

THE SUNDRIDGE PARK CONSERVATORY, ENGLAND.

Our illustration represents one of the most beautiful of English conservatories, that of Sundridge Park, Kent. The house is 100 feet in length by nearly 40 feet wide, and 35 feet in height, and is constructed almost entirely of iron and glass having perpendicular sides and a curvilinear lantern-shaped roof, of pleasing proportions, supported on light iron work pillars, which also serve as supports for rare graceful climbers. The present engraving, says the *Garden*, beautiful as it is, gives but a very faint idea of the interior, which would require at least half a dozen such views to do it full justice.

The central portion of the house is laid out in beds, in which palms, ferns, cycads, camelias, and other rare exotics luxuriate with something of their native vigor. Around the sides, substantial stone benches have been erected for smaller decorative plants in pots, and beneath these the hot water pipes are placed and concealed from view by a neat and ornamental cast iron grating. The hot water apparatus is of the latest and most approved kind, while the genial temperature maintained is amply sufficient for the choice blooming orchids and stove plants, which are grown for the purpose of decoration in ranges of plant houses to the rear of the conservatory. A notable feature is a pair of lean-to curvilinear roofed houses behind the conservatory, and connected with that structure by doors opening into an alcove, very tastefully decorated with virgin cork, and planted with orchids, filmy ferns, and other choice exotics, the effect of which is considerably heightened by a large mirror which extends the whole length of the alcove behind. These very agreeable adjuncts to the conservatory are very tastefully and systematically arranged in the natural style and planted out with ferns, orchids, and choice foliage plants, all of which luxuriate in the most vigorous manner possible. The doorways are fringed with masses of virgin cork, over which *lygodiums*, *ficus stipulata*, fresh green selaginellas, begonias, and bright veined *eranthemums* ramble in rich profusion, and with a vigor only attainable by planting them out in good fresh soil with ample room to extend themselves in all directions. Conservatories, arranged in the natural style, and having the finest specimens planted out, are specially to be recommended, as they are not only effective, but much less trouble is entailed on the gardener than when pots or tubs are employed.

THE BRITISH INTERNATIONAL EXHIBITIONS.

The series of splendid International Exhibitions inaugurated by the British Government, and carried out with so much effect in London by Her Majesty's Commissioners, are to be brought to a close with the termination of the present year. These exhibitions were intended to extend over a period of several years, a new exhibition being opened each year with some special characteristic to render it prominent or attractive. But the world appears to have become surfeited with exhibitions, and even the British Government is unable to induce the people to attend or take interest in them. This may in part explain the apathy of our own people in respect to the approaching Centennial Exhibition at Philadelphia. The people are tired of such shows; they are regarded in the popular mind as tame, insipid, and nothing

but advertisements after all. This is a very incorrect notion, especially when we consider the remarkably excellent and in some respects wonderful collections of industries and objects that have been brought together at these British International Exhibitions. We have heretofore described some of the branches of the present exhibition, and now give the following from *The Engineer*:

If there is a lively place in the whole exhibition, it is the French annexe. If anything could have turned the scale in favor of the exhibition, it would have been the foreign element, especially the French. India, which is part of our own empire, is worth a good deal; but France is especially valuable for exhibition purposes. Whatever the Frenchman

Sommerard is the inspector-general. In the arcade near the French garden are shown some fine specimens of ornamental screenwork cut out of metal by the steam sawing machine at the mills of Delong & Company.

The ingenuity of the French is shown in the mechanical singing birds of M. Bontems and the marvelous watches of M. Haas. Some of these watches wind up by the mere process of opening and shutting the outer case. One watch gives the day of the week and the date, besides showing the phases of the moon, striking the hours and quarters, and marking time to the sixth of a second. Another watch strikes hours, quarters, and minutes. In the mechanical section of the exhibition the Siebe Gorman diving apparatus

was brought into working order a few weeks back, and the operations of the diver in the raised tank with its glass panels are of general interest. Close at hand Messrs. Chance Brothers & Co., of Birmingham, have erected their dioptric holophotal revolving light—of the first order—a splendid example of mechanical engineering. As we have before stated, this is intended for the South Stack Lighthouse, Holyhead, and has only just been made.

Cut short at the end of its first Olympiad, the exhibition sees its programme shorn of its fair proportions. In 1875 we were to have woven, spun, and felted fabrics, in relation to printing and dyeing. At the same time we were to have had a display of horological instruments, brass and copper manufactures, and all that relates to water supply. In 1876 there was to have been a collection of works in precious metals and their imitations, together with philosophical instruments and agricultural machinery. The plan for 1877 was poor, consisting of furniture and upholstery, "health manufactures," and machine tools. The list for 1878 looked better, including glass, tapestry, military engineering, naval architecture, and lighting by all methods. Iron was to be the leading feature in 1879, while 1880 was to be famous for chemistry and articles of clothing, supplemented by sewing machines and railway plant—a droll assortment, confounding our ideas of the druggist and the draper with the general



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touches he seems to adorn. Going into the French annexe, we are struck with the beauty of the engineering models. The very sewage apparatus has an air of elegance. The wood is polished beech, the metal is the finest brass, and everything has the finish of decorative work. There may be a lack of faithfulness and reality in all this brilliancy, but doubtless the construction is correct. These, and other models, are sent by the Municipal Council of Paris, and are further elucidated by admirable photographs and drawings suspended on the adjacent walls. Models of waterworks, bridges, and other structures, are all very good. There is likewise a steam roller and a diagonal sweeping machine. In another division of the annexe we meet with some splendid models of educational institutions, so perfect that nothing is wanting but the actual "flesh and blood." The rooms are there, all duly fitted up, and everything laid open to view by the substitution of glass for woodwork and masonry. Upstairs in the art gallery of the exhibition we meet with architectural drawings lent by the Commission which has charge of historical monuments in France, of which M. du

liveliness of a railway station. Many persons still think that there is something in this annual International Exhibition scheme which ought to be taken up and carried out. We are not, we confess, of the number. We trust that the present failure may be looked upon as final, and that, if we have not seen the last of International Exhibitions elsewhere, they may at least be regarded as defunct at South Kensington.

Railway up the Volcano of Vesuvius.

The plans of the line which is to ascend Mount Vesuvius are now complete. The route will be 16 1 miles in length. The grades are 20 and 35 per hundred, and the road terminates at a few feet from the crater. There will be one station, protected by a sort of break lava, which will divert the flow, in case of eruption, away from the building and rails. The road is so laid out as to be naturally sheltered at every point, except for a distance of about 60 feet.

The *Revue Industrielle* states that apples may be preserved in perfect condition by packing them in dry plaster.