the manufactory of arms was important in Algeria; it has now considerably decreased; still, excellent swords, wide in the middle and pointed at the end, are made in Great Kabylia. Hamidou-Azzouz and Mohammed-ben-el-Haoussin exhibit some of those swords, called flissas, from the name of the tribe who manufactures them. We remark also a gun mounted in silver of the value of £40, and some yatagans of a good style.

Algerian pottery is in a very backward state. The only province where the ceramic art appears to be understood is Kabylia, where they make some amphora, some lamps (mosbab) and other utensils, with a black paste adorned with arabesques. They have also vases to keep water cool, composed of clay mixed with salt to make it porous.

The wandering tribes do not use pottery, which would be too fragile for their numerous migrations; they keep their water, oil or provisions in goat-skins.

Before we take leave of Algeria, we shall give a few minutes’ attention to the model of a very curious monument which exists in the Province of Constantine. It is an immense round pyramid formed of rising steps, and is called by the Arabs Medracen, or the Tomb of the children of Médrès. It is supposed, however, by Europeans, to be the mausoleum of the Royal Numidian family of which Massinissa was the most brilliant representative in the year 200 to 250 B.C.
CHAPTER XII.

FRENCH COLONIES.

French Colonies, although sadly reduced from their former importance, still contribute a well varied exhibition, which, thanks to the able classification of Mr. Aubry-Lecomte, Director of the Colonial Museum, offer many points of interest.

We shall commence with Martinique and Guadelupe, who derive their chief products from sugar-cane with which more than one-half of the available area of their territory is planted.

So far back as 1789, Martinique exported eighteen thousand tons of sugar, a large quantity for those times. Now, thanks to improved cultivation and to the introduction of steam machinery, the yearly average amounts to thirty thousand tons of sugar besides about one hundred thousand gallons of molasses and one million gallons of rum.

Guadelupe produces nearly twenty-five thousand tons of sugar, fifty thousand gallons of molasses, and three hundred thousand gallons of rum.

Those colonies possess besides a great variety of vegetable substances which are easily turned into alcohol. Professor Dulmann, of Saint-Pierre, sends specimens of these alcohols made from yucca-root, mahogany apples, potatoes, bitter
oranges, tamarinds, banana figs, goyaves, pine-apples, cactus fruits, angola peas, &c.

Martinique is celebrated for its liqueurs, and Messrs. Salle, Toulouse, Eyma, &c., exhibit some tempting samples, bearing the name of acacia, noyau, karukera, cocoa, coffee, vanilla, as well as some preserves of goyaves, mangues, sapotilles, &c.

The coffee plantations in those two islands have much suffered of late, but the quality remains excellent and does great credit to the growers, among whom we may mention Messrs. Lubin, Lelorrain, Goux, Foucard, and Dubreuil.

The coca leaves (erythroxylon coca) shown by Mr. Bélanger have highly stimulating qualities; it is said that those leaves chewed every three hours enable a man to go without food for three days, whilst maintaining him in a state of great muscular activity and personal comfort, preserving him at the same time from the depressing influence of the climate.

The variety of woods produced by the two sister-islands is very great, and some of those are much sought after by cabinet-makers for their beautiful colours and capricious veins. Cotton is also cultivated to some extent in Guadelupe.

The staple productions of Guyana are about the same as those of Martinique and Guadelupe, if we add to them annatto which is exported thence in large quantities.

That Colony yields also numerous fancy woods, and medicinal, aromatic and industrial substances. Among the latter we may cite india-rubber, gutta-percha, and balata gum, a sort of intermediate between the two, partaking of the properties of both.

We find likewise in Guyana some cloth made from the
banana fibres, a good notion for utilizing the stem of the tree after the fruit has been cut off.

Saint-Pierre and Miquelon are two small islands near Newfoundland, the only remains of the once extensive French possessions in North America. Their sole resources consist in the products of fishing and hunting, and their chief exhibition in cod-liver oil and furs.

Crossing over to Africa we come upon Senegal, which sends a rich assortment of gums, derived from different species of acacias, and known under the generic name of gum arabic; also ground nuts, palm oil, wax, coffee, cocoa, cotton, ivory, woods, (the most costly of which is ebony), gold and silver in ingots, and a curious collection of native arms, ornaments, and musical instruments.

Reunion, which was formerly called Bourbon, offers us samples of sugar, cotton, cocoa, coffee, Indian corn, betel, nutmeg, cloves, myrobalanes, saffron, and vanilla. The latter has been cultivated with great success of late years, and the annual production which only attained seven pounds in 1849, has now risen to above sixty thousand pounds, superseding in a great measure that procured hitherto from Mexico, and greatly cheapening the price of this useful condiment and grateful perfume.

We also see in Reunion those famed swallow-nests of which the
Chinese are so fond. They are composed of a lichen (*usnea*), and are only considered in perfection when they have been used by several generations of birds, each depositing therein its share of edible mucus. They are found in nooks of rocks, and their gathering is a somewhat perilous operation.

Among the many colouring materials found in Reunion, we remark two that might be turned to very useful account, *morinda* roots which give a fine red, and *kassa-kassa* leaves, which yield a splendid yellow.

The French Madagascar colonies comprise Mayotte, Nossi-Bé, and Ste. Marie. Rice, tobacco, sesame and indigo, are the principal productions, but the exports have been very limited hitherto, owing to the unhealthy nature of the climate.

The French possessions in India are now reduced to Pondichery, Yanaon, Mahé, Chandernagore, and the Surat factory. Their exhibition consists in rice, indigo, areca and cachu-nuts, essential oils, preserves, timber and fancy woods, medicinal plants, *jagre*, a sort of sugar largely used by the natives, and made by evaporating the sap of the cocoa tree with the *borassus flabelliformis*, textile fibres, and tobacco prepared by drying it over the stalks of the *paspalum frumentaceum* which gives it a peculiar flavour.

As to native productions we see a richly embroidered *bayadere* dress, a cloth carpet of fantastical design, having the *Trimourti*.
or Indian Trinity in the centre, massive gold ornaments, divers musical instruments, and some curious statuettes serving to burn incense in the temples.

Cochinchina, although the youngest of French Colonies is one of the most promising. Excellent ports, large navigable rivers, an extremely fertile soil, and a quiet and laborious population, are more than necessary elements to render this new establishment a very prosperous one.

Rice is the staple production of Cochinchina; sugar-cane, cotton, tobacco, ground-nuts, betel, areca-nuts, and cocoa-nuts are also cultivated to some extent.

No less than twenty different sorts of rice are grown there; some are used to make wine, brandy, and sugar.

The natives of the country seem to have taken great interest in the Exhibition, and send besides raw produce a variety of manufactured articles, such as baskets, fishing-tackle, betel and tobacco boxes, perfume burners, &c.

New Caledonia, which may be called French Australia, unites the advantages of tropical and temperate climates. There, sugar-cane, coffee, and cotton, are found by the side of the cereals, and vegetables of Europe; unfortunately the savage nature of the indigenous population renders colonization extremely difficult. Sandal-wood ranked once among
the chief exports of the island, but Chinese traders have divested almost all the coasts of this precious wood, which is only now found in the interior. There are, however, some valuable trees still very abundant, such as the Niaouli (Melaleuca viridiflora), which yields a very powerful essential oil, and the Kaori (Dammara ovata), the resin of which forms an excellent varnish.

Otaheite has been favoured by Providence with a wonderfully fertile soil and an admirable climate; it produces without cultivation, sugar, cotton, indigo, tobacco, and various oleaginous nuts, such as the cocoa, bancoul and tamanu; the inhabitants, however, are neither industrious nor ambitious, and care not to turn into account all those natural advantages. Their principal resource is the oyster pearl for which they dive on the coasts, selling the shells and feeding on the fish. This place is very suitable to the cultivation of aromatics; vanilla has lately been introduced with success and essential oil is distilled from oranges, which are plentiful there.

Queen Pomare exhibits some arms which belonged to King Pomare I. Mr. Deplanche sends some native ornaments, consisting in mother of pearl and cowries necklaces, and in ear-rings made of carved hog's teeth.

Last on the list of French Colonies, we find the Marquesas islands, but we vainly look for any articles supplied thence for exhibition; yet the French have been unremitting in their attempts to colonize this quarter of the globe, but what can be expected from the inhabitants, as long as they carry their fondness for Europeans to the extent of eating them when they have a chance.
CHAPTER XIII.

THE ISLAND OF BILLANCOURT.

It was decidedly anything but a "happy thought," to have selected the island of Billancourt to consign thereto the agricultural implements which could not find their place in the Champ-de-Mars. Parisians have a profound aversion for long voyages, and but few strangers could spare time to travel over the few miles which separate Billancourt from the capital. The natural consequence was that this part of the show was only visited by farmers or by country schoolmasters who came in batches, at the expense of Government, to attend the lectures on agriculture given by competent professors, and diffuse the "new light" on their return home. This was the only practical part of this section; otherwise it may be termed a failure; the exhibitors seldom saw a customer, the huge restaurant was ever in desolate solitude, and the long row of shops on the bridge above remained untenanted.

Until very lately the French were very much behind their neighbours, and especially the English, in all matters connected with agriculture. Nature having done a good deal for them, they did but little for themselves; a very common circumstance, by the bye, for the most fertile countries are
generally the worst cultivated, and *vice-versa*, Italy and Scotland, to wit. For a long time French farmers stubbornly resisted any kind of improvement; they would not, or could not, understand the benefit of machinery, and adhered with dogged obstinacy to the imperfect ways and tools handed
down by tradition from their forefathers. They now seem to have awakened from this sleepy state, and their collection of machines, although still inferior to the English and American, shows that they are on the path of progress.

Mr. Peltier, Junior, one of the largest manufacturers of agricultural implements, exhibits a great variety of ploughs, harrows, hoes, rakes, rollers, scarifiers, sowing, reaping, hay-making, and chaff machines, barrows, spades, shovels, pick-axes, &c.

Pernollet, of Paris, shows some separators for coffee, cocoa, and various seeds, and some screens with ventilators.

Paulin Millet, of Troyes, manufactures principally root-cutters; Garnier & Co., of Redan, the necessary apparatus for making cider; Chauvet-Phillement, of Juvisy, ploughs of different sorts.
Ganneron, of Paris, has a very large assortment of all implements used by agriculturists, those happy individuals who, according to Virgil, do not know their own happiness:

O fortunatos nimium, sua si bona nōrint, 
Agricolas!

We illustrate here as specimens of Ganneron's manufactures, a powerful clod-crusher, and a very good churn, which expresses all the whey without wasting a particle of the butter.

Mr. Mercier's portable mill, with bolting apparatus attached, seems ingeniously constructed.

Hazard's breaks for carriages and waggons deserve the
greatest praise; by means of very simple mechanism, which a child can set in motion, heavily loaded vehicles may be stopped with the greatest ease, whilst going up or down a steep incline.

We also compliment Mr. Felix, of Houdan, on his hydraulic
rams which serve to raise water from rivers, springs, or wells, and distribute it all over a house; or to feed fountains, and cascades in a pleasure garden.

Ganneron's Churn.

The art of tending vines is a very important one in France, and above forty exhibitors show their different systems. As however, grapes are never expected to ripen in England, at least in the open air, it would not much interest our readers, were we to explain how vines are to be treated.

There were sundry exhibitions of live stock held in this Island during the season, but it would be quite out of our province to attempt to describe them. Apiculture was also fairly represented by swarms of busy bees.

A great number of English and American agricultural machines were shown here; they will find their place in the description of their respective countries.
CHAPTER XIV.

BELGIUM.

Returning to the Machine Gallery at the point where we left it, we find ourselves in the Belgian exhibition. Belgium has been favoured by nature in more than one way. It produces the most useful metals, and the coal necessary to work them; hemp and flax grow admirably in its plains, and its vast meadows impart, by their humidity, a dazzling whiteness to linen. Man's industrious hand has done the rest. Belgium was formerly among the first to open easy inland communications by means of canals; among the first was it also to construct railways, a task rendered easy, we must own, by the flat nature of the greater part of the soil. When we add to these elements of success, the active and persevering disposition of its inhabitants, we need not wonder at the importance acquired by Belgium amongst commercial nations, an importance much more than proportionate to the size of its territory.

There was a time, it is true, when some of the Belgian manufacturers, protected by too indulgent a legislation, derived their chief trade from counterfeiting the wares of other countries, but one day they woke from this unhealthy torpor
they remembered that their country had given birth to eminent artists, and cried out

_Anh' io son' pittore,_

they shook off the trammels of a servile imitation, and began to produce original works worthy in every sense to compete with those of their rivals.

Metals rank among the chief industries of Belgium. The basins of the rivers Sambre and Meuse are particularly rich in iron and coal bearings, which are worked in the neighbourhood of Charleroi, Namur and Liège. Travellers passing through these districts at night will have remarked that the whole plain seems on fire, and that the sky is illuminated with the reddish glare of the blast-furnaces, as is the case in what is called in England, "the black country."

The Belgian iron trade was already in a flourishing state under the Dutch dominion. The Seraing foundry, built by a clever and enterprising Englishman, John Cockerill, and aided with the funds of King William, had taken a great extension, and its success had encouraged the formation of kindred establishments in the provinces of Liège and Hainaut. The introduction of railways gave a great impulse to these works, which not only had to provide for home wants, but which, through a special favour of the Zollverein, supplied the plant to German railways. Belgium now succeeds in producing iron of every kind, except steel iron, which has still to be imported from Sweden. Next to rails, its chief manufacture is sheet iron, of which about twenty thousand tons are exported yearly, half of this quantity being taken by France.

The principal exhibitors in that lité, are the Esperance iron and coal-pit at Seraing and Liège, the Marcinelle Metal-
lurgic Company near Charleroi, and the Châtelneau Furnaces Company.

Zinc is also one of the staple metals of Belgium; the immense mines of Vieille-Montagne near Liège send theirs to all the world.

Processes for working mines are found here in abundance. We may cite among others, machines for extracting coal and ores, others for lowering workmen into pits, or bringing them up without any jolts or danger, ventilators of all kinds, safety fusees, in fact all possible means for turning to the best account, the treasures of the earth, and for diminishing the labours and perils of the operation.

We also remark the rails of Legrand and Salkin, Mons,

the galvanized iron of Dineq-Jourdan, Jemmapes, and the artistic casts of Péquillé and Pecqueur, Liège, who with such an unyielding material as iron, produce the finest work for stoves, railings, bannisters, garden vases, &c.
Among sundry machines, we notice a large apparatus for the continuous distillation of alcohol, by Lefebvre of Brussels, and an endless paper engine, by Dautrebande and Thiry, Huy.

Namur has long been famed for its cutlery; Mr. Masset-Licot exhibits the finest assortment in that branch.

The cold and damp climate of Belgium requires some good warming apparatus, and those who have visited that country probably remember the huge stoves which are in use there, and of which M. de Lairesse, of Liège, gives us some excellent specimens.

Belgian fire-arms are well known everywhere; what is perhaps less known, is the pretension, which we have no reason to deem unfounded; of one of the Belgian manufacturers to have invented the celebrated needle-gun, to which the Prussians are so much indebted.

It appears that, in 1832, Mr. Montigny, a gun-maker in Brussels, took out a patent for a breech-loading gun. He made a certain number of them for the Russian Government, but they do not seem to have been well appreciated at the time. His son and successor exhibits, among a fine collection of military and sporting arms, the first needle-gun made by his father.

The important arms-manufactory of Liège is principally represented by Messrs. Lepage and Chevrot, who have single barrelled guns at 5s., and double-barrelled ones at 12s. 6d.; Mr. Gaubert who has guns with sliding breech for the army; Mr. Dumoulin Lambinon, Messrs. Malherbe & Co., and Mr. Lemille who work chiefly for exportation, and Messrs. Bayet Brothers whose arms are admirably finished.
Messrs. Heuse-Lemoine & Co., of Nessonvaux, show a fine series of gun-barrels and other materials for gun-making, which are greatly prized by connoisseurs.

Before leaving the subject of metals, we may mention some interesting specimens of nickel sent by Montefiore, Levi & Co. of Val-Benoit, which are shown under various forms and even in the shape of statuettes. This metal is much used for alloy and it also serves in a nearly pure state to replace copper for coins of small value in Belgium.

Flemish linen has long been celebrated; at the time of the Spanish occupation it was the first industry of the country. The samples we see here prove that modern Belgians worthily sustain the reputation of their ancestors.

Mr. Parmentier, of Iseghem, exhibits cloths of remarkable whiteness, regularity and fineness; we also notice a magnificent table service made for the the King of the Belgians by Thienpont & Son, of Ghent, some more simple, but still very good, services by Jacques de Brandt, of Aloost, and some white cloths from Van den Branden, of Enghien, which are remarkable for the regularity of the texture.

There are also large establishments in Belgium for bleaching, dressing, dyeing, and printing cotton. One of the principal ones is the Stalle Company, near Brussels, which occupies 500 workmen, and produces 30,000 metres of cotton prints daily. Among spinning mills, the most considerable is that of the Loth Company, also near Brussels, which owns 1,500 mechanical looms for spinning wools, and 30,000 spindles. Tournay possesses also a spinning mill for combed wools, which sends fine samples.

Thread for sewing and embroidering is chiefly made at
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Alost; the best is shown by Mr. Jélie and Mr. Vandersmissen.

Lace is one of those industries for which Belgium is justly renowned. Ypres, Grammont, Bruges, Malines, Alost, Ghent, Brussels, are the principal places where this aerial tissue is produced.

The small town of Grammont musters by itself no less than forty-five manufacturers, whose collective exhibition makes ladies dream of fairy-land. Ypres comes closely after it in the contest. Without attempting to enumerate all the marvels of these cases, we shall mention as the most remarkable, Vandersmissen's shawls, Everaert's Brussels point, Daimerées, Petitjean & Co's bobbin-lace, and a new point by Beels, styled "Duchess of Ghent."

Woollen cloth, a flourishing trade in Belgium, is well represented by Garot, Lhoest & Devaux, Sirtain, and other manufacturers from Verviers and its vicinity; good mixed fabrics are also shown by Cambier-Robette, Coullier-Blyau, Lobert-Degave, and Sorel, of Renaix, and blankets by Jacobs, Poelaert & Co., of Brussels.

Since the most remote period, the cultivation of hemp and flax has been one of the principal resources of the Flemish population; it now occupies upwards of one thousand acres of ground, and produces a yearly average of twenty-five thousand tons of tow and two thousand tons of seeds. The flax gathered near Courtray is said to be the best of all, especially after retting it in the river Lys, which is supposed to possess special qualities for the purpose.

Tobacco is also extensively grown, chiefly near Ypres, Alost, Vervicq and Menin. Besides the home crop a great
quantity is imported from abroad to feed the manufactories which exist in all large Belgian cities, such as Brussels, Antwerp, Ghent, Liège, &c. Belgian cigars are generally well made and fully appreciated by connoisseurs. Stein & Co., of Antwerp, and Rombouts, of Brussels, exhibit a fine collection of different qualities, varying in price from 30 fr. to 300 fr. per thousand.

Belgium is nearly as celebrated for her musicians as she is for her painters; it is therefore no wonder that the manufactory of musical instruments should be carried there to such perfection. The Brussels Society's great organ, Berden Brother's pianos, Vuillaume's violins, and Mahillon's wind instruments, all exhibit the latest improvements.

Some finely illustrated works by Muquardt, Parent & Son, Annoot-Raeckman and Claesen, and some historical works edited by Weissenbruch and Gyselynck show what progress the bookselling trade, no longer depending on piracy, has made in Belgium.

We may also compliment Gailliard & Daveluy, of Bruges, on their fine chromo-lithographies; Everaerts-Fizenne on his paper-hangings; Ghémar Brothers and Géruzet Brothers on their photography, and Brepols & Dierckx on their playing cards.

Belgian paper-mills are, like the rest, progressing; Catala Brothers and the Basse-Wavre and Gastuche Society show some very good samples of paper.

Window-glass is one of the specialities of Belgium, as may be judged from the collective show of the Hainaut glass-makers, comprising no less than thirty-four exhibitors. Among those we particularly distinguish Mr. Mon-
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dron, of Lodelinsart, who always carried the first prizes for his glass. Crystal is not much made in Belgium; still the products of the Herbatte Company in that line are very creditable. The only representatives of the ceramic art entitled to a notice are Boch Brothers.

We have but few lines at our disposal to mention other industries which, without being very important in Belgium, still give signs of improvement. Let us, therefore, quote in a lump, as worthy of remark, some fine carpets from the Royal manufactory of Tournay; leather for coach-making and binding from Schmitz; Tasson & Wascher's wood mosaic flooring; Laysen-Kreyich tasteful jewels; Jouiniaux & Co.'s and Collin Benson's gloves; Snyers-Rang's furniture; an elegant console with mirror by Polmann & Dalk; Van der Meersch's imitations of wood and marble; Potaux-Haas' leather goods; Somzé-Mahy's brushes; Schaltin-Pierry's Spa Elixir, a delicious liqueur; and Moedbech-Pardon's biscottes so well-known to all gourmands.

Belgium is no less famed for its artistic than it is for its industrial merits. The great masters of the Flemish schools have founded a sort of dynasty, and Rubens, Teniers and Ruysdael have many worthy followers among modern painters.

Not considering the space granted them in the Fine Arts Gallery as sufficient for her Exhibition, Belgium built herself a pavilion in the Park wherein to locate her pictures and statues, and we may add that it has been rarely our lot to view so many master-pieces crowded into such a small space. We only regret to be unable to do them more ample justice.

The historical style is not predominant in this collection; we may, however, mention as very remarkable the Defeat of
the Saracens in 732, painted by Taeye; The Ghent burgers be-
fore Philip the Bold, by Ferdinand Pauwels; Sacking the Carme-
lite Convent at Antwerp, by Alexandre Robert; The death of
Charles V., by de Groux; The Feast of the Bucentaure at Venice,
by Hamman; and two portraits of the Countess of Egmont,
by de Biefve, one representing the unfortunate lady before
the arrest of her husband, the other after his execution.

Baron Henri Leys exhibits twelve pictures, four of which
were reproduced in fresco in the great room of the Antwerp
Town-Hall. All amateurs are acquainted with the Baron's
manner; it is a mediaeval style, a revival of Van Eyck, somewhat
akin to the English pre-Raphaelite school. This school has
naturally its fervent admirers, but, for our part, we do not
appreciate this retrograde movement, and think that the mis-
ion of art, like that of industry, is to go forward.

Clays' sea-views are of a good colour, and Musin's Visit of
Napoleon I. to the squadron at Antwerp is full of light and mo-
tion.

There is nothing very remarkable in landscapes, if we
except The Sarp falls in Norway, by Jacobs, which is a very
effective picture.

Verlat has two fine religious paintings; the Virgin and
Child, belonging to the Empress of the French, and Christ dead
at the foot of the Cross. His master-piece, however, is the
Wolf Hunt, belonging to the King of the Belgians.

The Oxen-team snowed-up, by Alfred Verwée, augurs well
for the future of this young artist, who is striving to emulate
Snyders and Paul Potter; the two Tschaggenys, Edmund
and Charles, have also good pictures of cattle.

Joseph Stevens is the Landseer of Belgium, and his works
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would not be disowned by his English confrère. We may mention, among others, Fox, Patience and Experience, and The Mountebank's Room, a most humorous and truthful scene.

The honours of the room, however, are due to his namesake, Alfred Stevens, who exhibits eighteen pictures which are all master-pieces. Miss Fauvette, a young maid with fair hair, black eyes and a roguish face; The Pink Lady, lost in admiration before a doll; and Morning in the Country are the principal specimens of that freshness of colour and mellowness of touch, for which Stevens is justly celebrated.

After him we may name Florent Willems, whose compositions are also extremely graceful; The Wedding Ring, and The Visit to the Young Mother are both charming sketches.

As a genre painter, Dansaert, also excels; The Good Servant, belonging to Mr. Gambart of London, and Taken to the Watchhouse, are full of humour and animation.

A Wedding in Zuid Beveland, by Dillens, is an excellent illustration of local manners; the costumes of the old fashioned Zeelander are very accurate.

Verheyden exhibits four little gems in one frame; Confidence abused, two servants secretly tapping a barrel whilst their master looks at them through the cellar-door, is a very comical scene worthy of Van Ostade.

Camposoto's productions are more in the English style, with its fresh and sometimes too fresh colours.

Stallant has a charming picture representing a young beauty balancing herself on a swing, whilst a little Cupid perched on her shoulder whispers soft secrets into her ear; we do not like so well his Portrait of Lesbie, which seems a pale copy of the palest of French painters, Hamon.
RECOLLECTIONS OF

A few statues are grouped under the porch of the Fine Arts Pavilion. A charming *Hebe*, by Samain, belonging to the King of the Belgians, and the *Flute Player*, by Fassin, are the only two pieces worth noticing.

Outside of the building stand two colossal statues. One is an equestrian likeness of King Leopold I., by Geefs, which, were we not awed by the artist's great reputation, we should call rather tame; the other, which we much prefer, represents *Ambiorix*, King of the Eburons, proudly standing on a dolmen, and surrounded with a railing formed of the rude pikes of the period.

We are much surprised not to find any statues from Fraikin, whose works were so much admired in 1862.

In the building we find a splendid pulpit of carved oak, by Goyers Brothers, of Louvain, illustrating several phases of the life of Christ. This monument, which is in the rich style usually found in Belgian churches, is marked 25,000 fr., by no means an exhorbitant price.

*Last not least*, we shall mention Harze's terra-cotta groups, which are constantly surrounded with crowds of admirers. They are all in the humorous style, and, although small, are finished with such perfection that not only the expression of the features, but the most minute details are faithfully rendered. Among the best and most comical, we may cite an old dowager sitting for her portrait with stately gravity, whilst the painter overcome with fatigue is dropping asleep behind the canvass; a thief, with a most rascally face and dilapidated costume, being brought to trial; and two scenes of Molière's Plays, one from *Tartuffe*, and the other from the *Bourgeois Gentilhomme*. 
CHAPTER XV.

HOLLAND.

Resuming our peregrinations in the Machine Gallery, we find ourselves in Holland, but here, as in Algeria, the space is occupied by other goods, for the Dutch manufacture no machines, if we except various utensils which they send to their colonies for thrashing rice, baking sugar, &c., and of which we see here some rough specimens.

If there are no Dutch machines worthy of remark in this gallery, we find in their stead some very beautiful carriages shown by Hermans, of the Hague, who seems to be chief purveyor to the darker monarchs of creation, if we may judge from the designs of some superb equipages made by him for the Emperor of Solo, and the Prince of Manko Negoro. The scenery in the background of the paintings which represent these carriages is very picturesque, and the splendour of the decorations and liveries contrasts strangely with the tropical and savage nature of the country, and the copper-coloured skin of the servants.

Holland is not, properly speaking, a manufacturing country; when she possessed Belgium she lent her the assistance of her capital and outlets, and the two nations united, possessed a certain industrial importance; since their separation, however, Holland's sole resources are the agric-
cultural products of her soil, and, above all, her colonies which are very prosperous.

Availing herself of the courage of her navigators, and the enterprise of her merchants, Holland has for a long time past turned into good account the riches of the far East, and more particularly of Japan and the Indian archipelago. The Portuguese led the way, but the nations amongst whom they attempted to settle were soon tired of their excesses and fanaticism, and gladly welcomed the Dutch who established a mild and peaceful form of Government, in lieu of the oppression to which they had been subjected. The influence of this contact between Holland and the people of the far East on Dutch manufactures showed itself in a very remarkable manner, since the 16th century.

The first Delft pottery was an imitation of Japanese porcelain, and in ordinary earthenware, we still find the colour, design, and shape of the products of that country.

The same is to be observed in mats, blinds, stuffs, brass vases, and a number of other articles belonging to every-day life, so that in walking through the streets of Amsterdam one would almost imagine being in Japan, and we have experienced the same impression when passing through some of the suburbs of Lisbon, which have retained the traces of the past, when their city was the Queen of the Seas.

Besides imitated wares, however, we observe a collection of arms, costumes, jewels, and articles of every description, proceeding from the immense Dutch possessions in the Indian archipelago; we even find there the Topengs or masks used for theatrical representations at Java, and a series of Wayangs or puppets, made of thin buffalo hide which
are played behind a transparent cloth, and which have been introduced in Europe under the name of Chinese shadows. These Wayangs which are made to represent the heroes of the first period of the history of Java have the most grotesque features; the nose particularly is of a pyramidal length; they say they were thus disfigured by the first Apostles of Mahomet, to make it appear to the people that their ancestors did not possess human features till after their conversion to the faith of the prophet.

Old Dutch pottery, as is known, is much sought after by amateurs; there are here some beautiful specimens, and among others, a scene representing a fair, and signed Vinkenbooms, 1609.

The Dutch gold and silver plate is rather massive, but it is not without elegance; we remark particularly some beautiful pieces by Meyer, of the Hague, and a silver vase, the handles of which are formed without soldering, by an electro-chemical process, which does great credit to its author, Mr. Van Kempen, of Vorschoten.

The ancient goldsmith's work shown in the Gallery of the History of Labour is extremely curious; we may mention among others the cup named Hansjein den Kelder (cellar Jack), which was used to toast a future citizen, when there was in the company a lady who hoped to become soon a mother. By some mechanism in the goblet, a small figure of a child placed in the interior, gradually rises as the liquor is poured in, and at last entirely issues from its hiding place.

Stolzenberg, of Ruremonde, distinguishes himself by his show of ecclesiastical vestments embroidered with great taste, and his handsome altars made in different styles.
The Fine Arts are but poorly represented, and one can hardly understand that the birthplace of Rembrandt and Gerard Dow, should only have sent about half a dozen pictures, and those of little or no merit.

Dutch typography, on the contrary, deserves the highest praise, and finds no rival, but in Paris, London and Vienna. It is chiefly in the types of the far East that it excels. Tetterode shows some remarkably neat impressions in Chinese, Japanese, and all the different dialects of the Indian archipelago, and Brill, of Leyden, gives us the Lord's Prayer printed in eighteen languages, some of which are but little known, such as the hieratic, hieroglyphic, &c.

The old established reputation of Holland linen, and Frise woollens, is sustained by some good manufacturers. We also remark a very beautiful fur carpet, figuring flowers, by Greeve & Son, of Amsterdam, and a large basin on a pedestal, made of sal-ammoniac, and resembling one of those public lavatories called démosia, which the ancient Greeks placed in the squares of their cities.

Diamond polishing is a trade of which the Dutch have almost preserved the monopoly. They have erected a building in the Park, wherein are shown the different phases of the operation. There, is to be seen a map of the diamond strata, of Brazil, a series of ores from various countries, and in different stages of crystallization, and all the tools employed to give the rough stone this brilliant surface which makes it the most dazzling ornament of beauty. We shall not repeat here the details which we have already given of these processes when speaking of the polishing of diamonds shown in the French section of the machine gallery.
By the side of the refinements of luxury, we find the simplicity of pastoral life, a Dutch farm with all the utensils employed for making butter and cheese, two important branches of Dutch produce. Here are shown comfortable and well ventilated stables, milk pails, troughs for cooling the milk, churns for making butter, coppers for making cheese, and lastly the rustic habitation of those who are employed in this work. Parisians who laugh at everything seem much amused with the cupboards serving as bed-chambers, wherein these primitive children of nature lay themselves down at night on a shelf just above their clothes.
CHAPTER XVI.

PRUSSIA AND GERMAN STATES.

Whilst we are in the Park let us examine this wonderful Wurttemberg paper machine, for which a special building has been erected.

Since the papyrus of the Ancients and the parchment of Middle Ages, numerous are the inventions of man to procure a white, smooth and thin surface whereon to delineate the inspirations of his wisdom or the ravings of his folly. For a long time rags were sufficient, and the gentleman's linen after having done its service in the upper ranks, and gradually descended to the lower, was finally transformed into the best cream-laid, and sometimes returned to him in the shape of a billet-doux. Now the consumption of paper in Europe alone being totally out of proportion with the production of rags in the whole universe, all sorts of substitutes have been devised to replace them. Straw, bark, and sundry fibres have been tried with more or less success.

Voelter's machine, exhibited by Decker Brothers, of Cannstadt; proves that the nature of the ingredient is not of so much importance as the mode of treating it, for with the aid of its powerful crushers, grinders and rollers it turns any kind of light coloured wood into fine white pulp. The ad-
vantage of thus procuring a cheap paper and encouraging the spread of literature cannot be over-rated.

Unfortunately it is not all "peace and good-will among men on the earth," to wit, Krupp's exhibition which next meets our view, and which is bristling with cannons of all sizes, from the muzzle-loading mountain piece weighing less than two hundredweight to the gigantic breech-loading howitzer weighing fifty tons without the carriage. If one did not feel tempted to place by the side of these figures the number of human beings these murderous engines are destined to kill, one would express unmitigated admiration for the high finish and ingenious working of these guns. It cannot be denied, in any case, that Mr. Krupp fully deserved the great prize he received, and his magnificent block of steel, melted in 15,000 crucibles and weighing forty tons, would alone have entitled him to it.

The Bochumer Company exhibits also some remarkable works in steel, and among others a fine toned bell weighing fifteen tons. Our pious forefathers composed their bells of precious metals which made them a coveted prey for invaders; being made of steel they will probably be more respected.

Chemnitz, one of the strongholds of the German metal trade is represented by Wagner and Zimmermann's well wrought machine tools; by Munich's apparatus for brewing and distilling; and by Hartmann's splendid locomotive with a compartment for the driver and stoker, sheltering them from smoke or bad weather.

Keppler, of Esslingen, exhibits also a fine locomotive, intended to run from Delhi to Calcutta. How is it, by the
by, that Indian railways are driven to buy their plant in Germany instead of having it made in the home country?

The Royal Prussian Post-Office van which carries the mails to the Russian frontier, is well constructed to take up and sort the letters on the road with regularity and saving of time. We also note the comfortable arrangements of the Carlsruhe Company's carriage, where a man can eat, drink, smoke, sleep, and dress whilst devouring space. It is a perfect home upon wheels.

As to ordinary carriages, we must award the palm to Hemming, of Berlin, whose vehicles perform the most marvellous changes. Here is a cab which, by touching a spring, becomes a phaeton, or by another contrivance, is turned into a break. This Victoria assumes suddenly the shape of a brougham, and this barouche is metamorphosed into a covered carriage by simply pulling a string. We also like this system of the fore-carriage turning round with the shafts, so that the coachman always faces his horses.

The North German costumes are very quaint, as may be judged from the accompanying illustration. Let us also notice, before we leave this gallery, the lithographic stones of Solenhofen which are shipped to all parts of the globe, and Haas' wax-headed pins which are manufactured with wonderful rapidity before the eyes of the public.

The agricultural trophies of Prussia show what a variety of cereals this fertile land produces; a little further we see a group of four cubes superposed, representing the volumes in gold, or in other words, the relative value of the proceeds of Prussian mines. In 1835, the yearly average amounted to one million sterling; it now reaches seven millions.
Costumes of North Germany.
This is what we call true and legitimate progress; after all, the only real source of riches is that which is derived from the soil; all the rest is speculation or change of hands. We sincerely congratulate the Prussians on this accession of wealth, but we own, with our peaceful notions, that we shall hail with delight the day when instead of turning their metallic treasures into *needle-guns*, they will only use them for industrial or artistic purposes.

That the artistic feeling is strong in that country, is proved by the Exhibition of the Royal Berlin Foundry, comprising many charming statues, and among others, two life-like lions, one sleeping, the other awake. Pohl's group of wrestlers is also very fine, and Count Van Stalberg has a series of cast-iron cups of great merit.

We may also notice Lovinson's furniture which is in exquisite taste, and Stevesandt's carved pannels which form charming ornaments for dining-rooms.

The saline products of Prussia are shown under a vault of rock-salt, which recalls by its shape and colour that of Lucerne, wherein is placed Thorwalsden's celebrated wounded lion.

German chemicals are deservedly famed; we specially remark the ultramarines of Zeltner, Nuremberg, and the colours of Heyl Brothers, of Berlin, which are said to be in no way pernicious.
Mr. Wagner, a goldsmith of Berlin, exhibits a shield, beautifully chased, which was presented by some of the German nobility to Francis II., whilst he was still King of Naples. Some tea and coffee services by the same maker are very original in design.

The Royal Porcelain manufacturers of Dresden and Berlin maintain their old rivalry. The former has some splendid pieces in its usual style, in the midst of which stands a large vase having for its subject: *Diana surprised by Actaeon*; the latter shows a long series of vases, some representing ancient German heroes in *cameau*, others, antique scenes in *grisaille* on a dead ground.

We also notice some fine painted china sent by Tielsch & Co. of Altwasser (Silesia), and by Kruse of Farge, near Bremen; the latter is mostly in the English style.

Villeroi & Boch's mosaic pavement, although inferior to Minton's, deserves some commendation; their dinner plates, with photographic portraits, are likely to succeed, and may perhaps one day supersede the album; it will be such a convenient way, for some people, of eating on their friends.

All kinds of German manufactures are fully represented here; there are linens from Bielefeld, woollens from Berlin, cloths from Gorlitz and Aix-la-Chapelle, stuffs from Cassel, leathers from Worms, toys from Nuremberg, and a variety of other articles too long to enumerate. The chief merit of
Cast-iron Cup. Van Stalberg.

Berlin Porcelain Vase.

Dresden Porcelain Vase.
all these is cheapness, their intrinsic worth being generally below the English or French standard.

The same may be said of German perfumery, which appeals more to the eye than to the nose. Their scents are put up in showy bottles, but the contents are vapid; their soaps have a beautiful marble-like aspect, or a crystalline transparency, but those apparent qualities are due to their
being chiefly made of cocoa-nut oil which causes them to leave a fetid smell on the skin; their low price even is a deception, for cocoa-nut oil absorbs twice as much alkali as any other grease, and by the same reason, soap made with it wastes away considerably quicker. That these cocoa-nut abominations should work their way to some extent into public consumption, is not to be wondered at, for there are more buyers than judges, but that they should have found similar favour in the eyes of the Jury, who rewarded them in all countries where they found them, is only an instance of that want of practical knowledge to which we have already alluded.

Eau de Cologne is extensively represented in the Prussian section, and deservedly too, as it is a national manufacture, albeit, all its materials are distilled in the South of France. The numerous Farinas who inhabit the far-famed "City of Smells," and whose stifles cast those of the Montagues and Capulets into the shade, have erected huge temples, whence they dispense to all passers-by their odorous gifts accompanied with genealogies which it would puzzle a d'Hozier to fathom.

We shall now proceed to review the Fine Arts.

There are three principal schools of painting in Germany: the Munich school which is grafted on the Italian, the Dusseldorf school which follows the traditions of the Flemish, and the Berlin school which partakes of both.

Munich has justly been termed Modern Athens. Encouraged by a whole generation of artist Kings, sculpture and painting have united in endowing this city with a host of master-pieces. The Glyptothek, Pinacothen, Maximilianeum
and Hall of Glory, are replete with art treasures which command universal admiration. It is no wonder, therefore, that Bavarians thought it desirable to erect a place in the Park specially devoted to their statuary and pictures.

Foremost among the works therein exhibited is a large cartoon by Kaulbach, representing *Luther bringing light to the world*. This composition is treated in a masterly style, and the figures are full of life and expression, but it is difficult to understand why the painter has grouped together not only all great men cotemporaries of the Reformation, but also many who lived some centuries before.

*Hercules Musagetus*, by Genelli, of Weimar, is a fine picture divided into several compartments, and is intended to be executed on the walls of a pavilion.

*The canonization of St. Elisabeth of Hungary*, by Liezenmayer, is an impressive scene. The Emperor standing by the shrine of the saint, places a crown on her head, and acknowledges her as "Queen in the kingdom of God."

Pilotty sends two fine paintings: *Father Dominicus exhorting the soldiers before the battle of Weissenberg*, and the *Death of Caesar*.

*The return of the Austrians after the battle of Solferino*, by F. Adam, is a heart-rending illustration of the horrors of war. The defeated soldiers, wan, emaciated and smeared with gore, are painfully dragging themselves along the dusty road, the stronger assisting the weaker to walk, whilst the most badly wounded are carried in an agonizing state on a peasant’s cart.

We may also mention as fine war scenes the *Great Hetman of Lithuania at the battle of Choczin*, by Brandt, and the *Storm-
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ing of Chamyl's entrenchments by the Russians, drawn on the spot by Horschelt.

Let us turn to more lively subjects: here is a Procession overtaken by rain, which Baumgartner has most humourously sketched. A country priest and his acolytes are beating a hasty retreat through the fields, and everything is in the most comical confusion.

Louis de Hagen's Skittle ground; Hobach's Secret wine-tasting, and Schnetz's Easter morning, are also good genre pictures.

Zimmermann's Wedding cortège gives an excellent idea of local costumes, and The Tyrolean forge, a winter scene by Hoefer, makes us regret there are no other works by the same artist.

A landscape, by Schleich, called A View of Starnberg, has a remarkable effect of rain in the distance.

Brait's Cows and Sheep; Voltz's Cattle passing a ford, and the Return of the flock, by Voltz and Schleich, are worthy to be signed Rosa Bonheur.

There are two remarkable series of small grisaille drawings; one, by Charles d'Ennhuber, illustrates Suabian tales, the other, by Arthur de Ramberg, Goethe's poem, Hermann and Dorothea.

The Tannhauser shield, beautifully chased by Conrad, delineates in all its phases the fantastical, and, we may add, highly absurd history of this knight, who is constantly floating between Venus and the Virgin Mary.

We must not forget, before we leave the Bavarian pavilion, to mention a beautiful collection of paintings on porcelain.

The Prussian pictures are exhibited in the Gallery of Fine Arts.
Agreeing this time with the Jury, we shall award the first place to Knaus, the genre painter. His Conjurings scene in a barn is really a master-piece. The sly face of the wizard who turns a flock of birds out of a countryman's hat, the wondering looks of the audience, the fright of an old woman who thinks these must be the doings of the Evil one, are all rendered with the utmost humour and truth. We also have from the same artist an old invalid, two boys playing at cards, and a young girl drowned in flowers, which are all highly commendable.

We find here an old acquaintance, Schlesinger's Five senses, which we admired at the Salon some five years ago. His Bohemian Camp is also of a good colour. Lasch of Düsseldorf has two pretty pictures: The Grandfather's fête and the Return from the Kermesse; in the latter, the attitude of a young swain escorting his lady-love and making vain attempts to appear sober is highly ludicrous.

The dispute between Luther and Dr. Eck is an historical painting of considerable merit. The artist, Julius Hübner of Leipzig, has chosen the moment when George the Bearded hurls at the head of the reformer this crushing argument: "May the plague stifle you."

We are surprised to find no "Battle of Sadowa," but as a compensation we have several Takings of Düppel. One is by Camphauses of Düsseldorf, and two others form part of a series of six on the same subject by E. Hunter.

We shall mention in conclusion as very creditable pictures: Hockbeck's Monks driven from their convent; Willich's Sleeping Venus; Fischer's Tyrolean Wedding, and a Bridal Procession by Kockert.
CHAPTER XVII.

AUSTRIA AND SWITZERLAND.

Whilst contemplating the varied riches of the soil of Austria, the abundant resources of her industry, and the intelligent progress of her artillery and engineering, one scarcely conceives how she could have been beaten and almost annihilated lately by a power which had hitherto been considered as a secondary one. Her weak point, alas, that prevents her from turning to the fullest advantage all the gifts she has received from Nature, is her want of cohesion. Her doom is written on the face of her bank-notes, where the value is indicated in ten different languages.* How is any unity of action to be expected in a family whose members cannot understand each other.

The Imperial State Forest Administration occupies a large space in the Park, and exhibits various specimens of woods; some are whole trees of great length and thickness.

Facing this, is placed a fine collection of terra-cotta figures and ornaments by H. Drasché of Ingendorff, near Vienna. Under the mound which they occupy is a model of an ogival vault which Baron Scholl, the inventor, recommends as offering more solidity for mining drifts.

* German, Italian, Russian, Polish, Hungarian, Czech, Servian, Sclavonian, Bulgarian and Rouman.
We also find in the Austrian Park a pavilion wherein is shown a new method of treatment for the insane, which consists in restoring their reason by letting them enjoy the sweets and comforts of family life.

In the Machine Gallery we observe a large assortment of Hungarian wines; a trophy of scythes and bills sent by Zeitlinger, of Blennau; and S chromer's ingenious scales for weighing locomotives, indicating the pression of each wheel, so that the degree of tension of the spring may be easily regulated.

Among the marine models, figures, as a matter of course, that of the Archduke Ferdinand Max, an iron-plated frigate which ran down the Ré d'Italia at the battle of Lissa. This episode is again illustrated in the Picture Gallery, and well may the Austrians pride themselves on this success, which was the only serious one they obtained during this disastrous war.

By the side of models of lighthouses, torpedos, tents and military waggons we see a well imagined telegraph by Chevalier A. de Bergmüller for local police or fire-brigade service in towns. A list of the most ordinary accidents, such as chimney fires, dwelling-house or factory fires, inundations, carriage or horse accidents, &c., are fixed on a pillar to be placed in the principal thoroughfares. Each line is accompanied with a spring which, on being touched, communicates immediately to the nearest station the spot and nature of the mishap.

What a charming application of this invention could be made for domestic purposes! What a saving of time and words it would be if those "stupid servants" could be
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summoned by telegraph to perform their household duties!

Mr. Wertheim, of Vienna, is a bold man; he offers 100,000 francs to any person who will succeed in picking his safe. We wonder if any of the celebrated London burglars who, like Love (and that is their only point of resemblance), "laugh at locksmiths," obtained a ticket-of-leave to try their chance of winning this rich prize.

Awaiting the contemplated throwing of a bridge from Dover to Calais, here is one to cross the Bosphorus; a plan which will be much easier to realize than the former, for it

Chandelier, Hollenbach.

would only be 600 yards long and two piers would be sufficient to support it.
Apollo seems a favourite God with the Viennese; we see a huge pyramid of stearic candles exhibited by a Company trading under his name, and a little further we find him again represented in a mosaic, made of different coloured heads of lucifer-matches, a somewhat dangerous piece of art to rub against, by the bye.
Maurer Brothers, of Vienna, exhibit some very fine war and sporting arms; and their neighbour, Keitel, shows us all that can be done in his country with stag-horn, from a breast-pin to a feudal arm-chair. We must also notice Hollentach's chandeliers and candelebra which denote great artistic taste, and some fine bronze works from Dziedzinsky and Hanusch.

In the Clothing Gallery we observe, on one side, Gottschalk and Schmidt's fine laces, and the bright-coloured Viennese shawls of Hlavatsch and Isbaus; on the other, Brijalte's figured silk damasks, and Kostner's richly-embroidered sacerdotal vestments.
Austrian jewellery, although inferior to the Paris or London work, is not destitute of finish. It excels principally in Bohemian mounted garnets of which Bubeniceck, of Prague, and Goldschmidt, of Vienna, show the best assortment.

What is properly called Viennese ware consists in fans, coffers, leather goods, ormolu ornaments, in fact all that is termed in German galanterie, probably from the purpose to which it is usually applied. Klein and Krebs who share
the supremacy in this line have magnificent cases replete
with the most elegant fancy articles.

Bohemian glass is well represented by Ullrich, of Vienna,
Hofmann, of Prague, and Mayers, of Adolf. We also
notice some charming crystal pieces mounted in bronze by
Lobmeyer, and a fine show of china, in the Dresden style,
from Fischer, of Herend, in Hungary.

Great praise is due to some chromo-lithographies, by
Hölzel, Paterno and Neumann, which imitate oil paintings
so cleverly that it is almost necessary to touch them with the
finger to ascertain that they are works of industry and not
of art. It is a good and sound idea thus to popularise the
works of great masters; anyone can now possess a Rubens
or a Rembrandt for a few florins.

The national costumes of the various denizens of the
Austrian Empire, Hungarians, Moldaves, Servians, &c., are
very picturesque and interesting.

We now come to Switzerland, which occupies the space,
ext to Austria. The Swiss carriages and locomotives have
been chiefly placed under a shed in the Park; we find,
however, in the Machine Gallery, a fine locomotive by Sigl,
of Neustadt, with a conical chimney to burn wood; it is
intended for one of the Russian railways. We also remark
there a large weaving-loom from Rieter & Co., Winterthur,
and specimens of the Neufchâtel red and white wines.

The most attractive parts, however, of the Swiss Exhibi-
tion are the Clothing, Furniture, and liberal Arts Courts
which are laid out with much taste.

In the first one we see a magnificent bed covered, and
surrounded with lace from Schlaffer & Co., St. Gall. The
Hungarian Costume.
walls of the recess are hung with the same fabric as well as the corners of the roof which let in a soft light producing a charming effect.

The sides of this room are filled with the collective exhibition of the Bâle ribbon manufacturers, and by machine embroidery from Straheli-Wild, of St. Gall, and others.

In the centre, amid the jewellery cases, we notice one of the prettiest things in the Exhibition; a series of natural butterflies mounted most artistically under glass, and forming pins, brooches, &c. Here is the *Morpho Menelaus* from Brasil, the *Laurentia* with its azure shades from Columbia, the elegant *Amphipoda Hercules* of the Moluccas, and several indigenous sorts, all preserving their bright colours which the glass renders brighter still. It is an excellent idea, well carried out, and does great credit to its inventor, Mr. Artaria, of Lugano, canton of Ticino.

Besides the embroideries we have mentioned, there are some very remarkable ones in the Furniture Court. We may cite particularly some embroidered tulle curtains from Tanner and Schöf, of Herisau, some muslin curtains with tulle applications from Steiger, Schoch and Eberhardt, of the same town, some tulle curtains embroidered with chain-stitch, from Speicher, a magnificent embroidered muslin robe from Baenziger, of St. Gill, an embroidered muslin curtain representing tropical plants, from Depierre, Lausanne, and some tulle curtains with applications, from Alder and Meyer, Herisau.

The interior of the second court is filled with cotton prints of staring patterns made at Glaris, Schwanden and Diessenhofen and principally intended for exportation.
The third court is chiefly devoted to watches, which rank among the chief industries of Switzerland. Among so many marvels, small and large, it is difficult to show a preference; we must, however, say that Rossel, Ekegren, and Patek & Co. of Geneva, appear to us to have supplied the best specimens.

Switzerland is justly celebrated for its wood-carving. Wirth Brothers, of Brienz, have a trophy of furniture and fancy boxes, mostly decorated with leaves and flowers exquisitely finished. Haller, of Berne, also exhibits some neat musical chalets doing service as work-boxes.

Carved Furniture, Wirth brothers.

Dufour's geographical maps of Switzerland are most minutely engraved; every village, every road, every feature of the mountains is therein clearly indicated. To those who travel over this picturesque land, they must be invaluable, and to those who have not that good fortune, they are still very interesting, as they may with their assistance run over the ground in imagination.
We now enter the Fine Arts Gallery. In the middle of the Austrian section we remark an equestrian portrait of Francis Joseph, by Otto von Thoren, in the correct but somewhat tame style of Winterhalter.

Opposite we have a Scene at the Warsaw Diet, which seems painted with raspberry jam. We thought these violet tints were out of fashion; we own that we prefer to these miles of canvass small well finished pictures like an Old Woman’s head, by Franz Eybl, or the Return from Siberia, by Loffler. We must, however, pay a just tribute of admiration to a Battle scene, by Fritz l’Allemand, and to the Lissa Naval Fight, by Püttner. The latter especially is full of action, and the water is beautifully transparent.

After the Bal Masque, by Schon, is a very effective scene. A curtain is suddenly drawn, and the daylight pouring in discovers the half-drunken revellers and the wreck of the orgie.

The Little Chapel is in the Gérard Dow manner. Three lights meet without confounding their rays, and reflect on the faces of children kneeling and singing Psalms.

A View in Cairo is carefully handled, but somewhat misty. The Nile seems to have borrowed a fog mantle from the Thames. If there is no blue sky left in Egypt, where in the world are we to look for it!

Switzerland, emulating Bavaria, has erected its Temple of Fine Arts in the Park; although less well filled than that of its rival, it contains some commendable works.

Landscapes form the bulk of the pictures exhibited. Among the most remarkable we may mention the Interior of a Forest, by Costan, Setting Sun at the Wetterhorn, by Jenny,

*The fête of Swiss wrestlers*, by Bachelin, is full of life and motion; a *Religious Meeting in the Alps*, by Kunder, bespeaks also a clever artist.

*Cows fighting*, by Jacob, and *On the banks of the Lake*, by Lugardon, are two admirable cattle scenes.

Pre-Raphaelite notions seem to have found their way into Switzerland, if we may judge from Buchser's *Abnegation*, which exhibits all the high colouring, stiffness and minute details of that school.
CHAPTER XVIII.

SPAIN, PORTUGAL AND GREECE.

Finding insufficient the space which had been awarded her in the building, Spain built herself a large pavilion in the Park to place therein her raw materials and colonial produce.

After examining the rich and varied metallic ores contained in the soil of that country, it is easy to understand how it excited by turns the covetousness of the Phœnicians, the Romans, the Arabs, all conquering people in search of metals to maintain their warlike power, and to supply their want of luxuries.

Here is iron from Santa Anna de Bolueta and Bilbao, copper from Rio-Tinto, tin from Zamora, manganese from Rio-Baco and Huelva, Mercury from Almaden, zinc from Vittoria, lead from Jaen, silver from Guadalajara. Caceres, Murcia, Badajoz, Ciudad-Real, Leon, send us a host of different minerals; Burgos exhibit marbles, Saragossa alabaster and rock-salt, Cordova jasper, Ubrillas jet and amber, Canil sulphur, Toledo kaolin, Alava asphaltte, Oviedo coals. What riches are heaped in this corner of the world, and what wealthy people the Spaniards would be if they did not fail in those three essentials: capital, industrious habits, and spirit of enterprise.

In the next room we see a fine collection of Sherry wines
from A. de Respeldiza, who obtained a gold medal; some Girona wines grouped on a curious stand made of corks; some Catalanian wines with a coarse tarry taste, and some Malaga wines, imitating, like those of Cette, the flavour of all renowned growths.

The cork trade, of which Spain has almost the monopoly, is represented by Girona and Barcelona. The samples sent by the Catalanian Agricultural Institute of San-Isidro appear the finest.

_Esparto_, a tough grass which is very abundant in Spain, and which we have already mentioned, whilst speaking of Algeria, is manufactured into a variety of articles including mats, blinds, baskets, and a sort of sandals called _alpargatas_, which are of Moorish origin, and are used by all the lower classes. Murcia and Carthagena are the seats of this industry which principally supplies the home market.

Of Spanish olive-oil we cannot speak in laudatory terms; the very sight of this thick, greenish, viscous liquid, brings back to our mind nauseous recollections of some meal eagerly snatched-up at a road-side _posada_, a meal of which antique eggs swimming in the aforesaid unsavoury product formed the _plat de résistance_. The cause of this (to us) highly disagreeable taste and appearance, is simply that the olives are heaped up and allowed to ferment before they are pressed, in order that they may yield more oil. The Spaniards, it is true, assign another cause for this mode of proceeding, and pretend that they adopt it to give _more flavour_ to the oil, and so it does, with a vengeance.

The exhibition of cereals does no credit to the rich soil of Spain; yet what splendid crops could be raised in the fertile,
but uncultivated plains of Estramadura; there again capital and hands are deficient.

Carlos Prast, of Madrid, shows a goodly array of preserved fruits; but we wonder how he has been able to grow these peaches, apricots and pears, in the Sabara, which surrounds the Spanish Metropolis. We can better understand Matias Lopez's chocolate manufactory at Madrid, for cocoa will travel if fruits cannot.

Gavalda's liqueurs, made at Palencia, look very tempting, and we would willingly have become more intimately acquainted with them.

A series of woods of every kind displays the wealth of Spanish forests, which has not been taxed as yet to its fullest extent.

On the upper floor of this pavilion are grouped the products sent by the last vestiges of the once numerous Iberian Colonies, Cuba, Porto-Rico and Manilla.

The principal exhibition of Cuba naturally consists in tobacco and cigars of every kind and shape; we also see there a very curious collection of insects and reptiles, and some fine specimens of coral, for which a silver medal was deservedly awarded to Dr. J. Gundlach.

One of the Havanese exhibits causes us no small amount of surprise; it is a fan made in the honour of Lincoln. The President's portrait is surrounded with Cupids and Fames, and accompanied with enthusiastic verses which do not augur well for the continuance of the Spanish dominion.

Produce from the Philippine Islands comprises cigars, hemp, cocoa, coffee, indigo, and that magnificent shell
called *Concha margaritifera*, but better known under the name of Mother o' Pearl.

Mr. Gill, a chemist of Manilla, exhibits the essential oil of Ihlang-ihlang (*unona odoratissima*), a deliciously scented blossom which Rumphius describes, in his clever treatise, under the name of *Kanonga*, and which the Tagals have justly termed the *flower of flowers*, for it is unequalled in sweetness and durability of fragrance. Mr. Gill's essence of *Champaca* is also very remarkable, but as to his *Eureka*, we must admit we did not utter the same exclamation after smelling it, for we could not find out what it was. We should like to have seen this collection completed with the *San-paquita* and *Canatuchí*, two flowers of exquisite perfume.

Returning to the building through the Machine Gallery, we observe on our way two models of light-houses, an oil-press containing 40,000 arrobas, a coin-stamping machine by Fossay & Co., of Lasarte, Ferrando's wood-working engine, and some tolerably good encaustic tiles from Nolla & Sagrera, of Valencia.

Barcelona raw silks and Burgos flax appear to attract the notice of manufacturers. Barcelona, moreover, maintains its ancient reputation for this vaporous lace, which lends additional grace to the graceful *senoras*. We specially remark a blonde mantilla, by José Fiter, worthy of the most elegant *Marquesa* who ever paced the *Prado*.

Alcoy and Barcelona appear to have shared the inheritance of the once celebrated Segovia cloths, for we see nothing from the latter town, whilst the former show a variety of woollen fabrics.

Gorina & Son, of Sabadell, exhibit fine figured damasks,
Madrid Manola.
Murcian Farmer.
and Castells and Sola shawls of a good design. This is about all we have to notice in the clothing department, if we add thereto richly embroidered ecclesiastical vestments and a series of costumes of the different Spanish provinces, which are all stamped with great originality.

Here is a magnificent trophy of Toledo arms, which is calculated to give too favourable an idea of the present state of the once celebrated Toledo manufactory, which has now dwindled down to a poor little shed on the dusty banks of the Tagus, at the foot of the rock where rises the antique city of the Goths. The far-famed Cordova leathers seem to have joined Toledo blades among things of the past, for we can find no vestige of them.

To replace old industries which are becoming extinct, here are new ones rising into notice. Some twenty years ago, Spain still imported all her glass and pottery, but she now begins to manufacture her own. The coloured glass shown by Cisnentes, Pola & Co., of Gijon, can almost rival that of Bohemia, and the porcelain and earthenware sent by Pickman and Co., of Seville, certainly merited a better reward than the bronze medal allotted to them.

The essential oils distilled by Robillard from the aromatic plants which abound in the "Huerta de Valencia" also deserve great commendation. His Rose Geranium (Geranium capitatum) exceeds in sweetness that of Provence and Algeria, and his verbena (Aloysia citriodora), schinus and patchouly (the first raised in Europe) do him also great credit. We should like to see turned to the same account the numerous fragrant plants and flowers which we have observed growing
in wild luxuriance in the plains of Estramadura, and which are allowed to "waste their sweets on desert air."

The Spanish pictures are few in number, and offer nothing worthy of the school of Murillo and Velazquez. A full-length portrait of the Queen of Spain occupies the centre of the room. There is besides a large picture representing a conclave of cardinals, in which the artist has mastered a great difficulty in grouping his scarlet-cloaked personages, so as to avoid making the whole too loud in colour. Another painter opposite has been less happy with his "Communicants," who kneeling, white clad, and in single file, are painfully suggestive of the paper "ducks and drakes" made by children.

Portugal, ambitious, like Spain, to show her colonial produce, has erected in the Park a pavilion devoted to that purpose; but what she has remaining of Albuquerque's and Vasco de Gama's conquests is so insignificant, that the jewel is far from corresponding to the size of the case. Lacquered boxes with curious ornaments manufactured at Goa, sundry woods from the East Indies, textile plants from Cape de Verde, cassava root and beans from Angola, and liqueurs from Mozambique form the bulk of this collection.

In lieu of machines, Portugal exhibits her wines, her cereals and her slates.

Portuguese manufactures are also devoid of interest if we except a series of potteries, in the Limoges style, indicating marked progress in the ceramic art, which was for a long time kept back in that country owing to the prohibition of all foreign importations.

The restoration of the Belem Church, erected in Lisbon in
the year 1500 by King Dom Emmanuel, to celebrate the discovery of the Indies, does great credit to the architect who exhibits the model. It shows that mixture of Gothic, Moorish and Indian architecture, which is peculiar to Portuguese edifices.

A few words will suffice to describe the narrow band allotted to Greece. A very handsome trophy of marbles of all colours forms its chief attraction. We may also mention as natural produce, cereal, wines and sponge; and as manufactures, richly embroidered garments, finely woven gauzes and jewels that are not devoid of taste.

The statue of Penelope is nobly executed, and the statuette of Alexander the Great is well modelled. A cenotaph bearing the inscription ΕΚ ΤΟΥ ΕΠΙΑΣΘΙΠΙΟΥ is ornamented with a good basso-relievo; as to the Greek pictures we shall be charitable enough to say nothing respecting them. Shades of Zeuxis and Apelles, be merciful unto your descendants!
CHAPTER XIX.

SWEDEN, NORWAY AND DENMARK.

We will begin by visiting the house of Gustavus Vasa, this quaint château with a winding external staircase and a coating of dark wooden shingles, which give it a stamp of picturesque originality.

The Swedes have had the good taste not to adorn this château with elegant furniture, but have filled it with a quantity of articles which bring to the mind the origin of their popular hero, and the love he bore to his country.

Here for instance is the model of a national school, founded by Vasa, and successively improved by Gustavus-Adolphus and Charles XII., and lastly by Bernadotte and his dynasty; the children of both sexes are brought up together and receive the same instruction in reading, writing, geography, universal history, natural history, arithmetic, weights and measures, &c. till the age of twelve years, when they are separated; the girls are made to occupy themselves in household management, and the boys are taught a trade. It has been noticed that this contact in early life, and this uniform education tend in after life to render the intercourse between the sexes more agreeable, and the union of married life of longer duration.

The Swedes, like all northern people, have turned their special attention to the question of heating the interior
of their dwellings; but it is not sufficient to have warmth, this must be obtained at a low cost especially for the poor who require it most, and have least to expend in procuring it.

Akerlind has supplied this want with his apparatus shown in one of Vasa's rooms. This stove, intended for the working classes, consumes equally well wood, coal and turf; with a very small quantity of fuel it spreads a pleasant warmth in the apartment, and supplies at the same time a kitchen furnace in which the labourer's wife can prepare her husband's dinner.

By the side of this we find a Norwegian house, a good type of these northern structures where wood is the chief material employed; therein is collected a complete assortment of fishing implements, and all that concerns navigation.

We are surprised to notice Sweden so badly represented in the Machine Gallery; for a country which supplies all parts of the world with iron, it appears to make very little use of it at home. We find nothing but an iron tower from the mechanical workshops of Arboga, a pump from that of Matala, and a powerful machine for drilling holes in mines by Bergstrone, of Filipstad; on the other hand we have ninety-seven exhibitors in the section of mines and metallurgy. Utansive, Alkvettern, Borgvik, Fredriksberg, Storfors, Forsbacka, Hellefors, Smidjebacken, Oelsboda, Laxa, Svana, Quarntorp, and many more compete with each other for the beauty of their ores, castings, and rolled bars; these ironworks extend as far as Lulea in Lapland, some specimens from which place are shown.

Bessemer's process for casting steel appears to be very generally adopted in Sweden; it is used to make those very
Norwegian House.
beautiful specimens exhibited from the foundries at Fagersta, Soedersfors, Dannemora, Kloster, and Siljansfors.

Nature seems to have accumulated her metallic treasures in this extremity of the globe, as besides iron and steel we also find in Sweden copper, lead, silver, nickel, and graphite.

The marble shown is also very fine and of various descriptions; we notice particularly that of Gotland with its capricious and multicoloured veining, and that of Jonkoping, which is green, black, grey, mottled, &c.

Norway and Denmark boast of no machines, but they excel in the contrivances peculiar to a primitive and amphibious people; slimly built models of ships to skim the seas, and fishing tackle of all kinds to reap in this ever fertile field to which they lay claim.

Norway shares to a certain degree the metallurgical riches of her elder sister, Sweden; she shows a splendid collection of minerals, among which the products of the royal mine of silver at Kronsberg shine right royally.

Another source of revenue for the Norwegians is the luxurious manner in which nature has clothed the animals of that country, to enable them to support the severity of an almost everlasting winter. The blue, white, black and red Fox, the Lynx, Otter, Sable and Woolverene, are covered with a thick and soft coat, of which they are divested to furnish clothing for the human race who is not so well provided for. Brandt, of Bergen, and Hotter & Börger, of Christiania, send some beautiful furs derived from the various species we have named.

Needle-guns seem to be in favour in Sweden; we find two there, one made by Hagstroene's system, the other by
THE PARIS EXHIBITION.

Gustafson's. We also see some specimens of Swedish artillery; a rifle cannon by Wrede's system, a cast-iron rifled cannon bound with steel, by Ekmon, and a small rifled breech-loading cannon, by Engstroem's system.

As regards manufactures in general, the three countries we are now describing do not offer anything worth noting, if we except some fine porcelain from Godenius, of Stockholm, which show real progress in the ceramic art, and some beautiful jewels, by Christesen, of Copenhagen; the rest are not perfect enough to call for admiration, nor sufficiently original to create interest.

The great attraction of the Swedish exhibition is the series of popular costumes, which are not only perfectly correct, but which are worn by figures of life-like expression engaged in all sorts of occupations. In fact, by passing the whole of the groups in review, you can build a little story illustrating Swedish manners and customs.

Here is first a young maid with blue eyes, fair hair and rosy cheeks mowing hay in a field; she is lightly clad, for
summer is as hot as it is short in those regions. She has now returned home; one of her companions is combing her long braids and inserting into them these numerous quaint ornaments devised by Scandinavian coquetry. “Make me look
very handsome," she seems to say, "for I am going to the fête, and shall meet there the object of my affections." A little further we see the lovers together; the youth is pressing, the maid is blushing and whispers a soft avowal. Then the infallible test is resorted to, a daisy is plucked to know if her love is reciprocated, and the lover comes slyly behind as the last petal is answering "Passionately."

After that we have the proposal of marriage; the young man is timid, the father serious, the mother exultant and the girl turns her head away smiling.

The wedding closely follows; the bridegroom looks very smart in his gay-coloured jacket, covered with buttons; the bride seems not a little proud of her tinsel crown, which makes her Queen for a day.

After flowers we have fruits; here is the young mother carrying her baby in a hand basket, which, however odd it may appear, is a very good way to leave the child the full play of its limbs.

The husband is an itinerant clock maker; he goes round the country mending clocks or selling them when he has a chance; the wife accompanies him in his excursions.

Now they are going to take a long journey; this sledge drawn by reindeer and covered with furs, in the midst of which they are comfortably ensconced will take them to Lapland. *Bon voyage,* and be happy!

All these scenes are admirably rendered, and the narrow gallery containing them is constantly filled with admiring crowds.

Denmark has also its costumes of Iceland and Amak, but they are less interesting than those we have described.
Swedish Costumes.
As the head of Swedish artists we shall naturally place H. M. Charles XV., who exhibits a landscape offered to the Emperor of the French. A picture painted by a King for an Emperor! that is what may be called the aristocracy of art.

Among plebeian artists, we may mention Wallander, who has a charming picture representing a young maid plucking a daisy; Ankarkrona, who shows two African battle scenes of a good colour; Kiorboe and his spirited hunts, and Hoeckert, whose Lapland sketches are very original.

The most remarkable Norwegian picture is Tidemand's *Single Combat in Ancient times*. One of the combatants stretched on a bench is struggling in the agonies of death, whilst his adversary is carried away grievously wounded. In the middle stands an old woman who is cursing the brawlers, and whose irate face is full of expression.
CHAPTER XX.

RUSSIA.

If every nation occupied in the Exhibition a space proportionate to the extent of its territory, Russia would have laid claim to something like a third of the Champ-de-Mars; but if the country is large, its industry is small, and a few hundred exhibitors alone represent this vast Empire which is made up of so many divers elements, and which almost encircles our terrestrial globe.

The Russians have turned into good account the section of the Park allotted to them. At the extreme end they have constructed very elegant stables, wherein are to be seen beautiful specimens of the Muscovite equine race, from the rough ardent pony of the Steppes, which is not unlike the Shetland, to the prancing steed trained in the Petersburg stud. This Exhibition is made in the name of the Emperor Alexander, to whom was justly awarded one of the grand prizes for this interesting collection.

The Office of the Russian Commission opposite gives a good idea of the architecture of the country, which partakes at the same time of the Swiss and Chinese styles. There, every mougik builds his own house; by means of his hatchet, which he handles with wonderful dexterity, and which does service alternately as a plane, a saw, and a chisel, he con-
structs in a short time, out of the wood supplied him by his
lord and master, a dwelling for himself and his family, and
manages to impart to it a certain degree of elegance. It
must not be supposed, however, that all peasants' houses in
Russia are decorated with these fine open-work ornaments.
The carvings are generally of a rude description, and the
structures we find here bear more resemblance to the chalets
on the verdant Islands of the Neva, in which the Petersburg
patricians seek a refuge against the oppressive heats of a
Russian summer.

A tent of Kirghiz Tartars, made of sheep skins, and a
Yacoutes' bark hut, remind the visitor that the denizens of
the Muscovite Empire are not at all civilized, and do not all
inhabit houses, however rude. It is this immensity which
causes at the same time the strength and the weakness of the
country.

Before leaving the Park we notice a new model of railway
giving great facility for ascents and descents.

In the Machine Gallery we find no machinery in motion.
We only remark there some very fine cast-steel cannons, and
a well organized fire engine. Fires are of frequent occur-
rence at Petersburg, where there are still many houses built
of wood; but by means of signals hoisted on the nearest
steeple (balls in the day-time and lights at night) it is at once
made known in which quarter of the town the fire is burn-
ing, and engines are rapidly brought to the spot. When a
private carriage runs over a person in the street (which hap-
pens pretty often) the coachman is forced to enlist, and the
horses are confiscated for the fire-engine service; thus they
always have excellent steeds.
Here is a machine invented by one Nördikoff, of Petersburg, for drawing lottery tickets. Are we to class this among improvements? After all, lotteries are perhaps a matter of necessity for some nations, and where they have been abolished, people are fain to console themselves by speculating on the Exchange.

In the very next case we observe a collection of cereals from the Agricultural Society of Moscow; what a singular contrast: the good Goddess and blind Fortune elbowing each other in friendly contest; we avow our preference for Ceres, she is less inconstant in her favours.

A little further are shown samples of every kind of grain
used as aliments, from the finest Black Sea corn, to the coarse
*djouk* on which feed the Yacoutes.

![Yacoutes' Bark Hut.](image)

The soil of Russia is really a marvellous one, and with better cultivation could be made to produce every thing. See what a variety of specimens it sends, as it is; flax from Vilna, hemp from Aurel, cotton from Caucasus, silk from Warsaw, wool from Tauris, wax from Kasan, cork from Riga, madder from Astrakhan, opium from Tiflis, tobacco and wines from the Crimea, in fact a little of all that is to be found in other countries.

Russian forests have not yet been worked to their fullest
extent, but from the series of woods sent by the different provinces, it is easy to see what a source of future wealth they contain. Among the specimens we remark a particular sort of beech called casse, the bark of which imparts to leather an agreeable odour. Every one knows the smell of Russia leather, but a fact less known to those who have not visited the country is, that all leathers tanned there are aromatized by the process. The first impression we experienced when landing on Russian ground was a nasal one, and when entering the leather section at the Exhibition, we almost fancied we were walking down the Galleeren Pereoulok, so much do odours influence memory.

The riches of Russia are not all to be found on the surface of the soil; the interior contains wealth at least equal, which has been hitherto but imperfectly explored.

Prince Demidoff ranks as one of the largest mine owners; he exhibits very good copper, iron and platina ores; but, he is principally celebrated for his malachites, which are undoubtedly the finest in the world. Many of our readers will remember the splendid malachite gates he had at the Great Exhibition of 1851, and he now sends a block of that valuable stone weighing upwards of two tons.

Next in importance comes Mr. Alibert, a Frenchman, who discovered at Mount Batougol, near Irkoutsk, in Siberia, a very abundant mine of graphite, and who in spite of numerous impediments succeeded in working it most successfully. This mineral which is commonly, but improperly, called black lead, has hitherto been derived from the Cumberland mines, but they are giving signs of exhaustion, and Mr. Alibert’s discovery was made just at the right time.
Besides metals, Russia yields precious stones, of which we see a collection sent from the Emperor's museum, to which are added some pearls fished on the coast of Finland. The latter province also shows some handsome marbles and granites.

Tankard, Sasikoff.

Metals are principally worked at Toula, the Russian Bir-
mingham. It is thence Tchernikoff sends us his finely toned bells, and Samoff his samovars, or copper tea-urns, into which a piece of red-hot iron is thrust to make the water boil. We also remark some charming loschkas or platina spoons inlaid with gold.

The Emperor’s goldsmith, Sasikoff, exhibits some splendid pieces, from which we select for Illustration a highly chased tankard, representing an episode of Russian history.

Wurttemberg has not the monopoly of paper-wood; here is some from a Mr. Idestant which may compete with its German rival.

We may mention as curious products, before leaving this group, sea-cat grease, dried sturgeon sinews, and photonapthile, a mineral oil found near Bakou, on the Caspian Sea, where it springs up from the earth, and is even found floating on the surface of the water.

The only chemical product worth noticing is albumine, made by a company at Kasan with white of eggs, whilst they use the yokes to make soaps and pomadases. The cotton trade is in a very backward state, but the striped silks, made in imitation of the Persian, are very beautiful; they are largely sold at the Petersburg and Moscow Gostinei Dwors. We also like those light Caucasian tissues named Djijdjimes, and those shawls made of goat and camel-hair. The latter serves likewise to manufacture cloth, of which we see a specimen sent by the Orenburg Cossacks living at a town with a most unpronounceable name, NovoVozdvijenskaia.

Here are embroideries from Tiflis, but what has become of this charming Tarjok embroidered leather which was so celebrated in our time?
Russian Costumes.
Russian costumes are highly interesting and diversified, as may be expected with such an extensive territory. We illustrate those which appear to us the most picturesque.

The mosaic pictures executed from the designs of Professor Neff, and sent by the Imperial establishment at Petersburg are very fine, and would appear still more so were they not in the dangerous proximity of Dr. Salviati’s beautiful productions which are in the opposite Court.

We find here those little images of Saints in the Byzantine style, with the heads and hands framed in heavy gilt ornaments, which are to be seen in Russia, with a lamp burning before them, in dwelling-houses, in workshops and even in railway stations, which by the bye is somewhat embarrassing, as etiquette compels you to remain uncovered wherever those pious emblems are affixed.

We remark, on our way, two fine pianos from Warsaw, some magnificent porcelain from the Imperial manufactory, and the model, by a Frenchman, Felix Chossier, of an expiatory chapel, to commemorate the late attempt to assassinate the Emperor.

In the Fine Art section the most striking picture is an *Inundation*, by Flavlisky; a woman standing on her bed is clinging desperately to the wall, and sees with the utmost terror the water gradually rising and driving towards her a swarm of hideous rats.

Peroft’s *genre* paintings are very clever. We admire above all his group of children, with their eyes red and their lips blue with cold, drawing a hand-cart through the snow. An old woman’s head, by Horarsky, is nature itself and might be signed Ribera.
CHAPTER XXI.

ITALY AND ROME.

Commerce and industry, once so flourishing in Italy, have experienced during the last centuries numerous vicissitudes; but such has not been the case with the Fine Arts, the cultivation of which has been constantly kept up in this country, so richly endowed with imagination. The fact is fully proved at the Exhibition where Italian manufactures are scarcely noticed, whilst their pictures, and especially their sculptures, are the object of universal admiration.

We shall, therefore, this time give deservedly the first place to the Fine Arts, commencing with the statuary.

To the marble group of "La Piété," by Jean Dupré, of Florence, the great prize has been awarded. Whilst fully acknowledging the merits of this work, we think it lacks somewhat in originality and recalls, in many points, Michael Angelo's Pietà, of which a model is to be seen in the Crystal Palace.

We confess our preference for "The last moments of Napoleon I.,” by Vela, of Turin. The Emperor seated in an arm-chair is fast sinking; in his noble countenance are depicted mental anguish and bodily suffering; his right hand distended seems to let life escape, whilst the left is nervously
clutching the map of Europe which it still attempts to retain in its grasp. It is impossible to give more expression to a cold piece of stone. This splendid work has been purchased by the French Government to be placed in one of the National Museums.

*Christopher Columbus,* by the same artist, is also a grand composition. The hardy navigator is presenting America to Europe, under the shape of a young woman with a wild and astonished look.

The prolific Magni, of Milan, presents us with no less than nine statues and statuettes. Besides his *Reading Girl,* which was one of the gems of the Exhibition in 1862, we notice his *Sapbo, Socrates,* and *Beatrix* which are all worthy of the artist's reputation.

Miglioretti's *Charlotte Corday* is eminently dramatic; one can read on her features the struggle which is taking place between her sullen resolution to accomplish her vengeance, and her despair in thinking of the fate which awaits her.

We also like the fierce expression of Pandiani's *Camilla,* who is advancing, sword in hand; and, as a contrast, the happy quietude displayed in *The sleep of Innocence,* by Argenti, of Milan.

Besides those we have mentioned, the most remarkable statues in this highly interesting gallery are: Agar holding a cup of water to the parched lips of her child, by Norchi; Tantardini's *Vanité;* Pandiani's *Eve;* Tabacchi's *Ugo Foscolo,* and a magnificent group of St. George conquering Lucifer.

The colossal statue of *David preparing to meet Goliath* is more remarkable for its size than for its execution; one can
easily conceive that such a big fellow was not afraid of a giant.

Cambi's three statuettes are much admired. *Love begging*, in particular, is a charming composition, and many were the *sous* dropped by the passers-by into the shell held by the malicious little God; which *sous* were, we suppose, subsequently pocketed by the *gardien*, as being the living representative of Dan Cupid.

Passing to the Picture Gallery, we first examine the large paintings representing the Abdication of some Duke of Florence, which obtained the great prize; we suppose, however, it was more on account of its dimensions than of its merits, for the figures are badly grouped and too crowded.

We much prefer some of the smaller pictures in this room, such as *Tasso reading his poem*, and the *Pompeian Baths*, both by Morelli, of Naples. The latter especially is very well handled.

As genre pictures, we shall mention two charming sketches by Induna, the *Letter from the Camp*, and the *Garibaldian's recital*; also, *Private life*, by Gouinet; and the *Singing Lesson*, by Bianchi.

Hamon has found imitators in Italy; Miola gives us two scenes from the antique, which are, if anything, superior in in colour to the French painter's productions.

We do not much admire Palizzi's *Issuing from the Ark*. His animals are well modelled, but the shades are too loud. We much prefer the *Herd of Oxen* by the same artist, which is in Rosa Bonheur's style.

The *Scène de Calentaro* may be thus described: wooden
figures moving about on an ashy soil, between a row of telegraphic posts, which are probably meant for trees.

The voyage of the *Schiak* (sic) of *Persia*, shows more talent than orthography on the part of the painter. The grouping is good, and the aerial perspective excellent.

Three good mosaic pictures, the principal of which represents the *Vierge à la chaise*, form about all the meagre budget of the Roman States, in the way of art.

Far more important pictures in mosaic are exhibited by Dr. Salvati of Venice, whose name is justly celebrated in England for the splendid works executed by him at Windsor, Westminster Abbey and St. Paul’s. To the indefatigable exertions of the learned Doctor is entirely owing the revival of an art which, some centuries ago, had rendered Venice famous, but which had been allowed to fall into decay. It is in the Island of Murano, the ancient seat of this industry, that Dr. Salvati has established his manufactory, and by dint of indomitable perseverance he has succeeded in forming a staff of artists who produce not only mosaics, but also this quaintly shaped and coloured Venetian glass so prized by amateurs. These modern imitations are in every respect equal to the ancient models in lightness and brilliancy, whilst their price does not exceed that of ordinary glass. The great success obtained by the establishments Dr. Salvati lately formed in London, proves how much the result of his efforts is appreciated by the public, and the high rewards he received at the Exhibition (a gold medal and the order of the Legion of Honour), were certainly fully deserved.

The Marquis de Ginori has done for the ceramic art what
Dr. Salviati has accomplished for glass. His manufactory at Doccia, near Florence, sends a splendid assortment of porcelain, both in the ancient and modern styles. His vases, with
coloured basso-relievo, which, although perhaps a little too florid, are exquisitely finished.

We also observe in the Park a very fine exhibition of ceramic, and in the building, some good imitation of ancient Faenza ware, by Devers.

Among products which are both artistic and industrial, we may mention some very original bronzes by Michieli, of Venice, a magnificent ebony cabinet, in the style of the sixteenth century, by André Picchi, of Florence, a carved oak side-board, by Bartolozzi, some charming mosaic tables, by Torrini, Montelatini and Polli, of Florence (the latter quoted at the modest price of £400), a pair of elegant serpentine vases, by Viecci, of Florence, and a fine carved oak piano, by Marchisio, of Turin.

If staple industries have deserted Italy, she has still preserved some minor specialities which are well represented, such as, for instance, Florence (usually called Leghorn) Naples gloves, Treviso embroideries, Genoa
THE PARIS EXHIBITION.

jewels in gold or silver filigree, and Milan silk and woollen
shawls. The Italian costumes are also very interesting, as
may be seen from the specimens we have illustrated.

The exhibition of raw silk is quite complete. Bergamo,
Milan, Brescia, Sienna, Bologna, Ravenna, Como, Modena,
Florence, Genoa, and many other towns, send specimens of
what they produce.

An ingenious cellular isolating apparatus, by Del Prino, of
Alessandria, for rearing silk-worms, and avoiding the contact
which gives rise to diseases, spots and ill-shapes, shows the
cares bestowed on that operation in the country.

Italian machines are few and far between, but we find in
their stead flax and hemp of all qualities; argentiferous lead
from Sardinia, one single block of which weighs upwards of
two tons and a half, and contains eighty per cent. of lead and
six per thousand of silver; iron ores from the Island of Elba;
sulphur from Romagna and Sicily; cereals from Lombardy;
boric acid from Leghorn; wines from Asti, Capriata, Amarena; Guarnaccia, Posilippo, and other places; essential oils
of bergamot, orange and lemon from Calabria; all the various
pastes which form the principal article of food for Italian
people, and preserves of every kind.

Among preserves, there is one which is not of a very appe-
tizing character, and yet it carried away one of the great
prizes. It is a preserve (borresco referens) of human flesh,
devised by Dr. Brunetti, of Padova. The learned doctor has
found means to impart to the remains of our frail humanity a
sort of second life; here are arms, legs, hearts and lungs
which have all the appearance of vitality. There is among
Habitant of Campidano.
Roman Peasant.
others a woman's head, whose glassy stare makes your blood run cold.

The model of the Roman catacombs, with their fantastical designs made of bones and skulls, offers an equally gloomy aspect. Fortunately we find not far from it a machine which gives a more cheerful turn to our ideas: it is a steamer rolling on rails, and serving to convey ices and creams from the laboratory where they are manufactured to the café where they are consumed. A steamer going on wheels! Who dares to say after that that the Italians are not an inventive people!
CHAPTER XXII.

THE OTTOMAN EMPIRE AND ROUMANIA.

Wishing to initiate us into their manner of living, the Turks have constructed in the Park a mosque, a bath, and a kiosque, thus illustrating the three chief occupations of Eastern life, prayer, ablutions, and kief.

The mosque is a reduced copy of the green mosque, Yéchidualjami, constructed at Broussa by Mohammed I., in the year 1412 of our era. After having passed through the vestibule, where the faithful deposit their shoes, we come to a nave wherein the light pours through the apertures of an elegant minaret; at the end rises the mibrab, placed to indicate the direction of Mecca, towards which Mussulmen bend in adoration; on the right is a kind of pulpit (mimber), where the Iman recites verses of the Koran.

On either side of the vestibule are two small rooms, one containing the fountain for ablutions (Zébil), and the other, the clock indicating the legal hour of the five daily prayers.

The Turkish bath is now too well known in this country to render it necessary to explain in which way one is stewed by degrees until perfectly cooked.

The kiosque is a charming pavilion, such as one frequently sees on the banks of the Bosporus. The interior is lined with softly padded and richly covered sofas; in the centre a
fountain refreshes the atmosphere, and the light creeps timidly in, subdued by coloured glass; we feel almost tempted to call for coffee and pipes to complete the enjoyment of this Eastern scene.

On entering the building, we vainly look for machinery in the Turkish department; a carpet-loom and a corn-thresher, both of the most antiquated description, are all we can find in the way of mechanical appliances.

As a compensation, however, the collection of minerals is extensive. Gold, silver, brass, iron, lead, mercury, zinc, all metals in fact, appear to meet in this favoured country; but, as is the case with Spain, labour and capital are sadly deficient.

Precious stones rank also among Turkish exhibits; here is a block of amethyst weighing upwards of sixty pounds, which *Sinbad the Sailor* probably brought home from his travels.

The Panderma marbles are very fine, and make one regret they should be in the hands of people who are forbidden by their religion to delineate the human form. Mahomet, in seeking to suppress idolatry, destroyed Art with the same blow.

The exhibition of woods shows the happy position of this country where the northern and southern vegetation are to be found equally thriving. Here we see the pine, oak and beech, as well as the palm, olive and lentisque trees.

Articles made of wood are for the most part of a very curious shape; we notice among others Janina wine goblets, Djeddah fig-tree vases, and some basins, spoons, and implements of husbandry. We also remark plates and baskets made of Syrian straw, and some wicker tables, and very original matting from Circassia and the Liban.
The furs are in great variety; side by side are found the skins of the pole-cat, fox, stag, sable, jackal, tiger, lion, leopard, wolf, beaver, goat, sheep, and black stillborn lamb called Astrackhan.

The magnificent collection of medicinal and pharmaceutical products sent by Fāt-K-Bey (G. della Suda), director of the Civil and Military Pharmacy, does honour to that learned practician. It contains an immense quantity of precious substances indigenous to the soil of Turkey, including opium, which constitutes an important branch of trade.

Fāt-K-Bey also sends an interesting series of essential oils, made from native plants and flowers; that called Alvadané has an aroma peculiarly sweet and penetrating.

Nineteen-twentieths of the otto of roses used by commerce are produced by Turkey. This delicious essence is manufactured in the neighbourhood of Adrianople and is still worth about its weight in gold.

Among the cereals, we notice four sorts of Indian corn, yellow, red, white and black; also wheat, barley, rye, rice, sorgho and millet.

Salonica, Janina, Adrianople and Trebizond supply that fine tobacco which is so delightful when slowly smoked in the narghilleh with its long winding tube and its bowl floating in rose water.

The East is pre-eminently, as every one knows, the land of embroidery. These people, so childish in their tastes, love to decorate with rich and capricious arabesques every thing round them, their clothing, their furniture, their tapestries and the trappings of their horses.
It is chiefly at Constantinople and Scutari that mantles, dresses, coverlets, carpets, babouches, *naleuns* (small pattens for going to the bath), tobacco pouches, and numerous other things are worked with gold, silver and glittering colours. These embroideries, which are all made by hand—the sewing machine not having yet penetrated so far—are called *oyas*. Ordinary articles are bedizened with paintings (*yazmar*) to imitate embroidery. The brilliant silk stuffs figured with gold, and the elegant silver striped gauzes, which form part of the costumes of rich females, are manufactured nearly everywhere, but chiefly at Broussa, Aleppo, Smyrna and in Roumelia. The poorer classes wear cotton tissues either of pure or mixed material which are termed *kembas, aladjas, daghs*, or *tchezmés*. The use made of these different stuffs can be appreciated in the very complete Gallery of national costumes.

The same genius which causes the Turk to embroider tissues makes him engrave metal with a thousand fantastic designs. The exquisite *niellé* which runs in light arabesques on the burnished tints of the Damascus steel, shows the taste of Eastern artists; sword hilts, scabbard trappings, goblets, knives, &c. are covered with gilt carvings, which set off the azure ground of the metal.

The great trophy shines with magnificent specimens of fire and other arms; around a large stag's head are symmetrically ranged guns of every description, "trusty" Damascus blades and pistols of different sizes. Next to the modern rifle is a match revolver which is several centuries old, and the curved blade of the *kiliâfji* crosses that of the *kama*, which is straight and pointed and has two grooves in the middle to drain off the blood.
Turkey was doubtless the cradle of carpets, and it is one of the rare superiorities which she has maintained in the midst of her industrial decline. There are four sorts of Turkish carpets: *sofrais*, which have a rosace in the centre to indicate where the table (*sofra*) is to be placed; *siralis*, which are striped with six colours, white, violet, black, green, red and yellow; *duchemës*, made of short wool mixed with goat's hair, and manufactured in the tents of the nomad tribes of Asia; and *sidgades*, which are imitations of the ancient Persian carpets, and are used in mosques and as rugs.

The most curious, if not the finest of these specimens, is a carpet from Broussa, representing the rearing of silk worms, and, notwithstanding the Prophet's prohibition, containing human figures.

Another very flourishing trade in the East, that paradise of smokers, is the manufacture of pipes and all relating thereto.

The ingenuity of the Turks is constantly taxed to find some new substances for the bowls or *lulës*. In Constantinople they prefer red earth; in Routschouk, black earth inlaid with silver; and in Trebizond they use wood. A great deal of patience and labour is also bestowed on the making of pipe stems either in ivory, ebony, mother-o'pearl or carved wood.

Among other cities Djeddah sends some magnificent narghillehs of solid silver, with very effective relief ornaments either cut or stamped.

The ceramic art is not far advanced in the Ottoman Empire; the forms are original and not altogether devoid of taste, but the material is open to great improvement. We may, how-
ever, make an exception for the Kutaiah blue and green tiles, which are of a good colour and well varnished.

Among other miscellaneous Turkish manufactures we notice two huge perfume-burners, fit for the hall of a palace, some elegant silver filigree jewels from Monastir and Trebizond, sandal-wood combs, tortoise-shell spoons to eat those rose-leaf preserves, of which odalisques are so fond, bright hued peacock feather fans, coffers made of Jerusalem olive-wood, odoriferous paste bracelets, and a complete collection of Eastern perfumery comprising the celebrated tensoufs, or round flat pastilles covered with a gold leaf which are largely used in Turkey to sweeten the air of apartments, and which are more or less well imitated by our perfumers.

Musical instruments are numerous, too numerous perhaps, for Eastern people are not naturally gifted with a good ear for harmony, and we shudder in thinking what an awful din they must raise out these mandolines, oboes, pandean pipes, bagpipes, horns, castagnettes, cymbals, and zournas or double tamburines.

It is often said that music and painting are sisters. In order to prove this close relationship, Mr. Montani has adopted the theory that as there are seven notes and seven colours, and as many semi-tones as there are intermediate shades, acoustic waves can be transformed into luminous ones, and a piece of music translated into a picture, and *vice versa*. Thus a genre picture can be expressed by a quadrille, an historical painting by a symphony, a portrait by an *aria*. We hope our intelligent readers will be able to fathom this abstruse doctrine better than we did ourselves.

A *more serious savant* is Abdullah Bey who exhibits a
curious Assyrian inscription, in cuneiform characters, found at Khorsabad and translated by him into Latin, and a phytotomic herbary composed of flowers, clothed, when freshly plucked, with a transparent varnish and placed afterwards between two sheets of glass, which process completely preserves their shape and colour.

As we are now in the Gallery of the History of Labour, we shall give a look to this magnificent gold plate of the fourth century, discovered in 1837 in the Petrossa Treasury. It consists of a diadem and breast-piece enriched with precious stones, of large gold dishes, of various ornaments and of sacred vases chased in the purest Byzantine style.

These relics of the opulence of the Eastern Empire which are now exposed to view, after having been buried for fifteen centuries, possess a particular attraction which is heightened by their being in a wonderful state of preservation; indeed they seem as if they had just been turned out of the workman's hands.

There are many other interesting specimens furnished by the convents of Roumania, which appear to be very rich in antiquities. Their architecture is also extremely curious, partaking at the same time of the Grecian and Moorish styles. A model of the Ardcèche church, built in 1520 by Prince Negoye Bassarabe, gives a good idea of this hybrid type.

The same traces of a mixed origin are to be found in the Rouman costumes, which combine the Roman, Greek, Sclavon and Turkish elements. Among these costumes, which are very picturesque, we may mention those of the inhabitants of Romanatzi, Sutchava, Campolung and Sourondja. The most curious, however, is the attire of a monk (calugher) on
which are embroidered death's heads, and all the instruments of the Passion.

In the Machine Gallery rises a Roumanian kiosque with its
domes and peculiar looking slanting windows. In the centre is placed a bust of rock-salt representing Charles I. The artist has evidently done his best, but the material used gives to this personage a lachrymatory expression not suited to his dignity; his melting eyes seem to be weeping over the vicissitudes of his country.

A pavilion of the same style, but on a larger scale, has been erected in the Park; the interior is fitted up in that luxurious semi-oriental style, which is characteristic of rich people's dwellings in Roumania.
CHAPTER XXIII.

EGYPT, TUNIS, MOROCCO, PERSIA, AND THE FAR EAST.

The most attractive portion of the Egyptian Exhibition is undoubtedly the series of buildings erected in the Park, which illustrate both ancient and modern Egypt.

In the first place we have the Okel where real natives, varying in shade from light brown to ebony black, work at several trades. Among those artisans one who attracts a great share of attention, is the turner, a grave old man, who slowly guides with his left toe the blade of the lathe, whilst he wields with his right hand a bow which causes it to revolve. A more primitive apparatus it is impossible to imagine; it has probably been handed down from father to son since the time of the Pharaohs.

If men show a preference for the turner, ladies seem more interested with the jeweller who manufactures quaint rings, necklaces, bracelets and anklets out of gold and silver filigree.

A little further we see a barber shaving his countrymen in true Oriental fashion.

In the recess behind the stall is sometimes seen an Egyptian cooking his dinner, and we must add that the odours emanating from his kettle do not tempt us to put to the test the renowned Eastern hospitality.
Egyptian Barber.
By the side of the Okel stands a model of the antique Temple of Edfou. This contrast between ancient and modern Egyptian architecture is very striking, and shows what a complete change Mahometan ideas have effected in the style of building, wiping out every tradition of the past.

The great Temple has been represented in miniature with marvellous fidelity. The triumphal gate, the alley of sphinxes and the internal and external decorations give a perfect idea of the original.

After having inspected modern Egyptian artizans we now see ancient labourers represented with the minuteness particular to their artists. Here are potters turning their wheel, vintners pressing grapes, fishermen, sailors, ship-builders, &c., all plying their divers occupations.

In the interior has been placed a very interesting museum, contributed by the beautiful Boulak collection, and containing several statues prior to the time of Phidias. We remark among others those of Chephren, who constructed the second pyramid, and of Queen Ameniritis, sister of Sobacon, founder of the Ethiopian dynasty, who is represented holding a purse in one hand and a whip in the other, which, we suppose, may be translated with these words "generous but severe."

One of the most curious objects in this Museum is Queen Aah-Hotep's jewel-case, discovered at Thebes by Mr. Marriette, the indefatigable explorer. It contains golden bracelets ornamented with figures engraved on a turquoise-blue ground, necklaces with symbolical signs and flowers, and a supple chain of admirable workmanship, to which are suspended three golden bees.

We also notice, as being very interesting, three gold hatchets
and six silver ones found in a royal tomb, a beautiful poniard formed of four female heads, enriched with lapis-lazuli and cornelian, a dark bronze blade covered with inscriptions and inlaid with flowers, and a Queen's diadem ornamented with sphinxes.

We pass on to a palace with walls covered with hieroglyphs, and pillars surmounted with lotus flowers, wherein are shown the models of that great work, the Suez canal; at the entrance, a square obelisk of a semi-transparent substance attracts the eye; it is a block of rock-salt cut out of the bottom of the Bitter lakes, a deposit made in ancient times by the Red Sea.

On entering we find ourselves in a large room, the walls of which are lined with specimens of natural history, including some shells from the two seas, and some fossil remains proceeding from the excavations.

On a long table in the centre of the room is laid a plan of the Isthmus of Suez, a yellow strip through which the canal runs its thin silver band. This immense sand-waste is only relieved by the verdure-clad banks of the Nile, and a few oasis represented by green spots here and there.

On the other side tables are displayed, on a large scale, certain portions of the canal, and the powerful draining machines which were substituted to the fatiguing work of the fellahs. To give a complete and more precise idea of the character and importance of this remarkable enterprise, the company has placed on the floor above a very fine panorama, which, with its illusion of colour and perspective, enables the visitor to travel in imagination from Port-Saïd to Suez.

It must not be thought, however, that the notion of establish-
ing a communication between the two seas is entirely a new
one: It dates, indeed, as far back as Sesostris; this great
monarch dug a canal commencing at the Pelusiac branch of
the Nile near Bubastes, and debouching by Arsinoe at the
point of the Arabian gulf. This canal, continued by Nechao,
Darius I., and Ptolemaeus Philadelphus, was finished under the
first Lagides; it was about 125 miles in length, and ten
yards in width. Two triremes could pass through it abreast.

In the eighth century the Caliph Al-Mansour had it closed
in order to improve the commerce of Bagdad, and the sands
soon regained the place from which they had been driven.
If the idea is not a novel one, its execution does not reflect
less credit on M. de Lesseps who, it is easy to see, has not
followed the plan of Sesostris.

As a last and a most magnificent specimen of Moorish
architecture, we must mention the palace of the Bey of Tunis,
the Bardo, with its noble staircase guarded by six lions, its
elegant peristyle ornamented with gildings and handsome
statuary, its ogives and its minarets of the purest style.

The interior corresponds with the beauty of the exterior,
and is replete with rich hangings, thick carpets, soft divans,
inlaid furniture, in fine, all the luxuries of Eastern life.

The light enters shaded by the fine lace work of the mou-
charabies,* and the air is filled with the emanations of per-
fumes burning in cassolettes, or rosewater scattered about with
the goulabdan. A patio, surrounded with a graceful colonade
and ornamented with a fountain and a flower-bed completes
the beauties of the palace.

* Overhanging balconies closed with pierced shutters whence Eastern women
can see without being seen.
THE PARIS EXHIBITION.

Underneath there is a Tunisian café where coffee is served, in true Oriental style, with more grounds than liquor, while indigenous musicians, crouching on a divan, drawl out a monotonous song accompanying themselves with their primitive

instruments, the haud, a guitar with four strings, which they scrape with a piece of tortoiseshell, the rebab, a violin with two strings which they play like a violoncello, the darbouka, a kind of drum formed of a skin stretched on a stone jar, and a tambourine called tar.

From Tunis to China there is but a step. The Chinese house is well got up; the painting and sculpture are very
well imitated, as are also the staircases, balconies, roofs, &c. One finds here some real natives, and among others two young girls, A-noî and A-tchoê, who despite their yellow complexion are rather pretty, and smoke with a nonchalant air in small silver pipes while they preside at a kind of bazaar, where tea and Chinese wares are sold by their handmaid Assam. Thus far we find plenty of couleur locale, but why should they give us beefsteaks at the restaurant instead of swallow nests, and European tumblers and jugglers at the theatre in lieu of the touching dramas of the Celestial Empire?

Returning to the interior gallery, we have some difficulty in discovering Egypt, whose products are confounded with those of its neighbours as regards position and style.

These products, nevertheless, deserve special attention; we first remark some fine specimens of wheat, cotton, sesamum, opium, Indian corn, indigo, which all grow on the Viceroy’s private plantations, and which prove the wonderful fertility of the soil and the progress which agriculture has made in this country, under the government of enlightened sovereigns.

Manufactures are also very interesting in another point of view; the workmanship has perhaps not attained a very high state of perfection, but the taste displayed is generally very artistic. They chiefly comprise cabinets, chests, coffers, couches, inlaid with ivory or pearl, glass of all colours, gilt furniture of various forms, ornamented with arabesques intermingled with courfe characters, bracelets, earrings, candlesticks in gold and silver filigree, Cairo jewellery in coral, emeralds and turquoise, lanterns of painted glass, vases of Oriental alabaster, coffee services, perfume burners, richly mounted pipes, in a word all the luxurious appendages of Eastern life.
By their side, and to serve as a contrast, we find the beds of plaited leather used by the wandering Arabs, the wooden pillows on which the Nubians rest their head, as did the ancient Egyptians, the rush and palm leaf mats of Assouan and Isisve, and the humble potteries of the Soudan.

Egypt exhibits very few carpets, and none remarkable save one of violet velvet embroidered with gold, which is used when reciting prayers. We hope that those who recline on it will close their eyes while engaged in their devotions, for this rich material is not calculated to inspire them with the spirit of humility preached by the prophet.

Perfumery is an object of first necessity for these people, and ranks with them as next only to food; but here also we find a great contrast; by the side of fine cosmetics, such as kobel, a black powder, which is employed by the modern as it was by the ancient Egyptians for the purpose of making the eye appear larger, and adding to its brilliancy; benné, which is used to give a roseate hue to the fingers, and schnouda to raise a transient blush on the cheek, we see the dilka or ostrich grease, with which the Nubians anoint their whole body until it shines like a well polished boot; the crocodile glands, which do service for musk in the Sennaar, and the aromatized cocoa oil, which is carried about by wandering tribes in an ivory horn.

The show of harness is very complete; there we find camel pack saddles for officers; horse and mule saddles in the osmanti and marcha style; gourds and sword belts such as the Arabs use; Wahabite harness made of yellow leather and wool, and a state saddle ornamented with glass beads and cornucopias, which is used on festival days by the Bedouins of Bakkara.
Egypt has also its Gallery of costumes, amongst which we remark the fellah woman carrying an amphora on her head, and a smaller one on the palm of her hand.
Tunisian saddlery is very remarkable; velvet, leather, gold and silk are tastefully blended and produce marvellous effects. The silk-lined cashmere carpet with fringes, exhibited by Prince Mohammed, is also exquisitely finished, and the Deridi long wool carpets may compete with those of the Ottoman Empire.

The cushions, mattresses, coverlets and embroidered cloth sent from Tunis, bear that stamp of exquisite fineness which distinguishes Eastern art. We may say the same of their tables, coffers, whatnots and other pieces of furniture, either painted or inlaid with mother-o'pearl.

We must also give our mead of praise to the Tunisian essential oils, which are the sweetest and purest in the whole Exhibition. Their jasmin, rose and cassie breathe the very perfume of the flower.

The scenes of Tunisian life are well rendered, and their figures are capitaly grouped; as to their pavilion in the Machine Gallery, it has simply been converted into a bazaar; on one side they sell jewels and tobacco, on the other shawls and carpets.

Morocco occupies a very small space; the most remarkable objects exhibited are striped carpets, from Rabat, varnished tiles, green and blue bricks, potteries and mosaics from Tetuan, ropes made of alfa and dwarf palm, walnut and leather cushions, and saddles covered with rich embroideries. To our great astonishment, we find among these no specimen of Morocco leather, although this was the land which gave it birth.

Persia occupies two small rooms; one is entirely lined with shawls, the other contains beautiful works in lacker,
and some very curious vases, of which we give a design, supplied by Commandant Duhouset.

The Siamese Exhibition is under the auspices of SomdelchPhra-Paramendr-Maha-Mongkut, first king of Siam. Let us hope that his successors will not think fit to add to this long
string of titles, so that their subjects may have some chance of remembering the name of their sovereigns. The weaving-loom, spinning-wheel, and cylinders to pick cotton are worthy of the attention of the curious in mechanical matters. These implements, although very primitive in form, are not devoid of ingenuity.

Here is a floating house which would suit people endowed with migratory tastes. Built on a stout raft, it bears away the Siamese with his family and cattle, and allows him to change his quarters with but little trouble.

Here is another house constructed on stakes, which is of a less pleasing aspect, for its elevation is suggestive of swamps, snakes and other disagreeable things.

The state barges are good illustrations of the quaint luxury of the Far East. Long, and slim like a serpent, they carry in the centre a diminutive temple, with triple roof, and in the after-part a cabin profusely gilt. The prow, rising and curved, like that of an antique trireme, ends with some monster’s head, destined to strike terror in the enemy’s breast. The same feeling induces Siamese warriors to hide their faces under hideous masks, when they are going to battle, thinking probably that nature has not done enough for them in that way.

The monarch’s household utensils exhibit as much barbarous magnificence as his barges; here are vases, trays, betel boxes, teapots, candlesticks, perfume-burners, and even spittoons, all made of massive gold.

The talapuins’ dresses are equally splendid; it appears that among the numerous vows exacted from these monks, poverty and humility are not included.
Siamese musical instruments are very curious, but the sight is enough, we have not the slightest wish to hear them tried.

Liou-Kiou shows principally glass, manufactured at Kagosima, porcelain from Shirasa, gold plate from Houné-Tene, bronzes from Isso, and sundry articles in lacquered wood. The style partakes of the Chinese, Japanese, and Cochin-chinese. The porcelain is the most interesting part.

The sovereign of the Celestial Empire, the brother of the sun and the moon, has not condescended, like his cousins of Siam and Liou-Kiou, to enter the industrial arena, and were it not for the exertions of M. d'Hervey de St. Denys and M. de Meritens, who have personally solicited some Chinese merchants to exhibit, we would have seen nothing from that country. Thanks to them we have here the fine raw silks which serve to make the pao-tze or long robe in which all respectable Chinese wrap themselves, the Chan-Tong blue and yellow dyes, which have hitherto defied all European imitations, the Kiang-Sou cotton fabrics, the alimentary pastes made of rice-flour, the deu-vou, or pea-meal, which forms the principal article of food in Tche-Kiang, divers kinds of wines and liquors, twenty-nine sorts of tobacco of all shades, a great quantity of black and green teas from 1 fr. to 100 frs. per pound, a complete collection of Chinese medicines, nearly all derived from the vegetable kingdom, iron from Tché-fou and Chansi, and coals from Pet-ché-li, Hiang-Tong, Pong-Tcheou, Ninghai, Fou-tcheou, and Formosa.

The minor articles of Chinese manufacture are contributed by Tching-Yong, and other dealers in curiosities of that country. M. Derode has an interesting collection of
Chinese coins, some of which date from the commencement of our era.

Japanese warriors.

The Japanese have shown themselves more desirous than
their neighbours to make us acquainted with their products. The Tycoon, and the Governments of Satsouma and of Fizen have cooperated in forming a very curious exhibition.

Japanese porcelain and bronzes have been long known and celebrated in Europe, but never had we seen such fine specimens as those sent by Fizen. Their arms are also very remarkable, and the cases into which are deposited the two sabres of unequal length, which form the indispensable complement of Japanese costume, are very elegant. Their fans, lanthorns, pipes, perfume-burners, and cosmetic boxes for women, are also worthy of attention.

The Fine Arts are represented by a sort of coloured bassorelievo, which is very original.

The two warriors sent by the Taishiou of Satsouma, cause a great attraction. Not only are their costumes and trappings in the quaintest style, but they complete their accoutrement with a frightful mask, rendering the whole a most hideous sight. Even horses in that country seem to assume extraordinary shapes, so as to be on a level with their masters.

Last but not least in Japanese curiosities, we shall mention those wonderful paper stuffs, out of which they make dresses and even pocket handkerchiefs. We fancy a paper dress would be rather uncomfortable in a shower rain, and as to paper handkerchiefs, we can only suppose that in that happy country, people are never afflicted with a cold in the head.
CHAPTER XXIV.

THE UNITED STATES.

We can say of the United States the same that we have said of Russia; they are far from occupying at the Exhibition a space proportionate to the extent of their territory; however, the articles which they contribute are very interesting, and quite characteristic of that people emanating from the vast crucible where all the European elements have been blended, and whose adopted motto is "go' ahead."

At the first glance we see that the Americans' main object is to supply the want of hands by the powerful aid of machinery. The most simple and trivial things are done by its aid. Thus we observe in the Annex a machine for peeling apples, another for beating carpets, an automatic apparatus for cleaning glasses, several sorts of mechanical flour sieves and kneading-troughs, and a number of inventions for washing and ironing linen. One of the most ingenious among the latter is that from Browning, of New-York; the linen is placed on a ribbed platform, over which hot soap-suds are poured, and by turning a handle, the washing is accomplished in a very short time.

American railway-plant has been long celebrated for its high finish and comfortable arrangement; the specimens
we see here confirm in every respect the reputation it has acquired. We notice in particular a gigantic locomotive with tender, named "America," and combining all the latest im-

provements, and a street railway-car with beautifully painted pannels, soft cushioned seats, and elegant floor carpet. The curricles for running on ordinary roads are likewise very well
constructed; and their high wheels must insure great speed of motion.

Among agricultural machines of every description, we remark Comstock's rotatory plough, which economises horse and manual labour; Douglas's hydraulic rams and pumps, and Herring's hay-making machine, which being driven through the field turns over the hay with its long hooks.

Herring's Haymaking machine.

A little further on, in the Park, we come to Baker's model baking-house, where the celebrated Boston crackers are kneaded, rolled, baked and sold by steam.

As we pass along, let us give a look at the famous miniature yacht, Red, White and Blue, which under the guidance of the energetic Captain Hudson, assisted by only one man, succeeded in crossing the Atlantic in thirty-eight days, although the
breadth of beam of this little craft would scarcely induce most people to take an hour's sail in her on a calm sea.

For those who are fond of locomotion, but prefer terra firma, we have here a portable house from Louisiana. When the owner is tired of living in one place, he hoists up his residence, not like the Siamese, on a raft, but on a simple truck, and then off he goes on the road until he finds a spot to suit him. What an excellent contrivance to avoid the indiscreet visits of creditors and sheriffs' officers.

Some people however, like a more stable sort of a dwelling, and the American farm-house of which we give a sketch combines all that is necessary for comfort, with an extreme simplicity.

Ericson's invention of hot-air machines seems to have been well appreciated in America; for, besides his, we see several others which work on the same system; such as Roper's, of
American Farm-House.
New York, and Shaw’s, of Boston. The latter appears to us the most ingenious and economical.

If we enter the great gallery we observe a steam engine, invented by William C. Hicks, the object of which is to simplify the alternative piston system as much as possible; this is done by letting the pistons be directly joined to the connecting rod, thus forming the only moveable parts, and together with the cylinders constituting the whole engine. By this means all accessory pieces which are so liable to get out of order are dispensed with.

Among other machines worthy of remark, we may mention the Corliss Company’s steam engines; an ingenious pump
by Rollins; Greeg's brick-making machine; a new weighing apparatus by Fairbanks; a splendid circular saw of more than six feet in diameter, after Emerson's system; Silas Herring's safe, which bore the palm in the celebrated contest with an English maker;* a powerful centrifugal pump by Andrews; and a life-raft borne by india-rubber bags, inflated with air, and strongly bound together. This raft which only weighs five hundredweight, can carry from forty to fifty persons.

![Silas Herring's safe.](image)

A machine by Gay, of Boston, for making paper collars, attracts some attention. This trade which has taken great extension, is a good illustration of the ruling passion of our age, to sacrifice reality to appearance.

The sewing machine is naturally an American invention.

*We merely record here the decree of the judges, without offering any personal opinion on this much controverted subject.
In that fast-going country, women have not the amount of patience to sit for days and nights plodding at their needle, and this ingenious mechanical contrivance was hailed with delight, and soon universally adopted. Elias Howe, the inventor of the system, has now emerged from his comparative obscurity and has justly received the highest rewards, a gold medal, and the order of the Legion of Honour. He has naturally greatly improved the original idea, and his A machine,

Elias Howe's A Sewing Machine.

which we illustrate here, is admirably suited to domestic purposes, being simple to manage, regular in its work and moderate in price.

Mr. Howe is not, however, without opponents; seventeen
other inventors lay claim to the idea of replacing women's fingers by iron prongs. Among those, two companies have started for the sole purpose of making button-holes.

Another machine with much less pacific tendencies, is Colt's revolving cannon, which drills in a man's skin holes which are often past mending. It is simply an exaggerated breech-loading revolver, set on a carriage, and presenting its five mouths in succession with great rapidity. This is a very light arm, particularly adapted to skirmishing warfare.

It is not, however, sufficient to destroy; one must also repair; and with the strange anomaly which characterizes the warrior, he has no sooner inflicted a wound than he does his best to heal it. Thus the surgeon's science is for ever striving to keep apace with the armourer's progress. We find an example of this in the plans admirably conceived and executed by Mr. Barnes, Chief Surgeon of the Federal army, for field-hospitals, surgical appliances, and all measures taken for the comfort and care of the wounded.

It is also necessary to feed, clothe, and equip those who are in good health; thanks to Mr. Meig's explanations, we know how this was effected during the late terrible war.

The feeding portion must have been the easiest, for in a country so fertile and so well cultivated, it is impossible to starve. Look, for instance, at the magnificent collection of cereals sent by Ohio, Pennsylvania, Vermont, Massachusetts, Virginia, Maryland, Missouri, and Louisiana. Corn in the north, barley in the centre, maize in the west, rice in the south, abundance everywhere. If we add to that, the herds of oxen which graze in their plains, the sheep and the pigs which swarm in their pens, the fish which abound on their coasts
and in their lakes, the fruits which fill their orchards, and of which we see some tempting well-preserved specimens; we must admit, that the Americans possess a real land of cockayne destined perhaps one day to be the store-house of the whole world.

Even wine is now commencing to be made in the United States. Ohio, Missouri, Pennsylvania, New York, California, &c., exhibit their red and white wines, some of which are dry, and others sparkling. The Catawba seems to be the favourite mark. Honourable mentions were granted to Longworth, to Werk & Co., and to C. Bottlers of Cincinnati; to the Viticultural Company of San Francisco, and to the American Wine Company of Saint-Louis, all for sparkling wines.

This is certainly a slight encouragement, but we think that out of the ninety-one gold, two hundred and three silver, and two hundred and sixty-one bronze medals allotted to that class, the Jury might have shown itself more liberal towards American wines, which, if they have not yet attained the perfection of European growths, have at all events the great merit of novelty.

Messrs. P. & D. Smith carried a bronze medal for their ales, and the Pleasant Valley Wine Company an honourable mention for their brandies.

The samples of cotton are not so numerous as one would expect from a country which for a long time supplied all other markets; it is easy to see that the plantations are still suffering from the effects of the late civil commotion. Among the exhibitors who obtained the highest rewards, we may mention L. Tröeger, of Black-Hawk-Point; V. Meyer, of Concordia; Humphreys, of Louisiana, and the State of Alabama.
Of tobacco there is a great variety exhibited for smoking, snuff or chewing. The best specimens are contributed by Lilienthal of New York, Sarrazin of New Orleans, and Caroll of Lynchburg.

The metallurgical operations of the Americans have been almost confined hitherto to the extraction of gold from California, and silver from Nevada. People are too anxious there to make a rapid fortune to waste their time in seeking less valuable metals. Yet most of the States possess rich metallic strata, which will no doubt some day be turned to profitable account.

Coals also abound in certain districts of Pennsylmania and Ohio, but what seems to have engrossed the attention of Americans, of late years, has been the working of those wonderful mineral springs, which shoot up from the bowels of the earth streams of a mineral oil, now universally used for lighting purposes. The produce of these petroleum wells has become so profitable, that in the highly coloured language of the Yankees "striking oil" is synonymous to making a large and rapid fortune.

Marbles are also found in various parts of the States; the principal specimens we see here are a beautiful white Vermont marble chimney-piece, and another of brown California marble, both exhibited by Shuster.

The finest assortment of woods comes from the States most remote from the coasts, such as Missouri, Kansas, Wisconsin and Illinois. The same provinces also contribute valuable furs and well prepared leather; the latter are also sent by the States of New York and Massachusetts. Louisiana shows a novelty in the shape of tanned alligator skins for boot and shoe making.
Cotton manufactures are still in their infancy in this country, and they were probably afraid to compete with their elders, for we see nothing from Lowell, the American Manchester.

Mr. Barlow has a very interesting orrery; by simply turning a handle connected with a set of cog wheels, all the planets and their satellites operate their revolutions round the sun.

Musical amateurs seem greatly to admire Steinway's pianos, which by means of oblique chords and a curved arrangement possess a beautiful tone and powerful sound.

Tucker's cast-iron articles deserve great commendation for their neat shapes and high finish; his chandeliers are particularly chaste in design.

Perfumery is only represented by Hotchkiss, of Lyons, who sends his excellent essential oil of Wintergreen, and Wright of Philadelphia, whose transparent soaps are very fine.
Before leaving the Industrial Department, we must say a few words of the Hawaiian kingdom, which is almost an American colony. The collection of fibres sent by government, the fine samples of wool collected by Mr. Janion, the Hawaiian consul, and the specimens of sugar, rice, *pulu*, a sort of cotton, kalo (*arum esculentum*) largely used for food, and other native produce augur well for the future of that country, which has been transformed in less than a century from a barbarous state to one of advanced civilization. The volcanic products contributed by Mr. Crosnier de Varigny, minister of Foreign Affairs at Honolulu, are also very interesting.

On our way to the Fine Arts Court we remark three small terra-cotta groups, which are very spirited. *Uncle Ned's school* in particular is an exquisite little sketch.

The American Picture Gallery is small but honourably filled. Sam Slick's notion of buying statues by weight and pictures by the square yard is evidently out of date, for Transatlantic artists are now quite able to compete with their European brethren.

The first picture which attracts our attention is a Reception at the Republican Court in the time of Washington, by Huntington; it is painted with the scrupulous exactness of a miniature, and contains no less than sixty-four portraits of the leading men and women of the period.

Leutze's *Mary Stuart hearing mass for the first time on her return to France*, is a charming scene, full of life and expression.

In *Old Kentucky Home*, Mr. Johnson shows us people of all colours, from the white and pink young miss to the darkest negro. Among the intermediate figures, there is a bewitching
quarteroon girl coquettting with a man several shades-removed.

The red autumnal tint of the trees seen in Kensett’s landscape, Lake George, and in another by McEntee, called Asho-kan Woods, may appear strange to those who have not visited America; yet it is perfectly natural, for leaves assume in that country, at the time of the “fall,” the most rosy aspect.

All those who have travelled in tropical climes will also appreciate Church’s picture representing the rainy season in those parts. This chiaro-oscuro effect crowned with a rainbow is very fine, and quite true to nature. The same artist has been less successful with his earlier production, Niagara Falls; the upper part is too white, and the lower too green; the contrast appears hard and unnatural.

We may mention three other paintings which are highly commendable; a sweet Child’s head, by Baker; the Consecration, by Lambdin; and the Penitent, by Houghton.

As sculptures, we remark a bust of Lincoln, by Volk, an excellent likeness of the late President, and the Sleeping Faun, a well modelled statue by Miss Hosmer.

In conclusion, the United States do not occupy at the Exhibition a position worthy of their present importance, and especially of their brilliant future. The true elements of their greatness are their millions of acres of arable land, their thousands of miles of sea-board, their numerous and commodious ports, and their immense navigable rivers. Impressed with this idea, they wisely distribute maps showing all the ground still vacant and calling for fertilizing hands. Let us hope that this appeal will be heard, and that a few more millions of our overgrown population will leave our used-up Europe, and flock towards this land of plenty.
CHAPTER XXV.

CENTRAL AND SOUTHERN AMERICA.

The contributions of Central and Southern America are so mixed up together at the Exhibition, that we shall have to examine them collectively, and not one country after the other as we generally do. They may be divided into three distinct classes: the raw produce of the country, manufactures from creoles, or settlers, and specimens of native industry.

The first of these classes naturally forms the largest and most interesting collection.

Taking first the products yielded by the surface of the soil, we find no less than two hundred and fifty-one exhibitors from Brazil, in the section of "agricultural products not used for food."

The Provinces of Pará, Bahia, Rio de Janeiro, and Rio Grande do Sul, send their tobacco, cotton, india-rubber, flax, and hemp; Rio Grande do Norte, Ceará, and Parana, show a large assortment of wax, oils, and resins.

Vegetable fibres and tows offer an immense variety. Besides the well-known kinds, like cocoa, aloe, pine-apple, and wild nettles, there are quantities of new ones, such as tatajuba, matamata, curana, mamoré, tanarireya, mority, maissima, tucum, granata, tucuman, periquita, acapourana, couraoua, embira,
croci. jacacucaia, quinobos, &c. Our manufacturers will no doubt turn their serious attention to some of these, as soon they are produced in sufficient quantities to appear on our markets.

Brazilian oils and resins are no less numerous, and some of them are highly interesting; we shall quote among others, the oils of assaby, andiroba, tamaquaré, muruty, cumara, nixypucu, quaquinguba, pupunba, batiputa, jupaty, mypueu, inaja and cumaru; the resins of anaury, angido, jutacica, naya, and macambira, and the milk drawn from the wool-tree.

Woods for timber and cabinet-making are abundant in Brazil, and so are medicinal plants; the latter alone would form a long list, which we shall not attempt to inflict on our readers.

Among the curiosities of this section, we may mention the fruits of the merity, which, under the name of vegetable ivory, are largely used to manufacture small fancy articles in imitation of ivory.

Coffee and sugar are among the staple productions of Brazil, and well do they deserve their reputation if we may judge from the fine samples sent by the principal haciendas of the Empire.

The mining Exhibition of Brazil is somewhat meagre, consisting only in a few specimens of iron ores, coal, jasper, hematite, &c. The celebrated diamond mines are also poorly represented by some small crystals, which give but a feeble idea of the treasures of Minas Geraes, and Matto Grosso.

The finest collection of metals in South America is undoubtedly that which comes from Chili. That long narrow strip of land lying between the Andes and the Pacific produces
all the metals mostly in use, such as copper, silver, gold, lead, mercury, cobalt and nickel, and some rare species like tungsten, molybdenum, titanium, &c.

If we have named in the first place copper and silver, it is because their production considerably exceeds that of other metals. In 1865, Chili exported copper to an amount of fourteen million dollars, in every form, rough ores, coppery and argentiferous mats, bars and ingots; England took up three-fourths of this quantity; the remainder was divided between France, Germany, and the United States. The annual yield of silver only amounts on an average to two million dollars, the greater part being used by the Santiago mint.

The principal copper mines are those of Tamaya, Guaya- can, Panucillo and Andacolo, in the Province of Coquimbo; those of San Juan and Corrisal, in the Department of Huasco; those of Copiapo, and the strata lately discovered in the desert of Atacama.

The specimens exhibited are very interesting, and instructive; for they not only comprise fine blocks of ores, some of which weigh as much as fifteen hundred weight, but also the metal in all its phases of manufacture, and the material which serves to work it, such as sulphur from the Cordilleras, with which is made the sulphuric acid used to test the poorest ores, and coal from the Lota and Coronel pits.

The specimens of silver from the mines of Chanarcillo, Tres Puntas and Buena Esperanza, are no less remarkable. They consist principally in chloro-bromuretted silver called corné, in red sulphuretted silver, in red amorphous silver, anti-
RECOLLECTIONS OF

monious and arsenical, and in *arquérite*, a native amalgam of silver and mercury.

There are also various mineral curiosities, such as a piece of *tozonalite* (said to be the only one existing) composed of iodide of silver and sub-iodide of mercury, an aerolite weighing thirty pounds, and found in the Quebrada de Vaca Muerta, some blocks of fibrous malachite from the Paposo mines, and lapis-lazuli from the Cordilleras. The two first named specimens have been presented to the Paris Museum.

This metallurgical Exhibition, the most complete in the Champ-de-Mars, does much credit to Mr. Domeyko, professor at the Mining School of Santiago, to whose care it was entrusted.

One would scarcely believe that Mexico and Peru, whose name is associated with precious metals, do not send any specimens of the riches of their mines. Mexico may find an excuse in its political situation, but we naturally expected from Peru some ingots of silver, a metal which is so common in that country that they make warming-pans and cooking apparatus out of it.

Having nothing new to offer us, Mexico exhibits a model of its ancient monuments. The temple of the Sun at Xochicalco, reproduced under Mr. Méhédin’s directions, is one of the greatest curiosities in the Park. It is a perfect type of Mexican architecture, prior to Spanish occupation, and contains numerous objects illustrating the worship and manners of that period.

On the top of the steps stands the altar, where the priest immolated his human victim with an obsidian knife, tearing out afterwards his heart to offer it to the Sun.
The Argentine Confederation, proving ambitious to justify its name, exhibits ores of gold, silver, copper, nickel, lead and tin; besides specimens of agate, chalcedony, onyx and amethyst, and sulphur and petroleum from the Pampas.

We also find some samples of amethyst, marble, porphyry, alabaster and basalt in Uruguay; some gold, silver and copper ores in Costa Rica; and some gold and silver in Nicaragua.

Mexican Temple of Xochicalco.

To end our list of natural products, we shall mention in a lump, tobacco, cotton and silk from Corrientes and Santa Fé; wool, indigo, cochineal and quelbrajo bark for dyeing, from Buenos Ayres; cotton, tobacco and medicinal plants from Paraguay; cereals and timber from Uruguay; pearls, dye and cabinet woods, india-rubber and textile fibres from
Costa Rica; borax and nitrates from Peru; wool, hemp and tobacco from Chili; vanilla from Papautla (Mexico); cotton, india-rubber, indigo, cocoa and coffee from Nicaragua; and lastly, some ant-bear, jaguar and sloth furs from the Argentine Confederation.

As a novelty we remark wines from Peru, Chili and La Plata, and cocoons of the *Bombyx arvindia* from Carlos Lix, of Corrientes.

The list of manufactures will be soon exhausted. They comprise leather, oil-cloth, common cotton fabrics, liqueurs, feather flowers and furniture from Brasil; silver ornaments, pottery, saddles, embroidered aprons called *chelipas*, horse-rugs and silk shawls from the River Plate; *ponchos*, lace and carpets from Chili; clothing and harness from Uruguay; and vegetable fibre tissues and carpets made of feathers, from Paraguay.

A group of three *caballeros* wearing the costume of La Plata, occupies the centre of this section. One of them is preparing to fling the *lasso* which he holds in his hand; the other is travelling with his wife who rides behind; the third is bending to take a cup of *mate* presented to him by a young *criada*.

The last class will be the shortest of all, for a description of the arms, canoes, and fishing tackle of the Indians, would offer but little interest to our readers. We shall notice, however, two curiosities in their show; one is a root which serves to render fish torpid and easier to catch; the other, an instrument used for introducing into the nostrils a sort of snuff made of aromatic plants.
CHAPTER XXVI.

GREAT BRITAIN AND IRELAND.

When we have informed our readers that the Official Catalogue of the British section occupies nearly twelve hundred closely printed pages, and that we have but a few leaves at our disposal to condense this matter therein, we hope it will be a sufficient apology for all omissions and shortcomings.

The contents of the British section are for the most part highly interesting, but the tout ensemble does not offer that commanding aspect which might be expected from the greatest industrial nation in the world. This is owing partly to the small space doled out to the generality of exhibitors, partly to the want of regular arrangement, every one having displayed his own wares with true British independence without the slightest attempt to make them harmonize with those of his neighbour.

Imbued with the same spirit of irregularity, we shall perform our task at random, and commence with the most attractive spot, the Jewellers' Court. There we are always sure to meet a bevy of fair and fashionable ladies; like butterflies alighting on the most brilliant flowers, they crowd round these cases which shine with a thousand lights, and seem
never tired of contemplating these precious baubles which are so powerful in drawing the admiration of some and the envy of others.

As in 1862, Messrs. Hunt & Roskell, of Bond Street, have the richest display. The Countess of Dudley's diamonds, which they exhibit, are worth alone the modest sum of one hundred and sixty thousand pounds. They have besides a very fine series of mounted stones, some of which appear to be thrown negligently on the glass case serving as a counter. On one occasion, a lady, after asking the price of some of their jewels, threw innocentely her handkerchief over these loose stones, and drawing it precipitately a minute after, was surprised to see them still in the same place, while the assistant seemed to notice her unsuccessful haul with a smile. The fact is that these diamonds, although appearing to lay on the surface of the glass, are fixed underneath, a circumstance of which the light-fingered dame was not aware, who was fain to beat a hasty retreat to hide her confusion and disappointment.

Mr. Harry Emmanuel, of Bond Street, besides some fine jewels, has a silver swan which proves an everlasting source of amusement to the public; it is majestically resting on a lake made of looking-glass, and bends down its neck now
and then to swallow some small fishes; of course it is always the same that are passing and re-passing, like the soldiers in a military piece at Astley's.

Messrs. Phillips Brothers, of Cockspur Street, distinguish themselves by the exquisite artistic taste which inspires all their productions. Their collection of coral in particular deserves the highest commendation; it is undoubtedly the best in the Exhibition as to quality, colour, and workmanship.

Mr. Brogden's special study has for that purpose laboriously ransacked all the museums in Europe. His Egyptian and Assyrian bracelets are perfection itself; we also remark in his case the rich suit worn by Prince Esterhazy at the coronation of Her Majesty; on that occasion, with true patrician prodigality, he dropped in the apartments of the Palace for the servants' benefit, part of the pearls with which his coat was embroidered.
The jewellery exhibited by Messrs. Howell and James, Watherston and Marshall, is also beautifully finished. The speciality of the latter is Scotch jewellery, ornamented with topazes and Scotch pebbles mounted in silver.


The articles shown by Randel, of Birmingham, indicate great progress in the manufactures of that town, which were formerly more celebrated for their cheapness than for good execution.

Mr. Benson is one of the most enterprising and successful tradesmen in the Metropolis. Plate, jewellery, clocks and watches, equally share his attention, and in all these branches he attains equal excellence. Among the finest pieces he exhibits, we may mention two caskets, chased with exquisite taste, which were presented by the City of London with the freedom of the City, one to the Prince of Wales,
THE PARIS EXHIBITION.

Watches, Benson

Chased Casket, Benson.
the other to the Duke of Edinburgh. His great clock is a marvel of mechanism, and second only, as regards size, to the great Westminster clock. The three principal wheels, which are made of bronze, are two feet in diameter, and the pendulum is fifteen feet long. His watches are of excellent workmanship, and the designs which ornament the cases are remarkable for their finish and variety. The two we illustrate are taken from designs which carried prizes at the South Kensington School of Art.

Dent, White, and Walker, are Benson's chief competitors for watches, and are all three worthy of better rewards than were allotted to them.

Messrs. Elkington were more favoured in this way, and justly received a gold medal for their beautiful chased pieces. In this instance the co-operator was not forgotten, and Mr. Morel, a
French artist, who designs the greater part of their work, was also duly rewarded.

Gold medals were likewise deservedly bestowed on Hancock & Co., and Hunt & Roskell for their splendid gold and silver plate. Besides these individual exhibitions we find in the Grand Vestibule a curious collection of racing cups won at Ascot, Goodwood, Doncaster, Brighton, Stockton, &c., and produced by the leading firms in London, such as Garrard, Hunt & Roskell, Emmanuel, and Angell.

English furniture possesses at the same time the qualities and faults usually inherent to British manufactures; it is well executed, comfortable in its arrangements, and solidly made, but on the
other hand, it is heavy in form, expensive, and sometimes devoid of taste.

This latter reproach, however, does not apply to Messrs.

Wright and Mansfield's cabinet, which is made of maple, ornamented with Wedgwood medallions, nor to Messrs.
Jackson & Graham's splendid ebony cabinet inlaid with ivory, from the designs of Lormier.

We also see some very creditable carved furniture from Messrs. Crace, Holland, Gillows, Trollope, Dyer, and Watts.

Mr. Benham exhibits his beautiful stoves, grates, and fenders, and a well appointed kitchen-range offering great convenience, and economy of fuel. He has also in the Victoria Cottage in the Park a gigantic round oven, which, with the same fire, bakes bread and cooks victuals for three hundred persons at one time.
Sheffield cutlery and plated goods are, to our surprise, represented by a very limited number of exhibitors, although these two articles are such thoroughly English specialities,
that we expected to find the manufacturers more anxious to introduce their wares to the notice of continental purchasers. The most extensive show is made by Messrs. Mappin, Webb & Co., of Oxford Street and Cornhill, whose productions are undoubtedly the best in this line. We notice in particular a superb centre-piece fit to grace the table of Royalty, and some highly finished penknives with exquisitely carved handles.

Some good cutlery is also exhibited by Morton and by Brookes & Crookes; and some fine plated ware by Shaw & Fisher, of Sheffield.

The display of table and toilet glass is one of the most attractive and creditable in the British section. The principal aim of French, German and Italian makers seems to be to give to their glass the most varied and lively colours; the British makers on the contrary only seek to imitate the purity and brilliancy of crystal, and in this they are generally successful.

Messrs. Pellatt, Phillips & Pearce, Dobson, H. Greene, and J. Green, of London, and Millar & Co., of Edinburgh, are the chief exhibitors of this high class pseudo-crystal. Their principal pieces are either richly cut or engraved, not with acids, as is done abroad, but by the slow operation of the
wheel. The artistic and patient labour bestowed on these pieces naturally enhances their price, and some of the claret jugs exhibited are worth as much as £150.

Defries & Co. have also some very good engraved glass, but their chief merit lies in their chandeliers, which are truly magnificent. To this firm is also due the invention of this highly effective system of illumination which consists in reflecting the light on a background of cut glass prisms.
In the Grand Vestibule we observe some good stained glass from Claudet & Houghton, Heaton, Butler & Bayne, Baillie & Co., Powell & Sons, Ward & Hughes, Cox & Sons, and Clayton & Bell, of London; Dury, of Warwick; Edmundson, of Manchester, and Cottier, of Glasgow. The Testing House also contains fine specimens contributed by Chance

Majolica Fountain, Minton
Common glass bottles for industrial purposes offer but little interest to the general public; yet we may mention that the Aire and Calder, and the Yorkshire Bottle Companies have an assortment of well-made bottles, some of them showing improvements in the way of stoppering.

Glass is one of the numerous classes in which British exhibitors were badly treated by the Jury. Several of the houses we have named only received *honourable mentions*, whilst French glass-makers of scarcely equal merit obtained gold medals.

Manufacturers of ceramic fared a little better; two out of the five gold medals allotted to that glass having been carried off by British exhibitors, Minton & Co. and Copeland & Sons.

The former have nothing this time equal in importance to the colossal fountain they exhibited under the East Dome in 1862; the one we illustrate here is only a miniature in com-
parison, but it bears the stamp of artistic taste, which characterizes the productions of that celebrated house. Their great forte is, as usual, majolica, and some of their pieces in that ware are ornamented with Parian statuettes, which produce a pleasing contrast. Their encaustic tiles are also very remark-

able, the only ones that can compete with them for good design and arrangement of colour being those of Maw & Co., of Broseley.

Copeland & Co. show some well executed Parian statuettes, among which we notice the models of Bacchus and Juno, by
Foley, and *Europe, Asia, Africa, and America*, by Durham, which latter are placed round Prince Albert's statue in the Royal Horticultural Society's Gardens at Kensington. The same firm also exhibits a handsome dinner service, manufactured for the Prince of Wales; some fine porcelain tazzas, and a gigantic vase decorated with flowers, painted by a German artist, Mr. Hiortel.

The Royal Worcester Porcelain Manufactory is not, like the Sèvres, Berlin, Dresden or Petersburg manufactories, a government establishment; it is simply a private concern, which has taken its name, we believe, from having been visited by one of our kings in the last century. It has, however, done its best to show itself worthy of its ancient reputation, and at least equal to its more modern competitors.

Messrs. Josiah Wedgwood & Sons have not failed to exhibit the blue ware with white relief, which has acquired under their name more than European celebrity. Amateurs can here study and appreciate the difference which exists between ancient and modern Wedgwood ware, a difference
which proceeds in a great measure from the fact, that at the time it was first produced, the low wages paid to artists allowed much more labour to be bestowed upon it than can now be done. Wedgwood & Sons also show some porcelain very cleverly painted by Lerolle, a French artist.

Goode's dinner services are very well decorated, some with various flowers or attributes, others with the arms of the persons for whom they are intended.

Doulton and Watts' speciality is stone-ware, but to this coarse material they manage to impart a graceful appearance by their artistic handling, which is no small merit. Their filters in particular are very elegant.

We have already hinted that chemicals, and all relating there-to, were pet subjects with the Jury; thus we see Messrs. Johnson and Matthey carry off two gold medals and one silver: one for their platina stills (one of which costs no less than £2,500), and their rare collection of metals and metallic oxides. With every regard for the high merit of this house, we must say we consider plurality of medals an abuse. We do not even consider it an advantage to the exhibitor, for the medals being generally of a different order, they seem
to indicate, undeservedly, an inferiority in certain branches of manufacture exercised by the same individual.

Let us take, for instance, the case of Mr. Thomas Ross who received a gold medal for his philosophical instruments, whilst his photographic lenses which are universally admitted to be unsurpassed by any other, English or Foreign, only obtained a bronze medal.

Returning to chemicals, we shall mention in the first place a fine display of Carbolic acid, by Mr. Crace Calvert, of Manchester, who has now brought into general use this excellent disinfectant, which proved so valuable during the last invasion of cholera and was equally successful in checking the progress of the cattle plague. If the British regulations had permitted it, Mr. Calvert would probably have received the order of the Legion of Honour, in addition to his well
RECOLLECTIONS OF

desired medal. Morson's silver medal was equally well merited for his fine collection of alkaloids.

No less than seven gold medals were awarded to British chemical products; four of those were divided between Allhusen and Son, of Newcastle-on-Tyne, Muspratt and Sons, of Liverpool, Gossage and Sons, of Widnes, and the Jarrow Company at South Shields, all for the manufacture of alkalies; the other three were carried off by Price's Patent Candle Company, for their glycerine, Howard and Sons, of Stratford, for their quinine, and Young, of Bathgate, for his paraffine.

Among pharmaceutical productions we notice principally: Borwick's baking powder, Condÿ's disinfecting fluid, Savory and Moore's pancreatic emulsions, Schweitzer's coocatina, Schwepp's mineral waters, Tidman's sea salt, sundry preparations by Twinberrow and Son, and A. Le Maout's gelatinous capsules which are undoubtedly the finest in the Exhibition.

Mr. W. C. Statham has done much to encourage the advance of chemistry by producing at a moderate price very
THE PARIS EXHIBITION.

complete chemical cabinets, consisting in a collection of all materials and utensils necessary for the pursuit of this interesting science. From the Boy’s Laboratory at 12s. 6d., containing 54 chemical preparations and 30 pieces of useful apparatus, to the Student’s eight-guinea cabinet, combining all re-agents and instruments required for qualitative analysis, all the various stages of learning are taken into account and provided for.

Mr. Statham shows also a series of electrical machines and galvanic batteries which appear very carefully made and some well-finished optical instruments including an apparatus for dissolving views. As some of our readers may not know

Statham’s Dissolving View Apparatus.

how these are produced, we illustrate here this apparatus which consists of a pair of phantasmagoria lanterns placed side by side, but having their axes slightly converged, so that, when lighted and ready for use, the illuminated disc of each
is coincident, and covers exactly the same part of the screen. Attached to the front of the stand is a brass bar, supporting on rods, two metal fans; these are moved backwards and forwards by rack-work, and are so arranged in front of the focusing tubes of the lanterns as to entirely shut off the light from one when the other is fully open. If, now, a picture be placed in each lantern, it is obvious that only that one will be projected on the screen which is in the lantern, not having the fan in front of its focusing tube. When it is desired to change the subject, by turning the handle which moves the rack-work the reverse way, a gradual mingling of the two pictures takes place (owing to the forked pattern of the fan intercepting a portion of each) until the first entirely disappears, and the new picture only is seen, the position of the fans having become reversed. The picture first shown is now
hid by the fan being in front of the focusing tube of the lantern in which it is placed; and whilst the second picture is being viewed the first is withdrawn and replaced by another, and then the fans are worked into their original position, thus exposing the third, and hiding the second picture, and so on to the end of the exhibition. One of the fans has a hinge to enable it to be folded back, and thus allow both lanterns to be shown at the same time, as is necessary when lightning, rainbow, snow-storm, or other effects are introduced.

Treloar’s Cocoa-nut matting.

Soaps and essential oils have been classed partly with chemical products, partly with perfumery. Among the former we remark in Class 44, some very good soaps from Cook & Co., John Knight, and D. and W. Gibbs; among the latter we notice some well distilled essential oils sent by W. J. Bush, Condy Brothers, and C. F. Langdale.
So far, so good, for perfumery and chemistry have some connection together, but we should like to know under what plea the Kamptulicon india-rubber floor-cloth was placed among chemicals, whilst Treloar’s cocoa-nut matting is in Class 18 with Morton’s & Humphries’ Kidderminster carpets, Nairn’s floor-cloth, Gregory’s velvet pile, &c.

Class 25 (Perfumery), is not so well represented here as it was in 1862, some of the leading houses having kept away. The best show of soaps and perfumes is made by Atkinson, Pears, N. Price, Piesse and Lubin, Cleaver, Lewis and Yard-
ley and Statham; and of essential oils by S. Perks and W. Ransom, both of Hitchin. No Mitcham distillers have sent specimens of their oil of lavender, which is to be regretted, as it is undoubtedly the finest in the world.

We feel here somewhat embarrassed. It is customary when in an Assembly, a question personal to the President is about to be discussed, that he should vacate the chair during that time. We wish we could, in like manner, pass on the pen to some confrère to describe our personal show; this being impracticable we shall simply state that besides our stand in the Perfumery Court we have erected in the Park a small cottage wherein we exhibit a steam-still at work, besides models of the different apparatus, and samples of the various substances, used in the manufacture of perfumery. We have also some exotic flowers received in glycerine from Brazil and the Philippine Islands, including the celebrated Ihlang Ihlang (*Unona Odo-ratissima*), which have preserved their fragrance, form and colour in a remarkable manner, and some alligator glands brought us from Central America by a friend, Mr. Edward Grey, and *said to bear a strong resemblance to musk, although, in our opinion, their flavour is much more like that of stale fish, a perfume which is not ever likely to become popular.
A great injustice was shown by the Jury to English perfumers, only one silver medal having been allotted to them, whilst the French carried off one gold medal and half a dozen silver ones; yet the manufactures of this article here are quite equal in quality and nearly so in importance to those of the French. At all events, instead of wasting silver medals on Belgian, German and Russian perfumers, whose productions were very inferior, and among whom were several noted counterfeiters of London and Paris articles, it would have been more judicious to bestow them on some really deserving British manufacturers, such as Pears, the inventor of transparent soap, Cleaver, the first who introduced cheap toilet soap, N. Price and S. Piesse, who produce very good extracts, &c.

Class 40 (Mining and Metallurgy) is represented by the principal mine owners or workers of the United Kingdom, including some aristocratic personages, like Earl Granville
and the Earl of Dudley, and some important Companies, such as the Low Moor Company, the Aberdare Coal Company, the Birmingham Iron and Brass Tube Company, the Eagle Iron Works (Wellington), the Bodringalt Coal Company (Cardiff), the Lilleshall Company, the Monkbridge Iron Company, the West Cumberland Hematite Company, and the Bishop's Waltham Clay Company, which supplies Hampshire clays for terra cotta, pottery, bricks, &c. Mr. T. Sopwith also shows some interesting illustrations of the processes for dressing and smelting lead ores.

"Dorcas" Sewing machine. "Penelope" Sewing machine.

In this class (Mining and Metallurgy), we find, besides, a most heterogeneous medley of razor-strops, needles, church ornaments, fishing tackle, buttons, carving knives, hair pins, cork-screws, sauce-pans, nut-crackers, &c., which shows once more the absurdity of the system of classification adopted. Thus, for instance, the needles used for making sewing machines have been placed in this class whilst sewing machines themselves are in Class 57. (Processes for sewing); such vagaries require no comment.

As we are on the subject of sewing machines, let us observe that the specimens shown here seem to work with
great perfection and regularity. We remark in particular the Florence lock-stitch machine which, by means of what is termed the *reversible feed*, enables the operator to sew either way without stopping or turning the work, and Newton, Wilson & Co’s four machines designated under the fanciful names of “Dorcas,” “Penelope,” “Queen Mab,” and “Cleopatra.” The “Penelope,” which only costs five guineas, is a powerful machine, making five stitches to each revolution of the handle.

In the Machine Gallery, where these are placed, we observe some very interesting specimens of machinery both still and in motion.

It would take volumes to describe fully all these inventions of man’s genius; we must be content with a mere mention of the most remarkable.

Among these we shall class Stephenson’s 2,012th locomotive engine, and Kitson’s 1,423rd, the mail carriages of the London and North Western Railway, with excellent arrangements for taking up, sorting and leaving letters on the road, Jones & Levick’s coal-cutting machine and air-compressing engine, Bowden’s brick-making machine, Porter’s apparatus for extracting gas out of coal, oil, tallow, and other substances, Appleby Brothers’ steam-pump and donkey engine, Gwynne & Co.’s portable and fixed engines, turbines and pumps, Tangye Brothers’ lifting jacks, pulley blocks and punching machines, Paul, Matthew & Co.’s windlass, Robinson’s machine for making mouldings, Charles Powis’ sawing machinery, James Powis’ wood-cutting machine, and the Whitworth Company’s splendid machine tools, including
a self-acting break lathe, a slotting machine, a radial drilling machine, and a screw-planing machine.

The principal machines used for the preparation of textile materials are Ferrabees' machine for carding wool, Platt Brothers' cotton-gins and carding engines, Hodgkin's breaking and scutching machinery, Parker's mechanical looms for jute and hemp, Leeming's worsted machinery, Irvin & Seller's shuttles and bobbins, Urquhart, Lindsay & Co.'s power-loom, Lawson & Son's flax spinning machinery, and the Globe Works' automatic looms.

Among mechanical contrivances of less importance, we may notice Bradford's washing, wringing and mangling machines,
Kent's knife-cleaning machine and other devices for simplifying household work, Pooley's automatic scale which, by an ingenious arrangement, empty themselves as soon as the required weight is made up, and Pullinger's mouse-trap in which each captive resets the bait for the following victim.

Agricultural machines are principally exhibited in the Island of Billancourt. They comprise the latest improvements effected by our great and justly celebrated makers, such as Ransomes and Sims, of Ipswich, Samuelson, of Banbury, Clayton & Shuttleworth, of Lincoln, Howard, of Bedford, Ashby & Jeffery, of Stamford, the Atmospheric Churn Company, Nicholson, of Newark, the Beverley Iron and Waggon Company, Coleman & Mor-

The greater part of the houses we have named obtained gold or silver medals; Ransomes & Sims in addition to
a gold medal, received one of the grand prizes, a well deserved distinction for the great perfection they have introduced into their agricultural machines, and especially their steam-thresher which extracts the corn, chops and bruises the straw, and raises it on to the stack, all in one operation; their turnwrist plough, corn-mill, &c. Rewards were also conferred on Samuelson's ingenious reaping machine, Clayton, Shuttleworth & Co.'s portable steam engines, Hornsby's thrashers and reapers, Fowler's steam plough, and Garrett & Son's and Howard's miscellaneous agricultural implements.

The Whitworth Company's Howitzer.

On our way back to the building we find in the British section of the Park many objects of interest.

On the banks of the river a large shed has been erected to contain marine engines and models, and the splendid exhibitions of Penn, of Greenwich, Laird, of Birkenhead, and Napier, of Glasgow, find certainly no parallel in any nation, the French included. The Admiralty also make a good
display of their different system of constructing vessels of
war with their iron-casing, fitting, &c.

On the river itself is a collection of pleasure boats, in-
cluding a very elegant sculling skiff for two persons, by
Searle & Sons, of Lambeth.

The War Office shed stands in the Allée d'Europe.
In the centre there is a twelve-inch rifled muzzle-loading
gun for field service, weighing twenty-three tons; it is
mounted on an iron carriage, and the conical ball, which
serves to load it, is hoisted up by means of a pulley; on
either sides are seven and nine inch muzzle-loading guns, a
seven inch breech-loading gun and a finely rifled gun for

Reilly & Co.'s breech-loading gun.

field service. A complete series of British and Colonial mili-
tary uniforms line the walls.

In a neighbouring shed we find the Whitworth Company's
celebrated muzzle-loading rifled Howitzer, which had such
marked success at the Shoeburyness trials; owing to its ex-
treme lightness and portability, it can do equally well for field, mountain or boat service, and notwithstanding its small dimensions, throws a shell of two pounds weight to a distance of 2,000 yards. In the same shed, Sir William Armstrong exhibits a twelve pound field gun.

Portable fire-arms are in the building, and we notice among them some fine guns, rifles and revolvers from Lang, of London, and Green, of Birmingham, and above all E. M. Reilly & Co's central fire breech-loading guns and rifles, which appear to combine every requisite for speed of action and surety of aim.

The English barracks constructed in the Park are a point of great attraction for the French pion-pious, who look with wonderment, not unmixed with a slight shade of envy, on the comfortable sleeping apartments, baths, billiard-rooms, canteen, &c., provided for their transmarine comrades, comparing them mentally with the discomforts of their own quarters.

The Victoria Cottage, close by, is a good specimen of the Elizabethan style of architecture, and has been fitted up internally with a variety of encaustic tiles and novel systems of heating and lighting. In front, there is a model of the tomb of Mulready, the great genre painter, which is worthy of the memory of the talented artist.

We next come to a building in the oriental style, which might be thought to form part of the Turkish or Egyptian Exhibition, were it not found to contain, on nearer approach, machinery of true British stamp. It is simply the Boiler House to which has been given the shape of the Mosque of Syud Oosman, erected in Ahmedabad about the year 1458; in this
have been placed three patent "Galloway" boilers, which by the arrangement of the back flue are said to generate more steam than any other, consuming at the same time their own smoke.

A tall electrical light-house, with a very slim open framework, and a pavilion, where Bibles and tracts in all languages are distributed to the visitors, complete the list of the most remarkable objects in the Park.

Returning to the Machine Gallery we find interesting models of the light-houses existing on the British coasts, including the Eddystone, built in 1757, the Smalls, Bishop's Rock, Gunfleet, Maplin, Wolf Rocks, South Stark, Needles and Menai, besides a dioptric floating light intended for the banks of the Hoogly.

The specimens of carriages are not numerous but they are creditable. Laurie and Marner, of London, have a very elegant barouche; Hutton and Son, of Dublin, a Park sociable and outside car; Rock and Son, of Hastings, an automatic Landau, which can be closed or opened by the person riding inside; Hooper and Co., of London, an Epsom drag; McNaught and Smith, of Worcester, a very light barouche; and Starey, of Nottingham, a comfortable family omnibus.

Before leaving this Gallery we shall notice Shand & Mason's and Merryweather's fire engines, which are very superior to all other European contrivances for kindred purposes, and can only be rivalled by the Americans; Barnett's diving dress, which may be useful, but is certainly not ornamental, and an obelisk representing the quantity of gold drawn from the province of Victoria since the discovery of the gold-fields. This obelisk is standing just opposite a pyramid of iron in
the French department, and the two seem engaged in the
dialogue consigned in one of Poutschkine's Russian fables.

I am all, said gold,
I am all, said iron;
I will buy all, said gold,
I will take all, said iron!

We shall not attempt a description of the Manchester
cotton-prints, Huddersfield cloths, Leeds woollens, Derby
silks, Leicester hosiery, Paisley shawls, Coventry ribbons, &c.
However important these are as articles of commerce, we do
not think that any details respecting them would interest the
majority of our readers. We shall treat with the same
brevity Irish poplins, of which a good show is made by Pim
and Fry, of Dublin, and Irish linen which is principally ex-
hibited by the Chamber of Commerce of Belfast, in a case
where about twenty manufacturers are placed together.
Honiton lace is but poorly represented, and Irish point seems to take the lead over this once celebrated fabric. Nottingham preserves its usual superiority for lace imitations. Copestake, Moore, Crampton and Co. have the largest and decidedly the best assortment of every kind of lace and muslin.

In the made-up clothing department we shall notice Melton's brilliant show of hats; Munt, Brown & Co.'s straw hats and plaits; and Bowley's well-finished riding boots.

A very curious collection is that of all the periodicals published in the three kingdoms, and of the principal books produced lately. They are placed in cleverly arranged
radiating glass cases, affording easy access to those who wish to study them, hoping, with good reason, to glean therefrom some notion of the character of the country.

The show of engravings is good, and so is that of maps and photographs. Among the latter we remark some exceedingly well executed portraits, by A. Beau, and some excellent landscapes, by Wilson, Bedford and Mudd.

The finest display of binding is made by Ward & Co., of Belfast, who, from the most ornate to the plainest style, infuse great taste in all their productions.

We have already named Thomas Ross for his optical instruments; we may add that Dallmeyer and Elliot Brothers' articles, as well as Paraire's scientific instruments, are likewise worthy of great commendation.

Among musical instruments, we notice Bevington's fine toned organ, Allison's, Kirkman's and Broadwood's pianos, and Distin's brass instruments.

Mr. Cremer Junior, of Regent Street, exhibits a perfect fairy-land of dolls, where everything seems to be in perfection, from the supernatural fairness of its inhabitants to the sumptuousness of their furniture. His bagatelle tables, drawing-
room billiards, and other games, are also well imagined and likely to enliven many an hour at home.

Swaine and Adeney's riding whips are justly celebrated among sportsmen; they combine great solidity with perfect flexibility, and the mounts are both rich and artistic.

Mr. Lillywhite's cricket bats, balls and other requisites are made in first rate style, and we are sorry to see their merits were not better appreciated by the Jury.

Let us now enter the Picture Gallery.

In 1862, the British Fine-Arts section contained some choice specimens of the old school; the names of Sir Joshua Reynolds, West, Lawrence, Hogarth, were to be found by the side of those of Landseer, Frith and Ward. This time the ancients are represented only in the shape of engravings in the next gallery, and the moderns contribute the entire collection.

Among historical paintings, Mr. E. M. Ward undoubtedly carries the palm, with his *Antechamber at Whitehall, during the last moments of Charles II.*, and the *Night of the murder of David Rizzio*, which are admirably conceived and in excellent colour. The latter subject being more familiar to foreigners, naturally attracts the greater number of admirers. A heavy iron-gloved hand weighs on the shoulder of the favourite,
who turns terrified and suppliant looks towards the Queen, whilst the latter who has sprung to her feet, seems, with quivering frame, to defy the impending danger.

Elmore's picture, called The Tuileries, is a splendid composition. Marie-Antoinette, with her family, is surrounded with a menacing and insulting populace; a young girl, in the midst of this rabid mob is contemplating with emotion the noble face of the poor sovereign, whose noble attitude contrasts with the vile faces of her assailers.

His other sketch, On the Brink, is also very effective. A woman seated under a window, through which is seen a gambling room, lends a too willing ear to the proposals of the tempter who seeks to draw her into the abyss. The opposition between the soft moon-light which sheds its rays on the first plan and the lurid glare of the gamblers' scene in the back ground is very well managed.

Calderon has two excellent pictures: The English Embassy on the night of the Massacre of St. Bartholomew, and Her Most High, Noble and Puissant Grace. In the former, sundry groups of trembling Protestants are anxiously watching the progress of the butchery, through a large window which forms the whole back-ground; the latter represents an infant duchess loaded with a heavy court costume, ending with a majestic tail, and attended by courtiers bending in humble obedience before her mighty littleness.

The parting of Lord and Lady Russell, by Cope, is well drawn, but too highly coloured. The Lord's crimson face buried under a greenish wig, is more ludicrous than affecting. Leighton's Brides of Syracuse betray the opposite fault, being chalky in the extreme.
THE PARIS EXHIBITION.

Landseer’s Shrew Tamed is not one of the best pictures of the great painter, and we should have been better pleased to see here some of his masterpieces, such as Shoewing, of Dignity and Impudence, which would have given to foreigners a better idea of his talents.

La Gloria, by Phillip, is, according to our opinion, one of the best pictures in the British Gallery. It illustrates one of those strange customs preserved by the Spanish people. When a child dies, his cheeks and lips are smeared with paint, he is crowned with roses, and laid in a basket filled with flowers, whilst, in the next room, his parents and friends make merry and dance to celebrate the festival of the angelito, or the little angel, whose soul has ascended to heaven. In Phillip’s picture we see, crouching and bathed in tears, on the threshold of the funeral-room, the poor mother, whom her friends vainly attempt to drag into the vortex of the fandango, which is being danced “fast and furious” in the background. The contrast between the mother’s overwhelming grief and the gaiety of the guests is admirably rendered.

Bravo Toro! by Burgess, is another Spanish scene illustrated with striking exactness. The bull, applauded by the crowd, has probably just gored some unlucky banderillero, or some venturesome espada, and for these feats he has conquered the unlimited admiration of the true aficionados (amateurs), whilst some tender-hearted señoritas are nearly fainting at the sight of the sanguinary spectacle.

Christopher Sly, by Orchardson, is a very spritied Shakespearean sketch, although the painting somewhat lacks finish.

As genre painter we place in the first rank Nicol, who has all Mulready’s humour without his too florid colouring.
His two pictures, *Both Puzzled*, and *Paying the Rent*, are above all praise. In the former, a village school-master has laid before his scholar, a red and rough-haired country lad, a problem which he cannot solve himself; in the latter, the lad, who has become clerk to the steward, winks with a roguish smile at the school-master who, with visible reluctance, draws out of his capacious pocket, the money required for the rent.

Almost, if not quite equal to Nicol, is Faed with his three charming sketches; *His only pair*, a boy sitting bare-legged, whilst his trousers are being mended, *Baith Faither and Mither*, a village *paterfamilias* in Scotland attending to his children's toilet, and *Music bath Charms*, a most assuming scene.

O'Neill's *Eastward Ho!* represents soldiers outward bound, parting at the ship's side with their wives and sweethearts. The emotion of the friends about to separate is well contrasted with the indifference of the boatmen, who quietly smoke their pipe waiting the end of the adieus.

*The Death of Adonis, Musidora,* and *l'Allegro*, by Frost, exhibit all the fineness of touch and delicate colouring peculiar to that artist.

Frith, like Landseer, does not show to advantage in this contest. His only picture, *Claude Duval*, a gentleman-robbler of the last century, attacking a coach on the road, conveys but little idea of his talent.

A young maid kissing her dead pet bird which she is about to bury, forms the subject of a pretty little painting by Miss Ellen Edwards, entitled *The last Kiss*.

Stanfield's *Bay of Naples* possesses the serene beauty which distinguishes this artist's landscapes, but we think the atmosphere is somewhat misty for such a sun-lit country.
Millais' three pictures are very excellent specimens of the pre-raphaelite school with its good modelling and careful execution, spoiled by stiffness, high colouring and hard back-grounds. This last fault is particularly observable in "Sowing Tares" and "The Romans leaving Britain," whilst his "Eve of St. Agnes," a young lady bathed in green moon-light is quite unnatural in colour.

Pickersgill's and Hook's marine sketches are much in the same style; the faces are admirably done, but the figures are stiff and the sea appears to be made of pasteboard.

Harrison Weir's Morning Hymn is a bold attempt; a bird, twice the size of life, flying about in a meadow painted with the minuteness of a Van Eyck.

Lewis' Egyptian scenes are cleverly painted, but they are almost too correct to look like life.

Among other remarkable oil-paintings we may mention a fine portrait of Sir C. L. Eastlake, by Knight, Bonjour Messieurs, a pretty village sketch, by Stone, A Sunday School, by MacInnes, Esther's Banquet, by Armitage, The Crash, by Hardy, two views on the Thames, by Roberts, The Nubian Harpist, by Goodall, Treading out the Corn, by Ansdoll, The Arrest for Witchcraft, by Pettie, Sums, by Morgan, Village Gossips, by Webster, and Mrs. Lee Bridell's Arab Girl, with her dark hair dyed fair by means of henna.

English water-colour paintings have maintained their great and well merited reputation. Not having sufficient space to describe them, we shall merely name those which appeared to us the best, but adding, like Victor Hugo:

J'en passe, et des meilleurs!

They are: Andrew's Colosseum, Rivière's Campagna of Rome,

English sculpture is but poorly represented, owing to a misunderstanding between the principal artists and South Kensington; this is much to be regretted, as it one of the branches of art in which England excels, and the appearance of this Gallery would have been much improved with some of the works of Foley, Durham, McDonnell, &c.

The only statue worth noting here is the *Song of the Shirt*, by Marshall Wood, an illustration of Hood's poem; the poor semptress' face and attitude well express the hunger and fatigue to which she is succumbing.

The series of basso-relievo portraits of the *Royal Family*, by Susan Durant, are good likenesses, but somewhat devoid of life and animation.

We shall wind up this long survey with the British section of the History of Labour. There, as in France, we find specimens from the most remote times; the flint axes belonging to the age of stone, before metals were discovered, were principally found in the Thames or in the counties of Kent, Suffolk and Norfolk, sometimes mixed with the bones of the mammoth (*elephas primogenius*), a sufficient guarantee of their great antiquity.

The second period, or age of bronze, although anterior to the invasion of the Romans, displays an extensive and in-
telligent use of metal by the inhabitants of Britain. Bronze swords, poniards, axes, lances, knives, bucklers, &c., are there in great variety, besides an ingot of pure copper found at Welwyn (Herts). The Britons seemed even to possess arts which were not known by more polished nations, for we remark some enamelled harness plates which are alluded to by Philostrates*, when he speaks of a certain process for fixing colours on metals practised by the barbarians in the Ocean (τῶν ἐν Ὠκεανῷ βαρβάρων.)

The third period, comprising the Roman dominion does not contain many interesting objects, with the exception of some curious Anglo-Saxon arms, jewels and pottery.

The fourth and fifth periods, from the departure of the Romans to the invasion of the Normans, include ornaments of celtic form, chiefly found in Ireland; some of them are decorated with vitreous mosaics.

In the sixth period, from the Norman invasion to the end of the Plantagenet dynasty (1485), we remark some curious croziers, the Lynn Cup which is silver-gilt and enriched with translucent enamels, and the Tara brooch which is made of gold filigree relieved with amber and precious stones.

The seventh period embraces the dynasty of the Tudors (1485-1603), and contains, among other precious relics, the Anathema Cup given to Pembroke College at Cambridge, by Bishop Langton in 1497, a silver-gilt chalice presented to Corpus Christi College at Oxford, by Bishop Fox, its founder, a silver-gilt carriage moving with an internal mechanism, from the Mercer’s Company, the Rosary and

* Icones 1, xxviii.
Crucifix of Mary, Queen of Scots, and a miniature portrait of Queen Elizabeth.

Her Majesty the Queen has contributed the finest pieces of the eighth period (the Stuart dynasty, 1603-1711) which consist in silver tables, frames, candelabra, and fire-dogs. The Corporation of York, Norwich, Bath and Morpeth, and the Clothworkers', Fishmongers' and Carpenters' Companies, have also sent some of their most valuable heirlooms. We observe likewise some ponderous watches of the seventeenth century, and some scarce in-folios, including Burton's Anatomy of Melancholy (Edit. 1652.)

The Exhibition of the ninth period (1714-1760), somewhat resembles in style that of the French during the corresponding time. It contains metal work, plate, jewellery, arms, watches, miniatures and prints.

In the tenth and last period (1760-1800), we find some beautiful specimens of Chelsea, Derby, and Worcester porcelain, and some exquisite Wedgwood ware. We also notice two gold enamelled watches which were presented by Lord Macartney to the Emperor of China, and which were retaken at Pekin, during the sacking of the Imperial Palace.

Besides the contributors to this interesting Gallery which we have already named, we may mention the British Museum, the South Kensington Museum, the Royal Irish Academy, the Trinity College at Dublin, the University of Glasgow, the Royal Institution, and many distinguished noblemen and gentlemen who conferred a real boon on the public, by affording them this unique opportunity of inspecting the treasures of their collections.
CHAPTER XXVII.

THE BRITISH COLONIES.

It was once the King of Spain's proud boast, that the sun never set on his dominions; the same assertion can now be made by Queen Victoria, and she may add, with still greater pride, that the land which acknowledges her sway is not the abode of slaves, where many toil for the advantages of a few, but that of free, independent, and happy men, to whom every chance is afforded to reap the fruits of their industry.

Like a tree whose spreading branches soon outgrow their stem, Britain has seen her Colonies, in the course of two centuries, attain proportions far beyond her own, and now receives back from them, with considerable interest added, the support she once lent them. Her population of thirty millions, and superficies of two hundred thousand miles, look small indeed by the side of her one hundred and fifty million colonial subjects, spread over an area of nearly five million miles.

Sanguine Frenchmen are apt to entertain the hope that their language will some day become the European language; a no less patriotic Englishman was assuring us lately that, in a time not very far remote, English would become the language of all other parts of the World, and he was probably right,
Of the forty-eight Colonies, and dependencies, of the British Empire, nineteen were represented more or less fully at the Champ-de-Mars. The show would, probably, have been more complete had more time been given, but the fact of the Exhibition opening one month earlier than is usually the case, and the difficulty in obtaining grants from Colonial Governments for the purpose, detained several from entering into the contest. The recent exhibition which has taken place at Melbourne last year, also operated against some of the Australian Colonies, who, not being able to send their collections to both, gave their preference to the home display.

The West Indian Colonies, once so prosperous and enterprising, seem to have lost a great deal of their wealth and spirit; it is easy to see they have not yet recovered the effects of a well meant, but too hasty, emancipation. Their show here is extremely meagre. Trinidad sends only a collection of its woods, a few fibres, and some asphaltes from its celebrated Pitch Lakes. Barbadoes, and St. Vincent contribute arrow-root, sugar, and a few natural curiosities, whilst one solitary exhibitor, Mr. C. Gadpaille, to whom all honour be due, represents the important Island of Jamaica, with a small assortment of rum, orange wine, ginger wine, and pimento dram.

The Bahamas fill a small case with some few products of interest, including sponges of various kinds and qualities, tortoise-shell, ambergris, coral, beautiful pink pearls obtained from the Strombus gigas, and black helmet shells used for cutting cameos.

The display made here by British Guiana of its natural and manufactured products, is quite as creditable and varied as it
THE PARIS EXHIBITION,

was in 1862. Sugar, rum, molasses, and timber, form the bulk of the staple articles. Cotton was also grown there to some extent in the early part of the century, but the production has now been reduced to a few hundred bales per annum. There are, however, on the other hand, many sorts of fibres applicable to the manufacture of textile fabrics and cordage, which this colony could supply to an almost unlimited extent.

One of the finest collections of starch in the Exhibition is that sent from Guiana, there being about one hundred different samples, all prepared with great care. Many fruits, such as the mango, the plantain, &c., which in their ripe state abound in sugar, yield, when unripe, a quantity of starch; it is, however, more usually obtained from roots or tubers, like the cassava, or manioc, the sweet potato, yam, arrow-root, &c. The suitability of this colony to produce starch is apparent, when it is considered that from two to four crops can be raised annually, giving a yield of seven or eight tons of roots per acre.

The specimens of natural history are very attractive, embracing curious animals, birds of the most brilliant plumage, and butterflies tinted with the brightest colours. The exuberance of animal life in South America is evidenced by the fact of Mr. Bates obtaining 1,200 species of insects during his sojourn on the Amazon and its tributaries.

The native manufactures of British Guiana are ingeniously arranged in a sort of log-hut. They consist in bark canoes, hammocks made of grass and cotton, bows and arrows, tubes or blow-pipes used for propelling poisoned shafts, clubs, shields, feather crowns, fans, necklaces of boar's tusks,
ornaments of beetle-wings, and a variety of fancy articles such as work-baskets, letter-boxes, cigar-cases, &c., made by the Indians from native reeds and fibres.

But three of the British North American Colonies put in an appearance; Newfoundland, Nova-Scotia, and Canada; Prince Edward's Island, New Brunswick, Vancouver, and British Columbia are not represented.

Newfoundland sends some specimens of its mineral products which, according to competent authorities, only require the application of capital and enterprise to rank among its chief resources. It has, however, principally depended hitherto on its cod and seal fisheries, which yield an annual revenue of about one million sterling.

Its neighbour, Nova-Scotia, has always figured well in all International Exhibitions, and the extensive and well arranged display it makes here is likely to add to its laurels. The chief product of this province is coal, which it largely supplies to the Northern parts of the United States, and of which no less than 651,256 tons, worth about £400,000, were extracted in 1865. A pillar, some forty feet in height, erected in the Park, gives some idea of the immense depths of its coal seams. There are thirty collieries in operation, and in addition to the vast territory of the General Mining Association, 31 square miles of country are under coal mining leases, and 1,920 square miles under license to explore.

It was only at the close of 1860 that gold was discovered in Nova-Scotia, and, in the course of five years, the yield of the precious metal had already amounted to £140,000. There is every prospect of this return being largely increased in future years, for the band of metamorphic rock which
encircles this Province on the Atlantic side is auriferous to a sufficient degree to render mining operations highly profitable.

Although the Nova-Scotia fisheries are not half so important as those of Newfoundland, the specimens they send are numerous and well arranged. The same may be said of their natural history collection. We also remark some manufactured articles in the shape of carriages, saddlery, fishing tackle, gold crushing machines, &c.

Canada naturally fills a large space, and fills it well. Its exhibition is tastefully displayed under a sort of tent, such as used by wood-cutters in the forest.

The staple production of Canada is timber, which no other country in the world produces so large, so fine, and in such merchantable condition. A few figures will show what importance this trade has acquired in the Colony. In the forest alone 15,000 men are employed in cutting wood; the partial preparation of the timber employs 200 mills, and 10,000 men; the shipping from the port to Europe, 1,200 vessels of an aggregate capacity of 700,000 tons and manned by 17,000 sailors. This does not include the inland navigation to bring the timber down to the port of shipment, which occupies several thousand men, and a large amount of tonnage.

The show of cereals does great credit to Canadian farmers and to the various agricultural societies, which seem to have undertaken the noble task of diffusing the valuable teachings of modern science.

Few countries present more frequent indications of metallurgical riches than Canada; but its mines have not yet had sufficient capital applied to them to make them productive. Copper is destined to occupy some day an important rank in
its productions, and iron ores occur in such quantities as may be considered practically inexhaustible. Plumbago is also attracting much attention from mining adventurers, and the specimens shown by the Canada and by the Lochaber Mining Company bid fair for the success of these undertakings.

Among other Canadian exhibits worthy of note, we may mention some inlaid furniture made of native woods, by Roy & Bédard, Quebec, various articles ornamented with elk's hair; by different ladies at Rivière du Loup, some winter boots and shoes of embroidered leather, from Tahourchenché, Lorette, and some well prepared drugs, dyes and chemicals from Messrs. Lyman; Clare & Co., of Montreal, and Giroux, of Quebec.

Passing into the other hemisphere, we alight on Malta, this small island which occupies such a large place in history.

A lady; and a peasant and his wife are there to do us the honours of the Court; and show by the originality of their costume, that British occupation has not altered the coulter locale of their country. The rich attire of the lady is of a semi-Spanish, semi-Oriental character; the peasant woman's head is ornamented with a circle of large silver pins somewhat resembling the coiffure of the inhabitants of Como.

The contents of the Maltese case which are very interesting, include graceful stone statuettes, aerial lace tissues and charming specimens of gold and silver filigree jewellry, an art which Malta borrowed from the Levant.

The island of Mauritius, in addition to its usual exhibition of sugar, spices, tobacco, fibres, vanilla, &c., sends this time some well executed paintings, drawings and photographs initiating us to the beauty of its scenery, and some tempting
wax-models of tropical fruits which seem to have come from the Garden of Eden.

...... Fruit of all kinds, in coat.
         Rough, or smooth rind, or bearded husk, or shell.

Lagos, a new settlement on the West Coast of Africa, and one likely to become very important in after-time, is only represented by a varied and interesting collection of native products and manufactures collected by Mr. Edward Simmonds during a three years' stay. One of the most curious objects is a coarsely carved frame containing a small bit of looking-glass in which the dusky beauties of the country probably delight in contemplating their well greased face.

The Cape Colony and Natal send a well classified assortment of cereals of all kinds, preserved meat and fruit, wines, spirits; sugar, tobacco, wool, cotton; hemp, flax, silk, woods; barks, filaments, copper and iron ores; manganese, coal; ivory, ostrich feathers, sponge, cochineal; and a variety of plants including Bosches tea (Cyclopea).

As native manufactures we may mention the assegais, clubs and shields in use among the Basutos, Bushmen's bows and poisoned arrows, and Kaffir pottery, hats, head-rings, baskets, bead-work, pipes and snuff-boxes, some of which are of very quaint workmanship. We also recommend to our fair readers a penguin skin table-cover, a vulture down muff and a duck of a bonnet made of snake skin.

To attempt to enumerate all the treasures contained in the Indian court would carry us far beyond the scope of this work. It is a centre of attraction for numerous classes; the ladies are enchanted with the shawls, the gold-striped gauzes, the bright coloured carpets, the beautiful inlaid boxes, the
Recollections of

rich embroideries, the chased cassolettes used to burn perfumes in temples and palaces, the massive gold jewels, and the finely carved Bombay furniture; the ethnologist admires the native paintings, so naïvely delineating, on talc or ivory, the customs of the country, the well modelled figures representing divers castes and trades, and the relics of Indian antiquity; the chemist studies the immense variety of drugs, oils and gums produced by that fertile country; and the merchant and manufacturer examine with interest the cotton, silk, woods, tea, coffee, tobacco, jute and other varied produce which are exported to all parts of the world. Nor have the fragrant oils yielded by Indian flowers and plants been forgotten. Baboo Kanny Lall Dey of the Medical College, Calcutta, sends a collection of twenty essential oils or uttars, comprising those of Donnà (artemisia indica), Kurna (Phœnix dactilifera), Puchapat (Pogostemon Patchouli), Nagkusur (mesua ferrea), Kawrah (Pandanus odoratissimus), Bookool (Mimusops elengi), Hina (lawsonia inermis), Champaca (Michelia champaca), and a new sort of andropogon denominated iwarecusa; most of these are very sweet, but some are tainted with the admixture of sandalwood.

Mr. Fisher, of Singapore, shows some oils of lemon-grass, citronelle, cloves, glam (melaleuca viridiflora) and kanonga, another name for Iblang-Iblang, all of which are of the greatest freshness and purity, and many other exhibitors, including the Maharajah Ramsing Bahadoor, of Jyepore, the Maharajah Holkar, of Indore, the Maharajah Rajendra Pertab, of Hutwa, &c. contribute native perfumes, generally contained in rich silver bottles and carved sandalwood cases. We find also in this department a specimen, sent by the Tumongong
of Johore, of *Kaju gabroo*, a wood much used to burn as incense.

The whole arrangement of the Indian collection reflects much credit on Mr. Dowleans, of Calcutta, to whom it was entrusted.

All the Australian Colonies, with the exception of Tasmania and Western Australia, are represented here. Victoria, New South Wales, South Australia and Queensland make the best show.

The magnitude of the wool trade in Australia is illustrated by a huge trophy of bales to which all the colonies have contributed, and the eagerness with which continental buyers scan the well-known marks of the bales and their contents, shows their appreciation of the quality. As to the quantity produced, a few figures may here find their place. There are now, spread over Australia, about thirty million sheep, and the annual exports of wool average one hundred million pounds, of which New South Wales supplies nearly a third. There are besides three million horned cattle, and six million horses; tallow, hides, skins, and preserved meats are therefore also exported to a considerable extent.

Taking now each Colony in rotation, we shall commence with Queensland, which, although the youngest, bids fair to become some day the most important, for, like Natal, it combines the products of temperate and tropical climates, and by the side of the cereals, fruits and vegetables of Europe, it yields sugar, coffee, pepper, cotton, tobacco, lemons, pineapples, &c. It possesses also a great variety of woods, useful and ornamental, among which the myall-wood (*acacia pendula*) is much prized for its beautiful violet odour. The
banks of the Brisbane and Bremer rivers are rich in coal, copper is found in abundance near Rockhampton, and the gold fields, which are yet in their infancy, exported in 1866 gold dust to the amount of £85,521.

Among the natural curiosities peculiar to that Colony, we may mention the dugong (*Halicore Australis*), from which is extracted an oil which is said to have the same medicinal properties as cod liver oil, without its unpleasant smell, and which also serves to make excellent soap. The flesh is eaten by the natives, the skin can be converted into glue, and the bones, which are hard and firm, take a polish equal to that of ivory. We also observe some Moreton Bay pearls of a good colour, and a necklace of white topazes, or Australian diamonds, exhibited by Mrs. Marsh.

New South Wales possesses in abundance the raw materials of wealth, which it needs but sufficient capital and population to develop. Besides the products of its pastures, which have been hitherto the chief source of its prosperity, it is rich in minerals of all sorts which will, in time, command due attention. Coal is already extracted in large quantities, the Newcastle mines alone yielding about twenty thousand tons yearly; copper is exhibited from Cadiangulong and Currawang, iron from Nattai, silver from Moringa and Woolgarlo, and gold from upwards of thirty different districts.

The series of woods is very extensive, comprising some four hundred specimens, and the show of cereals speaks well for the fertility of the soil.

Among curious native manufactures, we may mention some boots made of Kangaroo leather, a myall-wood flute, gloves spun from opossum wool, cabbage-tree hats and plaits,
flower vases made of emu eggs mounted in silver, and some perfumes distilled from indigenous flowers by Mr. O'Neil, chemist at Sydney.

A large collection of fossil remains of mammals, birds and reptiles found in the caves of Wellington Valley and classified by Mr. Gerard Krefft, offers great interest to the naturalist.

The gold production is an important feature in all Australian colonies, but more especially in Victoria. It is estimated that of its total area measuring 86,831 square miles, at least one third is of auriferous character. Out of this immense tract of ground only 464,000 acres, forming about one fiftieth part, are yet opened up, and only 134,526 in actual occupation. There is, therefore, plenty of the precious metal left for future generations.

The two chief modes of gold mining, viz: quartz mining, or working on the solid rock, and alluvial mining; or dealing with drifts, employ together about 85,000 persons, whose plant is worth nearly two million sterling.

We have already mentioned the obelisk figuring the bulk of the gold yielded by Victoria, since its discovery in 1851, the value of which amounted, up to the close of 1867, to nearly one hundred and fifty millions sterling. This obelisk had already been exhibited in 1862, but it has since grown to such an extent, that it was found necessary to place it in the Machine Gallery, its height not allowing it to stand in the Victorian department.

To give an idea of the lucky hits sometimes made by miners, a model is shown of the monster nugget, justly styled Welcome, which was found at Ballarat on the 9th of June 1858, and was worth £10,000. The largest nugget found, up to that
time, had been extracted from the Ural mountains in Russia, but it was only about half the size of this.

In addition to gold, Victoria produces precious stones, as we see by a very remarkable collection of blue and white topazes, hyacinths, zircons, sapphires, opals, and garnets, in the rough and polished, exhibited by the Victoria Commissioners. The Australian blue topaz deserves special mention for its size, beauty and lustre, and we expect, at no distant period, to find our jewellers eagerly seek those Australian gems which will, at all events, offer to Europeans the great attraction of novelty.

The very interesting geological specimens forwarded by Mr. R. Brough Smyth, Secretary to the Department of Mines, and the photographic views of scenery received from Messrs. Selwyn, Nettleton, Cornell, Robinson, Wheeler, &c., make us acquainted with the internal and external aspect of this Colony.

To complete our information we have an assortment of cereals, woods, barks, flax, cotton, tobacco, olive oil, and other products of the soil, including a variety of essential oils derived from the forest vegetation of Australia, such as the *Eucalyptus amygdalina*, the *E. globulus*, the *E. fissilis*, the *E. stuartiana*, the *Melaleuca ericifolia*, and the *Atherosperma moschata*. We believe that Dr. Müller, the learned director of the Melbourne botanical gardens, was the first to turn his attention to these fragrant trees, and at his instigation, Mr. Bosisto, of Richmond, distilled essences from them and sent them to the Exhibition of 1862. Being then on the Jury, we remarked their pungent aromatic smell, and although they were only intended then for mixing with paint, in lieu of
turpentine, we proposed to use them for scenting toilet soaps. The experiment was tried, and having been successful, these essential oils have taken their rank among perfumery materials, a result of which we own we are somewhat proud. We may add that the emanations proceeding from that genus of trees are held by medical men to be very beneficial to the respiratory organs (as are those of pine forests), and this is an additional recommendation for the extended use of those oils.

Manufactured articles are not shown by Victoria to any great extent; yet they are sufficient in number and quality to show an earnest desire on the part of the colonists to rival the productions of the mother country.

The South Australian Court, which adjoins this, has the finest show of wheat in the Exhibition, some of it weighing as much as 68 to 69 lbs. per bushel. This Colony is the chief grain producing region in Australia; although the average yield is but small (12 to 14 bushels per acre) the harvest of 1867 produced 6,652,000 of wheat, which may give some idea of the extent of the land under cultivation.

The mineral products of South Australia form also a prominent feature in its prosperity, and they are daily increasing in importance, for their exportation, which in 1861 amounted only to £452,000, reached in 1866 the sum of £824,500. They principally consist in copper, argentiferous lead and bismuth. Copper is the most abundant, and specimens of ore are sent from a dozen different exhibitors, some, from the Burra-Burra mines, being in the shape of fibrous malachite (green carbonate of copper).

The South Australians have taken great pains in acquainting us with the natural history of their Colony by sending a
case of no less than 4,000 insects, specimens of stuffed animals and birds, a collection of fish from St. Vincent's gulf, and an herbarium of native plants and sea-weeds, which are all highly interesting. The information is completed by a few well executed photographs of fruit-trees by T. Duryea.

Wine is now made throughout Australia, but in no part of the Colony has it been produced, hitherto, with such perfection and in such quantities as in South Australia. There, the vines imported from France, from the Rhine, and from Spain thrive admirably, and seven thousand acres of land are at present devoted to that culture, producing about 840,000 gallons of wine, besides some tons of grapes not used for wine; a much larger average than is usually given by the vintages of other countries.

Of New Zealand we have but little to say, its show being very meagre and offering nothing new nor remarkable. We own we expected better things from such a well-to-do Colony.

Having now completed our tour "all round the world," it remains for us to pay our sincere tribute of praise to Mr. P. L. Simmonds, the delegate of the Colonies, for the careful and scientific manner in which he classed the numerous and varied products confided to his care, and for the unremitting courtesy with which he was always ready to give any explanations required respecting them, thus tending in no small degree to advance the interests of the Colonies which he so ably represented.
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<tr>
<th>GOLD CASES</th>
<th>SILVER CASES</th>
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Benson's London Made Levers.
10  10  0  13  13  0  4  4  0  5  5  0
15  15  0  18  18  0  6  6  0  7  7  0
20  0  0  23  0  0  10  10  0  11  11  0
30  0  0  35  0  0  17  17  0  20  20  0

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42  0  0  45  0  0  32  0  0  35  0  0
52  0  0  56  0  0  45  0  0  45  0  0

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55  0  0  65  0  0  45  0  0  48  0  0
75  0  0  80  0  0  65  0  0  68  0  0

Benson's Keyless Watches.
30  0  0  33  0  0  20  0  0  22  0  0
35  0  0  38  0  0  25  0  0  28  0  0

Benson's Crystal Glass Watches.
14  14  0  ...  ...  5  5  0  ...  ...
21  0  0  ...  ...  8  8  0  ...  ...

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5  5  0  8  8  0  2  2  0  3  3  0
9  9  0  12  12  0  4  4  0  5  5  0

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<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Sachet Valentines</td>
<td>1/6</td>
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<tr>
<td>Shakespearean Valentine, beautifully illuminated</td>
<td>1/</td>
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<tr>
<td>Flora's Keepsake, a sachet with painted silk centre</td>
<td>1/</td>
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<tr>
<td>Sachet Valentine, illustrating the language of flowers</td>
<td>1/6</td>
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<tr>
<td>St. Valentine's Gloves</td>
<td>1/</td>
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<tr>
<td>Cupid's Magnet, a new Heart Barometer</td>
<td>1/</td>
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<tr>
<td>Animated Flowers</td>
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<tr>
<td>Do. on Satin</td>
<td>2/6</td>
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<tr>
<td>Mediaval Valentines, very humorous</td>
<td>1/</td>
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<tr>
<td>Flora's Keepsake Valentine, a sachet painted silk centre figure</td>
<td>1/6</td>
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<tr>
<td>Language of Flowers Valentine, 8vo., painted on moire antique</td>
<td>2/6</td>
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<tr>
<td>Language of Flowers Valentine, 4to., painted on moire antique</td>
<td>5/</td>
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<tr>
<td>Stamped Bouquet Valentine, mounted on silver paper</td>
<td>1/6</td>
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<tr>
<td>Do. do. do. cushion</td>
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<tr>
<td>Artificial Flower Valentine, mounted with pearl on silver paper</td>
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<td>Do. do. do. do.</td>
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<td>Musical Valentines, from</td>
<td>6d. 1/1/6 2/6 3/6 &amp; 5/</td>
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<td>Richly Mounted do., from</td>
<td>1/2/6 4/8 12/18 24/ &amp; 36/</td>
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<tr>
<td>Other Perfumed Valentines at</td>
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