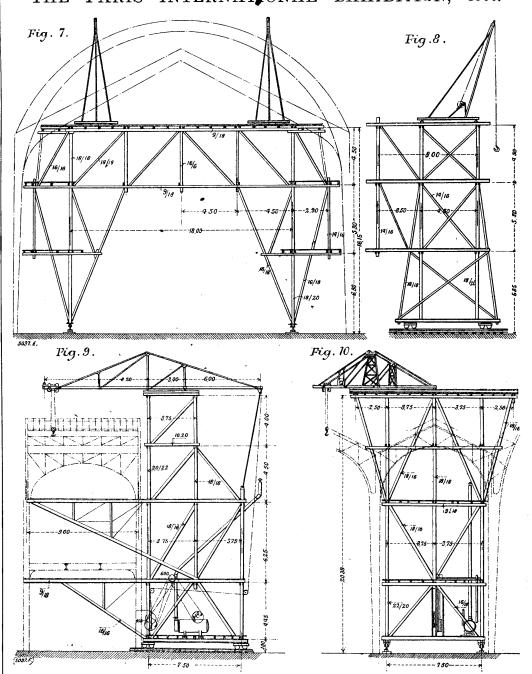
## PARIS INTERNATIONAL EXHIBITION, 1900. THE



façades, one giving on the central gardens of the structure. In this, as in several of the other Champ de Mars, and the other facing towards the Avenue de la Bourdonnais. This latter, except for the central entrance, will be extremely simple, as for its whole length it will be masked by the Exhibition elevated railway, and still further concealed by the numerous structures that will be erected within the enclosure, along the Avenue de la Bourdonnais. As regards the central entrance, we may say here that it will be a highly decorated architectural structure, of plaster framed on iron; but we shall reserve to a future occasion our criticisms of the architecture of the Exhibition. On the other hand, the central entrance facing on the gardens of the Champ de Mars will be very conspicuous and will therefore be highly ornate. Its main feature will be a large circular bay supported on each side by towers and turrets: on either side of the centre will be a smaller bay, and to the right and left, for the whole length of the building there will be a series of arches forming arcades in two storeys; there will be ten arches on the left and twelve on the right, corresponding in span to the bays of the building. The total length of this façade will be 281.40 metres (923 ft. 2 in.), including a short span of 9 metres that will form a connecting gallery with the adjacent Mechanical Exhibits Hall. The façade will terminate near the Mining Building with a corner

buildings, it is anticipated that the upper storey of the arcade on the façade will form a favourite promenade for the public; access to this gallery will be obtained by external and internal stairways in the corner pavilion just referred to, and by

other stairways at the central entrance.

The plan, Fig. 1, of this building, which we publish on our two-page plate of this week's issue, shows the internal arrangements of the building. For almost the whole length it has three main and parallel naves separated by galleries 9 metres (29 ft. 6 in.) wide. On the side of the Avenue de la Bourdonnais there is an exterior gallery 12.50 metres (41 ft.) in width, and on the inner or garden side there are three galleries; one of 3.90 metres (12 ft. 11 in.), a second of 6.15 metres (20 ft. 2 in.) reserved for restaurants, and a third 7.90 metres (25 ft. 11 in.) wide, which forms the promenade already referred to. Transversely, on the side of the Machinery Hall, there is a gallery 9 metres the Machinery Hall, there is a gallery 9 metres (29 ft. 6 in.), and on the side adjoining the Mines Building, and running into the corner pavilion, is a gallery of 29.40 metres (96 ft. 4 in.). In the centre of the building and connecting the two principal entrances, there will be a transept 27 metres (88 ft. 7 in.) wide, surrounded by the 9-metres gallery and forming in the centre a square cupola and the surrounded by a dome that will be supported by surmounted by a dome that will be supported by

pavilion surmounted by a dome.

As in the case of the other buildings, the external decoration of the Textile Hall will be made of fibrous plaster laid over the steelwork of the

## THE PARIS EXHIBITION OF 1900.

Among the many buildings now being erected on the Champ de Mars for the approaching Paris Exhibition, the one which is actually the most advanced is the great Hall to be devoted to textile exhibits, and which occupies a site exactly opposite the Engineering and Transport Building, which we recently described and illustrated.\* It forms part of the range of buildings on one side of the Champs de Mars, and adjoins the Metallurgical Hall on one side and the Hall for Mechanical Exhibits on the other. Its principal extraor will converged the other. Its principal entrance will correspond with the entry known as the Porte Rapp in the Exhibition of 1889. The Textile Building, like the others of which it forms a part, will have two

<sup>\*</sup> See Engineering, vol. lxvi., page 844.

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, 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 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 placed at a height of 7 metres (25 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 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.

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 plat-form, 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 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 and8, 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.

