

MANY theories have been advanced by our most eminent engineers as to the real cause of the Quebec bridge disaster, in which some seventy workmen lost their lives. It is contended by some that the material used was defective. Others believe that the method of procedure by the constructing engineers was wrong. Still others believe that too many temporary bolts were withdrawn before being replaced with permanent rivets; while it is contended by others that the cantilever arms should have been completed on each side of the river and supported by temporary cables before the centre span was built. We have still other prominent engineers who maintain that the calculations of the designers were decidedly at fault.

WHY DID QUEBEC BRIDGE FALL? permanent rivets; while it is contended by others that the cantilever arms should have been completed on each side of the river and supported by temporary cables before the centre span was built. We have still other prominent engineers who maintain that the calculations of the designers were decidedly at fault.

In spite of all these conflicting views held by various expert engineers *one fact remains, "that is, the bridge fell"* and carried with it the lives of some seventy men, and it is only reasonable to contend that it did not collapse without reason.

The engineering world, which has watched every step in the progress of this marvellous proposed feat of engineering, insists upon knowing the reason for such a collapse. They ask: Is the accepted principle of cantilever bridge construction wrong when applied to great structures? They ask if all their calculations, based upon the successful construction of bridges of like character recently erected are faulty? For the protection of the engineering profession they insist upon knowing as to whether the catastrophe was the result of any miscalculations, incompetence or negligence on the part of the owners, contractors or engineers.

The public rightfully demands that the responsibility for a disaster which takes with it seventy lives, should be placed upon the shoulders of those guilty of incompetence or negligence.

The verdict of the coroner's jury, rendered through O. F. C. Delage, M.P.P., after fifty minutes' deliberation in the case of LaFrance, is peculiarly interesting, as compared with the usual verdict of a jury called to investigate a railway accident. The verdict was as follows:

"That the deceased (LaFrance) died from injuries and nervous shock sustained in the collapse of the Quebec bridge. We have been unable to establish the real cause of the collapse, but we think it our duty to declare that according to the proof furnished during the inquest that all necessary precautions were taken for the construction of the bridge without danger."

It is quite reasonable that the jury was unable to determine the exact cause of the collapse, but why should the jurors deem it their duty to excuse the Quebec Bridge Company, the contractors, or the consulting or superintending engineers?

The least the jury could have done, after having declared how LaFrance came to his end, was to demand a thorough investigation for the purpose of finding a specific cause for the disaster and for the placing of the responsibility upon the shoulders of those who were found to have been guilty of any irregularities in the performance of their duties. If the jury did not feel itself competent to investigate such an intricate matter why should it render such a sweeping verdict?

We say, contrast this verdict with that of the average coroner's jury that is called upon to investigate the cause of the death of an individual in a railway wreck, where every effort is exerted to place the criminal responsibility upon the shoulders of the conductor, engineer or the dispatcher.

Here is a case where more than seventy lives were crushed out in an instant through the fault of miscalculations,

incompetence or negligence of someone, and yet the jury, under O. F. C. Delage, M.P.P., gave a verdict which not only fails to recommend a further investigation, but aims to excuse everybody directly or indirectly connected with the construction of the bridge. There is no more reason why the owners or contractors should be excused before a thorough and competent investigation had been held than should the engineer of a wrecked train go scot free before the degree of his responsibility for the wreck had been determined.

Whether the Government was connected with the affair or not, should have no bearing on the case, nor should the accredited reputation of the designers or builders of the structure influence such a verdict.

It was to be hoped that the Royal Commission, appointed by the Government to investigate the matter, would throw further light upon the cause of the collapse, but the manner in which this Commission has treated the evidence given before it, does not lead us to believe that any effort is being made thus far on their part to fix the criminal responsibility (if there be any) for the loss of some seventy lives.

The interview granted the daily press by Chairman Holgate, before the Commission left for New York, seems to be most significant of this contention. We quote herewith his statement, as published by the daily press:

"As far as we have been able to learn there had been the greatest care taken all along the line to insure the safety and permanency of the Quebec Bridge structure."

"The best engineers on the continent prepared the plans and specifications, and a wonderful care and accuracy in carrying them out was shown."

"We found absolutely no trace of dishonesty or graft in connection with the construction of the bridge. This seems to be the case of the best engineering brains on the continent, and the very best accepted engineering methods being on trial."

"As far as the Government's connection with the enterprise is concerned it seems to us that everything is quite regular, and everything was done that should have been done."

In the face of this statement we have reason to have our doubts as to whether, in its long exhaustive report, the Commission will give us a definite reason for the accident, but it seems impossible that this, the greatest engineering catastrophe of modern times, should blot out the lives of seventy workmen and be chronicled in history only as a great disaster, the cause of which was never determined.

We are prompted to ask the reason for this. Is it because of the contradictory expert evidence given before the Commission?

Can it be that the powers of the Commission are not sufficiently specific?

Or can it be that the Government desires, because of its connection with the affair, to have it recorded in history with as little noise as possible?

Or even worse, has there been an attempt to settle the whole matter as quietly as possible, rather than run the chance that in the course of a thorough investigation to arrive at the exact cause of the fall of the bridge, some earlier history of the Government's whole connection with the enterprise should bring to light some unsavory evidence of the scandal?

While we cannot say that we are satisfied with the manner in which the whole affair has been investigated thus far by the Government, we have every reason to believe that the Commissioners themselves are men of high reputation, both as citizens and members of the engineering profession.

The question is, how far has the Government given the Commission power to proceed in its investigation?