

Number of specimens tested during the year:

Gun specimens	50
For Ordnance Department	1,531
For other Government Departments	180
Investigate tests	514
Tests for private parties	951
Total	3,226

The receipts and expenditures were as follows:

Amount appropriated for testing machine and testing work	\$15,000.00
Received from private parties	1,087.11
Total received	\$16,087.11
Amount expended for services and labour	\$11,197.35
Amount expended for light, power, tools, implements and material for tests	4,889.67
Deposited to credit, Treasurer of United States09
Total	\$16,087.11

It will be seen from the above that the returns from the tests made for private parties alone probably would not pay, at least in Ottawa, for the maintenance of the Laboratory. The simpler tests of steel bars and cements would in all probability be handled by the private testing laboratories in Montreal, and this would leave for the Government Laboratory the largest steel members turned out by the bridge company and the investigation on road material for the different municipalities.

Of course, to these should be added the tests on materials used by the Public Works and by the other Departments which would have to be made by the private laboratories if the Department did not have such a laboratory.

The cost of these tests would mount up very rapidly, as the private laboratories would have to buy special machinery in order to test the complicated pieces (especially if the Naval Department begins to build ships) used only in Government construction, and would charge accordingly.

Another very valuable return for the money expended to equip a laboratory would come from the discoveries which might result from the investigations and which would benefit the country at large. We consider, for instance, that the recent discovery made by Mr. L. W. Page, of the U. S. Public Roads Bureau, on the possibility of making impermeable concrete by simply adding a certain quantity (10% to 15% of the weight of the cement) of heavy non-volatile oil to the mixture, has amply repaid the U. S. Government for the money expended in the up-keep of this Laboratory.

(Signed) GEO. E. PERLEY,
Engineer-in-Charge.

(Signed) ARTHUR SURVEYER,
Supervising Engineer.

(Editor's Note.—The portion of the report of the committee which deals with the "Advisability of Having Laboratories to Determine Effects of Sea Water on Concrete," will be published in the next weekly issue of THE CANADIAN ENGINEER.)

MR. KEEFER: Mr. President and gentlemen, there is very little to add to the report that we have already made. The only report we could make under the circumstances is the report that we have presented. On account of the change of Government and the appointment of a new Minister, it is very difficult for him to do anything, or give his attention to these matters at the moment. In answer to a request from Council that I should see the Minister of Public Works, I did see him some time ago and had a very brief

interview with him, as he was very busy at the time, and he asked me to see him later on about it. I wrote him, asking for an appointment, and since then I have received the following letter from the Minister, which, I think, expresses his views of the matter:

"January 9th, 1912.

"C. H. Keefer, Esq., Consulting Engineer, Metcalfe Street, Ottawa.

"Dear Sir,—I have received your letter of the 5th instant, concerning the establishment of a testing laboratory by the Government at Ottawa.

"I am afraid it will be difficult for the Government to take up this important matter during the present session because of our numerous engagements upon assuming office just on the eve of meeting of Parliament. As soon, however, as the Parliament adjourns I will gladly take up this matter with you, and I feel confident that upon a proper examination the Government will favourably consider the establishment referred to in your letter.

"Believe me, dear sir,

"Yours very truly,

"(Signed) F. D. MONK."

It seems to me, Mr. President, from this letter of the Minister that he is in sympathy with us. I think it will take some time, but I think there is every prospect that eventually something will be done towards the establishment of testing laboratories. There is no chance of it being done this session, as nothing, I think, will be put in the estimates of this session, but evidently the Minister will take the matter up after the session, when he has more time at his disposal.

MR. HOLGATE: I would ask in connection with Mr. Keefer's statement, if any definite recommendation has been made by this Society to the Government, or if the committee had made up its mind what to recommend to the Government in the way of a testing laboratory.

MR. KEEFER: What we asked the previous Government for was testing laboratories, which, of course, they would construct and operate themselves. We asked to have a laboratory on the same lines as the laboratories established by the American Government, and we asked to have the Government's engineers go down and examine the American Government's testing laboratories and report on them, and then arrange for the establishment of similar laboratories, of course, not on such a large scale, but along similar lines with a much larger equipment than anything we have at the present time, in the laboratories at present established in Canada. As you will see by our reports the Minister of Public Works in the late Government took the matter up, after we had seen him several times, and he sent an officer of his department to visit the American laboratories, and they have given us full information and made a report, and they recommended or asked to have a certain sum put in the estimates for the establishment of these laboratories, and that I believe has not been done yet, but we have not recommended any special plan ourselves.

MR. HOLGATE: How can this Society assist or promote the establishment of these testing laboratories?

MR. KEEFER: Well, it was simply to draw the attention of the Government to the necessity for them. We thought the Government were using such large quantities of materials themselves in this work that of course they might carry it out on a larger scale than any of our institutions or any individuals, and that the information they would get would be a benefit to the profession at large. That was our object.

MR. DUGGAN: Mr. President, I would like to suggest that if this Society is going to take action in this matter to get the Government to establish a testing laboratory, that it should be a laboratory on a scale that would be of use to Canadian engineers generally. Our universities and a good many large contracting firms have