TRUSS ROD FRAME. Two wrought-iron bent truss rods $1\frac{1}{8}$ in. diameter, each in two pieces, with screwed ends $1\frac{3}{8}$ in. diameter, are on outside of intermediate timbers. The ends of each half of truss at centre of car to be connected by a double-headed nut or turn-buckle at least nine inches long, and at alternate ends screwed with right and left hand thread. In the course of rods from the centre towards end of car, they pass under cast-iron shoes on under side of transoms, then over shoe on top of packing-pieces on top of bolster (so as to be close to floor) and then through the head stock, which is provided with cast-iron washers $7'' \times 4'' \times \frac{7}{8}$ in. thick, having inclined faces to give proper bearing to face of truss nuts. All shoes for rod are secured in place by the paps or pins cast on them being tightly driven into shallow holes drilled in timber. The packing-piece over bolster extends only from sill to intermediate, and is secured to bolster by $\frac{3}{8}''$ wrought iron spikes.

FRAMING. Side sills, centre floor and intermediate timbers framed to end sill by double tenons $2\frac{1}{2}''$ long as follows: Commencing at top $1\frac{3}{4}''$ shoulder, $1\frac{1}{2}''$ tenon, $2\frac{1}{2}''$ space and $1\frac{1}{2}''$ tenon and $1\frac{3}{4}''$ shoulder. Headstock fastened to side sill at each corner by one $\frac{3}{4}''$ joint-bolt 12" long. Headstock fastened to centre floor timbers by two $\frac{3}{4}''$ joint bolts 12" long. Headstock, centre and intermediate timbers placed as shown in drawing.

Centre of Bolster 4' $10\frac{1}{2}''$ from outside of Headstock. The distance from outside of end sill to centre of Transoms, 13' 7".

The headstock and side sill to be secured at each corner on inside by inside corner casting, and on outside by wrought iron plate $\frac{3}{8}''$ thick (see drawing), which are fastened on by four $\frac{3}{4}''$ bolts at each corner.

Transoms to be gained 1" for centre and intermediate floor timbers, and fastened to side sills, intermediate, and centre floor timbers with one $\frac{5}{8}''$ bolt to each timber.

Door, end, and intermediate posts framed with tenons, 2" long at top and $2\frac{1}{2}''$ at bottom, all 1" thick and of the full width of each of the various posts, and to have 1" shoulder on outside, fitting tightly into their various mortices, set perfectly vertical and parallel with each other.

Top plates secured to Archrails by one wrought-iron knee strap at each corner made out of $2'' \times \frac{3}{8}''$ iron, each secured by two $\frac{1}{2}''$ bolts, one on each side, which also go through inside corner casting and secure the same.

Archrails and Carlines to be framed into top plates by double tenons 1" long, as follows, flush with bottom of top plates. Commencing at bottom, 1" shoulder, $\frac{7}{8}''$ tenon, $1\frac{1}{4}''$ space, $\frac{7}{8}''$ tenon, and 1" shoulder; each end secured to plates by one $\frac{1}{2}''$ joint-bolt 9" long.

The belt rail which runs all round car, except past the side doors, is secured to posts by two, and to braces and intermediate posts by one $\frac{1}{2}''$ cup-headed bolt, except where door slides, where they will have countersunk heads; belt rail also to be fastened to ~~corner~~ posts by one $\frac{1}{2}''$ joint bolt 9" long; also short $\frac{5}{8}''$ rod from corner post to first post on side; belt rail to be framed as follows: checked for intermediate posts $\frac{1}{2}''$, the posts being checked for belt rail $\frac{1}{4}''$, and belt rail checked for braces $\frac{1}{2}''$, and brace checked for belt rail $\frac{1}{4}''$, which brings inside of belt rail flush with slats. Posts at bottom framed to receive cast-iron pocket resting on sill. Braces to be furnished with cast-iron shoe or pocket, which allows end of braces to be cut square, as shown in drawing. Intermediate posts, checked $1\frac{1}{4}''$ for braces, and brace checked for post $\frac{1}{2}''$, which brings inside of brace flush with intermediate post.