

Many of our roads were originally located without any attention being paid to the general topography of the country. The straight lines and right angles of the original survey appear to be the determining force in locating Canadian roads. We go straight over a hill, never pausing to consider whether we might secure a better road by going around it.

Graceful and natural curves conforming to the lay of the land add beauty to the landscape, increase the value of the property, as well as give an easier road.

In the older countries this has long been recognized. Pretty, winding roads running from place to place give an added charm to the district, and lend themselves readily to the additional beauty that comes from hedges and avenues of trees.

The owners of suburban property and new town sites are recognizing the added value well-located streets and boulevards possess, and before they subdivide they are employing the landscape engineer to plan and lay out the roads.

In newer residential sections of our large cities some attempts at departing from the straight lines has been made. The added beauty is apparent, and we look for a greater display of good judgment and good taste in highway location in the coming years.

BUILDING TRADE.

That activity in building may be slow in returning in Canada is to be inferred from conditions existing in the States. It has been shown how greatly lessened the figures of building construction value in that country in three months of 1908 as compared with 1907. And other features of the American situation, combined with the known sympathy of this country with the other in financial and commercial affairs confirm the view. For example, one very well-informed firm of dealers in metals say, in their trade circular of April 15th as to structural steel and metals generally:—

"The demand (for steel) in the United States is extremely disappointing . . . and what with the presidential election in view and possible tariff changes it is difficult to expect anything for months, but dull and unsettled business. . . . The conditions which led to the October collapse were slow in accumulating, and will be slow in passing away.

"There still needs to be a radical adjustment of the price of labor and finished iron and steel commodities before the business position has been put upon a bed-rock basis."

EDITORIAL NOTES.

The Board of Railway Commissioners for Canada have issued a circular calling attention to their new rule that the Board will hold regular sittings at Ottawa on the first Tuesday of each month. Special sittings may be arranged for Ottawa or elsewhere. Any party to any matter, application, or complaint pending before the Board may set the same down for hearing at the next monthly sitting of the Board upon giving at least ten days', or such shorter notice as the Board may order, to all parties interested.

In the half-tones illustrating the article on "Reinforced Concrete Columns" in this issue it will be noticed that failure has taken place in or about the upper third. This is not what one might expect. One would naturally look for failure nearer the centre of long columns. This peculiarity in failure is also noticeable in the failure of long posts when tested to destruction in testing machines. Whether this behaviour is the result of the system of loading caused by testing machines is yet to be decided. We would like to hear from engineers who have observed the failure of long posts and columns in actual construction as to whether the failures they have noted have occurred in the upper third.

NEW RAIL SPECIFICATIONS, C.P.R. SYSTEM.

Steel rails frequently show weakness where the web joins the head and where it joins the base of the rail. The C.P.R. system in their new standard rail section have attempted to overcome this weakness by adding more metal at these points. Long usage alone will demonstrate whether the defects that occurred here were the result of insufficient metal or to a mechanical defect in rolling.

Another noticeable change is in the shape of the head. In the new head there is a taper from the base of the head up, allowing better contact between the flange of the wheel and the rail, and not wasting metal by placing it where it will be quickly ground away.

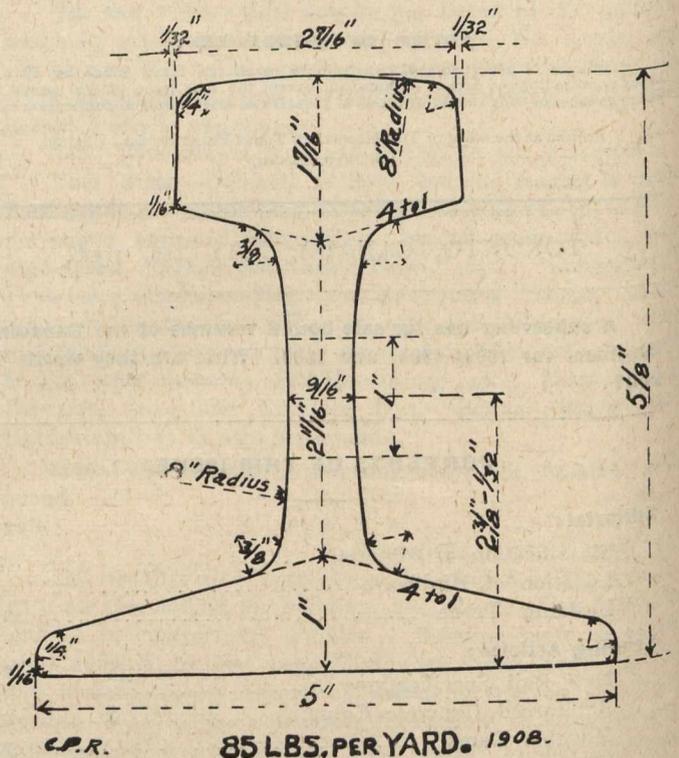
The investigations and discussions carried on by the C.P.R. Engineering Department have resulted in this new standard section, i.e., 85 pound section, and will doubtless be an improvement on the old standard.

Specifications for 1908 for 85 Pounds Open-hearth Steel Rails.

Lengths.—The standard length of rail shall be 33 ft. Railway standard 85 pound 1908 rail, in accordance with plans attached, with an allowance in height of 1-64 of an inch under and 1-32 of an inch over. The fit of the fishing or "male" template shall be maintained perfect.

The weight of the rail shall be kept as near 85 pounds per yard as is practicable after complying with Section No. 1.

Section 1.—The section shall be the Canadian Pacific at a temperature of 60 degrees Fahrenheit. Ten (10) per cent. of the entire order will be accepted in lengths of 27 ft. and 30 ft. All such short rails shall be painted green on both ends. A variation in length of 1/4 of an inch longer or shorter will be allowed.



Finish.—The rails must be free from all mechanical defects and flaws. They shall be sawed square at the ends, and the burrs made by the saws shall be carefully chipped and filed off, particularly under the head and on top of the flange.

The rails shall be smooth on the heads, straight in all directions, both surface and line, and without any twists, waves or kinks, particular attention being given to having the ends without kinks or drop. The hot-straightening shall be carefully done, so that gagging under the cold-press will be reduced to a minimum. The supports of the rail in the straightening press shall be not less than 42 inches apart. Cold straightening shall be done so as not to injure the rails. "Lumpy" rails will not be accepted.