



Savey, et Cie, and partly to La Société des Ponts et Travaux en Fer. The cupola above referred to has been constructed by the first-named firm. We may here express our indebtedness to all these gentlemen for the information and illustrations that accompany this article.

The types of girders employed have been designed with a special view to simplicity and uniformity. The two large longitudinal galleries, as well as the transept connecting the central entrances, are covered by a circular roof 23.52 metres (77 ft. 2 in.) high. The other two longitudinal galleries of 27 metres (88 ft. 7 in.) and the 29.40 metre (96 ft. 4 in.) end transverse galleries, are covered by pitched roofs (see Figs. 2 to 6). The general character of the framing over the smaller intermediate galleries is a curved lower, and straight upper, member. These roof principals rest on the columns carrying the main trusses; longitudinally they are connected by deep lattice girders, to which are attached the brackets supporting the intermediate roof ribs, &c. (see Figs. 3 and 4). There are upper galleries in the building placed at a height of 7 metres (23 ft.) above the ground floor; great care had been exercised not to allow these upper galleries to interfere with the general effect. They are confined to the narrow 9 metre and other side galleries, and are connected at intervals across the main naves by communicating bridges 9 metres wide. There is also a partial upper floor for the kitchens of the restaurants, and which is isolated from the public. The plan Fig. 1 shows the positions of the various stairways, as well as of the inclined travelling platforms that will be employed in this building.

We may now describe the methods of erection adopted by the contractors, MM. Moisant, Savey, and Laurent, who, we may note in passing, employ steam instead of hand hoists, which, as we have seen, was used throughout in the erection of the Engineering and Transport Building. The contractors have very ingeniously simplified the temporary works required for erection by the use of two travelling stages which suffice for handling all the framework, although the heights of the different roofs vary considerably. One of them is reserved entirely for the lower portions of the work, and the other for the larger spans; the illustrations we give in Figs. 7 to 10, page 260, explain very clearly the arrangement adopted. The staging is carried on four trucks running on rails. Each truck has four wheels, and is provided with the necessary gearing for moving the staging forward on the rails. At the top of the staging is the upper platform, on which is placed the hoisting gear. This platform rests on vertical standards, two placed at the forward angles of the staging above the trucks, and extending downwards as far as the lower platform; the position of the other standards is shown on the drawing which illustrates the construction of the staging. There are three platforms, the first, a few feet above the ground, carries the portable engine that drives the various hoists by rope transmission, as indicated in Fig. 9; it was the intention of the contractors to use electrically driven machinery, but, unfortunately, no source of supply was available. The second platform is placed at a height of 18 ft. 6 in. above the ground, about the height of the upper galleries. As will be seen from Fig. 9, the next platform projects far enough to allow all the operations of erecting the 9-metre span to be carried on. The third platform is 11.90 metres high; this is at the level of the smaller roof trusses and the longitudinal girders between the main columns. The highest platform is at a height of about 67 ft. above the ground; it is used only to carry the hoisting apparatus which runs on rails being laid for that purpose. The device consists of a built-up steel trussed beam mounted on wheels and running around a circular track of two concentric rails; the centre of the beam corresponds with, and is secured at, the centre of this circular track. The lower flanges of the beam serve as the tracks for the travelling carriage of the hoist (Fig. 10), which can be run to and fro from either of the platforms; by this arrangement a universal command is obtained within the limits of the hoist. The staging for the large spans is shown in Figs. 7 and 8, and is so simple in its construction as to call for no explanation. It travels forward on rails placed 59 ft. apart, and is sufficiently high (53 ft.) to command the whole of the curved and pitched spans, for the erection of which it is employed. We understand the arrangement of scaffolding we have described gives complete satisfaction.

THE PARIS INTERNATIONAL EXHIBITION OF 1900; THE TEXTILE BUILDING.

MONSIEUR BLANVET, ARCHITECT, PARIS.

(For Description see Page 90.)

