

PRICE TWOPENCE.

## CRYSTAL PALACE.

# GENERAL ARRANGEMENTS AS $\mathbf{T O}$ ADMISSION AND CONVEYANCE BY THE London, Brighton, and South-Coast Railway. THE BEST, SHORTEST, \& QUICKEST ROUTE. 

Passengers are booked every Week Day to the Crystal Palace at Special Cheap Fares, including Railway Conveyance and Admission to the Palace, Park, and Gardens, from Victoria, London Bridge, Liverpool Street, and all Suburban Stations on the London, Brighton, and South Coast Railway, as under.

Crystal Palace Railway and A dmission Tickets are issued at the West End General Office, 28, Regent Circus, Piccadily, W., at Cook's Office, Ludgate, F.C., and at Gaze's Office, $\mathbf{x} 42$, Strand.

## Fares to the Crystal Palace and Back, including Admission. FROM LONDON BRIDGE, VICTORIA, \& GROSVENOR ROAD. <br> Third Cluss. <br> Ón rs. Admission Days <br> On 2s. 6 d . Adinission Days

## CHEAP TICKETS (INCLUDING ADMISSION) are also issued from the following Stations :-

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GREAT WESTERN RAILWAY.-Castle Hill, Ealing, Hanwell, Southall, Slough, Uxbridge, West Drayton, Windsor.

NORTH LONDON RAILWAY,-Acton, Barnsbury, Bow, Canonbury, Dalston, Hackney, Haggerstone, Highbury, Homerton, Old Ford, Poplar, Victoria Park.

SOUTH WESTERN RAILWAY.-Addlestone, Barnes, Brentford, Chertsey, Chiswick, Datchet, Esher, Feltham, Fulwell, Godalming, Guildford, Gunnersbury, Hammersmith, Hampton, Hampton Court, Hampton Wick, Hounslow, Isleworth, Kew Bridge, Kew Gardens, Mortlake, New Kingston, New Malden, Norbiton, Putney, Richmond, Shattesbury Road, Shepperton, Staines, Sunbury, Surbiton, Thames Ditton, Teddington, Turnham Green, Twickenham, Walton, Wandsworth, Weybridge, Wimbledon, Windsor, Woking, Worcester Park, Wraysbury,

RETURN TICKET'S to the CRYSTALPALACE STATION (NOT INCLUDING ADMISSION) are also issusd from the following Stations on the GREAT WESTERN RAILWAY:-Bishop's Road, Latimer Road, Noting Hill, Royal Oak, Uxbridge Road, Westboume Park.

The above Fares and Arrangements are all subject to alteration on special occasions, of which diue notrae will be given by a divertisembent.
RETURN TICKETS are issued at all Brighton Company's Stations to the Crystal Palace Station, and vice versa,
RETURN TICKETS issued from London Bridge and Victoria, to the Crystal Palace Station, are available to return to either Terminus, at the option of the holder.

RETURN TICKETS, including admission to the Crystal Palace, issued at London Bridge or Victoria, are available to return by London, Chatham, and Dover Trains to Holborn Viaduct, Snow Hill. Ludgate Hill, or Victoria, L. C. \& D.

SEASON TICKETS OF ADMISSION TO THE PALACE, of the several descriptions advertised by the Crystal Palace Company, may be obtained at the Booking Offices at the London Bridge and Victoria Stations, and at the West End General Office, 28, Regent Circus, Piccadilly, W.

RAILWAY SEASON TICKETS between London Bridge and Sydenham, or between London Bridge and any Station beyond Sydenham, either in the direction of Croydon or Victoria, \&c., are available by all Trains to and from the Crystal Palace Station.

RAILWAY SEASON TICKETS between Victoria, Thornton Heath, Selhurst, Lower Norwood, Tooting, Merton, Mitcham, Wimbledon, Ewell, Epsom, Leatherhead, \&c., are available by all Trains to and from tlee Crystal Palace Station, also to and from London Bridge Station.

SPECIAL FETE DAYS.-For the convenience of West End Passengers returning from the Crystal Palace on Concert and other Special Class Fete Days, a separate staircase and platform is provided for First Class Passengers at tlie Brighton Company's General Station at the Crystal Palace.

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TRAINS TO THE CRYSTAL PALACE ran frequently from London Bridge, Victoria, and Kensington, extra Trains on Saturdays, and whenever the Traffic renders it necessary.

LONDON BRIDGE (City Station), connects with South Eastern Company's, Cannon Street, Waterloo, and Charing Cross trains.

VICTORIA (West End Station), connects with all the railways North of the Thames, and the Metropolitan and District Railways.

LIVERPOOL STREET, connects with Great Eastern, North London, London and North Western and Metropolitan Lines.

OMNIBUSES at cheap fares to and from Victoria and London Bridge Stations and all parts of London.
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## CRYSTAL PALACE.

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## armellar effervescent citante of potash <br> Contains eight grains of this admirable anti-febrile salt in each drachm, keeps well, and

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BISHOP'S EFFERVESCHNG PORTABLE MMNERAL WATER SALTS, of Carlsbad
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Sold by all Chymists, in bottles at 1s., 1s. $6 d_{1,}$ and 2 s .6 d .


TO THE

## CRYSTAL PALACE \& PARK. <br> - +

THE object of these remarks is to put the visitor quickly and easily in possession of the general plan and arrangement of the Crystal Palace, with the principles and a few of the details of its construction, and to point out the more prominent of the objects which crowd its courts and galleries; in other words, to furnish a Handbook, in a convenient form, for the visitors to the Palace.

The Crystal Palace, Park, and Fountains, were designed and laid out in 1852 by Sir Joseph Paxton. The plan of the Palace is very simple. The main building, as it stood previous to the fire of 1866 , which destroyed a portion of the Tropical Department, was a parallelogram of 1,600 feet long by rather more than 300 wide. Its longest direction lies sufficiently near the cardinal points to allow of speaking of it as North and South. Norwood is at the South, Sydenham at the North; the main road front faces the West, and the garden front the East. Within this general outline is a central avenue running from end to end, called the Nave, and crossed by two transverse portions called respectively the South and Central Transepts.

The arrangement of the contents of the Palace is, in great measure, governed by these divisions. The Centre Transept is the region of music and entertainment. Standing under its prodigious dome, with the vast Handel Orchestra on the left, and the gieat stage on our right, before us lies Art and Instruction ; behind us, Commerce and Business; Nature, in some of her finest forms, is everywhere around. In the distant vista is the Monti Fountain among the palms, bananas, and gigantic ferns of the Tropics. Along the Nave, to left and right, behind the shrubs and statues, appear the walls of the Fine Art Courts, rich with the art of Heathen Egypt, Greece, and Rome ; Mahometan Spain ; Christian Byzantium, Italy, Germany, France, and England.

From this point we obtain a clear insight into the construction of the building. An unit of eight feet governs the whole of the horizontal measurements. The columns are arranged in squares of 24 feet ( $3 \times 8 \mathrm{ft}$.) This is useful to know, as by simply counting the number of pillars between any two spots, and multiplying them by 24 , we can ascertain the distance to an inch. Thus, by looking to the end of the Centre Transept, its width will be found to be five intercolumniations, i.e., 120 feet ( $5 \times 24 \mathrm{ft}$.) That of the Nave, in like manner, is three intercolumniations, or 72 feet. On the outside walls of the main building, and of the colonnade and wings, the pillars occur every 8 feet. The wings are 32 feet ( $4 \times 8 \mathrm{ft}$.) wide, the colomade 16 feet ( $2 \times 8 \mathrm{ft}$.) ; and so on throughout the entire structure, every horizontal measurement is a multiple of 8 feet. It will easily be seen how :eadily such a method lends itself to the partition of the area into courts or spaces all over the Palace, and how much this simple arrangement will assist the visitor n finding his way about a building which, at first sight, looks so complicated, but is, in reality, so excecclingly simple.

The heights are not governed by the same unit of measurement. The first

Gallery is 2r ft. 6 in . from the floor. The Eight-foot Gallery (so called from its width), which runs round the entire building, at the springing of the arch of the Nave, is 61 ft .6 in . from the floor ; the crown of the airch of the Nave being 105 ft . from the same. The South Transept is of the same height as the Nave, and the same dimensions, except as to length. But the Great Transept, under which we are standing, towers far above the rest of the building. The height of the underside of its arch, from the boarded floor beneath, is 168 feet. It has four galleries at each end, the highest one of all running (as on the Nave) completely round its periphery at the level of the bottom of the arch. The view from that dizzy height is extremely curious and entertaining; but visitors are not allowed, for fcar of accident, to ascend so high, exccpt on special permission.

Looking at the great height of this part of the building, the extreme lightness of the parts, and the vast spaces roofed over without obstacles, it is difficult to conceive how such slender pillars can be made to perform their office with such unfailing security. But there is more in the construction than meets the eye of the unpractised observer. The horizontal girders, which cross from pillar to pillar, at the top of each length, are framed so firmly into the pillars themselves for the whole of their depth, that they form a construction of great strength, analogous (to use a homely illustration) to the frame of an ordinary dining-table on a very large scale. The diagonal rods, which may be observed crossing some of these squares, near the corner of the Nave and Transepts, are of still further assistance in ensuring the solidity of the whole, since, according to a well-known principle of mechanics, they convert the parallelograms formed by the columns and girders into triangles-a figure which cannot alter its shape or proportion without actual fracture. Lastly, the galleries form the most admirable and efficient bond to the whole of the structure that can be imagined. They interpose their wide wooden floors round the whole building, and up the principal walls of the Great Transept, and form struts or buttresses of the lightest character, but at the same time, of prodigious strength, binding together into one admirable and organic whole a structure which at first sight looks like a mere frail skeleton.

The Handel Festival Orchestra, which occupies the western portion of the Transept, was originally erected for the first Festival in 1857, and has been since gradually enlarged until it reached its present extraordinary pitch of size and eompleteness. Its diameter is double that of the dome of St. Paul's, and its area is so great that it could contain six of the largest orchestras of the country and have room to spare. The arch, which forms the ceiling to this vast structure (one of the largest timber arches yet constructed) is 104 feet in depth, and 216 feet in entire width, rising 33 feet in the centre, where it attains a height of 81 feet from the floor of the Orchestra. The organ was built by Messrs. Gray and Davison expressly for the Palace. It has four rows of keys, and contains 74 stops and 4,598 pipcs. In this great Orchestra are also held, during the scason, numerous other Choral Gatherings, and notably those when many thousands of children are assembled.

We may now proceed to make the circuit of the building. We shall first go through the range of structures on each side of the horthern portion of the Nave known as the Fine Arts Courts. These contain fac-similes of the actual remains of the Architecture and Sculpture of the successive ages and schools, and arc intended to give the untravelled visitor the same advantage which has been hitherto the privilege of the traveller only. Aftcr having traversed these and returned to the Centre Transept, we shall then go through the Southern Division of the Nave-the Industrial Courts-in the same manner ; after which, we shall conduct our visitor into the galleries and thence into the grounds. In doing this, it will facilitate progress if we remember that the Courts are placed with their longer dimensions North and South ; that the small places intervening between the Courts are called Vestibules, and the long continuous gallery which runs at the back of them is called the Corriaor. The Ancient Courts, on the left-hand side, from Egypt to the Alhambra, were arranged by Mr. Owen Jones, and executed under his personal superintendence. The Modern, or Christian Courts, on the opposite side of the Nave, were constructed, in like manner, by Mr. (now Sir) Matthew Digby Wyatt.

Standing in the middle of the Centre Transept, we walk forward up the North Nave, until we come to a short avenue of lions on our left hand. They were brought from the Nile by the Duke of Northumberland, and they lead us into the open area of

## THE EGYPTIAN COURT.

This is an attempt to represent, on a scale very much smaller than the original, the chief features of that wonderful architecture, the oldest with which we are yet acquainted. The great temples of Egypt consisted, nay, consist (for some of them are still standing almost as perfect as our own cathedrals), of a large court open to the sky, approached through crowded arcades of gigantic pillars, and having at one end the sanctuary, or holy of holies, in which was the ark* or image of the god, or, when the deity was a calf, a hawk, or other animal, the god himself, in his sacred stall or cage. The open area was for processions and similar ceremonials. The pillars of the arcades were enormous, and crowded much more thickly together than is the case in other styles of architecture ; but their gloom and coolness must have rendered them most delicious retreats from the glare and heat which pervade the sultry sandy valleys of Egypt. We may form a faint idea of their general effect by going into the arcade, which is at the back of the open area. These pillars (exact copies in form, in proportion, in everything but height and bulk) arc copied from those of the temple at Karnalk. Our model contains three rows of eight pillars, each 20 feet high and 5 feet diameter. The original colonnade contains 9 rows of 16 pillars, each 47 feet high and io feet 6 inches diameter. This statement will enable the visitor to form an idea of the comparative scale of our restoration. In like manner, the cpen court of the Ramesion at Thebes, which is represented by the open area into which we first entered, is 170 feet by 140 , instead of 72 by 48 , as it is here.

The statues ranged along one wall of our area are figures of Rameses II., the great conqueror and hero of Lgypt. He lived about $\mathbf{1}, \mathbf{1} 70$ years before Christ, that is, just a century before the time of King David; who came to his throne in 1056 в. с. There is no reason to doubt that the statues remaining of Ramescs are portraits. They all have certain peculiar characteristics not to be mistaken-a long face, a rounded tip to the nose, a drooping under-lip, and a serene, grand expression of their own, which seems to say, "I am Pharaoh!" Extraordinary as was the architecture of the Egyptians, their painting was not less so. Their writing itself was painting, for they represented the words or letters by , figures of animals or natural objects; as if we were to represent the letter "a" by an ape, "b" by a bull, and so on. A great deal of this writing will be found on the walls of the Court. For instance, all down the front of the statues of Rameses is a vertical line of writing ; figures of birds, beetles, wasps, eyes, knives, quivers, and other objects, forming so many words, the titles of the great conqueror. On the jambs of the openings between these statues each portrait of man or deity has his name over it in vertical lines, while underneath are two horizontal lines of general description. The same is seen on the pillars of the side colonnade, on the great battle-pieces painted on the two ends of the Court, and, in fact, everywhere around. At the northern end of the alley behind the colonnade, is a painting of Shishak striking down two of his enemies, and below it, a series of heads of negro captives pinioned and tied together by ropes round their necks. Each has below (in place of his legs) the name of the tribe he represents. All these names have becn deciphered, and are known to the learned. To the left of these negroes, a little above them, is a more interesting figure, also pinioned; his name is read as Fudah Malka, that is, Kingdom of Judah, and records the taking of that kingdom as mentioned in the Biblc (I Kings xiv. 25; 2 Chron. xii. 2). The face of the figure has certainly a very Jewish look. Inside the open court, round the architrave above the pillars, is an inscription, not copied from any actual İgyptian, though the characters are the same as theirs. It begins with the names

[^0]Victoria and Albert; and records in Egyptian phraseology, that "in the 17th year of the reign of her Majesty, the ruler of the waves, the royal daughter Victoria, lady most gracious, the chiefs, architects, sculptors,
 and painters, erected the palace and gardens with a thousand columns, a thousand decorations, a thousand statues of chiefs and ladies, a thousand trees, a thousand flowers, a thousand birds and beasts, a thousand fountains, and a thousand vases. The architects, sculptors, and painters built this palace as a book for the instruction of the men and women of all countries, regions, and districts. May it be prosperous." On the outside of the Court are lists of the names of the Directors and of their Chief Scribe (or Secretary), with the figure of the latter functionary in the semi-transparent dress of Egypt, reading the names of his masters from a tablet.

Besides their pictorial writing, the Egyptians knew how to paint, or rather, to draw (in the usual sense of the word), and that with great accuracy. The tombs and temples of Egypt contain thousands on thousands of drawings of every art and operation of the life of the people who drew them.

At the back of the Corridor is a model, I-roth the natural size, of the colossal monument now called Aboo Simbel, high up the Nile on its left bank. It is the front of an excavated temple. The four great figures are portraits of Rameses the Great ; the smaller ones are deities to whom the temple was dedicated. The door in the centre leads into the temple, a dark cavern of several halls ending in the.holy of holies. Two of the great figures ( 60 feet high) formerly stood in the North Transept, but these were destroyed by the fire before referred to.

Several interesting forms of pillars will be described in the small Courts round the area and the Colonnade. We can here only call attention to the fact that they are nearly all imitations of the form of papyrus bud or stalk, more or less open or closed.

From Egypt we go to Greece.

## THE GREEK COURT.

Leaving the Egyptian Court by its north side, and passing through a small vestibule, we find ourselves in the main portion of the Greek Court. It is a representation of an agore, or open area, originally a market place, but also used


CTEER COIN OF THE FINEST PERIOD OF THE ART.
for festivals, political meetings, and other assemblies. The architecture of its enclosing walls is of the style or order for which Greece was most renowned-the Doric. The pillars are copied from those of the Temple at Nemea, except that they are reduced to just one-half of the originals; the proportions, however, are exactly preserved. The frieze, or horizontal part above the pillars, is from a buitding at Athens called the Monument of Thrasyllus. Round this frieze are inscribed,
in ancient Greek letters, the names of the great men of Greece-generals, poets, philosophers-Homer, Solon, Pythagoras, Socrates, Plato, Pericles, \&c., \&c. Through the opening in the back (west side) of the area, is seen a large model or the front of the noblest building of the Greeks, perhaps the finest building ever erected anywhere. This is the Parthenon, the Temple of Athéné, the goddess worshipped in Athens, and after whom the city was called.

The model was constructed with the most rigid accuracy by Mr. Penrose, the greatest living authority on the subject of this building. It is 2 -9ths, or rather less than a quarter the size of the original, as may be seen by looking at the cast of the top part of one of the pillars which stands on the right of the model. The Temple had originally a great many sculptures about it. Some of these were in the pediment over the columns of the front, as they are shown here. Others ran along the inside wall of the Cloister or Colonnade which surrounded the building. A great many of them were brought to England, in 1802, by Lord Elgin, whence they are called the "Elgin Marbles." They are now in the British Museum. Casts of some of the figures from the pediment will be found at the foot of the


THE FAKTHENOS, OR TEMHLE (F ATHLL, K,
model on the right-hand side. The others alluded to, which formed the frieze within the Cloister, are extended from end to end of the west wall of this long gallery, on both sides of the model. They represent the "Panathenaic Procession," a periodical festival in honour of the goddess.

Returning from the model towards the Court, we pass under a covered space, a continuation of the Colonnade of Egypt, and representing the hall of a temple, or other public building. The ceilings of this are exactly copied (according to formi) from remains at Athens and at Basse. The painting upon them is to a certain degree conjectural. In this Colonnade is placed a model of the Acropolis at Athens, showing all the principal monuments, \&c. It was modelled by Madame Avramiotti, of Athens, and is on the scale of one thousandth.

The statues with which the Greek Court and its enviions are crowded, are casts from the finest specimens of Greek art, which have, at last, found a refuge in the various museums of Europe, far from the spots which they originally adorned. In the centre of the open area is a group of figures which it would be, perhaps, impossible to surpass in the world. The place of honour is occupied by the Venus of Milo, now at Paris, confessedly the finest r.atue anywhere existing; another Venus from Naples; Dione (sometimes called the Townley Venus), from our own British Museum; the Discobolus, or Quoit-player, from Rome; the Fighting Gladiator, from Paris. Elsewhere will be found the famous group of Niobe (on
the left of the model of the Parthenon); the Venus de' Medici; the group of Laocoön and his two sons, and a host of masterpieces.

## THE ROMAN COURT.

From Greece to Rome the transition is less sudden than from Egypt to Greece. In fact, it is hardly a transition at all. The modern Italians have been pre-eminent for power and originality in Art ; but the ancient Romans were warriors and men of business. All their art was formed on Greek models, or executed by Greek artists, modified only by the different circumstances of the two countries and people. The most obvious novelty in Roman architecture is the arch, which, though not unknown to the Egyptians and Greeks, was only very rarely employed by them. The Romans, on the other hand, used it habitually in their baths, triumphal arches, and other buildings; and it has, therefore, a peculiar fitness in the walls of this Court. These walls are imitated from the lower part of the Colosseum, an enormous structure at Rome, of which more anon. They are of the Tuscan order, a strong and massive style, the earliest and most original of the styles of Italy, and are about two-thirds the size of the original. The interior walls of the area are lined with the fine marbles with which the Roman people loved to decorate their structures. At the back (west side) of the area is a Corridor (a prolongation of the Greek Hall), the ceilings of which are painted with decorations copied from those of the Roman baths. Of the Roman private houses, we have a complete example in the Pompeian House at the other extremity of the Crystal Palace, to which we shall come in our progress round (see p. 17). When we reach the Italian Court (p. ${ }^{1} 3$ ) we shall see what this style of decoration became in the hands of the great artists of later Italy.

The centre of the area of the Roman Court is occupied not with statues, as in Greece, but with models of the great structures which formed the lasting glory of the "Eternal City." On the one hand is the Forum, the

STATUE OF 1 ROMIAN DRESSED IN THE TOGA.
 spot in which the great popular assemblies and meetings took place, containing, and surrounded by, the most important of the public buildings. This is modelled as it now exists. On the other hand are the Colosseum and the Pantheon, not in their ruined state, but as they originally stood. The former was an amphitheatre, in which the Romans assembled to witness the combats of men and animals, in which they delighted. Almost every Roman town had its amphitheatre, but this is the largest of all. It could contain 87,000 spectators, and was built by Vespasian and Titus, in the year 79, after their return from the conquest of Palestine and the destruction of Jerusalem. The scale of this model is $1 / 8$-inch to a foot. The other model is of the Pantheon, or temple of all the gods, one of the sublimest structures in the world. It is an immense circular edifice, I 40 feet diameter inside, and the same height from the floor to the top of the dome. The portico was erected by a certain Vipsanius Agrippa, twenty-five years before Christ. The main building is probably much later: It has been a Christian Church since A.D. 608, and Raffaelle, the painter, is buried in it. The head of Agrippa (and a very fine head it is) will be found in the Vestibule beyond the Court.

The collection of Roman statues is ranged round the walls of the open area, and in the Corridor, and two Vestibules. It is no less remarkable than the Greek collection. Among other renowned chefs-d'cuuve are the Apollo Belvedere, the Venus of the Capitol, both from Rome ; the Diana with the Stag, from Paris, and many others.

The three Courts just traversed succeed one another in a sequence more or less
elose. Greek art was, to a certain extent, the child of Egyptian, while Roman art owed almost cverything to the Greeks. That sequence is now to be for a time interrupted. But the intruders are so beautiful, and so interesting, that we may pardon their interruption. When we look forward from the last Vestibule of the Roman Court, we find ourselves in a new world. A brilliant vision bursts on the eye. Instead of the chastened elegance and severity of Greece, or the pompous and somewhat lyeary magnificence of Rome, we see slender golden pillars : lovely


ENTRANCE TO THE COURT OF LIONS IN THE PALACE OF THE ALHAMBRA.
colours, bright, and yet so blended that none predominate, but a sweet bloom is spread over all ; tiled roofs, the shrubs and flowers of a garden ; a marble fountain. It is

## THE ALHAMBRA COURT,

a portion of the great Palace which the Moors erected in Spain during their dominion there, at once the type and the most charming specimen of the architeeture and ornament of the followers of Mahomet. The Moors held possession of the southern portion of Spain, from about the year 1000 till 1492. Granada was the ehief city of their kingdom, and the Kalat al-hambra-the red castle-was the eitadel of Granada. Amongst other buildings which the citadel contained was a group of courts, halls, and residences, forming together the Casa real, the "royal house," or palace. We have here a re-construction of one of the courts, two of the halls, and one of the living-rooms, as they appeared after they were re-adorned by the Moorish King, Yusuf I., in 1348 . The Court of the Lions is, in the original, nearly twice as long, and twice as wide, as our reproduction. But the size of the fountain, the columns. the arches, and the ornament which covers the walls, is exactly the same. In fact, the ornament is cast from moulds taken by Mr. Owen Jones from the walls of the Palace itself, and coloured in every minutest detail in exact accordance with the original.

Behind the court is a long hall, or corridor, which partially represents a similar series of apartments in the Casa real, called the Hall of Justice; and behind the eentre compartment of this again is a room which is justly considered as one of the wonders of the Crystal Palace. This is the Hall of the Abencerrages, so named beeause the chiefs of the family of that name (one of the great rival factions of the


#### Abstract

Moors) were beheaded or condemned within its walls, by King Boabdil, on his coming to the throne. The design of this hall is one of the most beautiful things in art. The gradual transition from the column to the arch, and from the arch to the dome, and the growth of the sixteen-sided dome out of the four-sided room, are worthy of the most careful study. The stalactites, which add so much to the beauty of the roof, are peculiar to Mahometan architecture. They may be seen in the buildings at Cairo, Constantinoplc, and other places of the East, but nowhere have they been so largely and so charmingly employed as in the Casa real of Granada. The cffect on the interior of this dome, when the sun shines through the coloured windows in the top, is perfectly enchanting, and those who have not seen it should choose the first sunny afternoon for doing so.


## TROPICAL DEPARTMENT.

The visitor will have noticed, while in the Alhambra Court-especially if it is not summer-a difference in the temperature. The reason of this is, that he has passed the scrcen, and is now within what is known as the Tropical portion of the Palace. This portion is kept during the whole year, as nearly as possible at the temperature of 70 degs. Fahr., that being the heat most congenial to the tropical vegetation collected within it. A marblc-edged basin occupies the centre of this portion. The fountain, one of two which stood in the Tropical Department before its destruction by fire, was designed by Signor Monti, and the four figures which compose its lower portion are extremely beautiful works. They typify the four great familics into which the human race is divided-the white, the copper, the red, and the black. The last is remarkable for the ideal poetry with which it is treated, withont the sacrifice of literal truth. [The second fountain will be found in the garden to the north of the Tropical Department.] This basin contains some of tle most striking forms of tropical vegetation. The gigantic tree ferns round the fountain basins are perhaps the most attractive features of the luxuriant vegetation of this portion of the Palace. Two of them (one having been presented to the Company by her Majesty the Queen) gained first prizes at the International Horticultural Exhibition of 1866. The tall plants which rear their long, broad leaves so ligh into the sumny air-leaves like the blades of gigantic oars-are bananas, or plantains, the Musa paradisiaca of the botanists; and rightly so named; for if ever a tree was worthy of a place in a "paradise of calm delight," it is this. In other parts of the Tropical Department will be found specimens of the date palm (from the Royal Gardens, Kcw), the fan palm (presented by the Duke of Dcronshire), the wine palm, and the umbrella palm; bamboos (which in their native state in the savannahs of the West Indies and the marshes of China flourish in enormous clumps 100 feet square, and nearly 100 feet high, looking like gigantic plumes of ostrich feathcrs), india-rubber plants, travellers' trees, China sago plants, a very fine cabbage palm (presented to the Company by the Duke of Sutherland), Japanese fruit trees, a dragon's-blood tree, a screw pine, \&c. At the north end of the Monti Fountain Basin is a fine Abyssinian banana. Each specimen has its title upon it, so that it may be rccognised by any one who wilk take the trouble to peer among the bushes.

In keeping with the strange vegetation, there is here a collection of foreigns birds-parrots, cockatoos, love birds, \&c. \&c.

Close to the Refrcshment Counter is a door by which the visitor may get into the open-air and then ascend the North Water Tower (see page 26), or inspect the aviaries, \&c., in its vicinity ; and just to the right is another door by which the visitor can descend to the Aquarium, where he will find a most novel, interesting, and instructive exhibition, with full particulars in the special Guidc-Book provided for the Aquarium. To the right again of the entrance to the Aquarium are the Class Rooms of the School of Art, Sciencc, and Literature, communicating with the Library and the Reading Room.

The Orangery is in the South Wing, beyond the Aquarium. It is filled with orange, lemon, and citron trees, camellias, \&c. Specimens of the Indian fig, the Guava, and numerous other interesting plants, will be found there. The orange
trees formerly belonged to Louis Philippe, King of the French, and were brought from Neuilly, near Paris. That division of the wing immediately next to the Aquarium is the Palm House, from which the Monkey House can be entered. The Orangery is beyond.

We are now ready to make the return journey to the Centre Transept, through the series of Courts on the east or garden side of the Palace. These Courts were arranged by Sir Digby Wyatt, and executed under his own personal superintendence.

It is necessary to observe that Christian architecture cannot be divided into nations as the Pagan was, but must be examined in periods. The first of these is illustrated in

## THE BYZANTINE COURT,

so called because its origin was in Byzantium, the city of Constantine the Great, when Christianity first became the religion of the world. From thence it spread to other countries, gaining in variety and magnificence as it progressed. The Lombard and Romanesque style of Italy, the Rhenish of Germany, our own


KING RICHARD I., FROM FONTEVRAULT.
Norman, are all closely allied to it, and have their main characteristics in common, These characteristics are round arches, short massive pillars, a profusion of surface ornaments, rich rather than bold, uncouth sculpture of the living form.

The Court includes examples of all the styles just named, cast from the actual buildings themselvcs. The Cloister, which runs round its north, west, and centre of the east side, is from St. John Lateran, at Rome; and there are doorways from the Anglo-Norman churches of Kilpeck, Romsey, Shobden, Birkin, and Ely. In the Corridor, between the Court and the Garden, are some interesting examples of the Byzantine style, as it appeared in Ireland-crosses, from Tuam and elsewhere, which, though rude, have a very solemn and rich effect. The fountain in the centre of the Court is from Heisterbach, on the Rhine. The painting on the front; facing the Nave, is in exact imitation of the Mosaics at Ravenna.

In this Court are some recumbent effigies, which possess interesting historical associations. Amongst them the three English kings, Henry II., Richard Cœur de Lion, and John, cast from the originals in the abbey of Fontevrault, and of date about 1220. These statues are coloured as exactly as possible from the remains of colour on the originals, and there is no doubt that they are all authentic likenesses. The effigy of Richard I. from Rouen, situated on the north side of the Court ${ }_{2}$
is, perbaps, not so trustworthy. In the Cloisters are casts from the tombs of Knights Templars in the Temple Church of London.

We now pass into the German Vestibule, illustrative of the Mediæval architecture of Germany. Among the most prominent objects is the cast of a doorway in the centre, from Nuremberg; several interesting and curious fac-similes from the Cathedrals of Mayence and Cologne, illustrating the peculiarly formal, hard treatment which forms one of the distinctive features of the German school. Passing through the Corridor on the left, where we notice portraits of the unhappy Richard II. and his wife, we enter

## THE ENGLISH MEDIEVAL COURT

through a magnificent doorway from Rochester Cathedral, about 1352. The quaintly carved figure-heads, introduced amid the coloured tracery which orna-


FIGURE FROM THE GATES OF THE BAPTISTRY AT FLORENCE, BY GHIBERTI.
ments the arch, show the grotesque spirit which pervaded English Gothic; and the rich profusion of colour and gold, so harmoniously blended, prove that all the ingenuity that man could devise, and the grandest efforts of his mind, were devoted pre-eminently to the services of religion. The court is crowded with fac-similes of
the best examples of our national art, which forms a museum of treasures in Gothic art never before collected.

The early English style (r200-r 300) here illustrated, with its simple, bold forms and severe contrasts of light and shadow, is shown in the doorways from Lincoln and Milton, and the cloister on the Nave side of the Court. The Decorated or Middle-pointed style which succeeded it ( $\mathrm{r} 300-\mathrm{r} 400$ ) is much more ornamented, and is softer, broader, and richer in character. In this style English art reached its climax; and the sculpture of the figures, and especially of the §oliage, is most beautiful both in feeling and execution. Its examples are, the great double doorway from Tintern (leading from the Court into the Nave), the Easter Sepulchre from Hawton, sedilia from Southwell, monuments and niches from York, bosses from Lincoln, \&c., \&c. The Perpendicular style followed ( 1400 - 1500 ), in which the freedom of the sculpture is sensibly diminished, and a tendency to vertical lines very evident. Examples of this period are the fine font from Walsingham in the centre, monument of Bishop Beckwith, at Wells, pedestal from Henry VII.'s Chapel, doorway from Rochester, \&c. The colours in this Court are not mere inventions, but have been carefully painted from those actually remaining on the monuments of each period. As a proof that this is not overdone, the visitor is referred to the arcade from Bishop Beckington's tomb at Wells (above the Rochester doorway on the Garden side), which is coloured in precise fac-simile of the original, the difference being that that is faded, and this fresh.

Before leaving this Court be sure to notice the four tombs in the centre, with figures (undoubtedly portraits) of Edward the Black Prince, Edward II., his mother Eleanor (who sucked the poison from her husband's arm), and William of Wykeham, founder of Winchester School.

Returning through the Rochester doorway into the Corridor (on the Garden side), which contains examples of French sculpture from Notre-Dame, and other works, for which the reader must be referred to the titles inscribed on each, and leaving the celebrated Beauchamp monument on our left, we take a cursory view of the French and Italian Mediæval Vestibules, which abound with striking examples of early French Gothic art from Rouen, S. Genevieve, and Notre-Dame of Paris, including a most elaborate specimen of iron-work taken from the great west door of the last-named Cathedral. The skill and subtlety of this design obtained for its artist the unenviable notoriety of having been in co-operation with the Evil One. Continuing our journey southward along the Corridor, we now enter

## THE RENAISSANCE COURT,

and are immediately struck with the total change in the character of its design, all the leading features of Gothic art being absolutely abandoned. The rapid progress of civilization during the 15 th century occasioned, in a great measure, by the introduction of printing, engendered in Italy a taste for ancient art and literature, and a yearning for the revival of the antique. In the year 1420 the dome of Florence Cathedral established, as it were, the Renaissance school, which, first in Italy, and subsequently throughout England, France, and Germany, as Gothic architecture gradually declined and feli into disuse, becanse more and more generally adopted. The façade of the Nave side is from the Hotel Bourgtheroulde at Rouen, and dates from the beginning of the r6th century. Here, too, is a basrelief of the Field of the Cloth of Gold, and on the north side of the Court a very celebrated window from the façade of the Certosa at Pavia, by Ambrogio Fossano, 1473 ; and opposite to this, on the south side, a cast of the magnificent bronze gates from the Baptistry at Florence, pronounced by Michael Angelo as worthy to be the gates of Paradise. In the centre of the Court are two remarkable statues of St. John and David, by Donatello, which, however mistaken in design, are alone sufficient to show that the art of sculpture had, during this period, attained to a high degree of perfection. The various chefs-d'curve (to each of which there is a description affixed) are from the most celebrated churches, châteaux, and hotels of Belgium, France, Germany, and Italy. We cannot resist drawing attention to one
most masterly work, which has perhaps never been surpassed-the alto-relievo called " The Singers," by Luca della Robbia, representing a band of choristers, and sculptured for the organ-loft at Florence Cathedral. It stands in the north-east

corner of the Court, over the door from S. Maclou at Rouen ; and no one who examines can fail to be struck by its beauty, force, and truth.

In the Corridor on the Garden side of the Court observe especially the ceiling, which is a copy from that of the Sala di Cambio, or Exchange, at Perugia. It was painted by Perugino, the master of Raffaelle (about 1500 ), and is a good example of the manner in which the finest artists were employed at that time to execute work which now we leave to mere house-painters, and of the excellent effect of so doing.

Entering again the Fine Arts Corridor, we proceed to the

## ELIZABETHAN VESTIBULE,

the architectural details of which are copied from Holland House, Kensington, and show the effect which the Italian revival of classic art produced in England. This

new style retains many features of the Gothic school, while it embraces also some of the leading characteristics of the Roman style ; and, though it has no pretensions to a complete order of architecture, it possesses a dcgree of solidity and picturesque-
ness which can be best appreciated by those who know our old Elizabethan ancestral homes, with their stately terraces, quaint gardens, and halls. Here the spectator may well pause, and meditate for a moment over the effigy of our great Elizabeth, and near her, in sad but truthful contrast, the cold, rigid, but still beautiful features of Mary Queen of Scots; the one indicative of stern and almost masculine decision and dignity of character, and the other suggestive alone of gentleness and intellectual refinement. We now visit

## THE ITALIAN COURT,

the last of the series of Courts, though certainly not the least in point of interest. The architecture of this Court is founded on that of the Farnese Palace at Rome, the work of the great Michael Angelo. In the centre is a partial cast of the celebrated Fountain of the Tartarughi at Rome, and around it are various statues,


ARCADE OF ITALIAN COURT.
groups, and bas-reliefs, by Michael Angelo, showing his master-mind as poet, sculptor, and architect, and well illustrating the combination of power and sentiment which his works present in so remarkable a degree. Especial notice should be taken of the monuments of Giuliano de' Medici, and Lorenzo de' Medici, by Michael Angelo, both masterpieces, from the originals in the Medici Chapel, with other religious groups, all of which, in their conception and execution, are grand in the extreme. The statue of Jonah demands special notice, as being the only one ever treated by Raffaelle. The pictorial decorations of this Court are chiefly from Raffaelle's celebrated frescoes at the Vatican, and consist of landscapes, figures, and architecture, imitated by him from Roman discoveries made at the time.

In the Corridor behind the Italian Court is Michael Angelo's marvellous statue of Moses, one of the most sublime and characteristic conceptions of the great sculptor. Overhead are two fine ceilings of very opposite qualities in design, the one from the Biblioteca at Venice, by Serlio (1540), the other from the Camera della Segnatura in the Vatican, painted by Raffaelle (A.D. 15II), in itself a whole gallery of masterpieces, and excellently reproduced. It represents the four personages of Poetry, Theology, Philosophy, and Jurisprudence, accompanied by subjects illustrative of each. We next pass into the Italian Vestibule, with its monuments and elaborate mural decorations, the ornamental details of which are chiefly from Rcme and Milan. On its walls hangs a collection of Photographs, being views of the various churches and monuments of France, executed by order
of the Imperial Government, and presented to the Palace Company by them. Here, also, is a fine model of St. Peter's at Rome, by Francis Drake (1845), scale nearly one-hundredth. It was presented to the Crystal Palace Company by the Rev. Lord Saye and Sele.

And here, reluctant to leave scenes and objects pregnant with so much interest and instruction, we come to that part of the Palace devoted to the amusement of its visitors. Next the Italian Vestibule is the Opera Theatre, wherein operatic and other dramatic performances are given on a very complete scale. It will accommodate about 4,000 persons.

We gain the Centre Transept, and on the Garden side, facing the Handel Orchestra, our attention is arrested by the Great Stage, which is most generally used for Pantomimes and great Holiday Spectacles and Entertainments.

Crossing the Transept, we come to the Concert Room, a large hall, more or less enclosed according to the time of year, but capable, when most contracted, of containing an audience of nearly 4,000 . Passing on, and continuing our journey southward, the prospect before us assumes a more matter-of-fact and commercial aspect.

THE FRENCH COURT,

designed by Mr. Crace, is now used as a Lecture Hall, in which a variety of Entertainments are given from time to time.

Following the French Court, we come to the so-called Ceramic Court, which has been diverted from the use it was originally intended to be put to, and is now partly occupied by the Book Court, and by Messrs. Negretti and Zambra, the well-known photographers and scientific instrument manufacturers. Here is Messrs. Negretti and Zambra's principal Portrait-room (there is another room in the grounds close to the Low Level Railway Station), and here may the visitor have his carte-de-visite taken in a very short time, in the highest style, and at a very moderate cost.

The next Court is the Ciina and Glass Court of Mr. Banfield, containing an unrivalled collection of foreign and English porcelain, glass, enamel, and parian, on sale to purchasers.

Extending along the garden frontage, behind the Industrial Courts we have just passed through, is the Carriage Department, which comprises an area of nearly sixteen thousand superficial feet, and contains the largest collection of vehicles for sale to be found anywhere. There is also a Second-hand Carriage Department in the basement.

From this we enter the South Transept, on the south side of which we find ourselves surrounded by various groups of men, animals, and plants, so arranged as to afford the visitor an opportunity of comparing the physical and social peculiarities of each branch of the great human family. The figures were moulded in every case from the life, and the greatest care has been taken to ensure accuracy in the dresses, weapons, and attitudes of the groups, which are arranged so as to present each nation or tribe in its most characteristic occupation. By this means a more vivid and abiding knowledge of the distinctive features, products, and habits of these extraordinary races may be gained, than from folios of written description. The name of Dr. Latham, by whom they were arranged, is a guarantee for the correctness of the ethnology. Amongst the figures are introduced many of the wild animals inhabiting the same regions: but many living animals belonging to the climate and the country illustrated will be found in the Animals' House, the Aviaries, and other places mostly at the North end and out in the Gardens. Some of the groups are very spirited and life-like.

The elaborately-sculptured screen which forms the south end of the Nave contains casts from the remarkable series of portrait statues of the Sovereigns of England, which were executed by the late Mr. Thomas for the Houses of Par.
liament. The statue of Oliver Cromwell appears in the series here. The screen was designed by Mr. (now Sir) Digby Wyatt expressly to contain the statues which in the Parliament Houses are widely scattered. Immediately in front of it stands Marochetti's equestrian statue of Her Majesty ; and just in advance, as we look northward up the Nave-a view which must not escape us-is the celebrated Crystal Fountain, the source of so much attraction at the Exhibition of 1851,


OLIVEK CROMWELL.
but seen here in an entourage far more beautiful and picturesque. The water-lilies, of various colours, in the fountain-basin, and the bright flowers and large ferns round the borders, always attract the attention of visitors. Some fine giant ferns (most of them from New Holland), with their luxuriant foliage, grow above the surface of the water. Several of these gained prizes at the International Horticul.. tural Exhibition of 1866. Some beautiful specimens of ferns will also be found amongst the rock-work on each side of the South Transept, among them the Royal Flowering Fern (Osmunda regalis). At each of the two corners of the South Transept is a magnificent climbing plant of the Rhus species, sending out its shoots twenty or thirty feet, and forming a splendid screen of immense extent.

The three Norfolk Island pines on the west side of the Transept were presented to the Company by the Earl of Stamford and Warrington.

Were volumes, instead of a few scanty pages, at our disposal, we should fail to give any adequate description of the incomparable collection of statuary, which,
surrounded by choice foliage, forms one of the prominent features of the Transept. Works of beautiful ideality, as well as the forms of illustrious men, encounter us at every step. It is difficult to particularise any of these noble works, lest others having an equal claim to notice should be overlooked. The visitor may, however, be reminded that the most striking and conspicuous are not necessarily the most beautiful.

Among those at once most prominent and most interesting is the celebrated equestrian statue of Charles I., the original of which is at Charing Cross. It was executed by Le Sueur, in 1633. During the civil wars this statue was sold to a brazier in Holborn, and at the restoration of Charles II. repurchased by the Government, and erected on its present site in 1674. Of similar interest is the statue of James II., in the other end of the Transept, by Grinling Gibbons, the original of which stands behind the Banqueting-house at Whitehall. In the east end of this Transept, and facing the statue of Charles I., stands a fine group erected by the citizens of Frankfort to the memory of Gutenberg, Faust, and Schreffer, the first printers, and on the right and left of this group are two colossal equestrian statues, the one of Francis I., by Clesinger, and the other our own King Richard Cour de Lion, by Marochetti, each alike remarkable for characteristic and spirited design. Here also will be found the splendid gates and other works in iron of the Coalbrookdale Company. At the four "re-entering angles" of the Transept stand colossal figures of four renowned Englishmen - Isaac Newton, George Stephenson, Peel, and Bentinck ; and other sculptures of the highest interest, and by the ablest artists of Europe, meet the eye on every side.

We now approach one of the most interesting features of the whole building,

## THE POMPEIAN HOUSE,

which forms the first of the last series of Courts left us to explore on our journey backward to the Centre Transept, along the south-west side of the Nave. Nearly I, 800 years ago, on the shores of the Bay of Naples, flourished, in their pride and prosperity, the ill-fated cities of Herculaneum and Pompeii, the resort and picturesque retreat of the Roman patrician. While the indolent inhabitants luxuriated in ease and apparent security, with startling suddenness the frowning crater of Mount Vesuvius belched forth clouds of ashes and floods of burning lava, which, pouring down the mountain side, literally buried these cities. The very ashes, however, in which for 1,600 years they lay entombed, proved the means of perpetuating the record of their destruction. In the middle of the last century excavations were commenced which brought to light the hidden treasures of Pompeii, in a remarkable state of preservation, and so far unimpaired as to illustrate the actual mode of life and customs of the inhabitants, and the occupations in which some of them were engaged at the time of this sudden and terrible calamity. On entering this unique and accurate representation of a Pompeian villa, through the doorway from the Nave, the visitor is warned by the words, "Cave canem," to bevare of the dog, which consists only of a mosaic representation of a dog on the pavement of the narrow passage leading into the open court or atrium, the part of the villa used as a reception-room for all visitors. The side doorways are more hospitable, and salute the visitor with salve-"wclcome." In the centre of the Court is a shallow basin, called the impluvium, to catch the rain which falls from the sloping roofs above. Around the Court are the dormitories, or cubicula, so small as to be strangely inconsistent with our English ideas of domestic comfort, but the darkness and coolness of which would be very grateful in the burning climate of southern Italy. The other compartments, or ala, which adjoin the entrances on the north and south sides of the atrium, were used, probably, as offices for business. Opposite to the doorway through which we entercd, is the tablinum, or more priva.e part of the divelling-house, which was frcquently separated from the atrium by a curtain, and into which visitors were only admittecl by special invitation.

Beyond this is the peristyle, so called from the many pillars which surround its open flower garden. Around the peristyle, and adjacent to each other, are several smaller and more private compartments, including a winter and summer diningroom, kitchen, dressing and bath-rooms, with the thalamus or bed-ch amber occupied by the master and mistress of the house. The elegant decorations which adorn the walls of this Court, and the various compartments of which it is comprised, are accurate copies of original paintings found in situ among the ruins, often beautiful and varied in design, denoting on the part of the painter a high appreciation of the art of colouring. Some very interesting relics, photographs, \&c., brought from Pompeii, by Dr. D. S. Price, will be found in the show cases in the Court.

Adjoining the Pompeian House is an establishment for the sale of products and fabrics of Tunis, Morocco, and Algicrs. Next in succession, as we proceed

ARRANGEMENT OF A POMPEIAN HOUSE.


Painted Carden
Peristyle.
Tablinum.

Fauces. Impluviurr.

Ala. Cubiculum,
towards the Centre Transept, is the Chinese Court, constructed of glass and iron in a yery effective and harmonious style, from the designs of Mr. G. H. Stokes. Herein will be found the Venerable Archdeacon Gray's Collection of Oriental China, and other objects of interest. Next in order is a Court from the design of Mr. Tite, M.P., intended originally for the productions of Birmingham, in which is introduced, with great effect, ornamental iron castings imitating the work of the 17 th century. This Court now serves to illustrate the manufacturing by hand power of various articles of everyday use. Here may be seen in operation silk-weaving by steam power. The Stationery Court, the last on this side, was designed by Mr. J. G. Crace, and is of wooden structure, rendered very effective by well-chosen and rich ornamental decoration. The contents of this Court are of a very interesting variety, and comprise engravings, chromolithographs, and sundry other objects of a like description. At the back of these Courts is an avenue or alley devoted to the exhibition and sale of various kinds of manufactures, modern furniture, mineral manufactures, ecclesiastical furniture, stoves, grates, and kitcheners, bright brass-work, household utensils, bronze and iron castings, and a variety of other articles, chiefly in metal. From the Stationery Court we pass into an open space which forms the angle of the Nave and Great Centre Transept, and under the name of the Industrial Couria is crowded with
stalls containing an abundant variety of objects of various descriptions on sale or exhibition.

A few of the principal features of the foliage occupying the flower-beds on either side of the Naves must be mentioned. A number of beautiful Norfolk Island Pines occupy prominent positions. These have been presented at various times by Her Majesty the Queen, the Dukes of Devonshire and Wellington, the Royal Botanic Society, and other kind and enlightened friends of the Palace. The Blue Gum trees, reaching as high as the roof of the Nave, the Camphor trees, and the New South Wales Acacias, will attract attention, and scarcely need reference here. In front of the French and Chinese Courts are two fine specimens of the Beetle Nut Palms, and in the South Nave will also be found a splendid pair of Araucaria Cunninghamii.

One spot alonc now remains to complete the circuit of the entire ground-floor. This is an open space on the north side of the Handel Orchestra, formed into a Court devoted exclusivcly to classic sculpture, containing a collection of Greek and Roman statucs, ideal and portrait busts, vases, altars, pedestals, and many other cxamples of antique art, amongst the most celebrated of which is the Medicean Vase, a tripod fountain, very elegant in its design, the horses of St. Mark, and the remarkable group of the Toro Farnese, or Farnese Bull, so called from its having been possessed by the Farnese family.

On either side of the Nave and in various parts of the Palace are some very remarkable objects that must be carefully noted, among which maty be particu-larised-the Cantilupe Shrine from Hereford Cathedral, the tombs of Bishops Wakeman and Bridport, the celebrated statues of Gattamelata and Colleone; the latter of gigantic proportions, the original of which, at Venice, is one of the frnest equestrian statues ever executed ; Rauch's equestrian statue of Frederick the Great, from the celebrated monument at Berlin, and a model of the entire composition, the finest Royal monument of modern times (made and presented by the sculptor himself) ; the famous bronze groups of Castor and Pollux from Milan ; some interesting early Irish crosses, and many of the finest works of Canova, Schwanthaler, Thorwaldsen, and Gibson. No hurried view of this vast assemblage of art will satisfy the curiosity, or enable the spectator to appreciate its artistic beauties. Well might he spend hours, or even days, and in so doing acquire a fund of knowledge which books, in the absence of such splendid illustrations, would fail to impart.

## THE GALLERIES.

Having pointed out the contents of the ground-floor of the building as minutely as the limited means at our disposal will admit, we now propose to accompany the visitor through the Main Galleries, and to do this we will start from the Tropical Department and ascend the staircase adjoining the Reading Room at the back of the Byzantine Court, and here we come to the Industrial and Technological Gallery. The object of this Museum is to exhibit the raw materials employed in manufactures, and to demonstrate, by means of specimens, the various processes to which they are submitted in their adaptation to useful purposes.

Here is the Water Baroneter, constructed by the late Profcssor Daniell for the Royal Society, and by them, through the kind intervention of Mr. Glaisher, F.R.S., deposited in the Crystal Palace. The peculiarity of this instrument consists in the fact that the column is water and not mercury, and 30 feet high instead of 30 inches. The fluctuations of the column are, therefore, "acreased in the same proportion, so that the smallest change in the weight of the atmosphere is shown on a gigantic scale. Thus where the mercury in an ordinary barometer would rise or fall say one-tenth of an inch, the water in this instrument would rise nearly one inch and a quarter.

In this Gallery also will be found a great number of busts of eminent scientific men, forming one of the most instructive and important features in the Crystal Palace.

It would be impossible, in this book, to enumerate the varied objects of interest exhibited in this Gallery ; and we must content ourselves with simply drawing attention to the collections. One of the cases contains specimens of the famous "flint implements," the discovery of which made so great a sensation in the scientific and religious world. The whole Gallery is under the management and supervision of Dr. David S. Price.

That portion of the Main Gallery on this side, south of the Centre Transept, is devoted to the exhibition of an interesting Collection of Japanese Humornus Groups, and a stall for the sale of Japanese Articles. Near in the same gallery is also an exhibition of miscellaneous articles for sale, such as jewellery, music, perfumery, toys, and a variety of goods for useful and ornamental purposes.

Continuing our walk, we must not omit, on reaching the extreme south end of the Palace, just over the Scrcen of the Kings and Queens, to glance at the whole length of the Palace. Here we get a view of the interior of the building unattainable elsewhere. We have the Crystal Fountain in the foreground, and the vista extends to the Monti Fountain in the Tropical Department. In the winter, a great canvas screen encloses the Tropical portion of the Palace, and the partition is on this side of the fountain. Continuing our course into the Gallery opposite that in which the Japanese Collection is, we enter

## TIIE PICtURE GALlery,

the first portion of which includes many pictures by old masters, and notably, the very valuable series of copies madc expressly for the Crystal Palace Company from the masterpieces scattered over the European Galleries. The Main Gallery is filled by a collection of many hundreds of pictures in oil, representing not only the British, but the French, Belgian, Dutch, and German Schools. As wc approach the Great Orchestra, we shall find on the left hand a separate counpartment, through which we can reach that part of the Gallery next the Central 'Transept. This is generally devoted to special exhibitions. The part of the Gallcry beyond the staircase is devoted to water-colour paintings and sculpture. All the works are exlibited for sale, and are renewed each season, but, independently of the season, constant changes are going forward, for the pictures as soon as sold are replaced by fresh ones. This is one of the most attractive portions of the Palace. It is under the management of Mr. C. W. Wass.

In the Picture Gallery itself, and when we pass the gate of it, at the back of the Great Orchestra, we shall notice a number of busts. These form a portion of the Portrait Gallery of the Crystal Palace, which consists of busts of the great men of all periods and countries, from the earliest examples to the latest, so far as they could be collected. It is classified and arranged chronologically, but necessarily is scattered all over the building. Thus, in the Greek Court, are the poets, statesmen, and warriors of Greece, these succeeded by the Romans, \&c. In the Picture Gallery, many of the artists are placed, and beyond, at the back of the Orchestra, a large number of the modern famous men of the world.

We must now quit this Gallery by the stairs next the Orchestra, and proceeding past the Opera Theatre, we shall gain the basement next the Gardens. The northern portion of this is filled by a collection of Second-hand Carriages for sale, and an exhibition of Garden Apparatus, \&cc. South of the stairs will be found Machinery in Motion, and among other departments, the "Crystal Palace Press," in which this book is printed, as well as all the other printing required in the Crystal Palace, and much more. Messrs. Charles Dickens \& Evans are the contractors. There is also here a factory for Ivory-turning and Carving, and other most interesting features. At the South End is the Third Class Refreshment Department. At the back of the whole Basement, for the entire length of the Palace, is Sir Joseph Paxton's Tunnel, a roadway under the floor, by which carts can bring heavy goods to every part of the Building.

By a flight of stone steps at the Central Transept, we reach

## THE GARDENS AND PARK.

The Upper Terrace, on to which these steps lead, extends along the entire Garden frontage of the building; it is 1,576 feet in length, and 48 feet wide. A magnificent prospect, extending over the Gardens and Terraces, and indeed into several counties beyond, of a variety and beauty unequalled in any position near London, is before the visitor. Immediately in the foreground is the Grand Terrace, stretching from end to end of the building. The wall or balustrade which fronts it is formed into alcoves, and extends nearly one-third of a mile. In a line with the Centre Transept, intersecting these Terraces, is the Broad Central Walk, 2,660 feet by 96 fect. The Terrace walls are of Bath stone, the long and formal lines broken by projecting bastions, surmounted by marble statues, urns, and flower vases. The close-cut lawns, relieved by beds of gay and many-coloured flowers, with the six fountains ranged along the Grand Terrace, combine to produce an effect indescribably beautiful. The wings of the building (on the north side the Orangery, and on the south the Railway Colonnade), with their light and cheerful aspect, form a side boundary to the foreground which harmonises admirably with the rest of the scene. The ground on which the Palace stands, with the gardens and Park, is more than 200 acres in extent; and it is interesting to observe that the same principle of construction which applies to the building: as regards uniformity of parts, is closely adhered to in the formation and arrangement of the Gardens, the length and width of the terraces, fountains, walks, and steps being all multiples and submultiples of the primary figure 8 ; by this means a perfect harmony is preserved. Extending our view to a lower level, we catch a glimpse of the two large fountain basins which lie like lakes in the hollow, and are surrounded with embankments richly ornamented with shrubs and flowers. Spread out before us in all the magnificence which art can lend to nature, is the Italian Garden, with its ornamental fountains, temples, and cascades; and gradually, as we direct our view to the left, the winding walks, pleasant slopes, and gentle undulations of the English Landscape Garden. Beyond, in the distance, as magnificent expanse of richly-wooded country forms a perfect panorama. The churches at Penge, Beckenham, Bickley, and Bromley are prominent objects in this really English landscape. Crowning the hills may be noted the Knockholt beeches, near to Sevenoaks. The arrangement of the Palace grounds is specially illustrative of two distinct styles-the Italian and English; but the artificial formality of the one, and the natural grace and freedom of the other, so far as general effect is concerned, are most harmoniously blended by the judicious introduction of a transitional style, which contains many of the characteristics of each, and destroys an effect which so striking a contrast would otherwise have produced. Under any circumstances, too rigid an adherence to the Italian system of gardening would be inappropriate to this climate ; it has, therefore, been considerably modified, and an English character imparted to the borrowed elements, which produces a very picturesque result. The whole was designed and laid out by Sir Joseph Paxton.

We will now content ourselves by drawing the attention of the visitor to such objects as appear from their beauty to demand special notice, commencing with the Terraces. On the parapet of the Upper Terrace twenty-six allegorical statues are arranged, each one symbolical of some nation or of the city world, so treated as to symbolize the leading characteristics of the various places which they represent, These werc executed expressly for the Company by the most eminent scuiptors of this and foreign countries. They are treated as bronze. Other bronze statues and groups by Monti will be found around the fountain basins of the Terrace. Along the walks, upon the pedestals of the second bastion, and round the large circular basin, are some fine statues of heroic size, executed in Carrara marble from some of the most famous works, ancient and modern-the Farnese Hercules, Thor-
waldsen's Mercury, Canova's Venus, the Venus de' Medici, \&c., \&c. Interspersed with these are a vast number of fine white marble vases, copied from ancient examples of the highest excellence. The red granite sphinxes on their huge pedestals, which watch the entrances to the Transepts, are copied from actual


VIEW OF THE PALACE ACEOSS THE LOWER TERR-ICE OR ITALIAN GARDEN.
examples of the finest period of the Egyptian art. On the Grand Terrace, around the upper series of fountains, is arranged, with great taste, a series of flower beds, stocked in season with the choicest bedding plants. The Broad Walk leading from this Terrace to the bottom of the grounds has been recently planted with a double row of plane trees on either side. In the circular beds on each side of the upper portion of the centre walk above the water temples, are some young scarlet chestnut trees. From the central steps which lead to the circular basin an excellent view of the whole building may be obtained, its height and fairy-like appearance reminding one of some wild and romantic conception, rather than a palpable reality. Turning our back on this view, we notice on the right,
near the east end of the Railway Colonnade, the Rosery, or Mount of Roses, crowned by an arcade of arabesque ironwork, around which is twined a variety of roses of every hue and description. The Colonnade is of circular structure, composed of 120 lattice-worked columns, supporting 12 arches, 32 feet in height and 16 feet wide, each one more or less hidden by clustering roses. The mound on which this structure is erected is encircled by beds of different flowers of the richest colours, and so arranged as to afford the most picturesque and effective variety. Close to this will be seen one of the finest of a large number of Wellingtonia gigantea, of which several are scattered about the grounds. It will be remembered by visitors to the Palace before the fire of 1866 , which partially destroyed the Tropical Department, that the actual bark of one of these giant trees, put together as it had originally grown, stood to the height of II6 feet, or less than one-third of the entire height of the tree. The bark was 18 inches thick, the diameter of the tree $3 I$ feet at its base, and its age, estimated, from the concentric rings of the wood of the trunk, at 3,000 years. The tree formed one of the famous grove at the head of the river Sacramento, in California. The young tree, which has made very rapid growth, was planted a few years ago.

To the left of the Rosery extends an undulating lawn, intersected by winding gravel walks, and studded with banks and beds ornamentally arranged, and well stocked with shrubs and flowers. Just in advance of the Circular Fountain, and to the right and left of the Broad Central Walk, are two Water Temples, each about 60 feet in height, of octagonal shape, and constructed of ornamental ironwork, richly gilded and coloured. The roofs are dome-shaped, and each is surmounted by a gilt ball. The water is forced up the hollow culumns to the roofs, over which it falls glittering into the basin below. Extending ouk view in the direction of the English Landscape Garden, we cannot fail to notice two fine spreading cedar-trees, their dark foliage forming a most effective contrast ; below this is the Valley of Rhododendrons, in the season an unbroken mass of blossom, and behind them a mass of shrubbery and foliage which every year is maturing into greater richness and beauty.

Unquestionably the most prominent attraction of the grounds, irrespective of their natural beauty, is the Fountains and system of Waterworks, which far surpass, in the grandetr and completeness of their design, any in the world, not excepting that so justly celebrated at Versailles. The whole system is divided into two series-the Upper and Lower. The former comprises the six basins in: the Italian Garden, the large Central Basin in the Broad Walk, and the two smaller ones on each side of it, in all nine fountains. Beyond and below them is the Lower Series, which consists of the two Water Temples, the Cascades, and the numerous groups of fountains arranged in the large lower basins. These are usually known as the "Great Fountains," and are played on special and grand occasions only.

The basins in the Italian Garden are ornamented by statues in imitation bronze, designed by Monti ; the large centre basin in the broad walk is surrounded by marble copies of some of the greatest chefs-d'cutvre, ancient and modern; and the cascades are bordered by bronze fountains, tazzas supported by Cupids. But, with these exceptions, the fountains are left to the effect which the number and variety of the jets, and the volume of water they deliver, is sure to produce, unaided by the adventitious assistance of architectural or plastic ornament, which usually forms so prominent a feature in fountains. The Alexandra Fountain (so named by her Royal Highness the Princess of Wales, on her visit to the Palace on the 24th of July, 1869) will be found on the north side of the grounds near the intermediate lake. The situation is extremely picturesque.

To return to the large Circular Basin in the Broad Walk. The highest jet of water in this Fountain attains the altitude of 150 feet; and around this is a series of single streams which force their spray to an almost equal height. The diameter of this basin is 196 feet-and a combination of small jets, forming a kind of trelliswork of water, encircles the whole. The Fountains in the Italian Gardens are equally graceful, though different in the details of their design. Their highest
columns rise 90 feet, and the smaller jets which surround them are proportionately high.

The two Grand Fountains in the lower grounds are by far the largest in the world, and impart the grandest effect to the whole series. The outline of their ${ }_{r}$ basins is similar in design, each being 784 feet long, with a diameter of 468 feet. The central jet in each is $21 / 4$ inches diameter, and reaches the extraordinary height of more than 250 feet (rather higher than Bow Church steeple). Around each central jet is a column composed of 502 -inch jets. The force of water which presses on the mouth of these pipes is equivalent to 262 lbs . to the square inch.


THE ROSERY.
When the whole is in operation, 120,000 gallons of water per minute are poured forth by 11,788 jets; and in one single complete display, lasting a quarter of an hour, nearly $2,000,000$ gallons are used.

Proceeding by a serpentine path, which leads by the Valley ot Rhododendrons and the cedar trees, we shape our course to the English Landscape Garden, where Nature holds supreme sway. The shaded walks and cool, inviting groves, afford a most agreeable retreat from the apparent nakedness occasioned by the absence of large trees in the Italian Garden. On an extensive slope, which is bordered in the distance by a bank of shrubs, is the

## ARCHERY AND CROQUET GROUND,

most picturesquely situated, and, from its natural position, admirably adapted to this purpose. A range of targets is placed at various distances, and an extensive assortment of bows, arrows, \&c., as well as all the appliances for playing croquet, may be obtained for the use of visitors by application to the attendant constantly on the spot. Periodical archery fêtes are held in the Grounds during the season ; but in consequence of the great number of competitors, the contests take place on the Cricket Ground. At these meetings valnable prizes are awarded to the successful competitors.

In the valley below the Archery Ground is a piece of water (also used as an intermediate Pumping Station) picturesquely surrounded by trees, and connected with a larger lake, which forms one of the reservoirs for the supply of the Fountains. Passing in advance of the latter, and round the north side of the Great Fountains,
we arrive at the Cricket Ground, which is situated near the Sydenham entrance, and occupies a considerable portion of the Park. The turf, which is on an excellent level, is constantly rolled and kept in the best order ; and every arrangement, in the shape of tents, bats, balls, refreshments, \&c., is provided during the season for the accommodation of players, either for practice or matches. The County Clubs occasionally play upon this ground, and upon almost every Saturday in the season matches are played between the Crystal Palace Club and many of the most important clubs in the country.

Adjacent to the Cricket Ground is a Quoit Ground with every eonvenience for players, a Rifle range of 100 yards, where facility for practice is afforded, a Gymnasium on a very complete scale, Roundabouts, Swings, and innumerable other amusements. Velocipedes of two, three, or four wheels may be hired at the foot of the last flight of steps in the Grand Walk ; Rowing Boats and Canoes are on hire on the Geological lake still lower in the grounds. During the skating season the ice on the great fountain basins, as well as on the lake, is thronged with thousands of visitors, seeking a more select skating ground than is afforded by the London Parks. A portion of the Great Fountain Basin is reserved for the Crystal Palace Skating Club; but a small subscription secures the privilege of membership.

In the immediate neighbotrhood of the Rifle-range, the Artesian Well, from which the Fountains are supplied with water, is well worthy of notice. It is a brick shaft $81 / 2$ feet in diameter, and 247 feet deep. From this depth an artesian bore descends still further for 328 feet, making the entire distance from the surface 578 feet. A supply of water having becn thus obtained, the next operation is to raise it from the bottom of the hill where the well is situate, to a sufficient height to play the fountains. The pressure required to force the respective jets of water to heights ranging from 5 to nearly 300 feet is obtained in the following simple manner. Reservoirs are formed at different levels in the grounds, the highest of all being situated at the top of the hill adjoining the north end of the building ; the second, or intermediatc reservoir, is on a level with the basin of the Great Central Fountain ; and the Lowcr Lake, at the extreme end of the grounds, forms the lowest reservoir. Two pairs of powerful engincs are employed-one contiguous to the Artesian Well, and another adjoining the north end of the building, close to the highest reservoir. By this system, water is pumped by the lower engine to the intermediate reservoir, and thence to the upper level, whence a second raises it to two enormous tanks, erected on columns, and also to the tanks on the top of the two high towers which play the main jets of the Great Fountains. By this arrangement the water, instead of being wasted, is economised, and passing backwards and forwards from one reservoir to the other, is used again and again, the intcrmediate reservoir collecting it after a display of the Upper Series, and the lowest Lake forming a similar receptacle when a display of the Great Fountains takes place.

Passing round the margin of the Great Fountain Basin, and crossing the Broad Central Walk, which divides the two lower basins, the visitor, by ascending a flight of steps, reaches the Grand Plateau, which is an embankment 50 feet wide. This commands a general view of the Lake, eontaining three islands, the two largest wholly occupied by life-sized models of the gigantie animals of the antediluvian world. It is here that one of the most original features of the Crystal. Palace Company's grand plan of visual education has been carried out. There, all the leading features of Geology are found displayed, in so practical and popular a manner, that a child may discern the characteristic points of that truly useful branch of the history of nature.

The spectator standing on the upper terrace of the Plateau has before him the largest educational model ever attempted in any part of the world. It covers several acres, and consists of a display of nearly all the rocks that constitute the known portion of the earth's crust, from the old red sandstone to the latest tertiary beds of drift and gravel. Descending by the path a few paces to the right, we have a nearer view of the older rocks, immediately facing the rustic bridge, the lowest of which, the old red sandstone, is seen just above the water, forming a foundation upon which is superposed the whole mass of cliff on the right, con-
sisting of mountain limestone, millstone grit, bands of ironstone, and beds or seams of coal, capped by the new red sandstone. The coal-measures are thus exhibited between their most evident boundaries, the old red sandstone below and the new red sandstone above; the whole being constructed of several thousand tons of the actual materials, in exact imitation of the Clay Cross coal-beds. The series was carefully tabulated by Professor Ansted, to insure its geological accuracy, according to Sir Joseph Paxton's designs for the picturesque arrangement of this interesting portion of the grounds. If the visitor crosses the rustic bridge, and still bears to the right hand, he will find an opening in the mass of mountain limestone that leads to a chamber hollowed in the rock, representing a lead mine, with a rakevein above, and a stalactitic roof, the whole being a fac-simile of a lead mine in Derbyshire. Two large Irish Elks may be seen over the entrance to the Stalactite Cave. The cave itself has lately been rearranged; and the introduction of running water, an aquarium, \&c., has rendered it very pleasing and attractive. A small charge is made for admission. Turning to the left, the visitor will next arrive at the margin of the Lake opposite the Island called Secondary, because it represents those gigantic reptile-like animals whose fossil bones are found in the rocks immediately above the coal-measures, including the new red sandstone, the lias, the oolite, the wealden, and the chalk. Each of these formations is indicated by an uplifted portion of the rock which marks the boundary of the formation to which that particular form of animal life belonged, and in which the fossil bones of the creatures are still found. All the models of restored forms of extinct animals were designed, modelled, and constructed by Mr. Waterhouse Hawkins, aided by the counsel and criticism of Professor Owen. These restored forms commence with those that represent the life of the time of the new red sandstone formation as found in England, Germany, and Africa. The English fossils are represented by frog or toad-like animals, now called the Labyrinthodon, or labyrinth-tooth, from the peculiar structure of their great teeth; while the two other models, having the bodies and heads of turtles, with tusks like the walrus, are called Dikynodon, or dogs' teeth; they are about eight feet long.

Here are shown the various strata of which the crust of the earth is composed, and the animal remains peculiar to them. As we have commenced with the oldest or lowest of the secondary epoch, namely, the new red sandstone, we will review them in ascending order, each formation bringing us nearer to the forms of animal life now living upon the earth. Next above the new red sandstone is the lias, which is of a blue-gray colour, and the largest animal upon it is the Ichthyosaurus, or fish-lizard, remarkable for the great size of its eyes, that were of an elaborate structure, enabling it to see its prey with the small amount of light admitted through the muddy waters of the period. The length of this animal to the end of the tail is 35 feet. The smaller animals, with long necks, are the Plesiosauri, which in appearance combine the characters of a turtle and a serpent ; they are about 20 feet long, but were the prey of the more gigantic Ichthyosaurus; their remains were found in Dorsetshire. The crocodile-like anmmals on the same part of the island are the Teleosauri ; their jaws are remarkable for being about a third the length of the animals, and contain double rows of teeth. These animals measure 30 feet, and have a modern representative in the small fish-eating Gavial of the Ganges, the largest of which is only about half their length.

In the water, near these animals, are some specimens of the Mollusca of the period, Ammonites, \&c.

The next formation is the Oolite. To this, as well as to the succeeding stratum, belongs the Megalosaurus, or great carnivorous lizard, which measures 39 feet from snout to tail, and 22 feet 6 inches round the body, the great weight of this animal's head appearing to require an unusually powerful support. The peculiar hump, something like the withers of a horse, was made by Mr. Waterhouse Hawkins, before any bones of that part of the animal had been found; but some time after the model was completed, bones were found which proved the correctness of the anticipatory construction. The fossil remains of the Megalo-
saurus were first discovered by the late Dean Buckland, near Oxford, and it is named after him, Megalosaurus Bucklandii. Near to the Megalosaurus are the small Pterodactyles.

The next stratum is the Wealden formation, on which are shown the great Iguanodons, vegetable-feeding lizards, unprovided with either spines or formidable teeth, and which, in spite of their great size, were probably the prey of the Megalosaurus. The bones of the Iguanodon were found by Dr. and Mrs. Mantell, in Tilgate Forest. The great size of this animal will be appreciated when we say that twenty-one scientific gentlemen dined inside the body of the Iguanodon on the last day of the year 1853. The Iguanodon, though not so large as the Megalosaurus, contains 650 bushels of artificial stone, Ioo feet of iron hooping, 600 bricks, 20 feet of inch bar, \&c. Next to the Iguanodon is the Hylrosaurus, also found by Dr. Mantell, and animals of the lower greensand, and of the chalk. The large animal in the water is the Mososaurus, or Saurian of the Meuse. On the chalk-bed are the great Pterodactyles, or wing-fingered dragons, restored from the bones in Dr. Bowerbank's museum ; they are the most extraordinary of the extinct animals, active, fierce, and swift in the pursuit of their prey.

We now leave the Secondary Island, and again cross the rustic bridge, to gain the island which represents the strata and animals of the Tertiary period; these more resemble the animals of the present day. First, we see the Anoplotherium communis, an animal that lived on the margins of the great lakes; and whose remains have been found near Paris. A group of another species, Anoplotherium gracilis, is seen under the tree. Here is also the Palæotherium, or Ancient Beast, a creature resembling the tapir of the present day. The Palrootherium was discovered by Baron Cuvier, and by him the outline of the whole animal was restored from a few bones. There are here three Palæothera.

Next is the Megatherium, or Great Beast, of which there is an cntire skeleton in the museum of the Royal College of Surgeons, where it may be compared with its modern analogue, the Sloth. The girth of the Megatherium round the body is about twenty feet. Last of all are the Irish Elks, which are the first to exhibit the beauty and refinement of form and character which belong to the animals of our own period, in agreeable contrast to the unwieldiness of the animals that existed before man. The group of female elks is seen reclining, and two male elks stand on the bank ; their antlers are twelve feet from the ground, and four feet above their heads, the breadth between them being nine feet. Two more are on the cliff over the Lead Mine. The body of the elk is about nine feet long, and six feet six to the withers.

We conclude by a description of the two Water Towers situate at each end of the building, and erected for the purpose of raising water to a height sufficient to play the large jets of the two great fountains. They were designed by the late Mr. Brunel. The bed on which the whole structure rests consists first of a layer of concrete three feet deep, upon which is built a circular wall of brickwork, laid on a surface of cement fifty-six feet wide and eighteen feet deep. The columns number twenty-four, each one foot in diameter, and arranged in pairs four feet apart, but connected by vertical girders, so that each pair forms, as it were, one continuous column. Between these compound columns there is a space of eight feet, which is filled in with sashes and girders, which form the framework of the Tower. Behind these sashes, and extending from floor to floor, is a series of round wrought-iron diagonal bracing, and under each of the landing floors, ten in all, a strong horizontal bracing-plate, or diaphragm, which, with the diagonal bracing, forms a system of vertical and horizontal bracing, light in its appearance, but of incalculable strength. A chimney shaft is carried up through the centre of each Tower, which is used for the heating apparatus employed in the building, and for the fires of the steam-engines, which supply water to the building and raise it to the tanks with which each tower is surmounted. The water thus supplied is available in case of fire, pipes being so laid that every part of the

building could be commanded by a copious stream of water at great pressure. These tanks hold 357,675 gallons of water each. The brick shaft is $9 / 2$ feet in diameter ; and a winding staircase gives access to the top, a floor or landing being provided at intervals of 20 feet, on which the visitor can rest during the somewhat tedious process of ascent. The extreme height of the Towers from the ground is 282 feet; and the top gallery, which is supported on brackets round the base ot the tank, is the highest point of the Crystal Palace buildings made attainable to the public, being just 550 feet above the Thames high-water level. From the extreme edge of this gallery, supported by light iron columns, is a light and effective conical roof. To obtain the magnificent view from the galleries, which, it should be borne in mind, are much higher than any hill or other elevation within twenty miles of the metropolis, the visitor must ascend no fewer than 400 steps. The prospect embraces parts of six counties, and will amply recompense the fatigue incurred. Windsor Castle may be distinctly seen. The whole of London, bounded on the north by Hampstead, Highgate, and Harrow, is in full view. Here may also be distinctly traced the glittering course of the Thames as far as Southend ; the Nore Light and Harwich Lighthouse on a clear day being also observable with the assistance of a telescope, several of which are supplied for the accommodation of visitors. The more immediate prospect, however, which the naked eye embraces, includes, besides many special objects of interest, an extremely picturesque panorama of the most beautiful rural scenery ; while below, in the foreground, an endless variety of artistic combinations represents another and more refined aspect of nature, influenced by the taste and genius of man rather than by his wants.

## CRYSTAL PALACE

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## OFFICIAL ANNOUNCEMENTS.

## CONVEYANCE TO THE PALACE.

The ordinary mode of transit to and from the Palace is by rail. The principal termini are at London Bridge, Victoria, and Kensington for the London and Brighton Railway Company, and at Ludgate Hill and Victoria for the High Level Line.

Trains also run from all Stations on the North London Railway, viâ Willesden Junction and Kensington; from all stations on the Metropolitan and St. John's Wood Railways, viâ Kensington, and thence by Brighton Company's Line, or, by changing at Farringdon Street, viâ the London, Chatham, and Dover Railway Company's High Level Line, from Waterloo Bridge Station, viâ Wimbledon and Croydon; and from Stations on the New East London Line (Liverpool Street, Shoreditch, Whitechapel, Shadwell, Wapping, Rotherhithe, Deptford), viâ New Cross, on the Brighton Company's Line.

Residents on the Lines of the Great Western and London and North-Western Railways can reach the Palace without passing through London, viâ Kensington, by the Brighton Line, and are thus in direct communication with the Palace.

The Great Northern, the Midland, and Highgate Railway Companies' trains run to Farringdon Street in connection with the London, Chatham, and Dover High Level Train Service.

The stations on the South-Western Line are also put in nearly direct communication, viâ Clapham Junction, as well as Brixton. Trains run from Richmond, Kew, \&c., at frequent intervals.

The London, Chatham, and Dover Railway has stations at Penge and Sydenham Hill, the Brighton Company bringing its passengers from stations on the Main Line, via Croydon, to the Palace, and also to Anerley, Penge, and Sydenham (all within easy walking distance of the Palace).

Thus it will be seen that every part of London, as well as the suburbs, and the country for miles round, is in more or less direct communication with the Crystal Palace.

Trains run frequently on all the various lines.
When the number of visitors is large, special trains are despatched from the principal London Stations as occasion may require. The ordinary fares (exclusive of admission) from London Bridge and Victoria (London, Brighton, and South Coast Railway) are as follows :-



And from Ludgate Hill, Blackfriars, and Victoria (London, Chatham, and Dover Railway to the High Level Station), as follows:-


## RAILWAY CONVEYANCE, INCLUDING ADMISSION.

From London Bridge and Victoria-by the London, Brighton, and South Coast Railway.
From Victoria, Moorgate Street, Ludgate Hill-by the London, Chatham, \and Dover Railway.

$$
\begin{aligned}
& \text { rst-Class Return. } \\
& 2 s .6 d \text {. }
\end{aligned}
$$

Shilling Days.
2nd Class Return.
2s. $\quad$ 3rd Class Retrn. $1 s .6 d$.
3rd Class Return.

Children under Twelve, on all days, half-price.
N.B.-The above Tickets (which include admission) are available for the return journey[iby either Line.

On Bank Holidays the rate of admission will be One Shilling; and the Railway fare, including admission, from the above stations, will be-
ist Class Return.
35.

2nd Class Return.
25.6 d .

3rd Class Return.
25.

On Firework-nights (when the rate of admission to the Palace is One Shilling), after 5 P.M. the fares will be charged as in the preceding paragraph, in lieu of the ordinary rates for Shilling Days. The ordinary Shilling Day rates will be in force until 5 P.m.

The Excursionists' Exit for trains by way of the Brighton Company's service is at the foot of the first stairs, leading from the Palace to the South Wing. Excursionists by the Main Line, Chatham and Dover, should leave by the Anerley or Penge Gate at the bottom of the grounds.

By road the joumey is delightful. The route from Charing Cross is by Vauxhall Bridge. Brixton, and Norwood; and from the City by Camberwell and Dulwich; the distance in either case is under eight miles. The Company's stables are situated within three minutes' walk of the Central Transept Entrance, where every accommodation can be obtained.

Besides the entrances from the Low Level and High Level Railways, and in the Centre Transept, already referred to, there are others; one at the Norwood, or South End of the Palace; one at Sydenham, at the end of the road, opposite the ohurch; one at Penge, near the railway : another in the direction of Anerley, below the Grand Lake, at the bottom of the Grounds; and one (for Season-Ticket Holders only) at the North (Rockhills) angle of the Park.

## REFRESHMENT DEPARTMENT.

Light refreshments and luncheons can be obtained at the counters in various parts of the Building.

Dining rooms, to suit the requirements of every class, will be found situated as follows :-
r. The Private Dining-rooms in the Glass Tower at the end of the South Wing are as unrivalled for accommodation as they are beautiful and unique as regards situation. They overlook the whole of the grounds. In the large Coffee-room here are held annually a large number of Corporation banquets, and other great entertainments. The smaller rooms are especially adapted for wedding breakfasts, whitebait and other dinners, of parties from two to a hundred in number. The contractors for the Refreshment Department have had the honour of catering for the great entertainments given to H.I.M. the Czar, H.I.M. the Sultan, the Shah of Persia, T.R.H. the Prince and Princess of Wales, the Duke of Edinburgh, and other members of the Royal Family of England, H.H. the Viceroy of Egypt, the Queen of Holland, the Sultan of Zanzibar, and numerons other royal, noble, and distinguished visitors to the Palace.
2. The Saloon is situated at the right-hand comer of the extreme south end of the Nave, where hot dimners of the best description are served to order. Adjacent to this, with an entrance close to that of the Saloon, is another spacious Dining-room, in which substantial dinners may also be obtained.
3. There is also a third Dining-room, called the Marble Hall, overlooking the Palace Grounds, and situated in the corner of the Nave, opposite to the Saloon. This is used expressly for public dinners, and is patronised to a great extent during the season by many societies and public companies from London.
4. The Terrace Dining-room fronts the Garden, and is approached from the South Transept opposite the Crystal Fountain and near the entrance from the Railway. Cold dinners are served in this room, and that only during the summer months.
5. The Third-Class Rooms are situate near the Railway Colonnade, in the basement adjoining the South Wing, and near to the staircase.

All applications to be made to Mr. Frederick Sawyer, the Contractor for the Refreshment Department, at his office in the Palace.

## EXCURSION ARRANGEMENTS.

The following reductions in the Price of Conveyance and Admission on Shilling Days will be made to Schools, Benevolent Societies, and other bodies:-

## I.-EXCURSIONS BY RAILWAY.

On Shilling Days, except Bank Holitays, and by Third-Class Carriages only. r.-Adults.

By the London, Brighton, and South Coast Railway, from London Bridge or Victoria, or by the London. Chatham, and D.over Railway, from Ludgate Hill or Victoria.

Railway Conveyance to and from the Crystal Palace, including Admission.


From Kensington the fares will be 3d. more in each case.

## 2.-Children.

The Rates for the Admission and Conveyance of Children under twelve yertrs of age are as follows:-

By the London, Brighton, and South Coast Railway, from London Bridge or Victoria, or by the London, Chatham, and Dover Railway, from Ludgate Hill or Victoria.


One Adult will be allowed to accompany every Twenty Children at these rates.
Promoters of Excursions by Railway, desirous of availing themselves of these reductions, must conform to the following regulations:-
x. Application must be made to the General Manager of the Brighton Railway Company, at the London Bridge Terminus ; or to the General Manager of the London, Chatham, and Dover Railway Company at Victoria (according to the line preferred), at least three days before that proposed for the Excursion.
2. The Railway Company will arrange as to the description of Tickets, and the manner in which they are to he issued.
3. The Tickets must be paid for on delivery.
4. The Railway Company will arrange, when the Tickets are applied for, as to the train or trains to the Palace by which they will be available.

## II. - EXCURSIONS BY ROAD.

ON SHILLING DAYS ONLY.
A Reduction in the Price of Admission to the Palace will be made in favour of large parties as follows:-

> I.-ADULTS.

2.-Children (under twelve years of age).

100 and under 500 .. .. $5 d$. each. 500 "̈ 750 .. .. $4^{1 / 2} d$. , 750 and upwards $\quad . . \quad .$.
One Adult will be allowed to accompany every Twenty Children at these rates.
Promoters of these Excursions must give notice to the Secretary to the Crystal Palace Company, at the Crystai Palace, Sydenham, at least two days before the Excursion, and must conform to such regulations as may be found necessary.

## III.-SCHOOLS.

Schools not less than Ten in number, with one Adult to every Twenty Pupils, will be admitted at the following Prices:-


All parties wishing to make special arrangements for Refreshments must apply at the Palace, to Mr. F. Sawyer, who is prepared to make a reduction for Large Parties according to the kind of Refreshment desired.

By order, S. FLOOD PAGE,
Secretary and Manager.
Note.-It is expressly stipnclated that Tickets issued at these reduced rates shall rot be offered for sale near to the Railnuay Stations, nor within One Mile of the Palace.

## BATH CHAIRS,

for invalids and others, may be hired, with an attendant, at the rate of is. 6 d . per hour, within the Palace, and 2s. in the Grounds, and without an attendant, for $6 d$. less per hour. Lifting chairs and perambulators may also be had, at equally moderate charges, at the principal stand near the High Level Entrance.

## LAVATORIES, CLOAK AND RETIRING ROOMS

will be found in various parts of the Building, as marked on the map.

## THE LOST PROPERTY OFFICE

is situated at the back of the Handel Orchestra, Centre Transept, where, on inquiry, all articles or property found on the Company's premises will be restored to the owners, on payment of as nominal fec.

## DR. J. COLLIS BROWNE'S CHLORODYNE.

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$A$ DVICE TO INVALIDS.-If you wish to obtain quiet refreshing sleep, free from headache, relief A from pain and anguish, to calm and assuage the weary achings of protracted disease, invigorate the nervous media, and regulate the circulating systems of the body, you will provide yourself with that marvellous remedy discovered by Dr. J. COLLIS BROWNE (late Medical Staff), to which he gave the name of

## 

And which is admitted by the profession to be the most wonderful and valuable remedy ever discovered.
CHLORODYNE is the best remedy known for Coughs, Consumption, Bronchitis, Asthma.
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CHLORODYNE acts like a charm in Diarrhcea, and is the only specific in Cholera and Dysentery.
CHLORODYNE effectually cuts short all attacks of Epilepsy. Hysteria, Palpitation, and Spasms. CHLORODYNE is the only palliative in Neuralgia, Rheumatism, Gout, Cancer, 'Toothache, Menin gitis, \&c.
From Dr. B. J. Boulton \& Co., Horncastle .-We have made pretty extensive use of Chlorodyne in our practice lately, and look upon it as an excellent direct Sedative and Anti-spasmodic. It seems to allay pain and irritation in whatever organ, and from whatever cause. It induces a feeling of comfort and quietude not obtainable by any other remedy, and it seems to possess this great advantage over all other Sedatives, that it leaves no unpleasant after-effects.

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Lord Chancellor Selborne and Lord Justice James stated eeman, was deliberately untrue.
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[^0]:    * The arrangement of the Temple at Jerusalem was similar to this.

