

1 inch thick ; the panels, before being fixed, to be covered with canvass glued on, and when fixed, which must be done with copper sprigs, one inch apart, they must have glued on them a second lining of canvass. Brass door and side handles. The windows, one to each door, to let down, to consist of four panes of not less than 9 inches square each, of good plate glass, not less than $\frac{3}{8}$ inch thick ; the frames to be made of well-seasoned oak, and varnished, and fitted with springs and pads, so as not to rattle ; small leather pads, stuffed with horse hair, to be put at the bottom of the glass stop, for the glass to fall upon when let down. The painting to consist of three coats of white lead, or colour, and four coats of filling-up ; after being well pumiced, the body to receive two more coats of the same colour, and is then to be finished with two coats of a colour to be approved by the Engineer : the upper frame-work of the quarters to be painted black in like manner, and the whole body to be varnished with four coats of the best varnish. The panels are to be picked out and lettered in a lighter colour, and ornamented in the centre with a coat of arms, or other device. The bodies to be firmly fixed upon the under carriage, with strong bolts, secured with nuts ; the whole of the workmanship to be strong and substantial, equal in every respect, in style and execution, to that of the coaches the most recently built by the London and Birmingham Railway Company. The whole of the iron work to be of the best quality. Screws to be used throughout instead of nails. The fitting-up and painting of the inside to be extra work.

UNDER CARRIAGE FRAME.

The plan of the under carriage frame will be seen by the annexed drawing ; its extreme length is 16 feet, the buffers, when at rest, extending 9 inches beyond at each end. The whole must be made of well-seasoned ash, of the following dimensions ; the carriage sides, (AA, Fig. 1,) two on each side, each in a single length, the upper one to be three inches square, the lower one three inches by four inches, the two coupled together vertically by six ash blocks (cc), and by wrought iron straps (aa) and corner plates (bb), eight of the former in each carriage, weighing together 2qrs. 24lbs., and eight of the latter, weighing together, about 1 cwt. The ends of the carriage consist of two pieces of ash (BB) at each end, extending from side to side, 3 inches square, and 3 inches by four inches, the same as the sides, morticed together as in the sides, and with two upright blocks (CC) of ash. The frame is strengthened by four diagonal and two centre cross stays of ash, each 3 $\frac{1}{2}$ inches by 2 $\frac{1}{2}$ inches, the latter extending from the lower carriage side, with a solid ash floor, of not less than 1 $\frac{1}{2}$ inch thick, fixed between them, and extending across, the whole secured together, as well as to the carriage sides, by strong angle plates of wrought iron, and plated at the corners with wrought iron $\frac{1}{2}$ inch thick, 2 $\frac{1}{2}$ inches wide, fixed on with 1 inch bolts and nuts. The two centre cross stays, and the whole of the lower carriage side (Fig. 1, F), must be plated throughout on one side with wrought iron $\frac{1}{2}$ inch thick, and 2 $\frac{1}{2}$ inches wide, fixed in the same manner as the corner plates, with bolts and nuts. The weight of the plating will be about 2cwt. 3qrs., and that of the bolts and nuts (about 420 of each)