

are mainly dependent upon the capital and enterprise of the Americans to develop the rich resources of this trade. They have a settled population in the village of about 700 souls, I am told. A newspaper is to be printed here, the first number of which will issue shortly. Eighteen months ago this was a wilderness! A Buffalo company has purchased lot 23 in the third concession, and have made a partial commencement to sink a well. There are one hundred teams engaged in the oil business. The plank road from Wyoming to Oil Springs will be completed immediately. There is not more than one quarter of the wells in active operation, owing to the lack of demand.

"Upwards of 2,000 persons have already been to see for themselves the wonderful oil well in Eniskillen."

### THE BUILDING FOR THE INTERNATIONAL EXHIBITION OF 1862.

#### General Description.

In the general design of the building, its suitability for future International Exhibitions has been kept steadily in view, and it has a much more permanent character than the famous Crystal Palace erected for the 1851 Exhibition.

It differs therefore from its predecessor in many essential particulars. It is more commodious, more imposing in its interior, more varied, more suitable for Exhibition purposes, while from without its aspect is of impressive magnitude and grandeur.

Here glass and iron are no longer the main features of the design, but are succeeded by lofty walls of brickwork, which surround the walls on all sides, and form the walls of the fine art galleries. The east end and west sides, by being continued past the southern arcade of the gardens, have a frontage of 750 feet, and that on the south is 1,150 feet. The north front is the lower arcade of the gardens, which is having a permanent upper story added to it. The interior space thus enclosed is entirely covered in by roofs of various heights, and is divided into nave, transepts, aisles, and open courts; the latter, occupying comparatively a very small portion, are roofed with glass as in 1851, but the other parts have opaque roofs, and are lighted by clerestory windows.

The interior supports are hollow cast-iron columns, as in 1851, of somewhat larger dimensions, being a foot wide, with half an inch of metal in them. They are so arranged as to come at intervals of 25 or 50 feet from centre to centre; in fact, 25 is the unit here as 24 was in 1851, and you will find nearly all the leading dimensions, both vertical and horizontal, to be multiples of that number. The exceptions to this rule are the nave and transepts, which are 85 feet wide; the former runs east and west, and terminates in the centre of those fronts, having its central line 81 feet north of the centre line of the building; the latter extend north and south from the ends of the nave throughout the whole width. At the intersection of the nave and transepts are the great domes. The aisles are continued all round the nave and transepts, and the space enclosed by them forms the open or glass courts.

The columns are supported differently from what they were in 1851. On that occasion they were

attached to connecting pieces, which, terminating in a large flat base plate, rested on concrete laid flush with the ground; these connecting pieces of course varied in height to suit the slope of the ground. This has been avoided in the present building by bedding the columns themselves on York slabs laid on brick piers, which are founded on concrete; the slabs being all adjusted to the same level throughout by varying the height of the brickwork, only one length of column is used, and the facility of setting them up is thus greatly increased.

At the north ends of the east and west fronts are the two annexes, temporary, supplementary structures, designed for the exhibition of machinery and other ponderous objects, which could not be conveniently placed in the main building.

The total area roofed in is 988,000 square feet; it is therefore, considerably larger than the 1851 Exhibition, which only occupied 799,000 square feet. It has also, when actual covered space is alone considered, slightly the advantage of the Paris Exhibition, which had a covered area of 953,000 square feet. But if we compare the total space covered and uncovered, occupied by each, Paris is considerably larger, for the better suitability of its climate for out of door display enabled the authorities of that Exhibition to increase the area of ground given up to exhibiting space by 547,000 square feet, while, with our variable climate, it has not been thought advisable to have more than 35,000 feet of ground unroofed; so that the total areas, covered and uncovered, occupied by the two exhibitions, are 1,500,000 square feet for Paris, and 1,023,000 square feet for 1862.

The French Exhibition, therefore, considerably exceeded ours in size, but it was not nearly so compact in form, and its temporary annexes made up a very large portion of it, occupying 600,000 of the 953,000 square feet, while our two annexes do not amount to more than one-third of the total area.

In the construction of this magnificent building, there are 7,000,000 bricks used; these have all been supplied by Messrs. Smeed, of Sittingbourne. Nearly all the cast-iron work has been supplied from the Stavely iron-works, in Derbyshire; there are upwards of 4,000 tons of this metal in the building; and to show what care has been taken with the castings, only four girders have proved defective, by breaking in the hydraulic press.

There are upwards of 820 25 feet columns, equal in length to 4 miles, and if the 1,266 girders used were placed end to end they would reach a distance of 6 miles. The wrought iron is chiefly supplied by the Thames Iron Company, the builders of the "Warrior." This firm has undertaken the supply of all the iron for the domes, the groined ribs, the 50 feet roofs, and the iron trellis girders which support them; the total quantity of wrought iron in connection with these parts amounts to 1,200 tons.

The timber work is executed partly at the works of Messrs. Lucas, at Lowestoft, and partly at Mr. Kelk's works at Pimlico; the former prepare all the window sashes, &c., &c., by machinery; and the latter constructs the heavy ribs of the nave and transepts. Upwards of 1,300,000 super feet of floor will have to be laid.