

Mr. Elmont closed his remarks by suggesting that the allowable stress of reinforced concrete be reduced. Using concrete of 1-2-4 mix—with hard limestone, the strength had been given as 2,000 pounds. It had been suggested that 30 per cent. be taken, which would give a stress of 600 pounds to the extreme fibre. This made a concrete structure so heavy that it is almost prohibitive.

Mr. Lawrence stated that this was a big subject and that the committee had been working on it a comparatively short time. He suggested that the matter be taken up in Montreal as well as by each of the branches, and that the discussions be turned over to the committee to sift as they saw fit and to make any changes that they might think wise in the specifications. They could report to the membership at large during the year. He felt that it would be unwise to adopt the specification as it stood.

Mr. Mitchell stated, as a member of the Toronto branch, that members were very anxious to discuss the specification in Toronto, but that copies had arrived in Toronto a very short time ago, so that they had had no opportunity. He thought that if the branches could take up the matter as suggested it would be a very great benefit.

The President inquired if there was any further discussion on the subject, and if Mr. Francis' motion covered the point.

A motion was then made by Mr. Francis, seconded by Mr. Morssen: That the draft report as submitted be received; that the discussion thereon be submitted by the branches to the committee with instructions to report to the council, and that the committee be continued until next annual meeting with instructions to make a final report.

Mr. Lawrence inquired if the report would be sent to all the members or would it be left over until next year.

The President replied that it appeared to him to be a matter for the Council, and as soon as they deemed it wise, it be put into form and sent out as a pro tem specification to report progress.

Mr. Lawrence thought that it could be safely left to the Incoming Council and that the report should be placed in the hands of the membership before next year. The motion was then carried.

Owing to the non-arrival of the chairmen of the committees on Sewage Disposal and Conservation, the reception of the reports, in order at this point, was postponed until later on.

Concerning the report of the Committee on Testing Laboratories, the President, as a member of that committee, stated that all it had found to do had been to go once or twice to the Government and to represent the desirability of having testing laboratories.

Mr. Rust stated that he had met Mr. Keefer, the chairman, in New York, and he had said he would not be able to attend. Mr. Rust suggested that the committee be continued and that an occasional call be made upon the Government.

The President observed that there was a suggestion that the committee should be discontinued, and that the council take up the matter with the Government; whereupon Mr. Rust intimated that the matter could be left to the discretion of the council. It was then moved by Mr. Rust and seconded by Mr. Brown that

the committee be discontinued and the matter left in the hands of the Council.

REPORT OF BOARD OF EXAMINERS.

The report for the Board of Examiners was given by Mr. MacKay. He remarked that four examinations had been held annually in former years with only a small number of candidates in attendance. During the past year examinations had been held only in May and November. The table in the report shows the number of candidates in each subject, also the number who passed and the number who failed. Two-thirds of the candidates of the whole passed. There had been only one or two candidates present on the primary subjects, i.e., for the membership of juniors. The standard so far adopted had been, he considered, rather easy and the examiners had given the candidates every opportunity and those who failed were certainly too weak to come under the definition as to those who were to be admitted to the Society to be qualified in design as well as practice engineering work.

A large number of men had been accepted on the presentation of certificates from their institutions. The majority of these certificates had come from Europe, largely from England and Scotland, although some had come from continental Europe. There had been great difficulty in such cases in maintaining the standard, because they had come from every sort of institution from a night school to institutions of very good standing indeed. In every case the committee had tried to give the benefit of the doubt to the candidates coming in. The board felt that these certificates should come before the educational committee since they were now in the position of saying who should be sent to examination and who should examine them. It would be more satisfactory to the board if some other party looked after the candidates, and the board could then entirely restrict its work to that of examining.

COMMITTEE APPOINTED RE GENERAL CLAUSES IN SPECIFICATIONS.

As other reports were not ready it was decided to postpone the reading of reports and hear any other matters which might be introduced. Mr. French, therefore, brought up the matter of having general clauses in regard to specifications.

Mr. French said that it would be well for the Society to appoint a committee to govern these specifications. In specifications there were certain things which were common to all. The members might readily call to mind clauses of a simple nature, and his experience had been that there was a wide variety to be met in such clauses. There was evidently a field of usefulness for a committee to consider the matter. He thought that the study of general clauses would be of great benefit to engineers.

Upon the suggestion of the President, Mr. French moved that the matter of appointing a committee to consider the matter of general clauses in specifications be left with the Council. The motion was seconded by Mr. Thomlinson.

The President remarked that formerly the matter of specifications and contracts had been taken up by each department and questioned whether it was practicable to make any specific rules.

Mr. Butler stated that in the province of Quebec the statutes protected the owner sufficiently, whether the

engineer and contractor were covered by specifications or not. The province threw upon the engineer and the contractor or architect, as the case might be, the full responsibility for any defect that might develop within five or ten years the exact time having slipped his memory. He knew of a case which had gone to the Privy Council. It was held that the contractor had the onus upon him of knowing the defects of the foundation which were not exposed. This was the spire of St. James Cathedral. In every state of the United States except Louisiana, and in every province in Canada except Quebec, the obligation was upon the contractor. He thought it would be of assistance if the Society could establish some sort of a standard in regard to specifications.

Mr. Francis expressed his belief that it would be very difficult to make a comprehensive specification to include all the trades with which an engineer had to deal. However he thought it would be an excellent thing for a committee to engage in the work of drafting special clauses.

A motion was put by Mr. French that the Council appoint a committee to consider the drafting of uniform general clauses in specifications and contracts which might be used by the profession in conjunction with specific clauses suited to the particular work on hand. He added that if the Society appointed a committee and made a report of their findings, that report would be of great assistance to the engineer in writing up his specifications. He had experienced trouble in writing up specifications, having left out clauses, or at other times put in a great deal more than was necessary.

Mr. Mitchell was inclined to believe that it was a very large order. He felt in favor of the matter being investigated, but was doubtful whether a committee could bring in an actual draft, particularly in a year's time. He understood the motion to say: "Consider the drafting of such a condition." He thought that if such a committee brought in a report on the advisability of the matter for next annual meeting, it would be all could be expected, and then at that meeting the recommendation of a general character which they had made could be discussed and then, if it was thought wise, the committee could be continued to carry on the details.

Mr. French agreed that this was a larger order, but it seemed to him that if a committee were appointed to consider the advisability of the matter and to report to the society at the next annual meeting little progress would have been made. The only thing to do would be to try; and it would be very much better for the committee to make an honest attempt to draw up such general clauses, unless the difficulties were such that they could not be surmounted. If the work progressed satisfactorily no member would begrudge the necessary time to make the trial complete.

The President asked Mr. French if it was his wish that this committee be appointed at the meeting or that it be left in the hands of the council; whereupon Mr. French expressed no preference in the matter. He merely desired to bring it to the attention of the Society. Mr. French's motion then carried.

Mr. Brown, managing engineer of the Mount Royal Tunnel, brought up the matter of giving the members an opportunity of seeing the tunnel on Thursday afternoon at 3 o'clock. Instructions were given for everyone to