

June 1, 1916.

to move many plants from one municipality to another every year.

Repairs and Maintenance.—The method followed at present has been studied and modified, and gives entire satisfaction. We have a head machine repairer, who formerly built plants and road machines, and he has with him another machine repairer of experience. They each have a tool-box containing all the necessary tools to make the repairs on the spot. They also each have a portable smith's forge, because in most cases the plants are far from villages and workshops. They also have the necessary utensils for melting metals, and casting babbitt bearings.

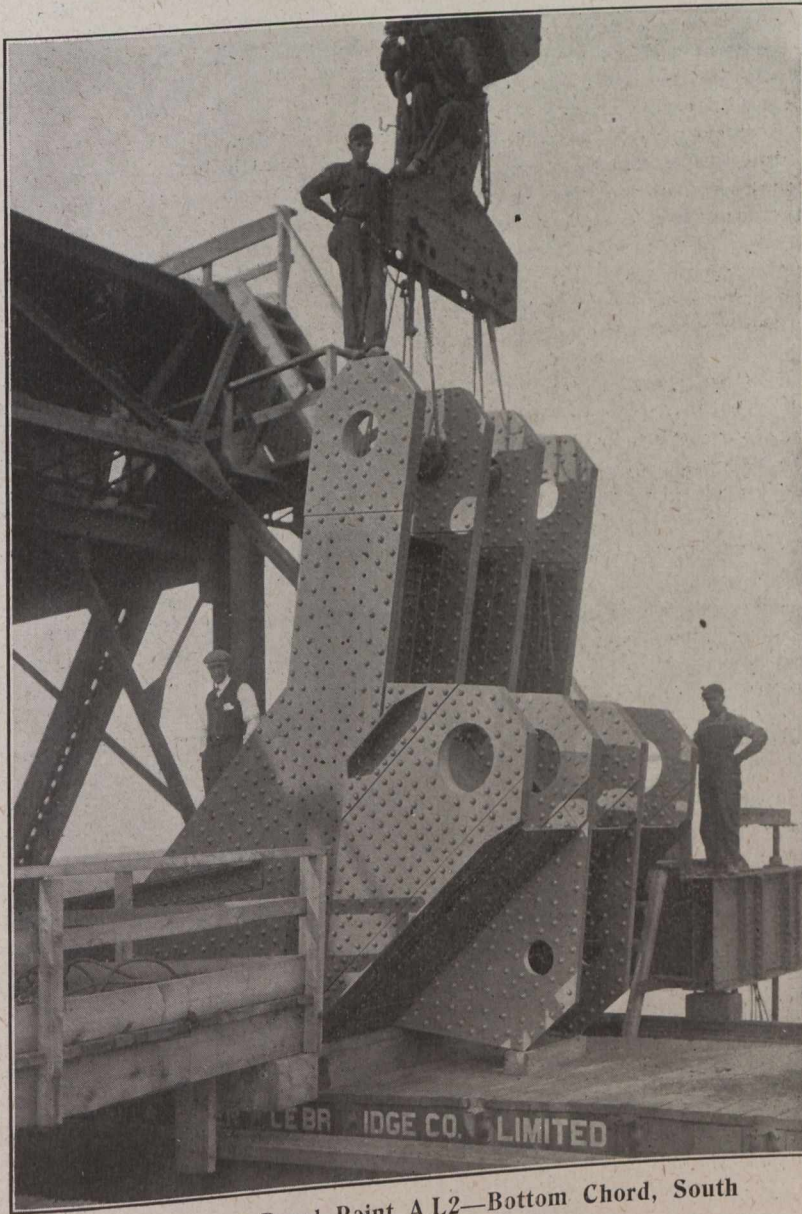
The large parts, which can not be repaired on the spot, are sent to the department's store of spare parts, which attends to the repairs to be made. The repairers work all the season repairing road plants, following instructions of the department. They must go only where the department orders them to go; they must report daily; every Saturday, they must, on a special form, report to the department for each day of the week, use of their time, the places where they worked, the work done each day in each place, the distance covered daily, and whether on a railroad or in a wagon; they must inform the department, by telephone, on Wednesday of each week, of the place where they are, what they have done, and what remains to be done to the plant; they must telephone to the department as soon as repairs are finished, so that they may receive instructions to go elsewhere.

At the beginning of the season before work is started, and in the fall after work is stopped, they are accompanied by four men who have experience in repairing. They are given an itinerary to repair the plants which have suffered the most damage, and to put them in good working order, because, each in their turn, all these plants have to be examined and overhauled. In the fall the head machine repairer inspects the plants which he did not see during the summer, and reports to the department the parts which will have to be repaired during the winter, and he ships to the department's store of spare parts in Quebec, all the parts

which will have to be repaired. A linen tag is attached to each part, and the number of the plant from which it comes is written in ink, as well as the name of the municipality. These tags remain attached, so far as possible, to the parts while they are being repaired; thus, there is no confusion in returning the parts.

At the end of the season, the instructor must make a complete inventory, on a special form, of the machinery and spare parts which he has on hand. Moreover, he must explain in detail, for each machine, the repairs necessary.

So, should the head machine repairer be unable to inspect all the machines, or should the plant be too far away, the department still knows what repairs have to be made to each machine and to each plant. The spare parts which can be repaired are sent to the store. Before they arrive a new part is shipped to the plant, and the department only charges the municipality with the cost of repairs. This is very economical and also often prevents work being stopped in the busy season. To obtain this result, we require the instructor to telephone to the department every time the plant is out of order to such an extent that he cannot repair it. It is his duty to find out, before telephoning, the exact number of the part. If it has no number, he must be able to describe it accurately, giving its size, etc., so that we can send the right part. If he is unable to give the necessary information, he has to pay for the telephone or the telegram, and is likely to be dismissed, as this would denote carelessness or incompetence.



Connection at Panel Point AL2—Bottom Chord, South Anchor Arm, Quebec Bridge.

—See article "The New Quebec Bridge," page 583.

Our store of spare parts carries a stock of the parts most in use, as we now know the parts which wear out quickest or are likely to break often. Jaws, metals, packings, fittings, oil, etc., are specially chosen. The store has over \$20,000 worth of stock. Three employees receive and ship goods. By systematized accounts each part, whether sent from the store, from the shop or by a manufacturer, is charged to the plant which has asked for that part. A record is kept of everything coming in to the store, and nothing is delivered unless requisitioned by the office on a special form.