information given by the various speakers was worth thousands of dollars. His last word of advice to the delegates was to use local materials wherever possible.

F. W. Fenn, secretary of the U. S. National Motor Truck Committee, then presented a paper on motor truck freight service, which will be published in next week's issue of *The Canadian Engineer*.

Annual Meeting of Association

At the annual meeting of the Canadian Good Roads Association Wednesday evening, the secretary read the minutes of the previous meeting and submitted a financial report showing that all debts, including the cost of incorporation, had been met, and there was a balance of \$592 in the treasury March 31st, 1919. Financial assistance had been received from a number of provinces. The membership now stands at about 260, including 30 municipalities and 7 contributing members.

The president stated that the past year had been very successful. One of the biggest things for which the association had worked was federal aid. Some weeks ago representatives of the executive had an interview with Sir Thos. White at Ottawa, and had gone away quite happy. They were now concerned as to whether the promises made to them at that time, or at least the impressions they had then received, were going to be fulfilled. However, should the federal government not pass any appropriation for assistance in highway construction at this session, whether for political or other reasons, the executive would most certainly bring the subject most forcibly to the attention of the government again, and hoped to bring sufficient pressure to bear to have the desired bill passed before very long.

Resolutions were passed asking for a reduction of 10 cents per ton in freight rates on road building materials; approving of federal aid for highways; approving of the naming of important roads, and suggesting the name of "Route Gouin" for the Montreal-Quebec highway; and urging the Dominion government to take into immediate consideration the construction of all bridges necessary for the improvement of highways or other transportation facilities.

Officers and Directors Elected

The report of the nominating committee was accepted without change, and the following officers were declared elected for the ensuing year:—

A. W. Campbell, honorary president; S. L. Squire, president; A. F. Macallum, works commissioner of Ottawa, first vice-president; Dr. E. L. Desaulniers, deputy-speaker of the Quebec Legislature, second vice-president; Geo. A. McNamee, secretary-treasurer.

The directors will be the officials and the following:-A. L. Caron, president Automobile Club of Canada; J. E. Griffith, deputy minister of public works, Victoria, B.C.; S. R. Henderson, president, Manitoba Good Roads Association, Winipeg; L. B. Howland, president, Canadian Automobile Association, Toronto; Russell T. Kelly, president, Hamilton Board of Trade; Hon. Sam Latta, Minister of Highways, Saskatchewan; T. P. Regan, president, New Brunswick Auto Association, St. John, N.B.; C. R. Wheelock, honorary president, Ontario Good Roads Association, Orangeville, Ont.; W. G. Yorston, Assistant Road Commissioner, Province of Nova Scotia, Halifax; W. Findlay, "The Globe," Toronto; H. H. Shaw, chief engineer, Prince Edward Island; Napoleon Lavoie, general manager, Banque Nationale, Quebec; L. C. Charlesworth, deputy minister of public works, Alberta; Hon. Frank Carell, proprietor of the Quebec "Telegraph," Quebec; and J. A. Duchastel, city manager of Outremont, P.Q.

Invitations were received from Winnipeg, St. John, N.B., and Victoria for next year's congress, but St. John withdrew in favor of Winnipeg upon condition that the Winnipeg members would support St. John for the convention in 1921. Upon a show of hands, the delegates were largely in favor of going to Winnipeg, but it was finally decided to leave the matter to the executive.

Thursday morning, H. E. Breed, formerly chief en-

gineer of the New York State Highway Commission, read a paper on concrete roads, which is printed in full on page 493 of this issue. He was followed by A. P. Sandles, who spoke on macadam roads. This paper will be published in full in next week's issue of *The Canadian Engineer*.

H. S. Carpenter, deputy minister of highways, Saskatchewan, briefly addressed the gathering, and Lieut. Smith, who had just returned from the front after fourteen months' service with a motor-driven battery, told of the benefits of

good roads in France.

At the afternoon session Thursday, Hon. Frank Carrel delivered a paper on keeping the highways open in winter, which is published on page 496 of this issue. A Lalonde, assistant engineer, Outremont, P.Q., contributed another paper upon the same subject, which will be published in next week's issue of *The Canadian Engineer*.

The last paper of the congress was by Prof. A. H. Blanchard, of Columbia University, on "Road Machinery."

This paper will be found on page 502 of this issue.

On behalf of the delegates, Capt. Duchastel presented a handsomely fitted travelling bag to President Squire and Secretary McNamee as a token of appreciation of their energetic work on behalf of the congress.

TO BUILD ROADS BY DAY LABOR

TENDERS received by the Department of Highways of the Province of Ontario for the construction of the section of the provincial highway between the Rouge River and the town of Whitby, have all been rejected and the certified cheques are now being returned. The closing date for the tenders was May 8th.

In an interview with The Canadian Engineer, W. A. Mc-Lean, Deputy Minister of Highways, stated that the average tender per mile for either cement-concrete or asphaltic-concrete was about \$50,000, exclusive of the bridges over the Rouge River and at Pickering, which will likely cost upwards of \$100,000. Considering the present conditions of the labor and material markets, both the provincial authorities and the various municipal authorities concerned had decided that all of the tenders were too high. When he was asked what he would have considered a fair tender, Mr. McLean referred to a report made last January by the highway commissioner of New York State, in which the latter said that the state would have to be prepared to enter into contracts whereby it would pay approximately \$18,000 per mile for waterbound macadam roads, \$23,000 for bituminous-macadam, \$28,000 for cement-concrete, and \$35,000 for brick.

The rejection of the tenders will not interfere with the work, said Mr. McLean, as the department will go ahead by day labor, and he hoped that by the end of the season the mileage constructed would exceed that of any previous season. He will arrange other small contracts wherever possible, and will apply the principle of maintenance, combined with partial construction, in such manner as to endeavor to give an adequate road service from border to border or the province by the end of this season. These methods, declared Mr. McLean, would largely be preparatory to letting larger contracts upon a more favorable basis at a later date, when contractors would be asked to bid on straight paving work, with all grading and drainage completed and bridges and culverts built.

"CONTINUED IN OUR NEXT"

I N last week's issue of The Canadian Engineer appeared the first part of an article on the "Organization of a Standard Municipal Testing Laboratory," by J. O. Preston, assistant engineer of the Rochester Bureau of Municipal Research, Inc. It was stated that this article would be concluded "in next week's issue." Owing to lack of room in this issue, due to the demands upon our space by the report of the Canadian Good Roads Congress held last week at Quebec, the conclusion of Mr. Preston's article will be deferred for a week or two.