

Fig. No. 3—Detail of Bents 7 and 8, Showing Reinforcing, Panelling and Bracing

The tracks are placed at thirteen-foot centres, and the ties are laid in broken-stone ballast. The axis of the bridge is east and west, and the alignment is all tangent, with a grade of 0.4 per cent. rising east.

The loadings for which the structure was designed were as follows:—

Dead load to consist of self weight of structure plus 500 lbs. per lineal foot of track, including rails, fastenings and ties.

Live load, Cooper's E-50 plus impact, the latter taken as 90 per cent. of $\frac{L.L. \times 300}{300 + y}$,

where L.L. = live load, and y = loaded distance in feet.

Certain constructional difficulties were encountered during the carrying out of the work. It was necessary to erect a temporary wooden trestle so that single track traffic could be maintained across the ravine throughout the entire construction period. The old steel trestle was dismantled as the work on the new structure progressed.

One mixing plant was placed on each side of the ravine, and the concrete was carried to the forms in chutes. During freezing weather, double forms were placed around

all concrete, and the intervening spaces were equipped with piping so that steam heat could be applied whenever necessary. The economy of construction consisted in being able to duplicate the use of the forms.

The structure contains in all 6,500 cu. yds. of concrete and 500 tons of reinforcing steel. It will be entirely completed about the end of next month.

The contractors are Wells & Gray, Limited, Toronto. The reinforcing steel was supplied by the Burlington Steel Co., Limited; the cement, by the Canada Cement Co.,

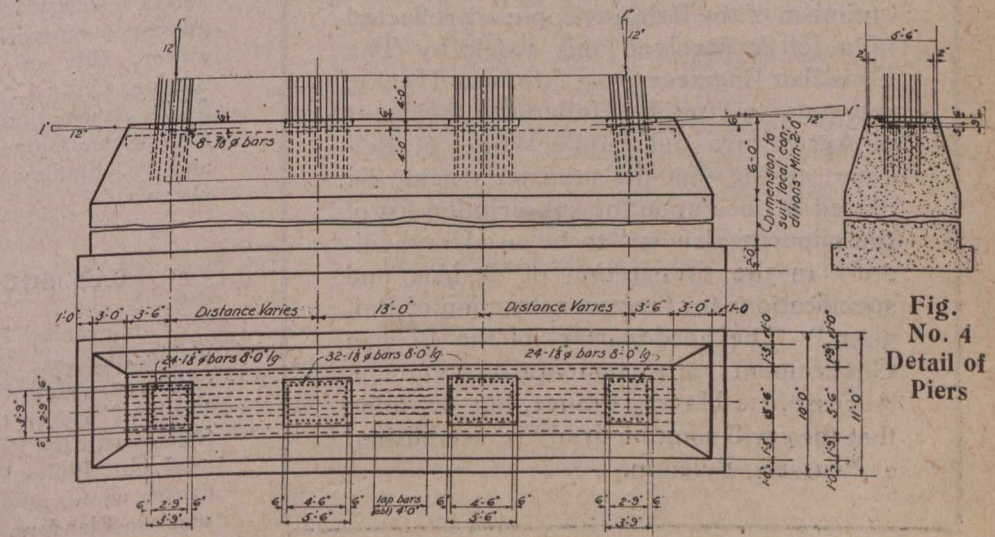


Fig. No. 4 Detail of Piers