

made to deal with the matter on more practical and scientific lines. Much is being done in Quebec and Ontario to carry out isolated road schemes, but a more concerted and comprehensive effort is needed—and that urgently—in the interests of national prosperity.

### SURVEYORS' CHARGES

AT the last annual meeting of the Association of Ontario Land Surveyors, T. D. LeMay raised the question of surveyors' charges, saying that it does not seem possible or advisable to standardize charges, but that a committee through its members in different districts might exchange views with real benefit.

"In the year 1850," said Mr. LeMay, "the usual rate appears to have been about \$4 a day for field work and even that at times had to be taken out in merchandise.

"Charles Unwin tells me that at one time his firm made a survey for a syndicate composed of a butcher and a grocer, and his share took the form of three 56-gal. barrels of whiskey, some of which he eventually disposed of to the county judge. In 1865, Mr. Unwin copied the following advertisement which was posted on a barn in a village west of Toronto, and which speaks for itself:—

### CHEAP LAND SURVEYING.

P. L. Surveyor, Conveyancer and Issuer of Marriage Licenses.

In returning thanks to his numerous friends begs leave to remind all in Kent and Essex that he is always on hand in the above line of business, all orders either verbal or written promptly attended to; for surveying and conveyancing he has a deputy to issue marriage licenses at Rond Eau, please address Rond Eau, Chatham, Thamesville, Ridgeway, Romney, Morpeth, Florence, Kingsville and Leamington Post Office.—Can boast over all for cheapness and can adjust all difficult lines with the aid of the old field notes of Samuel Smith, Esq., and drawing meridian lines. Take notice—No extra charge for travelling, as he keeps a conveyance of his own. Charge, \$4 a day.

Silver at par for issuing marriage licenses.

"In 1889 a tariff was adopted by the association fixing the rate at \$6 a day. In 1906 this rate was raised to \$8 a day, and in 1913 it had raised, by easy stages, to \$15 a day as far as the Toronto district was concerned.

"Under the pressure of the high cost of living it was deemed advisable to make a further increase this year, and a committee of Toronto surveyors was appointed to draw up a revised schedule of charges for the Toronto district. The principal difficulty encountered was to evolve a system of charges that would be elastic enough to compensate a surveyor for everything he did, bearing in mind the fact that this could only really be obtained by a fixed rate per day to be multiplied by a factor representing the value per foot frontage of the property to be surveyed. It appeared, however, that with such a system as this it would be impossible to secure the uniformity of charges so essential amongst the surveyors in any particular district owing to the impossibility of uniformity in fixing the value of the land except by reference to the assessment roll, which method was felt to be too cumbersome.

"The committee decided to recommend a schedule of fixed minimum rate for the different classes of work, somewhat higher than those hitherto in force, with an innovation in the form of explanatory notes defining the various forms of surveys included therein."

Mr. LeMay then read the proposed schedule. The minimum charge for a location or boundary survey is \$12 and for each additional adjoining parcel, \$2. The minimum charge for title survey is \$10, and for each additional adjoining parcel, \$2. Architect's survey costs the same as location or boundary survey, with an additional charge of \$5 per hour for time spent in taking elevations and reading angles. Excavation surveys, \$3 per hour for field or office work, calculation or plans for the purpose of ascertaining the elevation of the ground at different stages of an excavation and showing results, including quantities, on a plan or certificate. Minimum charge for topographical survey, \$20 for day of eight hours, besides expenses. Subdivision and miscellaneous surveys, same as topographical survey.

"With regard to the standardization of charges throughout the province," continued Mr. LeMay, "it seems to me that something might be done in this matter. We have to realize that it is absolutely impossible to get any form of legislation which would enable us to adopt a tariff which would be obligatory for surveyors of the association. We might form a committee of the associations to look into the question of tariffs, to divide the province into districts and let the surveyors in each particular district see what minimum rate per day they would work for, all these minimum rates per day to be collected by this tariff committee and circulated amongst the members of the association, so that if a surveyor were asked to make a survey in some other district he would know what he would be expected to charge. Any alterations in this district minimum tariff could be made by the tariff committee at the instance of the surveyors in a district. I understand in some districts there is a rate war on and that the surveyors are working for \$2 or \$3 a day or anything they can get in order to get the work and it does not seem to be at all in the best interests of the profession. Take a man working at \$20 a day. How many days a year can he work I don't suppose he can charge for much more than 200 days, and out of that he has to pay his assistant, his office, overhead expenses, and so on, and it does not leave him an income which is a very satisfactory goal to the ambition of a young surveyor, and anything which may be done to increase the prices, I think, must necessarily be for the benefit of the association, and anything which will possibly do away with rate wars and competition in prices amongst surveyors in adjoining districts would also be very desirable."

Mr. LeMay's remarks were discussed by Messrs. Speight, Ward, Chipman and Dobie. A motion was carried that a special committee be named to make a further report to the association at the next annual meeting, Mr. LeMay being appointed as chairman of the committee.

The French Government is about to introduce a bill creating a new office of Under-Secretary of State charged with the task of developing and extending the use of the country's water power resources.

The Board of Public Works of San Francisco, Cal., has just called for bids for constructing 18 miles of tunnel aqueduct in the Mountain Division of the Hetch Hetchy Water Supply Project. The tunnel is to be of horseshoe section, lined with concrete. The estimated cost is about \$2,000,000.