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### CLASSIFICATION OF MATERIAL.

And at last the Parliament of Canada is to investigate the charge that the classification of material excavated on the Transcontinental Railway is improper. Nobody has a better right to investigate the charge, but the investigation of this matter by a committee of the House will doubtless be most unsatisfactory. Politics, party advantage, and election campaign material are apt to play a much larger part in this investigation than the question as to whether the engineer and the Board of Commissioners are giving the country and the contractors a square deal.

The question as to why Major Hodgins was dismissed may be easily disposed of. If it is a fact that the Chief Engineer did not, for any reason whatsoever, wish to retain Mr. Hodgins, that were reason enough, but the question of improper classification—that is a question far too large for a Committee of the House, especially with talk of a general election in the air.

A fair classification of material is one of the most difficult problems that the field engineer is "up against." The contractor takes the contract on the basis of so much per cubic yard for solid rock, so much for loose rock, so much for hard pan, so much for earth. These materials grade so finely one into the other that you cannot say solid rock ends here and loose rock commences here. It is all very well to say that "unless the classification of the work done is carefully supervised the contractor will be overpaid"; but unfortunately the contractor is sometimes underpaid, and from just the same cause. Careless supervision does not necessarily mean overpaying. The engineer, over-zealous on behalf of his company, does not allow the contractor a classification high enough. For the man who wishes to be fair with both parties, you cannot lay down any other law or rule than, "Do as you would be done by."

The classification on railroad work depends upon experience and observation alone, without regard to theory. The men responsible for this work must be men in whom the chief has every confidence as to their ability, integrity, and common sense.

Happily, the Transcontinental Commission have a Chief Engineer of wide experience and unquestionable honesty. If he has a free hand the classification will be fair and just; if he has not, that might properly be a matter for parliamentary investigation, but for a Committee of the House to attempt to pass on the correctness of a certain engineer's estimates—they had better take hook and line and canoe the St. Maurice. The trip will not cause the country any anxiety and they will have a pleasant outing.

### LOCATION OF HIGHWAYS.

The location of a road is one of the fine arts of the engineering profession, and learned only in the school of experience. The proper location of a road is of greater importance than its construction. The mistakes of construction may be corrected year by year; but the mistakes of location remain a monument to the inexperience and poor judgment of the locating engineer. A settlement will grumble daily at having to use a certain piece of road, but attempt to re-locate that road and you will raise a storm of protests that you will long remember.