side of main frame, the cdges being neatly finished and rounded off.

UPPER SIDE FRAME.—This is composed of ash uprights on each side of the 17 windows, each 6 ft. 3 in. long between shoulders, and $3\frac{1}{2}$ ins. x $1\frac{2}{4}$ ins. in section; and also of 4 corner posts 7 ins. x $3\frac{1}{4}$ ins. of hard close grained



wood. The corner of sidesole and headstock is cut away, and corner post is steatly screwed to this flat surface. All the posts have stout tonons for the sidesole and for wallplate, which is of ash 5 ins. x 3 \pm ins. in one piece, sidesole and wall plate being held together on each side by 19 tiebolts $\frac{5}{8}$ in. diam. screwed at both ends. The side is further stiffened by a seat plank of red pine above sidesole; it is recessed $\frac{5}{8}$ in. into upright posts to which it is well secured by 2 coach screws $4\frac{1}{2}$ ins. $x \frac{1}{2}$ in. to each post. Scat plank is to be cut with a 2 in. rise or camber in it between the bolsters, and a $\frac{1}{2}$ in. rise from bolster to outer ends, as per sketch.

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It is very important that this seat plank be carefully cut and made a good tight driving fit into upright posts. The seat plank is also bolted down to sidesole by $\frac{3}{4}$ in. bolts spaced about 4 ft apart. Just below windows, there is a line of ash belting $4\frac{1}{2}$ ins. x 2 ins. And between it and the sidesole are two lines of light ash belting $2\frac{1}{2}$ ins. x $1\frac{1}{2}$ ins. and at the centre of each window there is a short vertical ash post $3\frac{1}{2}$ ins. x $1\frac{3}{4}$ ins. stoutly tenoned into sidesole and window belt. All belting is checked into the outer face of each post flush, and is well secured by $2\frac{1}{2}$ in. No. 18 serews. Between upper belting and wall plate, 3 intermediates of ash 3 ins. x $1\frac{1}{2}$ ins. are tenoned into upright posts between each window. A window sill of ash runs all round car on upper belting.